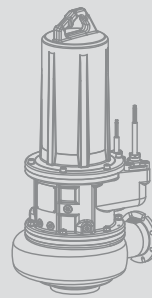
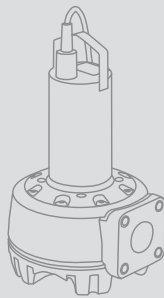
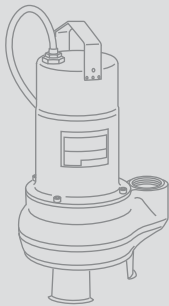
















Catalogue Drainage and Sewage

Sewage Pumps DN 32 to DN 600













Submersible Pumps and
Accessories for Building Engineering / Building Services,
for Municipal and Industrial
Applications





													
Wilo-Sub TWU 8	Wilo-DrainLift L	Wilo-Comfort-Vario COR-3/MHE VR	Wilo-Economy CO-1 MVJ/ER	Wilo-Stratos-D	Wilo-CronoLine-IL-E	Wilo-CronoBloc-BL	Wilo-Stratos	Wilo-CronoLine-IL	Wilo-Drain TP 80	Wilo-VeroNorm-NP	Wilo-Comfort-Vario COR-4/MVE/VR	Wilo-Economy MHI	Wilo-Comfort-Vario COR-1 MVE/GE
B2	C3	B4	B4	A1	A2	A3	A1	A2	C2	A3	B4	B3	B4








											
Wilo-EMU KM	Wilo-ASP	Wilo-VeroNorm-NPG	Wilo-Comfort COR-6 MVJ/CC	Wilo-EMU PORT	Wilo-DrainLift WS	Wilo-EMU FA 08.52	Wilo-EMU Megaprop TR 325	Wilo-EMU R2P	Wilo-EMU FA	Wilo-EMU KPR	Wilo-CC-System
B2	A3	A3	B4	on request	C3	C2	C4	C4	C2	C2	A1-A3, B4

Program Overview and Fields of Application

Sewage pumps DN 32 to DN 600

Sewage pumps for building services

Pump type	Version		Main field of application							Page
	Ball passage [mm]	Macerator	Dry sump installation							

Submersible motor pumps with macerator

Wilo-Drain MTC	10	•	–	–	S/M/C	S/M/C	–	–	18
Wilo-Drain MTS 40	10	•	–	–	S/M/C	S/M/C	–	–	27

Submersible motor pumps without macerator

Wilo-Drain TC 40	35	–	–	S/M/C	S/M/C	S/M/C ²⁾	–	–	47
Wilo-Drain STS 40	40	–	–	S/M/C	S/M/C	S/M/C ¹⁾	C	–	51
Wilo-Drain STS 65	65	–	•	M/C	M/C	M/C ¹⁾	C	–	55
Wilo-Drain STS 80, 100	80...100	–	–	M/C	M/C	M/C	C	–	67
Wilo-Drain TP 50	44	–	–	S/M/C	S/M/C	S/M/C ¹⁾	–	M/C	79
Wilo-Drain TP 65	44	–	–	M/C	M/C	S/M/C ¹⁾	–	C	79
Wilo-Drain TP 80	80	–	•	M/C	M/C	M/C	C	M/C	91
Wilo-Drain TP 100	80...95	–	•	M/C	M/C	M/C	C	M/C	91
Wilo-Drain TP 150	> 100	–	•	C	C	C	C	C	91
Wilo-EMU FA... ³⁾	50...80	–	–	M/C	M/C	M/C	C	–	109

¹⁾ Not within the scope of DIN EN 12050-1

²⁾ Not within the scope of EN 12050-1

³⁾ Wilo-EMU bearing pump range

Legend:

- Can be used /applicable
- Cannot be used /not applicable
- S** Single- and two-family houses
- M** Multi-family house
- C** Commercial



Wastewater/drainage



Wastewater/coarse contaminants



Sewage/faeces



Production sewage



Condensate
Calorific value/air-conditioning device

Sewage pumps for municipal and industrial applications

Pump type	Version			Main field of application					Page
	Ball passage [mm]	Macerator	Dry sump installation						

Submersible motor pumps										
Wilo-EMU FA 05... to FA 15...	35...130	–	•	S/M/C	S/M/C	S/M/C	G	–	–	154
Wilo-EMU FA 20... to FA 25...	80...200	–	•	M/C	M/C	M/C	C	–	–	292
Wilo-EMU FA 30... to FA 60...	80...170	–	•	C	C	C	C	–	–	324

Pumps for special applications										
Wilo-EMU FA...WR	23...58	–	–	C	C	C	–	–	–	362
Wilo-EMU FA...M	6	•	–	S/M/C	–	S/M/C	–	–	–	388
Wilo-EMU FA...RF	35...45	–	–	C	C	–	C	C	–	396
Wilo-EMU KPR...	85...130	–	–	C	–	C	C	–	–	406

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Sewage pumps for municipal and industrial applications

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Pumps for special applications







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General Notes and Abbreviations

Abbreviations and what they mean

Abbreviation	Meaning
°d	Degree of German water hardness, unit for assessing water hardness
1/min	Revolutions per minute (rpm)
1~	1-phase alternating current
3~	3-phase alternating current
-A	Float switch attached
Autopilot	Automatic adjustment of pump performance during setback phases, e.g. boiler setback operation overnight
BA	Building automation
Cap	Capacitors
Control input 0 – 10 V	Analogue input for external control of functions
DM	3-phase AC motor
Δp-c	Control mode for constant differential pressure
Δp-T	Control mode for differential-pressure control as a function of fluid temperature
Δp-v	Control mode for variable differential pressure
ΔT	Control mode for differential temperature
ECM technology	Electronically commutated motor with new wet rotor encapsulation, newly developed glandless drive concept for high-efficiency pumps
EM	1-phase AC motor
EnEV	German Energy Saving Ordinance (Energieeinsparverordnung (EnEV))
Ext. Aus	Control input "Overriding Off"
Ext. Min	Control input "Overriding Min", e.g. for setback operation without autopilot
GRD	Mechanical seal
GTW	Special cast iron: white malleable cast iron
H	Delivery head
Hz	Approval range for sprinkler pumps
IF	Interface
Installation	H = horizontal, V = vertical
Int. MS	Internal motor protection: Pumps with internal protection against unacceptably high winding temperatures
IR	Infrared interface
KTL coating	Cataphoretic painting: Paintwork with high adhesive strength for long-lasting corrosion protection
KTW	Authorisation for products with plastics, for utilisation in secondary hot water applications
LON	Local operating network (open, non-manufacturer-dependent, standardised databus system in LONWORKS networks)

Abbreviation	Meaning
MOT	Motor module (drive motor + impeller + terminal box/electronics module) for replacement in the TOP ... Series
P_I	Current consumption for shaft power requirement P_w
PLR	Pump central control, Wilo-specific data interface
PT 100	Platinum temperature sensor with a resistance of 100 Ω at 0 °C
P_w	Shaft power requirement
$Q (= \dot{V})$	Volume flow
Qz	Approval range for sprinkler pumps
rbc	Blocking current-proof, no motor protection
RCD	Residual-current device
RMOT	Spare motor (drive motor + impeller + terminal box/electronic module) for replacement
RV	Non-return valve
RVF	Non-return valve, spring-mounted
-S	Float switch attached
SBM	Run signal or collective run signal
SSM	Fault signal or collective fault signal
TrinkwV 2001	German Drinking Water Ordinance of 2001 (valid from 01.01.2003)
TRS	PTC thermistor sensor
TWC	Thermal winding contacts (in motor for monitoring winding temperature, full motor protection through additional tripping unit)
VDI 2035	VDI guideline for the prevention of damage in hot-water heating installations
Wilo-Control	Building automation management with pumps and accessories
WRAS	Water Regulations Advisory Scheme (secondary hot water approval for Great Britain and Northern Ireland)
	Operating mode of twin-head pumps: Individual operation of the respective operating pump
	Number of poles of electric motors: 2-poled motor = approx. 2900 1/min at 50 Hz
	Number of poles of electric motors: 4-poled motor = approx. 1450 1/min at 50 Hz
	Number of poles of electric motors: 6-poled motor = approx. 950 1/min at 50 Hz
 + 	Operating mode of twin-head pumps: Parallel operation of both pumps

Material designations and their meaning

Material	Meaning
1.4021	Chrome steel X20Cr13
1.4057	Chrome steel X17CrNi16-2
1.4122	Chrome steel X39CrMo17-1
1.4301	Chrome nickel steel X5CrNi18-10
1.4305	Chrome nickel steel X8CrNiS18-9
1.4306	Chrome nickel steel X2CrNi19-11
1.4401	Chrome nickel molybdenum steel X5CrNiMo17-12-2
1.4408	Chrome nickel molybdenum steel GX5CrNiMo19-11-2
1.4462	Chrome nickel molybdenum steel X2CrNiMoN22-5-3
1.4541	Chrome nickel steel with titanium added X6CrNiTi18-10
1.4542	Chrome nickel steel with copper and niobium added X5CrNiCuNb16-4
1.4571	Chrome nickel molybdenum steel with titanium added X6CrNiMoTi17-12-2
Abrasite	Chilled cast iron material for use in strongly abrasive fluids
Al	Light metal material (aluminium)
Ceram	Liquid ceramic coating; coating with very high adhesive strength for long-lasting corrosion protection
Composite	High-strength plastic material
EN-GJL	Cast iron (cast iron with lamellar graphite)
EN-GJS	Cast iron (cast iron with spheroidal graphite, also called spheroidal cast iron)
G-CuSn 10	Zinc-free bronze
GfK	Fibreglass plastic
GG	See EN-GJL
GGG	See EN-GJS
Inox	Stainless steel
NiAl-Bz	Nickel aluminium bronze
Noryl	Fibreglass-reinforced plastic
PP-GF30	Polypropylene, reinforced with 30% fibreglass
PUR	Polyurethane
SiC	Silicone carbide
ST	Steel
V2A	Material group, e.g. 1.4301, 1.4306
V4A	Material group, e.g. 1.4404, 1.4571

Wear and tear

Pumps or parts of pumps are subject to wear in accordance with state-of-the-art technology (DIN 31051/DIN-EN 13306). This wear may vary depending on operating parameters (temperature, pressure, speed, water conditions) and the installation/usage situation and may result in the malfunction or failure at different times of the aforementioned products/components, including their electrical/electronic circuitry.

- Wearing parts are all components subject to rotary or dynamic strain, including electronic components under tension, in particular:
- seals/gaskets (including rotating mechanical seals), seal ring
 - bearings and shafts
 - stuffing boxes
 - capacitors
 - relays/contactors/switches
 - electronic circuits, semiconductor components, etc.
 - impellers
 - wearing rings/wearing plates

Pumps and continuous-flow machines, as well as their components with coatings (cataphoresis coating, 2K- or Ceram coating), are subject to constant wear due to the abrasive fluid contents. Therefore, the coating is also included among the wear parts for these units.

We do not accept liability for faults or defects arising from natural wear and tear.

WILO – General Terms of Delivery and Service

The latest version of our General Terms of Delivery and Service can be found on the Internet at

www.wilo.com

500 answers to FAQs.

Used 9000 times in 14 days.

1001 new suggestions.

For even more expert knowledge.

The knowledge database from Wilo.

Did you know? The knowledge database from Wilo will give you good and quick advice: with approx. 500 responses to the most frequently asked questions (FAQs) all about pumps, installations and systems. It is already being visited extensively by many skilled craftsmen. This is proven by 9000 utilisations in only 14 days, which we recently registered. The best thing: With every new question which you ask us with the contact form, we all become wiser together. Because the corresponding answer is naturally incorporated as soon as possible. Know-how? We call this Pumpen Intelligenz.

www.wilo.com



Pumpen Intelligenz.

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Submersible motor pumps with macerator

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Submersible motor pumps without macerator

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Electrical accessories Wilo-Drain

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Sewage Pumps for Building Services

Planning guide

Both the sewage generated in a building or on a piece of property and the rainwater which collects on courtyard and roof surfaces should be conveyed to the sewer system with the aid of pump stations and lifting units, insofar as they do not flow naturally downhill into the local sewage network. There are different ways of disposing of this sewage, depending on the respective fluids to be conveyed.

Wilo submersible motor-driven pumps and sewage lifting units are designed especially to meet these different requirements and comply with currently valid EN Standards.

Planning must be carried out in accordance with DIN EN 12050/12056 – Drainage systems for buildings and sites. A distinction is made here between sewage emerging from discharge points above the local backflow level, which must be guided to the public sewer system by taking advantage of natural declines in elevation, and sewage from discharge points whose water levels in the anti-siphon trap lie below the local backflow level. The backflow level is at a minimum the same as the street level (kerb) at the connection point, although local ordinances issued by the responsible government agency can also require that it be at a higher elevation. Sewage (rainwater and wastewater) which arise at levels below the backflow level must be conveyed to the public sewer system by means of automatically operating lifting units – Wilo sewage lifting units or Wilo submersible motor-driven pump.

According to DIN 1986-100, EN 12050 and EN 12056, the following details are to be observed for installation planning and construction, among others:

- Lifting units are to be designed in terms of performance in such a way that a minimum flow velocity of 0.7 m/s is guaranteed for the prescribed nominal widths of the pressure pipe.
Prescribed minimum nominal diameters:
Wastewater lifting unit – DN 32
Sewage lifting unit – DN 80 (without separation/macerator)
- The pressure pipe of a lifting unit must be equipped with a non-return valve and laid with its invert above the backflow level. The pressure pipe is not permitted to be connected to wastewater downpipes
- Wastewater gate valves (supply and pressure sides) are to be installed in accordance with DIN 1986-100, EN 12050/EN 12056
- Ventilation pipes from lifting units are to be guided to heights above the roof level; the minimum nominal pipe width is DN 70 for sewage lifting units
- Feed lines are to be laid with sufficient drop-off gradients (a minimum of 1:50)
- It is expedient to avoid rigidity when laying pipelines through masonry
- An automatic standby pump is to be provided for if the sewage drain pipe does not allow for interruptions
- Switchboxes and signalling systems are to be installed at a dry, readily accessible position. The signalling system is to be mounted at a readily noticeable position
- Lifting units must be serviced regularly
- The installation area is to be provided with sufficient ventilation and lighting. A working space of at least 600 mm is to be provided for above and next to all operating elements and all parts requiring servicing.
The lifting unit must be provided with anti-buoyant mounting
- Sewage containing mineral oils or explosive admixtures must be guided through oil precipitators and/or petrol precipitators; those

containing fatty substances must go through grease traps and those with sand through sand catchers. Acidic sewage must be neutralised

Determining the required pump and/or system output

Flow Q_p [l/s]:

Corresponds to the total of the incoming wastewater Q_S added to the incoming rainwater Q_r , which must be determined in accordance with EN 12050/EN 12056

Q_S = amount of wastewater [l/s] made up of the total of all sewage sources, taking into account simultaneity

Q_r = amount of rainwater [l/s] totalling the product of precipitation volume, discharge coefficient and precipitation surface

Delivery head H_{Ges} [m]:

Refers to the total derived from the height differential between the lowest collecting tank level and the invert of the backflow loop + the entire friction losses H_f [m] in the pressure pipe.

Note: When selecting a lifting unit, it is necessary to take into account the fact that the pressure difference between the delivery head at duty point with nominal flow rate (taking into account minimum flow volume) and delivery head with zero flow volume must still amount to approximately 2–3 m in order to open the non-return valve.

Operating modes (in accordance with DIN EN 60034-1)

S1 = Permanent operation

The motor temperature increases during operation until it reaches the operating temperature (thermal persistent state). The temperature is dissipated during operation by means of coolant and/or the surrounding fluid. The machine can be operated without interruption while in this status. Specification of the installation type (surfaced/submerged) and/or of the installation is also to be taken into account! Permanent operation has no effect on this. S1 does not explicitly mean 24 h/day, 7 days/week!

Please observe the service life specifications and/or running times per years in the respective documentation.

S2 = Short-term operation

The motor cannot be operated continuously, because the power dissipation that is transformed into heat in the motor exceeds the heat dissipation capacity of the cooling apparatus. The max. operating period is specified in minutes, e.g. S2-15. There must be a pause until the machine temperature does not deviate by more than 2K from the ambient temperature.

S3 = Intermittent operation

This operating mode represents a conventional load for sewage pumps. It describes a ratio of operating time to downtime. Both values must be indicated on the name plate and/or in the installation and operating instructions. For S3 operation, calculations are always in reference to a time period of 10 min.

Examples:

S3 - 20% means: Operating time 20% of 10 min = 2 min
 Standstill time 80% of 10 min = 8 min

S3 - 3 min means: Operating time 3 min
 Standstill time 7 min

If 2 values are specified, then this means, for example with:

S3 - 5 min/20 min: Operating time 5 min
 Standstill time 15 min

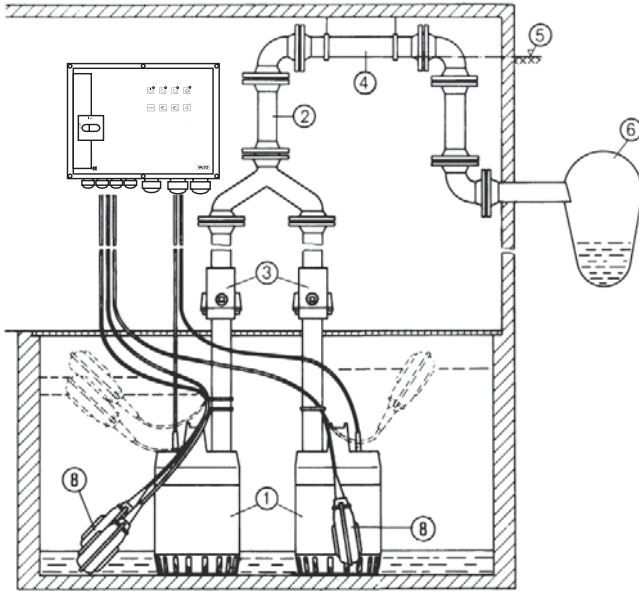
S3 - 25%/20 min: Operating time 5 min
 Standstill time 15 min

Additional planning instructions:

See Wilo planning manual guide "Sewage" (must be ordered).

Wastewater lifting unit (sewage without faeces) according to EN 12050-2

Double pumps – Wilo-Drain Twister



Double pumps–drainage station

Wilo-Drain Twister

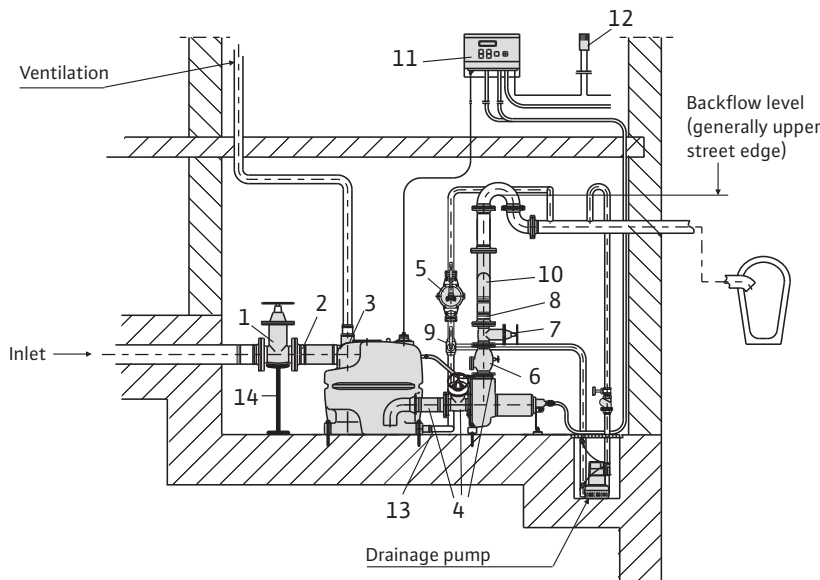
- 1 Submersible motor pump (2x)
- 2 Pressure pipe DN 32 with Y-piece
- 3 Non-return valve
- 4 Backflow loop
- 5 Backflow level
- 6 Channel
- 7 Switchgear
- 8 Float switch for monitoring levels and alarms

Configuration of the backflow loop

The backflow loop should not be set up in direct perpendicular configuration over the site of the lifting unit if at all possible. The rest of the sewage pipe is to be laid at an incline downward to the connection to the sewer system.

Wastewater and sewage lifting unit (sewage with faecal content) in accordance with EN 12050-1

Double system – Wilo-DrainLift XXL

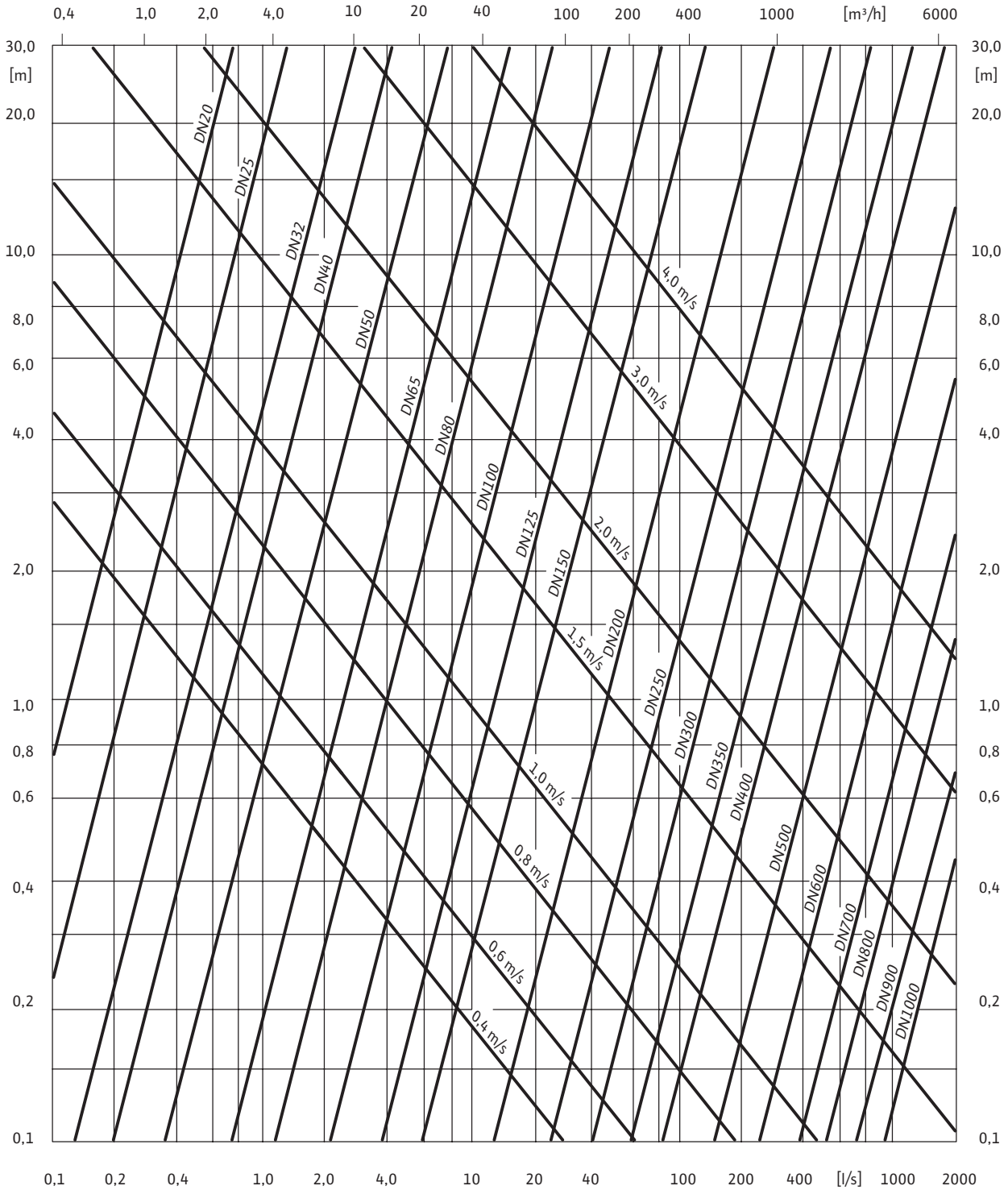


- 1 Gate valve DN 100 or DN 150
- 2 Single-ended flanged nipple with hose and hose clips DN 100 or DN 150
- 3 Elastic hose connection for ventilation
- 4 Kit containing connection between reservoir and pump, 2 gate valves and ventilation flange with hose
- 5 Diaphragm hand pump 1 1/2"
- 6 Non-return valve DN 80 or DN 100
- 7 Gate valve DN 80 or DN 100
- 8 Single-ended flanged nipple with hose and hose clips DN 80 or DN 100
- 9 3-way tap
- 10 Y-pipe DN 80 or DN 100
- 11 Microprocessor-controlled switchgear
- 12 KAS, small alarm switchgear with signalling tone
- 13 Elastic hose connection for diaphragm hand pump
- 14 Fitting support for weight relief

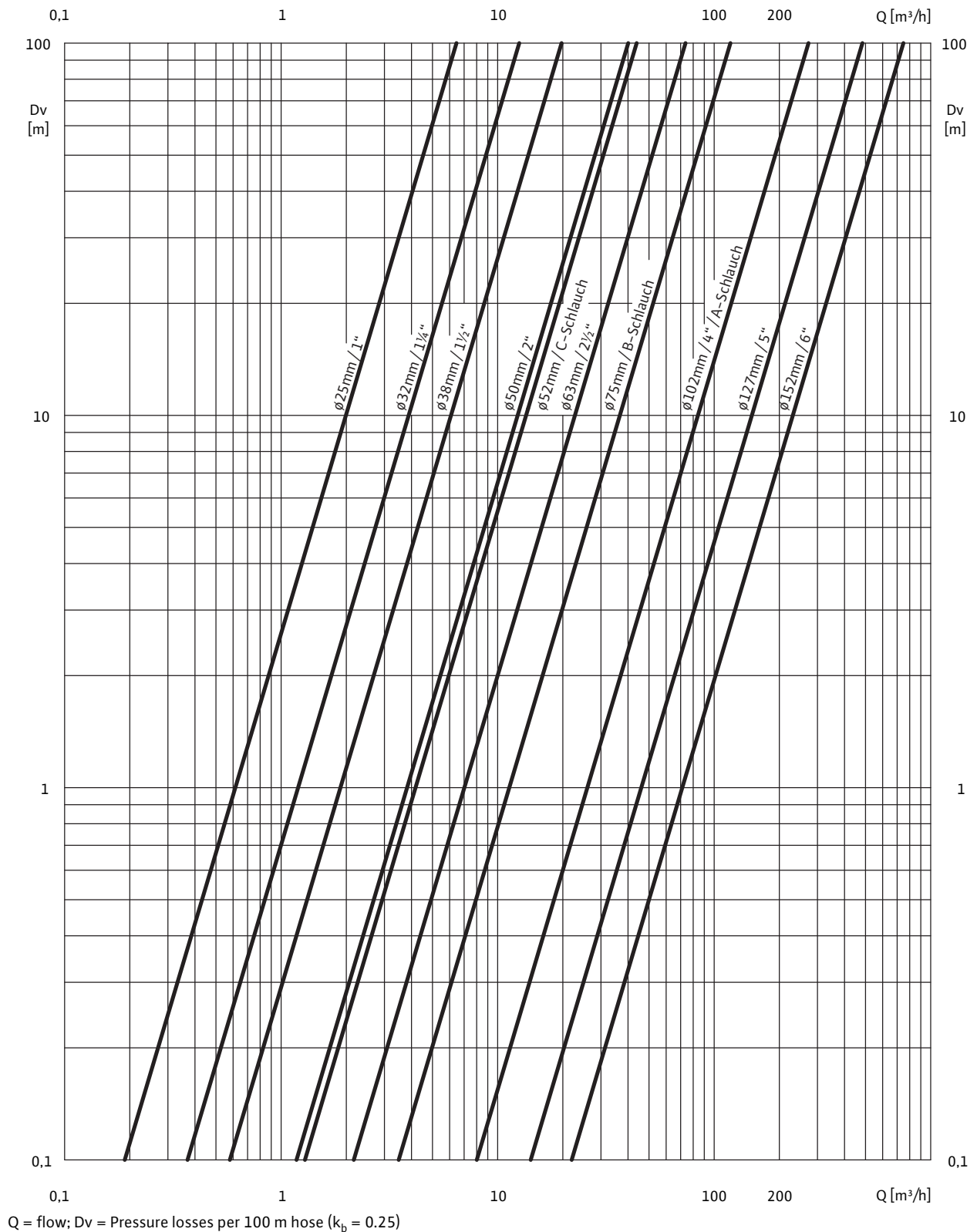
Sewage Pumps for Building Services

Planning guide

Pressure losses in solid pipelines



Pressure losses in hoses



Sewage Pumps for Building Services

Planning guide



Submersible motor pumps with macerator

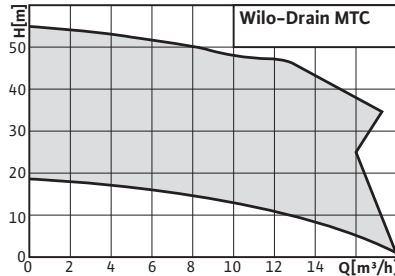
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Sewage Pumps for Building Services

Submersible motor pumps with macerator

Series overview Wilo-Drain MTC, MTS

Series: Wilo-Drain MTC



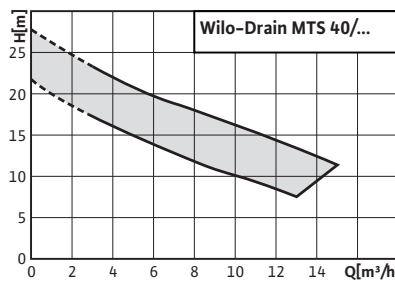
> Submersible sewage pump with macerator

> Application:

- Pumping of sewage containing faeces, as well as municipal and industrial sewage with long-fibre constituents, from individual buildings and for commercial utilisation. The macerator breaks down the solid constituents into smaller pieces to generate a easily pumpable medium.



Series: Wilo-Drain MTS 40/...



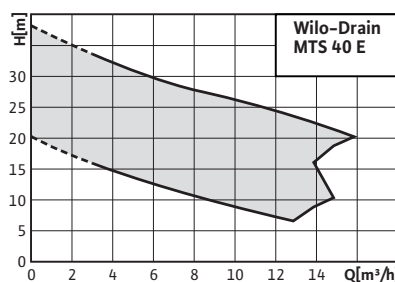
> Submersible sewage pump with patented macerator

> Application:

- Pumping of sewage containing faeces, as well as municipal and industrial sewage with long-fibre constituents, from individual buildings and for commercial utilisation. The patented macerator reduces the solid contents of the sewage flow into a medium containing smaller particles which can be more easily conveyed.



Series: Wilo-Drain MTS 40 E



> Submersible sewage pump with patented macerator

> Application:

- Pumping of sewage containing faeces, as well as municipal and industrial sewage with long-fibre constituents, from individual buildings and for commercial utilisation. The patented macerator reduces the solid contents of the sewage flow into a medium containing smaller particles which can be more easily conveyed.



Series overview Wilo-Drain MTC, MTS

Series: Wilo-Drain MTC

> Product advantages:

- Oil barrier chamber
- SiC mechanical seal on the pump side
- Longitudinal watertight cable

> Additional information:

	Page
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• Technical data	19
• Pump curve, dimensions	20
• Dimensions, weights	21
• Mechanical accessories	24

Series: Wilo-Drain MTS 40/...

> Product advantages:

- Patented macerator
- High degree of efficiency
- Low operating costs
- Resistant to obstructions and blockages
- High operational safety
- Oil barrier chamber
- Corrosion-resistant stainless steel motor in 1.4404 (AISI 316L)

> Additional information:

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Series: Wilo-Drain MTS 40 E

> Product advantages:

- Patented macerator
- High degree of efficiency
- Low operating costs
- Resistant to obstructions and blockages
- High operational safety
- Double mechanical seal and oil barrier chamber
- Corrosion-resistant stainless steel motor in 1.4404 (AISI 316 L)
- Standard-equipped longitudinally watertight cable inlet
- Extra-sturdy motor cable (NSS H u)

> Additional information:

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Sewage Pumps for Building Services

Submersible motor pumps with macerator

Equipment, function Wilo-Drain MTC, MTS

		Wilo-Drain			
		MTC40 (A)	MTC 32 (Ex)	MTS 40/...	MTS 40 E
Operating mode					
S1 (permanent operation):	Immersed	•	•	•	•
	Surfaced	–	–	–	–
S3 (intermittent operation) [%]		25	25	25	25
Switching frequency/h maximum		50	50	50	50
Switching frequency/h recommended		25	20	20	20
Construction					
Sealing on the motor end:	Mechanical seal	•	Version MTC 32 F 49... and MTC 32 F 55...	–	•
	Shaft seal ring	–	Version MTC 32 F 39...	•	–
Sealing on pump side:	Mechanical seal	•	•	•	•
	Shaft seal ring	–	–	–	–
Oil barrier chamber		•	•	•	•
Submersible		•	•	•	•
Closed single-channel impeller		–	–	•	•
Open multi-channel impeller		–	•	–	–
Vortex impeller		•	–	–	–
Turbulence apparatus		–	–	–	–
Macerator		•	•	•	•
Motor	Stainless steel	–	–	•	•
	Grey cast iron	•	•	–	–
Pump	Composite	–	–	–	–
	Grey cast iron	•	•	•	•
Impeller	Stainless steel	–	–	–	–
	Composite	–	–	–	–
	Grey cast iron	•	•	•	•
Application					
Wet sump installation	Stationary	•	•	•	•
	Portable	•	•	•	•
	Mobile	–	–	–	–
Dry sump installation	Vertical	–	–	–	–
	Horizontal	–	–	–	–

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps with macerator



Equipment, function Wilo-Drain MTC, MTS

	Wilo-Drain			
	MTC40 (A)	MTC 32 (Ex)	MTS 40/...	MTS 40 E
Equipment				
Motor operation monitoring (temperature)	•	•	•	•
Motor operation monitoring (impermeability)	–	–	–	–
Explosion protection	–	(Version-Ex)	(Version 3~400 V)	(Version 3~400 V)
Sheath current cooling	–	–	–	–
Ready-to-plug	(Version A)	–	–	–
Connection cable [m]	10	10	10	10
Connection cable detachable	•	•	•	•
Capacitor box	(Version 1~230 V)	–	(Version 1~230 V)	–
Float switch	(Version A)	–	–	–

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Sewage Pumps for Building Services

Submersible motor pumps with macerator

Series description Wilo-Drain MTC



Wilo-Drain MTC

Submersible sewage pump with macerator, 2-pole

Type key

Example: **Wilo-Drain MTC 32 F 55.13/66 Ex**

MT	Macerator Technology
C	Grey cast iron
32	Nominal diameter [mm]
F	Impeller shape
55	Max. delivery head [m]
.13	Maximum volume flow [m ³ /h]
/66	Power P_2 [kW] = value/10 = 6.6 kW
Ex	Protected against explosions in accordance with ATEX

Application

Wilo-Drain MTC submersible motor pumps are suitable for pumping sewage containing faeces and municipal and industrial sewage, even with long-fibre constituents for

- house and site drainage
- sewage and water management
- environmental and wastewater treatment technology

Construction

Submersible sewage pump as submersible monobloc unit with macerator for vertical wet sump installation; detachable connection cable.

Motor

Three-phase current asynchronous motor 3~400 V, 50 Hz or alternating current motor 1~230 V, 50 Hz (MTC 40). Protection class IP 68, thermal winding contacts, insulation class F.

Bearing configuration

Bearing configuration of the motor shaft in permanently lubricated, low-maintenance roller bearings.

Radial shaft sealing ring

The motor is insulated with 2 mechanical seals. The exception here is the MTC32 F 39.10, which is sealed on the motor side with 2 radial shaft sealing rings.

Scope of delivery

Pump ready for connection with 10 m connection cable with bare cable end (3~), or with shockproof plug, float switch (1~) and installation and operating instructions. Other cable lengths on request.

Sewage Pumps for Building Services

Submersible motor pumps with macerator



Technical data Wilo-Drain MTC

	Wilo-Drain...			
	MTC40 F 18.18/7 (A)	MTC32 F 39.16/30 (Ex)	MTC32 F 49.17/66 (Ex)	MTC32 F 55.13/66 (Ex)
Approved fluids				
Domestic sewage and wastewater with faeces	•	•	•	•
Performance				
Power consumption P ₁ 1~230 V [kW]	1.5	–	–	–
Power consumption P ₁ 3~400 V [kW]	1.5	4.2	7.7	7.7
Nominal motor power P ₂ [kW]	0.7	3.04	6.6	6.6
Nominal current at 1~230 V [A]	5.4	–	–	–
Nominal current at 3~400 V [A]	2.5	6.6	13.2	13.2
Motor				
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F
Pump				
Fluid temperature, max. [C]	3–35	3–40	3–40	3–40
Cable type	H07 RN-F	H07 RN-F	H07 RN-F	H07 RN-F
Cable length [m]	10	10	10	10
Cable cross-section 1~230 V [mm ²]	3G 1.5	–	–	–
Cable cross-section 3~400 V [mm ²]	6G 1.5	6G 1.5	10G 2.5	10G 2.5
Type of power cable	–	longitudinally watertight	longitudinally watertight	longitudinally watertight
Activation type	direct	direct	star/delta	star/delta
Ex protection	–	(Version-Ex)	(Version-Ex)	(Version-Ex)
Dimensions				
Weight	20	43	90	90
Materials				
Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Impeller	EN-GJL-250	EN-GJL-HB175	EN-GJS-700-2	EN-GJS-700-2
Shaft	1.4034	1.0503	1.7225	1.7225
Mechanical seal on pump side	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Mechanical seal on motor side	AL/SiC	–	Carbon/ceramic	Carbon/ceramic
rotary shaft seal	–	NBR	–	–
Static seal	NBR	NBR	NBR	NBR
Motor housing	EN-GJL-250	EN-GJL-200	EN-GJL-200	EN-GJL-200
Macerator	1.3544	1.4112	1.4112	1.4112

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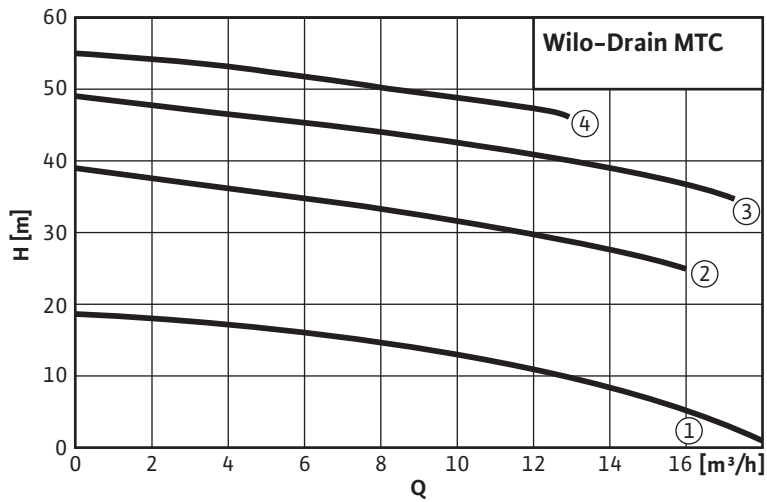
Sewage Pumps for Building Services

Submersible motor pumps with macerator

Pump curve, dimensions Wilo-Drain MTC

Wilo-Drain MTC...

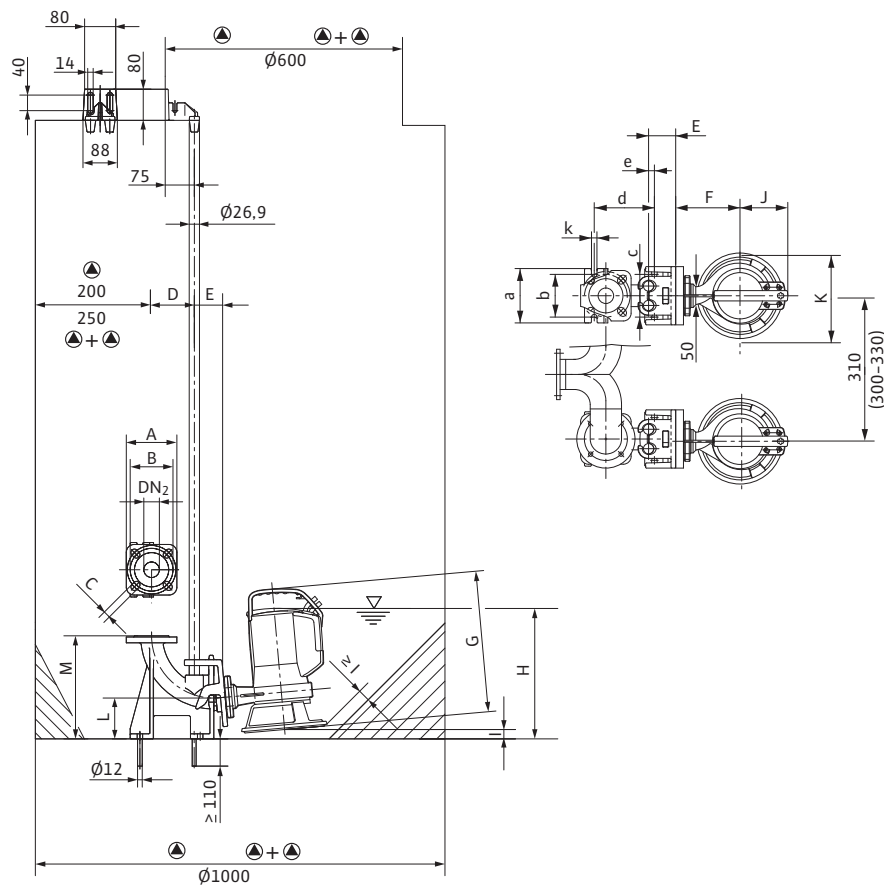
2-pole, 50 Hz



- 1 = MTC 40 F 18.18/7
- 2 = MTC 32 F 39.16/30
- 3 = MTC 32 F 49.17/66
- 4 = MTC 32 F 55.13/66

Dimension drawing

Stationary wet sump installation MTC 40



Sewage Pumps for Building Services

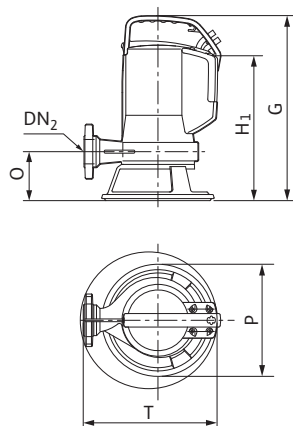
Submersible motor pumps with macerator



Dimensions, weights Wilo-Drain MTC 40

Dimension drawing

Portable wet sump installation MTC 40



Dimensions, weights

Wilo-Drain ...	Dimensions											
	A	B	C	D	E	F	G	H	H1	I	J	K
	[mm]											
MTC 40...	130	110/125	18	110	73	145	363	340	316	24	123	220

Dimensions, weights

Wilo-Drain ...	Dimensions														Weight about
	L	M	N	O	P	T	DN2	a	b	c	d	e	k		
	[mm]														[kg]
MTC 40...	105	265	-	90	220	260	40	140	110	110	155	15	14	20	

Submersible Motor Pumps with Macerator

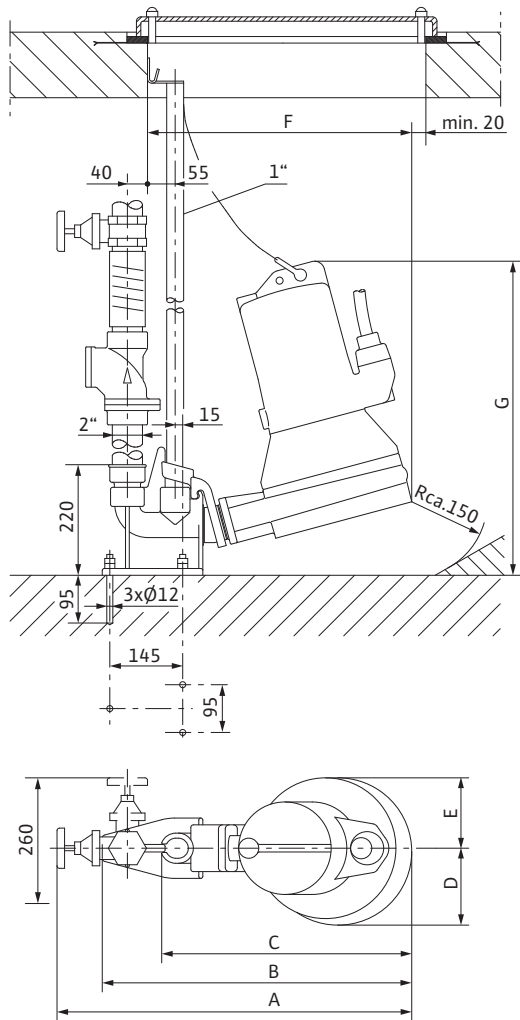
Sewage Pumps for Building Services

Submersible motor pumps with macerator

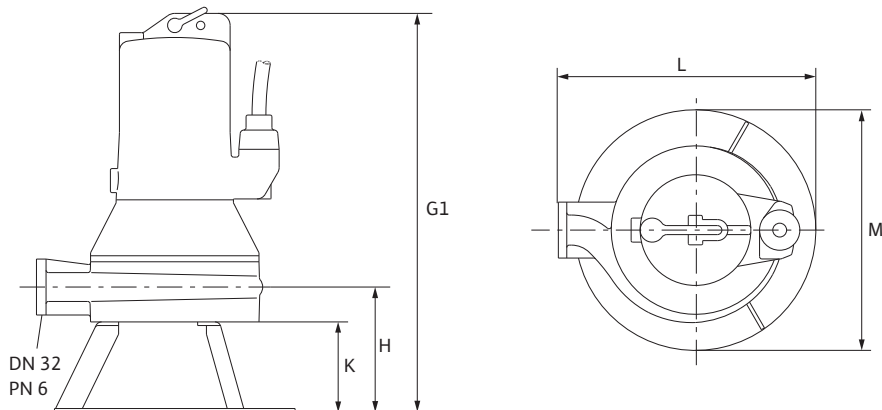
Dimensions Wilo-Drain MTC 32

Dimension drawings

Stationary wet sump installation MTC 32



Portable wet sump installation MTC 32



Sewage Pumps for Building Services

Submersible motor pumps with macerator



Dimensions, weights Wilo-Drain MTC 32

Dimensions, weights

Wilo-Drain ...	Dimensions						
	A	B	C	D	E	F	G
	[mm]						
MTC 32 F 39.16/30	635	540	420	125	125	450	490
MTC 32 F 49.17/66	705	615	500	155	140	525	625
MTC 32 F 55.13/66	705	615	500	155	140	525	625

Dimensions, weights

Wilo-Drain ...	Dimensions					Weight about
	G1	H	K	L	M	
	[mm]					[kg]
MTC 32 F 39.16/30	520	180	140	330	350	43
MTC 32 F 49.17/66	665	210	150	430	400	90
MTC 32 F 55.13/66	665	210	150	430	400	90

Submersible Motor Pumps with Macerator

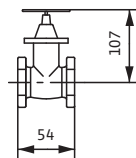
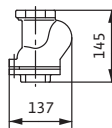
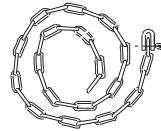
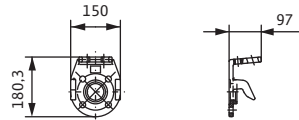
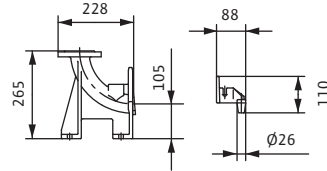
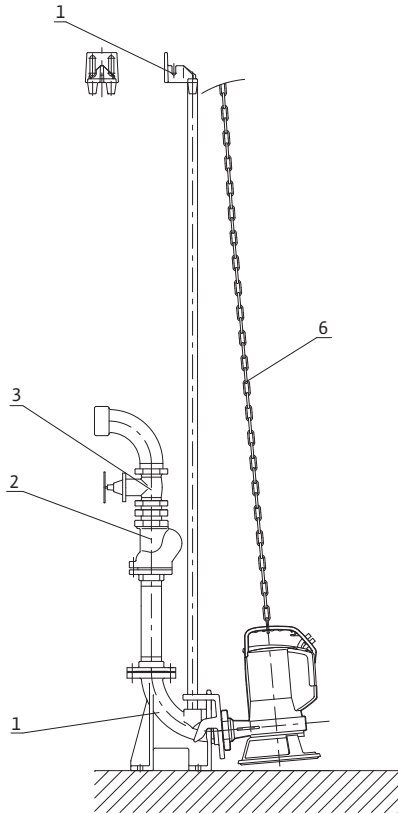
Sewage Pumps for Building Services

Submersible motor pumps with macerator

Mechanical accessories, "stationary wet" Wilo-Drain MTC 40

Stationary wet sump installation DN 40/R 1 1/2

Wilo-Drain MTC 40



Foot elbow (item 1)

Made of GG 25 (EN-GJL-250), including pump holder, profile packing, installation and floor fixation accessories and guide tube bracket, connection on pressure side DN 40/50.

The double pipe feed R 3/4 is to be provided by customer.

Chain (item 6)

Made of galvanised steel, incl. stainless steel shackles

Length: 5 m

Lifting capacity: 250 kg

Non-return valve (item 2)

Made of GG 25 (EN-GJL-250)

Female/female thread R 1 1/2 PN 16 RG.

Gate valve (item 3)

Constructed as coupling sleeve slider

Female/female thread R 1 1/2 PN 16 RG.

Sewage Pumps for Building Services

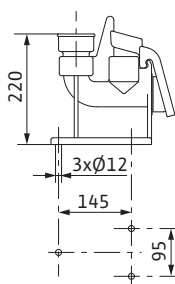
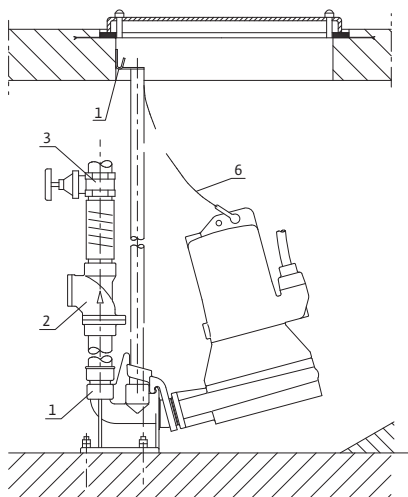
Submersible motor pumps with macerator



Mechanical accessories, "stationary wet" Wilo-Drain MTC 32

Stationary wet sump installation DN 40/R 1 1/2

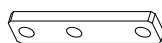
Wilo-Drain MTC 32



Foot elbow (item 1)

Made of GG 25 (EN-GJL-250), including pump holder, profile packing, installation and floor fixation accessories and guide tube bracket, connection on pressure side DN 50.

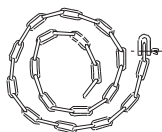
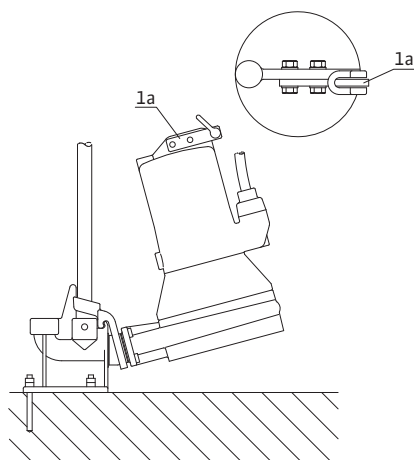
The single pipe feed R 1 is to be provided by customer.



Shackle take-up (item 1a)

Incl. fastening accessories.

For centre of gravity extension for pumps MTC 32 F 49 and MTC 32 F 55.

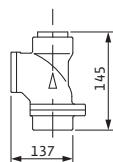


Chain (item 6)

Made of galvanised steel, incl. stainless steel shackles.

Length: 5 m

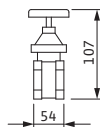
Lifting capacity: 250 kg



Non-return valve (item 2a)

Made of GG 25 (EN-GJL-250)

Female/female thread R 1 1/2 PN 16 RG.



Gate valve (item 3a)

Constructed as coupling sleeve slider

Female/female thread R 1 1/2 PN 16 RG.

Sewage Pumps for Building Services

Submersible motor pumps with macerator



Sewage Pumps for Building Services

Submersible motor pumps with macerator



Series description Wilo-Drain MTS 40...



MTS 40/...



MTS 40 E

Wilo-Drain MTS

Submersible sewage pump with macerator, 2-pole

Type key

Example: **Wilo-Drain MTS 40/27-1-230-50-2**

MT	Macerator Technology (macerator pumps series)
S	Stainless Steel (stainless steel) motor
40	Pressure port nominal diameter [mm]
/27	Max. delivery head [m]
1-230	Alternating current motor
50	Mains frequency 50 Hz
2	No. of poles

Example: **Wilo-Drain MTS 40 E 23.14/12**

MT	Macerator Technology (macerator pumps series)
S	Stainless Steel (stainless steel) motor
40	Pressure port nominal diameter [mm]
E	Single-channel hydraulics
23.	Max. delivery head [m]
14	Max. volume flow [m ³ /h]
/12	Power P ₂ [kW] = value/10 = 1. kW

Application

Wilo-Drain MTS 40 submersible sewage pumps with macerator are suitable for pumping sewage containing faeces. The Wilo macerator breaks down the solid constituents into smaller pieces to generate an easily pumpable fluid. Preferred utilisation with pressurised drainage. The pressurised drainage is utilised in situations where the costs of a conventional sewage system with an open channel would be unacceptably high, e.g. with:

- high groundwater table levels
- absence of ground incline
- occasional presence of sewage
- vacation house, camping site, among others.
- Installation costs are decidedly lower because of the small pipeline diameter, e.g. DN 40,

Can be utilised in the following installation types

- stationary wet
- portable

Construction

Submersible sewage pump as submersible monobloc unit with macerator for vertical wet installation

- innovative patented macerator
- unimpeded supply line to the impeller
- internal rotating blade
- spherically formed macerator
- maceration of substances being conveyed
- pulling cut (shearing cut)

Motor

Three-phase current asynchronous motor made of stainless steel 3~400 V, 50 Hz or alternating current motor made of stainless steel 1~230 V, 50 Hz each of protection class IP 68, protected by thermal winding contacts, insulation class F.

Bearing configuration

Bearing configuration of the motor shaft in permanently lubricated roller bearings.

Radial shaft sealing ring

MTS 40/...:

Direction of rotation-independent mechanical seal on pump side, shaft seal ring on the motor end. Oil-filled intermediate chamber provides cooling and lubrication, even with dry run.

MTS 40 E:

Direction of rotation-independent mechanical seal on the pump and motor sides. Oil-filled intermediate chamber provides cooling and lubrication, even with dry run.

Hydraulics

Closed single channel wheel (with a free ball passage of 10 mm) in conjunction with the patented macerator make possible blockage-free pumping and optimal efficiency.

Scope of delivery

Pump ready for connection with 10 m connection cable,

at 3~400 V: with bare cable end,

at 1~230 V: with capacitor connection box and shock-proof plug.

Sewage Pumps for Building Services

Submersible motor pumps with macerator

Technical data Wilo-Drain MTS 40...

	Wilo-Drain MTS 40...									
	/21	/24	/27	/E 20.13/11	/E 23.14/12	/E 26.15/15	/E 31.13/21	/E 35.15/23	/E 39.16/25	
Approved fluids										
Domestic sewage and wastewater with faeces	•	•	•	•	•	•	•	•	•	
Performance										
Power consumption P ₁ 1~230 V [kW]	1.3	1.6	1.9	–	–	–	–	–	–	
Power consumption P ₁ 3~400 V [kW]	1.2	1.45	1.7	1.3	1.5	1.7	2.6	2.8	3.0	
Nominal motor power P ₂ [kW]	1.0	1.2	1.5	1.1	1.2	1.5	2.1	2.3	2.5	
Nominal current at 1~230 V [A]	8.0	8.7	9.5	–	–	–	–	–	–	
Nominal current at 3~400 V [A]	2.5	2.8	3.2	2.5	2.8	3.2	5.3	5.8	6.0	
Motor										
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	
Insulation class	F	F	F	F	F	F	F	F	F	
Pump										
Fluid temperature, maximum [°C]	3–35	3–35	3–35	3–35	3–35	3–35	3–35	3–35	3–35	
Cable type	H07 RN-F Ozoflex			NSS Höu						
Cable length [m]	10	10	10	10	10	10	10	10	10	
Cable cross-section 1~230 V [mm ²]	4x1.5	4x1.5	4x1.5	–	–	–	–	–	–	
Cable cross-section 3~400 V [mm ²]	6x1.0	6x1.0	6x1.0	7x1.5x (strand 7 not used)						
Type of power cable	detachable			longitudinally watertight/detachable						
Activation type	direct	direct	direct	direct	direct	direct	direct	direct	direct	
Ex protection	EEx d II B T4 (only 3~400 V)									
Dimensions										
Weight	30	30	30.0	34.1	34.1	34.1	39.4	39.4	39.4	
Materials										
Pump housing	EN-GJL-250									
Impeller	EN-GJL-200									
Shaft	1.0570 / 1.4404 (AISI 316L)									
Mechanical seal	on pump side (dependent on direction of rotation)	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Mechanical seal	on motor side	–	–	–	Carbon/chrome					
	rotary shaft seal	NBR	NBR	NBR	–	–	–	–	–	
Static seal		NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	
Motor housing	1,4404 (AISI 316L)									
Macerator	1.4528	1.4528	1.4528	1.4528	1.4528	1.4528	1.4528	1.4528	1.4528	

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Sewage Pumps for Building Services

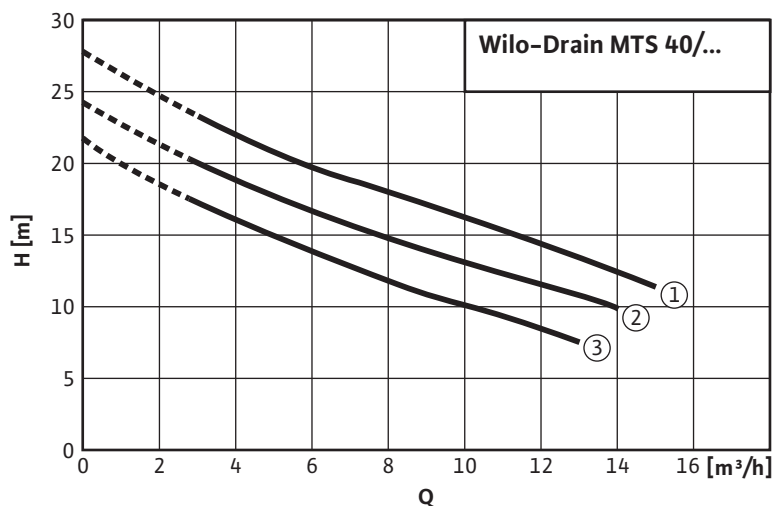
Submersible motor pumps with macerator



Pump curves, terminal diagram Wilo-Drain MTS 40...

Wilo-Drain MTS 40/...

2-pole, 50 Hz



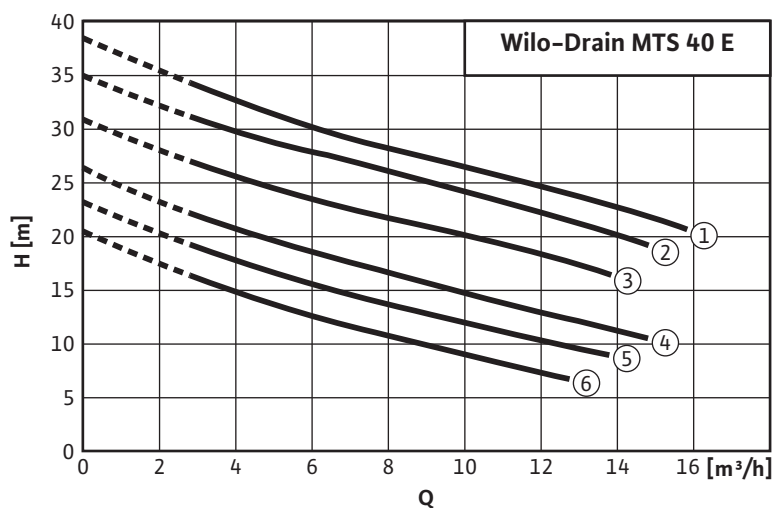
- 1 = MTS 40/27
- 2 = MTS 40/24
- 3 = MT 40/21

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

Submersible Motor Pumps with Macerator

Wilo-Drain MTS 40 E

2-pole, 50 Hz



- 1 = MTS 40 E 39.16/25
- 2 = MTS 40 E 35.15/23
- 3 = MTS 40 E 31.14/21
- 4 = MTS 40 E 26.15/15
- 5 = MTS 40 E 23.14/12
- 6 = MTS 40 E 20.13/11

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

Terminal diagram

Wilo-Drain ...	Connection	Cable type	Clamp connections					
			U	V	W	PE	T1/WSK	T2/WSK
MTS 40/... 1~	1~230 V	3 x 1.5 mm ² 1)	1 _(L1)	2 _(N)	–	green/yellow	–	–
MTS 40/... 3~	3~400 V	6 x 1.0 mm ²	1	2	3	green/yellow	4	5
MTS 40 E ... 3~	3~400 V	7 x 1.5 mm ² 2)	1	2	3	green/yellow	4	5

- 1) Connection of mains cable with shock-proof plug to capacitor box
- 2) Strand 7 not used

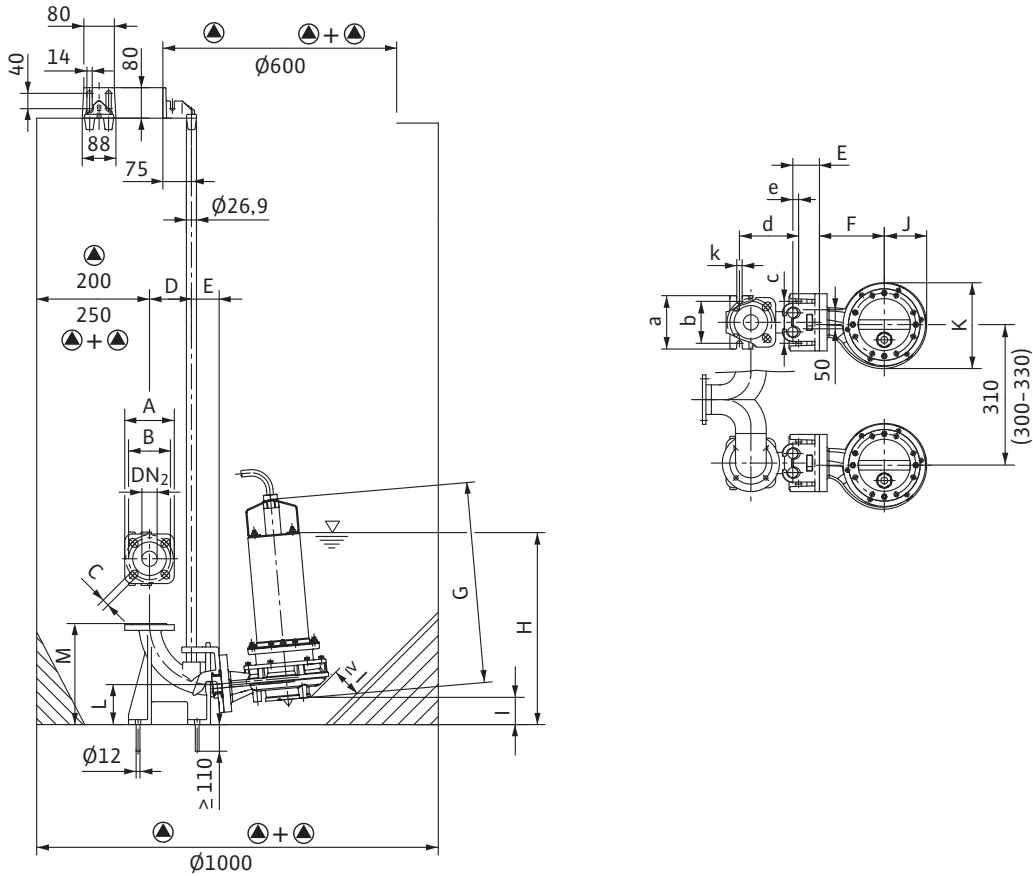
Sewage Pumps for Building Services

Submersible motor pumps with macerator

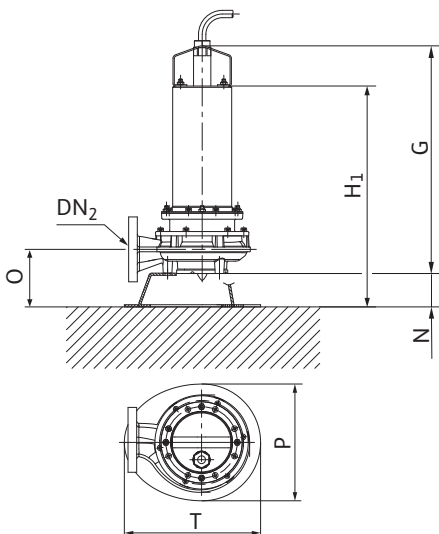
Dimensions Wilo-Drain MTS 40...

Dimension drawings

Stationary wet sump installation



Portable wet sump installation



Sewage Pumps for Building Services

Submersible motor pumps with macerator



Dimensions, weights Wilo-Drain MTS 40/..., MTS 40 E

Dimensions, weights

Wilo-Drain ...	Dimensions											
	A	B	C	D	E	F	G	H	H1	I	J	K
	[mm]											
MTS 40/... -1-230	130	110/125	18	110	73	160	491	467	462	71	98	202
MTS 40/... -3-400	130	110/125	18	110	73	160	491	467	462	71	98	202
MTS 40 E 20.13/11	130	110/125	18	110	73	160	525	501	497	71	98	202
MTS 40 E 23.14/12	130	110/125	18	110	73	160	525	501	497	71	98	202
MTS 40 E 26.15/15	130	110/125	18	110	73	160	525	501	497	71	98	202
MTS 40 E 31.14/21	130	110/125	18	110	73	170	526	503	511	71	111	225
MTS 40 E 35.15/23	130	110/125	18	110	73	170	526	503	511	71	111	225
MTS 40 E 39.16/25	130	110/125	18	110	73	170	526	503	511	71	111	225

Dimensions, weights

Wilo-Drain ...	Dimensions													Weight about
	L	M	N	O	P	T	DN2	a	b	c	d	e	k	
	[mm]													[kg]
MTS 40/... -1-230	105	265	65	121	270	315	40	140	110	110	155	15	14	30.0
MTS 40/... -3-400	105	265	65	121	270	315	40	140	110	110	155	15	14	30.0
MTS 40 E 20.13/11	105	265	65	121	270	315	40	140	110	110	155	15	14	34.1
MTS 40 E 23.14/12	105	265	65	121	270	315	40	140	110	110	155	15	14	34.1
MTS 40 E 26.15/15	105	265	65	121	270	315	40	140	110	110	155	15	14	34.1
MTS 40 E 31.14/21	105	265	77	133	270	315	40	140	110	110	155	15	14	39.4
MTS 40 E 35.15/23	105	265	77	133	270	315	40	140	110	110	155	15	14	39.4
MTS 40 E 39.16/25	105	265	77	133	270	315	40	140	110	110	155	15	14	39.4

Connections on pressure side:

Portable wet sump installation MTS 40/...:	DN 32
Portable wet sump installation MTS 40 E 20... to MTS 40 E 26...:	DN 32
Portable wet sump installation MTS 40 E 31... to MTS 40 E 39...:	DN 40
Stationary wet sump installation (all pump versions):	DN 40/DN 50

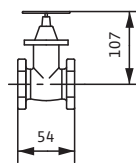
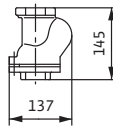
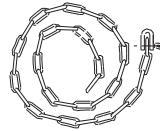
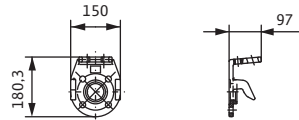
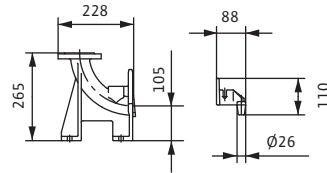
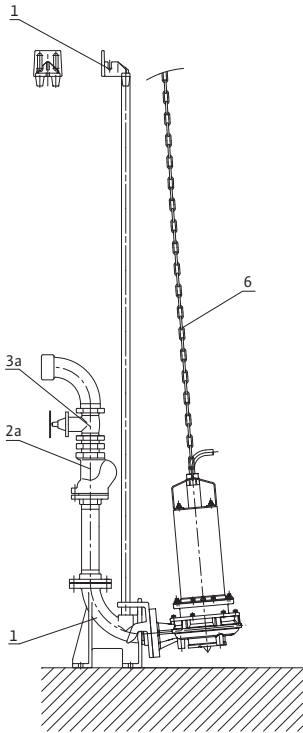
Sewage Pumps for Building Services

Submersible motor pumps with macerator

Mechanical accessories “stationary wet” Wilo-Drain MTS 40/..., MTS 40 E

Stationary wet sump installation DN 40/R 1 ½

Wilo-Drain MTS 40/..., MTS 40 E



Foot elbow (item 1)

Made of GG 25 (EN-GJL-250), including pump holder, profile packing, installation and floor fixation accessories and guide tube bracket, connection on pressure side DN 40/50.

The double pipe feed R ¾ is to be provided by customer.

Chain (item 6)

Made of galvanised steel, incl. stainless steel shackles

Length: 5 m

Lifting capacity: 250 kg

Non-return valve (item 2a)

Made of GG 25 (EN-GJL-250)

Female/female thread R 1 ½ PN 16 RG.

Gate valve (item 3a)

Constructed as coupling sleeve slider

Female/female thread R 1 ½ PN 16 RG.

Sewage Pumps for Building Services

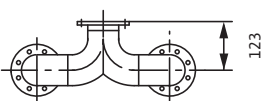
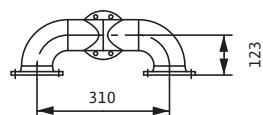
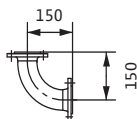
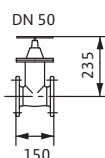
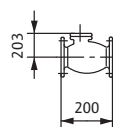
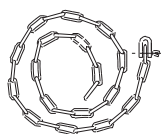
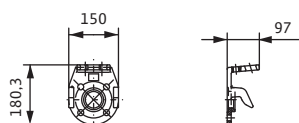
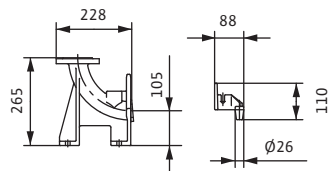
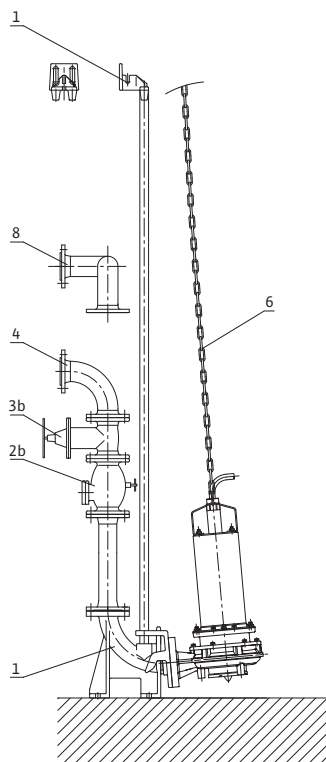
Submersible motor pumps with macerator



Mechanical accessories “stationary wet” Wilo-Drain MTS 40/..., MTS 40 E

Stationary wet sump installation DN 50

Wilo-Drain MTS 40/..., MTS 40 E



Foot elbow (item 1)

Made of GG 25 (EN-GJL-250), including pump holder, profile packing, installation and floor fixation accessories and guide tube bracket, connection on pressure side DN 50.

The double pipe feed R 3/4 is to be provided by customer.

Chain (item 6)

Made of galvanised steel, incl. stainless steel shackles

Length: 5 m

Lifting capacity: 250 kg

Non-return valve (item 2b)

Made of GG 25 (EN-GJL-250)

Connection DN 50.

Gate valve (item 3b)

Constructed as coupling sleeve slider

Connection DN 50.

Bend (item 4)

In GGG (EN-GJS-400-15),

including 1 set installation accessories.

Connection DN 50.

Y-piece (item 8)

for double-pump systems

made of galvanized steel 37, with 2 sets of

installation accessories, connection

DN 50/50/50.

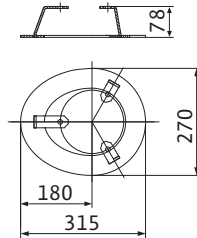
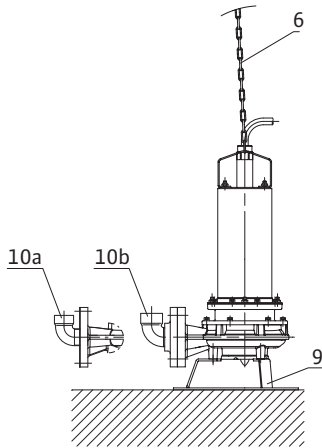
Sewage Pumps for Building Services

Submersible motor pumps with macerator

Mechanical accessories “portable wet“ Wilo-Drain MTS 40/..., MTS 40 E

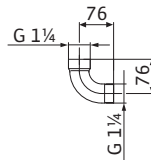
Portable wet sump installation

Wilo-Drain MTS 40/..., MTS 40 E



Ground support foot MTS (item 9)

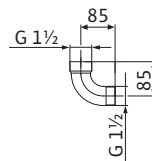
Made of lacquered steel (S235JR).



Bend (item 10a)

(For MTS 40/... & MT 40E 20... E 26 only)
made of ENGJMW-400-5 (malleable cast iron).

Female/male thread G 1 1/4" (DN 32) /
G 1 1/4" (DN 32)

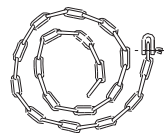
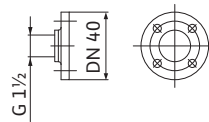


Bend (item 10b)

Made of GG, DN 40.

Made of ENGJMW-400-5 (malleable cast iron) with flange
with thread (DN 40 PN 40 EN 1092) and
installation accessories

Female/male thread G 1 1/2" (DN 40) / G 1 1/2"
(for MTS 40 E 31... E 39) (DN 40)



Chain (item 6)

Incl. stainless steel shackles, length: 5 and
10 m, lifting capacity: 400 kg

Sewage Pumps for Building Services

Submersible motor pumps with macerator



Submersible Motor Pumps
with Macerator

Sewage Pumps for Building Services

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Submersible motor pumps without macerator

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Submersible motor pumps without macerator

Wilo-Drain TP 80, 100, 150, Wilo-EMU FA 08, 10

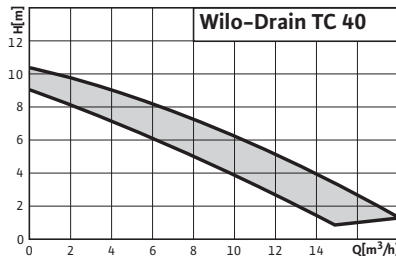
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Sewage Pumps for Building Services

Submersible motor pumps without macerator

Series overview Wilo-Drain TC 40, STS 40, 65, 80, 100, TP 50, 65

Series: Wilo-Drain TC 40



> **Submersible sewage pump**

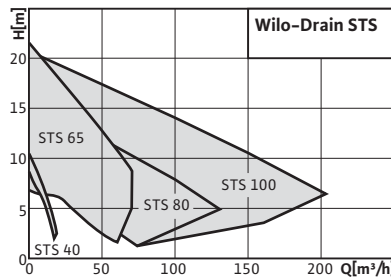
> **Application:**

- Pumping heavily contaminated fluids for
 - house/site drainage
 - sewage and water management
 - environmental and water treatment technology



¹⁾ not within the scope of EN 12050-1

Series: Wilo-Drain STS 40, 65, 80, 100



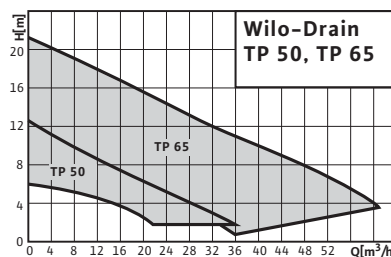
> **Submersible sewage pump**

> **Application:**

- Pumping of faeces, municipal and industrial sewage, even with long-fibre constituents, for
 - house/site drainage
 - sewage and water management
 - environmental and water treatment technology
 - industrial and processing technology



Series: Wilo-Drain TP 50, 65



> **Submersible sewage pump**

> **Application:**

- Pumping of faeces¹⁾, municipal and industrial sewage, even with long-fibre constituents, for
 - house/site drainage
 - sewage and water management
 - environmental and water treatment technology
 - industrial and processing technology



²⁾ not within the scope of DIN EN 12050-1

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series overview Wilo-Drain TC 40, STS 40, 65, 80, 100, TP 50, 65

Series: Wilo-Drain TC 40

> Product advantages:

- Simple operation due to the built-in float switch
- Easy installation through integrated pedestal
- Stainless steel pedestal
- Large free ball passage (35 mm)

> Additional information:

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Series: Wilo-Drain STS 40, 65, 80, 100

> Product advantages:

- Detachable connection cable
- Stainless steel motor
- Large free ball passage (≥ 40 mm)
- Simple operation due to the built-in float switch (Version A)
- Easy installation through integrated pedestal (STS 40)
- Integrated thermal motor protection and phase failure protection (STS 40, 3~)
- No switchgear for thermal fuse of the STS 40 (1~ and 3~) necessary

> Additional information:

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Series: Wilo-Drain TP 50, 65

> Product advantages:

- Inox & Composite
- Detachable connection cable
- Version with explosion protection (for TP 65, 3~)
- Large range of pump lines

> Additional information:

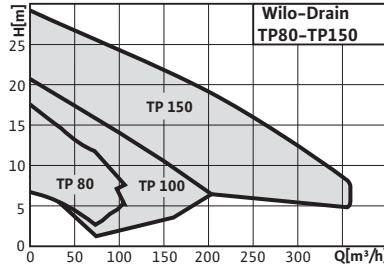
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Sewage Pumps for Building Services

Submersible motor pumps without macerator

Series overview Wilo-Drain TP 80, 100, 150, Wilo-EMU FA

Series: Wilo-Drain TP 80, 100, 150



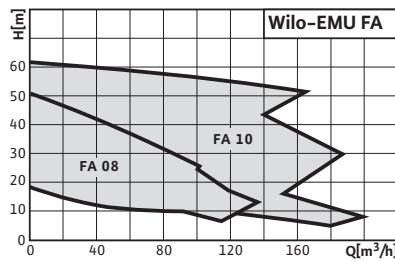
> Submersible sewage pump

> Application:

- Pumping of faeces, municipal and industrial sewage, even with long-fibre constituents, for:
 - house/site drainage
 - sewage and water management
 - environmental and water treatment technology
 - industrial and processing technology



Series: Wilo-EMU FA 08, 10



> Submersible sewage pump

> Applications:

- Pumping of faeces, municipal and industrial sewage, even with long-fibre constituents, for
 - house/site drainage
 - sewage and water management
 - environmental and water treatment technology
 - industrial and processing technology



Series overview Wilo-Drain TP 80, 100, 150, Wilo-EMU FA

Series: Wilo-Drain TP 80, 100, 150

> Product advantages:

- Stainless steel & Composite
- Ex protection as standard equipment
- Low weight
- Detachable connection cable
- Standard-equipped with cooling jacket
- Corrosion-resistant (e.g. swimming-pool drainage)

> Additional information:

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Series: Wilo-EMU FA 08, 10

> Product advantages:

- Separation chamber with double seals
- Wide performance spectrum

> Additional information:

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Sewage Pumps for Building Services

Submersible motor pumps without macerator

Equipment/function Wilo-Drain TC 40, STS 40, 65, 80, 100

		Wilo-Drain ...					
		TC 40	STS 40 (A)	STS 65/...	STS 65 F	STS 80 F	STS 100 F
Operating mode							
S1 (permanent operation)	Immersed	• (200 h/year)	• (200 h/year)	•	•	•	•
	Surfaced	–	–	Only with cooling jacket	Only with cooling jacket	Only with cooling jacket	Only with cooling jacket
S2 [min]		10	10	10	10	10	10
S3 (intermittent operation) [%]		25	25	25	25	25	25
Switching frequency/h maximum		30	50	50	50	20	20
Switching frequency/h recommended		20	20	20	20	20	20
Construction							
Sealing on the motor end:	Mechanical seal	–	–	–	•	–	–
	Shaft seal ring	–	•	•	–	•	•
Sealing on pump side:	Mechanical seal	•	•	•	•	•	•
	Shaft seal ring	•	–	–	–	–	–
Oil barrier chamber		–	•	•	•	•	•
Submersible		•	•	•	•	•	•
Open single-channel impeller		–	–	–	–	–	–
Open multi-channel impeller		–	–	–	–	–	–
Vortex impeller		•	•	•	•	•	•
Turbulence apparatus		–	–	–	–	–	–
Materials							
Motor	Stainless steel	•	•	•	•	•	•
	Grey cast iron	–	–	–	–	–	–
Pump	Composite	–	–	–	–	–	–
	Grey cast iron	•	•	•	•	•	•
Impeller	Stainless steel	–	•	–	–	–	–
	Composite	•	–	–	–	–	–
	Grey cast iron	–	–	•	•	•	•
Application							
Wet sump installation	Stationary	•	•	•	•	•	•
	Portable	•	•	•	•	•	•
	Mobile	–	–	–	–	–	–
Dry sump installation	Vertical	–	–	•	•	–	–
	Horizontal	–	–	•	•	–	–

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Equipment/function Wilo-Drain TC 40, STS 40, 65, 80, 100

	Wilo-Drain ...					
	TC 40	STS 40 (A)	STS 65/...	STS 65 F	STS 80 F	STS 100 F
Equipment						
Motor operation monitoring (temperature)	•	•	•	•	•	•
Motor operation monitoring (impermeability)	–	–	–	–	–/• (Ex)	–/• (Ex)
Explosion protection	–	–	Ex version	Ex version	Ex version	Ex version
Sheath current cooling	–	–	–	optional	optional	optional
Ready-to-plug	•	only 1~	only 1~	–	–	–
Connection cable [m]	5	5/10	10	10	10	10
Connection cable detachable	•	•	•	•	•	•
Float switch	•	only 1~ (Version A)	–	–	–	–
Capacitor box for 1~230 V	–	–	–	–	–	–

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Equipment/function Wilo-Drain TP 50, 65, 80, 100, 150

		Wilo-Drain ...				
		TP 50 (A)	TP 65 (A)	TP 80	TP 100	TP 150
Operating mode						
S1 (permanent operation)	Immersed	• (200 h/year)	• (200 h/year)	•	•	•
	Surfaced	–	–	•	•	•
S2 [min]		10	10	10	10	10
S3 (intermittent operation) [%]		25	25	25	25	25
Switching frequency/h maximum		70	40	20	20	20
Switching frequency/h recommended		20	20	20	20	20
Construction						
Sealing on the motor end:	Mechanical seal	–	–	•	•	•
	Shaft seal ring	•	•	–	–	–
Sealing on pump side:	Mechanical seal	•	•	•	•	•
	Shaft seal ring	–	–	–	–	–
Oil barrier chamber		•	•	•	•	•
Submersible		•	•	•	•	•
Open single-channel impeller		•	•	•	•	•
Open multi-channel impeller		–	–	•	•	•
Vortex impeller		•	•	•	•	•
Turbulence apparatus		–	–	–	–	–
Materials						
Motor	Stainless steel	•	•	•	•	•
	Grey cast iron	–	–	–	–	–
Pump	Composite	•	•	•	•	•
	Grey cast iron	–	–	–	–	–
Impeller	Stainless steel	–	–	–	–	–
	Composite	•	•	•	•	•
	Grey cast iron	–	–	–	–	–
Application						
Wet sump installation	Stationary	•	•	•	•	•
	Portable	•	•	•	•	•
	Mobile	–	–	on request	on request	on request
Dry sump installation	Vertical	–	–	•	•	•
	Horizontal	–	–	on request	on request	on request

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Equipment/function Wilo-Drain TP 50, 65, 80, 100, 150

	Wilo-Drain ...				
	TP 50 (A)	TP 65 (A)	TP 80	TP 100	TP 150
Equipment					
Motor operation monitoring (temperature)	only 1~	•	•	•	•
Motor operation monitoring (impermeability)	–	–	•	•	•
Explosion protection	–	only 3~	•	•	•
Sheath current cooling	–	–	•	•	•
Ready-to-plug	Version A	Version A	–	–	–
Connection cable [m]	10	10	10	10	10
Connection cable detachable	•	•	•	•	•
Float switch	Version A	Version A	–	–	–
Capacitor box for 1~230 V	•	•	–	–	–

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Equipment/function Wilo-EMU FA 08, 10

		Wilo-EMU ...					
		FA 08.43-120E + T 13-2/12H FA 08.43-135E + T 13-2/12H	FA 08.43-135E + T 13-2/16H FA 08.43-150E + T 13-2/16H	FA 08.73-160W + T 17-2/22H	FA 08.73-160W + T 20.1-2/22G FA 08.73-170W + T 20.1-2/22G FA 08.66-195W + T 20.1-2/22G FA 08.66-210W + T 20.1-2/22G	FA 10.34-234E + T 17-4/16H FA 10.34-258E + T 17.2-4/24H FA 10.34-278E + T 17.2-4/24H	FA 10.78-330Z + T 24-4/29K FA 10.78-370Z + T 24-4/29K FA 10.78-410Z + T 24-4/36K
Operating mode S1 (permanent operation)							
Motor submersed		•	•	•	•	•	•
Sealing pump/motor Fluid side:	Mechanical seal	•	•	•	•	•	•
On the motor end:	Mechanical seal	-	-	-	•	-	•
	Shaft seal ring	•	•	•	-	•	-
Oil barrier chamber		•	•	•	•	•	•
Construction							
Wet sump installation	Stationary	•	•	•	•	•	•
	Portable	•	•	•	•	•	•
Submersible		•	•	•	•	•	•
Closed single-channel impeller		•	•	-	-	•	-
Closed multi-channel impeller		-	-	-	-	-	•
Vortex impeller		-	-	•	•	-	-
Materials							
Motor	Grey cast iron	•	•	•	•	•	•
Pump	Grey cast iron	•	•	•	•	•	•
Equipment							
Motor operation monitoring (temperature)		•	•	•	•	•	•
Connection cable [m] (other lengths on request)		15	15	15	15	15	15

• = available or authorised, - = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-Drain TC 40



Wilo-Drain TC 40

Submersible sewage pump, 2-pole

Type key

Example: **Wilo-Drain TC 40/8**

T	Submersible motor pump
C	Grey cast iron
40	Nominal diameter [mm]
/8	Max. delivery head [m]

Application

Wilo-Drain TC 40 submersible motor pumps are well-suited for pumping heavily contaminated fluids for

- house and site drainage
- sewage¹⁾ and water management
- environmental and water treatment technology

¹⁾ not within the scope of EN 12050-1

Construction

Submersible sewage pump with large free ball passage (35 mm) as submersible monobloc unit for vertical wet sump installation, vortex impeller.

Motor:

Alternating current motor 1~230 V, 50 Hz

Motor protection:

Thermal winding contacts (TWC)

Scope of delivery

Pump ready for connection with 5 m power cable, shock-proof plug, float switch and installation and operating instructions.

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain TC 40

	Wilo Drain ...	
	TC 40/8	TC 40/10
Approved fluids		
Washing machine soap and water mixture (without long-fibre constituents)	•	•
Water from automobile washing plants	–	–
Bath water, unchlorinated	•	•
Fire-fighting water	•	•
Heating water	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Hot water	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Boiler water	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Condensate	–	–
Cooling water	•	•
Clean water	•	•
Untreated sewage/water	–	–
Drainage water	•	•
Semi-desalinated water	–	–
Rainwater	•	•
Swimming-pool water	–	–
Sea water	–	–
Wastewater, floodwater and river water	•	•
Domestic sewage and wastewater containing faeces	–	–
Non-bubble-forming sludge (up to 10% vol. dry substance)	–	–
Amount of solid matter 3%	•	•
Very diluted alkalis	–	–
Mildly aggressive media	•	•
Performance		
Power consumption P_1 1~230 V [kW]	0.66	0.94
Power consumption P_1 3~400 V [kW]	–	–
Nominal motor power P_2 [kW]	0.5	0.6
Nominal current with 1~230 V [A]	3.2	4.7
Nominal current with 3~400 V [A]	–	–
Speed [1/min]	2850	2850
Motor		
Protection class with maximum submersion depth	IP 68	IP 68
Insulation class	F	F

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain TC 40

	Wilo Drain ...	
	TC 40/8	TC 40/10
Pump		
Submersion depth, maximum [m]	5	5
Fluid temperature [°C]	3-40	3-40
Fluid temperature briefly possible [°C]	-	-
Density of the fluid, maximum [kg/dm ³]	1030	1030
Cable type	H07 RN-F	H07 RN-F
Cable length [m]	5	5
Cable cross-section 1~230 V [mm ²]	3G1	3G1
Cable cross-section 3~400 V [mm ²]	-	-
Plug	Shockproof (only 1~)	Shockproof (only 1~)
Type of power cable	longitudinally watertight	longitudinally watertight
Activation type	direct	direct
Explosion protection	-	-
Free ball passage [mm]	35	35
Dimensions		
Pressure port	Rp 1½	Rp 1½
Weight [kg]	9.5	12
Materials		
Pump housing	EN-GJL-200	EN-GJL-200
Impeller	PA 30GF	PA 30GF
Shaft	1.4005	1.4005
Shaft seal, pump side	Mechanical seal	carbon/ceramic
Shaft seal, motor side	Mechanical seal	-
	Rotary shaft seal	NBR
Static seal	NBR	NBR
Motor housing	1.4308	1.4308

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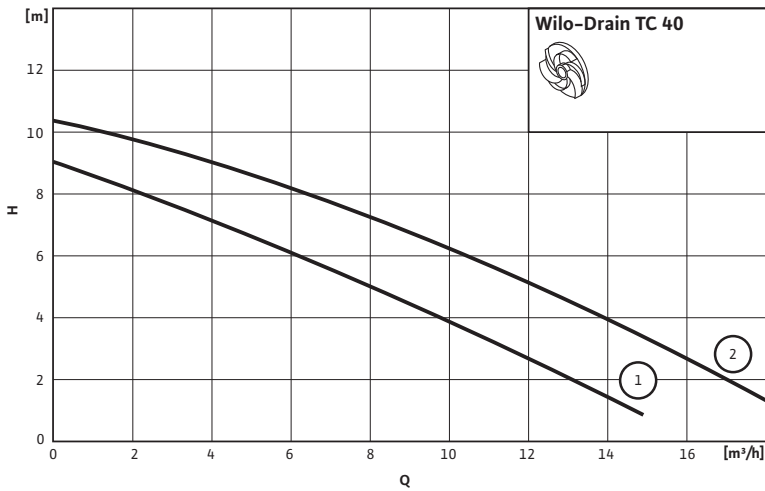
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves, dimensions Wilo-Drain TC 40

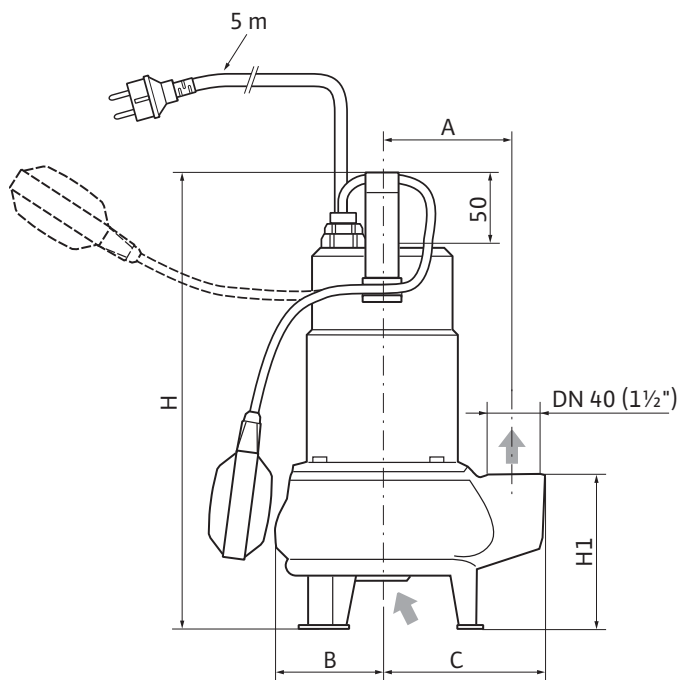
Wilo-Drain TC 40

2-pole, 50 Hz



1 = TC 40/8
2 = TC 40/10

Dimension drawing



Dimensions, weights

Wilo-Drain ...	Pressure port	Dimensions					Weight
	–	A	B	C	H	H1	–
	Rp	[mm]					[kg]
TC 40/8	1 1/2	105	86	138	352	120	9.5
TC 40/10	1 1/2	105	86	138	367	120	12.0

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-Drain STS 40



Wilo-Drain STS 40

Submersible sewage pump, 2-pole

Type key

Example: **Wilo-Drain STS 40/10 A**

STS	Submersible motor pump
40	Nominal diameter [mm]
/10	Max. delivery head [m]
A	With float switch and plug
	If not otherwise indicated: without float switch, bare cable end (only for 3~)

Application

Wilo-Drain STS 40 Submersible motor pumps are well-suited for pumping heavily contaminated fluids for

- house and site drainage
- sewage¹⁾ and water management
- environmental and water treatment technology
- industrial and processing technology

¹⁾ not within the scope of **DIN EN 12050-1**

Construction

Submersible sewage pump with large free ball passage (40 mm) as submersible monobloc unit for vertical wet sump installation.

Motor:

Alternating current motor 1~230 V, 50 Hz

Three-phase motor 3~400 V, 50 Hz

Motor protection:

Single-phase: thermal winding contacts (TWC)

Three-phase: thermal motor operation monitoring and phase failure protection self-switching

Scope of delivery

Pump ready for connection with connection cable (either 5 or 10 m), equipped with float switch and plug (version A), if necessary, installation and operating instructions

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain STS 40

	Wilo Drain ...	
	STS 40/8 STS 40/8 A	STS 40/10 STS 40/10 A
Approved fluids		
Washing machine soap and water mixture (without long-fibre constituents)	•	•
Water from automobile washing plants	–	–
Bath water, unchlorinated	•	•
Fire-fighting water	•	•
Heating water	$T_{\max} < 35^{\circ}\text{C}$	$T_{\max} < 35^{\circ}\text{C}$
Hot water	$T_{\max} < 35^{\circ}\text{C}$	$T_{\max} < 35^{\circ}\text{C}$
Boiler water	$T_{\max} < 35^{\circ}\text{C}$	$T_{\max} < 35^{\circ}\text{C}$
Condensate	$T_{\max} < 35^{\circ}\text{C}$	$T_{\max} < 35^{\circ}\text{C}$
Cooling water	•	•
Clean water	•	•
Untreated sewage/water	• ¹⁾	• ¹⁾
Drainage water	•	•
Semi-desalinated water	•	•
Rainwater	•	•
Swimming-pool water	–	–
Sea water	–	–
Wastewater, floodwater and river water	•	•
Domestic sewage and wastewater with faeces	• ¹⁾	• ¹⁾
Non-bubble-forming sludge (up to 10% vol. dry substance)	–	–
Amount of solid matter 3%	•	•
Very diluted alkalis	–	–
Mildly aggressive media	•	•
Performance		
Power consumption P_1 1~230 V [kW]	0.8	1.2
Power consumption P_1 3~400 V [kW]	0.8	0.92
Nominal motor power P_2 [kW]	0.6	0.75
Nominal current with 1~230 V [A]	3.6	5.2
Nominal current with 3~400 V [A]	1.7	2.0
Speed [1/min]	2900	2900
Motor		
Protection class with maximum submersion depth	IP 68	IP 68
Insulation class	B	B

• = available or authorised, – = not available or not authorised, ¹⁾ Not within the scope of DIN EN 12050-1

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain STS 40

	Wilo Drain ...	
	STS 40/8 STS 40/8 A	STS 40/10 STS 40/10 A
Pump		
Submersion depth, maximum [m]	5	5
Fluid temperature [°C]	3 - 35	3 - 35
Fluid temperature briefly possible [°C]	–	–
Density of the fluid, maximum [kg/dm ³]	1030	1030
Cable type	H07 RN-F	H07 RN-F
Cable length [m]	5/10	5/10
Cable cross-section 1~230 V [mm ²]	3G1	3G1
Cable cross-section 3~400 V [mm ²]	4G1	4G1
Type of power cable	–	–
Plug	shockproof (only 1~)	shockproof (only 1~)
Activation type	direct	direct
Explosion protection	–	–
Free ball passage [mm]	40	40
Dimensions		
Pressure port	Rp 1 1/2	Rp 1 1/2
Weight [kg]	19	19
Materials		
Pump housing	EN-GJL-250	EN-GJL-250
Impeller	1.4301 (AISI 304)	1.4301 (AISI 304)
Shaft	1.4404 (AISI 316L) / 1.0402	1.4404 (AISI 316L) / 1.0402
Shaft seal, pump side	Mechanical seal carbon/ceramic	carbon/ceramic
Shaft seal, motor side	Mechanical seal –	–
	Rotary shaft seal NBR	NBR
Static seal	NBR	NBR
Motor housing	1.4301 (AISI 304)	1.4301 (AISI 304)

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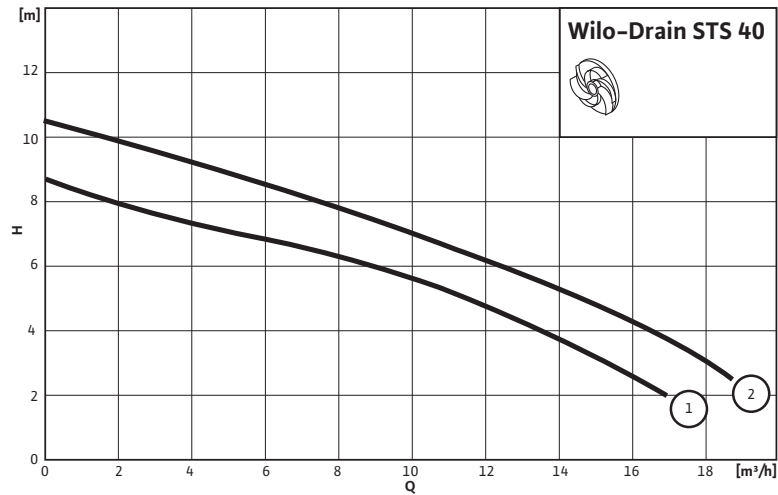
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves, dimensions Wilo-Drain STS 40

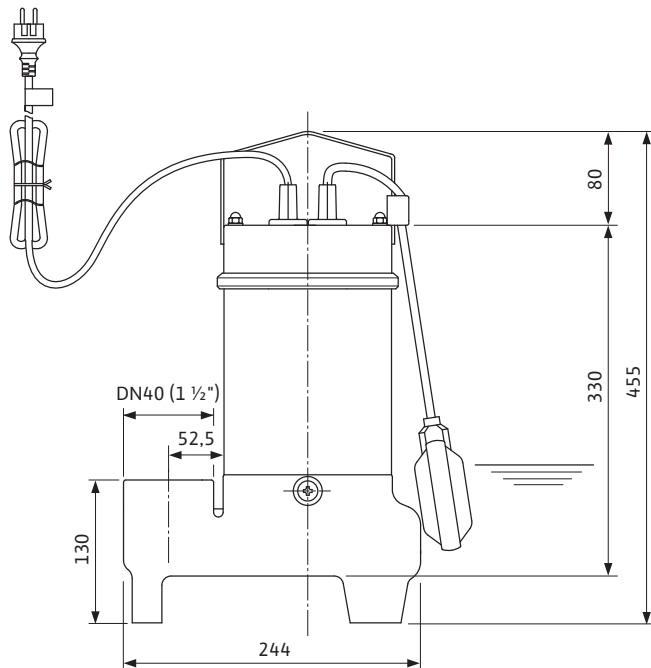
Wilo-Drain STS 40

2-pole, 50 Hz



1 = STS 40/8
2 = STS 40/10

Dimension drawing



Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-Drain STS 65



WILO-Drain STS 65

Submersible sewage pump, 2-pole

Type key

Example: **Wilo-Drain STS 65/6**

STS	Submersible motor pump
65	Nominal diameter [mm]
/6	Max. delivery head [m]

Example: **Wilo-Drain STS 65 F 16.70/25**

STS	Submersible motor pump
65	Nominal diameter [mm]
F	Vortex impeller
16	Max. delivery head [m]
.70	Maximum volume flow [m ³ /h]
/25	Power P ₂ [kW] = value/10 = 2.5 kW

Application

Wilo-Drain STS submersible motor pumps are suitable for pumping sewage containing faeces¹⁾ and municipal and industrial sewage, even with long-fibre constituents for

- house and site drainage
- sewage and water management
- environmental and water treatment technology

high operational safety because of optimal ball passage.

¹⁾ Not within the scope of **DIN EN 12050-1**

Construction

Submersible sewage pump as submersible monobloc unit for wet sump installation, optionally with cooling jacket, also suitable for dry sump installation.

- detachable connection cable per plug connection
- large free ball passage (65 mm)
- resistant to corrosion and wear and tear
- vortex impeller

Motor

AC (1~230 V, 50 Hz) or three-phase asynchronous motor (3~400 V, 50 Hz), protection class IP 68, thermal winding contacts, insulation class F. Other voltages and frequencies on request.

Bearing configuration

Bearing configuration of the motor shaft in permanently lubricated, low-maintenance roller bearings.

Radial shaft sealing ring

Either a mechanical seal (STS 65 F) or a rotary shaft seal (STS 65/...) can be chosen for the motor side. Sealing is accomplished on the pump side by means of a direction of rotation-independent mechanical seal.

Scope of delivery

Pump ready for connection with 10 m connection cable with bare cable end and installation and operating instructions. Other cable lengths on request.

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain STS 65/...

	Wilo Drain ...				
	STS 65/6	STS 65/10	STS 65/14	STS 65/18	STS 65/22
Approved fluids					
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•
Fire-fighting water	•	•	•	•	•
Heating water	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Hot water	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Boiler water	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Condensate	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$	$T_{\max} < 40^{\circ}\text{C}$
Cooling water	•	•	•	•	•
Clean water	•	•	•	•	•
Untreated sewage/water	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾
Drainage water	•	•	•	•	•
Semi-desalinated water	–	–	–	–	–
Rainwater	•	•	•	•	•
Swimming-pool water	–	–	–	–	–
Sea water	–	–	–	–	–
Wastewater, floodwater and river water	•	•	•	•	•
Domestic sewage and wastewater with faeces	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•	•	•
Amount of solid matter 3%	•	•	•	•	•
Very diluted alkalis	•	•	•	•	•
Mildly aggressive media	•	•	•	•	•
Performance					
Power consumption P_1 1~230 V [kW]	2.3	2.3	–	–	–
Power consumption P_1 3~400 V [kW]	2.3	3.5	4.1	5.5	5.8
Nominal motor power P_2 [kW]	1.3	1.5	2.5	3.5	4.0
Nominal current with 1~230 V [A]	10.0	10.0	–	–	–
Nominal current with 3~400 V [A]	3.7	5.4	6.5	8.5	9.1
Speed [1/min]	2900	2900	2900	2900	2900
Motor					
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F

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Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain STS 65/...

	Wilo Drain ...				
	STS 65/6	STS 65/10	STS 65/14	STS 65/18	STS 65/22
Pump					
Submersion depth, maximum [m]	10	10	10	10	10
Fluid temperature [°C]	40	40	40	40	40
Fluid temperature briefly possible [°C]	–	–	–	–	–
Density of the fluid, maximum [kg/dm ³]	1030	1030	1030	1030	1030
Cable type	H07 RN-F	H07 RN-F	H07 RN-F	H07 RN-F	H07 RN-F
Cable length [m]	10	10	10	10	10
Cable cross-section 1~230 V [mm ²]	4G1.5	4G1.5	–	–	–
Cable cross-section 3~400 V [mm ²]	6G1	6G1	7G1.5	7G1.5	7G1.5
Plug	–	–	–	–	–
Type of power cable	pluggable	pluggable	pluggable	pluggable	pluggable
Activation type	direct	direct	direct	direct	direct
Explosion protection	–	–	–	–	–
Free ball passage [mm]	65	65	65	65	65
Dimensions					
Pressure port	DN 65/80	DN 65/80	DN 65/80	DN 65/80	DN 65/80
Weight [kg]	36	36	36	38	40
Materials					
Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Impeller	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Shaft	1.4021 (AISI 420)				
Shaft seal, pump side	Mechanical seal	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Shaft seal, motor side	Mechanical seal	–	–	–	–
	Rotary shaft seal	NBR	NBR	NBR	NBR
Static seal		NBR	NBR	NBR	NBR
Motor housing	1.4404 (AISI 316L)				

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Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain STS 65 F ...

	Wilo Drain ...				
	STS 65 F 6.60/13 (Ex)	STS 65 F 10.60/15 (Ex)	STS 65 F 14.65/25 (Ex)	STS 65 F 18.65/35 (Ex)	STS 65 F 22.70/40 (Ex)
Approved fluids					
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•
Fire-fighting water	•	•	•	•	•
Heating water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Hot water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Boiler water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Condensate	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Cooling water	•	•	•	•	•
Clean water	•	•	•	•	•
Untreated sewage/water	•	•	•	•	•
Drainage water	•	•	•	•	•
Semi-desalinated water	–	–	–	–	–
Rainwater	•	•	•	•	•
Swimming-pool water	–	–	–	–	–
Sea water	–	–	–	–	–
Wastewater, floodwater and river water	•	•	•	•	•
Domestic sewage and wastewater with faeces	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•	•	•
Amount of solid matter 3%	•	•	•	•	•
Very diluted alkalis	•	•	•	•	•
Mildly aggressive media	•	•	•	•	•
Performance					
Power consumption P ₁ 1~230 V [kW]	–	–	–	–	–
Power consumption P ₁ 3~400 V [kW]	2.4	3.6	4.2	5.7	6.0
Nominal motor power P ₂ [kW]	1.3	1.5	2.5	3.5	4.0
Nominal current with 1~230 V [A]	–	–	–	–	–
Nominal current with 3~400 V [A]	4.2	5.5	6.7	9.0	9.5
Speed [1/min]	2900	2900	2900	2900	2900
Motor					
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F

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Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain STS 65 F ...

	Wilo Drain ...				
	STS 65 F 6.60/13 (Ex)	STS 65 F 10.60/15 (Ex)	STS 65 F 14.65/25 (Ex)	STS 65 F 18.65/35 (Ex)	STS 65 F 22.70/40 (Ex)
Pump					
Submersion depth, maximum [m]	10	10	10	10	10
Fluid temperature [°C]	40	40	40	40	40
Fluid temperature briefly possible [°C]	–	–	–	–	–
Density of the fluid, maximum [kg/dm ³]	1030	1030	1030	1030	1030
Cable type	NSSHöu, Protomont				
Cable length [m]	10	10	10	10	10
Cable cross-section 1~230 V [mm ²]	–	–	–	–	–
Cable cross-section 3~400 V [mm ²]	7G1.5	7G1.5	7G1.5	7G1.5	7G1.5
Plug	–	–	–	–	–
Type of power cable	Longitudinal watertight pluggable				
Activation type	direct	direct	direct	direct	direct
Explosion protection	(Version -Ex)				
Free ball passage [mm]	65	65	65	65	65
Dimensions					
Pressure port	DN 65/80	DN 65/80	DN 65/80	DN 65/80	DN 65/80
Weight [kg]	35	35	36	38	40
Materials					
Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Impeller	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Shaft	1.4021 (AISI 420)				
Shaft seal, pump side	Mechanical seal	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Shaft seal, motor side	Mechanical seal	C-Cr	C-Cr	C-Cr	C-Cr
	Rotary shaft seal	–	–	–	–
Static seal	NBR	NBR	NBR	NBR	NBR
Motor housing	1.4404 (AISI 316L)				

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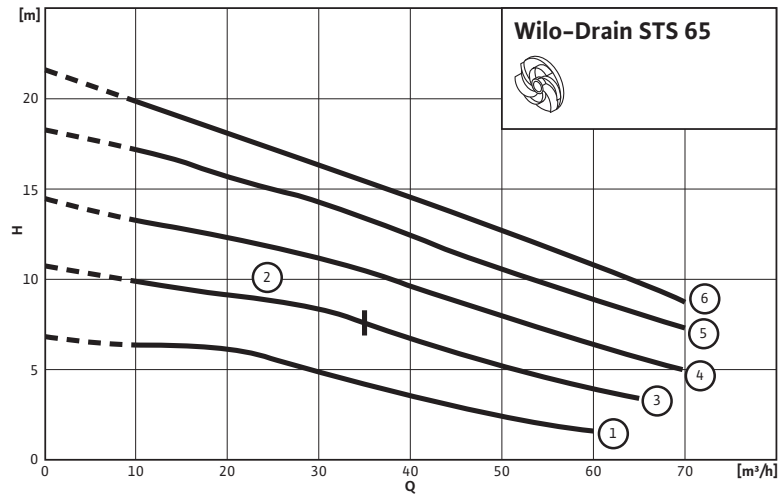
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curve, terminal diagram Wilo-Drain STS 65

Wilo-Drain STS 65...

2-pole, 50 Hz



- 1 = STS 65/6
STS 65 F 6.60/13
- 2 = STS 65/10, 1~
- 3 = STS 65/10, 3~
STS 65 F 10.60/15
- 4 = STS 65/14
STS 65 F 14.65/25
- 5 = STS 65/18
STS 65 F 18.65/35
- 6 = STS 65/22
STS 65 F 22.70/40

Terminal diagram

Wilo-Drain ...	Connection	Cable type	Clamp connections					
			U	V	W	PE	T1/WSK	T2/WSK
STS 65/... 1~	1~230 V	3 x 1.5 mm ² ¹⁾	1 _(L1)	2 _(N)	–	green/yellow	–	–
STS 65/... 3~	3~400 V	6 x 1.0 mm ²	1	2	3	green/yellow	4	5
STS 65 F ... 3~	3~400 V	7 x 1.5 mm ² ²⁾	1	2	3	green/yellow	4	5

¹⁾ Connection of mains cable with shock-proof plug to capacitor box

²⁾ Strand 7 not used

Sewage Pumps for Building Services

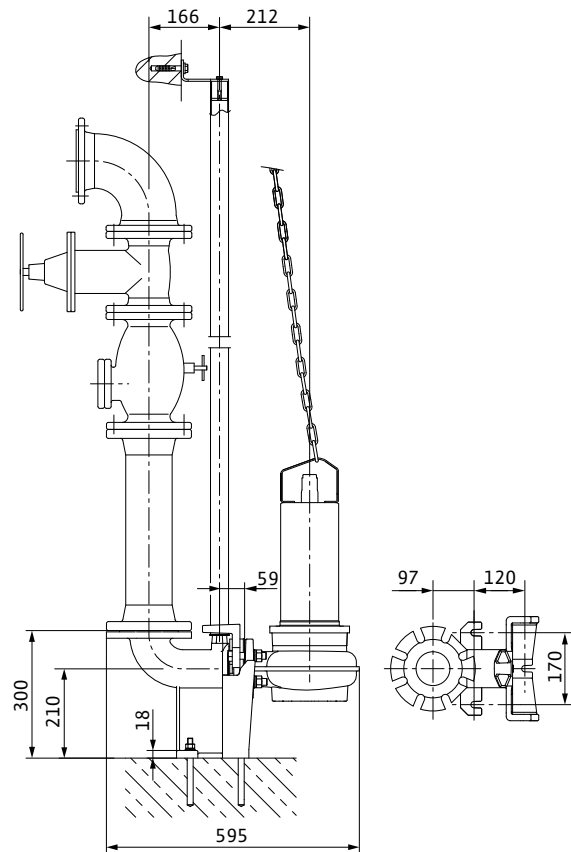
Submersible motor pumps without macerator



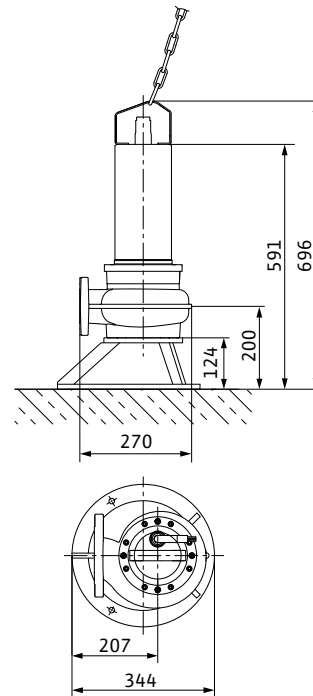
Dimensions Wilo-Drain STS 65

Dimension drawing

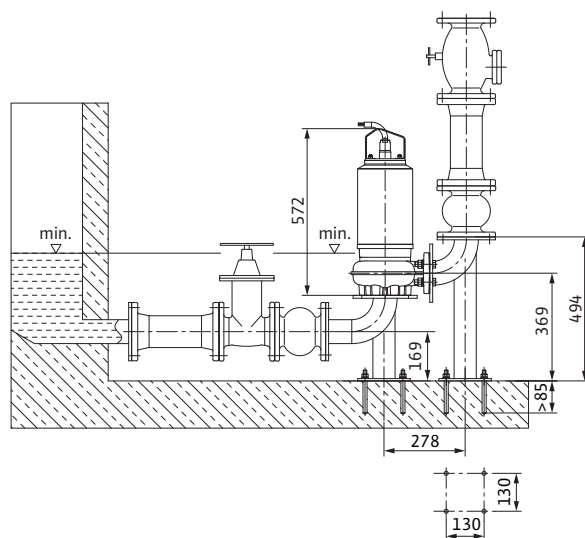
Stationary wet sump installation



Portable wet sump installation



Stationary dry sump installation, vertical



Submersible Motor Pumps without Macerator

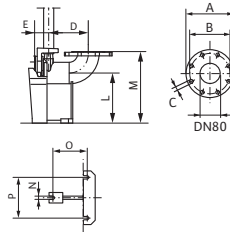
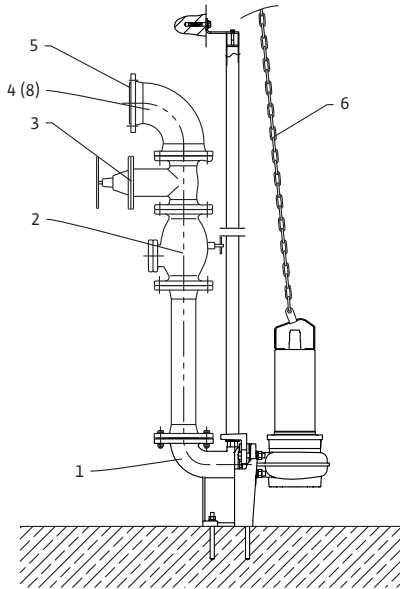
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories, "stationary wet" Wilo-Drain STS 65

Stationary wet sump installation

Wilo-Drain STS 65

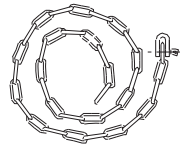


Suspension unit (item 1)

Made of GG 25 (EN-GJL-250), including pump holder, profile packing, installation and floor fixation accessories and guide tube bracket, connection on pressure side DN 80/DN 65.

The double pipe feed R 1½ is to be provided by customer.

A	200	L	210
B	160	M	300
C	18	N	15
D	166	O	120
E	59	P	170

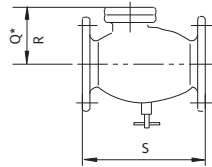


Chain (item 6)

Made of galvanised steel, incl. stainless steel shackles

Length: 5 m

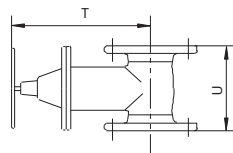
Lifting capacity: 250 kg



Non-return valve (item 2)

Made of GG 25, (EN-GJL-250), with non-constricted passage, including cleaning aperture and ventilation device, mounting accessories, flange PN 10/16, in acc. with DIN 2501, with (*) or without drawing No. (drawing No. 53.4-309),

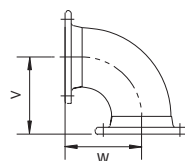
	DN 65	DN 80
Q	218	240
R	-	245
S	240	260



Gate valve (item 3)

Made of GG 25, (EN-GJL-250) mounting accessories, flange PN 10/16 in acc. with DIN 2501,

	DN 65	DN 80
T	295	295
U	170	180



Bend (item 4)

Made of GGG (EN-GJS-400-15), with 2 flanges, mounting accessories for a flange connection, flange PN 10/16, DIN 28637,

	DN 65	DN 80
V	165	165
W	165	165

Sewage Pumps for Building Services

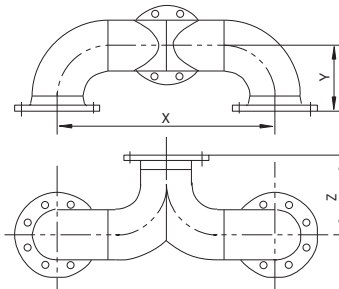
Submersible motor pumps without macerator



Mechanical accessories, “stationary wet” Wilo-Drain STS 65

Stationary wet sump installation

Wilo-Drain STS 65



Y-piece (item 8)

For double-pump systems

Made of galvanized steel 37 with 2 sets of mounting accessories, flange PN 10/16, DIN 2501, DN 65/65/65, DN 80/80/80,

	DN 65	DN 80
X	385	615
Y	143	168
Z	143	167



Mounting accessories (item 5)

For flange connection with 8 screws and nuts, as well as 1 flat gasket, for flange PN 10/16, DIN 2501

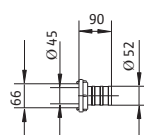
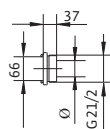
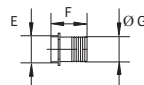
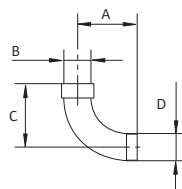
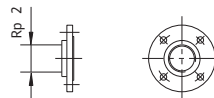
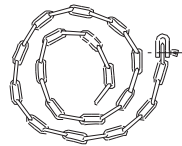
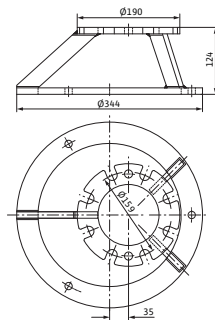
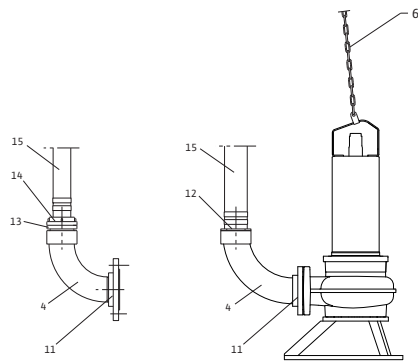
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories “portable wet” Wilo-Drain STS 65

Portable wet sump installation

Wilo-Drain STS 65



Ground support foot (item 9)

Made of lacquered steel, and fixation material

Chain (item 6)

Made of galvanised steel, incl. stainless steel shackles made of stainless steel

Length: 5 m

Lifting capacity: 250 kg

Counter flange (item 11)

Made of galvanised steel, incl. mounting accessories DN 65 on Rp 2 ½ female thread (STS 65)

Bend (item 4)

Made of galvanised steel, with female / male thread R/G 2 ½

A 165

B G 2 ½

C 176

D R 2 ½

Hose connection (item 12)

Direct connection for hose including hose clip

E G 2 ½

F 100

G 70

Storz-pipe coupling (item 13)

Made of aluminium, tappet clearance 66 mm, male thread G 2 ½ (STS 65)

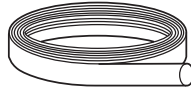
Storz-hose coupling (item 14)

Made of aluminium, in acc. with DIN 14321, Storz 52-C for hose inside $\varnothing 52$ mm, incl. hose clip, tappet clearance 66 mm

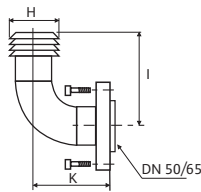
Mechanical accessories “portable wet” Wilo-Drain STS 65

Portable wet sump installation

Wilo-Drain STS 65



can be wound up



Pressure hose (item 15)

Made of synthetic materials, PN 8, manufactured in acc. with DIN 14811 hose inner \varnothing 70 mm, for item 12, Length: 10 m or: Pressure hose for Storz-hose coupling, made of plastic, PN 8, incl. hose clip, for Storz 52-C connection, hose inside \varnothing 52 mm, length: 10 m

Bend (item 16)

For hose connection including mounting accessories for direct connection

H 70

I 170

K 75

DN 65: GG 25 (EN-GJL-250)

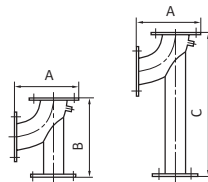
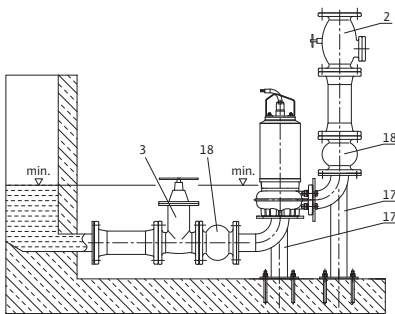
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories “stationary, vertical dry sump installation” Wilo-Drain STS 65

Stationary dry sump installation, vertical

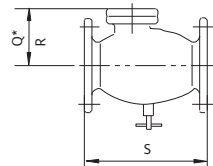
Wilo-Drain STS 65



Set-up set (item 17)

Including fixation material and 2 flange connections (on the pressure and inlet side).

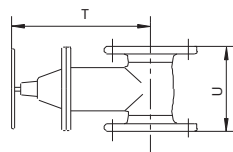
A	225
B	294
C	494



Non-return valve (item 2)

Made of GG 25, (EN-GJL-250), with non-constricted passage, including cleaning aperture and ventilation device, mounting accessories, flange PN 10/16, in acc. with DIN 2501, with (*) or without drawing No. (drawing No. 53.4-309),

Q	240
R	245
S	260

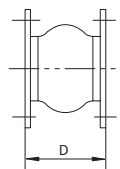


Gate valve (item 3)

Made of GG 25, (EN-GJL-250) mounting accessories, flange PN 10/16 in acc. with DIN 2501, DN 80.

T	325/295*
U	190/180*

* Inlet DN 100/pressure side DN 80

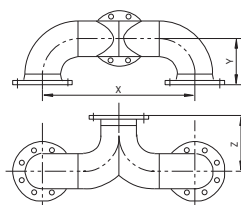


Compensator (item 18)

Made of galvanized steel, PN 10/16, with mounting accessories, DN 80/100/150

D	135/130*
---	----------

* Inlet DN 100/pressure side DN 80



Y-piece (item 8)

For double-pump systems

Made of galvanized steel 37 with 2 sets of mounting accessories, flange PN 10/16, DIN 2501, DN 80/80/80,

X	615
Y	68
Z	167

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-Drain STS 80, 100



Wilo-Drain STS 80, 100

Submersible sewage pump, 4-pole

Type key

Example: **Wilo-Drain STS 80 F 81.120/20**

STS	Submersible motor pump
80	Nominal diameter [mm]
F	Vortex impeller
81	Max. zero-delivery head [m]
120	Max. volume flow [m ³ /h]
20	Power P_2 [kW] = value/10 = 2.0 kW

Application

Wilo-Drain STS submersible motor pumps are suitable for pumping faeces, municipal and industrial sewage, even with long-fibre constituents, for

- house and site drainage
- sewage and water management
- environmental and water treatment technology
- industrial and processing technology

High operational safety because of optimal free ball passage.

Construction

Submersible sewage pump as submersible monobloc unit for vertical wet sump installation:

- detachable power cable
- large free ball passage
- corrosion- and wear-resistant

Motor:

Three-phase asynchronous motor 3~400 V, 50 Hz, protection class IP 68, thermal winding contacts, insulation class F. Other operating voltages and frequencies on request.

Bearing configuration:

Bearing configuration of the motor shaft in permanently lubricated, low-maintenance roller bearings.

Shaft sealing:

Mechanical seal on pump side and shaft seal ring on the motor end.

Scope of delivery

Pump ready for connection with 10 m connection cable with bare cable end and installation and operating instructions. Other cable lengths on request.

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain STS 80

	Wilo Drain ...				
	STS 80 F 7.110/20 (Ex)	STS 80 F 9.120/24 (Ex)	STS 80 F 10.120/27 (Ex)	STS 80 F 12.120/32 (Ex)	STS 80 F 14.100/40 (Ex)
Approved fluids					
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•
Fire-fighting water	•	•	•	•	•
Heating water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Hot water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Boiler water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Condensate	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Cooling water	•	•	•	•	•
Clean water	•	•	•	•	•
Untreated sewage/water	•	•	•	•	•
Drainage water	•	•	•	•	•
Semi-desalinated water	–	–	–	–	–
Rainwater	•	•	•	•	•
Swimming-pool water	–	–	–	–	–
Sea water	–	–	–	–	–
Wastewater, floodwater and river water	•	•	•	•	•
Domestic sewage and wastewater with faeces	•	•	•	•	•
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•	•	•
Amount of solid matter 3%	•	•	•	•	•
Very diluted alkalis	•	•	•	•	•
Mildly aggressive media	•	•	•	•	•
Performance					
Power consumption P ₁ 1~230 V [kW]	–	–	–	–	–
Power consumption P ₁ 3~400 V [kW]	2.7	3.4	3.7	4.5	5.3
Nominal motor power P ₂ [kW]	2.0	2.4	2.7	3.2	4.0
Nominal current with 1~230 V [A]	–	–	–	–	–
Nominal current with 3~400 V [A]	6.1	6.7	7.0	8.0	8.9
Speed [1/min]	1450	1450	1450	1450	1450
Motor					
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain STS 80

	Wilo Drain ...				
	STS 80 F 7.110/20 (Ex)	STS 80 F 9.120/24 (Ex)	STS 80 F 10.120/27 (Ex)	STS 80 F 12.120/32 (Ex)	STS 80 F 14.100/40 (Ex)
Pump					
Submersion depth, maximum [m]	10	10	10	10	10
Fluid temperature [°C]	40	40	40	40	40
Fluid temperature briefly possible [°C]	60	60	60	60	60
Density of the fluid, maximum [kg/dm ³]	1030	1030	1030	1030	1030
Cable type	OZOFLEX-Plus, H07 RN-F, round or Protomont NSSHöu, round (Ex version)				
Cable length [m]	10	10	10	10	10
Cable cross-section 1~230 V [mm ²]	–	–	–	–	–
Cable cross-section 3~400 V [mm ²]	7G1.5 (strand 6 not used)				
Plug	–	–	–	–	–
Type of power cable	detachable, oil-resistant or longitudinally watertight, detachable, oil-resistant (Ex version)				
Activation type	direct	direct	direct	direct	direct
Explosion protection	(Version -Ex)				
Free ball passage [mm]	80	80	80	80	80
Dimensions					
Pressure port	DN 80	DN 80	DN 80	DN 80	DN 80
Weight [kg]	70	70	70	70	70
Materials					
Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Impeller	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250
Shaft	1.4021 (AISI 420)				
Shaft seal, pump side	Mechanical seal	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Shaft seal, motor side	Mechanical seal	–	–	–	–
	Rotary shaft seal	NBR	NBR	NBR	NBR
Static seal		NBR	NBR	NBR	NBR
Motor housing	1.4404 (AISI 316L)				

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain STS 100

	Wilo Drain ...		
	STS 100 F 10.170/59 (Ex)	STS 100 F 12.170/72 (Ex)	STS 100 F 15.170/84 (Ex)
Approved fluids			
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•
Water from automobile washing plants	•	•	•
Bath water, unchlorinated	•	•	•
Fire-fighting water	•	•	•
Heating water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Hot water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Boiler water	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Condensate	T _{max} < 40°C	T _{max} < 40°C	T _{max} < 40°C
Cooling water	•	•	•
Clean water	•	•	•
Untreated sewage/water	•	•	•
Drainage water	•	•	•
Semi-desalinated water	–	–	–
Rainwater	•	•	•
Swimming-pool water	–	–	–
Sea water	–	–	–
Wastewater, floodwater and river water	•	•	•
Domestic sewage and wastewater with faeces	•	•	•
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•
Amount of solid matter 3%	•	•	•
Very diluted alkalis	•	•	•
Mildly aggressive media	•	•	•
Performance			
Power consumption P ₁ 1~230 V [kW]	–	–	–
Power consumption P ₁ 3~400 V [kW]	7.1	8.8	10.1
Nominal motor power P ₂ [kW]	5.9	7.2	8.4
Nominal current with 1~230 V [A]	–	–	–
Nominal current with 3~400 V [A]	14.2	16.5	18.5
Speed [1/min]	1450	1450	1450
Motor			
Protection class with maximum submersion depth	IP 68	IP 68	IP 68
Insulation class	F	F	F

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain STS 100

	Wilo Drain ...		
	STS 100 F 10.170/59 (Ex)	STS 100 F 12.170/72 (Ex)	STS 100 F 15.170/84 (Ex)
Pump			
Submersion depth, maximum [m]	10	10	10
Fluid temperature [°C]	40	40	40
Fluid temperature briefly possible [°C]	60	60	60
Density of the fluid, maximum [kg/dm ³]	1030	1030	1030
Cable type	OZOFLEX-Plus, H07 RN-F, round or Protomont NSSHöu, round (Ex version)		
Cable length [m]	10	10	10
Cable cross-section 1~230 V [mm ²]	–	–	–
Cable cross-section 3~400 V [mm ²]	10G1.5 (strand 9 not used)		
Plug	–	–	–
Type of power cable	detachable, oil-resistant or longitudinally watertight, detachable, oil-resistant (Ex version)		
Activation type	star/delta	star/delta	star/delta
Explosion protection	(Version -Ex)	(Version -Ex)	(Version -Ex)
Free ball passage [mm]	100	100	100
Dimensions			
Pressure port	DN 100	DN 100	DN 100
Weight [kg]	96	96	96
Materials			
Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250
Impeller	EN-GJL-250	EN-GJL-250	EN-GJL-250
Shaft	1.4021 (AISI 420)		
Shaft seal, pump side	Mechanical seal	SiC/SiC	SiC/SiC
Shaft seal, motor side	Mechanical seal	–	–
	Rotary shaft seal	NBR	NBR
Static seal		NBR	NBR
Motor housing	1.4404 (AISI 316L)	1.4404 (AISI 316L)	1.4404 (AISI 316L)

• = available or authorised, – = not available or not authorised

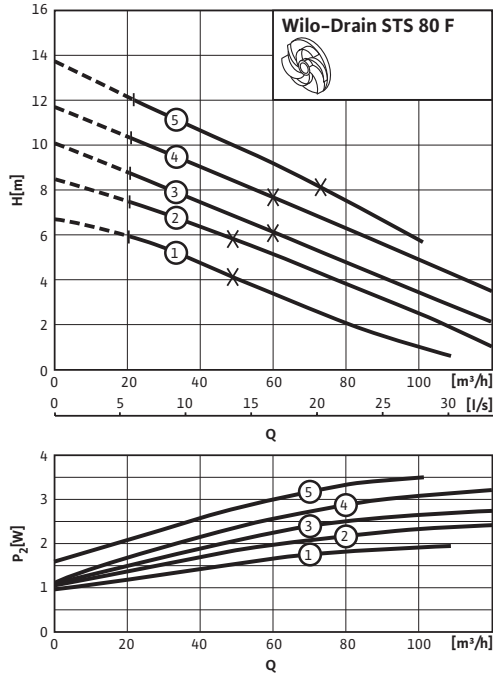
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves Wilo-Drain STS 80, 100

Wilo-Drain STS 80 F

4-pole, 50 Hz



- 1 = STS 80 F 7.110/20
- 2 = STS 80 F 9.120/24
- 3 = STS 80 F 10.120/27
- 4 = STS 80 F 12.120/32
- 5 = STS 80 F 14.100/40

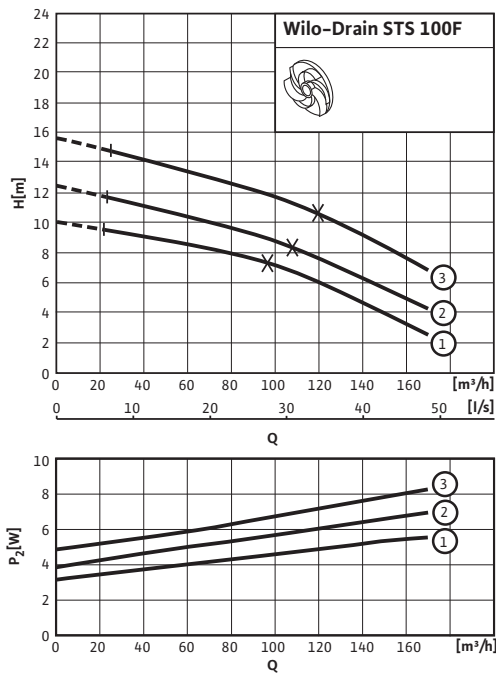
All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{\min}
 X = Q_{optimal}

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Wilo-Drain STS 100 F

4-pole, 50 Hz



- 1 = STS 100 F 10.170/59
- 2 = STS 100 F 12.170/72
- 3 = STS 100 F 15.170/84

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{\min}
 X = Q_{optimal}

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Terminal diagrams Wilo-Drain STS 80, 100

Terminal diagram Wilo-Drain STS 80

Terminal	U ₁	V ₁	W ₁	TWC	TWC	PE
Core No.	1	2	3	4	5	green/yellow

3~400 V, 50 Hz

Terminal diagram Wilo-Drain STS 100

Terminal	U ₁	V ₁	W ₁	V ₂	W ₂	U ₂	TWC	TWC	PE
Core No.	1	2	3	4	5	6	7	8	0

3~400 V, 50 Hz

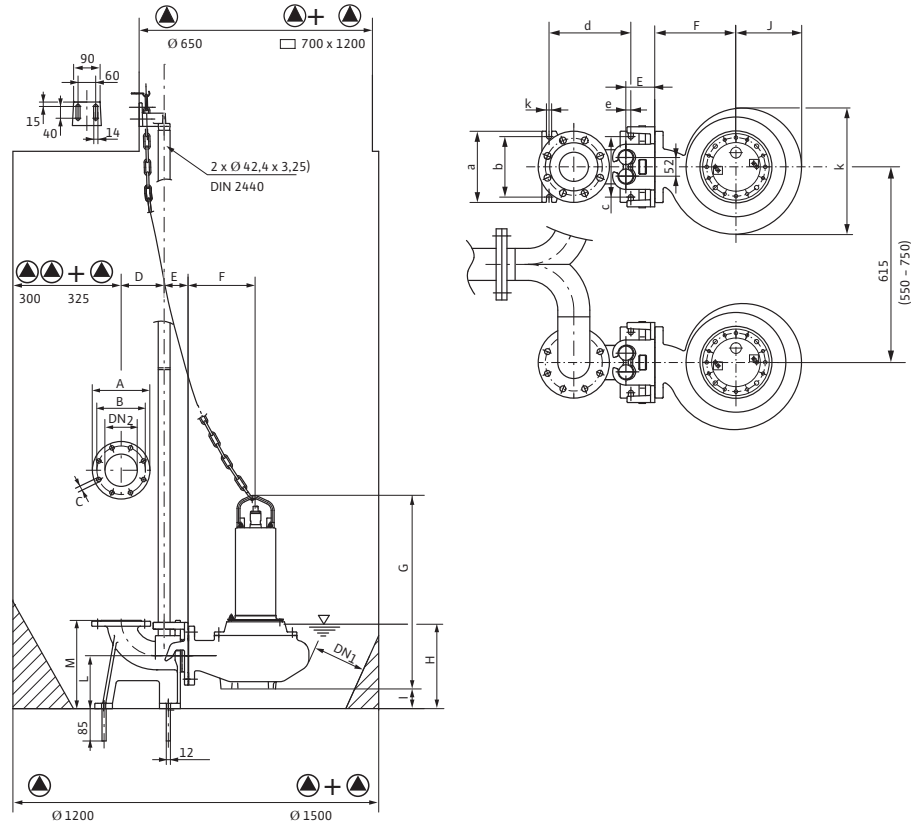
Sewage Pumps for Building Services

Submersible motor pumps without macerator

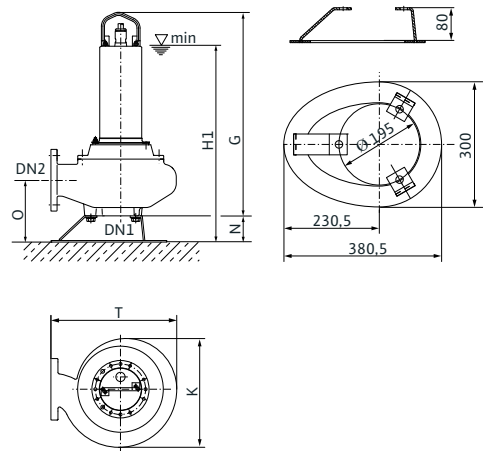
Dimensions Wilo-Drain STS 80

Dimension drawing

Stationary wet sump installation



Portable wet sump installation



Sewage Pumps for Building Services

Submersible motor pumps without macerator



Dimensions Wilo-Drain STS 80

Dimensions

	Dimensions												
	DN1	DN2	A	B	C	D	E	F	G	H	I	J	K
	[mm]												
Wilo-Drain STS 80	80	80	200	160	19	146	81	228	660	300	70	185	355

Dimensions

	Dimensions											
	L	M	a	b	c	d	e	k	H ₁	N	O	T
	[mm]											
Wilo-Drain STS 80	180	315	200	170	170	220	14	14	635	85	200	409

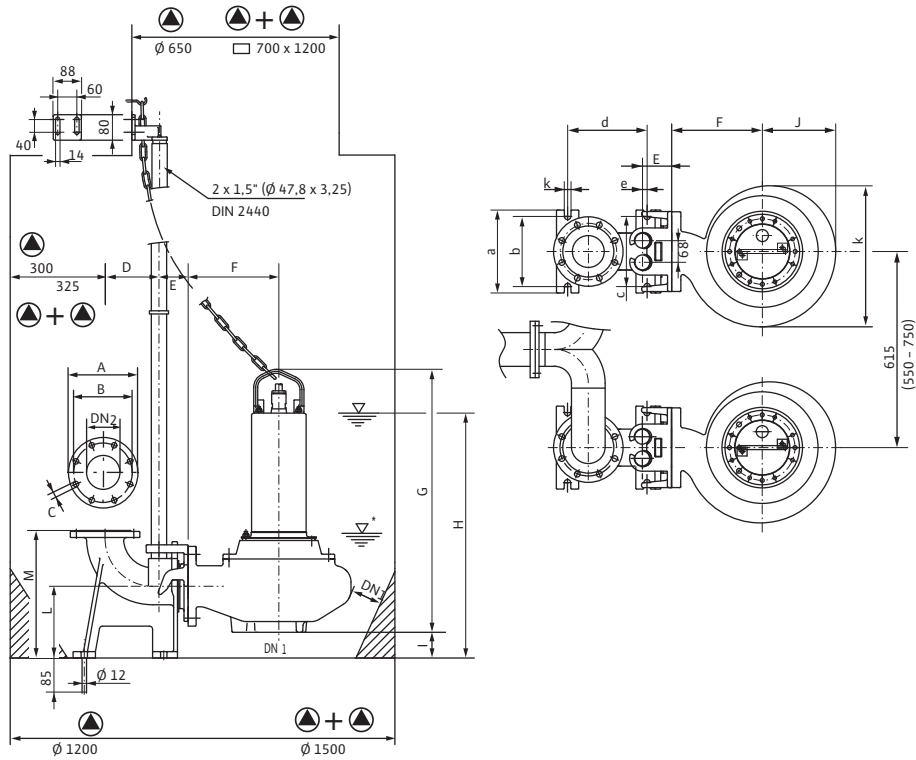
Sewage Pumps for Building Services

Submersible motor pumps without macerator

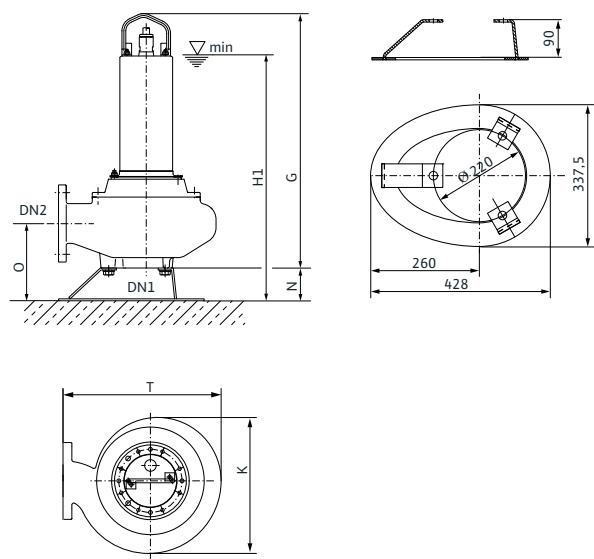
Dimensions Wilo-Drain STS 100

Dimension drawing

Stationary wet sump installation



Portable wet sump installation



Sewage Pumps for Building Services

Submersible motor pumps without macerator



Dimensions Wilo-Drain STS 100

Dimensions

	Dimensions												
	DN1	DN2	A	B	C	D	E	F	G	H	I	J	K
	[mm]												
Wilo-Drain STS 100	100	100	220	180	18	169	91	255	825	780	90	195	440

Dimensions

	Dimensions											
	L	M	a	b	c	d	e	k	H ₁	N	O	T
	[mm]											
Wilo-Drain STS 100	225	400	260	220	220	250	15	20	890	90	250	450

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-Drain TP 50, 65



Wilo-Drain TP

Submersible sewage pump

Type key

Example: **Wilo-Drain TP 65 E 114/11-1A**

TP	Submersible motor pump
65	Nominal diameter [mm]
E	Impeller shape: E = Single-channel wheel F = Vortex impeller
114	Nominal diameter of the impeller [mm]
/11	Power P_2 [kW] = value/10 = 1.1 kW
-1	1 = Alternating current (1~) No specification = Three-phase current (3~)
A	With float switch and plug

Application

Wilo-Drain TP submersible motor pumps are suitable for pumping very contaminated fluids for

- house and site drainage
- sewage ¹⁾ and water management
- environmental and water treatment technology
- industrial and processing technology

¹⁾ not within the scope of DIN EN 12050-1

High operational safety because of free ball passage of 44 mm. Due to the light weight, optimally suited as an emergency/replacement pump.

Can be utilised in the following installation types

- stationary wet
- portable

Construction

Submersible sewage pump as submersible monobloc unit for vertical wet sump installation:

- Inox & Composite
- low weight
- detachable connection cable
- corrosion-resistant

Motor:

Three-phase current asynchronous motor 3~400 V, 50 Hz or Alternating current motor 1~230 V, 50 Hz

Motor protection:

Single-phase: Thermal winding contacts (TWC)
Three-phase: Motor protection is to be provided onsite starting from 1.1 kW = thermal winding contacts (TWC)

Bearing configuration:

Bearing configuration of the motor shaft in permanently lubricated, low-maintenance roller bearings.

Shaft sealing:

By means of a mechanical seal on the pump side, independent of the direction of rotation, and a radial shaft sealing ring on the motor side. Intermediate chamber containing oil is used for cooling and lubrication.

Hydraulics:

Option of either a vortex or a single-channel impeller with a free ball passage of 44 mm.

Scope of delivery

Pump ready for connection with 10 m connection cable and bare cable end with three-phase version 3~400 V, 10 m connection cable and switchbox (on/off; terminal block) with AC version 1~230 V and installation and operating instructions.

A-Model:

Pump ready for connection with 10 m connection cable, plug [CEE/shockproof], float switch and installation and operating instructions.

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain TP 50, 65

	Wilo-Drain TP 50 ...				Wilo-Drain TP 65 ...					
	E 101/5.5 (A)	E 107/7.5 (A)	F 82/5.5 (A)	F 90/7.5 (A)	E 114/11 (A)	E 122/15	E 132/22	F 91/11 (A)	F 98/15	F 109/22
Approved fluids										
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•	•	•	•	•	•
Fire-fighting water	•	•	•	•	•	•	•	•	•	•
Heating water ($T_{\max} < 35\text{ °C}$)	•	•	•	•	•	•	•	•	•	•
Hot water ($T_{\max} < 35\text{ °C}$)	•	•	•	•	•	•	•	•	•	•
Boiler water ($T_{\max} < 35\text{ °C}$)	•	•	•	•	•	•	•	•	•	•
Condensate ($T_{\max} < 35\text{ °C}$)	•	•	•	•	•	•	•	•	•	•
Cooling water	•	•	•	•	•	•	•	•	•	•
Clean water	•	•	•	•	•	•	•	•	•	•
Untreated sewage/water	–	–	–	–	–	–	–	–	–	–
Drainage water	•	•	•	•	•	•	•	•	•	•
Semi-desalinated water	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Rainwater	•	•	•	•	•	•	•	•	•	•
Swimming-pool water	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Sea water	–	–	–	–	–	–	–	–	–	–
Wastewater, floodwater and river water	•	•	•	•	•	•	•	•	•	•
Domestic sewage and wastewater with faeces	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾	• ¹⁾
Non-bubble-forming sludge (up to 10% vol. dry substance)	–	–	–	–	–	–	–	–	–	–
Amount of solid matter 3%	•	•	•	•	•	•	•	•	•	•
Very diluted alkalis	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Mildly aggressive media	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Performance										
Power consumption P_1 1~230 V [kW]	1.0	1.3	1.0	1.3	1.5	–	–	1.5	–	–
Power consumption P_1 3~400 V [kW]	1.0	1.1	1.0	1.1	1.5	2.0	2.9	1.5	1.8	2.7
Nominal motor power P_2 [kW]	0.55	0.75	0.55	0.75	1.1	1.5	2.2	1.1	1.5	2.2
Nominal current with 1~230 V [A]	4.0	5.5	4.0	5.5	7.2	–	–	6.9	–	–
Nominal current with 3~400 V [A]	2.0	2.0	2.0	2.0	3.2	3.8	5.2	3.2	3.6	5.1
Speed [1/min]	2850	2850	2850	2850	2850	2850	2850	2850	2850	2850

• = available or authorised, – = not available or not authorised

¹⁾ not within the scope of DIN EN 12050-1,

²⁾ except version A

³⁾ 1.4435 (AISI 316L) on request

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain TP 50, 65

	Wilo-Drain TP 50 ...				Wilo-Drain TP 65 ...					
	E 101/5.5 (A)	E 107/7.5 (A)	F 82/5.5 (A)	F 90/7.5 (A)	E 114/11 (A)	E 122/15	E 132/22	F 91/11 (A)	F 98/15	F 109/22
Motor										
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F	F	F	F	F	F
Switching frequency [1/h]	70	70	70	70	40	40	40	40	40	40
Pump										
Submersion depth, maximum [m]	10	10	10	10	10	10	10	10	10	10
Fluid temperature, maximum [°C]	3-35	3-35	3-35	3-35	3-35	3-35	3-35	3-35	3-35	3-35
Fluid temperature briefly possible [°C]	-	-	-	-	-	-	-	-	-	-
Density of the fluid, maximum [kg/dm ³]	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
Cable type	OZOFLEX (PLUS) H07 RN-F – oil-resistant									
Cable length [m]	10	10	10	10	10	10	10	10	10	10
Cable cross-section 1~230 V [mm ²]	4G1	4G1	4G1	4G1	4G1	-	-	4G1	-	-
Cable cross-section 3~400 V [mm ²]	4G1	4G1	4G1	4G1	6G1	6G1	6G1.5	6G1	6G1	6G1.5
Plug	Shockproof/CEE				-	-	-	-	-	-
Type of power cable	detachable									
Activation type	direct	direct	direct	direct	direct	direct	direct	direct	direct	direct
Explosion protection	-	-	-	-	-	only 3~ ²⁾		-	only 3~ ²⁾	
Free ball passage [mm]	44	44	44	44	44	44	44	44	44	44
Dimensions										
Pressure port [DN]	50	50	50	50	65	65	65	65	65	65
Weight [kg]	14.5	16	14.5	16	21	22	24.5	22	24.5	24.5
Materials										
Pump housing	PP-GF30				PUR	PUR	PUR	PUR	PUR	PUR
Impeller	PP-GF30				PUR	PUR	PUR	PUR	PUR	PUR
Shaft	1.4404 (AISI 316L)									
Shaft seal, pump side	Mechanical seal	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Shaft seal, motor side	Mechanical seal	-	-	-	-	-	-	-	-	-
	Rotary shaft seal	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR
Static seals		NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR
Motor housing ³⁾	1.4301 (AISI 304)									

• = available or authorised, – = not available or not authorised

¹⁾ not within the scope of DIN EN 12050-1,

²⁾ except version A

³⁾ 1.4435 (AISI 316L) on request

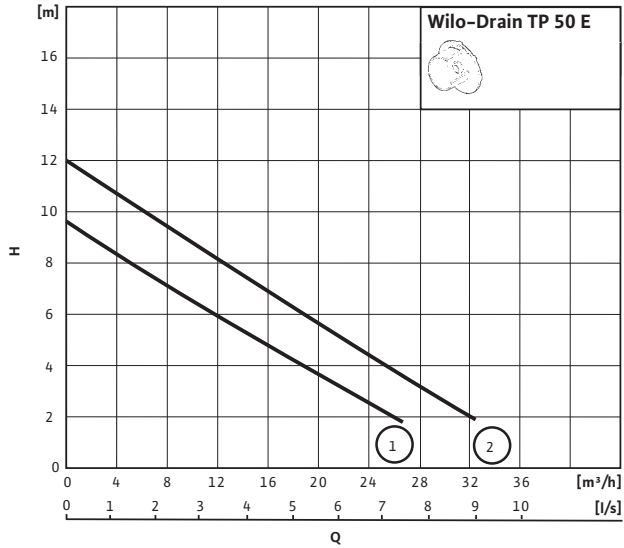
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves Wilo-Drain TP 50

Wilo-Drain TP 50 E

2-pole, 50 Hz

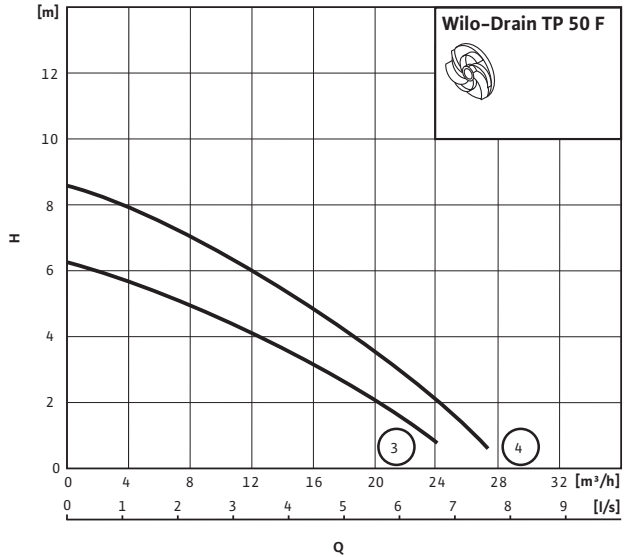


- 1 = TP 50 E 101/5.5
- 2 = TP 50 E 107/7.5

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

Wilo-Drain TP 50 F

2-pole, 50 Hz



- 3 = TP 50 F 82/5.5
- 4 = TP 50 F 90/7.5

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

Sewage Pumps for Building Services

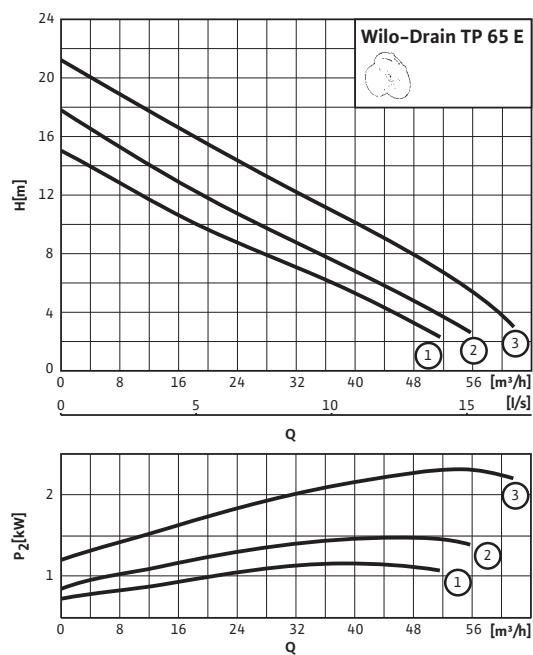
Submersible motor pumps without macerator



Pump curves Wilo-Drain TP 65

Wilo-Drain TP 65 E

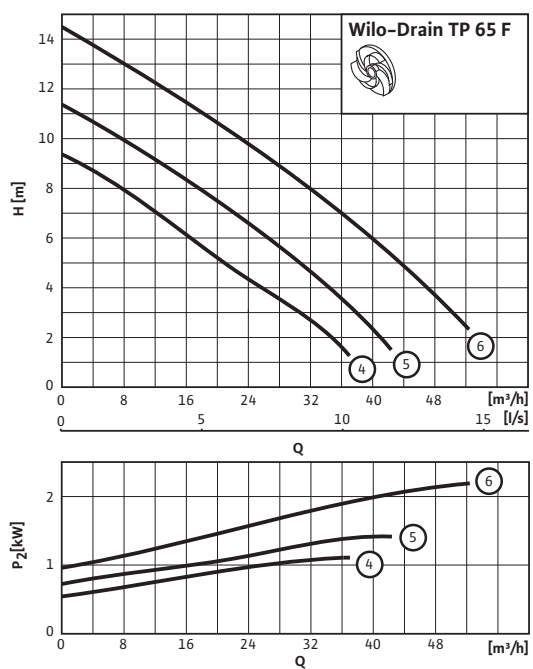
2-pole, 50 Hz



- 1 = TP 65 E 114/11
- 2 = TP 65 E 122/15
- 3 = TP 65 E 132/22

Wilo-Drain TP 65 F

2-pole, 50 Hz



- 4 = TP 65 F 91/11
- 5 = TP 65 F 98/15
- 6 = TP 65 F 109/22

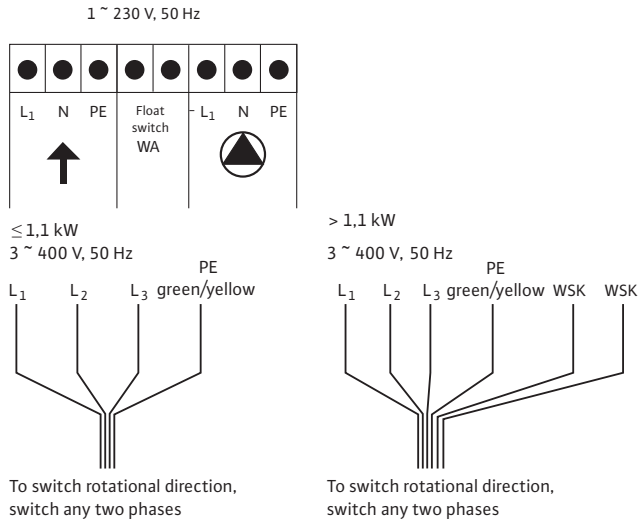
Submersible Motor Pumps without Macerator

Sewage Pumps for Building Services

Submersible motor pumps without macerator

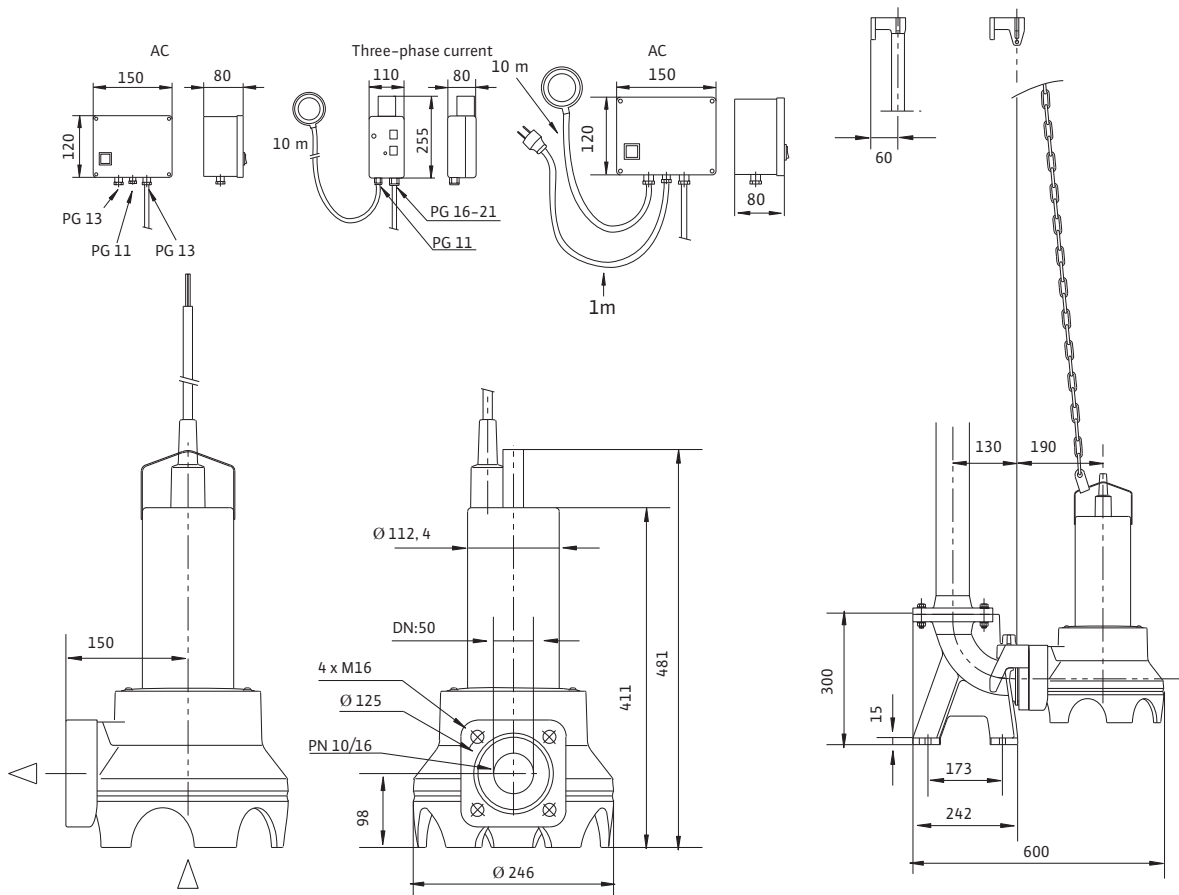
Terminal diagram, dimensions Wilo-Drain TP 50, 65

Terminal diagram



Dimension drawing

Wilo-Drain TP 50



Sewage Pumps for Building Services

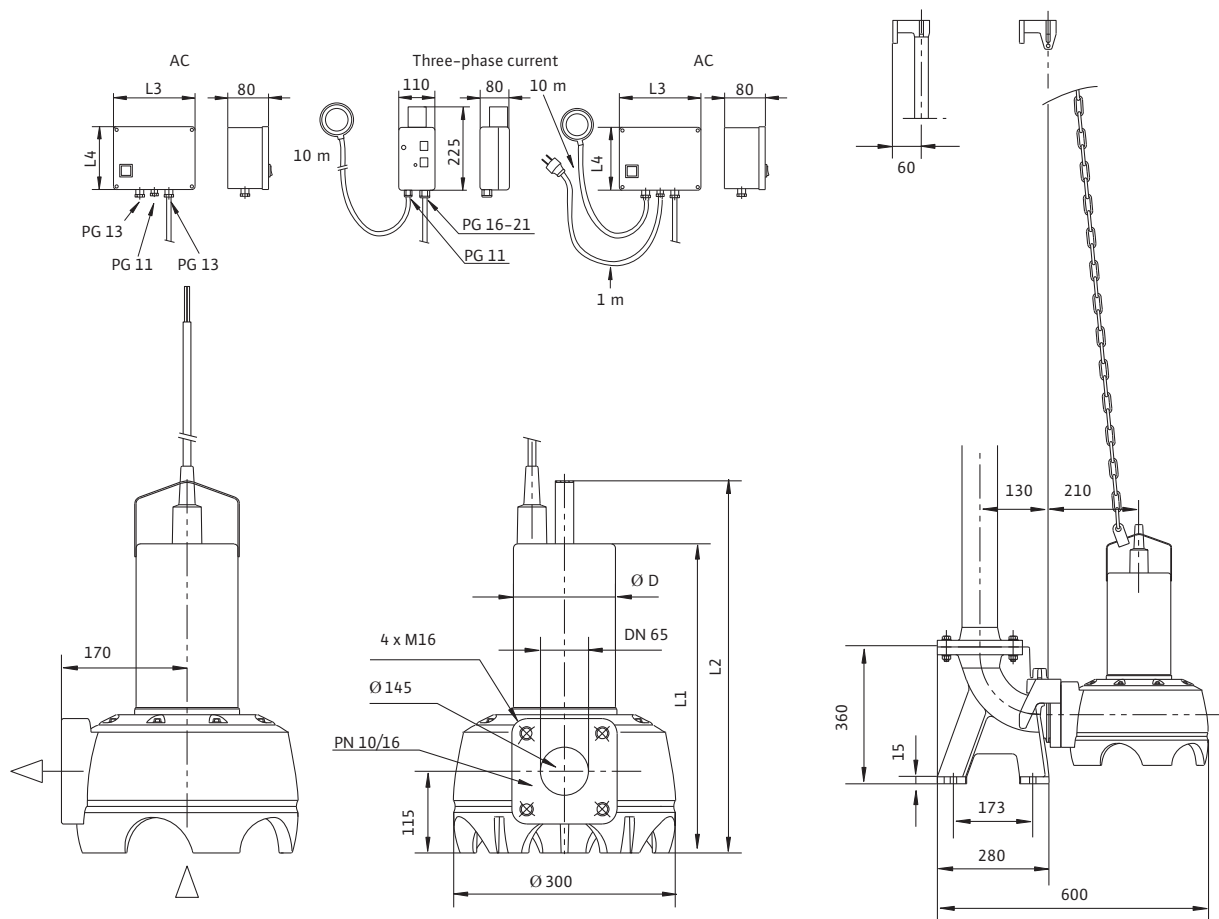
Submersible motor pumps without macerator



Terminal diagram, dimensions Wilo-Drain TP 50, 65

Dimension drawing

Wilo-Drain TP 65



Dimensions

Wilo-Drain ...	Dimensions				
	L1	L2	L3	L4	D
	[mm]				
TP 65 E 114/11 3~/A	425	505	–	–	128
TP 65 E 114/11 1~/A	425	505	150	120	128
TP 65 E 122/15 3~	425	505	–	–	128
TP 65 E 132/22 3~	452	535	200	150	138
TP 65 F 91/11 3~/A	425	505	–	–	128
TP 65 F 91/11 1~/A	425	505	150	120	128
TP 65 F 98/15 1~	452	535	200	150	138
TP 65 F 109/22 3~	452	535	–	–	138

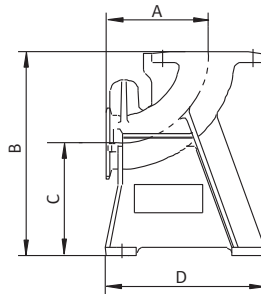
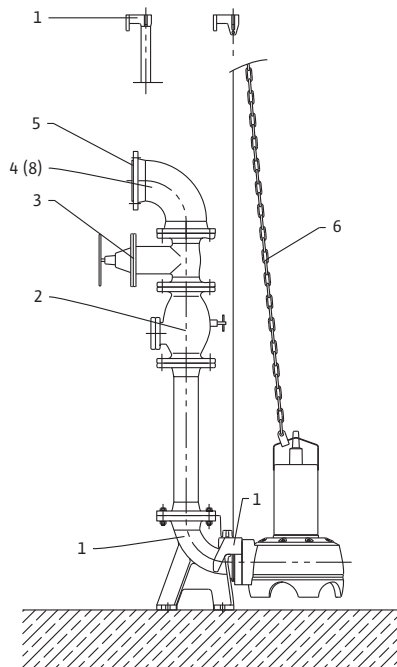
Submersible Motor Pumps without Macerator

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories Wilo-Drain TP 50, 65

Stationary wet sump installation TP 50 and TP 65

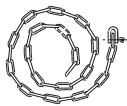


Foot elbow incl. rope guide (item 1)

Made of GG 25 (EN-GJL-250), including pump holder, profile joint, installation and floor fixation accessories and guide tube bracket. Complete 7 m rope guide for 3.5 m installation depth.

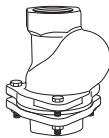
For connection DN 50 or DN 65. On-site installation with guide tube R1" alternatively possible (scope of delivery incl. chain, item 6).

	TP 50	TP 65
A	150	180
B	300	360
C	150	200
D	242	280



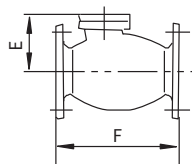
Chain (item 6)

Made of galvanised steel, incl. shackles made of stainless steel, length: 5 m, lifting capacity: 250 kg (included in scope of delivery item 1)



Non-return valve (item 2a)

Rp 2-female thread, GG 25 (EN-GJL-250) only for TP 50



Non-return valve (item 2)

DN 50, DN 65, GG 5 (EN-GJL-250), flange PN 10/16, with non-constricted passage, cleaning aperture and ventilation device incl. mounting accessories, drawing No. 53.4-309

	TP 50	TP 65
E	203	223
F	200	240



Gate valve (item 3a)

Rp 2- female thread, brass, nickel-plated only for TP 50

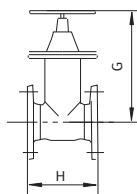
Sewage Pumps for Building Services

Submersible motor pumps without macerator



Mechanical accessories Wilo-Drain TP 50, 65

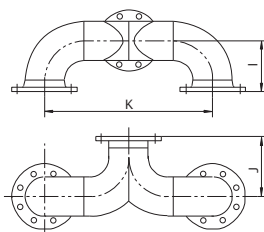
Stationary wet sump installation TP 50 and TP 65



Gate valve (item 3)

DN 50, DN 65, GG 25, (EN-GJL-250) flange
PN 10/16, incl. mounting accessories

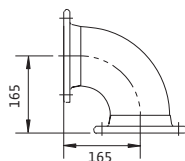
	TP 50	TP 65
G	235	295
H	150	170



Y-piece (item 8)

For double-pump systems
Made of galvanized steel 37 with 2 sets of
mounting accessories, flange PN 10/16,
DIN 2501, DN 50/50/50 or 65/65/65

	TP 50	TP 65
I	123	143
J	123	143
K	308	385



Bend (item 4)

DIN 28637, GGG (EN-GJS-400-15), with
1 set of mounting accessories for a flange
connection. Flange PN 10/16, in acc. with
DIN 2501, DN 65 only for TP 65



Mounting accessories (item 5)

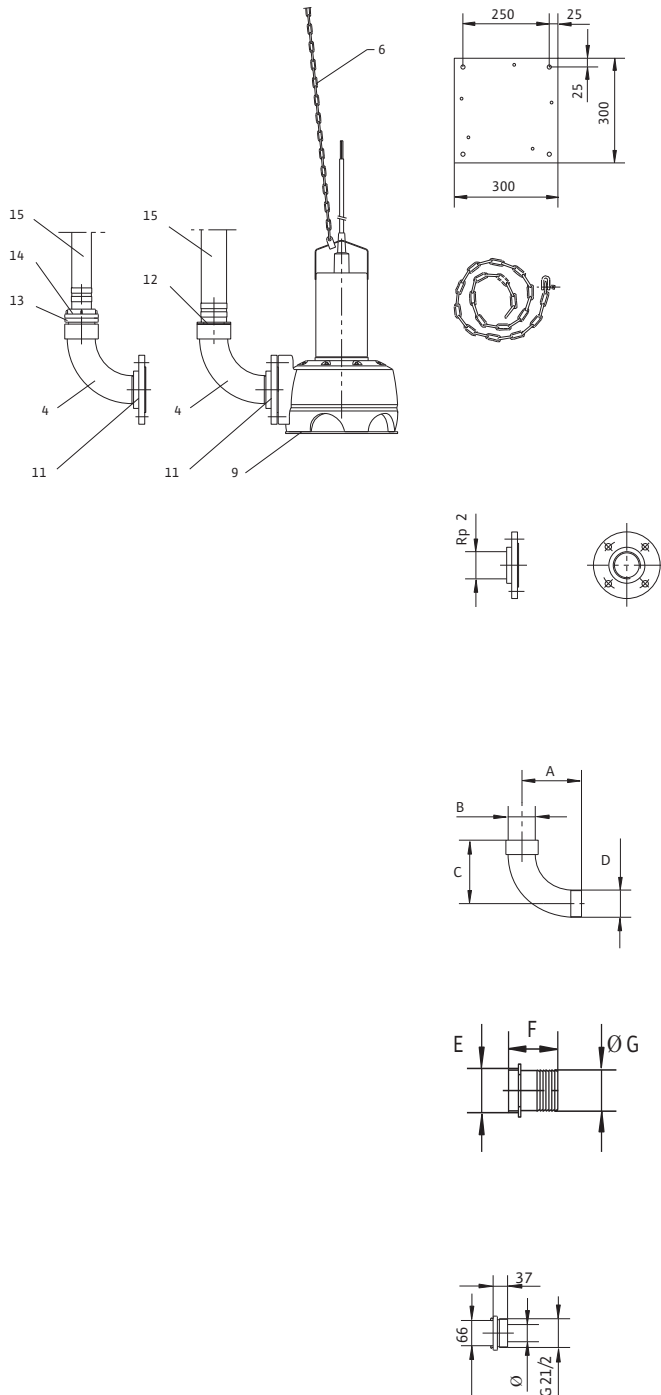
For one flange-flange connection, with
4 screws and screw nuts in addition to 1 flat
gasket. Flange PN 10/16, in acc. with
DIN 2501, DN 65 only for TP 65

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories Wilo-Drain TP 50, 65

Portable wet sump installation TP 50 and TP 65



Base plate (item 9)

For TP 65, made of galvanized steel, consisting of:

1 base plate and fixation material (required in the presence of muddy subsoil; prevents sinking)

Chain (item 6)

Made of galvanized steel, incl. shackles made of stainless steel, length: 5 m, lifting capacity: 250 kg

Counter flange (item 11)

Made of galvanized steel, incl. mounting accessories

DN 50 on Rp 2–female thread (T 50)

DN 65 on Rp 2 1/2 female thread (TP 65)

Bend (item 4)

Made of galvanized steel, with female/male thread R/G 2 or 2 1/2

	TP 50	TP 65
A	130	165
B	G 2	G 2 1/2
C	140	176

Hose connection (item 12)

Direct connection for hose incl. hose clip

	T 50	TP 65
E	G 2	G 2 1/2
F	90	100
G	60	70

Storz-pipe coupling (item 13)

Made of aluminium, tappet clearance

66 mm, male thread R 2 (TP 50)

Male thread G 2 1/2 (TP 65)

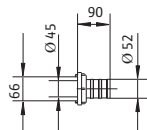
Sewage Pumps for Building Services

Submersible motor pumps without macerator



Mechanical accessories Wilo-Drain TP 50, 65

Portable wet sump installation TP 50 and TP 65



Storz-hose coupling (item 14)

Made of aluminium, in acc. with DIN 14321, Storz 52-C for hose inside ϕ 52 mm, incl. hose clip, tappet clearance 66 mm



can be wound up

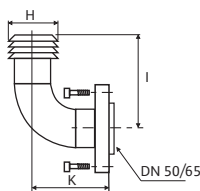
Pressure hose (item 15)

TP 50: made of synthetic materials, PN6, hose inside ϕ 52/60 mm, length: 10 m

TP 65: made of synthetic materials, PN 8, manufactured in acc. with DIN 14811 hose inside ϕ 70 mm,

For item 12, length: 10 m or:

Pressure hose for Storz-hose coupling, made of synthetic materials, PN 8, incl. hose clip, for Storz 52-C connection, hose inside ϕ 52 mm, length: 10 m



Bend (item 16)

For hose connection including mounting accessories for direct connection

	TP 50	TP 65
H	60	70
I	188	170
K	110	75

DN 50: plastic
DN 65: GG 25 (EN-GJL-250)

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-Drain TP 80, 100, 150



Wilo-Drain TP

Submersible sewage pump

Type key

Example: **Wilo-Drain TP 100 E 210/52**

TP	Submersible motor pump
100	Nominal diameter [mm]
E	Impeller shape: E = single-channel impeller F = vortex impeller M = multi-channel impeller
210	Nominal diameter of the impeller [mm]
/52	Power P_2 [kW] = value/10 = 5.2 kW

Application

Wilo-Drain TP 80 to 150 submersible motor pumps are suited for pumping faeces, municipal and industrial sewage, even with long-fibre constituents, for

- house and site drainage
- sewage and water management
- environmental and water treatment technology
- industrial and processing technology

High operational safety because of optimal free ball passage. Also suitable for emergency/catastrophe utilisation because of its low weight.

Can be utilised in the following installation types

- stationary wet
- portable wet
- vertically dry (without Ex-protection)
- horizontal dry installation on demand

Construction

Submersible sewage pump as submersible monobloc unit for vertical wet sump installation or vertical dry sump installation

- Inox & Composite
- Ex protection as standard equipment (for connection with TWC and completely submerged hydraulics. Follow instructions in the installation and operating instructions)
- low weight
- leakage detection
- sheath current cooling
- detachable connection cable
- large, free ball passage
- resistant to corrosion and wear and tear

Motor

Three-phase asynchronous motor 3~400 V, 50 Hz, protection class IP 68, leakage detection, thermal winding contacts. Insulation class F. Other operating voltages and frequencies available on request.

Caution

When connecting the SK 545 switchgear tripping unit that is provided onsite by the customer (see electrical accessories), use for connecting thermal winding contact (TWC) and leakage detection (TWC connection is with a maximum of 30 V, max. 30 mA, observe installation and operating instructions).

Bearing configuration

Bearing configuration of the motor shaft in permanently lubricated, low-maintenance roller bearings.

Motor cooling

Permanently blockage-free sheath current cooling with patented return flow pipe.

Radial shaft sealing ring

Double direction of rotation-independent mechanical seal on the pump and motor sides.

Leakage detection

Signal concerning moisture seepage in the motor space.

Hydraulics

Standard-equipped with patented spiral floor plate for blockage-free reliable permanent operation (single-channel impeller).

TP 80: Single-channel impeller/vortex impeller
Free ball passage 80 mm

TP 100: Single-channel impeller/vortex impeller
Free ball passage 95/100 mm

TP 150: Single-channel impeller/multi-channel impeller
Free ball passage 100/125 mm

Scope of delivery

Pump ready for connection with 10 m connection cable, bare cable end and installation and operating instructions. Other cable lengths on request.

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain TP 80

	Wilo-Drain TP 80...									
	E 160/17	E 170/21	E 190/29	E 210/37	E 230/40	F 155/24	F 165/28	F 180/30	F 190/34	F 210/40
Approved fluids										
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•	•	•	•	•	•
Fire-fighting water	•	•	•	•	•	•	•	•	•	•
Heating water, boiler water	• (up to 40°C)									
Condensate	• (up to 40°C)									
Cooling water	•	•	•	•	•	•	•	•	•	•
Clean water	•	•	•	•	•	•	•	•	•	•
Untreated sewage/water	•	•	•	•	•	•	•	•	•	•
Drainage water	•	•	•	•	•	•	•	•	•	•
Semi-desalinated water	•	•	•	•	•	•	•	•	•	•
Rainwater	•	•	•	•	•	•	•	•	•	•
Swimming-pool water	•	•	•	•	•	•	•	•	•	•
Sea water	•	•	•	•	•	•	•	•	•	•
Wastewater, floodwater and river water	•	•	•	•	•	•	•	•	•	•
Faeces, municipal and industrial sewage with long-fibre constituents	•	•	•	•	•	•	•	•	•	•
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•	•	•	•	•	•	•	•
Amount of solid matter 3%	•	•	•	•	•	•	•	•	•	•
Performance										
Power consumption P ₁ 3~400 V [kW]	2.3	2.7	3.9	4.9	5.4	3.1	3.9	4.1	4.9	5.3
Nominal motor power P ₂ [kW]	1.7	2.1	2.9	3.7	4.0	2.4	2.8	3.0	3.4	4.0
Nominal current with 3~400 V [A]	6.7	7.1	8.2	8.9	9.8	7.9	8.3	8.7	9.2	9.8
Motor										
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F	F	F	F	F	F
Switching frequency [1/h]	60	60	60	60	60	60	60	60	60	60
Pump										
Fluid temperature [°C]	40	40	40	40	40	40	40	40	40	40
Cable type	NSSHöu, oil-resistant									
Cable length [m]	10	10	10	10	10	10	10	10	10	10
Cable cross-section 3~400 V [mm ²]	7x1.5	7x1.5	7x1.5	7x1.5	7x1.5	7x1.5	7x1.5	7x1.5	7x1.5	7x1.5
Type of power cable	longitudinally watertight/detachable									

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain TP 80

	Wilo-Drain TP 80...									
	E 160/17	E 170/21	E 190/29	E 210/37	E 230/40	F 155/24	F 165/28	F 180/30	F 190/34	F 210/40
Pump (continued)										
Activation type	direct	direct	direct	direct	direct	direct	direct	direct	direct	direct
Ex protection	EEx d II B T4									
Free ball passage [mm]	80	80	80	80	80	80	80	80	80	80
Dimensions										
Weight [kg]	42	42	42	42	42	43	43	43	43	43
Materials										
Pump housing	PUR									
Impeller	PUR									
Shaft	1.0570/1.4404 (AISI 316L)									
Mechanical seal (bidirectional), pump side	SiC-SiC									
Mechanical seal (bidirectional), motor side	C-Cr									
Motor housing	1.4404 (AISI 316L)									

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain TP 100

	Wilo-Drain TP 100...											
	E 160/17	E 180/26	E 210/32	E 230/38	E 190/39	E 210/52	E 230/70	E 250/84	F 155/21	F 165/26	F 180/29	
Approved fluids												
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•	•	•	•	•	•	•	
Water from automobile washing plants	•	•	•	•	•	•	•	•	•	•	•	
Bath water, unchlorinated	•	•	•	•	•	•	•	•	•	•	•	
Fire-fighting water	•	•	•	•	•	•	•	•	•	•	•	
Heating water, boiler water	• (up to 40°C)											
Condensate	• (up to 40°C)											
Cooling water	•	•	•	•	•	•	•	•	•	•	•	
Clean water	•	•	•	•	•	•	•	•	•	•	•	
Untreated sewage/water	•	•	•	•	•	•	•	•	•	•	•	
Drainage water	•	•	•	•	•	•	•	•	•	•	•	
Semi-desalinated water	•	•	•	•	•	•	•	•	•	•	•	
Swimming-pool water	•	•	•	•	•	•	•	•	•	•	•	
Sea water	•	•	•	•	•	•	•	•	•	•	•	
Wastewater, floodwater, river water and rainwater	•	•	•	•	•	•	•	•	•	•	•	
Faeces, municipal and industrial sewage with long-fibre constituents	•	•	•	•	•	•	•	•	•	•	•	
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•	•	•	•	•	•	•	•	•	
Amount of solid matter 3%	•	•	•	•	•	•	•	•	•	•	•	
Performance												
Power consumption P ₁ 3~400 V [kW]	2.3	3.4	4.0	5.4	4.4	6.2	8.4	10.0	2.9	3.3	3.9	
Nominal motor power P ₂ [kW]	1.7	2.6	3.2	3.8	3.9	5.2	7.0	8.4	2.1	2.6	2.9	
Nominal current with 3~400 V [A]	6.7	7.5	8.9	9.8	10.5	12.8	15.6	18.1	7.0	7.4	7.9	
Motor												
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	
Insulation class	F	F	F	F	F	F	F	F	F	F	F	
Switching frequency [1/h]	60	60	60	60	60	60	60	60	60	60	60	
Pump												
Fluid temperature, maximum [°C]	40	40	40	40	40	40	40	40	40	40	40	
Cable type	NSSHöu, oil-resistant											
Cable length [m]	10	10	10	10	10	10	10	10	10	10	10	
Cable cross-section 3~400 V [mm ²]	7x1.5			10x1.5				7x1.5				
Type of power cable	longitudinally watertight/detachable											
Activation type	direct				direct or star/delta				direct			

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain TP 100

	Wilo-Drain TP 100...										
	E 160/17	E 180/26	E 210/32	E 230/38	E 190/39	E 210/52	E 230/70	E 250/84	F 155/21	F 165/26	F 180/29
Pump (continued)											
Ex protection	EEx d II B T4										
Free ball passage [mm]	95	95	95	95	95	95	95	95	100	100	100
Dimensions											
Weight [kg]	43	43	43	43	60	60	60	60	43	43	43
Materials											
Pump housing	PUR										
Impeller	PUR										
Shaft	1.0570/1.4404 (AISI 316L)										
Mechanical seal (bidirectional), pump side	SiC – SiC										
Mechanical seal (bidirectional), motor side	C – Cr										
Motor housing	1.4404 (AISI 316L)										

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-Drain TP 100, 150

	Wilo-Drain TP 100 ...					Wilo-Drain TP 150 ...				
	F 190/32	F 210/38	F 195/59	F 220/72	F 247/84	M 235/130	M 250/165	M 265/200	E 280/110	E 295/150
Approved fluids										
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•	•	•	•	•	•
Fire-fighting water	•	•	•	•	•	•	•	•	•	•
Heating water, boiler water	• (up to 40°C)									
Condensate	• (up to 40°C)									
Cooling water	•	•	•	•	•	•	•	•	•	•
Clean water	•	•	•	•	•	•	•	•	•	•
Untreated sewage/water	•	•	•	•	•	•	•	•	•	•
Drainage water	•	•	•	•	•	•	•	•	•	•
Semi-desalinated water	•	•	•	•	•	•	•	•	•	•
Swimming-pool water	•	•	•	•	•	•	•	•	•	•
Sea water	•	•	•	•	•	•	•	•	•	•
Wastewater, floodwater, river water and rainwater	•	•	•	•	•	•	•	•	•	•
Faeces, municipal and industrial sewage with long-fibre constituents	•	•	•	•	•	•	•	•	•	•
Non-bubble-forming sludge (up to 10% vol. dry substance)	•	•	•	•	•	•	•	•	•	•
Amount of solid matter 3%	•	•	•	•	•	•	•	•	•	•
Performance										
Power consumption P_1 3~400 V [kW]	4.8	5.4	7.1	8.8	10.1	15.4	19.6	23.9	12.6	17.5
Nominal motor power P_2 [kW]	3.2	3.8	5.9	7.2	8.4	12	16.5	20	10.8	14.8
Nominal current with 3~400 V [A]	8.9	9.8	14.2	16.5	18.5	28.9	34	41.6	27.6	34.7
Motor										
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F	F	F	F	F	F
Switching frequency [1/h]	60	60	60	60	60	60	60	60	60	60
Pump										
Fluid temperature, maximum [°C]	40	40	40	40	40	40	40	40	40	40
Cable type	NSSHöu, oil-resistant					NSSHöu, oil-resistant				
Cable length [m]	10	10	10	10	10	10	10	10	10	10
Cable cross-section 3~400 V [mm ²]	7x1.5		10x1.5			7x4 + 5x1.5				
Type of power cable	longitudinally watertight/detachable		longitudinally watertight/detachable			longitudinally watertight/detachable				

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-Drain TP 100, 150

	Wilo-Drain TP 100 ...					Wilo-Drain TP 150 ...				
	F 190/32	F 210/38	F 195/59	F 220/72	F 247/84	M 235/130	M 250/165	M 265/200	E 280/110	E 295/150
Pump (continued)										
Activation type	direct		star/delta			star/delta				
Ex protection	EEx d II B T4									
Free ball passage [mm]	100	100	100	100	100	100	100	100	125	125
Dimensions										
Weight [kg]	43	43	60	60	60	112	112	112	112	112
Materials										
Pump housing	PUR									
Impeller	PUR									
Shaft	1.0570/1.4404 (AISI 316L)									
Mechanical seal (bidirectional), pump side	SiC – SiC									
Mechanical seal (bidirectional), motor side	C–Cr									
Motor housing	1.4404 (AISI 316L)									

• = available or authorised, – = not available or not authorised

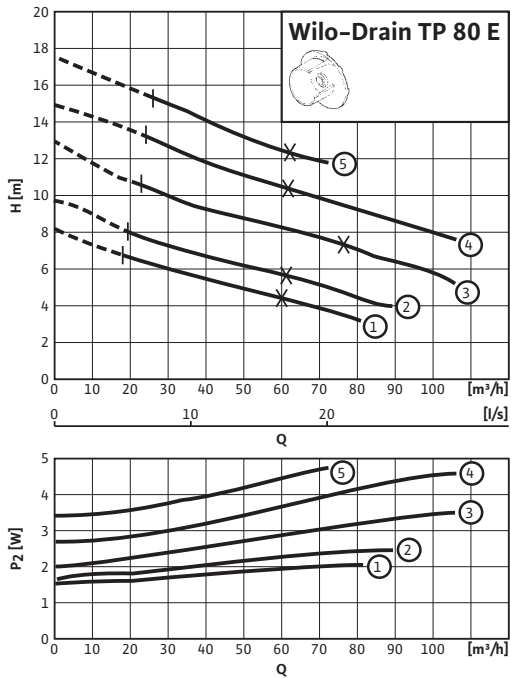
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves Wilo-Drain TP 80

Wilo-Drain TP 80 E

4-pole, 50 Hz



- 1 = TP 80 E 160/17
- 2 = TP 80 E 170/21
- 3 = TP 80 E 190/29
- 4 = TP 80 E 210/37
- 5 = TP 80 E 230/40

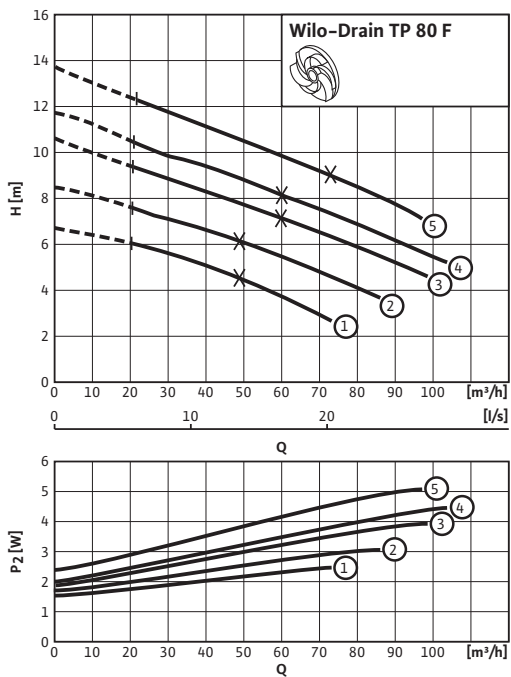
All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{min}
 X = Q_{optimal}

Recommended:
 Q_{optimal} +10% / -20%

Wilo-Drain TP 80 F

4-pole, 50 Hz



- 1 = TP 80 F 155/24
- 2 = TP 80 F 165/28
- 3 = TP 80 F 180/30
- 4 = TP 80 F 190/34
- 5 = TP 80 F 210/40

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{min}
 X = Q_{optimal}

Recommended:
 Q_{optimal} +10% / -20%

Sewage Pumps for Building Services

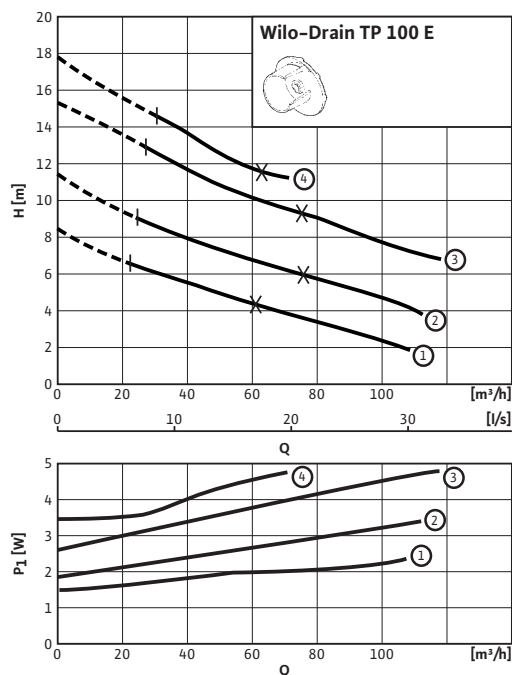
Submersible motor pumps without macerator



Pump curves Wilo-Drain TP 100 E

Wilo-Drain TP 100 E 160/17, 180/26, 210/32, 230/38

4-pole, 50 Hz



- 1 = TP 100 E 160/17
- 2 = TP 100 E 180/26
- 3 = TP 100 E 210/32
- 4 = TP 100 E 230/38

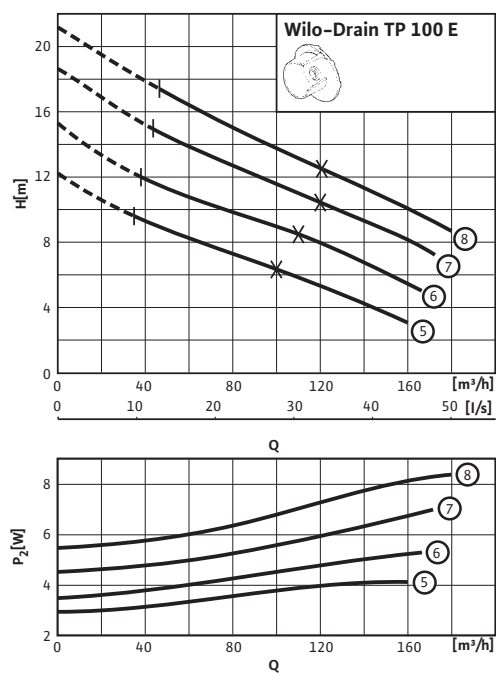
All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

$I = Q_{\min}$
 $X = Q_{\text{optimal}}$

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Wilo-Drain TP 100 E 190/39, 210/52, 230/70, 250/84

4-pole, 50 Hz



- 5 = TP 100 E 190/39
- 6 = TP 100 E 210/52
- 7 = TP 100 E 230/70
- 8 = TP 100 E 250/84

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

$I = Q_{\min}$
 $X = Q_{\text{optimal}}$

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Submersible Motor Pumps without Macerator

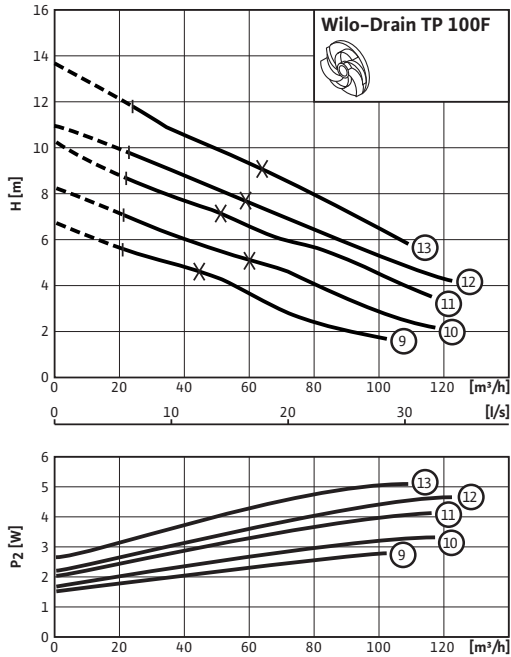
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves Wilo-Drain TP 100 F

Wilo-Drain TP 100 F 155/21, 165/26, 180/29, 190/32, 210/38

4-pole, 50 Hz



- 9 = TP 100 F 155/21
- 10 = TP 100 F 165/26
- 11 = TP 100 F 180/29
- 12 = TP 100 F 190/32
- 13 = TP 100 F 210/38

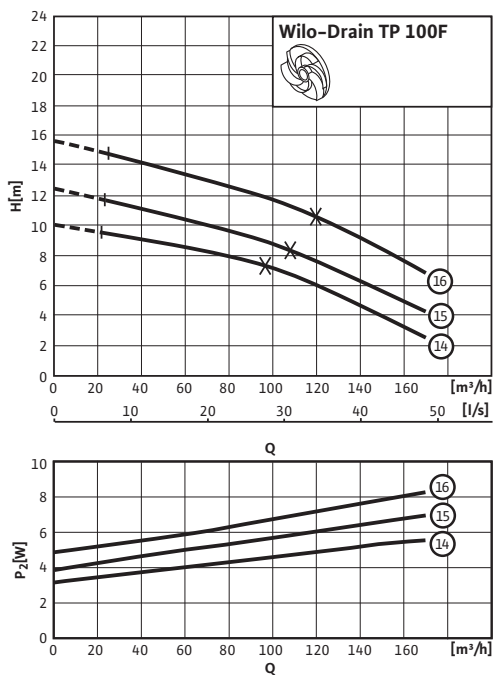
All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{\min}
 X = Q_{optimal}

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Wilo-Drain TP 100 F 195/59, 220/72, 247/84

4-pole, 50 Hz



- 14 = TP 100 F 195/59
- 15 = TP 100 F 220/72
- 16 = TP 100 F 247/84

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{\min}
 X = Q_{optimal}

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Sewage Pumps for Building Services

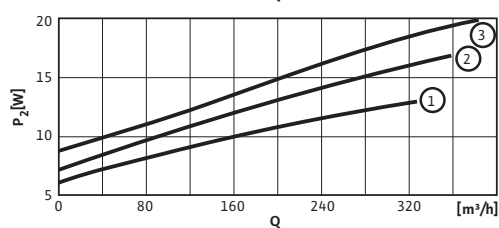
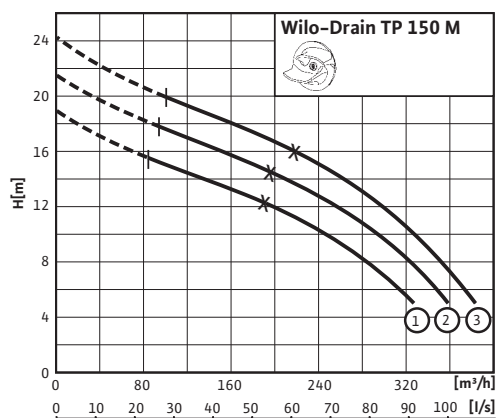
Submersible motor pumps without macerator



Pump curves Wilo-Drain TP 150

Wilo-Drain TP 150 M

4-pole, 50 Hz



- 1 = TP 150 M 235/130
- 2 = TP 150 M 250/165
- 3 = TP 150 M 265/200

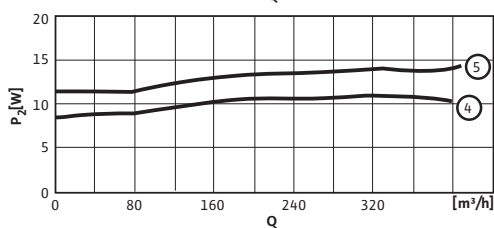
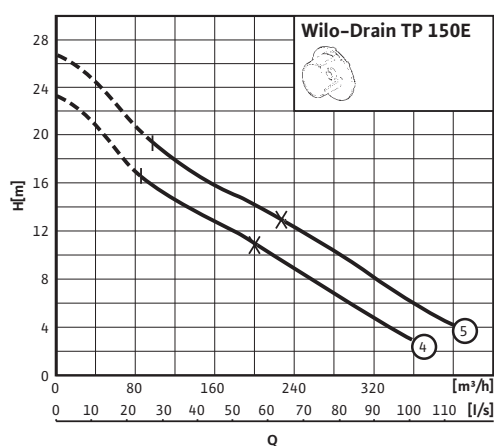
All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{\min}
 X = Q_{optimal}

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Wilo-Drain TP 150 E

4-pole, 50 Hz



- 4 = TP 150 E 280/110
- 5 = TP 150 E 295/150

All shown pump curves are valid for a density of $\rho = 1 \text{ kg/dm}^3$

I = Q_{\min}
 X = Q_{optimal}

Recommended:
 $Q_{\text{optimal}} +10\% / -20\%$

Sewage Pumps for Building Services

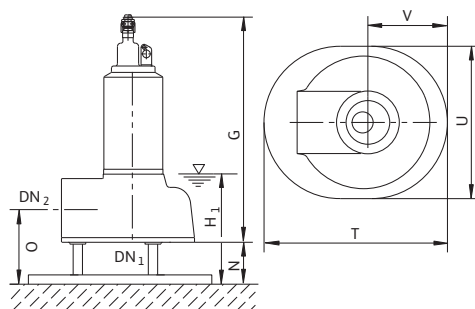
Submersible motor pumps without macerator



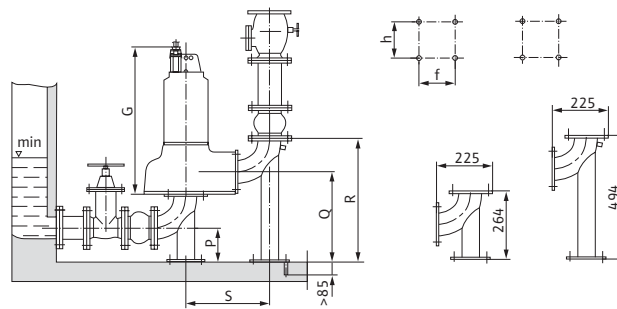
Dimensions Wilo-Drain TP 80

Dimension drawings

Portable wet sump installation



Dry sump installation, vertical



Dimensions

Wilo-Drain ...	Dimensions [mm]											
	DN ₁	DN ₂	A	B	C	D	E	F	G	H	I	J
TP 80 F	80	80	200	160	19	146	81	228	725	300	80	200
TP 80 E	100	80	200	160	19	146	81	228	725	300	80	200

Dimensions

Wilo-Drain ...	Dimensions [mm]											
	K	L	M	N	O	P	Q	R	S	T	U	V
TP 80 F	428	185	315	135	240	140	369	494	343	590	490	256
TP 80 E	428	185	315	135	240	140	369	494	343	590	490	256

Dimensions

Wilo-Drain ...	Dimensions [mm]										
	H ₁	H ₂	a	b	c	d	e	f	g	h	k
TP 80 F	355	365	200	170	170	220	14	130	–	130	14
TP 80 E	355	365	200	170	170	220	14	130	–	130	14

Submersible Motor Pumps without Macerator

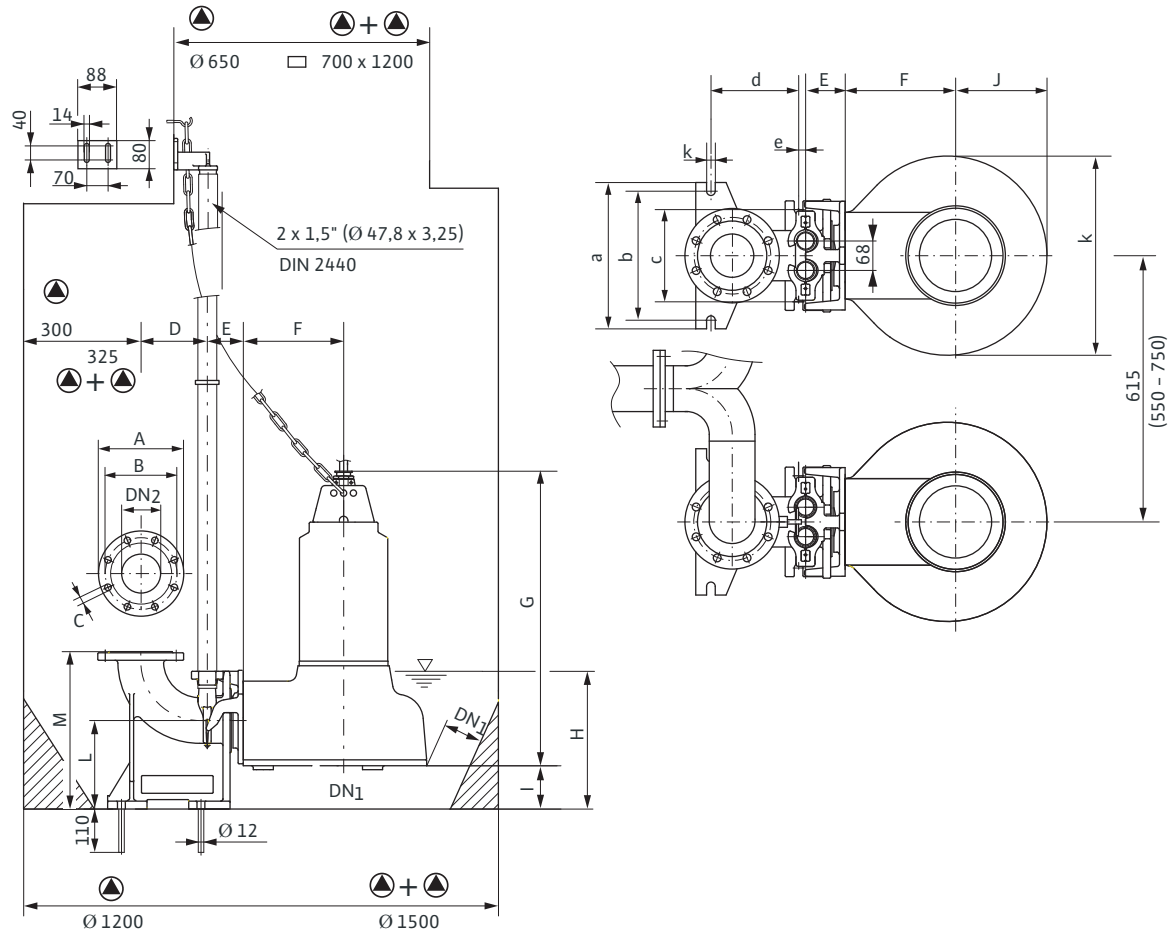
Sewage Pumps for Building Services

Submersible motor pumps without macerator

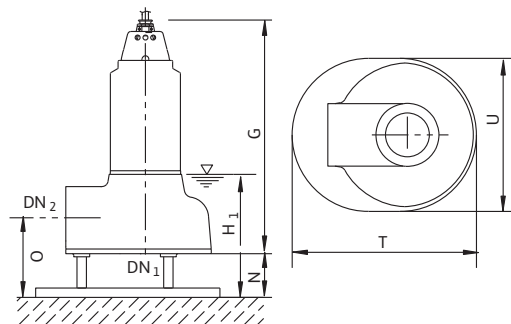
Dimensions Wilo-Drain TP 100

Dimension drawings

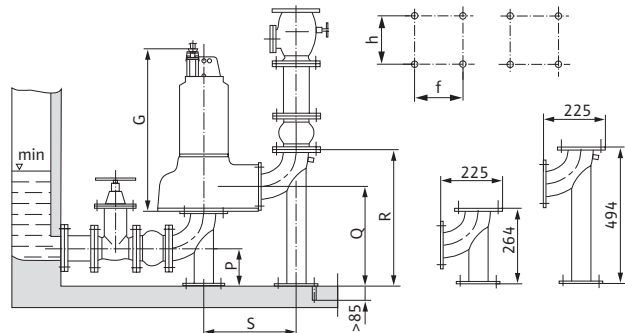
Stationary wet sump installation



Portable wet sump installation



Dry sump installation, vertical



Sewage Pumps for Building Services

Submersible motor pumps without macerator



Dimensions Wilo-Drain TP 100

Dimensions

Wilo-Drain TP 100 ...	Dimensions [mm]											
	DN ₁	DN ₂	A	B	C	D	E	F	G	H	I	J
E160/17, E180/26, E210/32, E230/38, F155/21, F165/26, F180/29, F190/32, F210/38	100	100	220	180	18	168	91	228	725	340	100	200
E190/39, E210/52, E230/70, E250/84, F195/59, F220/72, F247/84	100	100	220	180	18	168	91	255	745	350	100	223

Dimensions

Wilo-Drain TP 100 ...	Dimensions [mm]											
	K	L	M	N	O	P	Q	R	S	T	U	V
E160/17, E180/26, E210/32, E230/38, F155/21, F165/26, F180/29, F190/32, F210/38	428	225	400	135	250	175	453	625	390	590	490	–
E190/39, E210/52, E230/70, E250/84, F195/59, F220/72, F247/84	460	225	400	140	255	175	453	625	343	590	490	–

Dimensions

Wilo-Drain TP 100 ...	Dimensions [mm]										
	H ₁	H ₂	a	b	c	d	e	f	g	h	k
E160/17, E180/26, E210/32, E230/38, F155/21, F165/26, F180/29, F190/32, F210/38	355	365	340	300	210	203	16	120	0	120	20
E190/39, E210/52, E230/70, E250/84, F195/59, F220/72, F247/84	365	385	340	300	210	203	16	120	20	120	20

Submersible Motor Pumps without Macerator

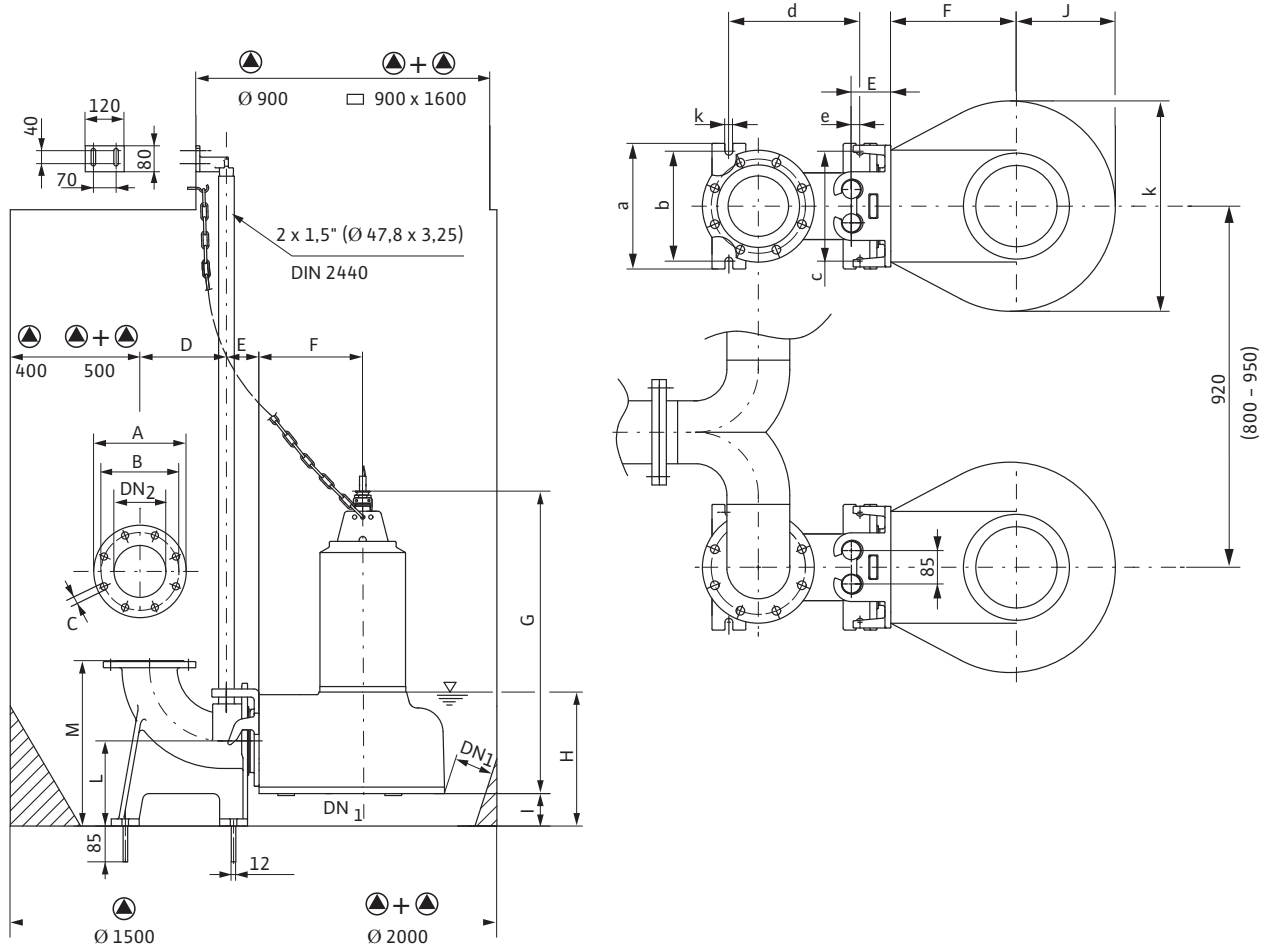
Sewage Pumps for Building Services

Submersible motor pumps without macerator

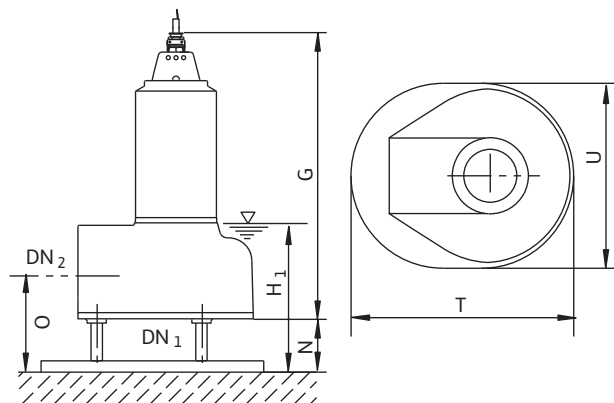
Dimensions Wilo-Drain TP 150

Dimension drawings

Stationary wet sump installation



Portable wet sump installation



Sewage Pumps for Building Services

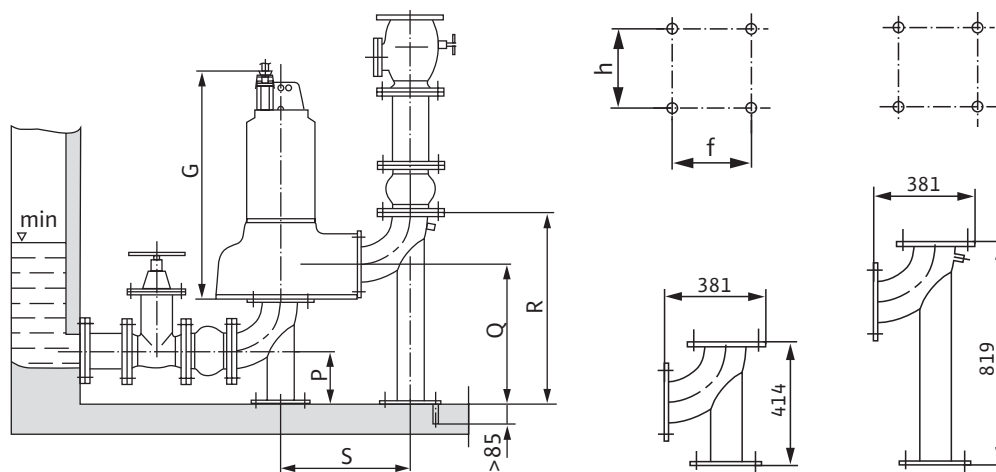
Submersible motor pumps without macerator



Dimensions Wilo-Drain TP 150

Dimension drawings

Dry sump installation, vertical



Dimensions

Wilo-Drain ...	Dimensions [mm]											
	DN ₁	DN ₂	A	B	C	D	E	F	G	H	I	J
TP 150	150	150	285	240	22	237	100.5	320	932	415	100	250

Dimensions

Wilo-Drain ...	Dimensions [mm]											
	K	L	M	N	O	P	Q	R	S	T	U	V
TP 150	536	265	510	130	298	175	580	819	555	621	536	-

Dimensions

Wilo-Drain ...	Dimensions [mm]										
	H ₁	H ₂	a	b	c	d	e	f	g	h	k
TP 150	450	445	320	280	280	335	11	150	26	150	20

Submersible Motor Pumps without Macerator

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Terminal diagrams Wilo-Drain TP 80, 100, 150

Terminal diagram Wilo-Drain TP 80 and TP 100 ($\leq P_2 = 3.5 \text{ kW}$)

Terminal	U ₁	V ₁	W ₁	TWC	TWC/PE	DI	PE
Core No.	1	2	3	4	5	6	green/yellow

3~400 V, 50 Hz

Terminal diagram Wilo-Drain TP 100 ($> P_2 = 3.5 \text{ kW}$)

Terminal	U ₁	V ₁	W ₁	V ₂	W ₂	U ₂	TWC	TWC/PE	DI	PE
Core No.	1	2	3	4	5	6	7	8	9	0

3~400 V, 50 Hz

Terminal diagram Wilo-Drain TP 150

Terminal	U ₁	V ₁	W ₁	V ₂	W ₂	U ₂	PE	TWC	TWC/PE	DI	–	–
Core No.	1	2	3	4	5	6	0	1	2	3	4	5

3~400 V, 50 Hz

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Series description Wilo-EMU FA



Construction

Submersible sewage pump as submersible monobloc unit for vertical wet installation

Scope of delivery

Pump ready for connection with 15 m connection cable with bare cable end and installation and operating instructions. (Other cable lengths on request).

Wilo-EMU FA

Submersible sewage pump

Type key

New:

Example: **Wilo-EMU FA 08.43-120E + T13-2/12H**

FA	Submersible sewage pump
08	Pressure-side connection DN 80
43	Hydraulics performance characteristic number
120	Impeller diameter
E	Impeller shape: E = Single-channel impeller W = Vortex impeller Z = multi-channel impeller
T	Motor version
13	Size
2	No. of poles
12	Motor construction length
H	Standard version K = Block gasket case G = Version with 2 GRD

Application

Wilo-EMU FA submersible motor pumps are suitable for pumping faeces, municipal and industrial sewage, even with long-fibre constituents, for:

- house and site drainage
- sewage and water management
- environmental and water treatment technology
- industrial and processing technology

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-EMU FA 08...

	Wilo-EMU FA 08...								
	.43-120E + T 13-2/12H	.43-135E + T 13-2/12H	.43-135E + T 13-2/16H	.43-150E + T 13-2/16H	.73-160W + T 17-2/22H	.73-160W + T 20.1-2/22G	.73-170W + T 20.1-2/22G	.66-195W + T 20.1-2/22G	.66-210W + T 20.1-2/22G
Approved fluids									
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•	•	•	•	•
Fire-fighting water	•	•	•	•	•	•	•	•	•
Heating water	• (up to 40°C)								
Hot water	• (up to 40°C)								
Boiler water	• (up to 40°C)								
Condensate	• (up to 40°C)								
Cooling water	•	•	•	•	•	•	•	•	•
Clean water	•	•	•	•	•	•	•	•	•
Untreated sewage/water	•	•	•	•	•	•	•	•	•
Drainage water	•	•	•	•	•	•	•	•	•
Semi-desalinated water	•	•	•	•	•	•	•	•	•
Rainwater	•	•	•	•	•	•	•	•	•
Swimming-pool water	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Sea water	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Wastewater, floodwater and river water	•	•	•	•	•	•	•	•	•
Domestic sewage and wastewater containing faeces	•	•	•	•	•	•	•	•	•
Faeces, municipal and industrial sewage with long-fibre constituents	•	•	•	•	•	•	•	•	•
Bubble-forming and non-bubble-forming sludges (up to 10% vol. dry substance)	bubble-forming conditionally, otherwise • (Impeller E up to 8%, W up to 10%)								
Amount of solid matter 3%	•	•	•	•	•	•	•	•	•
Very diluted alkalis	•	•	•	•	•	•	•	•	•
Stronger alkalis	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Mildly aggressive media	•	•	•	•	•	•	•	•	•
Acidic water	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Aggressive media	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.	w/rest.
Performance									
Power consumption P ₁ 3~400 V [kW]	4.7	4.7	6.0	6.0	12.3	18.6	18.6	18.6	18.6
Nominal motor power P ₂ [kW]	3.75	3.75	5.0	5.0	10.5	15.5	15.5	15.5	15.5
Nominal current with 3~400 V [A]	7.6	7.6	9.7	9.7	20.5	30.0	30.0	30.0	30.0

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-EMU FA 08...

	Wilo-EMU FA 08...								
	.43-120E + T 13-2/12H	.43-135E + T 13-2/12H	.43-135E + T 13-2/16H	.43-150E + T 13-2/16H	.73-160W + T 17-2/22H	.73-160W + T 20.1-2/22G	.73-170W + T 20.1-2/22G	.66-195W + T 20.1-2/22G	.66-210W + T 20.1-2/22G
Motor									
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F	F	F	F	F
Switching frequency [1/h]	+15	15	15	15	15	15	15	15	15
Pump									
Submersion depth, maximum [m]	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Fluid temperature [°C]	40	40	40	40	40	40	40	40	40
Fluid temperature briefly possible [°C]	60	60	60	60	60	60	60	60	60
Density of the fluid, maximum [kg/m³]	1030	1030	1030	1030	1030	1030	1030	1030	1030
Cable type	H07 RN-F, round					Power lead-in: NSSHÖU-J Control cable: NSSHÖU-O			
Cable length [m]	10	10	10	10	10	10	10	10	10
Cable cross-section 3~400 V [mm²]	7G1.5	7G1.5	10G1.5	10G1.5	10G1.5	Power lead-in: 2x(4x2.5) Control cable: 7x1.5			
Type of power cable	Rubber hose line								
Activation type	direct		star/delta						
Oil volume gasket housing [l]	0.55	0.55	0.55	0.55	2	3.3	3.3	3.3	3.3
Ex protection	-	-	-	-	-	-	-	-	-
Free ball passage [mm]	70	70	70	70	80	80	80	50	50
Dimensions									
Pressure port DN	80	80	80	80	80	80	80	80	80
Weight [kg]	55	55.5	59	59.5	119	199	199.5	198	198
Materials									
Pump housing	EN-GJL-200								
Impeller	EN-GJS-500-7				EN-GJL-200			EN-GJS-500-7	
Shaft	1.4021 (AISI 420)								
Mechanical seal (bidirectional) on pump side	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
on the motor end	-	-	-	-	-	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Static seals	FPM/ NBR	FPM/ NBR	FPM/ NBR	FPM/ NBR	FPM/ NBR	FPM/ NBR	FPM/ NBR	FPM/ NBR	FPM/ NBR
Rotary shaft seal, on motor side	FPM	FPM	FPM	FPM	FPM	-	-	-	-
Motor housing	EN-GJL-200								

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator

Technical data Wilo-EMU FA 10...

	Wilo-EMU FA 10...					
	.34-234E + T 17-4/16H	.34-258E + T 17.2-4/24H	.34-278E + T 17.2-4/24H	.78-330Z + T 24-4/29K	.78-370Z + T 24-4/29K	.78-410Z + T 24-4/36K
Approved fluids						
Washing machine soap and water mixture (without long-fibre constituents)	•	•	•	•	•	•
Water from automobile washing plants	•	•	•	•	•	•
Bath water, unchlorinated	•	•	•	•	•	•
Fire-fighting water	•	•	•	•	•	•
Heating water	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)
Hot water	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)
Boiler water	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)
Condensate	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)	• (up to 40°C)
Cooling water	•	•	•	•	•	•
Clean water	•	•	•	•	•	•
Untreated sewage/water	•	•	•	•	•	•
Drainage water	•	•	•	•	•	•
Semi-desalinated water	•	•	•	•	•	•
Rainwater	•	•	•	•	•	•
Swimming-pool water	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions
Sea water	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions
Wastewater, floodwater and river water	•	•	•	•	•	•
Domestic sewage and wastewater containing faeces	•	•	•	•	•	•
Faeces, municipal and industrial sewage with long-fibre constituents	•	•	•	•	•	•
Bubble-forming and non-bubble-forming sludges (up to 10% vol. dry substance)	Bubble-forming conditionally, otherwise • (Impeller E up to 8%, Z up to 10%)					
Amount of solid matter 3%	•	•	•	•	•	•
Very diluted alkalis	•	•	•	•	•	•
Stronger alkalis	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions
Mildly aggressive media	•	•	•	•	•	•
Acidic water	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions
Aggressive media	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions	with restrictions
Performance						
Power consumption P ₁ 3~400 V [kW]	8.2	12.2	12.2	28.5	28.5	39.0
Nominal motor power P ₂ [kW]	6.5	10.0	10.0	25.0	25.0	34.0
Nominal current with 3~400 V [A]	13.5	21.0	21.0	49.5	49.5	68.0

• = available or authorised, – = not available or not authorised

Sewage Pumps for Building Services

Submersible motor pumps without macerator



Technical data Wilo-EMU FA 10...

	Wilo-EMU FA 10...					
	.34-234E + T 17-4/16H	.34-258E + T 17.2-4/24H	.34-278E + T 17.2-4/24H	.78-330Z + T 24-4/29K	.78-370Z + T 24-4/29K	.78-410Z + T 24-4/36K
Motor						
Protection class with maximum submersion depth	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68
Insulation class	F	F	F	F	F	F
Switching frequency [1/h]	15	15	15	15	15	15
Pump						
Submersion depth, maximum [m]	12.5	12.5	12.5	12.5	12.5	12.5
Fluid temperature [°C]	40	40	40	40	40	40
Fluid temperature briefly possible [°C]	60	60	60	60	60	60
Density of the fluid, maximum [kg/m ³]	1030	1030	1030	1030	1030	1030
Cable type	H07 RN-F, round			Power lead-in: NSSHÖU-J Control cable: NSSHÖU-O		
Cable length [m]	10	10	10	10	10	10
Cable cross-section 3~400 V [mm ²]	10G1.5	10G1.5	10G1.5	Power lead-in: 2x(4x4)x Control cable:2x1.5	Power lead-in: 7x2.5 Control cable:2x1.5	
Type of power cable	Rubber hose line					
Activation type	star/delta					
Oil volume gasket housing [l]	2	2	2	8.6	8.6	8.6
Free ball passage [mm]	80	80	80	80	80	80
Dimensions						
Pressure port DN	100	100	100	100	100	100
Weight [kg]	106	137	139	361	376	415
Materials						
Pump housing	EN-GJL-250	EN-GJL-25	EN-GJL-25	EN-GJS-500-7		
Impeller	EN-GJL-250	EN-GJL-25	EN-GJL-25	EN-GJS-500-7		
Shaft	1.4021 (AISI 420)					
Mechanical seal (bidirectional), pump side	SiC/SiC	SiC/SiC	SiC/SiC	Cartridge: SiC/SiC, Housing: 1.4021 (AISI 420)		
Mechanical seal (bidirectional), motor side	-	-	-	Cartridge: SiC/SiC, Housing: 1.4021 (AISI 420)		
Static seals	FPM/NBR	FPM/NBR	FPM/NBR	FPM/NBR	FPM/NBR	FPM/NBR
Rotary shaft seal, on motor side	FPM	FPM	FPM	-	-	-
Motor housing	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250	EN-GJL-250

• = available or authorised, – = not available or not authorised

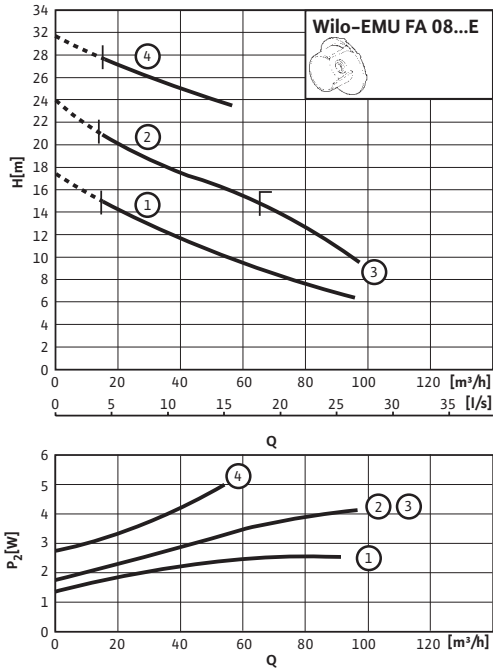
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Pump curves Wilo-EMU FA

Wilo-EMU FA 08 E

2-pole, 50 Hz

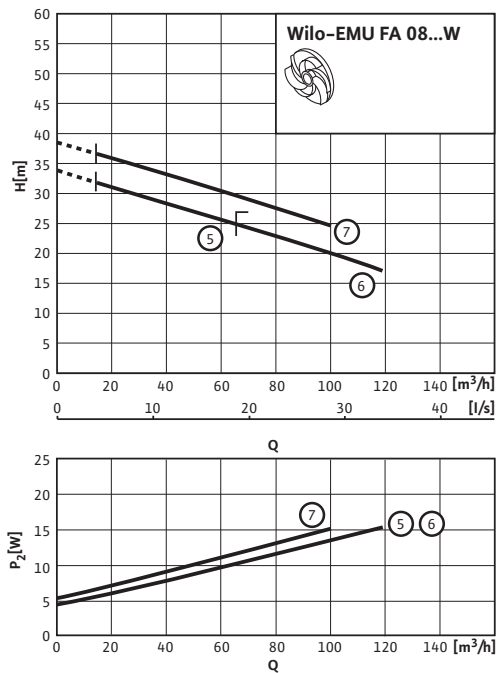


- 1 = FA 08.43-120E + T 13-2/12H
- 2 = FA 08.43-135E + T 13-2/12H
- 3 = FA 08.43-135E + T 13-2/16H
- 4 = FA 08.43-150E + T 13-2/16H

l = Q_{\min}
 [= Q_{\max} for pump curve 2

Wilo-EMU FA 08 W

2-pole, 50 Hz



- 5 = FA 08.73-160W + T 17-2/22H
- 6 = FA 08.73-160W + T 20.1-2/22G
- 7 = FA 08.73-170W + T 20.1-2/22G

l = Q_{\min}
 [= Q_{\max} for pump curve 5

Sewage Pumps for Building Services

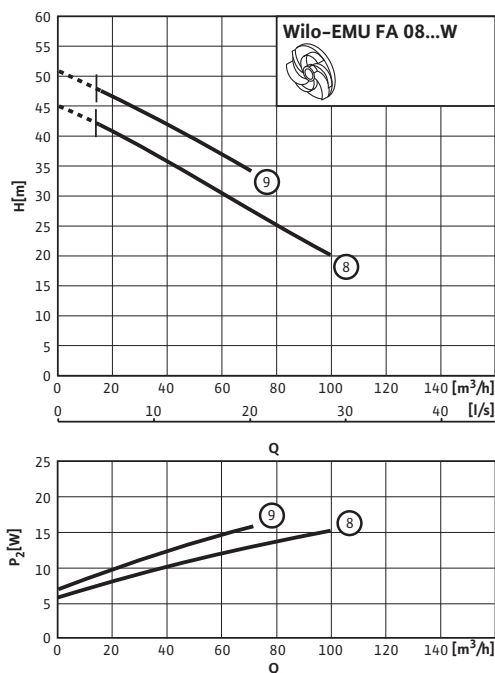
Submersible motor pumps without macerator



Pump curves Wilo-EMU FA

Wilo-EMU FA 08 W

2-pole, 50 Hz



8 = FA 08.66-195W + T 20.1-2/22G

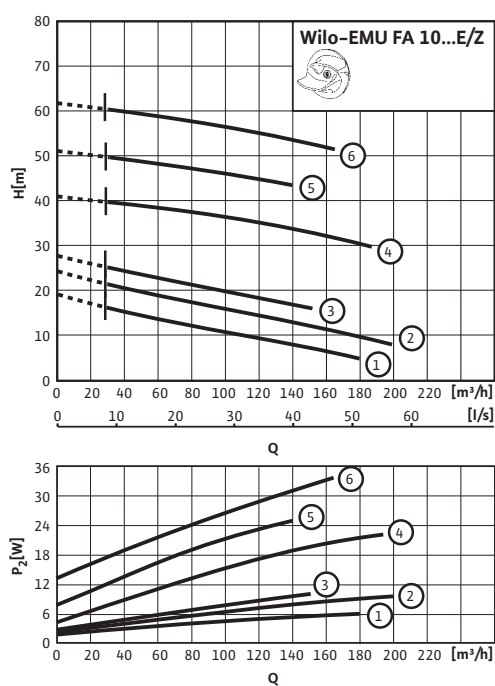
9 = FA 08.66-210W + T 20.1-2/22G

$I = Q_{\min}$

Submersible Motor Pumps without Macerator

Wilo-EMU FA 10 E/Z

4-pole, 50 Hz



1 = FA 10.34-234E + T 17-4/16H

2 = FA 10.34-258E + T 17.2-4/24H

3 = FA 10.34-278E + T 17.2-4/24H

4 = FA 10.78-330Z + T 24-4/29K

5 = FA 10.78-370Z + T 24-4/29K

6 = FA 10.78-410Z + T 24-4/36K

$I = Q_{\min}$

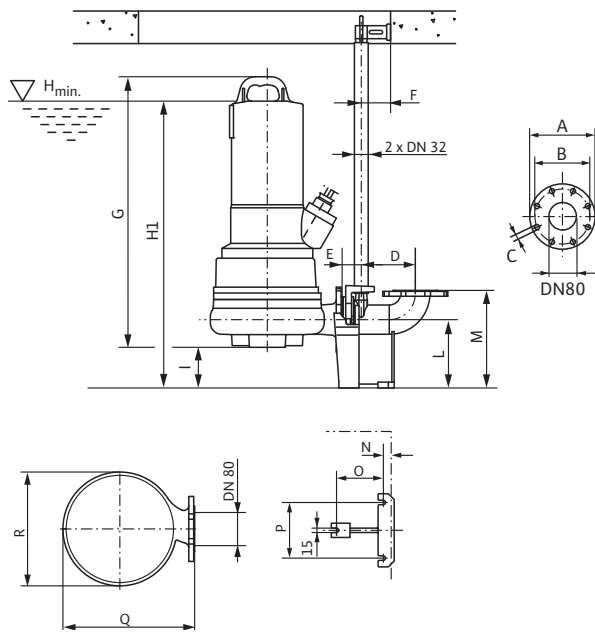
Sewage Pumps for Building Services

Submersible motor pumps without macerator

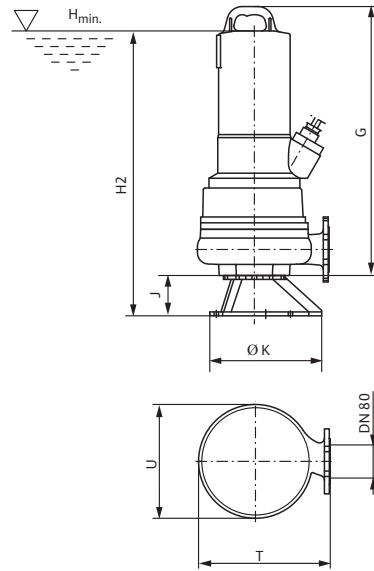
Dimensions Wilo-EMU FA 08

Dimension drawings

Stationary wet sump installation



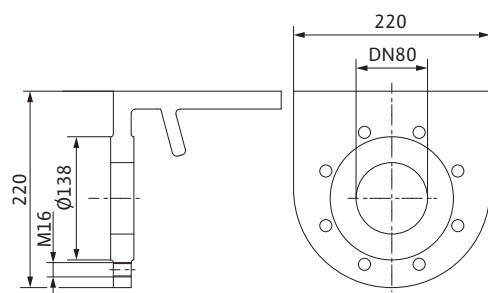
Portable wet sump installation



Dimensions

Wilo-EMU FA 08...	Dimensions [mm]																		
	A	B	C	D	E	F	G	H1	H2	I	J	ØK	L	M	N	O	P	Q	R
.43-120E + T 13-2/12H	200	160	18	166	59	90	539	580	580	119	124	344	210	300	21	120	170	264	229
.43-135E + T 13-2/12H	200	160	18	166	59	90	539	580	580	119	124	344	210	300	21	120	170	264	229
.43-135E + T 13-2/16H	200	160	18	166	59	90	594	635	635	119	124	344	210	300	21	120	170	264	229
.43-150E + T 13-2/16H	200	160	18	166	59	90	594	635	635	119	124	344	210	300	21	120	170	264	229
.73-160W + T 17-2/22H	200	160	18	166	59	90	753	790	805	110	124	344	210	300	21	120	170	374	340
.73-160W + T 20.1-2/22G	200	160	18	166	59	90	954	974	989	110	124	344	210	300	21	120	170	374	340
.73-170W + T 20.1-2/22G	200	160	18	166	59	90	954	974	989	110	124	344	210	300	21	120	170	374	340
.66-195W + T 20.1-2/22G	200	160	18	166	59	90	911	944	939	125	124	344	210	300	21	120	170	405	350
.66-210W + T 20.1-2/22G	200	160	18	166	59	90	911	944	939	125	124	344	210	300	21	120	170	405	350

Mechanical accessories "stationary wet sump installation"



Adapter flange for connecting an FA 08 pump to a Flygt suspension unit

Sewage Pumps for Building Services

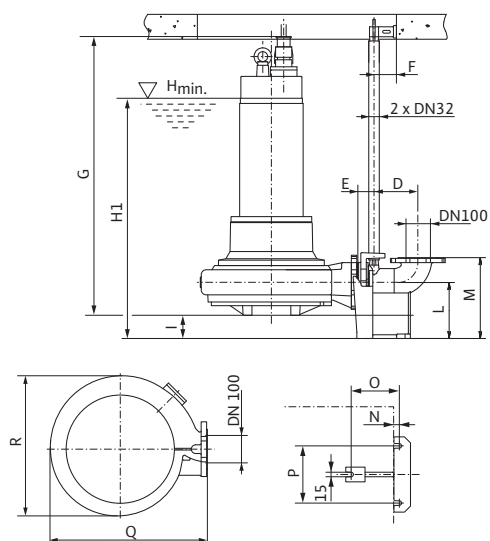
Submersible motor pumps without macerator



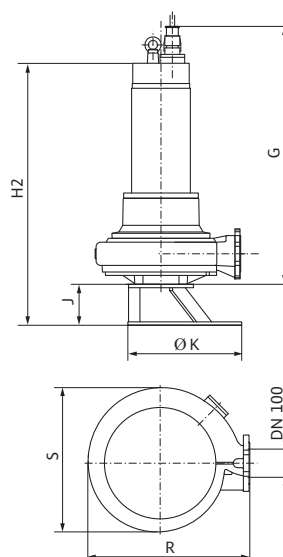
Dimensions Wilo-EMU FA 10

Dimension drawings

Stationary wet sump installation



Portable wet sump installation



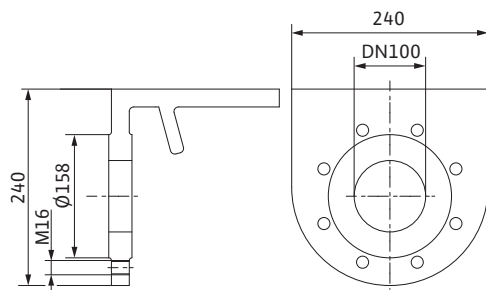
Dimensions

Wilo-EMU FA 10...

Dimensions
[mm]

	A	B	C	D	E	F	G	H1	H2	I	J	ØK	L	M	N	O	P	Q	R
.34-234E + T 17-4/16H	220	180	18	176	65	90	664	710	715	120	124	320	225	325	19	160	190	448	394
.34-258E + T 17.2-4/24H	220	180	18	176	65	90	744	670	795	120	124	320	225	325	19	160	190	448	394
.34-278E + T 17.2-4/24H	220	180	18	176	65	90	744	670	795	120	124	320	225	325	19	160	190	448	394
.78-330Z + T 24-4/29K	220	180	18	241	109	120	1160	1160	1155	183	180	500	320	540				635	563
.78-370Z + T 24-4/29K	220	180	18	241	109	120	1160	1160	1155	183	180	500	320	540	on request			635	563
.78-410Z + T 24-4/36K	220	180	18	241	109	120	1230	1230	1225	183	180	500	320	540				635	563

Mechanical accessories "stationary wet sump installation"



Adapter flange for connecting an FA 10 pump to a Flygt suspension unit

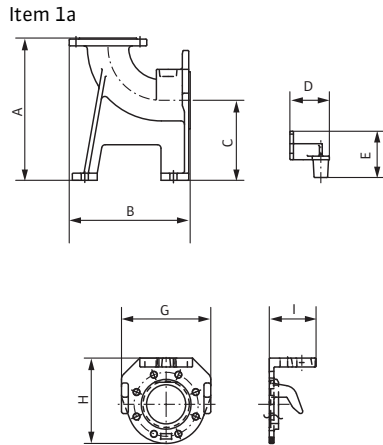
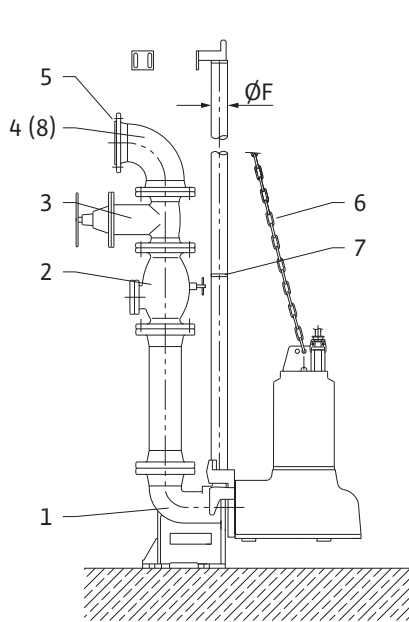
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories Wilo-Drain STS 80, 100 / TP 80, 100, 150

Stationary wet sump installation

For Wilo-Drain STS 80, 100 / TP 80, 100, 150



STS, TP: Base support elbow (item 1a)
GG 25 (EN-GJL-250) with pump holder, profile joint, installation and floor fixation accessories and guide tube bracket, GG 25 (EN-GJL-250), flange PN 10/16 in acc. with DIN 2501 for DN 80/100.

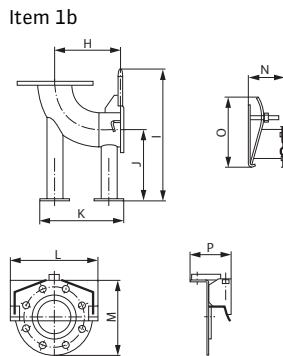
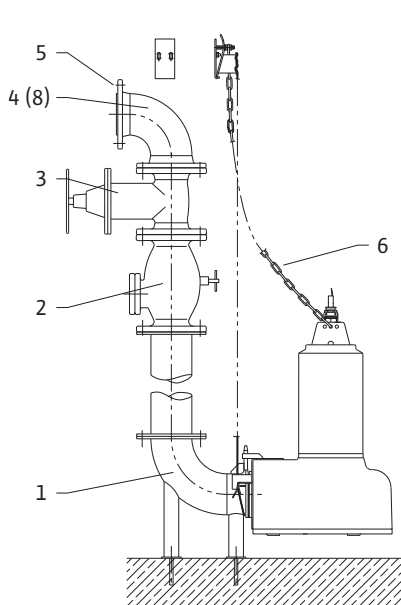
Guide tube (2 x 1 1/4" DN 80, 2 x 1 1/2" DN 100) is to be provided onsite.

	STS/TP 80	STS/TP 100	TP 150
A	300	400	510
B	303.4	339	447
C	180	225	263
D	105	110	116
E	110	130	130
F	Ø 42.4 x 3.25	Ø 47.8 x 3.25	Ø 47.8 x 3.25
G	225	250	310
H	210.5	238	300
I	118.5	132	145.5

For Wilo-EMU FA 08, 10

see pump dimension drawing

For Wilo-Drain STS 80, 100 / TP 80, 100, 150



or item 1b
Stainless steel with pump holder, profile joint, mounting and floor fixation accessories and stainless steel rope guide 10 m for 5 m installation depth, flange PN 10/16, in acc. with DIN 2501 made of stainless steel, like 1a, but with stainless steel rope guide for 5 m installation depth

	STS/TP 80	STS/TP 100	TP 150
H	180	240	316
I	345	385	501
J	185	215	262.5
K	217	350	350
L	232	250	340
M	211	246	310
N	95	95	95
O	182	182	182
P	109	129	210

Sewage Pumps for Building Services

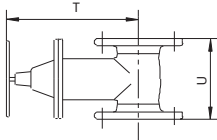
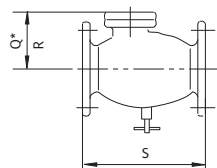
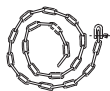
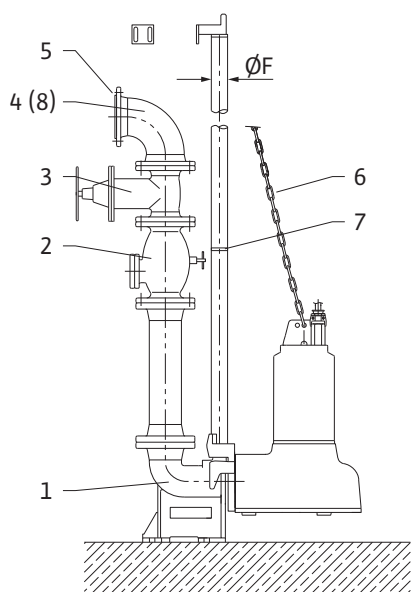
Submersible motor pumps without macerator



Mechanical accessories Wilo-Drain STS 80, 100 / TP 80, 100, 150

Stationary wet sump installation

For Wilo-EMU FA 08, 10, Wilo-Drain STS 80, 100 / TP 80, 100, 150



Chain (item 6)

Made of stainless steel, incl. shackles
Length: 5 and 10 m, lifting capacity: 400 kg

Non-return valve (item 2)

Made of GG 25, (EN-GJL-250), with non-constricted passage, including cleaning aperture and ventilation device, mounting accessories, flange PN 10/16, in acc. with DIN 2501, with (*) or without drawing No. (drawing No. 53.4-309) DN 80/100/150

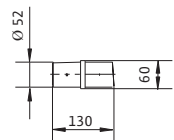
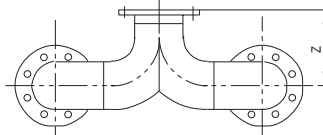
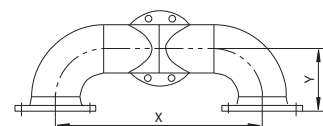
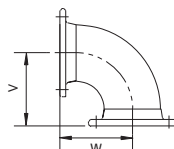
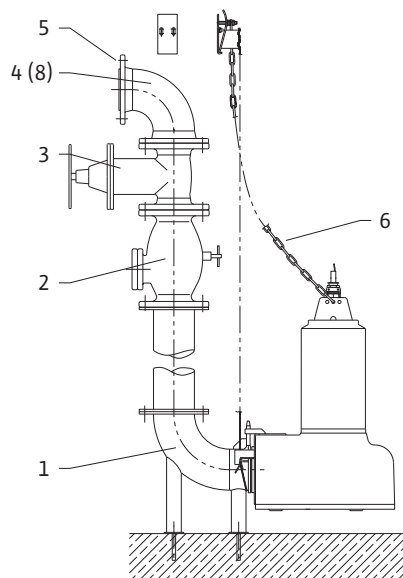
	DN 80	DN 100	DN 150
Q	240	270	335
R	245	282	397
S	260	300	400

Gate valve (item 3)

Made of GG 25, (EN-GJL-250) mounting accessories, flange PN 10/16 in acc. with DIN 2501, DN 80/100/150

	DN 80	DN 100	DN 150
T	295	325	425
U	180	190	210

For Wilo-Drain STS 80, 100 / TP 80, 100, 150



Bend (item 4)

Made of GGG (EN-GJS-400-15), with 2 flanges, mounting accessories for a flange connection, flange PN 10/16, DIN 28637, DN 80/100/150

	DN 80	DN 100	DN 150
V	165	180	220
W	165	180	220

Y-piece (item 8)

For double-pump systems
Made of galvanized steel 37 with 2 sets of mounting accessories, flange PN 10/16, DIN 2501, DN 80/80/80, 100/100/100 or 150/150/150

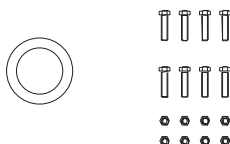
	DN 80	DN 100	DN 150
X	615	615	920
Y	168	208	287
Z	167	207	287

STS/TP 80, 100 Pipe connector, (item 7)

Made of galvanised steel, fits guide tube 2", required with guide tube more than 6 m in length

Mounting accessories (item 5)

For flange connection with 8 screws and nuts, as well as 1 flat gasket, for flange PN 10/16, DIN 2501



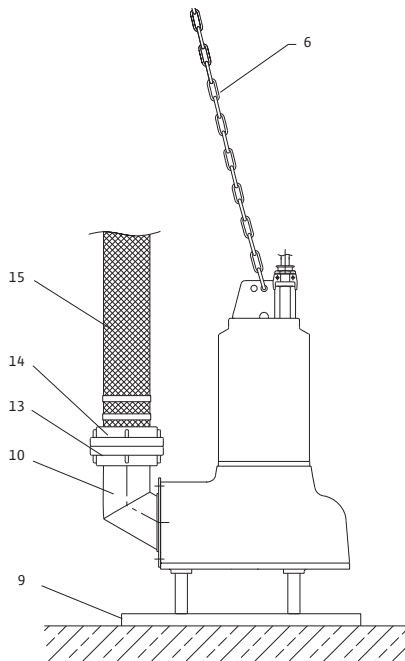
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories Wilo-Drain STS 80, 100 / TP 80, 100, 150

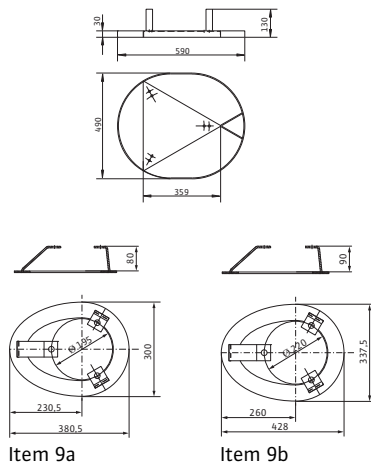
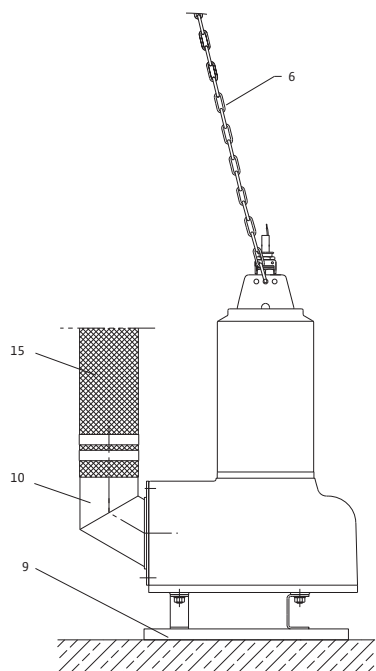
Portable wet sump installation

For Wilo-Drain STS 80, 100 / TP 80, 100, 150



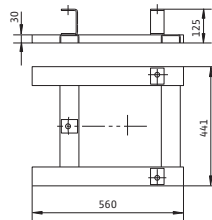
For Wilo-EMU FA 08, 10
see pump dimension drawing

For Wilo-Drain TP 150



Item 9a

Item 9b



TP 80/100 Ground support foot (item 9)

Made of stainless steel, comprising 3 support feet, 1 base plate and fixation material

STS 80 (item 9a)

STS 100 (item 9b)

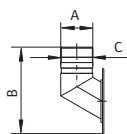
Comprising 3 support feet, 1 base plate and fixation material

TP 150 Ground support foot (item 9)

Made of stainless steel, comprising 3 support feet, 1 base plate and fixation material

Chain (item 6)

Made of stainless steel, incl. shackles
Length: 5 and 10 m, lifting capacity: 400 kg



Bend (item 10)

Made of stainless steel, anchoring option for direct hose connection or installation of Storz-pipe coupling. Variable set-up possible with 45° hole pitch (TP 100, 150)

	DN 80	DN 100	DN 150
A	G 3	G 4	Ø 148
B	240	280	432.5
C	Ø 89	—	—

Storz-pipe coupling for installation on the pipe bend (item 13)

Made of aluminium, with R3 or R4 female thread for nominal connection width 80/100

	DN 80	DN 100
D	40	48
E	Ø 78	Ø 100
F	105	133
G	R 3	R 4

Sewage Pumps for Building Services

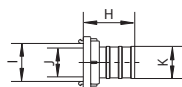
Submersible motor pumps without macerator



Mechanical accessories Wilo-Drain STS 80, 100 / TP 80, 100, 150

Portable wet sump installation

For Wilo-Drain STS 80, 100 / TP 80, 100, 150



Storz-hose coupling (item 14)

Made of aluminium, for hose interior ϕ 90/110 mm

	DN 80	DN 100
H	140	170
I	105	133
J	ϕ 80	ϕ 100
K	ϕ 90	ϕ 110



can be wound up

Pressure hose for direct hose connection (item 15)

Material: Synthetic material P 8 incl. 2 hose clips, hose inside ϕ 90/110/150 mm, length 10, 20 and 30 m

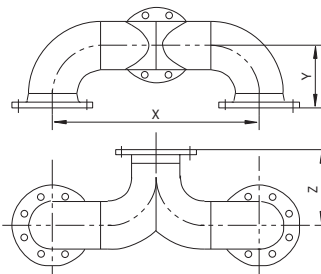
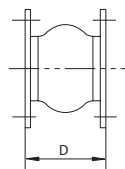
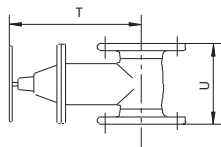
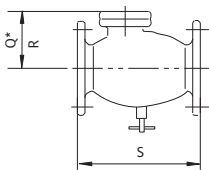
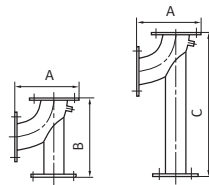
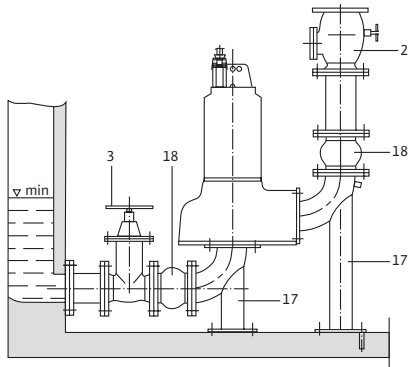
Sewage Pumps for Building Services

Submersible motor pumps without macerator

Mechanical accessories Wilo-Drain TP 80, 100, 150

Stationary, dry sump installation, vertical

For Wilo-Drain TP 80, 100, 150



Set-up set (item 17)

Including fixation material and 2 flange connections (on the pressure and inlet side).

	TP 80	TP 100	TP 150
A	225	272	381
B	264	337	414
C	494	625	819

Non-return valve (item 2)

Made of GG 25, (EN-GJL-250), with non-constricted passage, including cleaning aperture and ventilation device, mounting accessories, flange PN 10/16, in acc. with DIN 2501, with or without drawing No. (drawing No. 53.4-309),

	TP 80	TP 100	TP 150
Q	240	270	335
R	245	282	397
S	260	300	400

Gate valve (item 3)

Made of GG 25, (EN-GJL-250) mounting accessories, flange PN 10/16 in acc. with DIN 2501, DN 80/100/150

	TP 80	TP 100	TP 150
T	325/295*	325	425
U	190/180*	190	210

* Inlet DN 100/pressure side DN 80

Compensator (item 18)

Made of galvanized steel, PN 10/16, with mounting accessories, DN 80/100/150

	TP 80	TP 100	TP 150
D	135/130*	135	180

* Inlet DN 100/pressure side DN 80

Y-piece (item 8)

For double-pump systems

Made of galvanized steel 37 with 2 sets of mounting accessories, flange PN 10/16, DIN 2501,

DN 80/80/80, 100/100/100 or 150/150/150

	TP 80	TP 100	TP 150
X	615	615	920
Y	68	208	287
Z	167	207	287

Electrical accessories Wilo-Drain

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Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

Recommended accessories

		Wilo-EC-Drain 1x4,0 ¹⁾	Wilo-EC-Drain 2x4,0 ²⁾	Wilo-Drain- Control (PL1 ¹⁾)	Wilo-Drain- Control PL1 WS ¹⁾	Wilo-Drain- Control (PL2 ²⁾)	Wilo-Drain- Control PL2 WS ²⁾	Wilo-Drain- Control 1 ¹⁾	Wilo-Drain- Control 2 ²⁾
Submersible motor pumps									
Wilo-Drain MTC 40		o	o	•	o	•	o	o	o
Wilo-Drain MTC 32		o*	o*	o*	o*	o*	o*	•	•
Wilo-Drain MTS 40		o	o	•	o	•	o	o	o
Wilo-Drain TC 40		•	•	o	o	o	o	o	o
Wilo-Drain STS 40		•	•	o	o	o	o	o	o
Wilo-Drain STS 65	for application with Ex protection	•	•	o	o	o	o	o	o
	for application without Ex protection	•	•	o	o	o	o	o	o
Wilo-Drain STS 80, 100	for application with Ex protection	o*	o*	o*	o*	o*	o*	•	•
	for application without Ex protection	o*	o*	o*	o*	o*	o*	•	•
Wilo-Drain TP 50		•	•	o	o	o	o	o	o
Wilo-Drain TP 65		o	o	•	o	•	o	o	o
Wilo-Drain TP 80, 100, 150	for application with Ex protection	–	–	–	–	–	–	•	•
	for application without Ex protection	–	–	–	–	–	–	•	•
Wilo-EMU FA 08/FA 10		o*	o*	o*	o*	o*	o*	•	•

• = recommended o = optional o* = optional (up to 4 kW motor power), ••• = only for EC drain 2x4.0, – = not required

¹⁾ switchgear for 1 pump, ²⁾ switchgear for 2 pumps

Recommended accessories

	Wilo KAS	Wilo-Drain-Alarm 2	Wilo-Alarm-Control 1	Wilo-Alarm-Control 2	Motor protection plug CEE	Level sensor	Float switch MS1	Float switch WA
Submersible motor pumps								
Wilo-Drain MTC 40	o	o	o	o	o	o	o	o
Wilo-Drain MTC 32	o	o	o	o	o	•	o	o
Wilo-Drain MTS 40	o	o	o	o	o	o	o	o
Wilo-Drain TC 40	o	o	o	o	o	o	o	•
Wilo-Drain STS 40	o	o	o	o	o	o	o	•
Wilo-Drain STS 65	for application with Ex protection	o	o	o	o	o	•**	•
	for application without Ex protection	o	o	o	o	o	•**	•
Wilo-Drain STS 80, 100	for application with Ex protection	o	o	o	—	o*	•	o
	for application without Ex protection	o	o	o	—	o*	•	o
Wilo-Drain TP 50	o	o	o	o	o	o	o	•
Wilo-Drain TP 65	o	o	o	o	o	o	o	o
Wilo-Drain TP 80, 100, 150	for application with Ex protection	o	o	o	—	o*	•	o
	for application without Ex protection	o	o	o	—	o*	•	o
Wilo-EMU FA 08/FA 10	o	o	o	—	o*	•	o	o

• = recommended o = optional o* = optional (up to 4 kW motor power), ** = only for EC drain 2x4.0, — = not required

Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

Recommended accessories

	Dynamic pressure system	Bubbling-through system	Ex-uncoupling relay	Breakdown barrier	Switch cabinet	Flash light	Signal horn
Submersible motor pumps							
Wilo-Drain MTC 40	•	°	°	°	°	°	°
Wilo-Drain MTC 32	°	°	°	•	°	°	°
Wilo-Drain MTS 40	•	°	°	°	°	°	°
Wilo-Drain TC 40	°	°	–	–	°	°	°
Wilo-Drain STS 40	°	°	–	–	°	°	°
Wilo-Drain STS 65	°	°	•	°	°	°	°
	for application with Ex protection						
	for application without Ex protection	°	°	°	°	°	°
Wilo-Drain STS 80, 100	°	°	°	•	°	°	°
	for application with Ex protection						
	for application without Ex protection	°	°	°	°	°	°
Wilo-Drain TP 50	°	°	°	°	°	°	°
Wilo-Drain TP 65	•	°	°	°	°	°	°
Wilo-Drain TP 80, 100, 150	–	°	°	•	°	°	°
	for application with Ex protection						
	for application without Ex protection	–	°	°	°	°	°
Wilo-EMU FA 08/FA 10	°	°	–	–	°	°	°

• = recommended, ° = optional, – = not required

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The Wilo factory customer service technicians are partners who are there for you with their practical support in all of Germany 365 days a year. Your personal contact partner on site offers you all conceivable support. This local service works so well thanks to our unparalleled organisational structure. Everything comes together in our factory-owned Wilo Service Centre. Based on this, every service call is coordinated perfectly via your personal control centre, and the Wilo customer service technician will be on site to give optimum support with a lot of useful information. Exemplary? We call this Pumpen Intelligenz.

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Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

Equipment/function							
	Wilo-EC-Drain 1x4,0	Wilo-EC-Drain 2x4,0	Wilo-DrainControl PL 1/PL 1 WS	Wilo-DrainControl PL 2/PL 2 WS	Wilo-DrainControl 1	Wilo-DrainControl 2	Wilo KAS
Application							
Switchgear for pump control	•	•	•	•	•	•	-
Alarm switchgear	-	-	-	-	-	-	•
Number of pumps to be controlled	1	2	1	2	1	2	-
Electrical connection							
Direct activation [A]	max. 12	max. 2 x 12	max. 12	max. 2 x 12	max. 10	max. 2 x 10	-
Star/delta switching	-	-	-	-	> 10 A	> 10 A	-
Construction							
Microprocessor-controlled	-	•	•	•	•	•	-
Electronic	•	-	-	-	-	-	•
Housing material							
Plastic	•	•	•	•	•	•	•
Metal	-	-	-	-	-	-	-
Equipment							
Test run	-	•	•	•	-	-	-
Pump starts counter/impulse counter	-	-	•	•	-	-	-
LCD display	-	-	•	•	•	•	-
LED control lamp	•	•	•	•	•	•	-
Main switch	•	•	(only with PL 1 WS)	(only with PL 2 WS)	•	•	-
Ampere display	-	-	•	•	• 2)	• 2)	-
Voltmeter	-	-	-	-	-	-	-
Adjustable follow-up time	-	-	•	•	•	•	-
Operating hours counter	-	-	•	•	•	•	-
Level-registering	Float switch	• 3)	• 3)	• 3)	• 3)	• 3)	-
	Pneumatic pressure sensor	-	-	•	•	-	-
	Level sensor (4-20 mA)	-	-	• 4)	• 4)	• 4)	• 4)
	Electrodes	-	-	-	-	-	•
Alarm	mains-dependent	•	•	•	•	•	-
	Built-in (buzzer)	•	•	•	•	-	•
Pump cycling	-	•	-	•	-	•	-

• = available, - = not available

1) For other motor power ratings upon request

2) Only for direct-switch-on devices (up to 4 kW)

3) In the explosive area only with Ex cut-off relay

4) In the explosive area, only with breakdown barrier

Sewage Pumps for Building Services

Electrical accessories Wilo-Drain



Equipment/function							
	Wilo-EC-Drain 1x4,0	Wilo-EC-Drain 2x4,0	Wilo-DrainControl PL 1/PL 1 WS	Wilo-DrainControl PL 2/PL 2 WS	Wilo-DrainControl 1	Wilo-DrainControl 2	Wilo KAS
Message/display function							
Collective run signal (SBM)	•	•	-	-	-	-	-
Collective fault signal (SSM)	•	•	•	•	•	•	-
Individual run signal (EBM)	-	-	-	-	•	•	-
Individual fault signal (ESM)	-	-	-	•	-	-	-
Control functions (motor operation monitoring)							
TWC	•	•	•	•	•	•	-
PTC	-	-	-	-	•	•	-
Impermeability (DI)	-	-	-	-	•	•	-
Electronic	•	•	•	•	• (to 10 A)	• (to 10 A)	-
Motor protection switch	-	-	optional	optional	• (starting with 10 A)	• (starting with 10 A)	-
Scope of delivery							
Float switch	-	•/-	-	-	-	-	-
Horn	-	-	-	-	-	-	-

• = available, - = not available

¹⁾ For other motor power ratings upon request

²⁾ Only for direct-switch-on devices (up to 4 kW)

³⁾ In the explosive area only with Ex cut-off relay

⁴⁾ In the explosive area, only with breakdown barrier

Sewage Pumps for Building Services

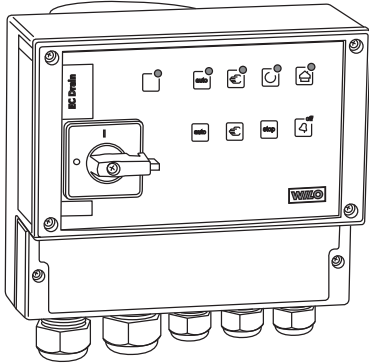
Electrical accessories Wilo-Drain

Equipment/function									
	Wilo Drain-Alarm 2	Wilo-AlarmControl 1	Wilo-AlarmControl 2	Motor protection plug CEE	Ex-uncoupling relay	Breakdown barrier	Flash light	Signal horn	Wilo SK 545
Application									
Switchgear for pump control	-	-	-	•	-	-	-	-	-
Alarm switchgear	•	•	•	-	-	-	-	-	-
Number of pumps to be controlled	-	-	-	1	-	-	-	-	2
Electrical connection									
Direct activation [A]	-	-	-	•	-	-	-	-	- External power section
Star/delta switching	-	-	-	-	-	-	-	-	- External power section
Construction									
Electronic	•	•	•	-	•	•	•	-	•
Electromechanical	-	-	-	•	-	-	-	•	-
Housing material									
Plastic	•	•	•	•	•	•	•	•	•
Equipment									
LED control lamp	•	-	-	•	•	-	-	-	•
Level-registering	Float switch	•	•	•	•	-	-	-	-
	Pneumatic pressure sensor	-	-	-	-	-	-	-	-
	Level sensor (4-20 mA)	-	-	-	-	•	-	-	-
	Electrodes	-	-	-	-	-	-	-	-
Alarm	Mains-independent	•	•	•	-	-	-	-	-
	Mains-dependent	•	•	•	-	-	-	-	-
	Built-in (buzzer)	•	•	•	-	-	-	-	-
Outlet 1~230 V	-	-	•	-	-	-	-	-	-
Message/display function									
Individual fault signal (ESM)	•	•	-	-	-	-	-	-	-
Control functions (motor operation monitoring)									
TWC	-	-	-	•	-	-	-	-	•
Impermeability (DI)	-	-	-	-	-	-	-	-	•
Motor protection switch	-	-	-	•	-	-	-	-	-

• = available, - = not available

Product descriptions

Switchgear Wilo-EC-Drain 1x4.0



- Electronically controlled switchgear for the automatic, transmitter-dependent control of 1 wastewater/sewage submersible motor pumps of the Wilo-Drain series.
- Full motor protection with integrated motor current monitoring and thermal winding contact assessment
 - Lockable main switch
 - Transmitter connection for float switch, type WA 65, WA 95
 - Button for manual mode of the pump
 - High water alarm
 - Forced switch-on with high water
 - Potential-free fault signal (changeover contact) and potential-free operating signal (change-over contact)
 - Integrated mains-dependent alarm buzzer
 - Operation, high water and malfunction display via LEDs in the front panel

Technical data:

Operating voltage: 1~230 V, 3~400 V, 3~230 V

Connected load P_2 : 4.0 kW

Maximum current: 12A

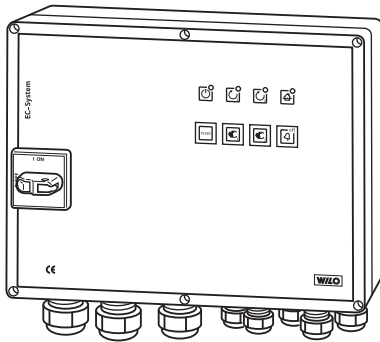
Frequency: 50/60 Hz

Protection class: IP 65 (within buildings/switch cabinets)

Dimensions (W x H x D): 215 x 220 x 125 mm

Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. Ex-uncoupling relays are to be provided for pump control in potentially explosive areas.

Switchgear Wilo-EC-Drain 2x4.0



- Microprocessor-controlled switchgear for the automatic, transmitter-dependent control of 2 wastewater/sewage submersible motor pumps of the series Wilo-Drain.
- Motor protection by means of built-in thermal winding contact assessment
 - Lockable main switch
 - Transmitter connection for float switch, types WA 65, WA 95 and MS 1
 - 2 buttons for manual mode of the pumps
 - Adjustable pump kick function for a pump start of 3 sec. after a standstill time of 7 days.
 - High water alarm
 - Forced switch-on with high water
 - Potential-free fault signal (changeover contact) and potential-free operating signal (change-over contact)
 - Integrated mains-dependent alarm buzzer
 - Operation, high water and malfunction display via LEDs in the front panel
 - Optional for control of explosion-protected pumps

Technical data:

Operating voltage: 1~230 V, 3~400 V, 3~230 V

Connected load P_2 : 2 x 4.0 kW

Maximum current: 2 x 12A

Frequency: 50/60 Hz

Protection class: IP 54

Dimensions (W x H x D): 300 x 230 x 113 mm

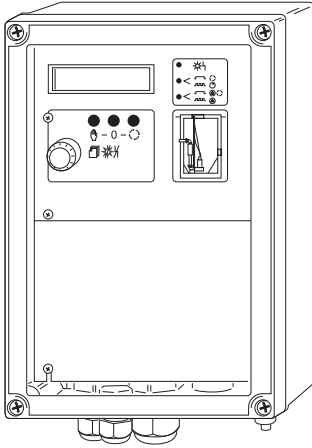
Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. Ex-uncoupling relays are to be provided for pump control in potentially explosive areas.

Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

Product descriptions

Switchgear Wilo-DrainControl PL 1



Switchgear for regulating the levels of 1 submersible motor pump. Level measurement can be carried out with either the bubbling-through or the dynamic pressure procedure, with float switches or electronic level sensors.

- LCD display
- LED for alarm, operation/follow-up time, manual/automatic operation
- Input terminals for connecting float switches (WA 65, WA 95 or MS1) or for connecting a level sensor **0-1 mWs** (4-20 mA)
- Potential-free contact for collective fault signal and high water alarm
- Forced switch-on of the pump
- Pump switch-off with follow-up time
- Integrated buzzer
- Operating hours counter, pump starts

Technical data:

Operating voltage: 1~230 V, 3~400 V

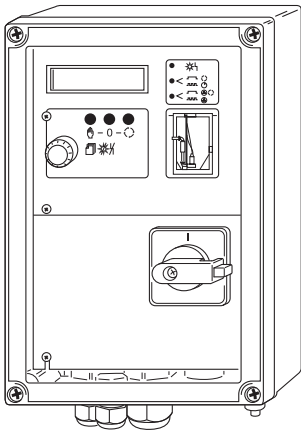
Frequency: 50/60 Hz

Protection class: IP 65 (within buildings/switch cabinets)

Dimensions (W x H x D): 180 x 255 x 180 mm

Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. A level sensor in the Ex area (with breakdown barrier!) or a float switch (in the Ex area with Ex-uncoupling relay) is to be provided for pump control.

Switchgear Wilo-DrainControl PL 1 WS



Switchgear for regulating levels of 1 submersible motor pump in conjunction with the pumps stations Wilo-DrainLift WS... Level measurement can be carried out with either the bubbling-through or the dynamic pressure procedure, with float switches or electronic level sensors.

- LCD display
- LED for alarm, operation/follow-up time, manual/automatic operation
- Input terminals for connecting float switches (WA 65, WA 95 or MS1) or for connecting a level sensor **0-1 mWs** (4-20 mA)
- Potential-free contact for collective fault signal and high water alarm
- Forced switch-on of the pump
- Pump switch-off with follow-up time
- Integrated buzzer
- Operating hours counter, pump starts
- Lockable main switch
- 3~mains, no neutral conductor required

Technical data:

Operating voltage: 1~230 V, 3~400 V

Frequency: 50/60 Hz

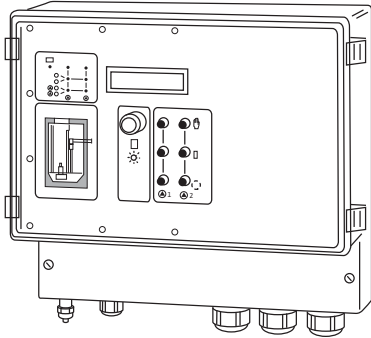
Protection class: IP 65 (within buildings/switch cabinets)

Dimensions (W x H x D): 180 x 255 x 180 mm

Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. A level sensor in the Ex area (with breakdown barrier!) or a float switch (in the Ex area with Ex-uncoupling relay) is to be provided for pump control.

Product descriptions

Switchgear Wilo-DrainControl PL 2



Switchgear for regulating the levels of 2 submersible motor pumps. Level measurement can be carried out with either the bubbling-through or the dynamic pressure procedure, via an electronic level sensor **0–2.5 mWs** (4–20 mA) or float switch (WA 65, WA 95 or MS1).

- LCD display, multi-language switching
- LED for alarm, operation/follow-up time, manual/automatic operation
- Potential-free contact for collective fault signal and high water alarm, pump malfunction 1, pump malfunction 2
- Forced switch-on of the pump
- Pump switch-off with follow-up time
- Automatic fault-actuated switchover
- Integrated buzzer
- Operating hours counter, pump starts

Technical data:

Operating voltage: 1~230 V, 3~400 V

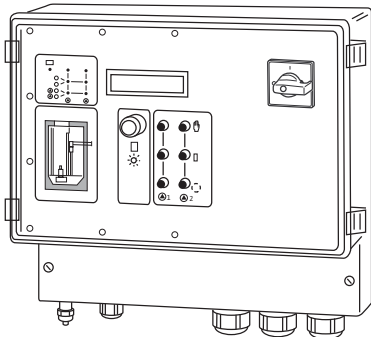
Frequency: 50/60 Hz

Protection class: IP 65 (within buildings/switch cabinets)

Dimensions (W x H x D): 320 x 300 x 120 mm

Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. A level sensor in the Ex area (with breakdown barrier!) or a float switch (in the Ex area with Ex-uncoupling relay) is to be provided for pump control.

Switchgear Wilo-DrainControl PL 2 WS



Switchgear for regulating the levels of 2 submersible motor pumps.

Level measurement can be carried out with either the bubbling-through or the dynamic pressure procedure, via an electronic level sensor **0–1 mWs** (4–20 mA) or float switch (WA 65, WA 95 or MS 1).

- LCD display, multi-language switching
- LED for alarm, operation/follow-up time, manual/automatic operation
- Potential-free contact for collective fault signal and high water alarm, pump malfunction 1, pump malfunction 2
- Forced switch-on of the pump
- Pump switch-off with follow-up time
- Automatic fault-actuated switchover
- Integrated buzzer
- Operating hours counter, pump starts
- Lockable main switch
- 3~mains, no neutral conductor required

Technical data:

Operating voltage: 1~230 V, 3~400 V

Frequency: 50/60 Hz

Protection class: IP 65 (within buildings/switch cabinets)

Dimensions (W x H x D): 320 x 300 x 120 mm

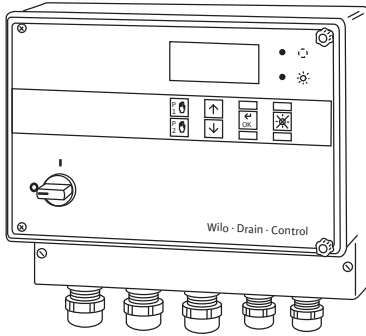
Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. A level sensor in the Ex area (with breakdown barrier!) or a float switch (in the Ex area with Ex-uncoupling relay) is to be provided for pump control.

Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

Product descriptions

Switchgear Wilo-DrainControl 1/2



Microprocessor-controlled switchgear for fully automatic control of 1 or 2 wastewater/submersible sewage pumps of the Wilo-Drain series

- Manual-0-automatic switch using membrane keyboard
- Two-line LCD-display with 2 x 16 x characters, multilingual, switchable, menu-driven operating feature via membrane keyboard
- Input terminals for connecting a level sensor
 - Standard: 0 - 2.5 mWs (4-20 mA)
 - Optional: 0 - 1 mWs (4-20 mA) or 0 - 5 mWs (4-20 mA)
- Input terminals for connecting the float switches WA 65, WA 95 or MS 1
- Automatic phase failure and rotating field control
- Operating hours counter
- Pump cycling (Control 2) after each pumping procedure
- Potential-free contacts for:
 - Collective fault signal
 - Signal horn (NO contact)
 - Operation pump 1 (NO contact)
 - Operation pump 2 (NO contact) only Control 2
- Main switch
- Integrated electronic motor current monitoring
- Maximum ambient temperature 40 °C
- Housing: Plastic for wall-mounted installation
- Starting mode: direct or star/delta

Technical data:

Operating voltage: 1~23 V, 3~400 V, 3~230 V

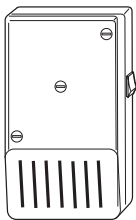
Frequency: 50 Hz

Protection class: IP 54

Dimensions (W x H x D): depends on model

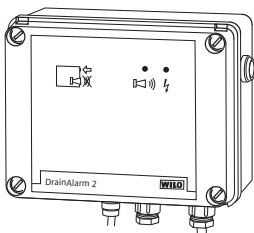
Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas. A level sensor in the Ex area (with breakdown barrier!) or a float switch (in the Ex area with Ex-uncoupling relay) is to be provided for pump control.

Small alarm switchgear Wilo KAS



Small alarm switchgear with signalling tone 70 dBA, signal transmitter (electrode) with 3 m cable, self-charging power supply (battery backup approx. 5 h) in ISO plug housing (shockproof), protection class IP 30, 230 V~ / 9V=; 1.5 VA.

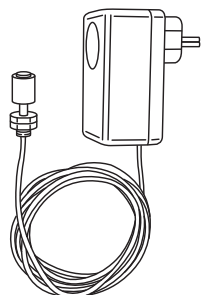
Wilo Drain-Alarm 2



Alarm switchgear for wall-mounted installation with optical and acoustical alarm signal (buzzer) 85 dBA self-charging power supply, potential-free contact, ISO housing, protection class IP 54, 1~230 V. A float switch of type WA is required as a transmitter.

Product descriptions

Alarm switchgears Wilo-AlarmControl 1/2



Wilo-AlarmControl 1:

Mains-independent alarm system with shockproof plug. Storage battery, acoustic alarm signal (buzzer), mini floater switch with 3 m cable mounted on the device. With potential-free contact and ISO housing IP 20.

Wilo-AlarmControl 2:

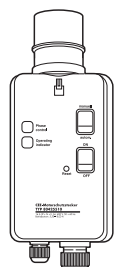
Mains-independent alarm system with shockproof plug and integrated outlet for connecting an appliance, e.g. a washing machine. Storage battery, acoustic alarm signal (buzzer), mini floater switch with 3 m cable mounted on the device. With insulated housing IP 20.

Technical data:

- Operating voltage: 1~230 V, 50 Hz
- Control voltage: 12 VDC (non-stabilised)
- Alarm contact with AlarmControl 1: potential-free normally open contact, contact load max. 1 A (230 VAC)
- Contact outlet: Contact load max. 16 A (250 VAC)
- Protection class: IP 20
- Housing: ABS
- Cable length mini-float switch: 3 m (2 x 0.75 mm²)
- Maximum ambient temperature: + 60 °C
- Dimensions (W x H x D): 68 x 112 x 53 mm

Note: Switchgears are not protected against explosions and may not be utilised except outside of potentially explosive areas.

Motor protection plug CEE



Motor protection switch (only up to a nominal motor power of $P_2 < 4$ kW) with phase inverter and rotation direction indicator, thermal motor protection of the motor. Performance ranges:

- 2.6 – 3.7 A
- 3.7 – 5.5 A
- 5.5 – 8 A
- 8 – 11.5 A

Optional with TP 80, TP 100 assessment of thermal motor protection and leakage detection possible.

Level sensor



For level determination.

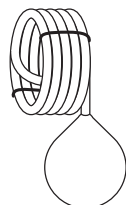
- Protection class 68
- Measurement range 0 – 1 mWS; 0 – 2.5 mWS
- Cable lengths 10, 30 or 50 m
- Output signal 4 – 20 mA
- ATEX-certified

Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

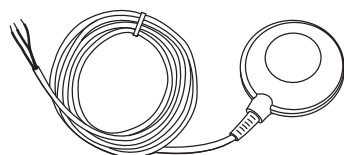
Product descriptions

Float switch MS1



Cable length 10 m, for sewage containing faeces, for connection to a Wilo-DrainControl 1 or 2.

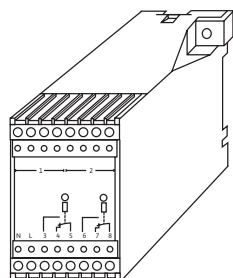
Float switch WA



Cable length 5 m, 10 m, 20 m, 30 m, switching: up ON/down OFF.

- WA 65 for fluids up to 60°C
- WA 95 for fluids up to 90°C

Ex-uncoupling relay

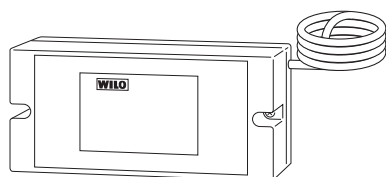


For the installation of float switches in potentially explosive areas.
Suitable for the connection of 2 to 5 float switches. Installed in an ISO housing, protection class IP 54, with transparent cover, for wall mounting.

Dimensions (W x H x D): 182 x 180 x 165 mm

- 2-circuit (connection of 2 float switches possible)
- 3-circuit (connection of 3 float switches possible)
- 4-circuit (connection of 4 float switches possible)
- 5-circuit (connection of 5 float switches possible)

Breakdown barrier



For the installation of a level sensor in potentially explosive areas.

Suitable for the connection of a level sensor.

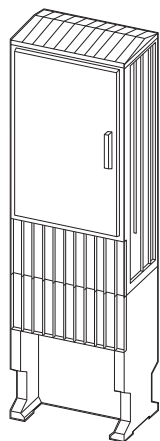
Protection class IP 40, housing for installation in non-explosive area.

Dimensions (W x H x D): 75 x 150 x 106 mm

1 m cable premounted.

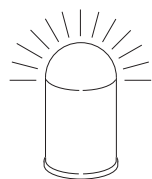
Product descriptions

Switch cabinet, outdoor installation for Wilo-DrainControl



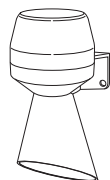
Empty housing for outdoor installation, made of fibreglass-reinforced polyester, with lock, provided with ventilation and exhaust. For pedestal mounting. Additional options such as ammeter, voltmeter, heating, etc. are available on request and can be immediately installed in the switch cabinet in conjunction with a Wilo-DrainControl if desired (additional charge).
Dimensions (W x H x D): 590 x 875 x 320 mm

Flash light



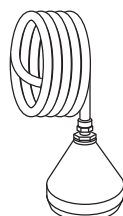
For installation on switch cabinets, outdoor installation, 230 VAC

Signal horn



For connection to Wilo-DrainControl, 230 VAC, 92 dBA

Dynamic pressure system



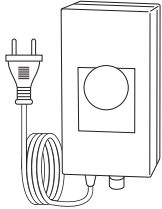
The pressure sensor (bell) detects changes in the fluid level in the shaft. The modifications of the pressure value in the bell is transmitted via a leak-proof hose to the Wilo-DrainControl switchgear and evaluated using measuring elements in the switchbox.
Scope of delivery: Submersion bell with 10 m hose

Sewage Pumps for Building Services

Electrical accessories Wilo-Drain

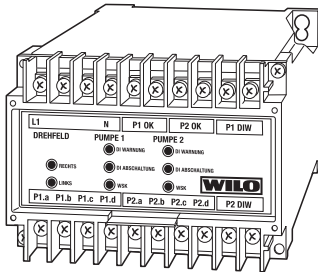
Product descriptions

Bubbling-through system



Dynamic pressure principle with compressed air permanently introduced by small compressor. The submersion bell (dynamic pressure system) is to be ordered separately.
Scope of delivery: Small compressor 3 m hose with T-piece and flap trap

Tripping unit Wilo-SK 545



- Tripping unit for monitoring max. 2 Wilo submersible motor-driven pumps TP 80, 100 or 150
- Installation in existing switchgears or as a module for switchgears of conventional design construction, installation on a 35 mm DIN rail
 - Monitoring of the rotating field
 - Leakage detection
 - Thermal monitoring (TWC)
 - Operational voltage 3~400 V max. 6 A fuse protection
 - Potential-free output contacts max. load 250 V, 1 A
 - Dimensions (W x H x D): 100 x 72 x 113 mm

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Submersible motor pumps from DN 50 to DN 150

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Sewage Pumps for Municipal and Industrial Applications

Planning Guide

Sewage pumps of the Wilo EMU product family have a modular structure and can be adapted to different requirements.

Motors

The motor housings are made of grey cast iron. The bearings of the motor shaft are high-quality roller bearings. The motors are designed for insulation class “F” or “H”. For especially high demands against corrosion, the motors can also be coated with Ceram, a liquid ceramic material.

Cooling

The motor cooling was realised in different ways. Depending on the construction, either oil, water/glycol or air is used as a heat carrier. Oil as well as water/glycol are cooled through a heat exchanger, which conducts the dissipated heat to the fluid. Air-filled T-motors give off heat directly to the environment via the housing.

Motor overview

Motor	Coolant	Cooling and sealing system	Ex
F motor	Oil in the motor	2-chamber system with passive closed-circuit cooling	–
FK motor	Oil in the motor	2-chamber system with active closed-circuit cooling	–
FK 17.1 motor	Oil in the motor	2-chamber system with active closed-circuit cooling	•
FO motor	Oil in the motor	2-chamber system with passive closed-circuit cooling	–
FKT 27.1 motor	Dry motor with water/glycol mixture in the cooling circuit	2-chamber system with active closed-circuit cooling	•
FKT 49.../56... motor	Dry motor with oil in the cooling circuit	1-chamber system with active closed-circuit cooling	•
FKT 72 motor	Dry motor with oil in the cooling circuit	2-chamber system with active closed-circuit cooling	•
HC motor	Dry motor with water/glycol mixture in the hermetically sealed cooling circuit	2-chamber system with active closed-circuit cooling	•
T motor	Air	1-chamber system	•
T 20.1 motor	Air	1-chamber system	•

The motors with a closed-circuit cooling system can be operated both submerged and dry in permanent operation. T motors can be immersed in permanent operation, but can only be operated dry for a short time. Thus, high process reliability is ensured.

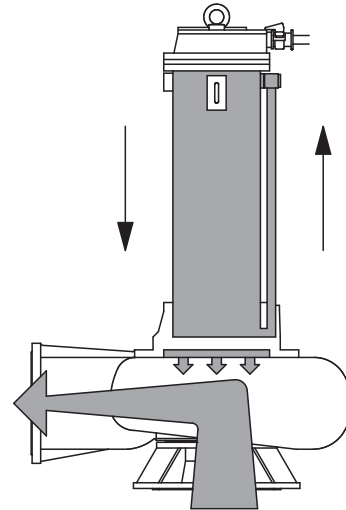


Figure: Motor with active closed-circuit cooling and 2-chamber system for wet and dry sump installation

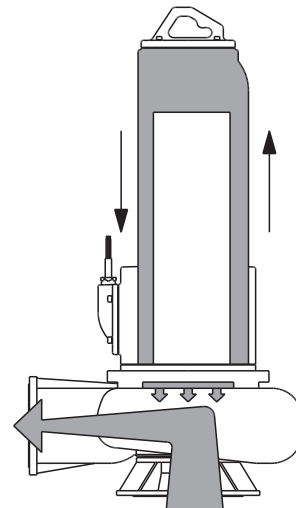


Figure: Motor with active closed-circuit cooling and 2-chamber system for wet and dry sump installation

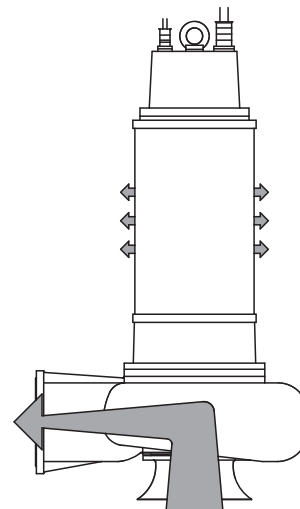


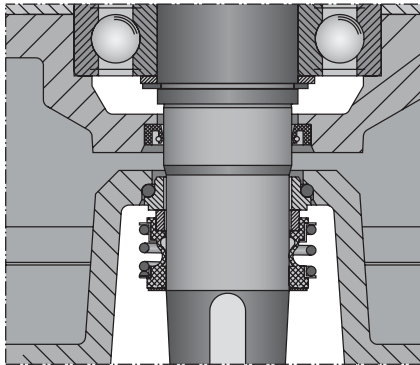
Figure: Dry motor for wet sump installation

Sealing systems

Each motor is equipped with a sealing housing in which there is a separate sealing chamber. This is between the fluid and the motor space and is filled with white oil. This chamber accommodates the leakage of the sealing on the fluid side.

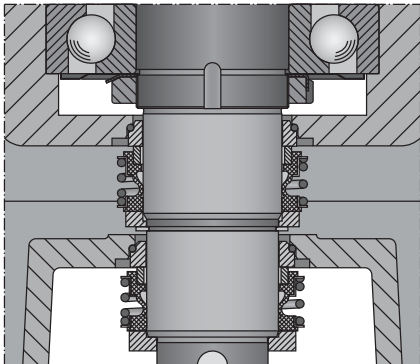
The sealing can be done in different ways and depends on the selected motor.

- Mechanical seal on the fluid side, special radial shaft seal on motor side



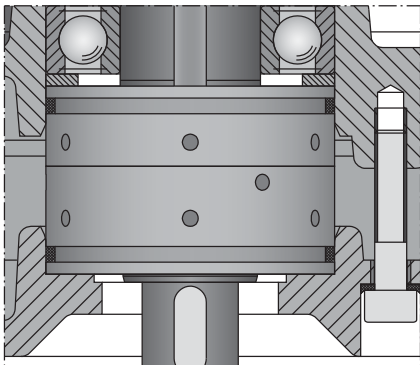
Basic sealing for normal applications

- Two mechanical seals



For high loads and difficult conditions for use

- Block seal cartridge



For high wear and corrosion resistance, as well as high operating safety

Monitoring equipment

All motors are equipped with bimetal or PTC temperature sensors. This prevents the motor from overheating.

Optionally, PT100 sensors can be used for monitoring the bearing temperature.

Furthermore, the motors can be designed with a monitor for the sealed space which could detect leakage in the sealing chamber.

Motors with a 2-chamber system are equipped with a separate leakage chamber. This is monitored by a float switch.

Hydraulics

The nominal widths of the hydraulics range from DN 32 to DN 600. The housing and impeller are manufactured from grey or stainless steel cast iron. For especially high demands against corrosion and abrasion, these components can be coated with Ceram, a liquid ceramic, or be manufactured from abrasite, a chilled cast iron material.

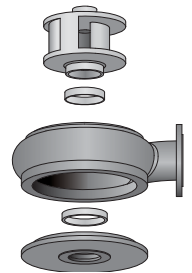
The hydraulics are equipped with a gap and counter ring. These exchangeable wear parts protect especially vulnerable places, such as the suction opening and impeller, and can be replaced inexpensively, as needed.

Impeller forms

The impeller form is to be chosen depending on the application as well as the composition of the fluid. The following impeller forms are available:

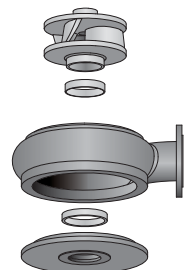
Single-channel impeller

- For the most part, insensitive to clogging
- Wide ball passage
- Low wear susceptibility
- Gentle pumping
- Power correction possible by trimming the impeller
- High degree of efficiency
- For solid matter concentrations up to 8% TS, depending on the type of sludge



Multi-channel impeller

- With 2, 3 or 4 channels
- Low wear susceptibility
- Gentle pumping
- Power correction possible by trimming the impeller
- High degree of efficiency

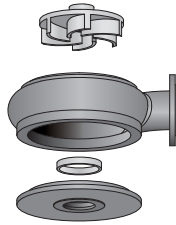


Sewage Pumps for Municipal and Industrial Applications

Planning Guide

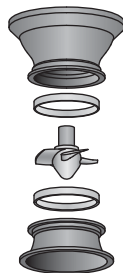
Vortex impeller

- Minimum inclination to clogging
- Gap seals not required
- Suitable for some bubble-forming fluids
- Power correction possible by trimming the impeller
- Low efficiency
- For solid matter concentrations up to 8% TS, depending on the type of sludge



Propeller impeller

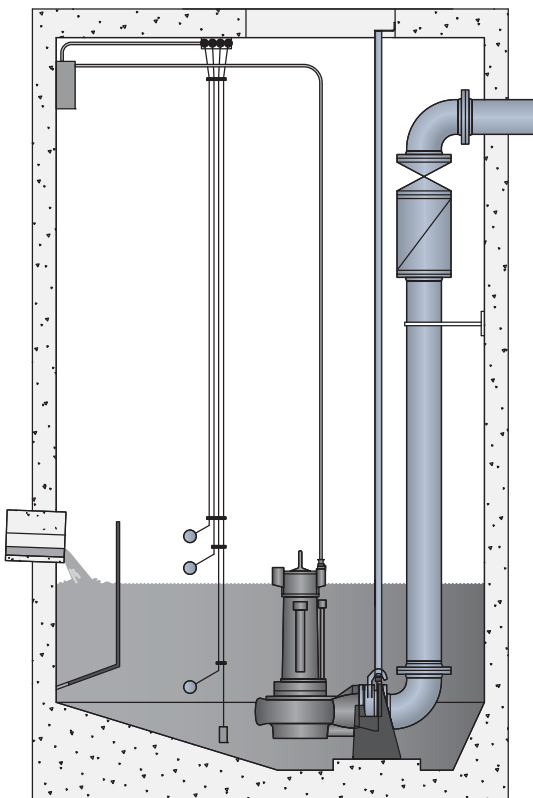
- For very high flows at low delivery head
- Only suitable for fluids with little contamination (e.g. for rainwater, return sludge, circulation of activated sludge, pumping stations, etc.)



Installation types

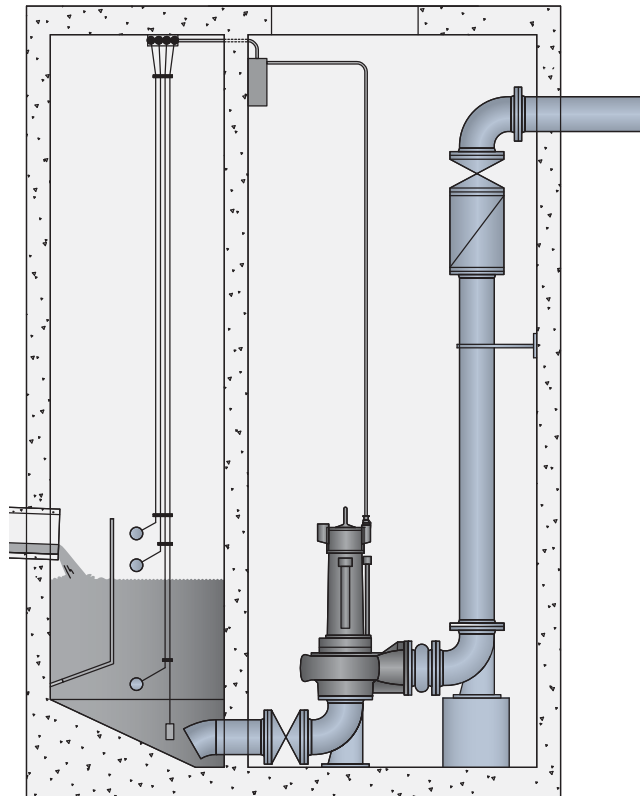
Fundamentally, three installation types are distinguished:

Wet sump installation



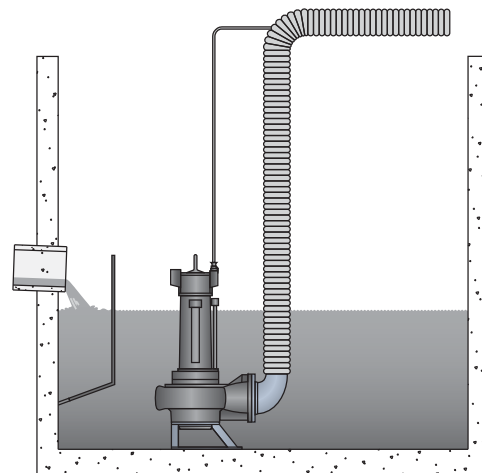
With the wet sump installation, the unit is surrounded by the fluid. The pump is connected to the existing pipeline system via a permanently installed suspension unit. By means of the associated lowering system, this can be lifted any time even when the shaft is full, or be lowered into the shaft.

Dry sump installation



In the case of dry sump installation, the operating space and collecting shaft are spatially separated. The pump is set up dry in the operating space, and is therefore accessible at all times. The fluid is fed through a suction line.

Portable installation



With the portable installation, the pump is equipped with a pedestal and can be flexibly put to use. Usually, these units are designed with a plug and/or switchgear. A bare cable end is also possible, however.

Operating modes

In general, our motors are designed for permanent operation at nominal power. Motors without closed-circuit cooling must be constantly immersed for this.

One refers to immersed operation when the pump is surrounded by the fluid up to the upper edge of the motor housing. As soon as the motor housing is taken out of the fluid, this is referred to as non-immersed operation.

S1 = Permanent operation

The motor temperature increases during operation until it reaches the operating temperature (thermal persistent state). The heat is dissipated during operation by means of coolant and/or the surrounding fluid. The machine can be operated without interruption while in this status. Specification of the installation type (dry/submerged) and/or of the installation is also to be taken into account. Permanent operation has no effect on this.

Please observe the service life specifications and/or running times per years in the respective documentation.

S2 = Short-term operation

The motor cannot be operated continuously when the power dissipation that is transformed into heat in the motor exceeds the heat dissipation capacity of the motor. The max. operating period is specified in minutes, e.g. S2-15. There must be a subsequent pause which lasts until the machine temperature does not deviate by more than 2K from the ambient temperature.

This operating mode is relevant for dry motor operation without closed-circuit cooling.

Vibrations and resonance

When sewage pumps are installed and connected, various aspects must be observed to guarantee smooth operation. Fundamentally, every moving machine part causes vibrations.

In the case of submersible motor pumps and monobloc pumps, during rotation, free centrifugal forces are generated at the circulation frequency. Also, the hydraulic forces acting on the pump impeller considerably contribute to the machine vibrations.

In order to avoid malfunctions and damage, the strength of the vibrations in the operating state may not exceed a certain threshold. This is achieved by statically and dynamically balancing the corresponding parts.

If the pumps are subject to additional external vibrations due to unfavourable installation and connections, these vibrations are superimposed. These vibrations can put high levels of stress on individual components.

In order for the pumps to work without disturbances and to have long service lives, they must be installed according to the generally valid rules of technology.

Q/H diagram

Several hydraulic pump curves are shown in the Q/H diagram. Every hydraulic pump curve (1) is allocated to an impeller diameter. Points (2) of maximum efficiency are marked in bold face on the pump curve. The dotted part of the curve (3) indicates the range in which the pump may not be operated.

The nominal power for each available motor is shown as a dotted power curve (4) in the Q/H diagram. Based on this curve, you can see which hydraulics can be combined with which motor and with how much power reserve the motor can be operated.

In general, the intersection point of the hydraulics curve with the power curve must always be to the right of the selected duty point. The more distance between the selected duty point and the intersection point of the curves, the more reserve the motor has.

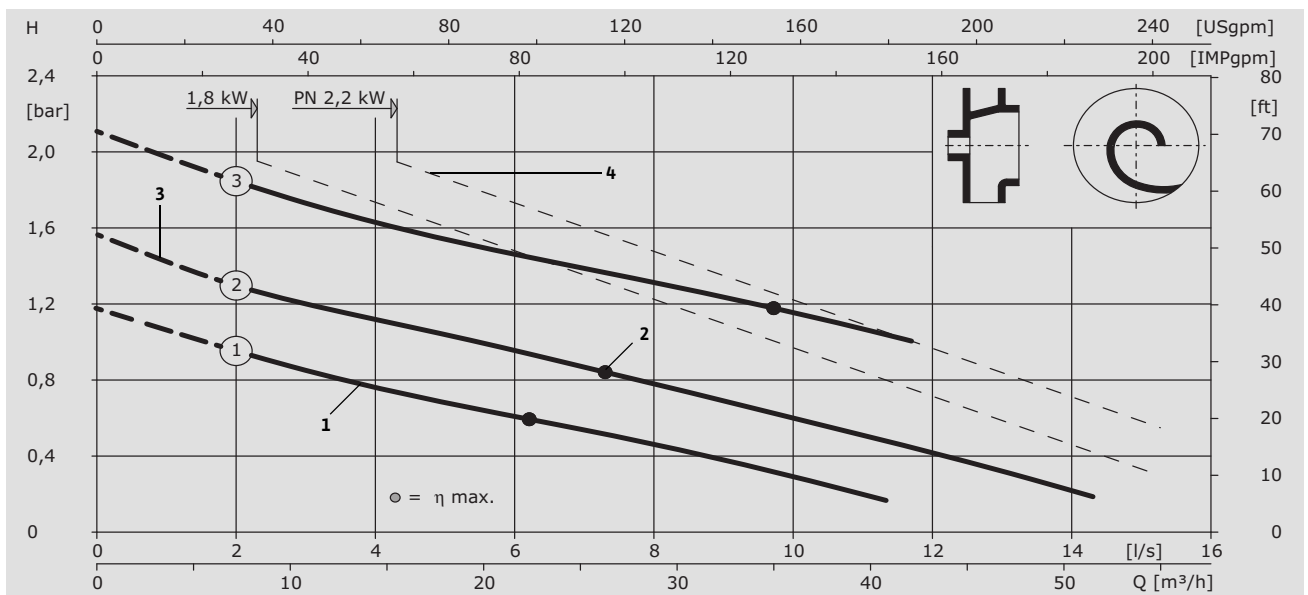


Figure: Q/H diagram

Sewage Pumps for Municipal and Industrial Applications

Planning Guide

Modern corrosion and abrasion protection

Units which come into contact with the fluid are subject both to highly corrosive as well as abrasive influences. For this, WIL0 offers its fluid ceramic coating, Ceram. This provides reliable protection against this type of stress.

Normal heavy corrosion protection methods, such as zinc dust priming with three coats of tar epoxy resin are so-called onion layer models. The advantage of the zinc dust priming is that the zinc dust sacrifices and the zinc carbonate can seal microscopic cracks. This is referred to as the self-healing effect of the coating. The disadvantage is that the wet adhesion of this zinc dust priming isn't very high. Because of the onion layer model of conventional solvent-containing coatings, the adhesive force depends on the quality of the individual layers.

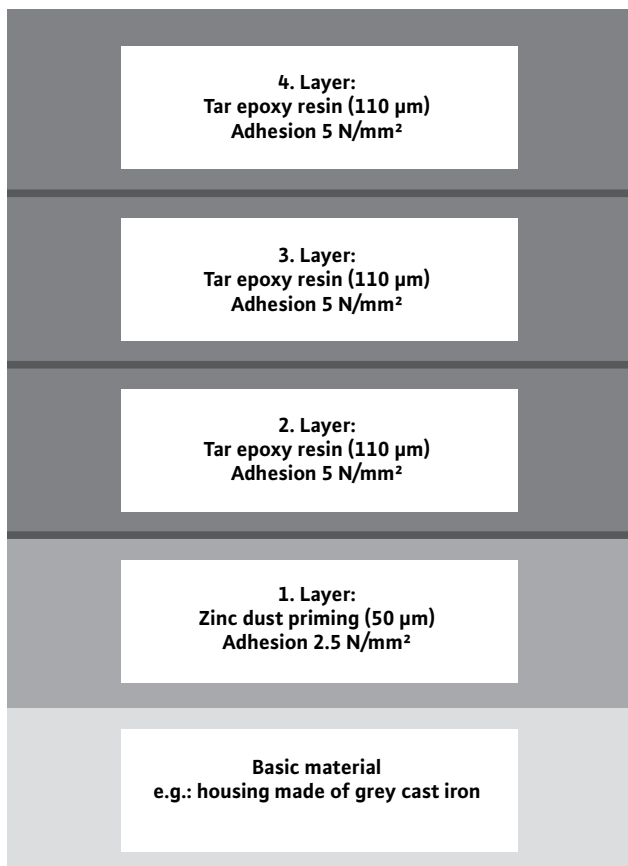
The Ceram coating, on the other hand, is based on the diamond model. It unifies the positive properties of two materials by combining ceramic particles in one polymer matrix.

The ceramic particles are enclosed in the matrix. Thus, there are no set breaking points and the adhesion is very high, e.g. in the case of Ceram C0 from 15 N/mm². Since Ceram is solvent-free, these coatings can be applied with one layer.

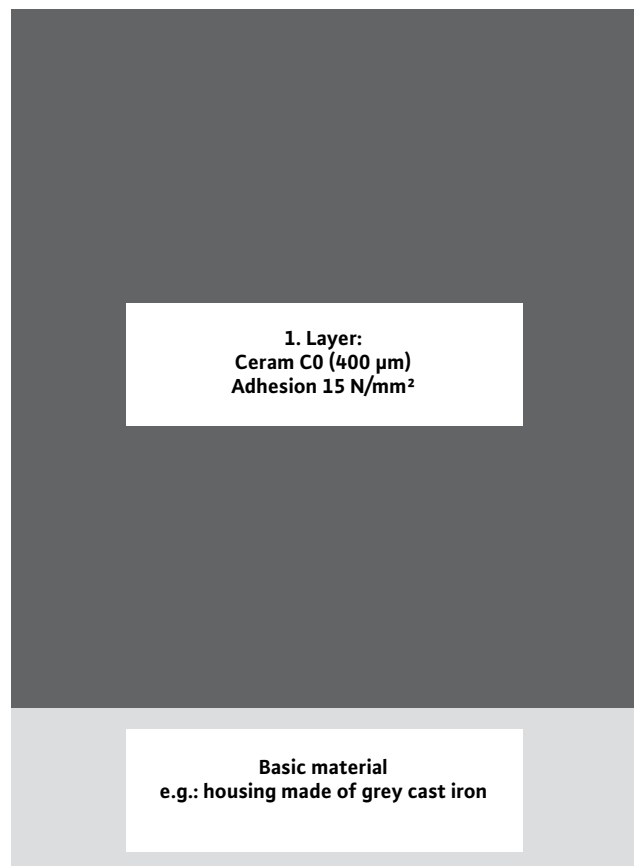
Ceram coatings are available in four quality levels. These distinguish themselves with regard to their durability against abrasive corrosion. While the corrosion resistance is very good for all four quality levels, the resistance to abrasion increases the higher the ordinal number (C0 = low protection from abrasion; C3 = very good protection from abrasion) of the coating, since coarser and coarser ceramic particles are processed. The individual layers get thicker and thicker and the mixture of large, medium-sized and small aluminium oxide particles is such that even in the case of abrasion with fine sand, the coatings are very stable.

The four Ceram qualities:

- Ceram C0: The coating is applied using the airless method in one layer of 0.4 mm.



The graphics show the structure of a tar epoxy resin coating with a zinc dust priming layer. The coating consists of 4 individual layers with a total coating thickness of 380 µm. The three dark grey lines represent the weak points of this coating. The black line is the intended breaking point.



The graphics show the structure of a Ceram C0 coating. The coating consists of individual layers with a total coating thickness of 400 µm. By applying it using the airless spraying method, a very high surface quality is achieved.

- Ceram C1: The coating is applied with a paintbrush and can consist of up to three coats. The layer thickness is then 1.5 mm.
- Ceram C2: The coating is applied with a spatula. The layer thickness is 1.5 mm and consists of one coat.
- Ceram C3: The coating is applied with a spatula. The layer thickness is 3 mm and consists of one coat. For tight gaps/play, a mechanical process is necessary.

For use in special fluids, the individual Ceram qualities can be combined with one another, e.g. C2+C1.

The Ceram coating is also very well suited for use in maritime environments. For its Ceram C0 coating, Wilo grants a warranty of 5 years for use in seawater. The precondition is that the coating is intact.

Increase efficiency, lower costs

Since water is being used more and more conservatively, there are more and more contaminants relative to the amount of water. This means that the concentration of corrosive and abrasive constituents is higher.

Sewage units are always exposed to this aggressive fluid. Corrosion and abrasion influence the surfaces and material structures of the units, sometimes with considerable impairments in the material, and thus also in the performance.

This significantly reduces the hydraulic efficiency. This results in the units having an increased current consumption. For another thing, the pumps no longer work at their optimum, the radial forces increase, there is more stress on the bearings and mechanical seals, and the service life of the machines goes down.

When standard materials are used, such as grey cast iron, under high stress, it may be necessary to exchange the components already after 500 hours of operation. Ceram coatings make it possible to prolong the service life by a factor of 4, and this at the same high efficiency, which means minimum energy costs.

When one considers the overall costs over the entire service life of the pump, the investment cost for a unit coated with Ceram, less than 10%, is negligible. Also, there is a high savings potential due to fewer necessary repairs, which means a lot fewer system downtimes. The amortisation is then usually quickly reached due to the higher efficiency.

Use of the various Ceram qualities

Ceram C0 is used for the complete outer and inner coating. It's excellently suited for corrosion protection.

Ceram C1 is used for the inner coating of pump components. The main area of use here is the impeller and suction piece coating.

Ceram C2 and C3 are used for the inner coating of pump components. The main area of use here is the coating of the pump housing.

In order to guarantee protection even in especially aggressive and corrosive fluids, the Ceram types are combined with each other, e.g. C2+C1 or C3+C1.



Sewage Pumps for Municipal and Industrial Applications

Planning Guide

Ceram C0 Technical data

Description

Ceram C0 is a sprayable, solvent-free two-component polymer coating substance with a ceramic basis for protecting our products against corrosion when there is additional strong mechanical stress.

Composition

Solvent-free epoxy polymer with solvent-free polyamine hardener and various extenders.

Properties

- Tough and durable coating with high mechanical and chemical resistance and very good abrasion strength.
- Excellent wet adhesion and compatibility with cathodic corrosion protection as single-layer coating on steel surfaces.
- Very good adhesion to steel surfaces.
- Replaces tar-containing coatings.
- Cost-saving due to the long service life, low maintenance and easy reparability.
- Tested by the "Bundesanstalt für Wasserbau" (Federal Institute for Hydraulic Engineering) (BAW).
- Solvent-free.
- Hardened coating has a high-gloss finish.

Technical data

Density (mixture)	ASTM D 792	1.4 g/cm ³
Adhesion / steel	ISO 4624	15 N/mm ²
Impact resistance / strength	DIN EN ISO 6272	9 J
Temperature resistance: dry, long-term		60 °C
Temperature resistance: dry, short-term		120 °C
Temperature resistance: wet / liquid	Depending on the fluid; on request	
Solid content (mixture)	Volume	97%
	Weight	98%

Stability table

Fluid	Temperature	Factor
Sewage, alkaline (pH 11)	+20 °C	1
Sewage, alkaline (pH 11)	+40 °C	1
Sewage, slightly acidic (pH 6)	+20 °C	1
Sewage, slightly acidic (pH 6)	+40 °C	1
Sewage, strongly acidic (pH 1)	+20 °C	2
Sewage, strongly acidic (pH 1)	+40 °C	3
Ammonium hydroxide (5%)	+40 °C	3
Decanol (fatty alcohol)	+20 °C	1
Decanol (fatty alcohol)	+50 °C	1
Ethanol (40%)	+20 °C	1
Ethanol (96%)	+20 °C	3
Ethylene glycol	+20 °C	1
Heating oil/diesel	+20 °C	1
Compressor oil	+20 °C	1

Stability table

Fluid	Temperature	Factor
Methyl-ethyl-ketone (MEK)	+20 °C	3
Sodium hydroxide (5%)	+20 °C	1
Sodium hydroxide (5%)	+50 °C	2
Sodium chloride solution (10%)	+20 °C	1
Hydrochloric acid (5%)	+20 °C	2
Hydrochloric acid (10%)	+20 °C	2
Hydrochloric acid (20%)	+20 °C	3
Sulphuric acid (10%)	+20 °C	2
Sulphuric acid (20%)	+20 °C	3
Nitric acid (5%)	+20 °C	3
Toluene	+20 °C	2
Water (cooling/industrial water)	+50 °C	1
Xylene	+20 °C	1

Key: 1 = stable; 2 = stable, short-term; 3 = overflow-stable, immediate cleaning; 4 = not recommended for direct contact

Ceram C1 Technical data

Description

Ceram C1 is a cold-hardening, solvent-free ceramic compound material based on two components with selected reinforcement fillers and extenders.

Composition

Polymer/ceramic compound material made of a matrix and reinforcement.

Matrix: A modified polymer made up of two parts with an aliphatic hardening agent.

Reinforcement: A mixture (protected by proprietary rights) made up of aluminium oxide and extenders.

This ceramic mixture has excellent abrasion strength and can be applied very easily.

Properties

- The completely hardened Ceram coating C1 has a glossy finish, has no pores and is easy to clean, mechanically very stable, abrasion-proof and has excellent adhesion.
- Ceram C1 hardens without shrinking and is stable against a large number of chemicals, oils, greases, solvents, diluted organic and inorganic acids and bases and saline solutions.
- Ceram C1 reduces friction and improves flow and efficiency.
- Excellent corrosion protection.

Technical data

Hardness	Buchholz	115
Density / mixture	ASTM D 792	1.4 g/cm ³
Shrinkage during hardening	ASTM D 2566	0.002 mm/cm
Tension / shear resistance	ASTM D 1002	13.8 N/mm ²
Tensile strength / ultimate strain	ASTM D 638	26.2 N/mm ²
Compressive strength	ASTM D 695	60 N/mm ²
Bending strength	ASTM D 790	55.2 N/mm ²
Adhesion / steel	ISO 4624	13.8 N/mm ²
Impact resistance / strength	ASTM D 256	11 J/m
Coefficient of linear expansion	ASTM D 696	34.5 x 10 ⁻⁶ 1/K
Electric resistance	ASTM D 257	8 Ω cm
Heat conductance	ASTM C 177	0.7 W/m x K
Porosity test	Test stress	5 V/μm layer thickness
Temperature stability, dry	ASTM D 648	140°C
Temperature stability, wet	ASTM D 648	60°C

Stability table

Fluid	Factor
Acids	
10% sulphuric acid	2
20% sulphuric acid	3
5% hydrochloric acid	1
10% hydrochloric acid	2
20% hydrochloric acid	3
5% nitric acid	1
10% nitric acid	3
5% phosphoric acid	1
20% phosphoric acid	3
Bases and bleaches	
10% sodium hydroxide	1
50% sodium hydroxide	1
5% ammonia	2
28% ammonium hydroxide	1
10% potassium hydroxide	1
50% potassium hydroxide	1
6% fixing salt	1
5% soap solution	1
Cement mortar / concrete	1
Other compounds	
Isopropanol	1
Kerosene	1
Naphtha	1
Salt water	1
Sewage	1
Toluene	1
Xylene	1
Bunker C	1
Diesel oil	1

Tested at 20 °C. Sample hardened 12 days at 20 °C. Longer hardening improves the chemical resistance.

Key: 1 = stable; 2 = stable, short-term; 3 = overflow-stable, immediate cleaning; 4 = not recommended for direct contact

Sewage Pumps for Municipal and Industrial Applications

Planning Guide

Ceram C2 Technical data

Description

Ceram C2 is a high-performance ceramic compound material for repairing and protecting all metal surfaces which are subject to abrasion, corrosion, cavitation and chemical exposure. Ceram C2 is applied with a coating thickness of 1.5 mm. It does not shrink and consists of almost 100% solids. Ceram C2 contains a high percentage of carbides for use under extremely abrasive operating conditions which involve complex and expensive repair measures. The material can either be used for restoring abraded metal surfaces or as a preventive coating which is superior to the original metal with regard to abrasive strength. Ceram C2 can be used instead of metal application, tiles, rubber fillers, etc. The thermal load capacity is outstanding.

Composition

Polymer/ceramic compound material made of a base compound and reinforcement.

Matrix: A modified polymer made up of two parts with an aliphatic hardening agent.

Reinforcement: A mixture (protected by proprietary rights) made up of aluminium oxide and silicon carbide particles.

This ceramic mixture has excellent abrasion strength and can be applied very easily.

Properties

Excellent abrasion resistance ensures long operation and usually lasts longer than a welded-on metal coating. Can be easily moulded to any metal surface.

Its tough synthetic resin structure resists temperature shocks and impacts.

Excellent adhesion ensures reliability and prevents stripping.

Simple application reduces work expenses and downtimes.

Withstands chemically varying operating conditions when metals fail.

Practical 4:1 weight and volume mixture ratio.

Technical data

Hardness	Shore D	90
Density	ASTM D 792	1.85 g/cm ³
Shrinkage during hardening	ASTM D 2566	0 mm/cm
Tension /shear resistance	ASTM D 1002	13.24 N/mm ²
Tensile strength /ultimate strain	ASTM D 638	27 N/mm ²
Compressive strength	ASTM D 695	103.4 N/mm ²
Bending strength	ASTM D 790	69.0 N/mm ²
Adhesion /steel	ASTM C 633	---
Impact resistance /strength	ASTM D 256	3.3 J/m
Coefficient of linear expansion	ASTM D 696	---
Electric resistance	ASTM D 257	---
Heat conductance	ASTM C 177	---
Electric dielectric strength	ASTM D 149	4 KV/mm
Temperature stability, dry	ASTM D 648	250°C
Temperature stability, wet	ASTM D 648	80°C

Stability table

Fluid	Factor
Acids	
10% sulphuric acid	1
20% sulphuric acid	2
5% hydrochloric acid	1
10% hydrochloric acid	2
20% hydrochloric acid	3
5% acetic acid	2
10% acetic acid	4
Bases and bleaches	
10% sodium hydroxide	1
30% sodium hydroxide	1
28% ammonium hydroxide	1
10% potassium hydroxide	1
50% potassium hydroxide	1
Other compounds	
Isopropyl alcohol	1
Kerosene	1
Naphtha	1
Salt water	1
Sewage	1
Toluene	1
Xylene	1
Bunker C	1
Diesel	1

Tested at 20°C. Sample hardened 7 days at 20°C. Longer hardening improves the chemical resistance.

Key: 1 = stable; 2 = stable, short-term; 3 = overflow-stable, immediate cleaning; 4 = not recommended for direct contact

Ceram C3 Technical data

Description

Ceram C3 is a high-performance ceramic compound material for repairing and protecting all metal surfaces which are subject to abrasion, corrosion, cavitation and chemical exposure. Ceram C3 is applied with a coating thickness of 3 mm. It does not shrink and consists of almost 100% solids. Ceram C3 contains a high percentage of carbides for use under extremely abrasive operating conditions which involve complex and expensive repair measures. The material can either be used for restoring abraded metal surfaces or as a preventive coating which is superior to the original metal with regard to abrasive strength. Ceram C3 can be used instead of metal application, rubber fillers, etc.

Composition

Polymer/ceramic compound material made of a matrix and reinforcement.

Matrix: A modified polymer made up of two parts with an aliphatic hardening agent.

Reinforcement: A mixture (protected by proprietary rights) made up of aluminium oxide and silicon carbide particles.

This ceramic mixture has excellent abrasion strength and can be applied very easily.

Properties

- Excellent abrasion resistance ensures long operation and usually lasts longer than a welded-on metal coating.
- Its tough synthetic resin structure resists temperature shocks and impacts.
- Excellent adhesion ensures reliability and prevents stripping.
- Simple application reduces work expenses and downtimes.
- Withstands chemically varying operating conditions when metals fail.
- Can be easily moulded to any metal surface.
- Practical 4:1 weight and volume mixture ratio.

Technical data		
Hardness	Shore D	90
Density	ASTM D 792	1.87 g/cm ³
Shrinkage during hardening	ASTM D 2566	0 mm/cm
Tension / shear resistance	ASTM D 1002	17 N/mm ²
Tensile strength / ultimate strain	ASTM D 638	29.7 N/mm ²
Compressive strength	ASTM D 695	103 N/mm ²
Bending strength	ASTM D 790	69 N/mm ²
Adhesion / steel	ASTM C 633	15.9 N/mm ²
Impact resistance / strength	ASTM D 256	12 J/m
Coefficient of linear expansion	ASTM D 696	61.8 x 10 ⁻⁶ 1/K
Electric resistance	ASTM D 257	8 W cm
Heat conductance	ASTM C 177	0.75 w/m x K
Electric dielectric strength	ASTM D 149	13.4 KV/mm
Temperature stability, dry	ASTM D 648	190°C
Temperature stability, wet	ASTM D 648	65°C

Stability table

Fluid	Factor
Acids	
10% sulphuric acid	1
20% sulphuric acid	2
5% hydrochloric acid	1
10% hydrochloric acid	2
20% hydrochloric acid	3
5% acetic acid	2
10% acetic acid	4
Bases and bleaches	
10% sodium hydroxide	1
30% sodium hydroxide	1
28% ammonium hydroxide	1
10% potassium hydroxide	1
50% potassium hydroxide	1
Other compounds	
Isopropyl alcohol	1
Kerosene	1
Naphtha	1
Salt water	1
Sewage	1
Toluene	1
Xylene	1
Bunker C	1
Diesel	1

Tested at 20°C. Sample hardened 7 days at 20°C. Longer hardening improves the chemical resistance.

Key: 1 = stable; 2 = stable, short-term; 3 = overflow-stable, immediate cleaning; 4 = not recommended for direct contact

Sewage Pumps for Municipal and Industrial Applications

Planning Guide

Wilo submersible mixers and re-circulation pumps are approved for use in potentially explosive areas. For this, the units are certified according to two different standards: The European ATEX standard as well as the American FM standard.

Atex standard

The units are constructed according to the "EU directive 94/09/EG" (ATEX 95) and the European standards DIN EN 60079-0, EN 60079-1. They may be operated in potentially explosive atmospheres which require electrical devices of device group II, category 2.

Thus, use in zone 1 and zone 2 is possible. These units may not be used in zone 0.

Wilo submersible mixers and re-circulation pumps are characterised as follows: II 2 G Ex d IIB T4

- II = Device group II
Meaning: Meant for potentially explosive locations except for mines
- 2 = Category
- G = Substance group
Meaning: Gases
- Ex = Ex-protected device in acc. with European standard
- d = Ignition protection class, motor housing
Meaning: Pressure-proof enclosure
- IIB = Explosion group
Meaning: For use together with gases of subdivision B, all gases except for H₂, C₂H₂, CS₂
- T4 = Temperature class
Meaning: Max. surface temperature of the device is 135°C

FM standard

The units are certified and approved by the recognised testing and approval authority "FM Approvals" in accordance with the standards FM 3600, 3615, 3615.80 and ANSI/UL-1004. They may be operated in potentially explosive areas which require electrical devices with the protection class "explosion-proof, class 1, division 1". Thus, operation in areas with the required protection class "explosion-proof, class 1, division 2" according to the FM standard is also possible.

Wilo submersible mixers and re-circulation pumps are characterised as follows:

Class 1; Division 1; Groups C, D
Class 2; Division 1; Groups E, F, G
Class 3
T3C

- Class 1; Division 1; Groups C, D
Meaning: Gases, vapours, mists; explosive atmosphere present constantly or occasionally during normal conditions; gas groups: Ethylene (C), propane (D)
- Class 2; Division 1; Groups E, F, G
Meaning: Dusts; Explosive atmosphere present constantly or occasionally during normal conditions; dust groups: Metal (E), carbon (F), grain (G)

- Class 3
Meaning: Fibres and lint
- T3C = Temperature class
Meaning: Max. surface temperature of the machine 160°C

Temperature monitoring

Standard explosion-certified motors are equipped with a temperature monitor. This includes:

- Motors of size T 12 and T 13
Winding: Temperature limiter 140°C
- Motors of size T 17 and T 20
Temperature controller 130°C, temperature limiter 140°C

The temperature monitor is to be connected so that automatic reactivation can occur when the "temperature controller" is triggered. When the "temperature limiter" is triggered, the reactivation should only be possible when the "release button" has been pressed by hand.

Frequency converter operation

For operation with a frequency converter, the motors must be equipped with a PTC thermistor temperature sensor. Specify the intended use when making your order so that we can equip the motors accordingly.

Sealing chamber control

The units can be equipped with external sealing chamber control. This can also be installed later. If the unit is equipped with an external sealing chamber control, this may only be connected to an intrinsically safe electric circuit.

Definition of the Ex zones

The Ex zones are defined in the respective standards. The marking of zones in the operating area of the units must be done by the operator. When ordering, indicate which Ex standard you are using as a basis and in which zone you want to operate the unit.



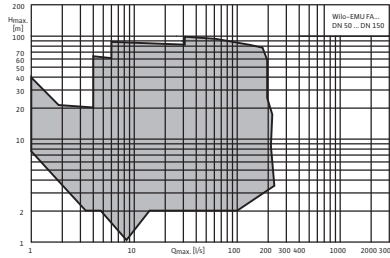


Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps from DN 50 to DN 600

Series overview Wilo EMU FA...

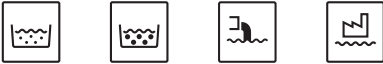
Series: Wilo EMU FA 05... to Wilo EMU FA 15...



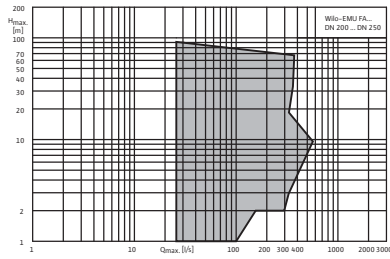
Sewage pump with submersible motor

Application

- Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas



Series: Wilo EMU FA 20... to Wilo EMU FA 25...



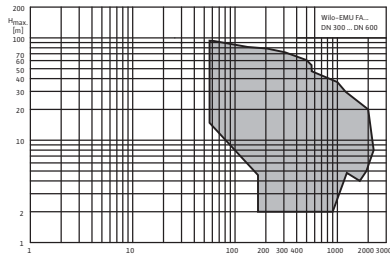
Sewage pump with submersible motor

Application

- Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas



Series: Wilo EMU FA 30... to Wilo EMU FA 60...



Sewage pump with submersible motor

Application

- Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas



Series overview Wilo EMU FA...

Series: Wilo EMU FA 05... to Wilo EMU FA 15...

> Product advantages:

- Pumps for wet and dry sump installation
- Explosion-protected versions in accordance with ATEX and FM
- Longitudinally watertight cable inlet
- Heavy sturdy version made of grey cast iron for long trouble-free operation
- Special materials and coatings against corrosive or abrasive fluids

> Additional information:

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• Wilo EMU FA 05...	156
• Wilo EMU FA 08...	168
• Wilo EMU FA 10...	206
• Wilo EMU FA 15...	256

Series: Wilo EMU FA 20... to Wilo EMU FA 25...

> Product advantages:

- Pumps for wet and dry sump installation
- Explosion-protected versions in accordance with ATEX and FM
- Longitudinally watertight cable inlet
- Heavy sturdy version made of grey cast iron for long trouble-free operation
- Special materials and coatings against corrosive or abrasive fluids

> Additional information:

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Series: Wilo EMU FA 30... to Wilo EMU FA 60...

> Product advantages:

- Pumps for wet and dry sump installation
- Explosion-protected versions in accordance with ATEX and FM
- Longitudinally watertight cable inlet
- Heavy sturdy version made of grey cast iron for long trouble-free operation
- Special materials and coatings against corrosive or abrasive fluids

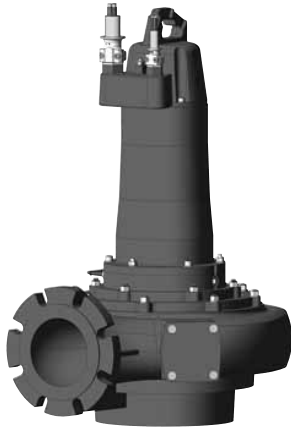
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Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps from DN 50 to DN 150

Series description Wilo-EMU FA 05... to FA 15...



Wilo-EMU FA...

Sewage pump with submersible motor

Type key for hydraulics

Example: Wilo-EMU FA 08.34E

- FA** = Submersible sewage pump
- 08** = Nominal width of the pressure port DN 80 (x10)
- 34** = Performance characteristic number
- E** = Impeller type

Type key for motors

Example: Wilo-EMU T17.2-4/24K Ex

- T** = Motor version
- 17** = Size
- 2** = Distinguishing number
- 4** = Number of poles
- 24** = Package length
- K** = Seal version
- Ex** = Ex approval

Fields of application

Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas

Construction

Submersible sewage pump as submersible monobloc unit for wet and dry sump installation. Portable installations are usually possible.

Hydraulics

Housing and impeller made of grey cast iron. The outlets on the pressure side are designed as horizontal flange connections (exception: FA 05.11 and FA 05.33). The maximum possible dry substance content, depending on the hydraulics and impeller type, is 8%. The ball passages are between 35 and 130 mm.

Different impeller shapes are used:

- **W** = Vortex impeller
- **E** = Single-channel impeller
- **Z** = Two-channel impeller
- **D** = Three-channel impeller

The hydraulics are equipped with a counter ring and stationary wear ring made of hardened materials (exception: vortex impellers and FA 08.41). These easy-to-exchange wear parts ensure long-term efficiency of the unit.

Motor

Motor housing made of grey cast iron. Depending on the type of motor, the unit can run continuously in wet or dry sump installation.

The air-filled motors (T) give off their heat to the surrounding fluid and can therefore only be operated continuously outside of the fluid in an exceptional case. The operating mode is documented here specific to type.

The self-cooling motors (F, FK, FO, FKT, HC) give off their heat directly to the pumped fluid via a built-in heat exchanger. They are suitable for permanent operation either submerged or surfaced.

The cable inlet is sealed longitudinally watertight in connection with the T-cable inlet. Up to the motor size 17, the cable lengths are available in fixed stages starting from 10 m. Starting from size 20, the cable length can be individually configured.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- On the fluid side with a mechanical seal, on motor side with a radial shaft sealing ring (version H)
- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Special materials and coatings against corrosion and abrasion
- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Plugs and switchgear
- Level controls

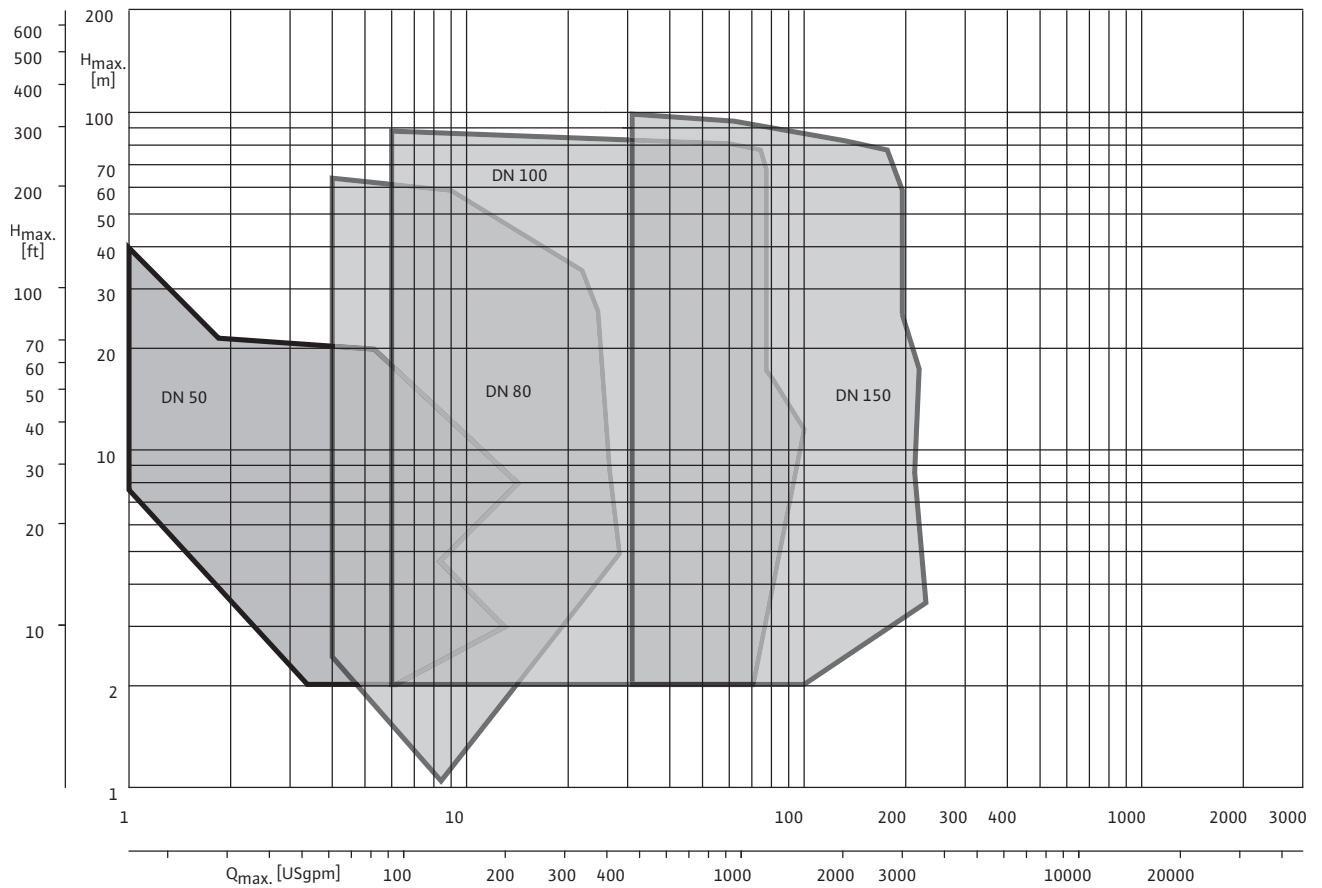
Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps from DN 50 to DN 150

Series description Wilo-EMU FA 05... to FA 15...

Overview diagram



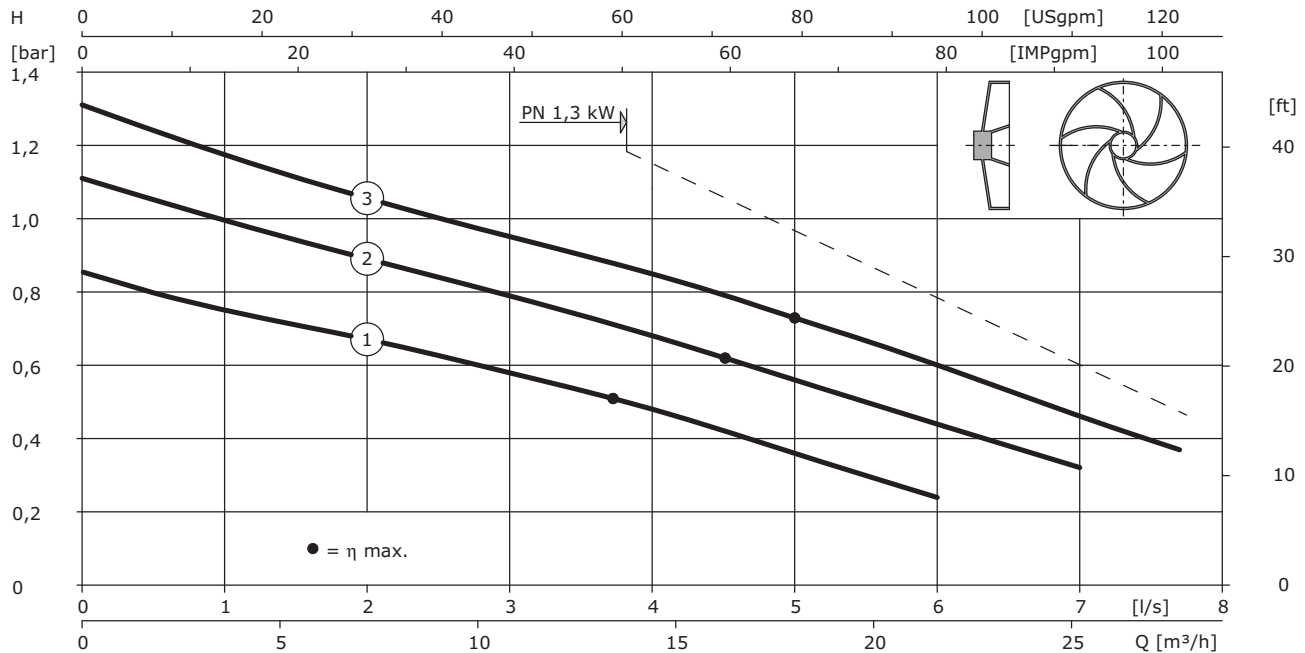
Submersible Motor Pumps DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 05.11W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	100	5	5	5	-	-	-	-	-
2	115	5	5	5	-	-	-	-	-
3	128	5	5	5	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
1.3	F 12.1-2/9	1.86	3.15	177	293	S1/S1	-	18

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

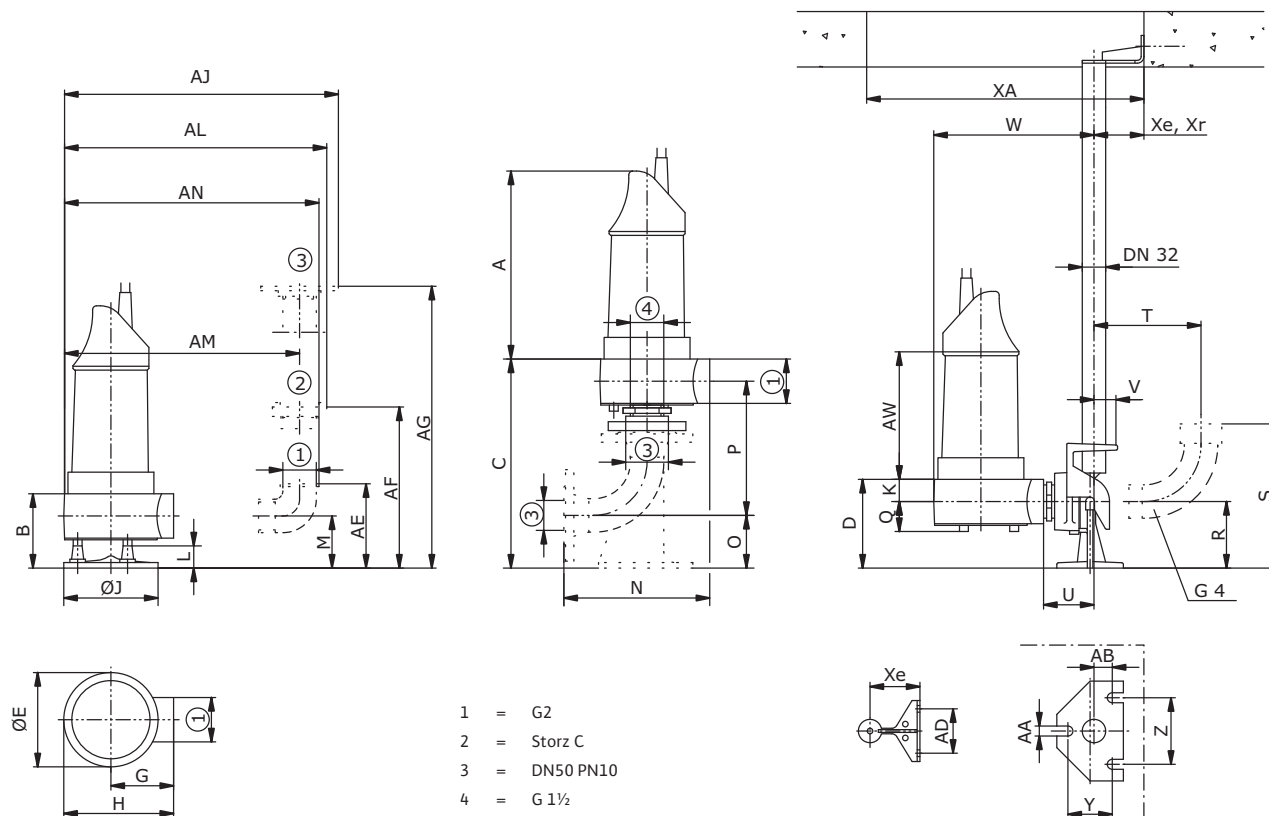
Wilo-EMU FA 05.11W (2900 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	131	377	157	170	-	113	198	170	37	40	94	263	95	242	54	120	260	109	91	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	289	625	90	95	80	120	18	33	-	80	152	171	252	-	331	-	297	163	285

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	G2/1R 52.13918/1	9
Elbow 90° (G4), long, with internal and external threa	-	-	G2	1.5
Elbow with internal and external thread	G2	-	-	1
Elbow with internal and external thread Storz C	G2	-	-	1
Elbow with internal and external thread (long nipple / threaded flange)	G2 DN50 PN10	-	-	3
Flanged foot elbow 90° (N adapter)	-	DN 50	-	10
Pump foot	53.14488	-	-	3,0

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

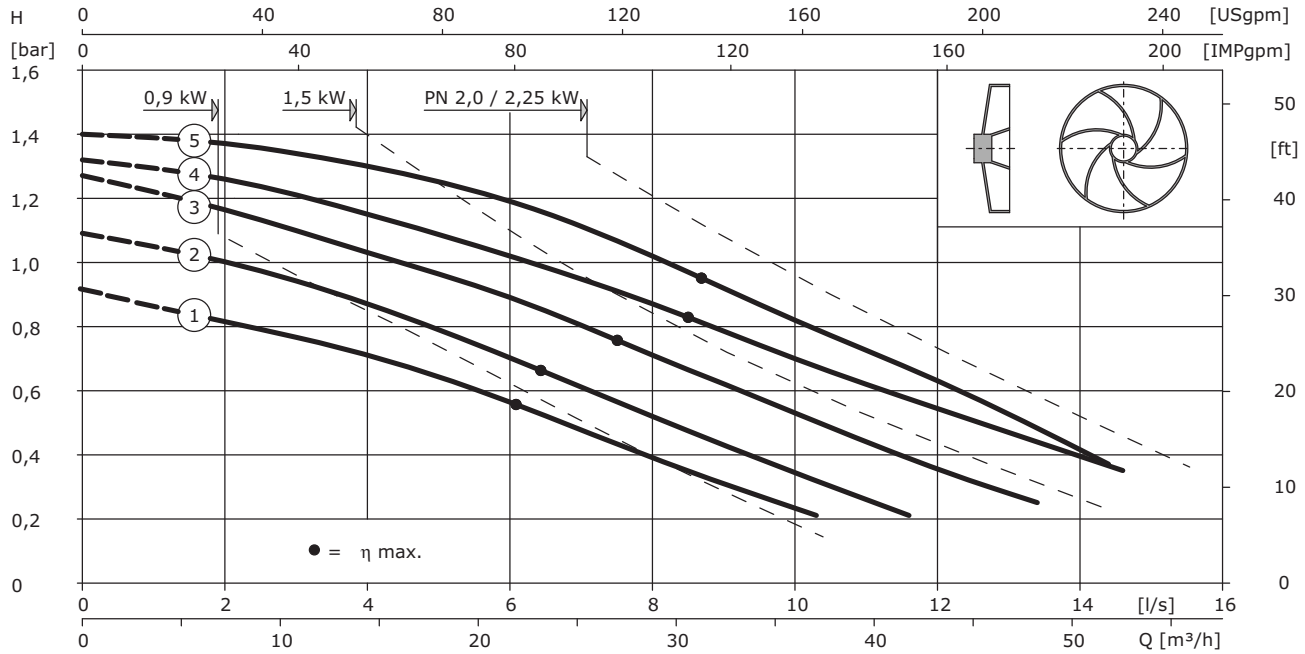
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 05.23W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	100	7	7	7	-	-	-	-	-
2	108	7	7	7	-	-	-	-	-
3	116	8	8	8	-	-	-	-	-
4	127	8	8	8	-	-	-	-	-
5	133	8	8	8	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
2.25	T 12-2/11G	2.9	4.8	319	379	S1/-	ATEX, FM	25
Wet and dry sump installation								
0.9	T 12-2/11G	1.2	2.8	319	379	S1/S1	ATEX, FM	25
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

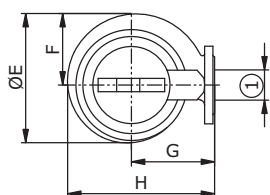
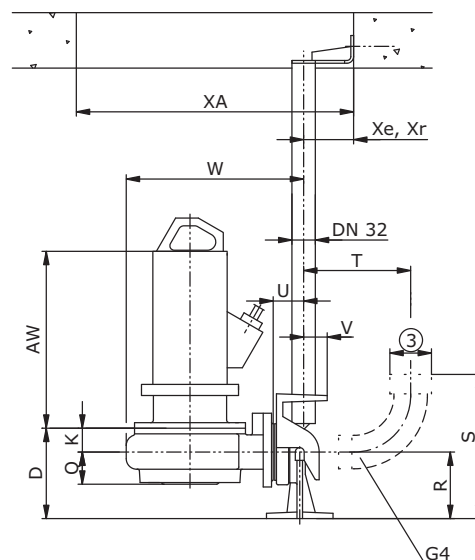
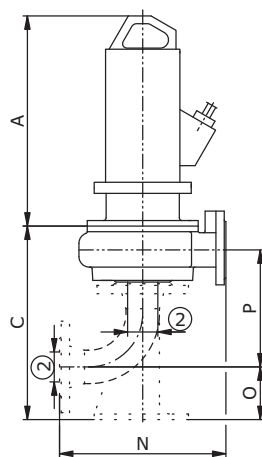
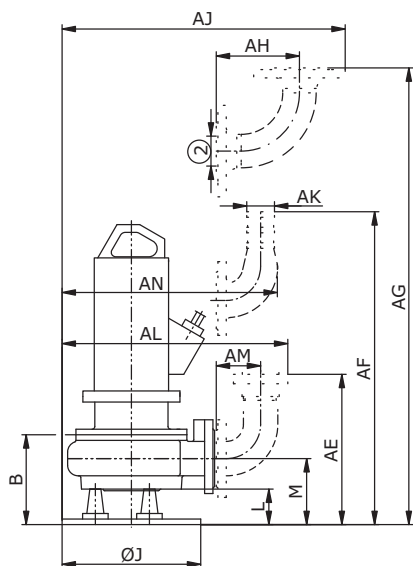
Wilo-EMU FA 05.23W (2900 rpm)

Dimension drawing

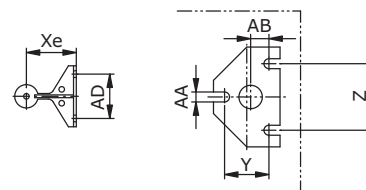
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN50 PN10
ANSI B16.1, Class 125, Size 2
- 2 = DN50 PN10
- 3 = G 2



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	163	350	162	233	128	150	265	250	42	64	121	300	95	213	61	120	260	109	55	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	320	625	90	95	80	120	18	33	–	80	273	281	271	150	511	50	407	80	389

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension Unit	–	–	DN 50 / 1R 52.13917/1	9
Elbow 90° (G4), long, with internal and external thread	–	–	G2	1.5
Flanged elbow 90° (Q adapter)	DN 50	–	–	7
Flanged elbow 90° with hose connection 2"	DN 50	–	–	3
Flanged elbow 90° with thread G2 / Storz C	DN 50	–	–	3
Flanged elbow 90° (N adapter)	–	DN 50	–	10
Pump foot	52.14444	–	–	4,0

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

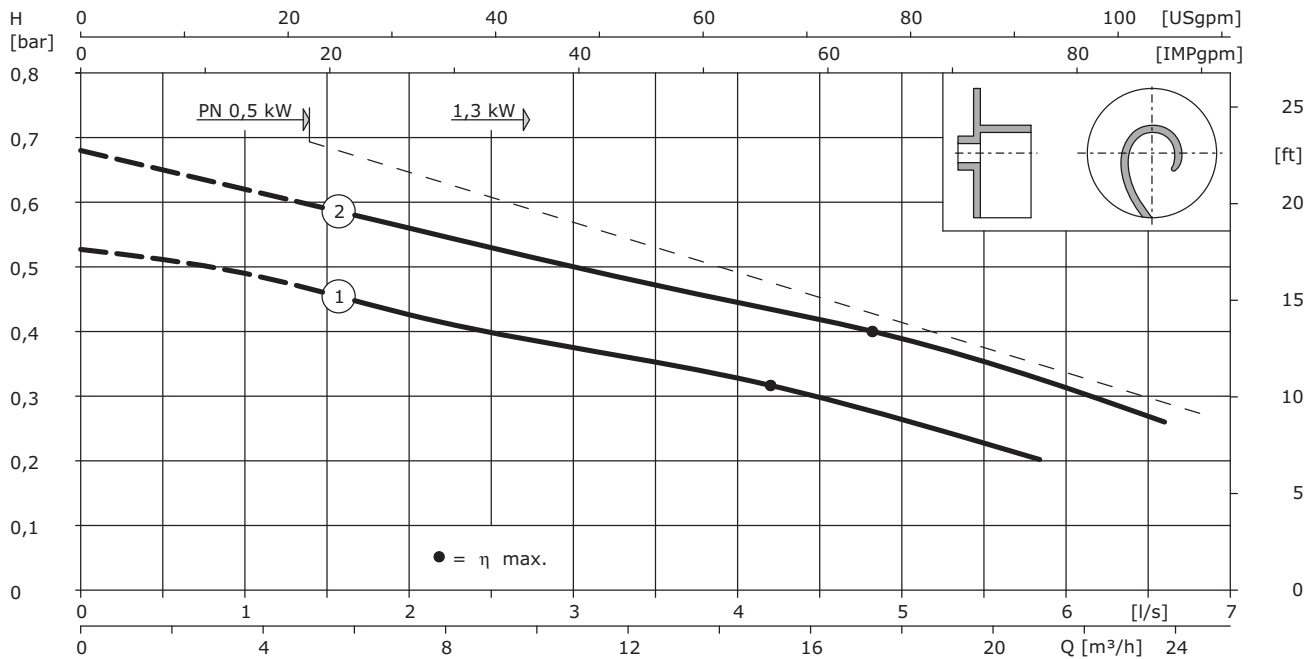
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 05.32E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	125	10	10	10
2	140	10	10	10
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
1.3	T 12-4/11G	1.74	3.3	319	379	S1/S2 15	ATEX, FM	25
Wet and dry sump installation								
0.5	T 12-4/6G	0.73	1.42	264	324	S1/S1	ATEX, FM	19
1.3	T 12-4/11G	1.74	3.3	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

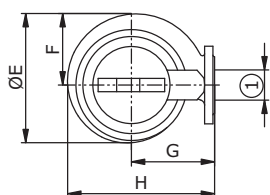
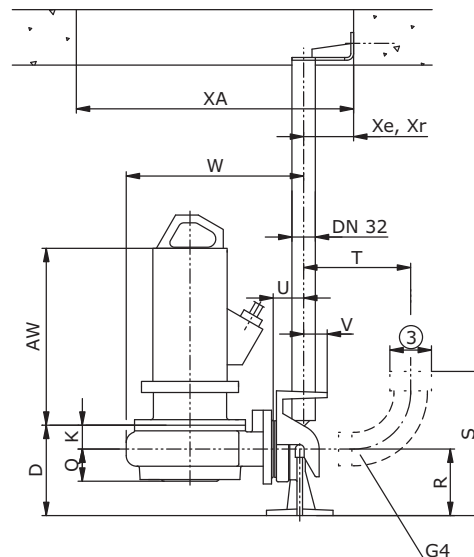
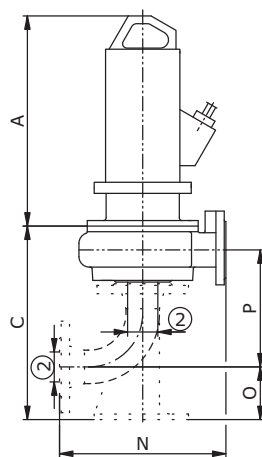
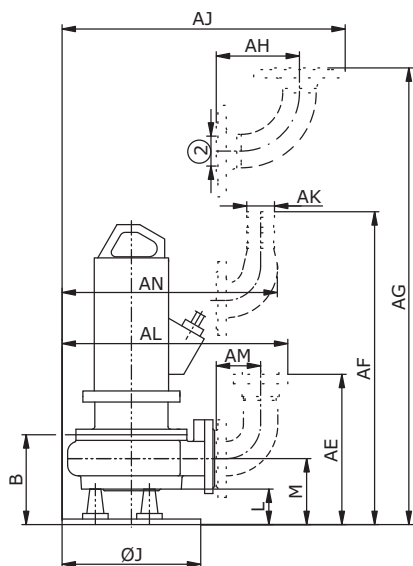
Wilo-EMU FA 05.32E (1450 rpm)

Dimension drawing

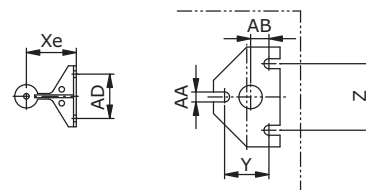
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN50 PN10
ANSI B16.1, Class 125, Size 2
- 2 = DN50 PN10
- 3 = G 2



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	163	350	350	162	233	128	150	265	250	42	64	121	300	95	213	61	120	260	109	55
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	320	625	90	95	80	120	18	33	–	80	273	281	271	150	511	50	407	80	389

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension Unit	–	–	DN 50 / 1R 52.13917/1	9
Elbow 90° (G4), long, with internal and external thread	–	–	G2	1.5
Flanged elbow 90° (Q adapter)	DN 50	–	–	7
Flanged elbow 90° with hose connection 2"	DN 50	–	–	3
Flanged elbow 90° with thread G2 / Storz C	DN 50	–	–	3
Flanged elbow 90° (N adapter)	–	DN 50	–	10
Pump foot	52.14444	–	–	4,0

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

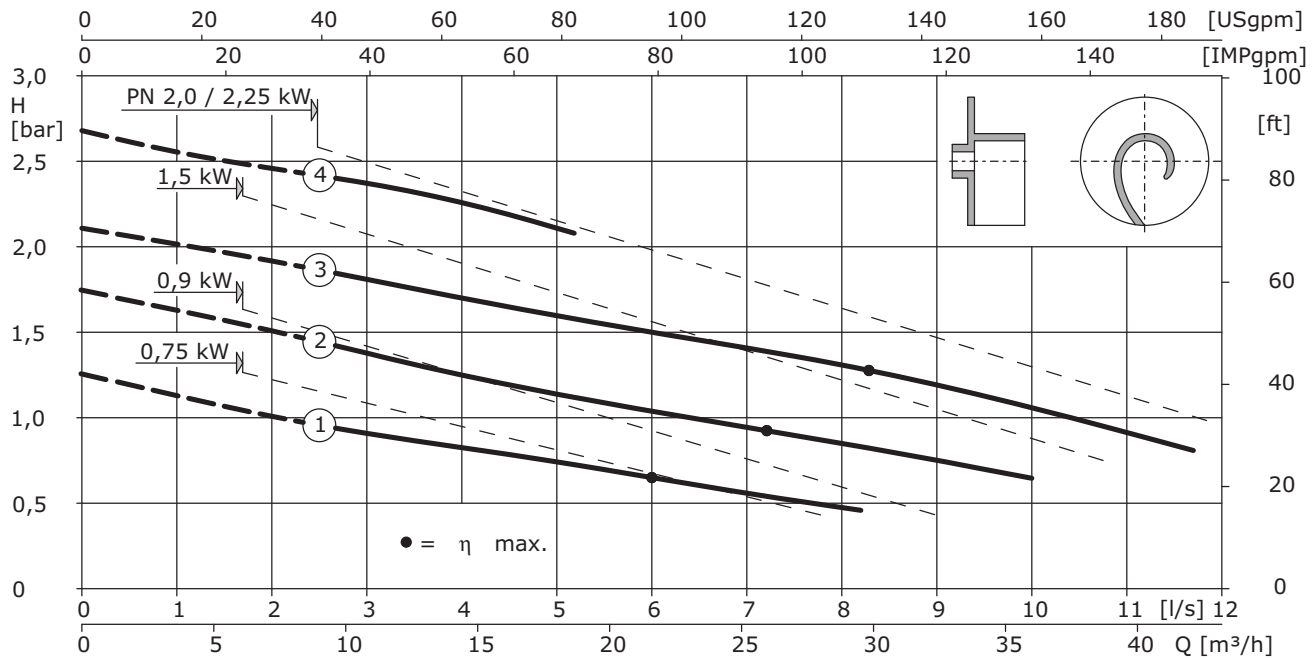
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 05.32E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	100	10	10	10
2	112	10	10	10
3	125	10	10	10
4	140	10	10	10
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
2.25	T 12-2/11G	2.9	4.8	319	379	S1/-	ATEX, FM	25
Wet and dry sump installation								
0.75	T 12-2/6G	1.06	1.76	264	324	S1/S2 30	ATEX, FM	19
0.9	T 12-2/11G	1.2	2.8	319	379	S1/S1	ATEX, FM	25
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

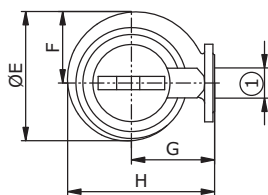
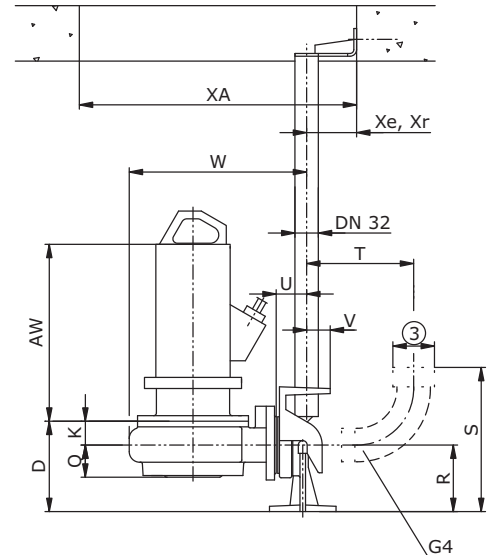
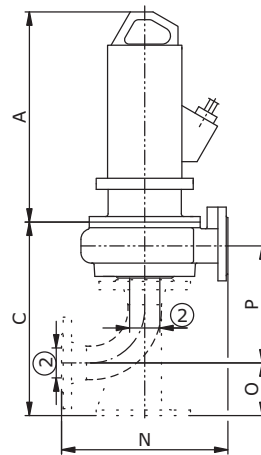
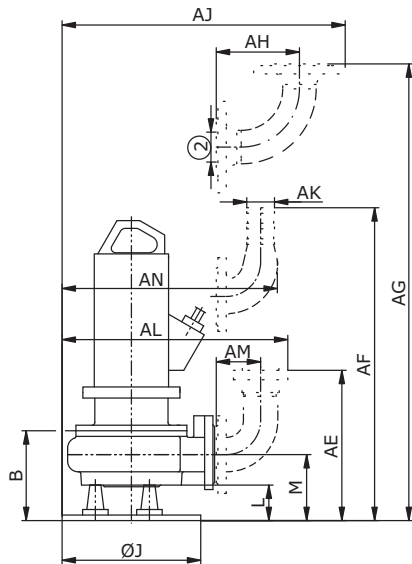
Wilo-EMU FA 05.32E (2900 rpm)

Dimension drawing

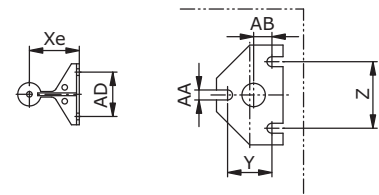
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN50 PN10
ANSI B16.1, Class 125, Size 2
- 2 = DN50 PN10
- 3 = G 2



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	163	350	350	162	233	128	150	265	250	42	64	121	300	95	213	61	120	260	109	55
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	320	625	90	95	80	120	18	33	–	80	273	281	271	150	511	50	407	80	389

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension Unit	–	–	DN 50 / 1R 52.13917/1	9
Elbow 90° (G4), long, with internal and external thread	–	–	G2	1.5
Flanged elbow 90° (Q adapter)	DN 50	–	–	7
Flanged elbow 90° with hose connection 2"	DN 50	–	–	3
Flanged elbow 90° with thread G2 / Storz C	DN 50	–	–	3
Flanged elbow 90° (N adapter)	–	DN 50	–	10
Pump foot	52.14444	–	–	4,0

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

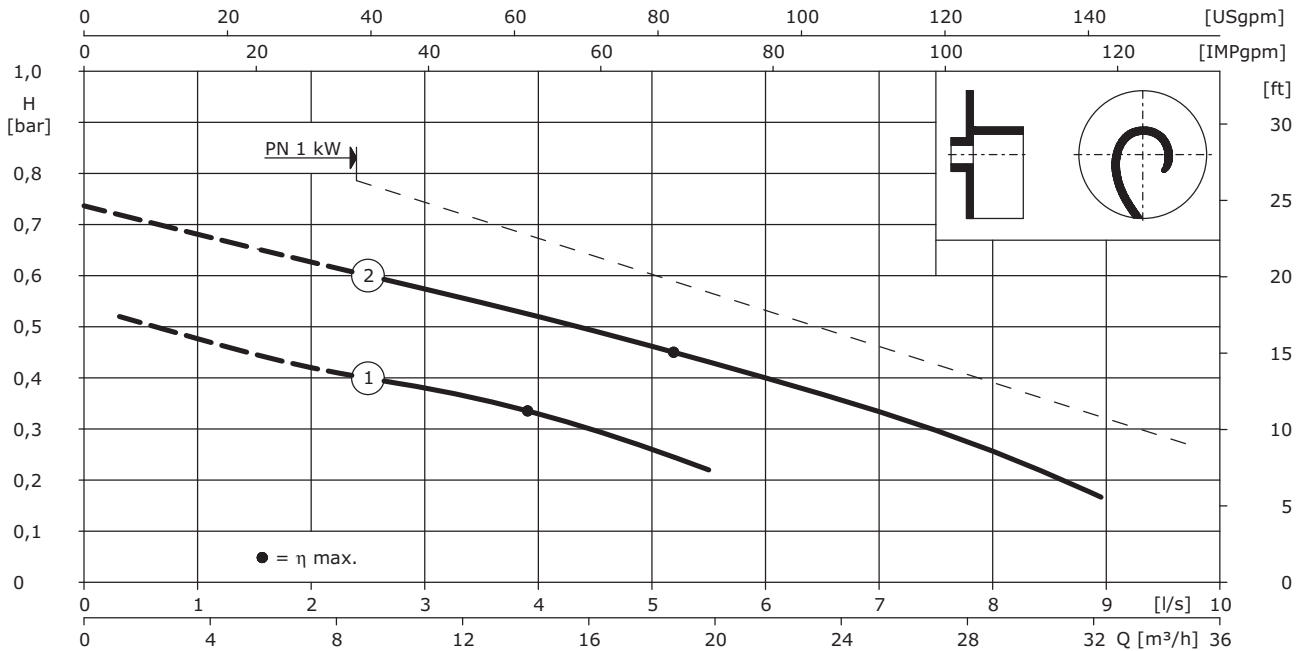
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 05.33E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	125	-	-	10	-	-	-	-	-
2	144	-	-	10	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
1	F 13.2-4/9	1.3	2.35	177	408	S1/S1	-	34

Sewage Pumps for Municipal and Industrial Applications

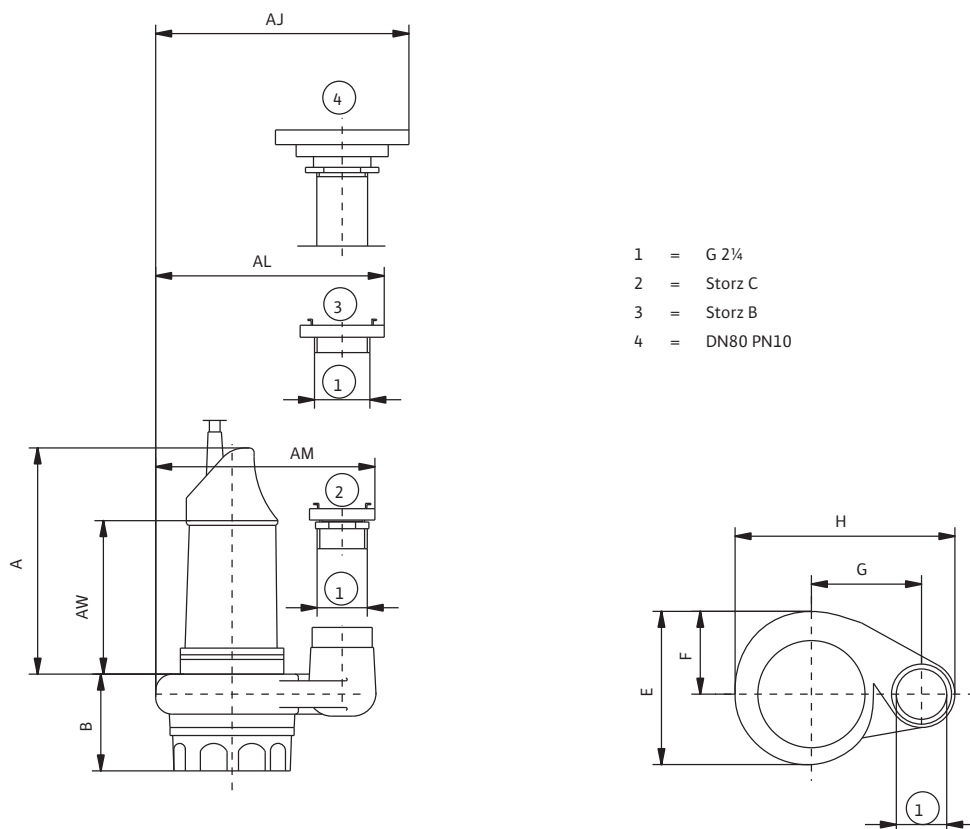
Submersible motor pumps for DN50 up to DN150



Wilo-EMU FA 05.33E (1450 rpm)

Dimension drawing

Portable installation (T)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	145	-	-	230	125	165	330	-	-	-	-	-	-	-	-	-	-	-	-	-
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	380	-	343	329	-

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Storz C	G 2 1/2	-	-	2
Storz B	G 2 1/2	-	-	2
Long nipple / Reduction nipple / Threaded flange	G 2 1/2 - 2 1/2 IG / 3 AG - DN80 PN10	-	-	6
Flanged elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

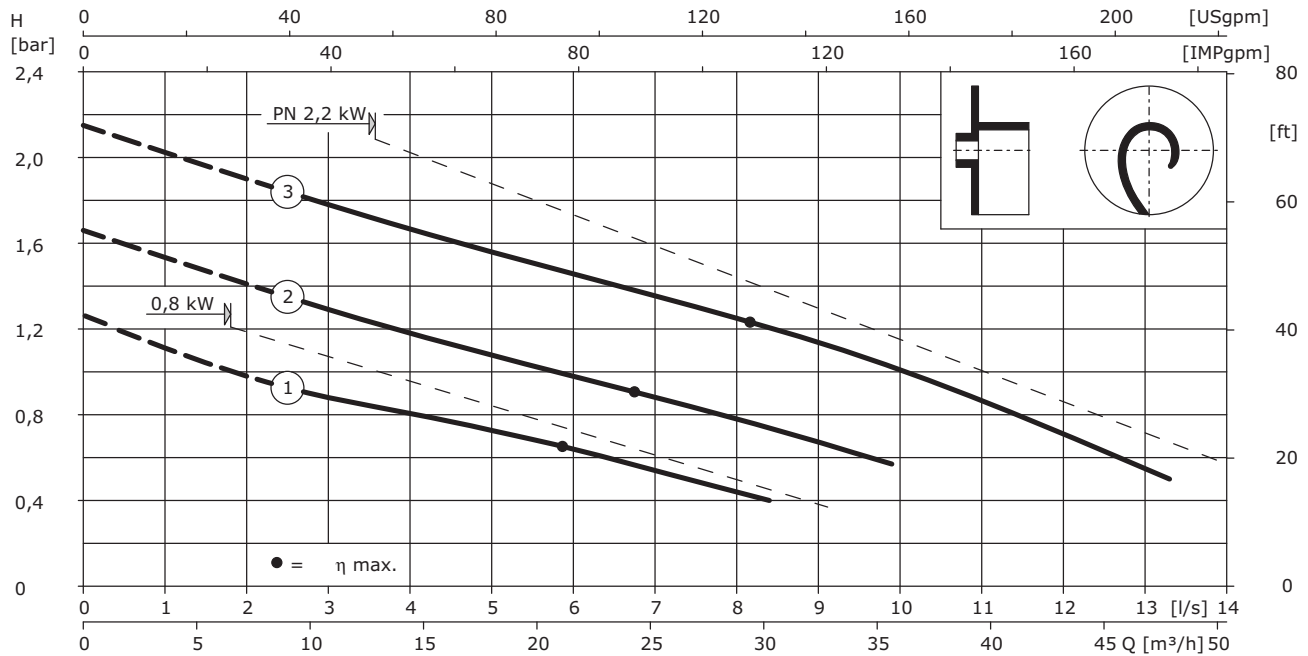
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 05.33E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	100	-	-	10	-	-	-	-	-
2	112	-	-	10	-	-	-	-	-
3	125	-	-	10	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet and dry sump installation								
0.8	F 12.3-2/6	1.18	2	177	293	S1/S1	-	20
2.2	F 13.2-2/9	2.8	4.65	292	408	S1/S1	-	34

Sewage Pumps for Municipal and Industrial Applications

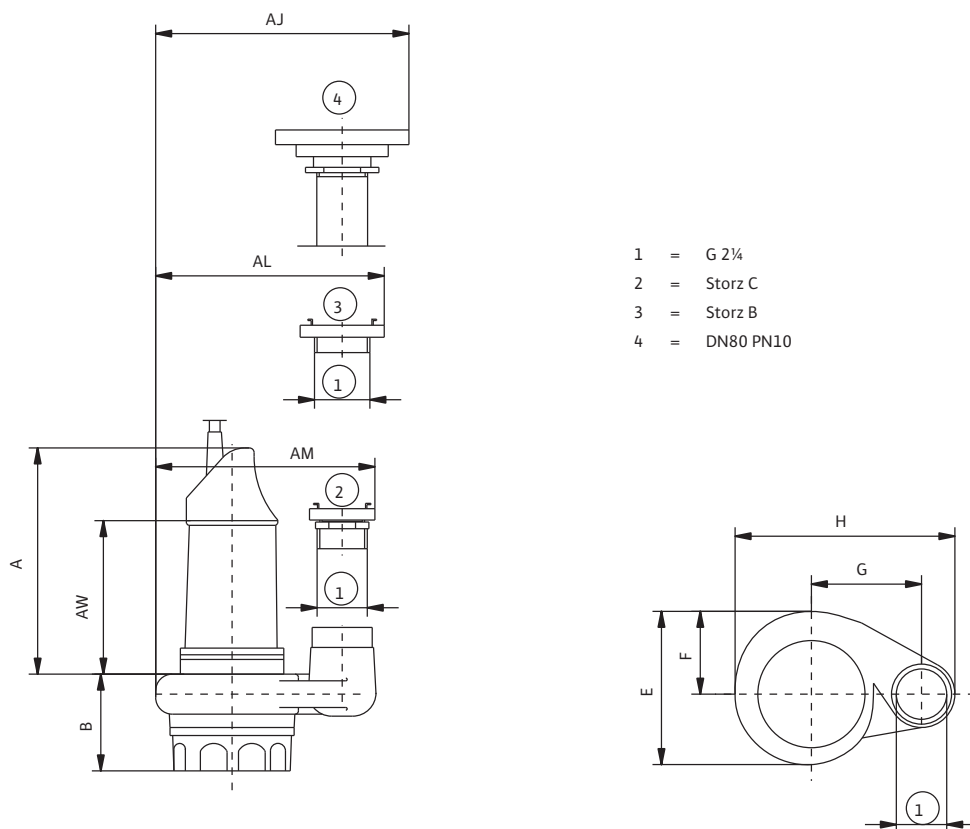
Submersible motor pumps for DN50 up to DN150



Wilo-EMU FA 05.33E (2900 rpm)

Dimension drawing

Portable installation (T)



- 1 = G 2 1/4
- 2 = Storz C
- 3 = Storz B
- 4 = DN80 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	145	-	-	230	125	125	165	330	-	-	-	-	-	-	-	-	-	-	-	-
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	380	-	343	329	-

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Storz C	G 2 1/2	-	-	2
Storz B	G 2 1/2	-	-	2
Long nipple / Reduction nipple / Threaded flange	G 2 1/2 - 2 1/2 IG / 3 AG - DN80 PN10	-	-	6
Flanged elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

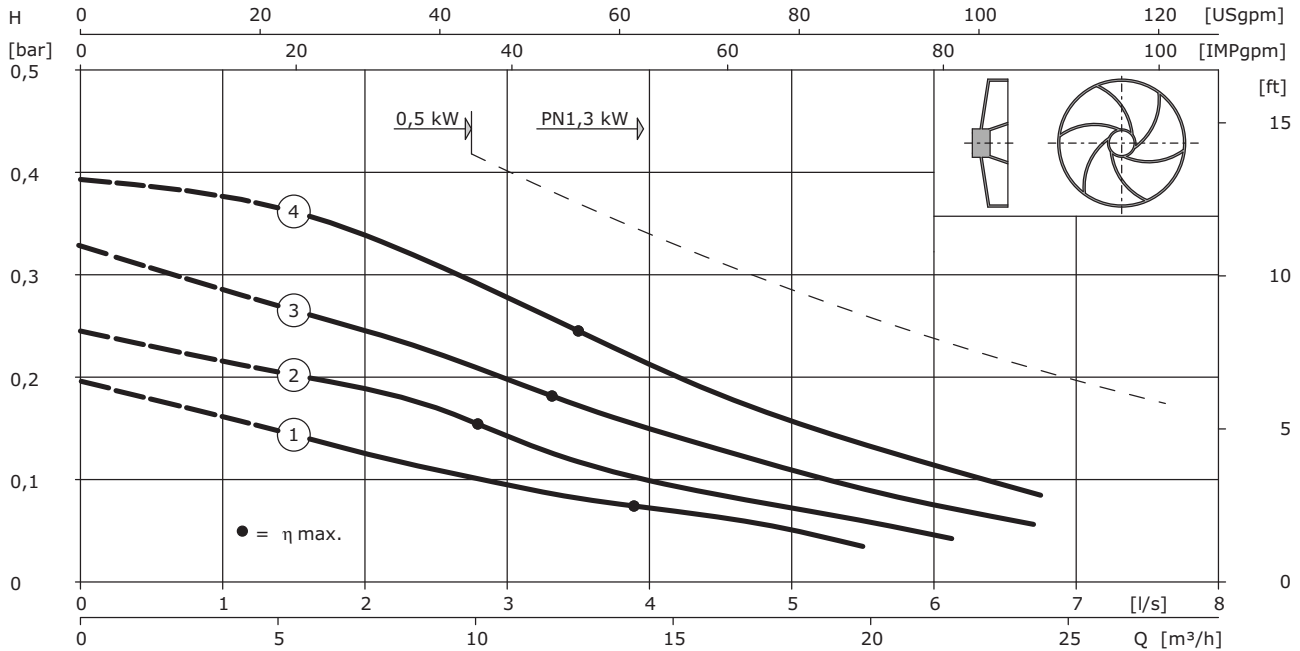
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.22W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	108	9	9	9
2	116	9	9	9
3	127	9	9	9
4	133	9	9	9
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
1.3	T 12-4/11G	1.74	3.3	319	379	S1/S2 15	ATEX, FM	25
Wet and dry sump installation								
0.5	T 12-4/11G	0.76	2.5	319	379	S1/S1	ATEX, FM	25
1.3	T 12-4/11G	1.74	3.3	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

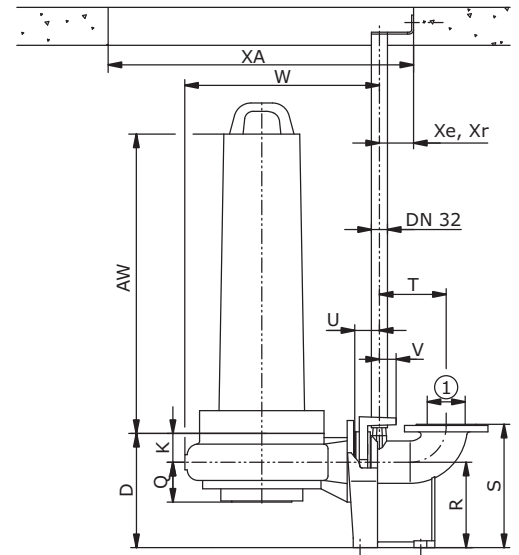
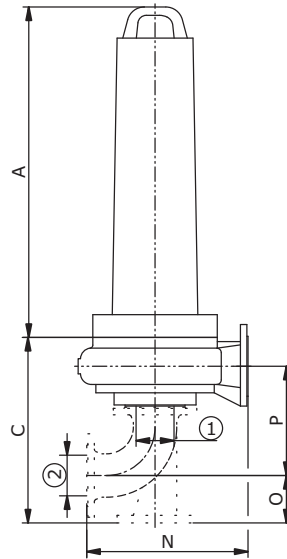
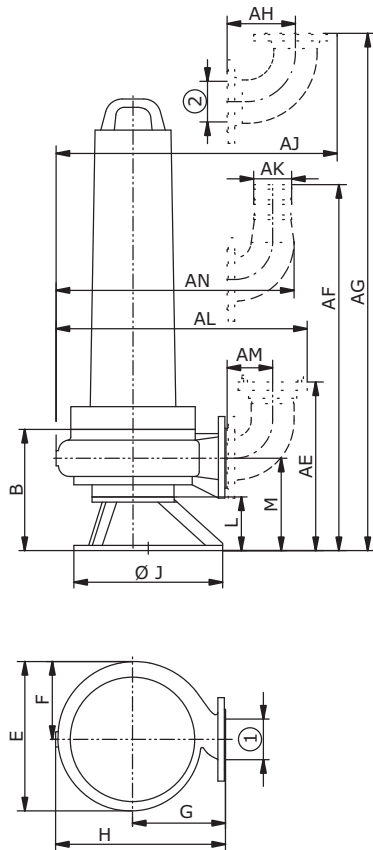
Wilo-EMU FA 08.22W (1450 rpm)

Dimension drawing

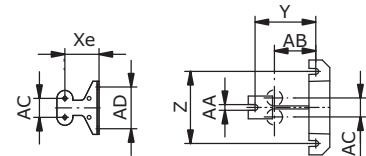
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	182	397	260	222	111	150	261	250	50	68	132	315	110	237	69	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	320	625	90	98	120	170	15	69	50	110	319	340	297	165	543	75	441	100	425

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14444	-	-	4

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

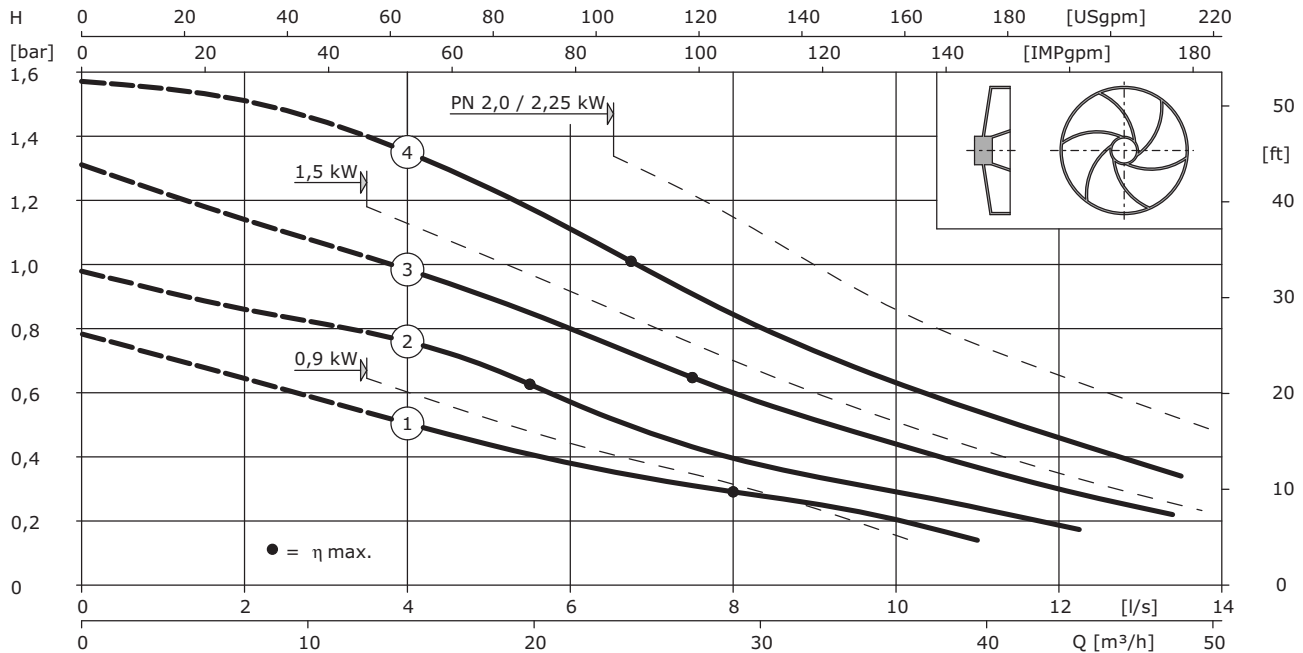
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.22W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	108	9	9	9
2	116	9	9	9
3	127	9	9	9
4	133	9	9	9
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25
2.25	T 12-2/11G	2.9	4.8	319	379	S1/-	ATEX, FM	25
Wet and dry sump installation								
0.9	T 12-2/11G	1.2	2.8	319	379	S1/S1	ATEX, FM	25
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

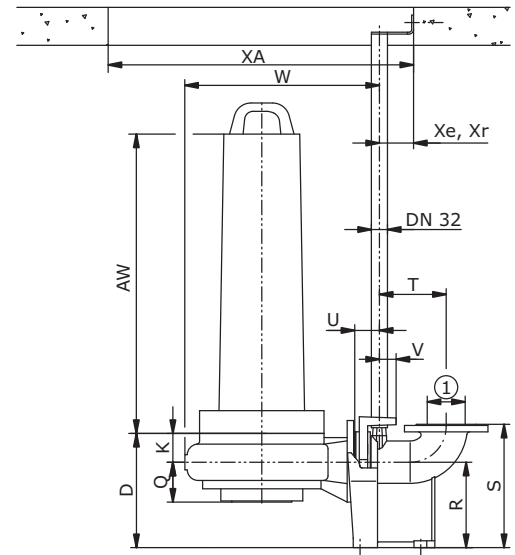
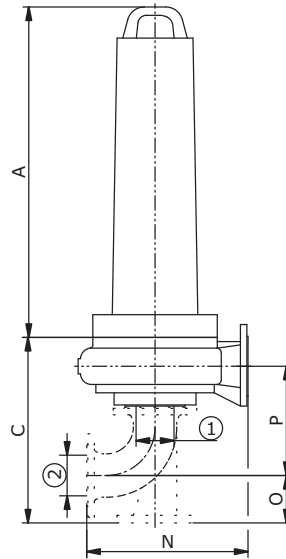
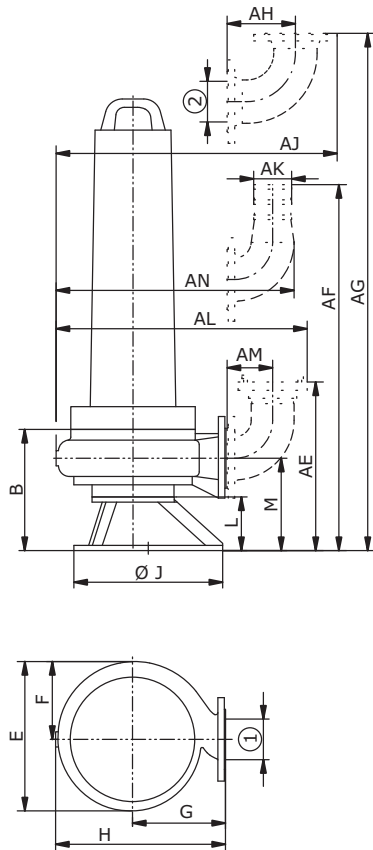
Wilo-EMU FA 08.22W (2900 rpm)

Dimension drawing

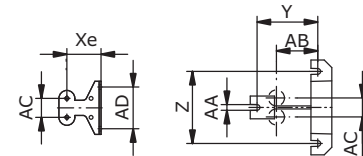
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	182	397	260	222	111	150	261	250	50	68	132	315	110	237	69	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	320	625	90	98	120	170	15	69	50	110	319	340	297	165	543	75	441	100	425

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14444	-	-	4

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

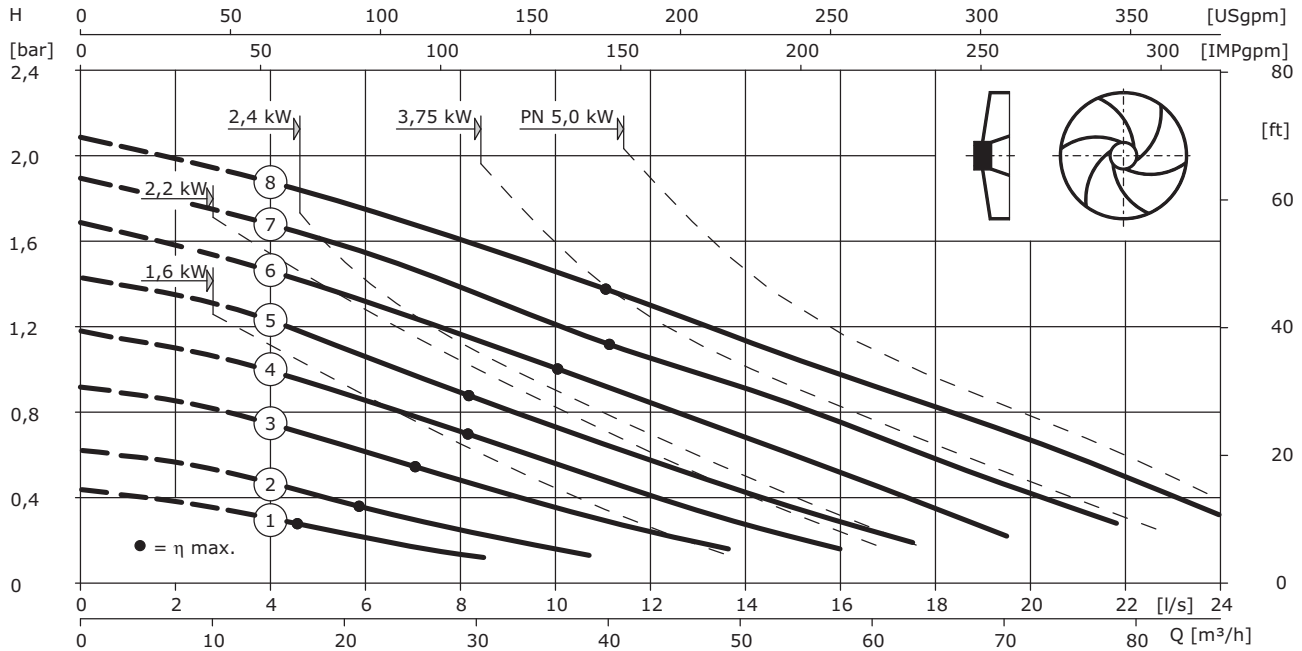
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.23W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	80	12	12	12
2	90	12	12	12
3	100	12.5	12.5	12.5
4	110	12.5	12.5	12.5
5	120	13	13	13

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	130	13	13	13
7	140	13.5	13.5	13.5
8	150	13.5	13.5	13.5
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
2.4	T 13-2/9H(K)	3	5.3	319	394	S1/S2 15	ATEX, FM	37
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39
5	T 13-2/16H(K)	5.9	9.7	374	449	S1/S2 15	ATEX, FM	42.5
Wet and dry sump installation								
1.6	T 13-2/9H(K)	2.1	3.8	319	394	S1/S1	ATEX, FM	37
2.2	T 13-2/12H(K)	2.8	5	319	394	S1/S1	ATEX, FM	39
2.4	T 13-2/9H(K)	3	5.3	319	394	S1/S2 15	ATEX, FM	37
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39
5	T 13-2/16H(K)	5.9	9.7	374	449	S1/S2 15	ATEX, FM	42.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

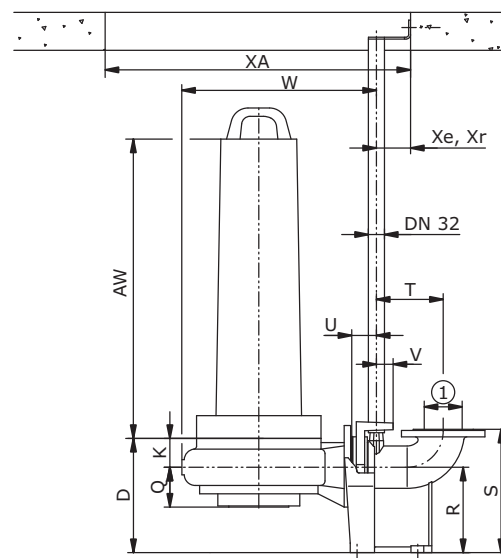
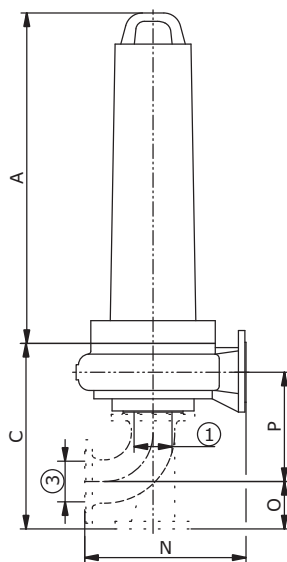
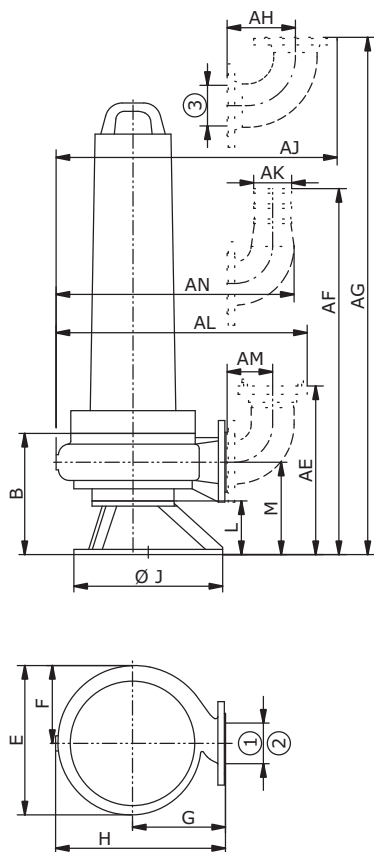
Wilo-EMU FA 08.23W (2900 rpm)

Dimension drawing

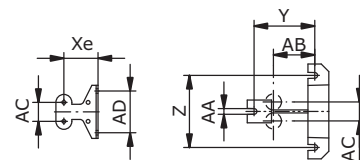
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN65 PN10
ANSI B16.1, Class 125, Size 2.5
- 3 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	256	414	414	274	204	102	150	252	344	64	124	193	315	110	240	72	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	311	625	90	98	120	170	15	69	50	110	380	403	358	165	555	75	453	100	437

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

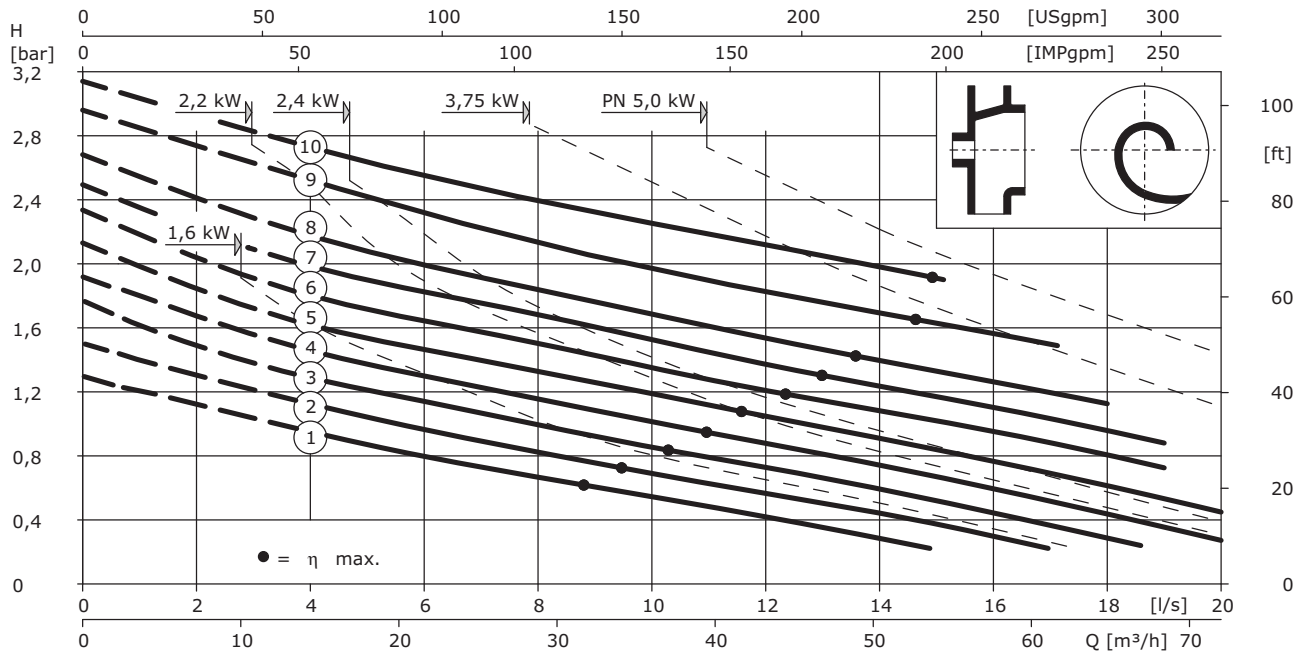
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.34E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	105	15.5	15.5	15.5
2	110	15.5	15.5	15.5
3	115	15.5	15.5	15.5
4	120	15.5	15.5	15.5
5	125	15.5	15.5	15.5

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	130	16	16	16
7	135	16	16	16
8	140	16	16	16
9	145	16	16	16
10	150	16	16	16

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
2.4	T 13-2/9H(K)	3	5.3	319	394	S1/S2 15	ATEX, FM	37
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39
5	T 13-2/16H(K)	5.9	9.7	374	449	S1/S2 15	ATEX, FM	42.5
Wet and dry sump installation								
1.6	T 13-2/9H(K)	2.1	3.8	319	394	S1/S1	ATEX, FM	37
2.2	T 13-2/12H(K)	2.8	5	319	394	S1/S1	ATEX, FM	39
2.4	T 13-2/9H(K)	3	5.3	319	394	S1/S2 15	ATEX, FM	37
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39
5	T 13-2/16H(K)	5.9	9.7	374	449	S1/S2 15	ATEX, FM	42.5

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150



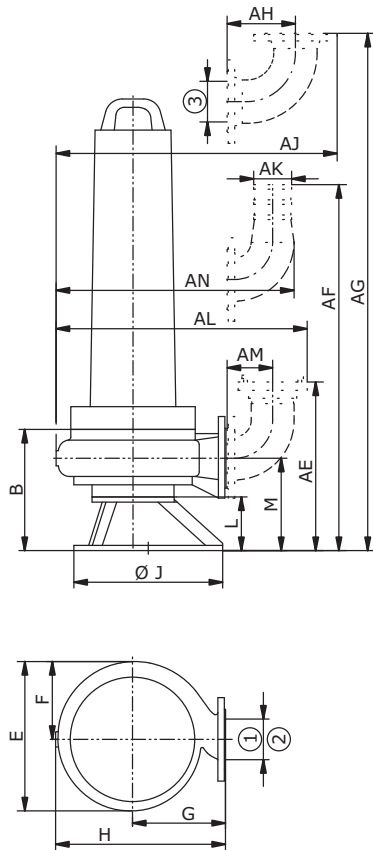
Wilo-EMU FA 08.34E (2900 rpm)

Dimension drawing

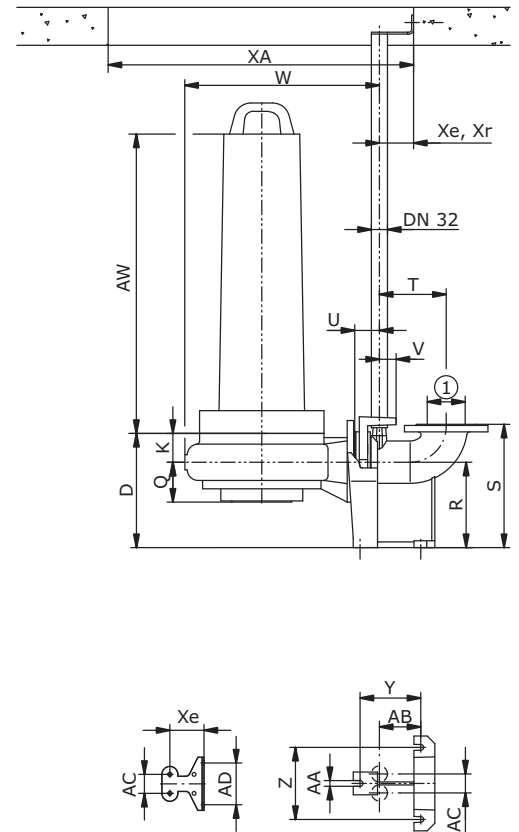
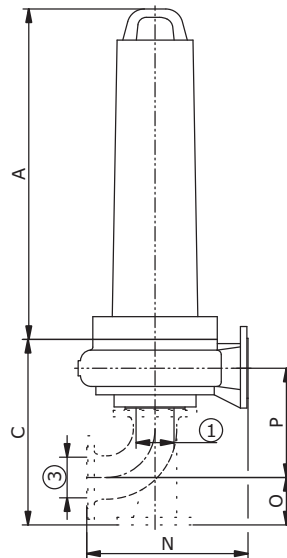
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN65 PN10
ANSI B16.1, Class 125, Size 2.5
- 3 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	180	394	394	249	230	125	150	265	250	39	64	141	315	110	245	77	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	324	625	90	98	120	170	15	69	50	110	328	351	306	165	468	75	431	100	415

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80/2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3/Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14444	-	-	4

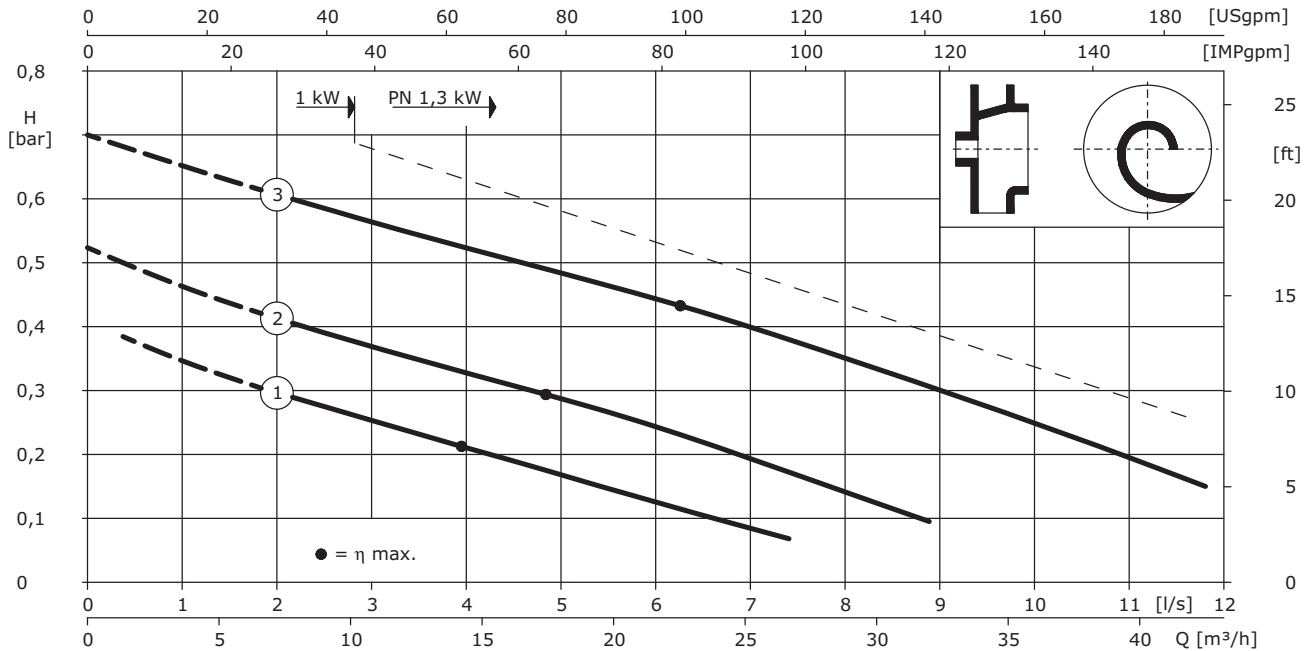
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.40E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	112	10	10	10	-	-	-	-	-
2	125	10	10	10	-	-	-	-	-
3	144	10	10	10	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet and dry sump installation								
1	F 13.2-4/9	1.3	2.35	292	408	S1/S1	-	34
1.3	F 13.2-4/9	1.69	3.05	292	408	S1/S1	-	34

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

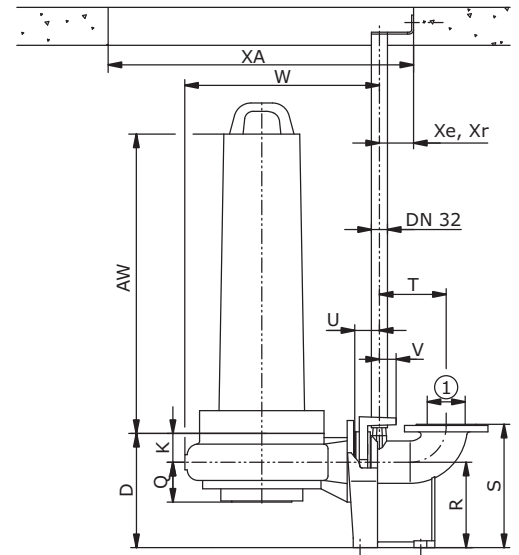
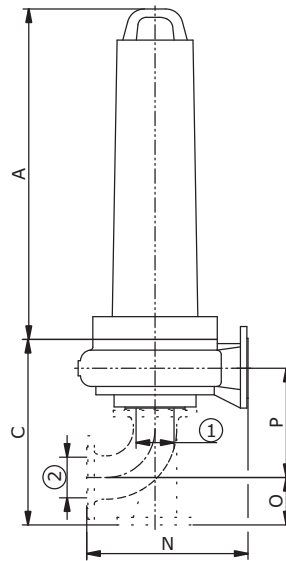
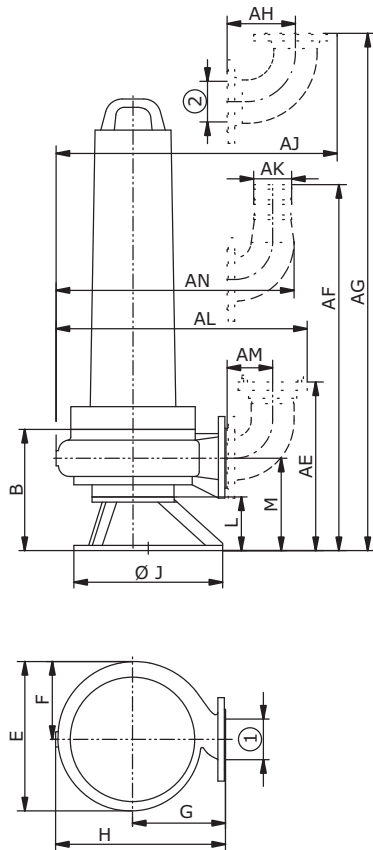
Wilo-EMU FA 08.40E (1450 rpm)

Dimension drawing

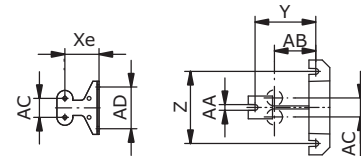
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	257	411	411	274	226	113	150	263	344	64	124	193	315	110	237	69	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	322	625	90	98	120	170	15	69	50	110	380	403	358	165	555	75	453	100	437

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

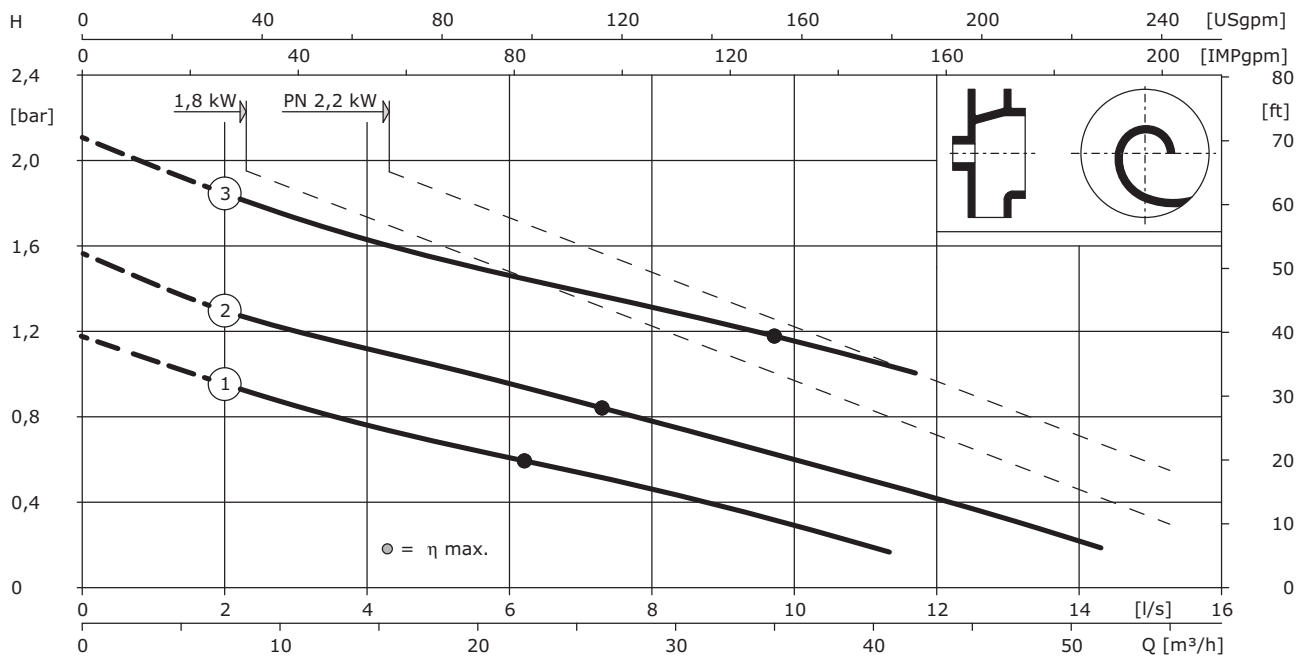
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.40E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	100	10	10	10
2	112	10	10	10
3	125	10	10	10
-	-	-	-	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet and dry sump installation								
1.8	F 13.2-2/9	2.35	3.95	292	408	S1/S1	-	34
2.2	F 13.2-2/9	2.8	4.65	292	408	S1/S1	-	34

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

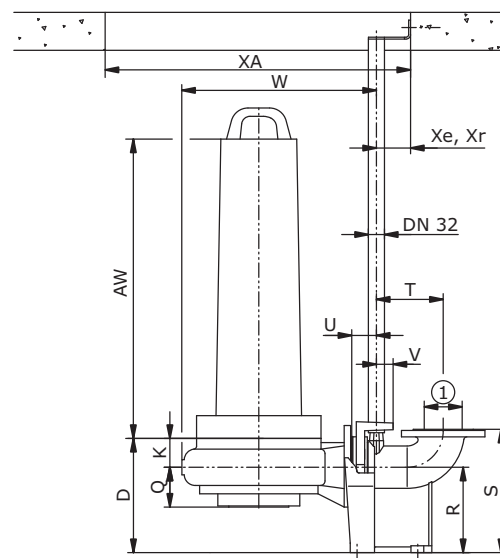
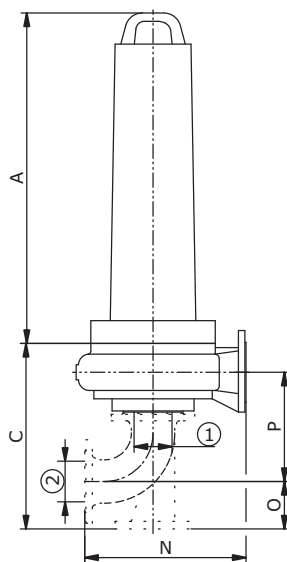
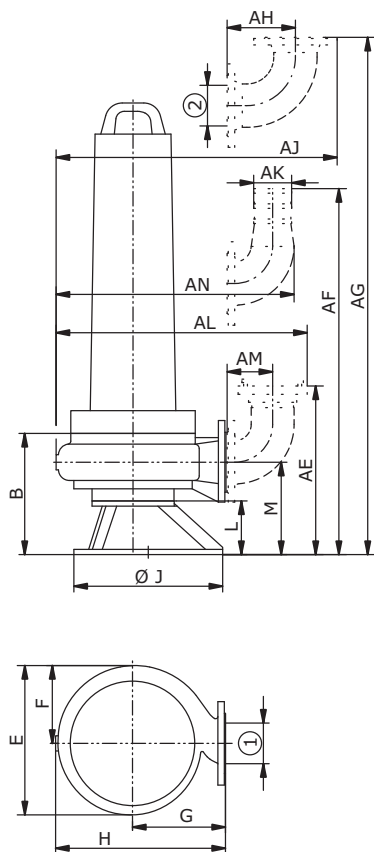
Wilo-EMU FA 08.40E (2900 rpm)

Dimension drawing

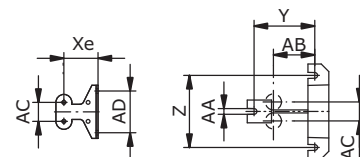
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	257	411	411	274	226	113	150	263	344	64	124	193	315	110	237	69	210	300	166	59
[mm]	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	322	625	90	98	120	170	15	69	50	110	380	403	358	165	555	75	453	100	437

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

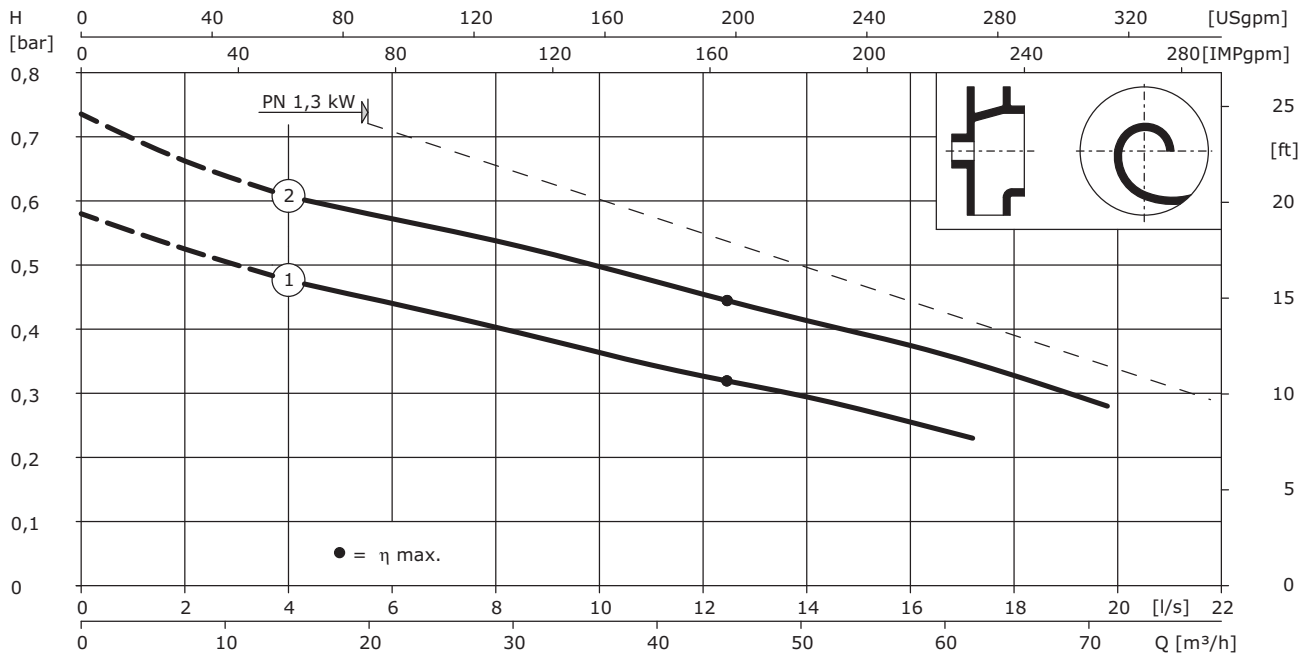
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.41E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	130	13	13	13	-	-	-	-	-
2	144	13	13	13	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
1.3	T 12-4/11G	1.74	3.3	319	379	S1/S2 15	ATEX, FM	25
Wet and dry sump installation								
1.3	T 12-4/11G	1.74	3.3	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

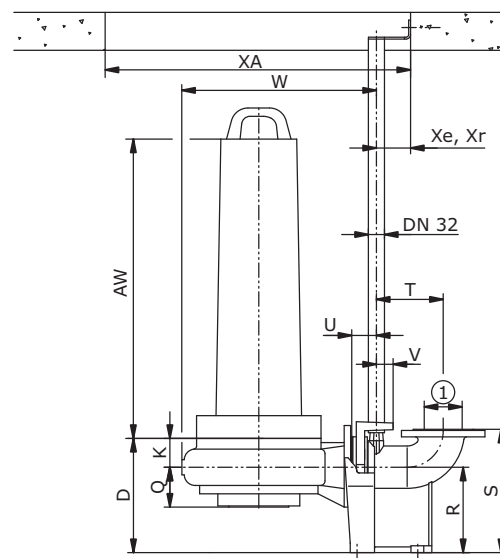
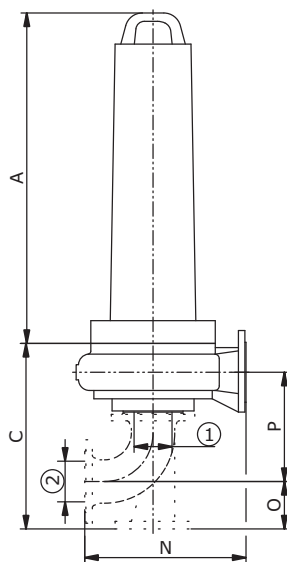
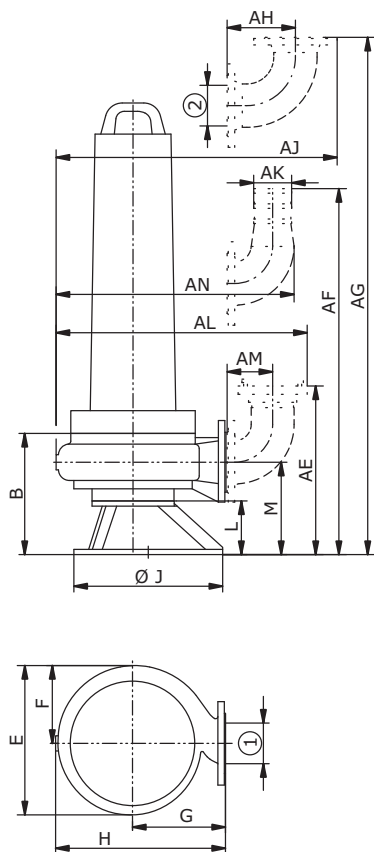
Wilo-EMU FA 08.41E (1450 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	194	194	407	263	229	121	150	265	250	53	68	141	315	110	244	76	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	324	625	90	98	120	170	15	69	50	110	328	351	306	165	543	75	441	100	425

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14444	-	-	4

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

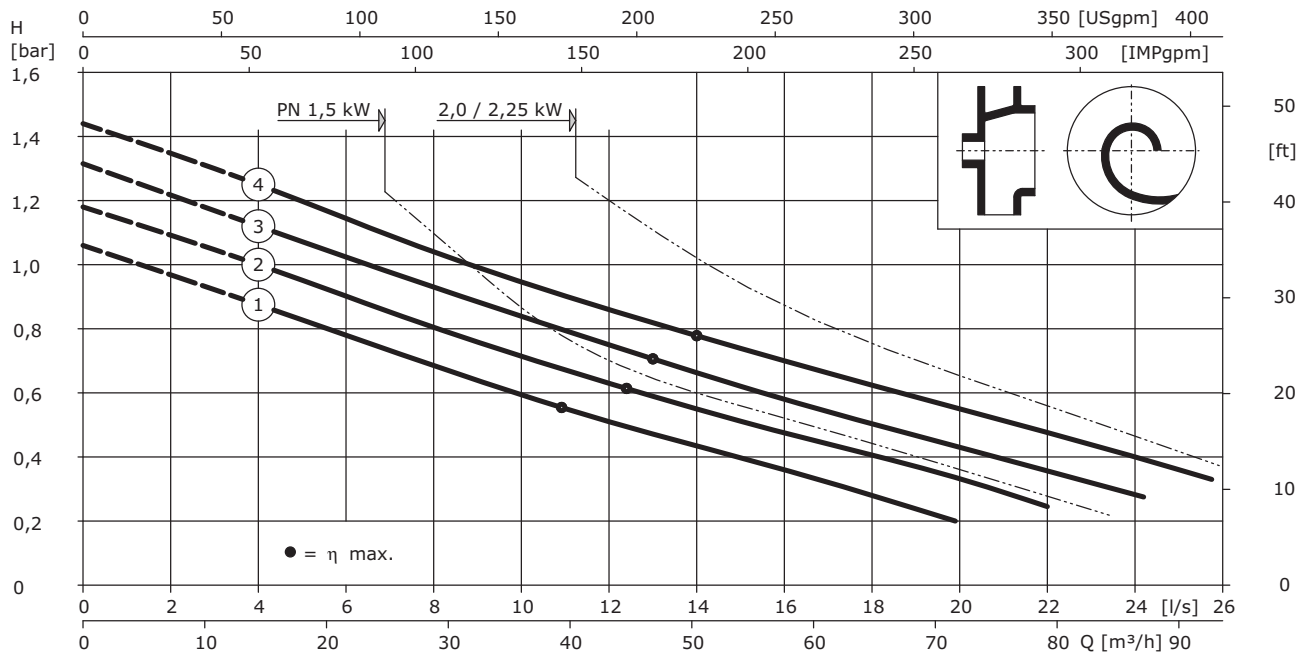
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.41E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	102	12	12	12	-	-	-	-	-
2	106	12	12	12	-	-	-	-	-
3	110	12	12	12	-	-	-	-	-
4	114	12	12	12	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2		P_1 max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25
2.25	T 12-2/11G	2.9	4.8	319	379	S1/-	ATEX, FM	25
Wet and dry sump installation								
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

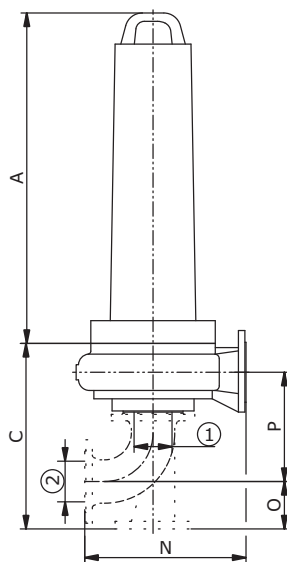
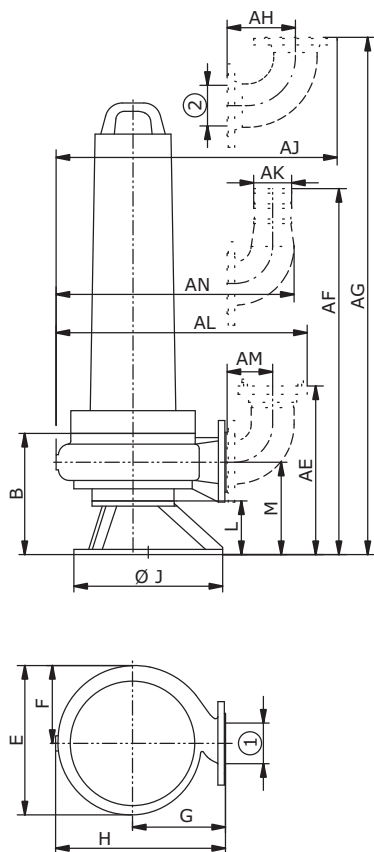
Wilo-EMU FA 08.41E (2900 rpm)

Dimension drawing

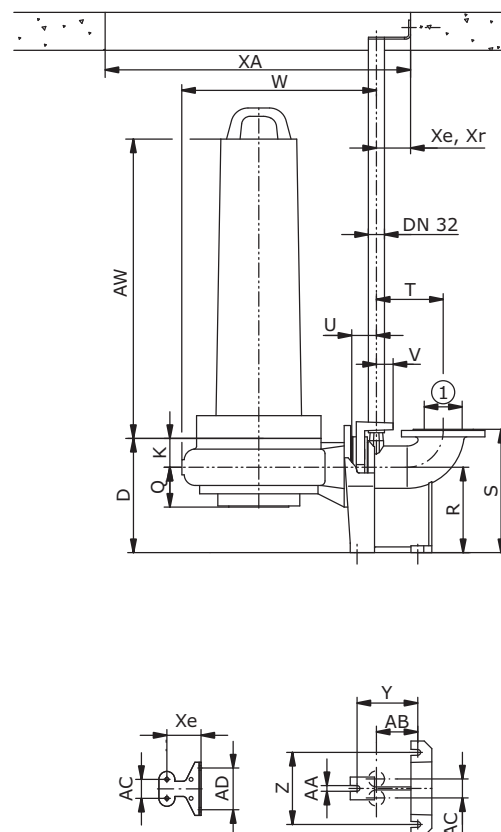
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	194	407	263	229	121	150	265	250	53	68	141	315	110	244	76	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	324	625	90	98	120	170	15	69	50	110	328	351	306	165	543	75	441	100	425

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14444	-	-	4

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

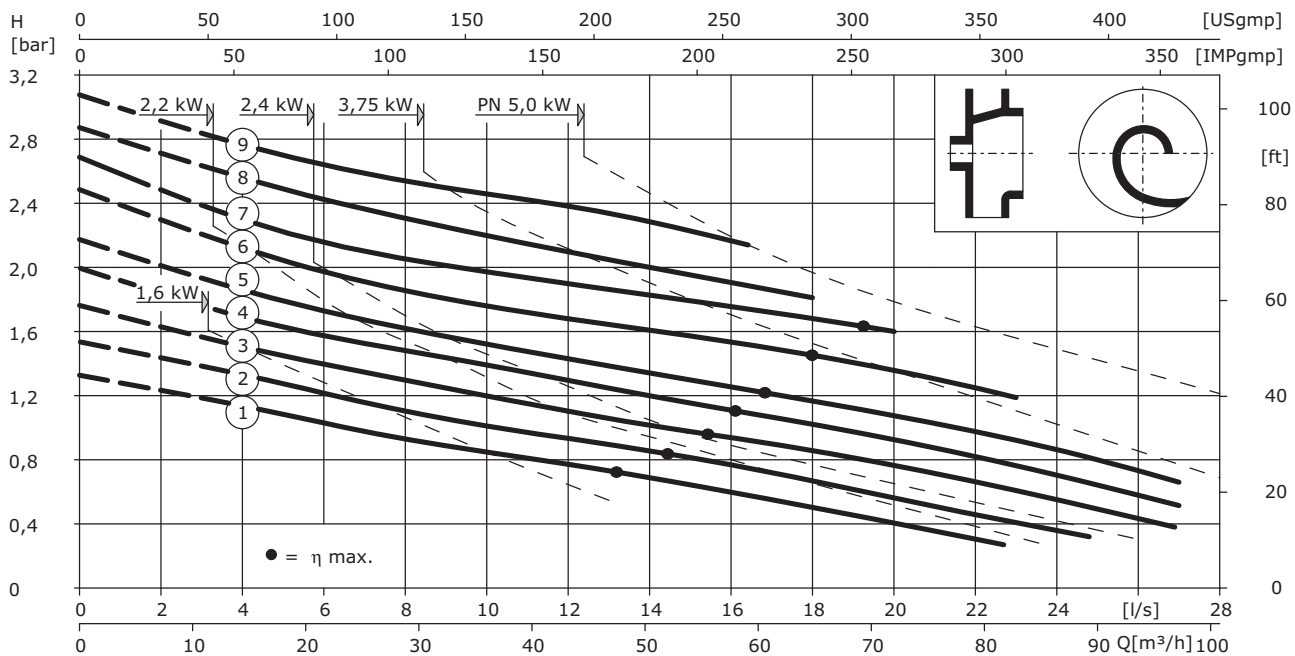
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.43E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	110	16	16	16
2	115	16	16	16
3	120	16	16	16
4	125	16.5	16.5	16.5
5	130	16.5	16.5	16.5

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	135	16.5	16.5	16.5
7	140	17	17	17
8	145	17	17	17
9	150	17	17	17
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
2.4	T 13-2/9H(K)	3	5.3	319	394	S1/S2 15	ATEX, FM	37
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39
5	T 13-2/16H(K)	5.9	9.7	374	449	S1/S2 15	ATEX, FM	42.5
Wet and dry sump installation								
1.6	T 13-2/9H(K)	2.1	3.8	319	394	S1/S1	ATEX, FM	37
2.2	T 13-2/12H(K)	2.8	5	319	394	S1/S1	ATEX, FM	39
2.4	T 13-2/9H(K)	3	5.3	319	394	S1/S2 15	ATEX, FM	37
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39
5	T 13-2/16H(K)	5.9	9.7	374	449	S1/S2 15	ATEX, FM	42.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

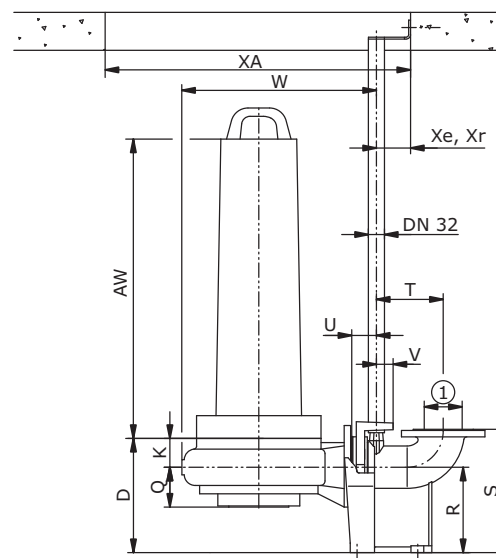
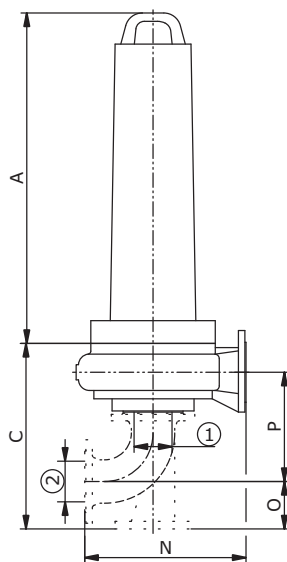
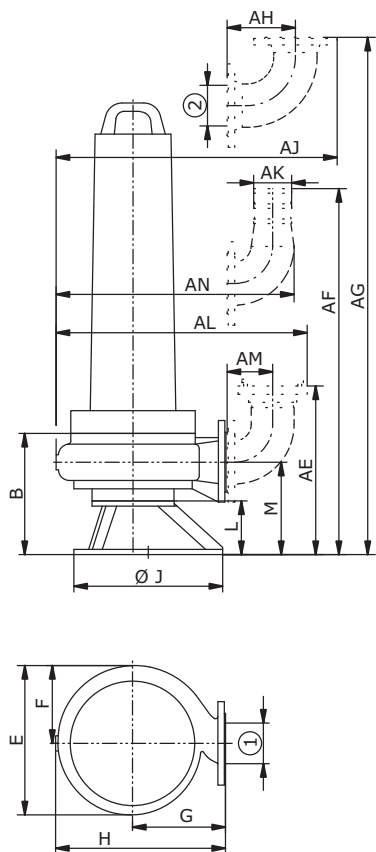
Wilo-EMU FA 08.43E (2900 rpm)

Dimension drawing

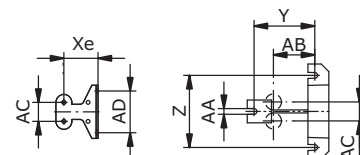
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	213	423	264	229	121	150	264	250	54	68	155	315	110	259	91	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	324	625	90	98	120	170	15	69	50	110	342	365	320	165	534	75	441	100	425

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14444	-	-	4

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

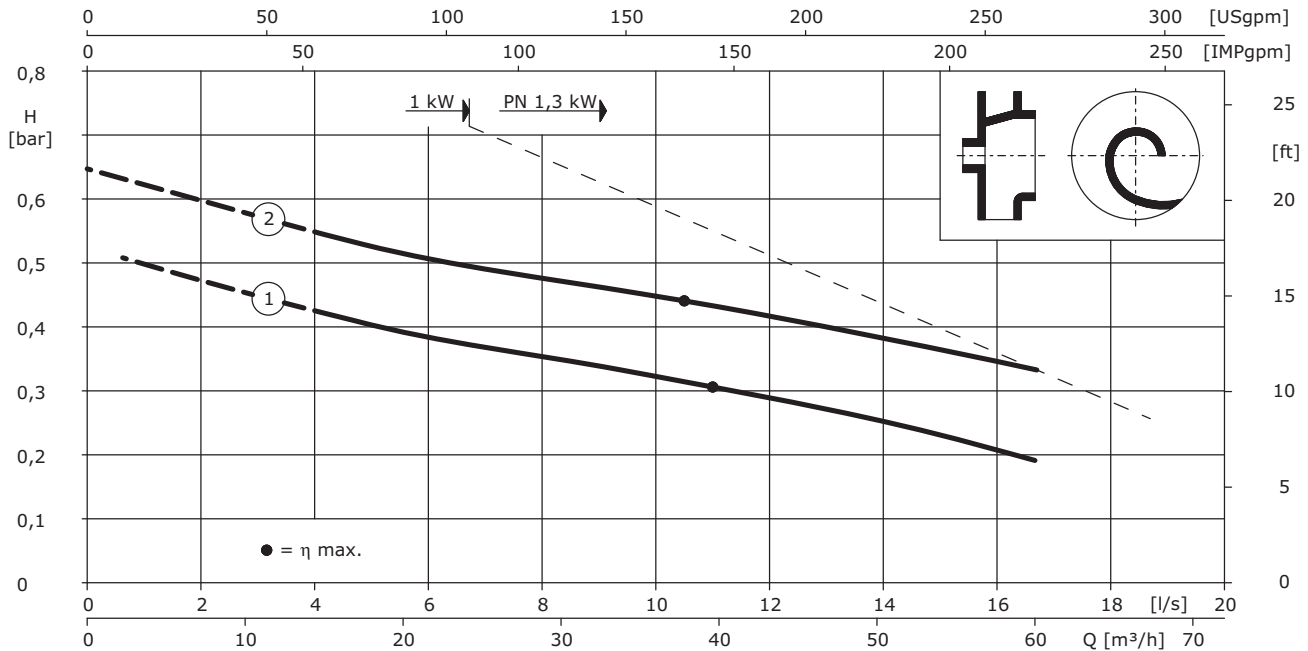
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.51E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	130	12.5	12.5	12.5	-	-	-	-	-
2	144	12.5	12.5	12.5	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	-	P_1 max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet and dry sump installation								
1	F 13.2-4/9	1.3	2.35	292	408	S1/S1	-	34

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

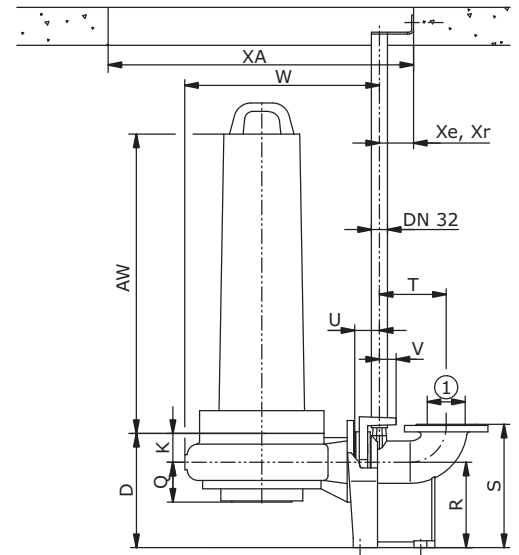
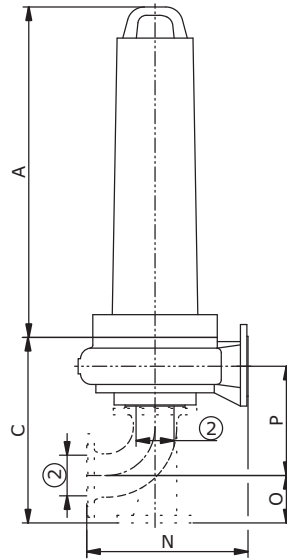
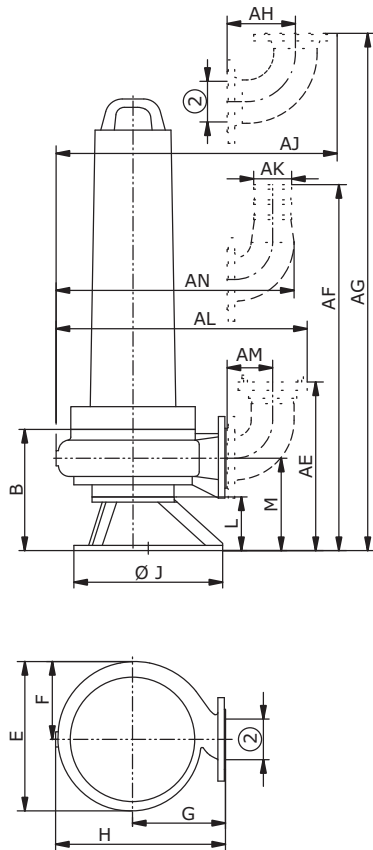
Wilo-EMU FA 08.51E (1450 rpm)

Dimension drawing

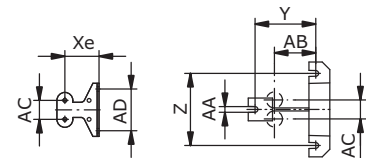
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	256	410	410	274	226	113	150	263	344	64	124	192	315	110	236	68	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	413	625	90	98	120	170	15	69	50	110	380	402	357	165	555	75	441	100	437

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

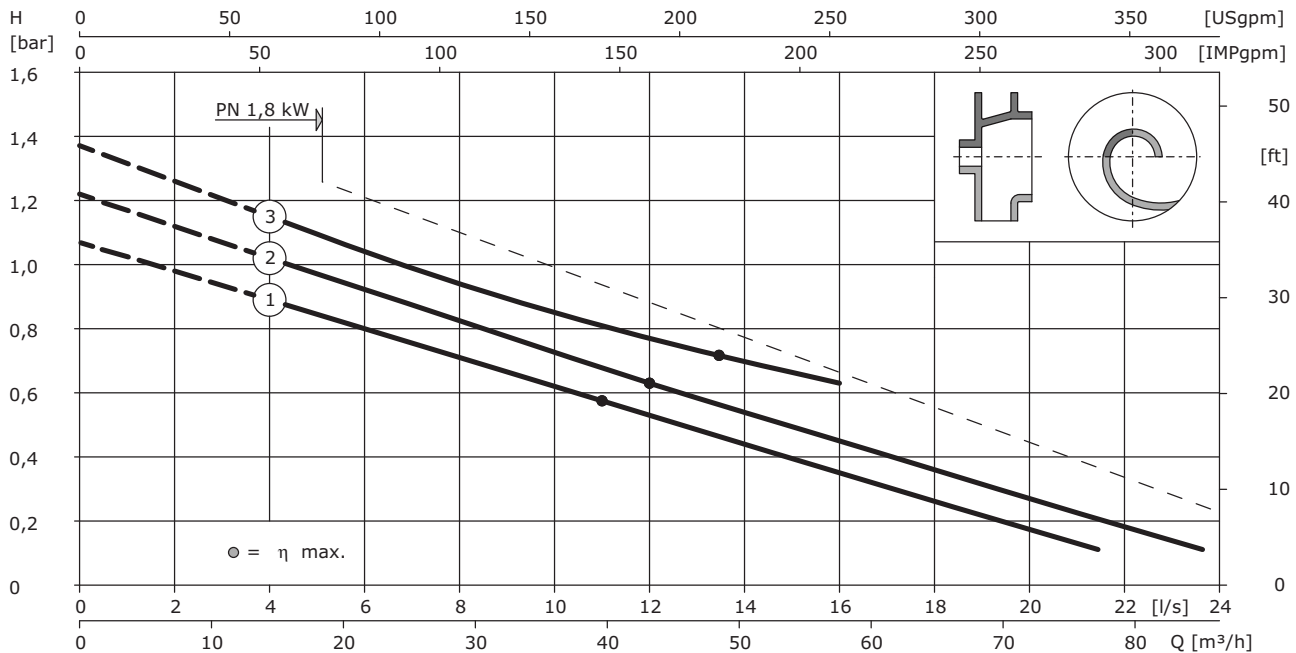
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.51E (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	102	12.5	12.5	12.5
2	106	12.5	12.5	12.5
3	110	12.5	12.5	12.5
–	–	–	–	–
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]

Wet and dry sump installation

1.8	F 13.2-2/9	2.35	3.95	292	408	S1/S1	–	34
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Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

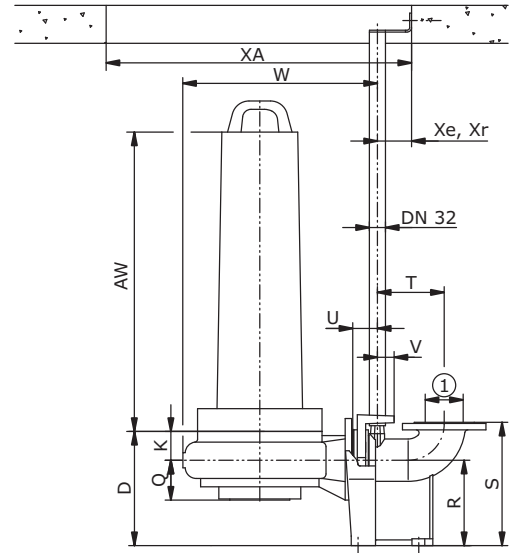
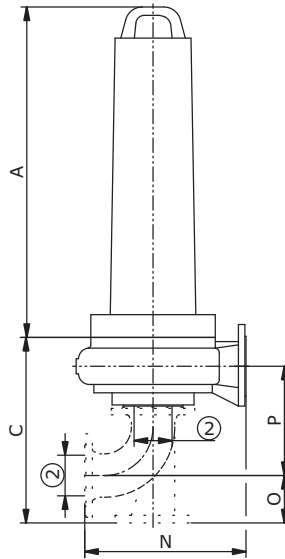
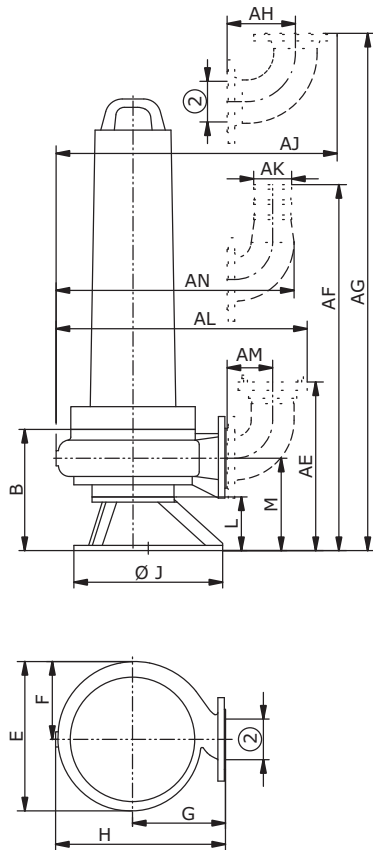
Wilo-EMU FA 08.51E (2900 rpm)

Dimension drawing

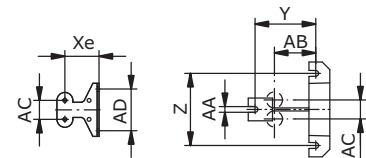
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	256	410	410	274	226	113	150	263	344	64	124	192	315	110	236	68	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	413	625	90	98	120	170	15	69	50	110	380	402	357	165	555	75	441	100	437

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

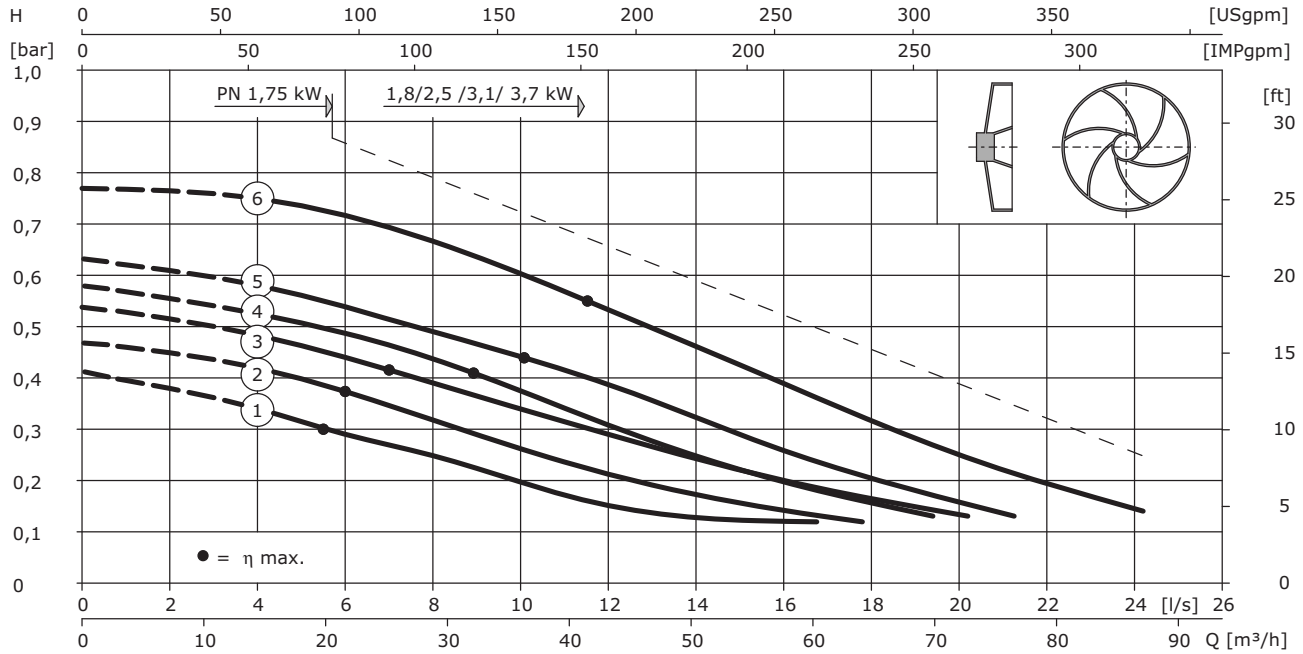
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.52W (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	28	28	28
2	185	28	28	28
3	200	29	29	29
4	215	30	30	30
5	230	31	31	31

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	260	33	33	33
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	–	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	–	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

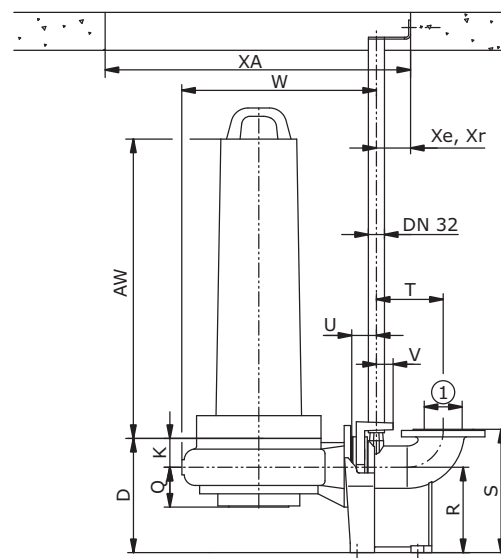
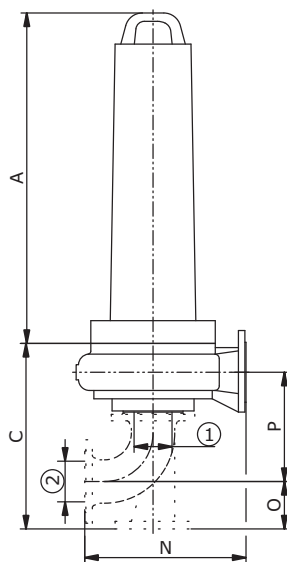
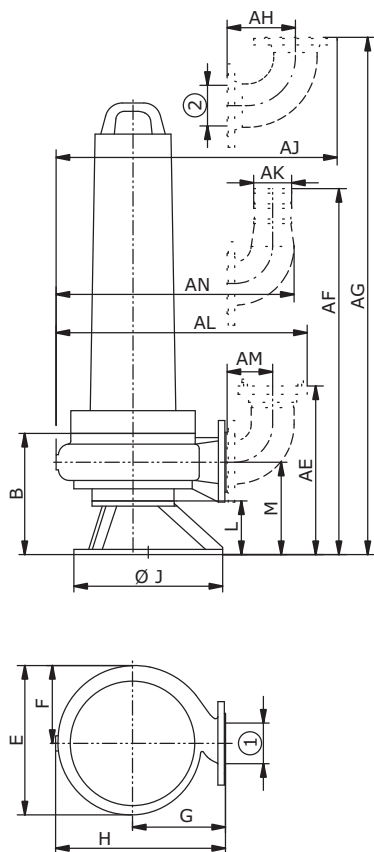
Wilo-EMU FA 08.52W (950 rpm)

Dimension drawing

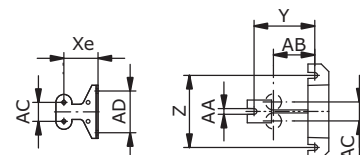
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	314	468	468	300	340	170	200	374	344	90	124	224	365	110	268	100	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

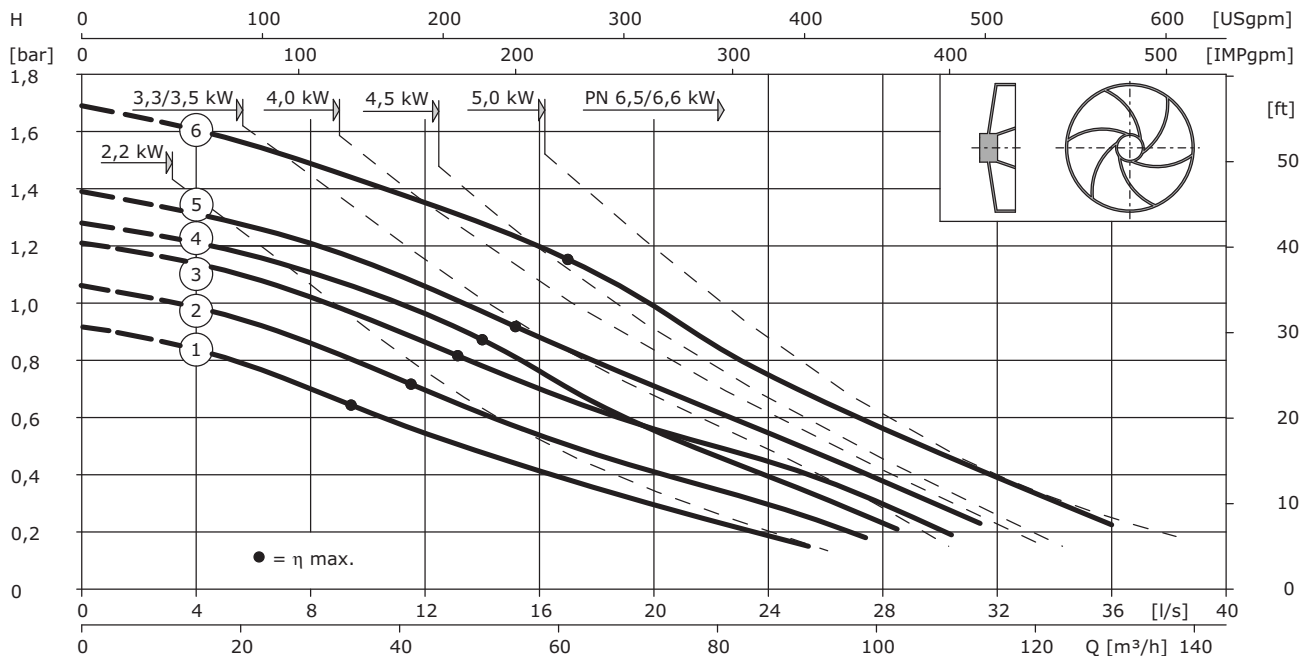
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.52W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	170	28	28	28
2	185	28	28	28
3	200	29	29	29
4	215	30	30	30
5	230	31	31	31

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	260	33	33	33
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	-	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	-	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

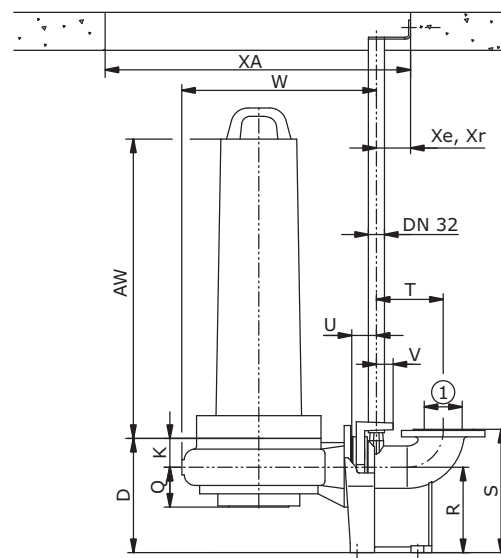
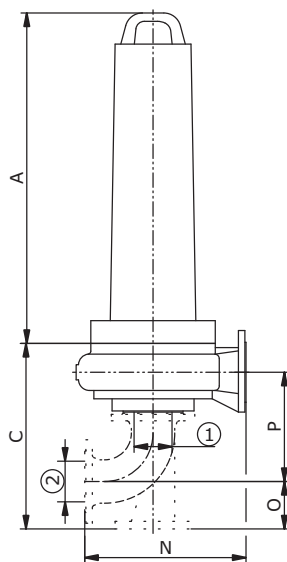
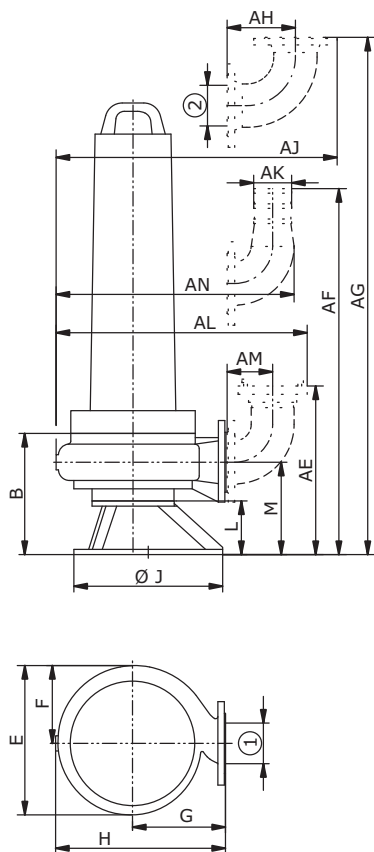
Wilo-EMU FA 08.52W (1450 rpm)

Dimension drawing

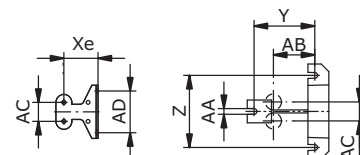
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	314	468	468	300	340	170	200	374	344	90	124	224	365	110	268	100	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

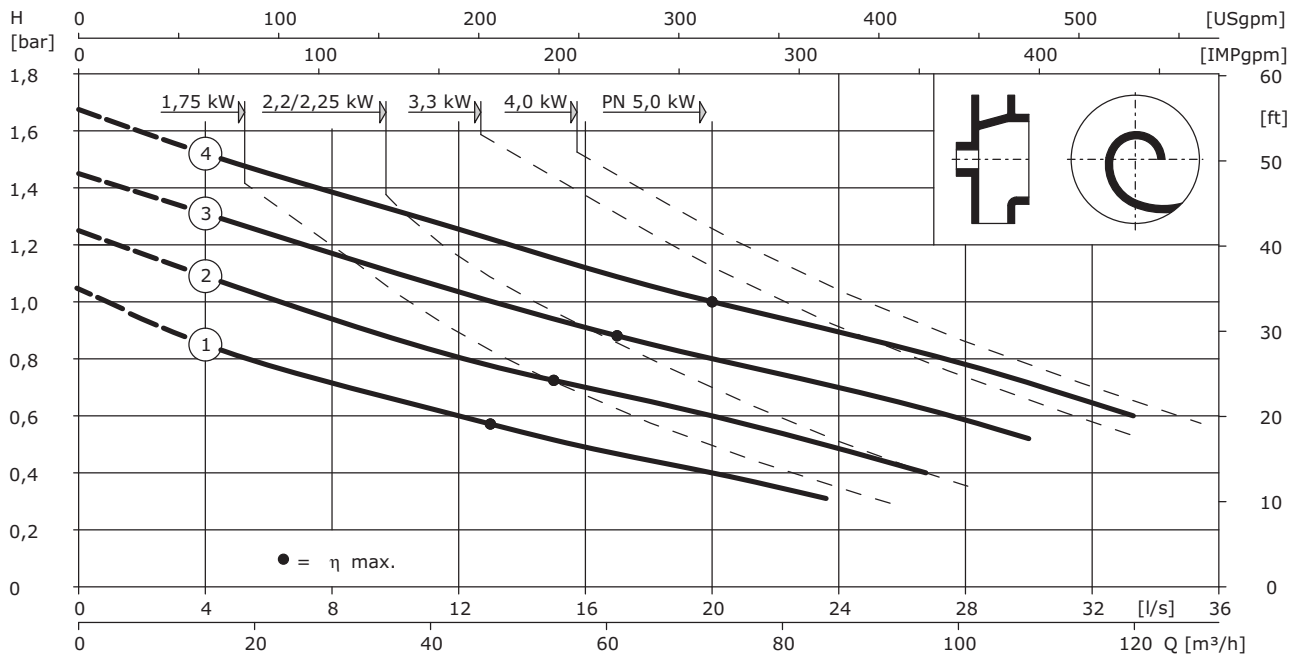
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.53E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	29.5	29.5	29.5
2	185	29.5	29.5	29.5
3	200	30	30	30
4	215	30	30	30
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
1.75	T 13-4/9H(K)	2.5	4.2	319	394	S1/S2 15	ATEX, FM	37
2.25	T 13-4/12H(K)	3	5.1	319	394	S1/S2 15	ATEX, FM	39
4	T 13-4/18H(K)	5	9.2	374	449	S1/S2 15	ATEX, FM	43.5
Wet and dry sump installation								
1.75	T 13-4/9H(K)	2.5	4.2	319	394	S1/S2 15	ATEX, FM	37
2.25	T 13-4/12H(K)	3	5.1	319	394	S1/S2 15	ATEX, FM	39
4	T 13-4/18H(K)	5	9.2	374	449	S1/S2 15	ATEX, FM	43.5
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	–	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	–	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	–	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

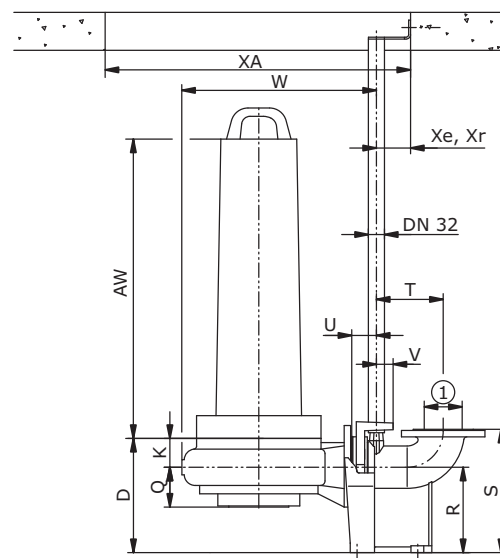
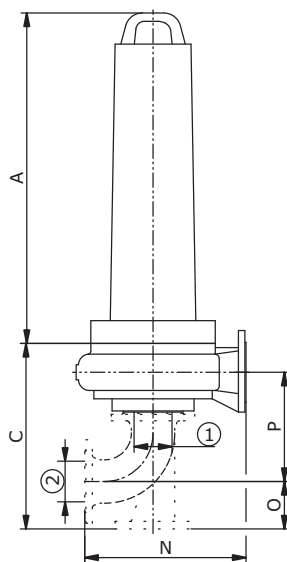
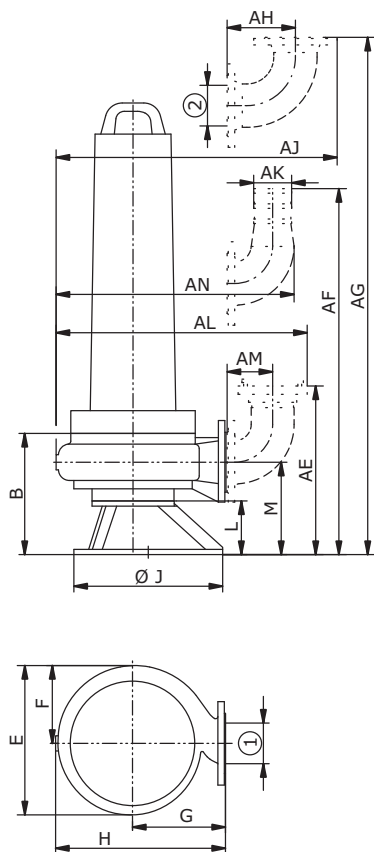
Wilo-EMU FA 08.53E (1450 rpm)

Dimension drawing

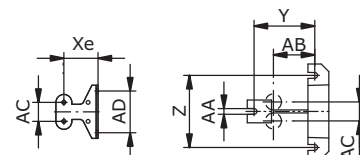
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	279	434	272	381	206	240	431	280	62	126	217	405	110	262	95	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	490	625	90	98	120	170	15	69	50	110	404	427	382	165	699	75	597	100	581

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

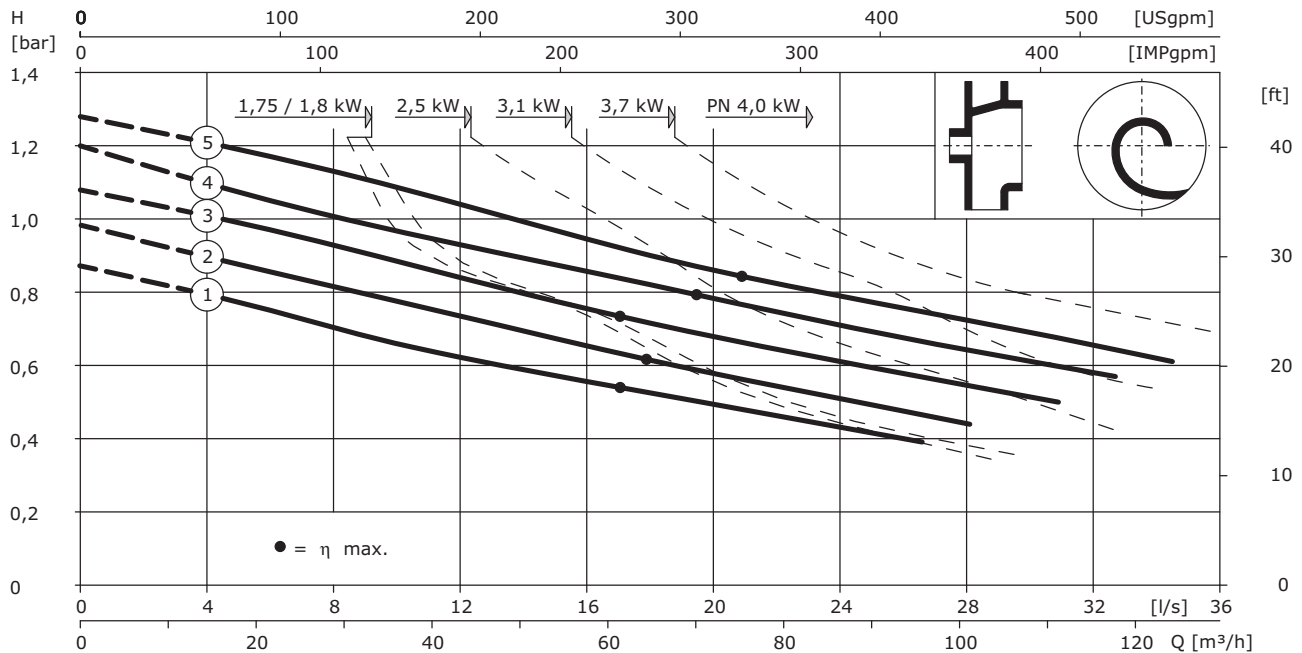
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.64E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	234	43	43	43
2	246	44	44	44
3	258	45	45	45
4	270	46	46	46
5	278	47	47	47

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	–	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	–	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

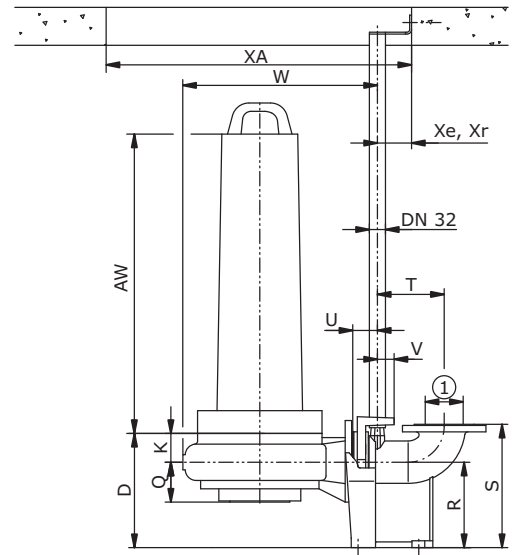
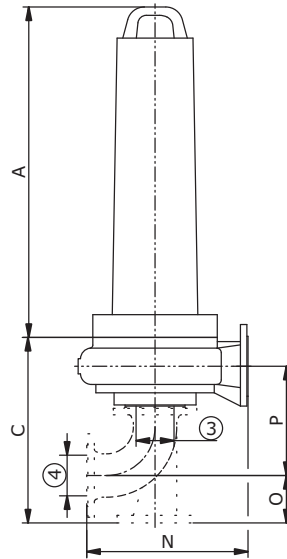
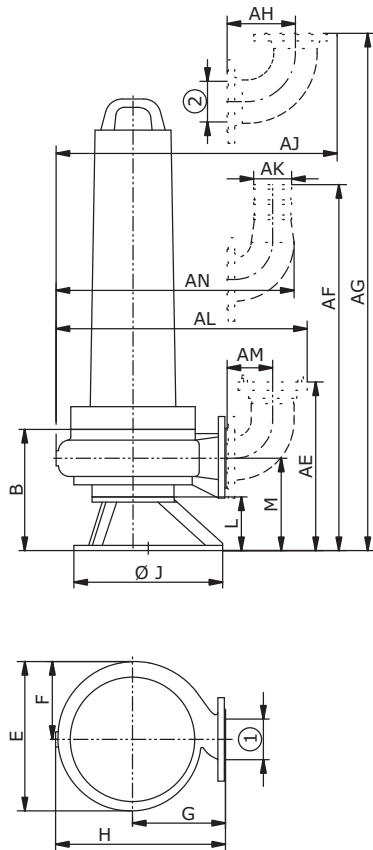
Wilo-EMU FA 08.64E (950 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10
- 3 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 4 = DN100 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	298	483	483	286	393	204	245	445	280	76	126	222	425	125	282	100	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	504	625	90	98	120	170	15	69	50	110	409	432	387	165	713	75	611	100	595

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

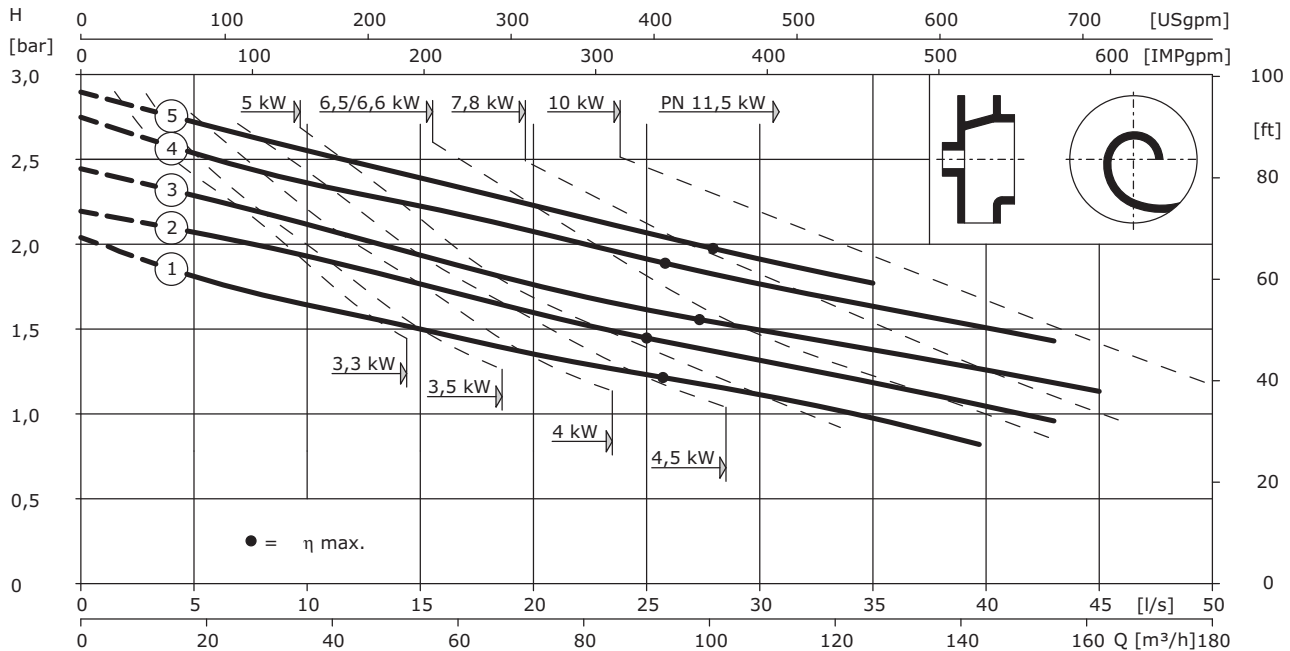
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.64E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	234	43	43	43
2	246	44	44	44
3	258	45	45	45
4	270	46	46	46
5	278	47	47	47

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
Wet and dry sump installation								
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	-	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	-	71.5
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

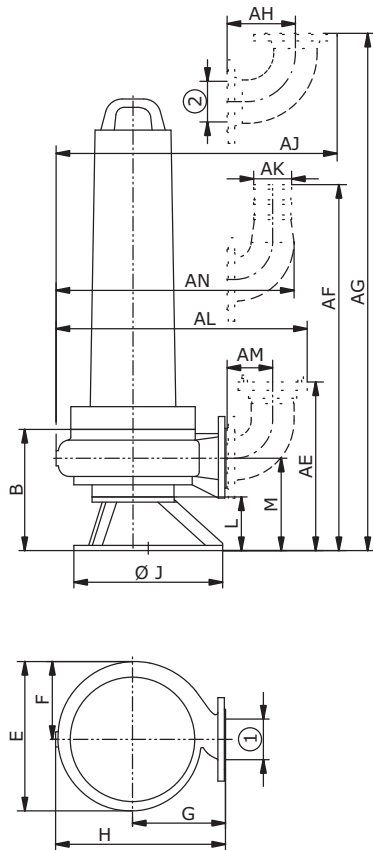
Wilo-EMU FA 08.64E (1450 rpm)

Dimension drawing

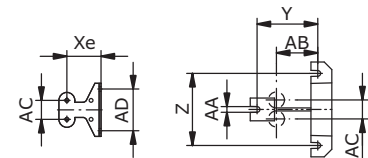
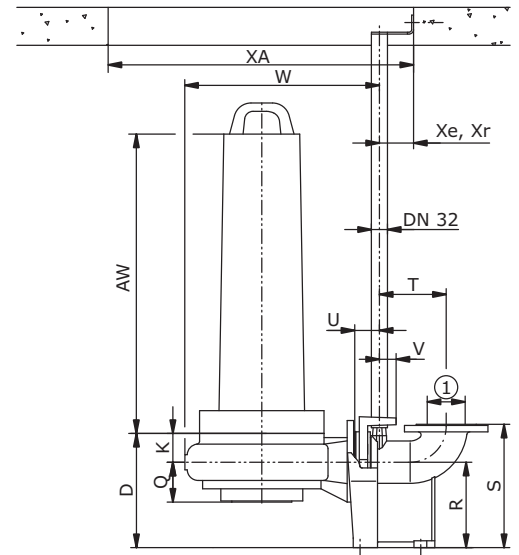
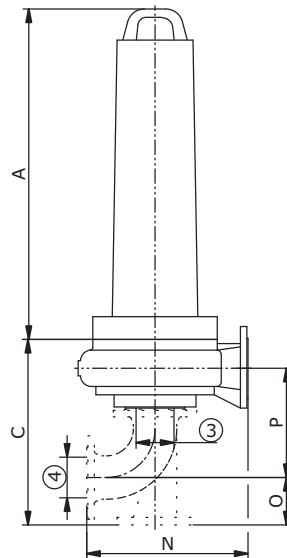
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10
- 3 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	298	483	483	286	393	204	245	445	280	76	126	222	425	125	282	100	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	504	625	90	98	120	170	15	69	50	110	409	432	387	165	713	75	611	100	595

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

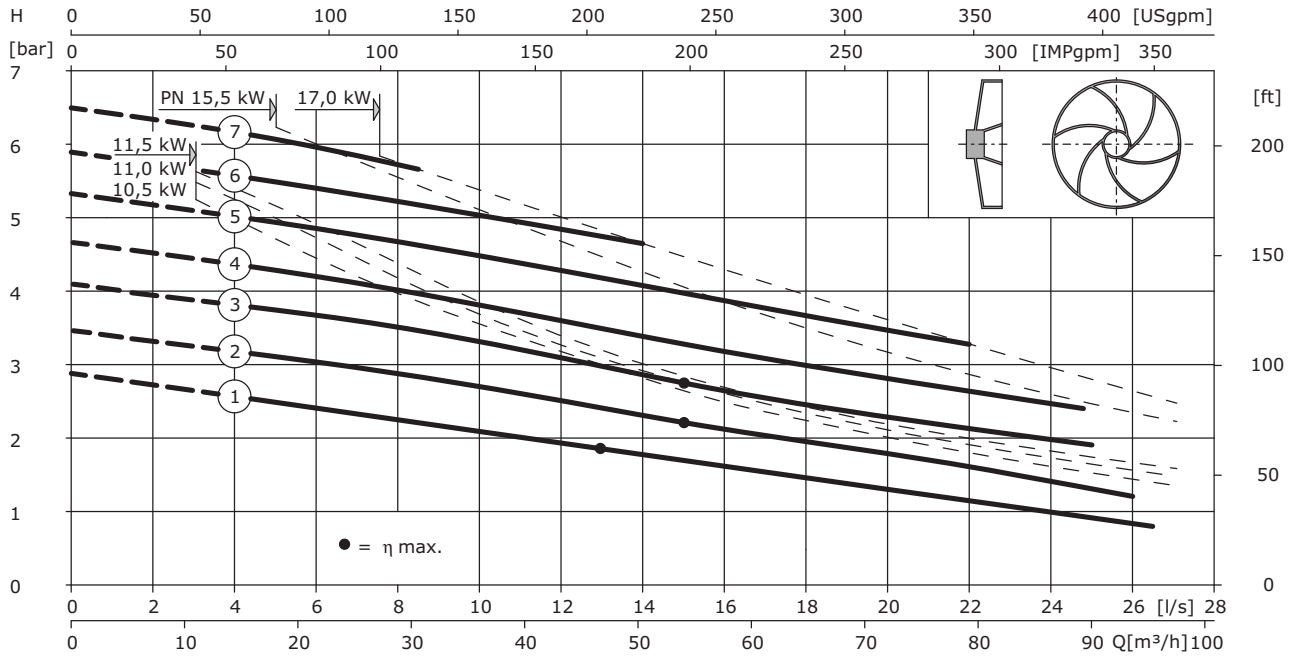
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.66W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	150	27	27	27
2	165	27	27	27
3	180	27	27	27
4	195	27	27	27
5	210	27	27	27

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	225	27	27	27
7	240	27	27	27
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂		P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]		[kW]	[A]					[kg]
Wet sump installation								
10.5	T 17-2/22H(K)	12.3	20.5	491	563	S1/-	ATEX, FM	91
15.5	T 20.1-2/22G(K)	18.6	30	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
11	HC 20.1-2/17G(K)	13.8	22.5	730	835	S1/S1	ATEX, FM	172
15.5	HC 20.1-2/22G(K)	18.6	30	830	935	S1/S1	ATEX, FM	188
11.5	FK 202-2/17	15.2	25	664	771	S1/S1	-	119
17	FK 202-2/22	21	34.5	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

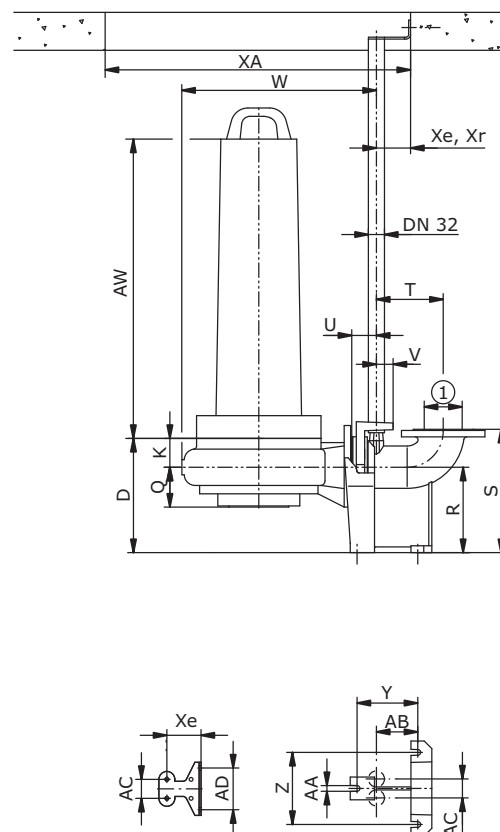
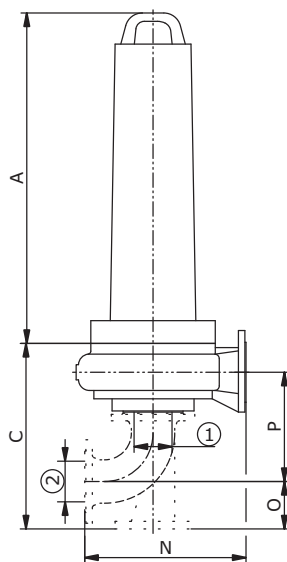
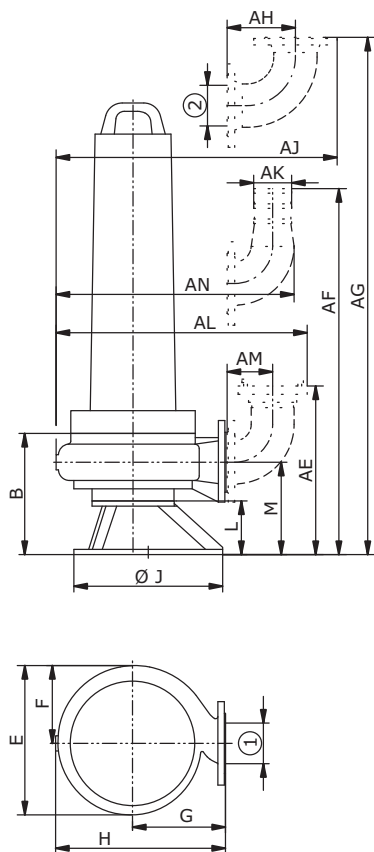
Wilo-EMU FA 08.66W (2900 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	268	425	272	350	175	230	405	280	62	126	206	395	110	253	85	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	464	625	90	98	120	170	15	69	50	110	393	416	371	165	673	75	571	100	552

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

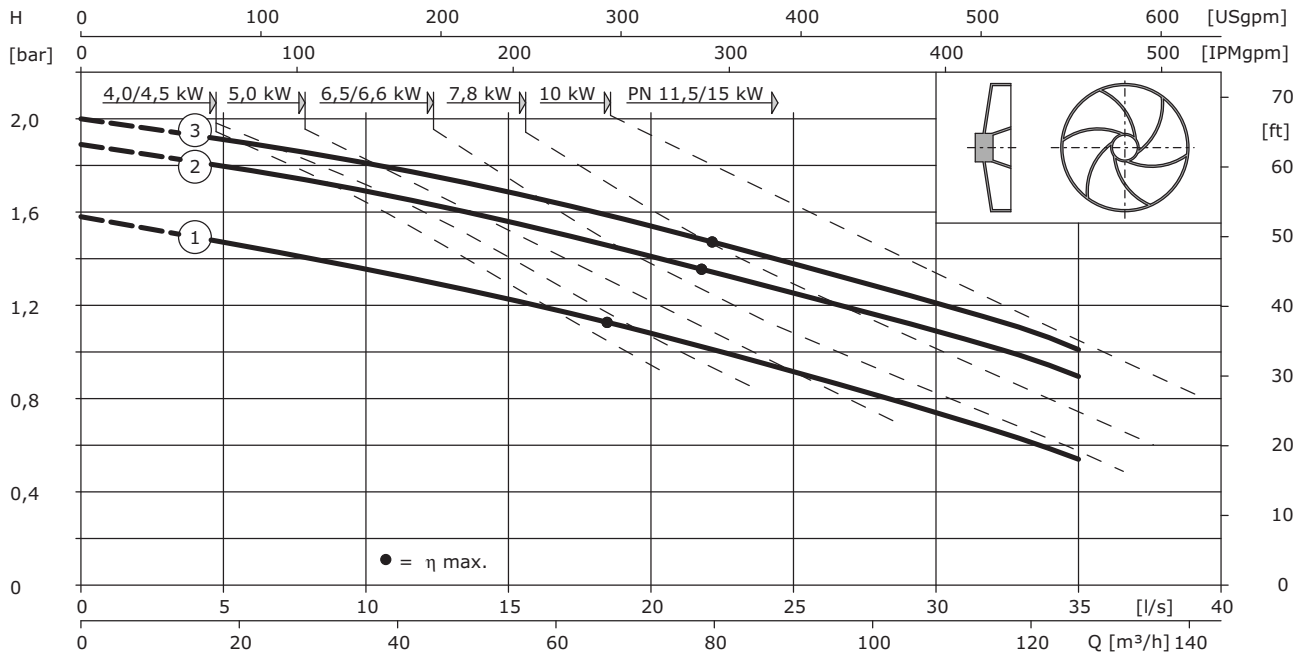
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.73W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	225	31	31	31
2	250	32	32	32
3	260	33	33	33
-	-	-	-	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	-	P_1 max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	-	119
5	FO 17.2-4/12	6.5	10.8	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

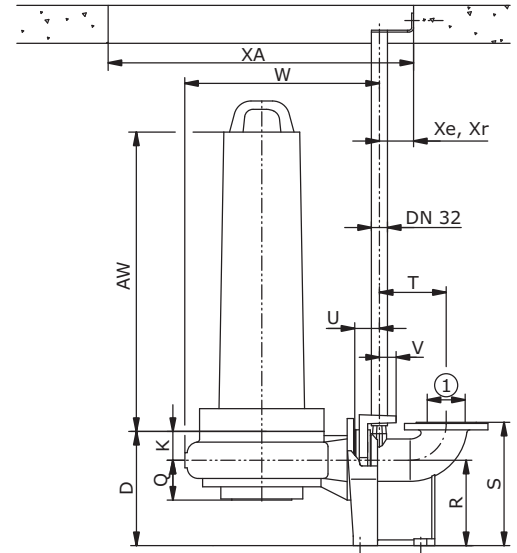
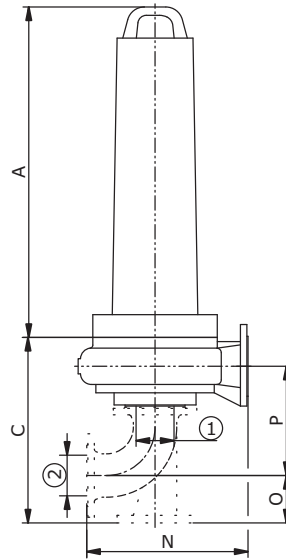
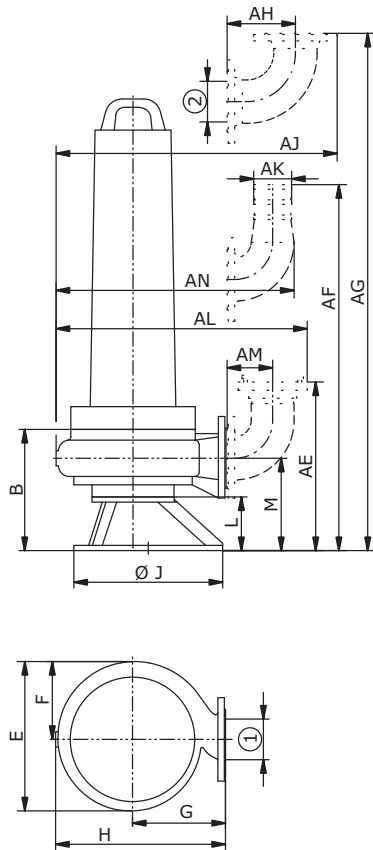
Wilo-EMU FA 08.73W (1450 rpm)

Dimension drawing

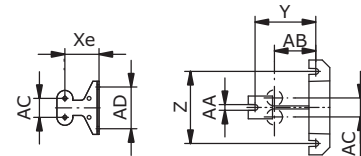
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	314	468	468	300	340	170	200	374	344	90	124	224	365	110	268	101	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

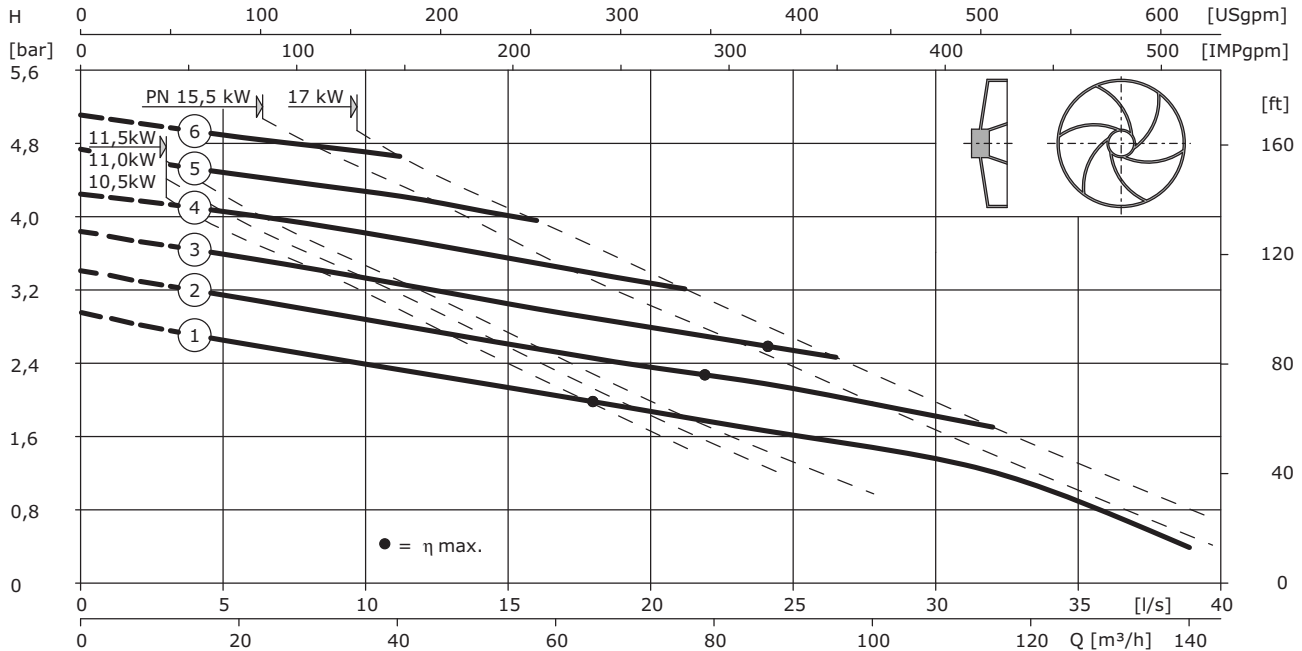
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 08.73W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	150	27.5	27.5	27.5	6	200	30	30	30
2	160	28	28	28	-	-	-	-	-
3	170	28.5	28.5	28.5	-	-	-	-	-
4	180	29	29	29	-	-	-	-	-
5	190	29.5	29.5	29.5	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
10.5	T 17-2/22H(K)	12.3	20.5	491	563	S1/-	ATEX, FM	91
15.5	T 20.1-2/22G(K)	18.6	30	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
11	HC 20.1-2/17G(K)	13.8	22.5	730	835	S1/S1	ATEX, FM	172
15.5	HC 20.1-2/22G(K)	18.6	30	830	935	S1/S1	ATEX, FM	188
11.5	FK 202-2/17	15.2	25	664	771	S1/S1	-	119
17	FK 202-2/22	21	34.5	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

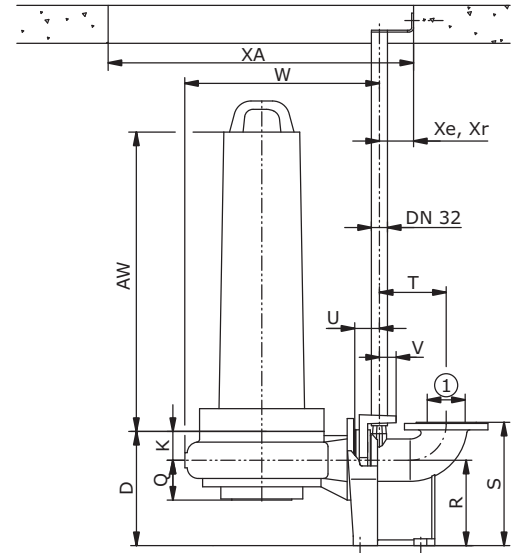
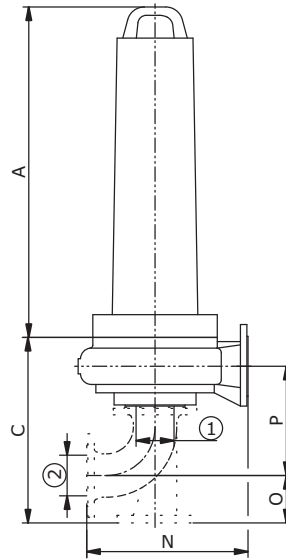
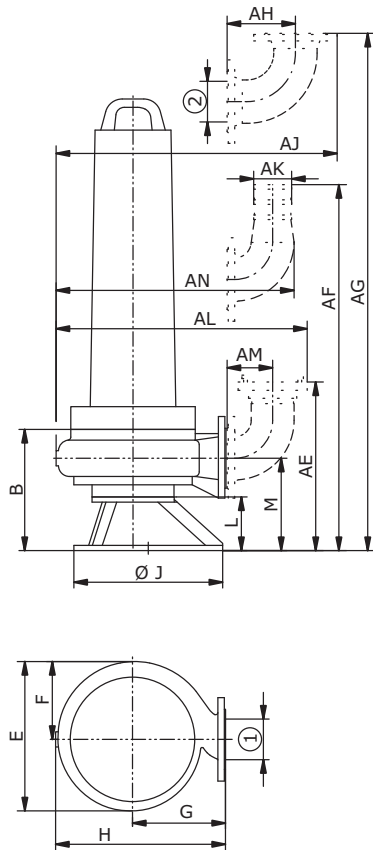
Wilo-EMU FA 08.73W (2900 rpm)

Dimension drawing

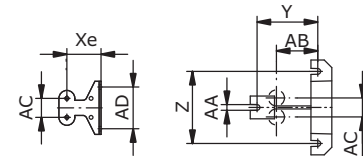
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	314	468	468	300	340	170	200	374	344	90	124	224	365	110	268	101	210	300	166	59
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
Flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

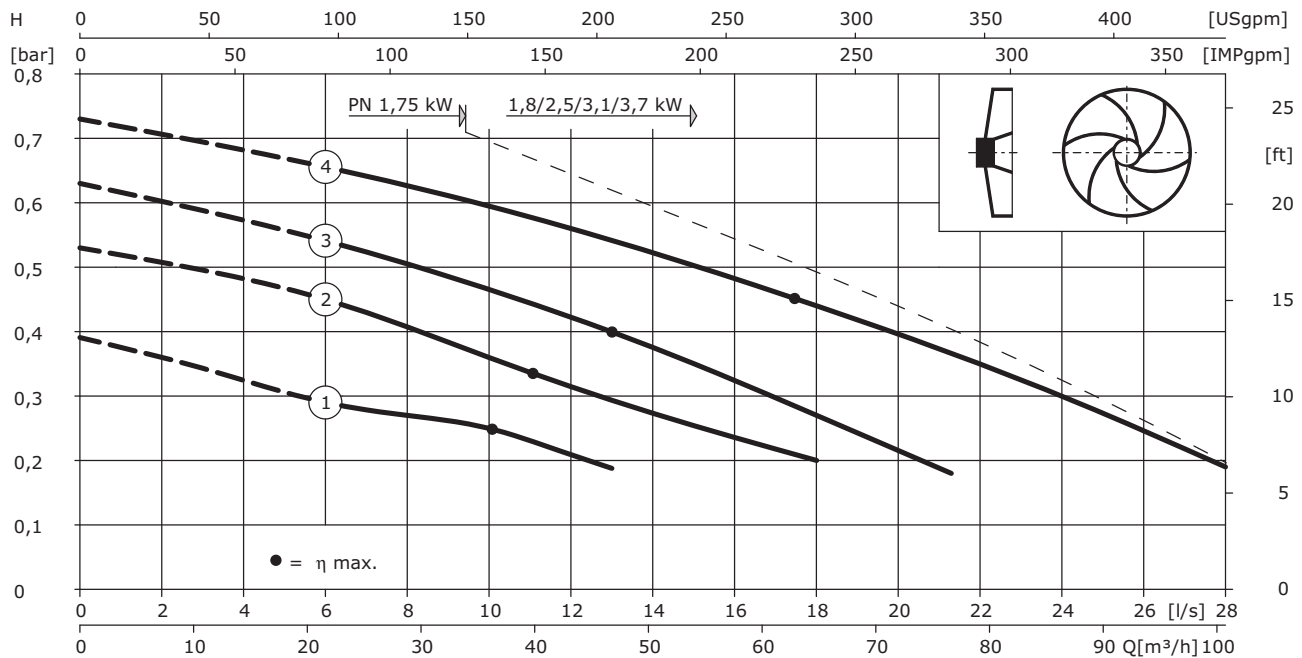
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.22W (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	30	30	30
2	200	31	31	31
3	230	33	33	33
4	260	35	35	35
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	–	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	–	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

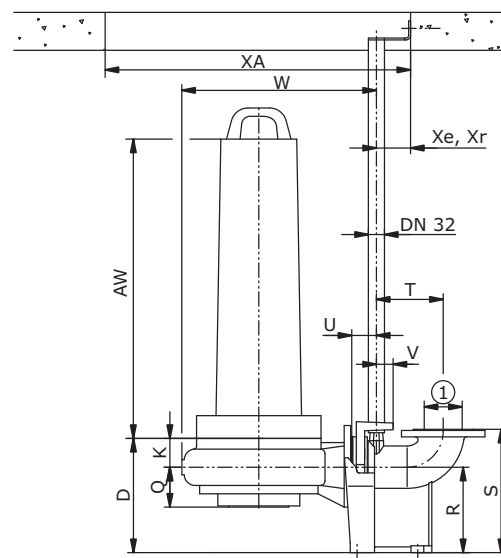
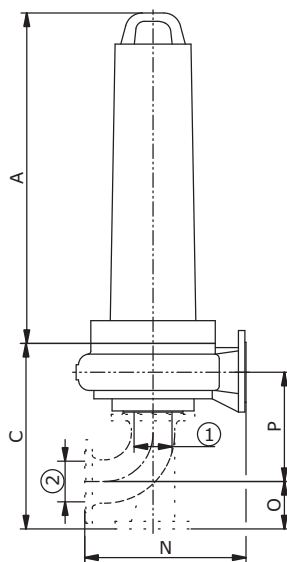
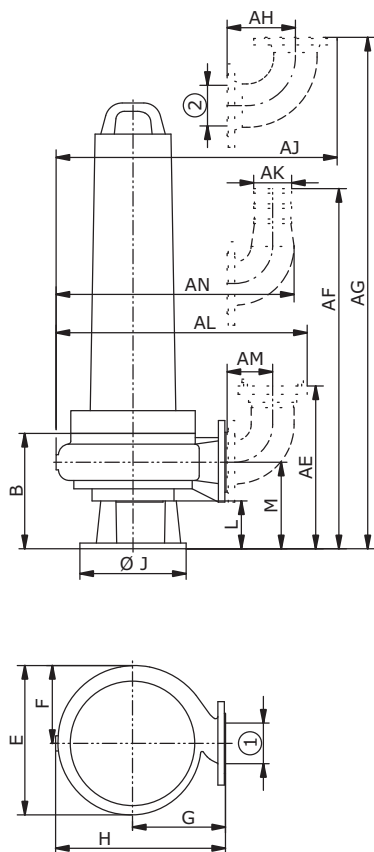
Wilo-EMU FA 10.22W (950 rpm)

Dimension drawing

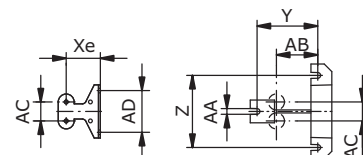
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	330	515	317	340	170	200	374	280	92	126	238	380	125	298	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

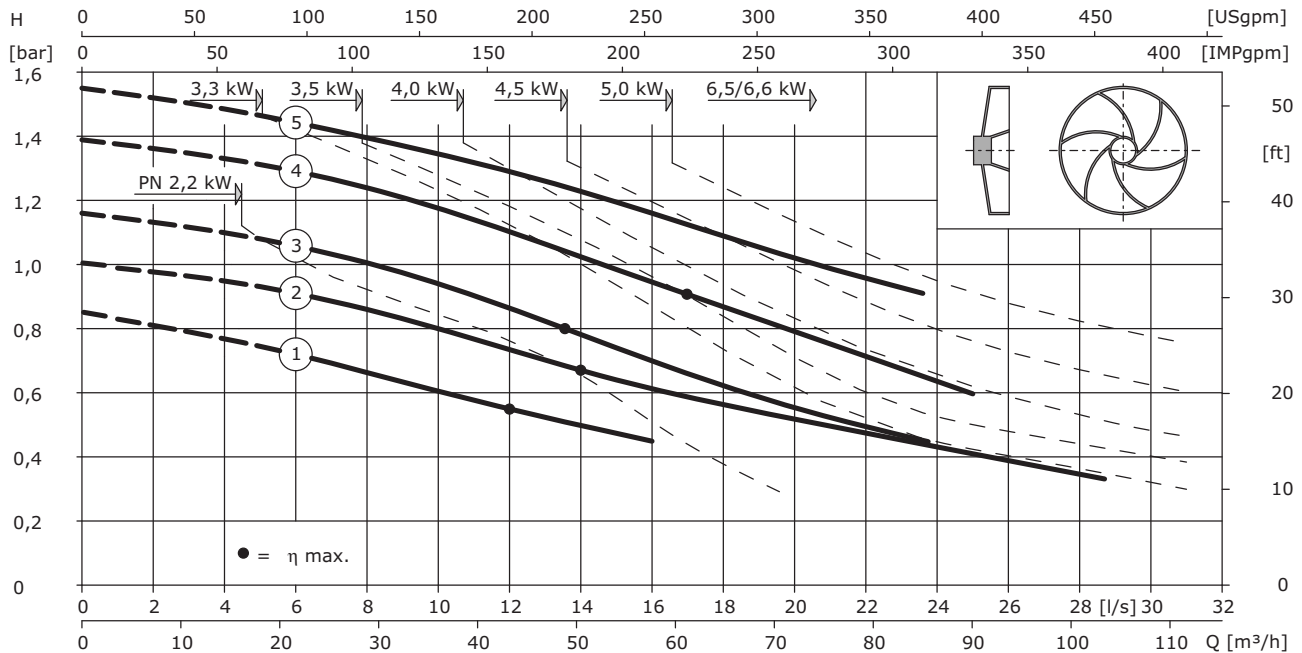
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.22W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	170	30	30	30
2	185	30	30	30
3	200	31	31	31
4	230	33	33	33
5	260	35	35	35

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	-	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	-	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150



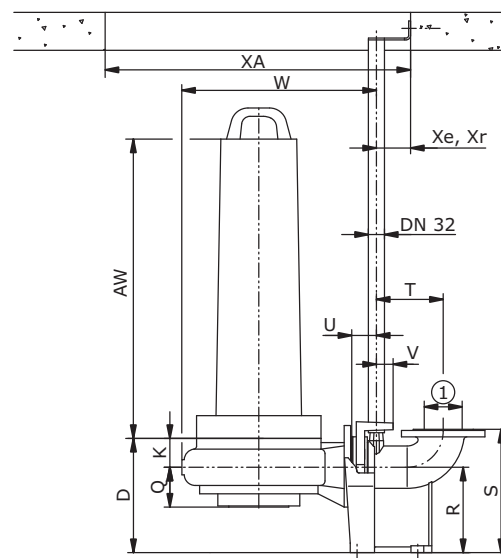
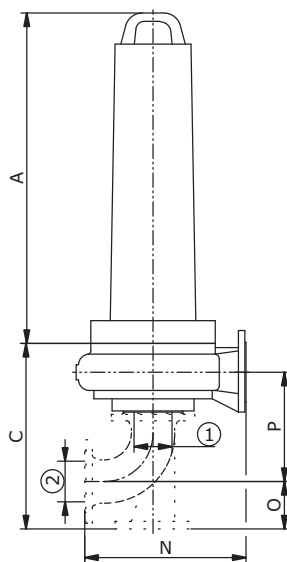
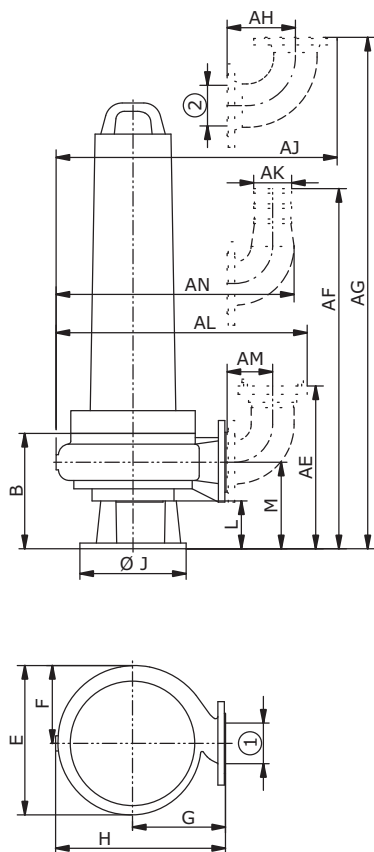
Wilo-EMU FA 10.22W (1450 rpm)

Dimension drawing

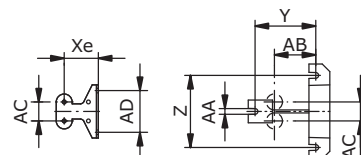
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	330	515	317	340	170	200	374	280	92	126	238	380	125	298	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

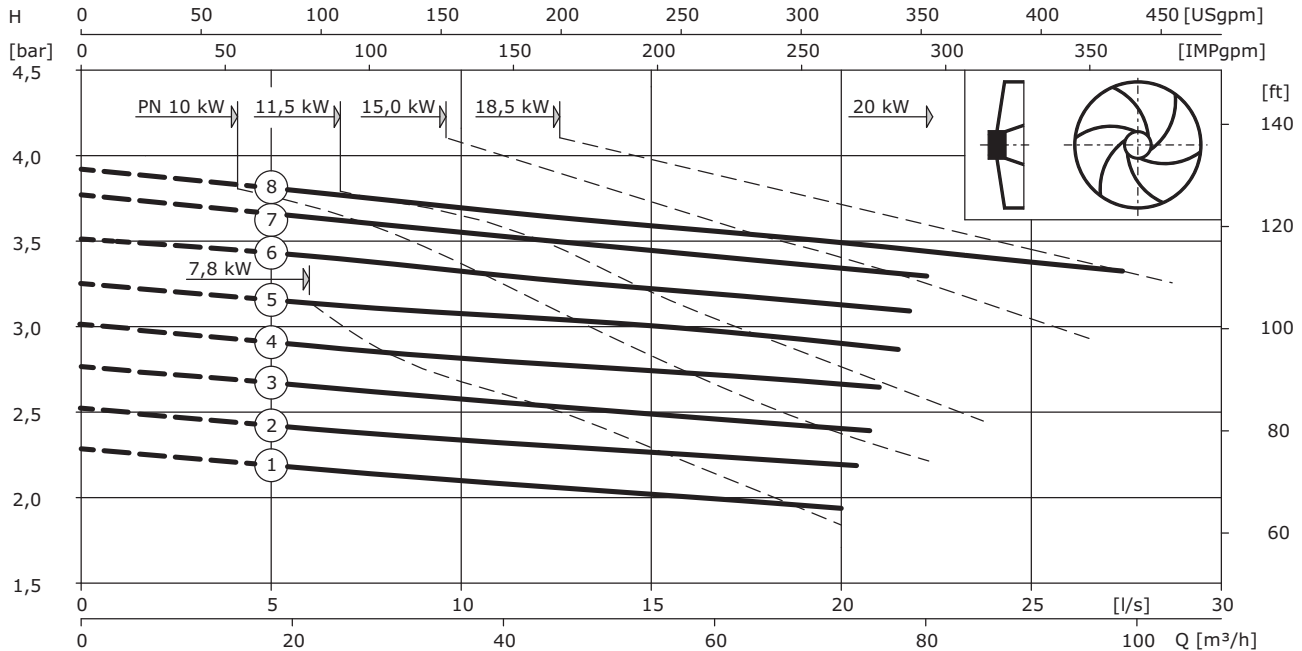
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.26W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	234	68	68	68
2	246	68	68	68
3	258	69	69	69
4	270	69	69	69
5	282	70	70	70

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
6	294	70	70	70
7	306	71	71	71
8	318	72	72	72
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

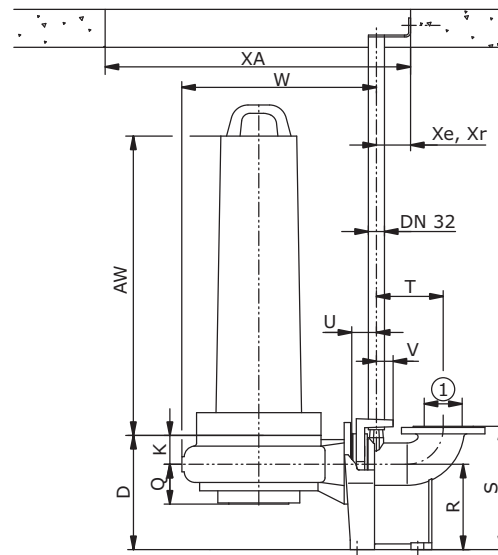
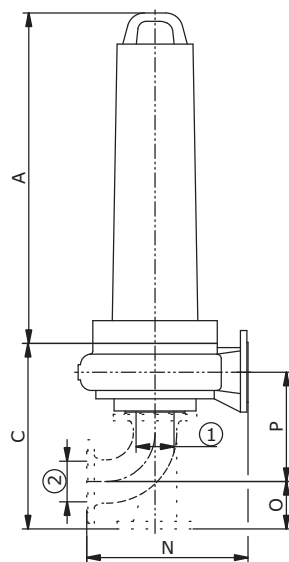
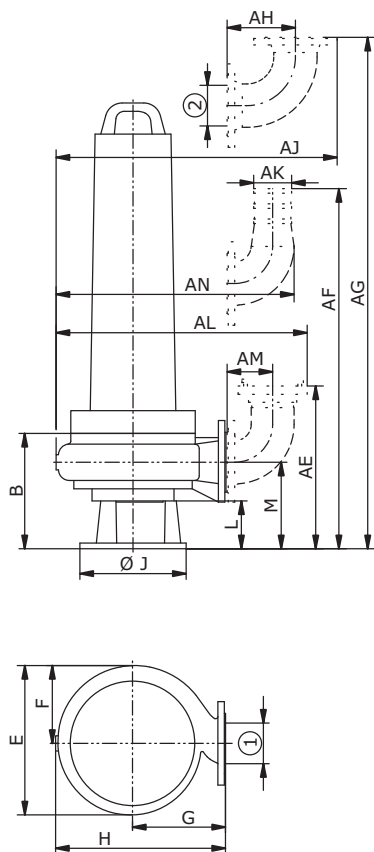
Wilo-EMU FA 10.26W (1450 rpm)

Dimension drawing

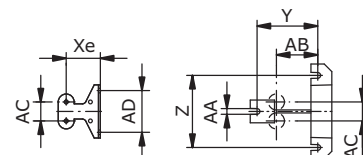
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	298	485	301	469	258	280	506	280	76	126	222	460	125	284	101	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	571	800	90	96	160	190	15	109	50	110	423	472	402	180	799	100	720	120	685

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

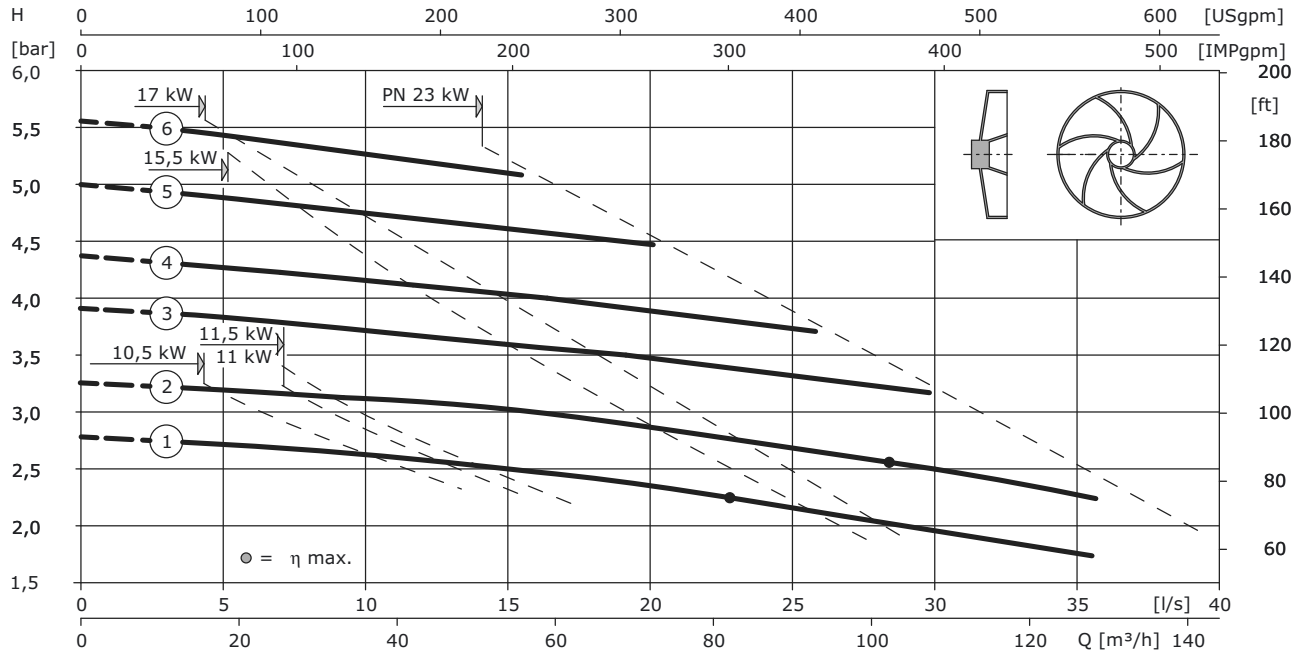
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.28W (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	150	30	30	30	6	200	32	32	32
2	160	30	30	30	-	-	-	-	-
3	170	31	31	31	-	-	-	-	-
4	180	31	31	31	-	-	-	-	-
5	190	32	32	32	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
10.5	T 17-2/22H(K)	12.3	20.5	491	563	S1/-	ATEX, FM	91
15.5	T 20.1-2/22G(K)	18.6	30	674	764	S1/S2 15	ATEX, FM	168
23	T 20.1-2/30G	28	45.5	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
11	HC 20.1-2/17G(K)	13.8	22.5	730	835	S1/S1	ATEX, FM	172
15.5	HC 20.1-2/22G(K)	18.6	30	830	935	S1/S1	ATEX, FM	188
23	HC 20.1-2/30G	27.5	44.5	830	935	S1/S1	ATEX, FM	204
11.5	FK 202-2/17	15.2	25	664	771	S1/S1	-	119
17	FK 202-2/22	21	34.5	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

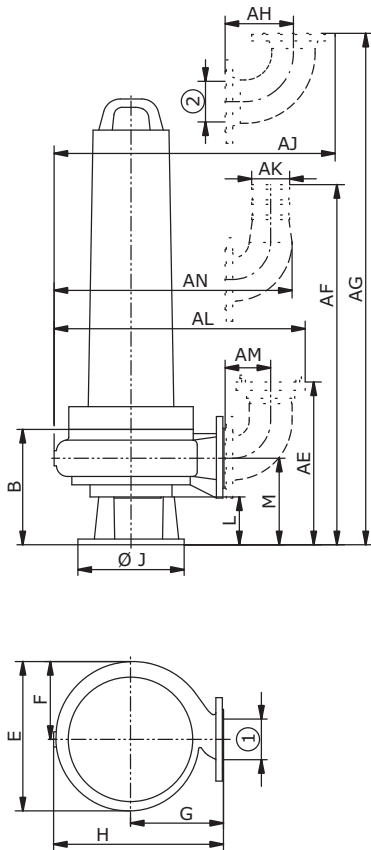
Wilo-EMU FA 10.28W (2900 rpm)

Dimension drawing

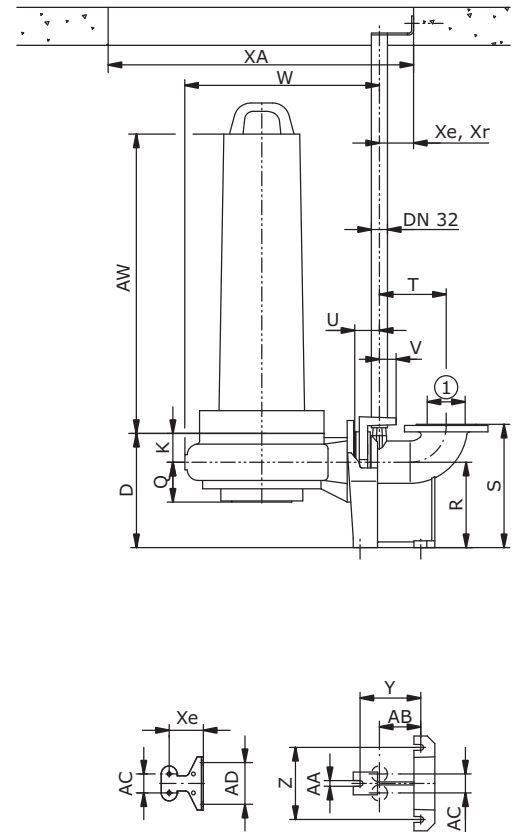
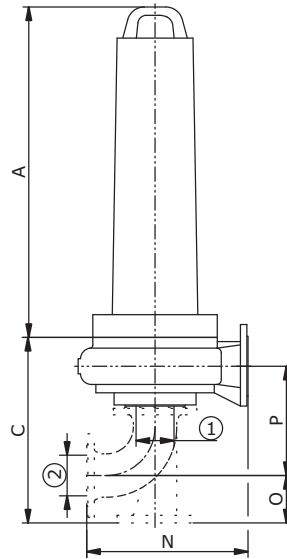
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	331	515	317	340	170	200	378	320	92	124	239	380	125	298	115	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	443	800	90	96	160	190	15	109	50	110	440	489	419	180	671	100	592	120	558

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

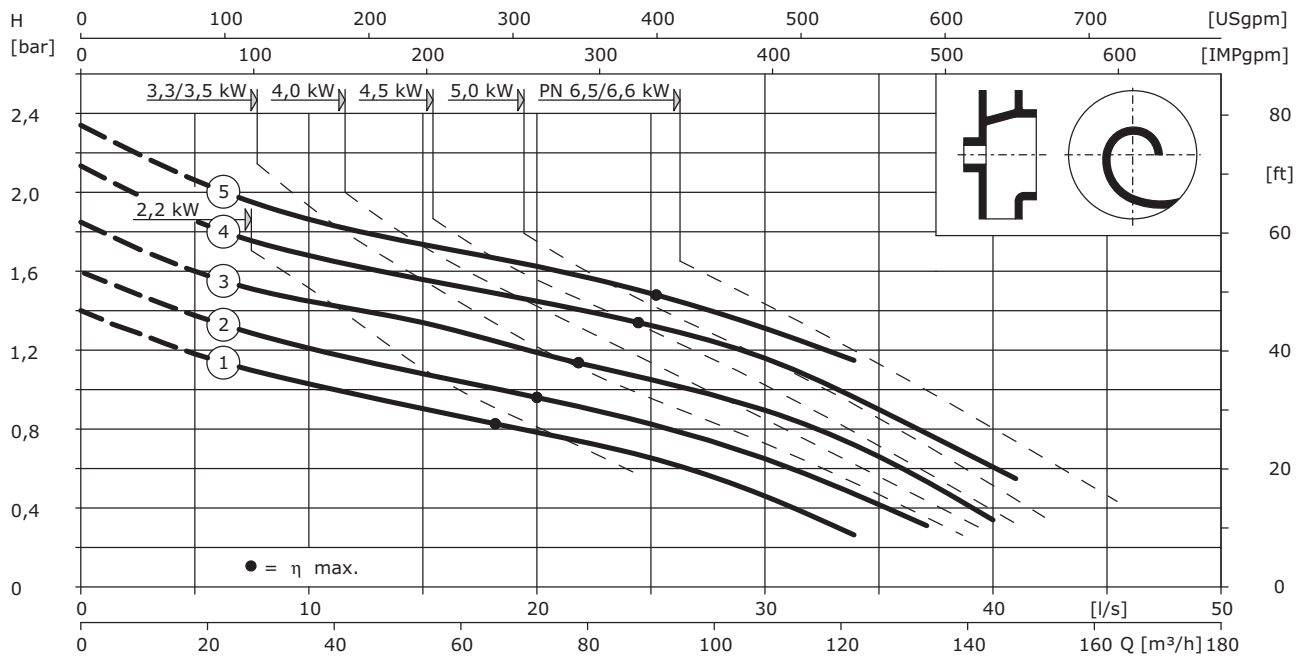
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.33E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	194	30	30	30
2	208	30	30	30
3	223	30	30	30
4	238	30	30	30
5	249	31	31	31

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	–	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	–	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	–	71.5

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150



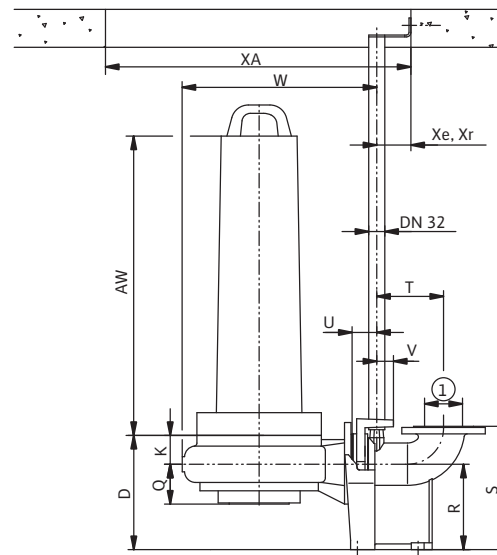
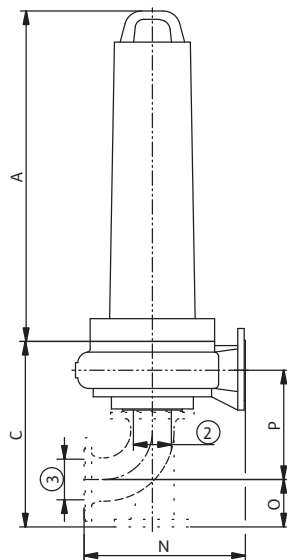
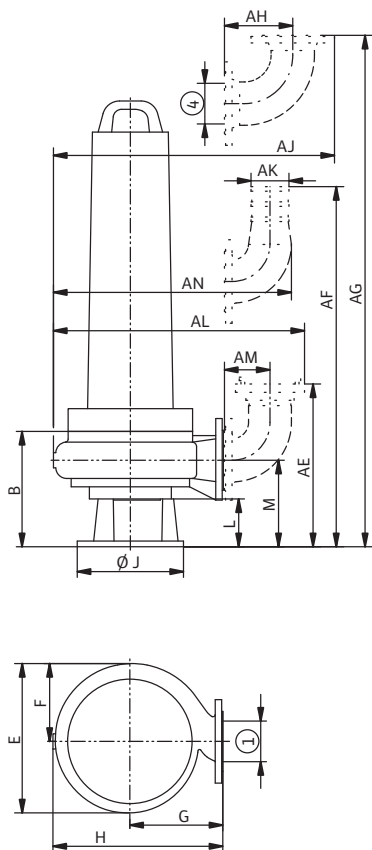
Wilo-EMU FA 10.33E (1450 rpm)

Dimension drawing

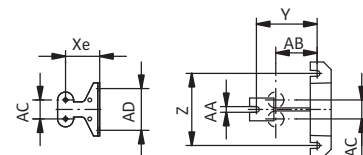
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 3 = DN80 PN10
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	287	441	294	366	193	269	462	344	69	124	218	434	110	262	95	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	527	800	90	96	160	190	15	109	50	110	419	468	398	180	755	100	676	120	642

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 80	-	12
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

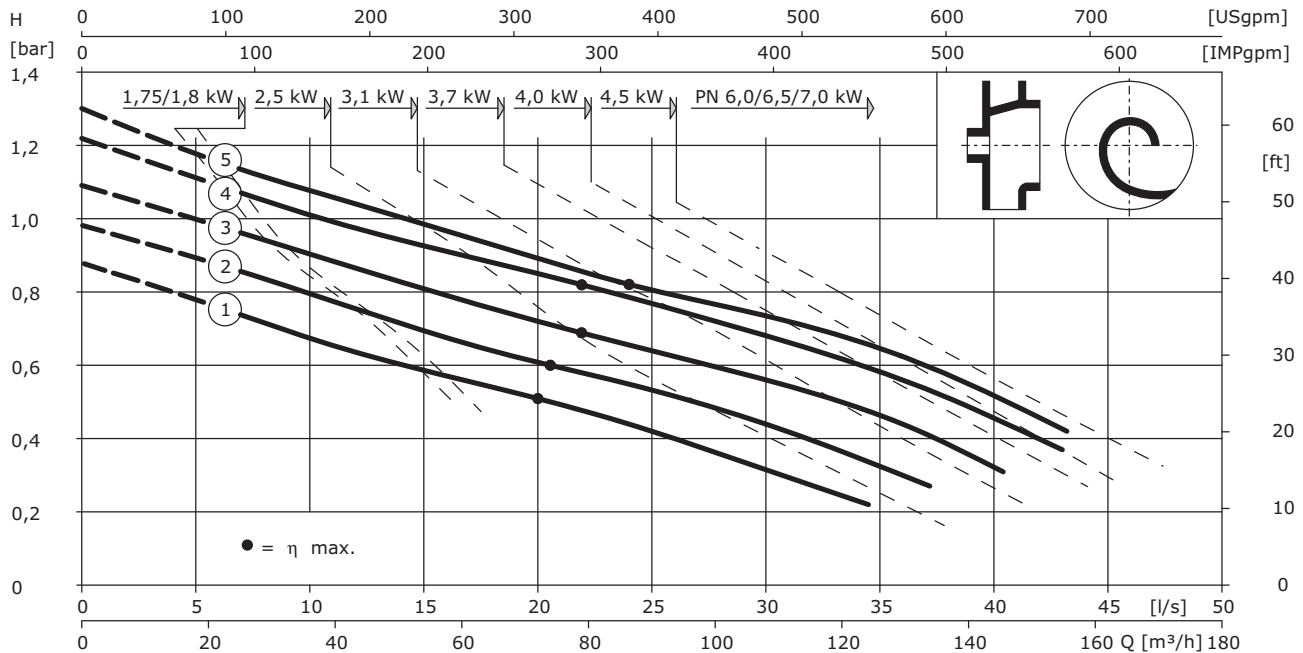
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.34E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	234	44	44	44	-	-	-	-	-
2	246	45	45	45	-	-	-	-	-
3	258	46	46	46	-	-	-	-	-
4	270	47	47	47	-	-	-	-	-
5	278	48	48	48	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	-	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	-	71.5
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

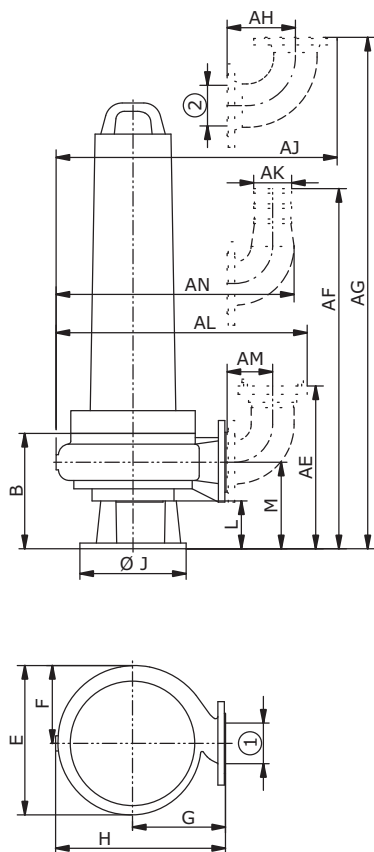
Wilo-EMU FA 10.34E (950 rpm)

Dimension drawing

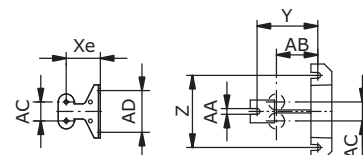
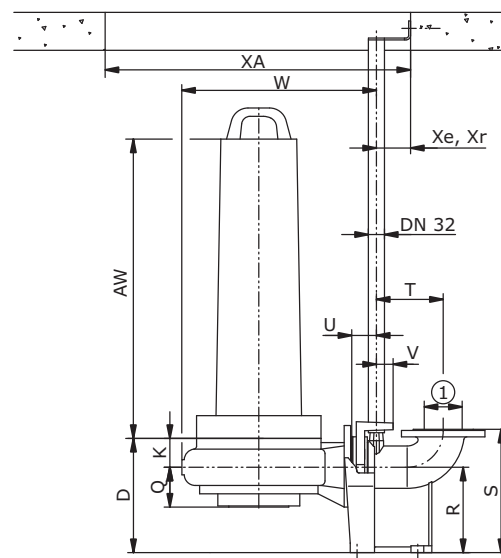
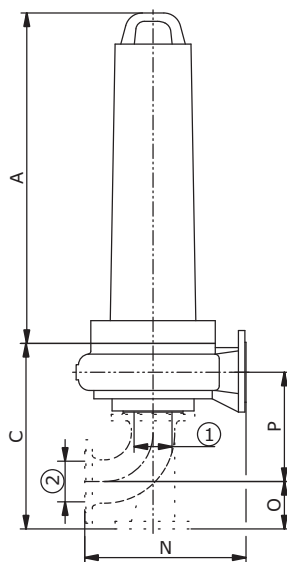
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	304	489	301	394	205	245	448	280	76	126	228	425	125	288	105	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	513	800	90	96	160	190	15	109	50	110	429	478	408	180	741	100	662	120	627

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

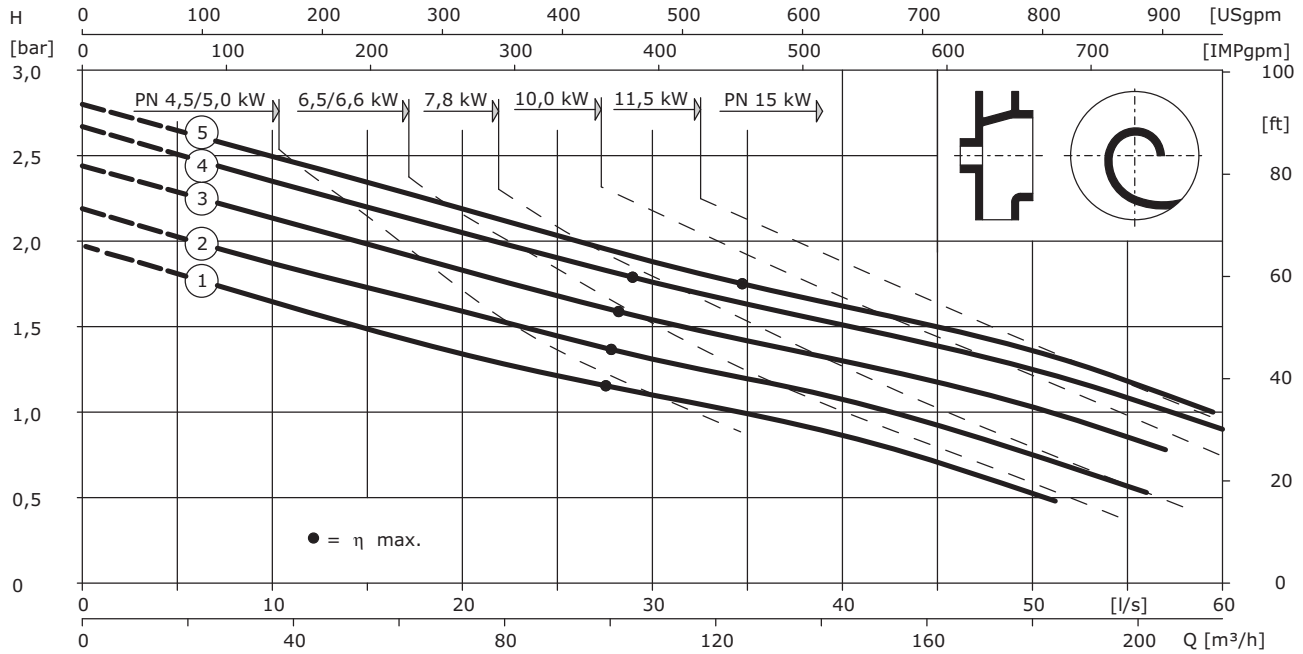
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.34E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	234	44	44	44
2	246	45	45	45
3	258	46	46	46
4	270	47	47	47
5	278	48	48	48

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
5	FO 17.2-4/12	6.5	10.8	384	587	S1/S1	–	71.5
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 20.2-4/22	18.3	31.5	714	821	S1/S1	–	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

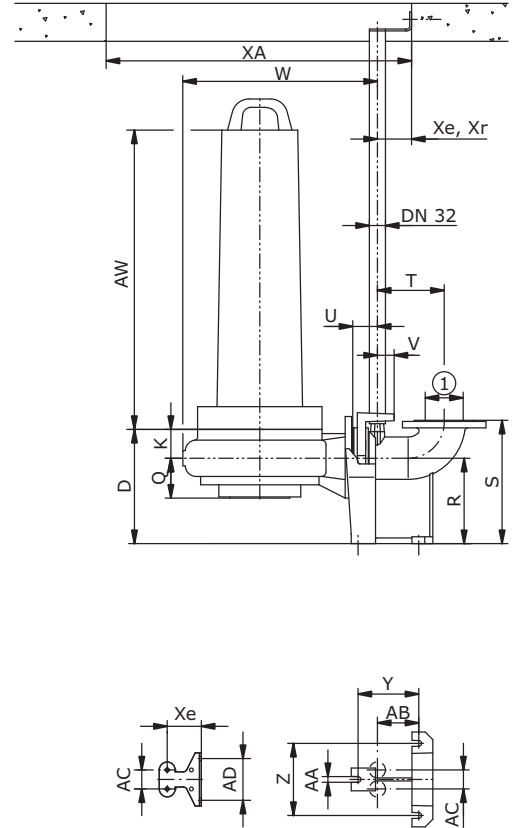
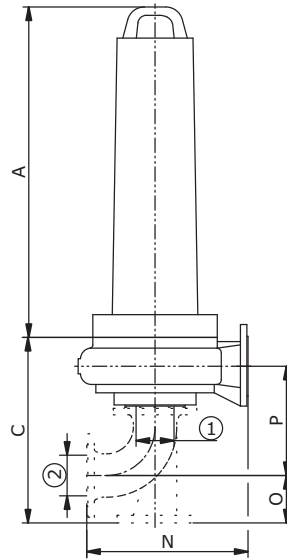
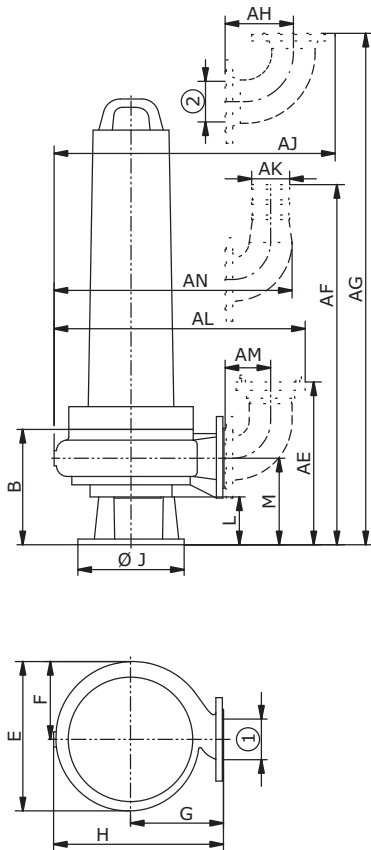
Wilo-EMU FA 10.34E (1450 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	304	489	301	394	205	245	448	280	76	126	228	425	125	288	105	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	513	800	90	96	160	190	15	109	50	110	429	478	408	180	741	100	662	120	627

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

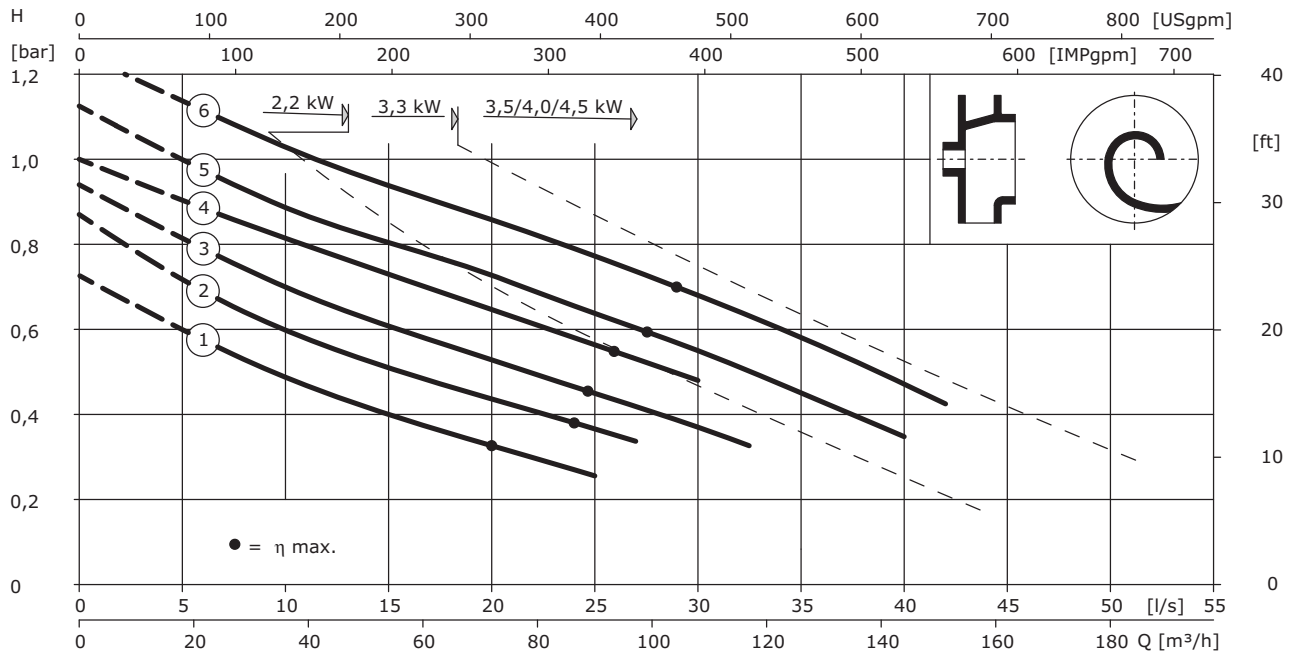
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.41E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	153	26.5	26.5	26.5
2	163	26.5	26.5	26.5
3	173	27	27	27
4	183	27	27	27
5	193	27.5	27.5	27.5

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	203	27.5	27.5	27.5
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	–	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	–	67

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

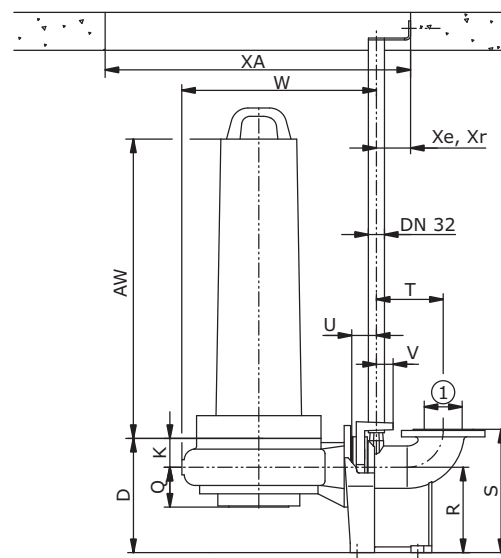
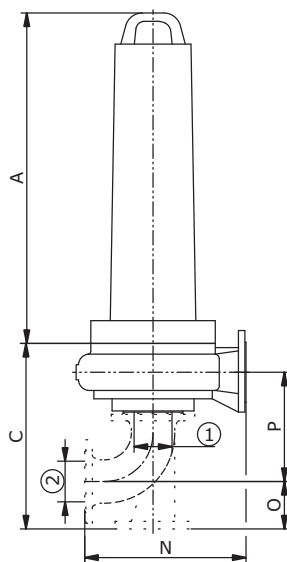
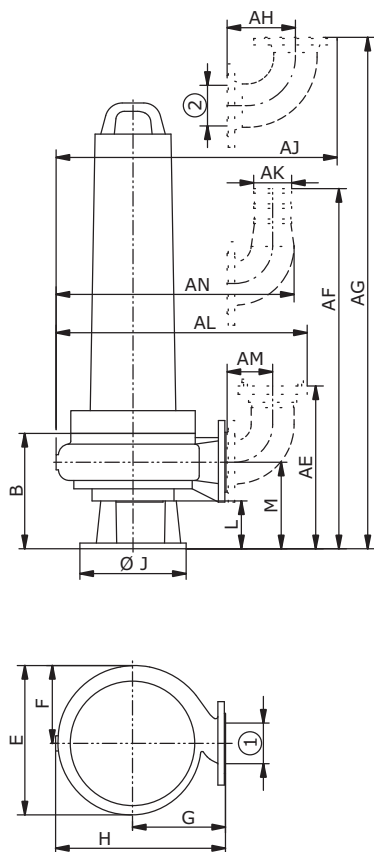
Wilo-EMU FA 10.41E (1450 rpm)

Dimension drawing

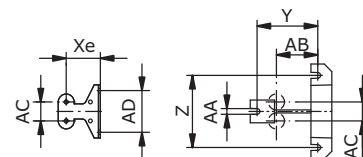
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	293	477	300	364	203	270	462	320	75	124	218	450	125	277	94	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	527	800	90	96	160	190	15	109	50	110	419	468	398	180	755	100	676	120	642

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

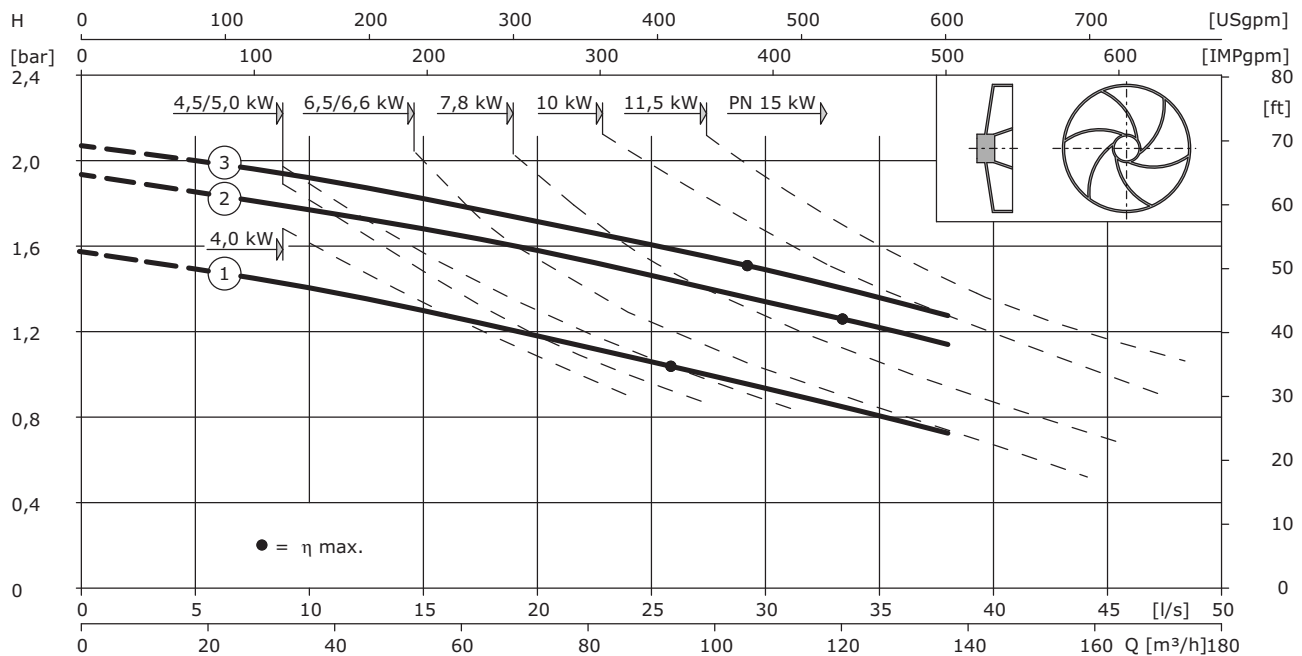
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.43W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	225	32	32	32
2	250	34	34	34
3	260	35	35	35
-	-	-	-	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	-	119
5	FO 17.2-4/12	6.5	10.8	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

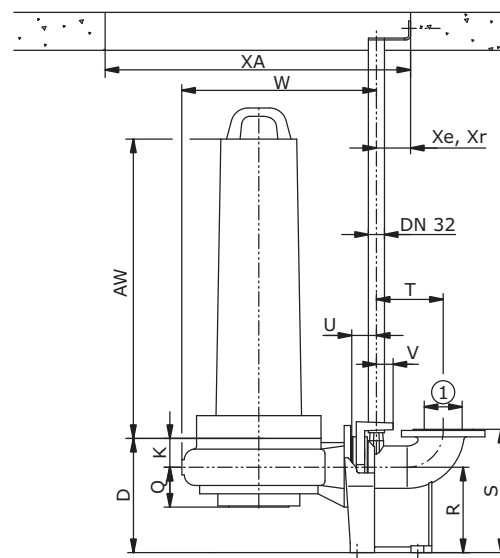
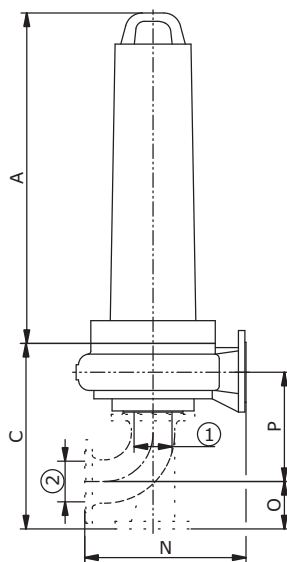
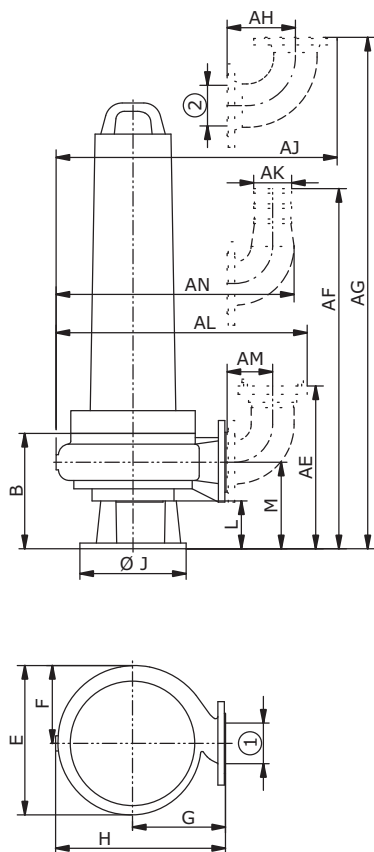
Wilo-EMU FA 10.43W (1450 rpm)

Dimension drawing

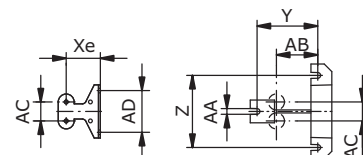
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	330	513	317	340	170	200	374	280	92	126	238	380	125	298	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	439	800	90	96	160	190	15	109	50	110	439	488	418	180	667	100	588	120	554

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

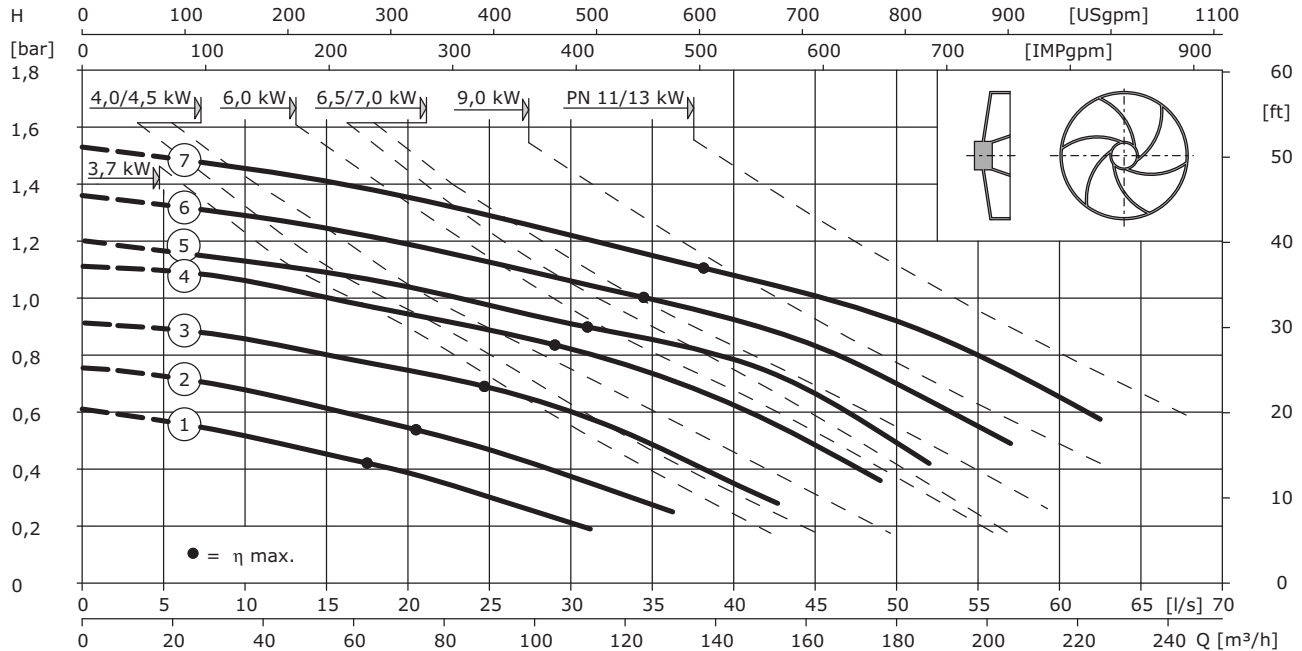
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.44W (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	200	47	47	47
2	225	48	48	48
3	250	50	50	50
4	278	52	52	52
5	290	63	63	63

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	310	64	64	64
7	330	67	67	67
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

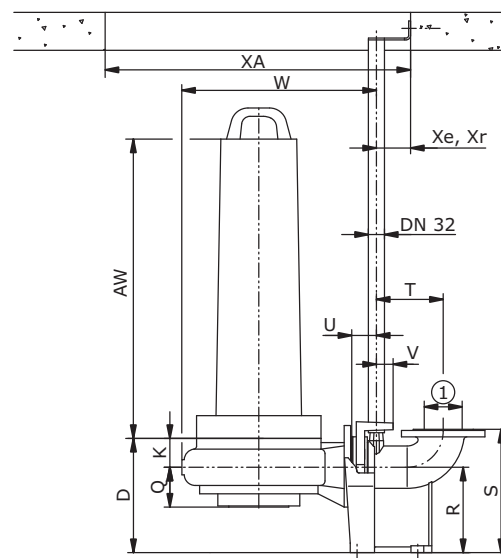
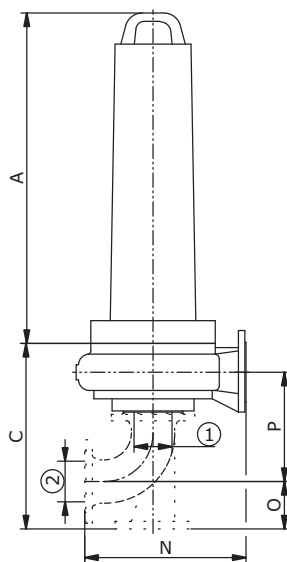
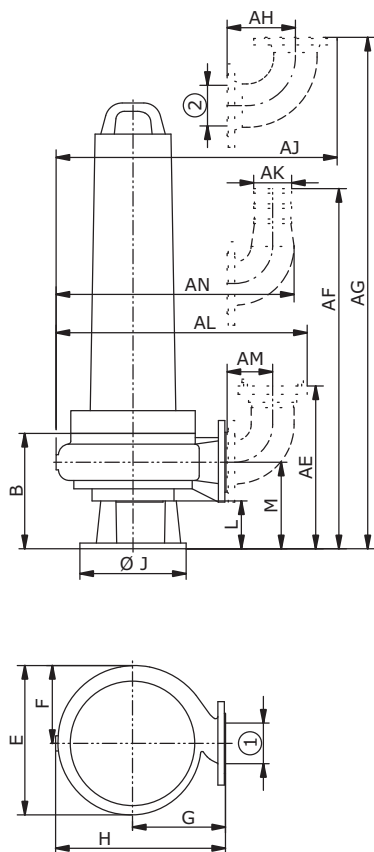
Wilo-EMU FA 10.44W (950 rpm)

Dimension drawing

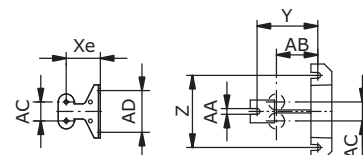
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	354	538	332	420	210	280	494	320	107	124	249	460	125	308	125	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	559	800	90	96	160	190	15	109	50	110	450	499	429	180	787	100	708	120	674

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

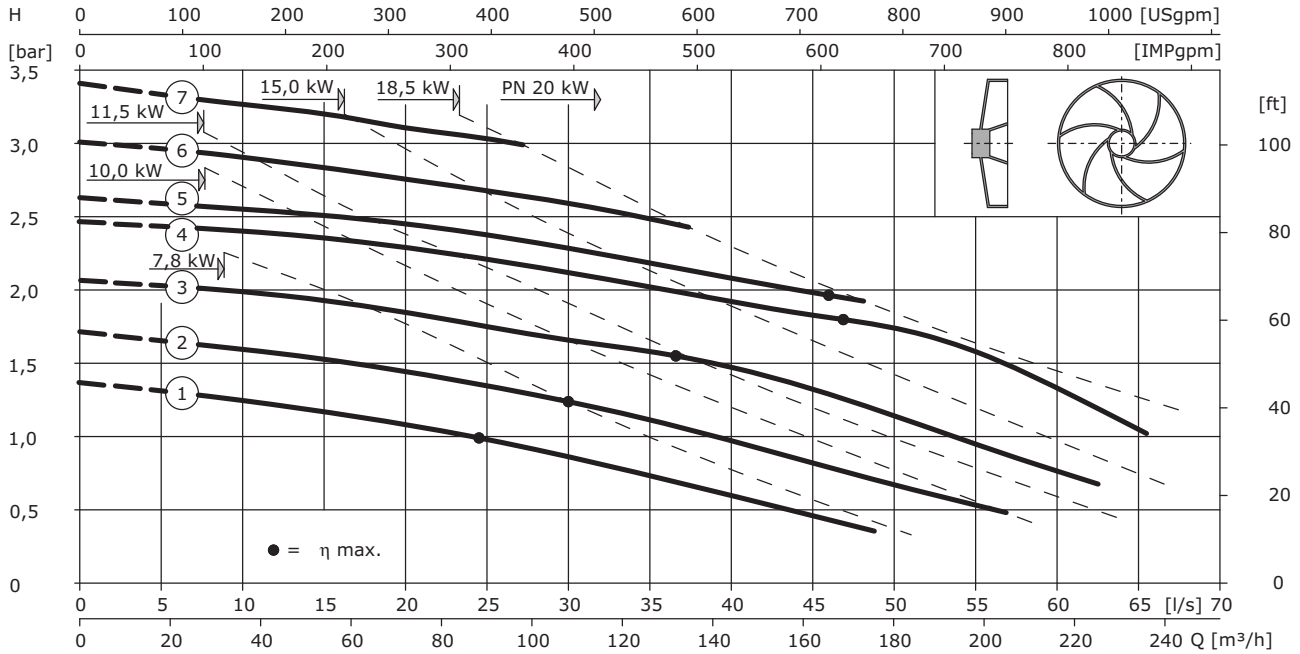
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.44W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	200	47	47	47	6	310	64	64	64
2	225	48	48	48	7	330	67	67	67
3	250	50	50	50	-	-	-	-	-
4	278	52	52	52	-	-	-	-	-
5	290	63	63	63	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	-	P_1 max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

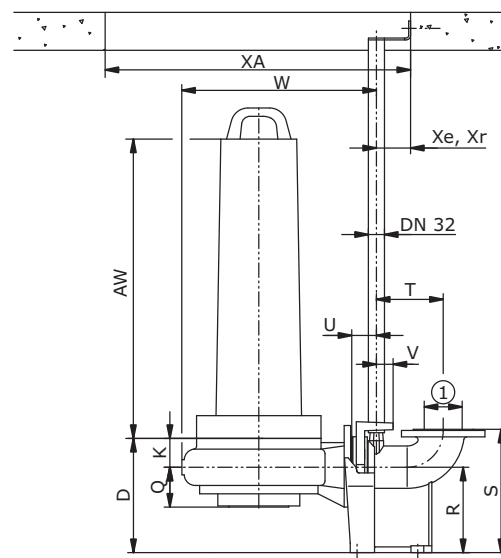
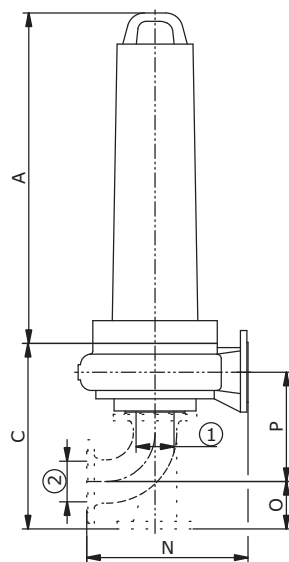
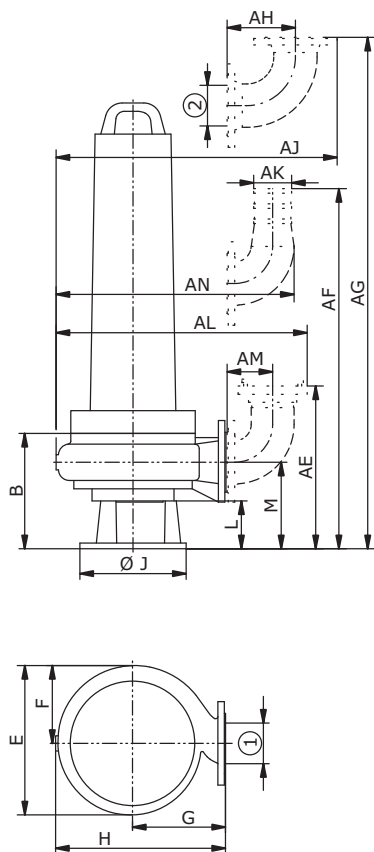
Wilo-EMU FA 10.44W (1450 rpm)

Dimension drawing

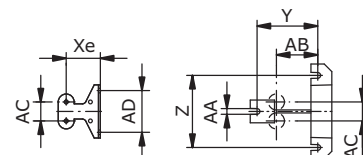
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	354	538	332	420	210	280	494	320	107	124	249	460	125	308	125	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	559	800	90	96	160	190	15	109	50	110	450	499	429	180	787	100	708	120	674

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

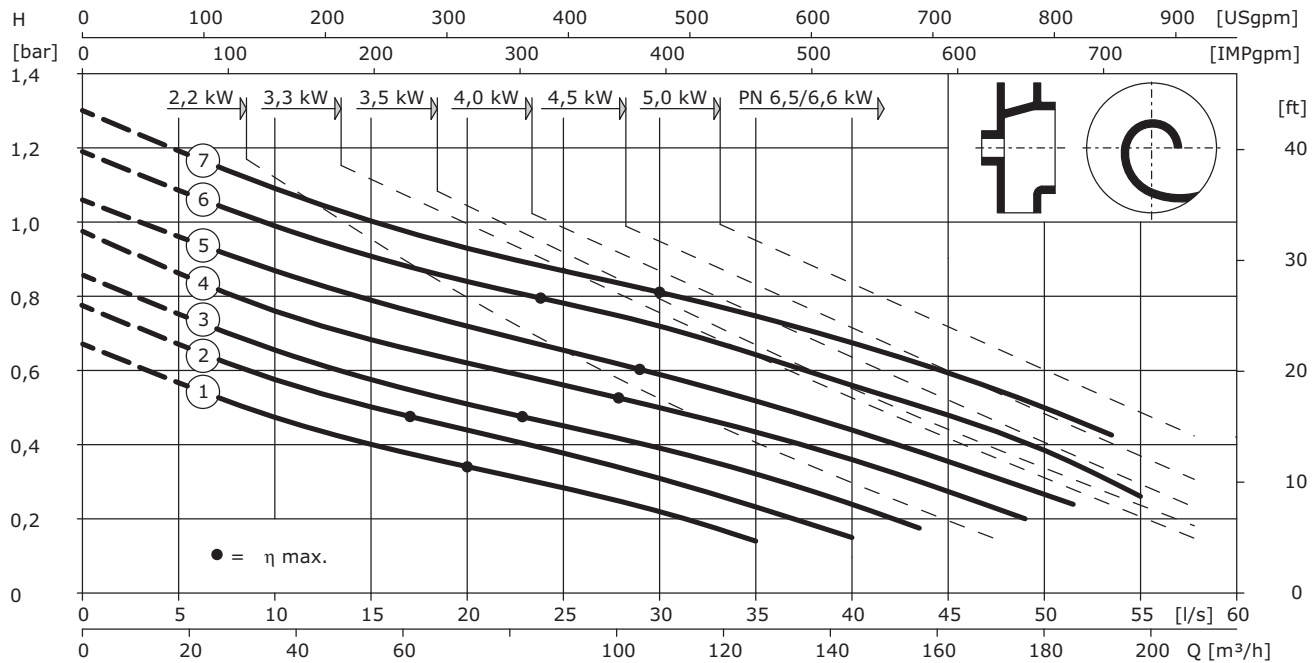
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.51E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	147	22	22	22
2	155	24	24	24
3	163	24	24	24
4	171	25	25	25
5	179	25	25	25

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	187	26	26	26
7	195	26	26	26
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	-	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	-	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

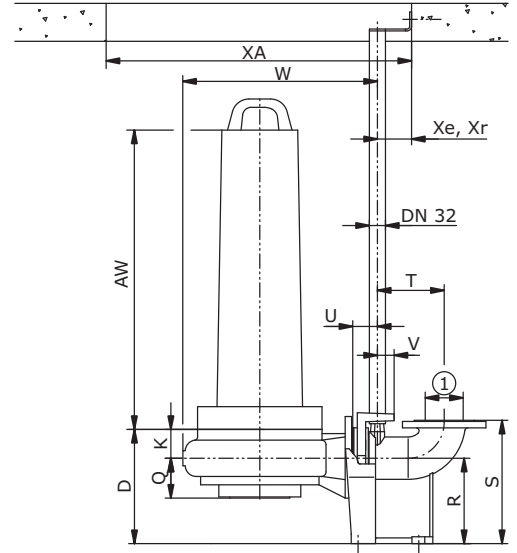
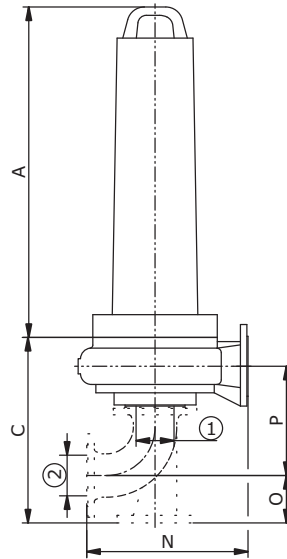
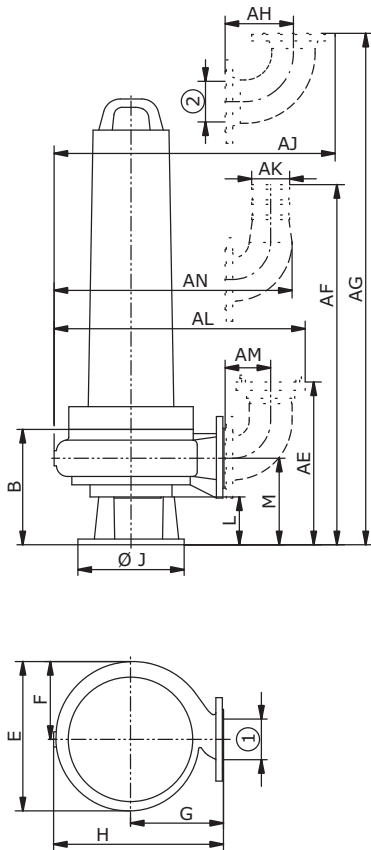
Wilo-EMU FA 10.51E (1450 rpm)

Dimension drawing

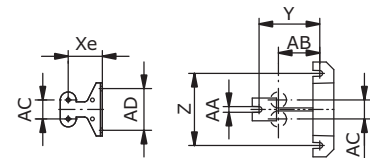
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	323	508	310	340	178	200	373	280	85	126	238	380	125	298	115	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	438	800	90	96	160	190	15	109	50	110	439	488	418	180	666	100	587	120	553

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

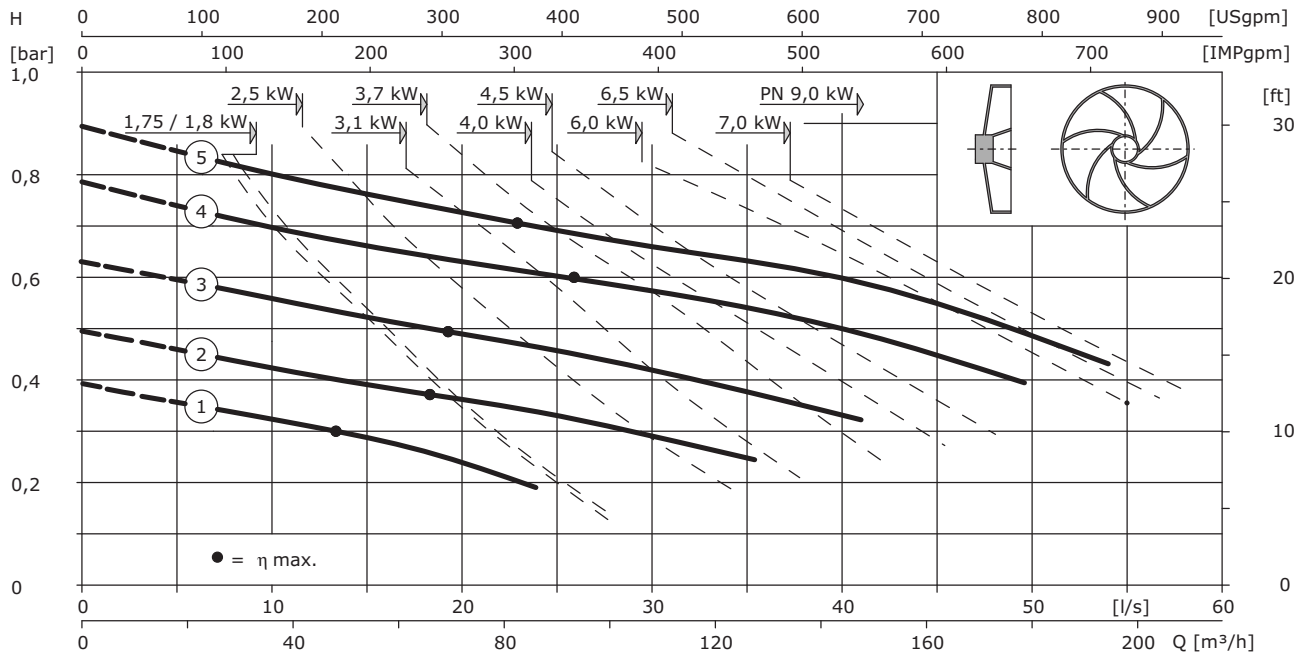
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.53W (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	160	30	30	30
2	180	31	31	31
3	200	32	32	32
4	222	33	33	33
5	242	34	34	34

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]

Wet sump installation

1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168

Wet and dry sump installation

1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	-	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	-	71.5
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

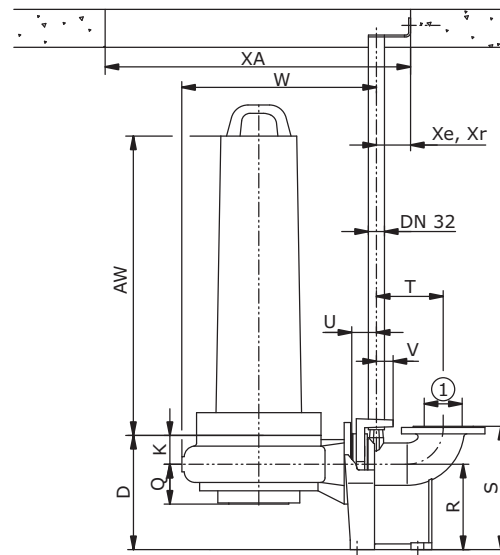
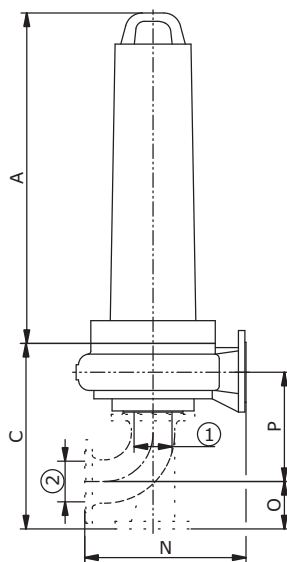
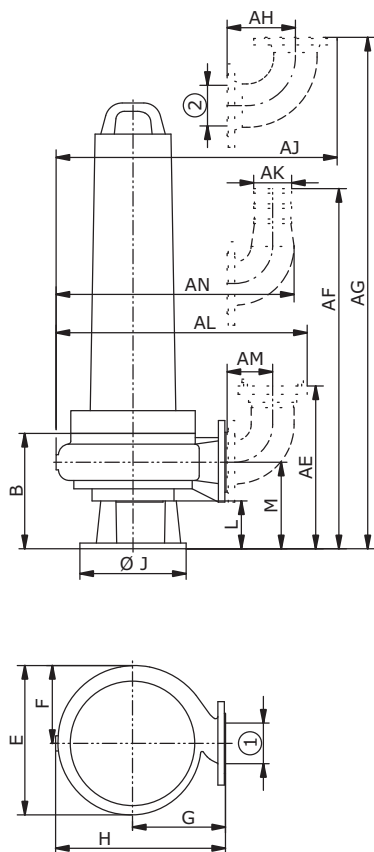
Wilo-EMU FA 10.53W (950 rpm)

Dimension drawing

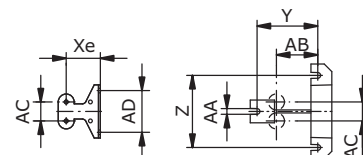
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	330	515	317	340	170	200	378	280	92	126	238	380	125	298	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

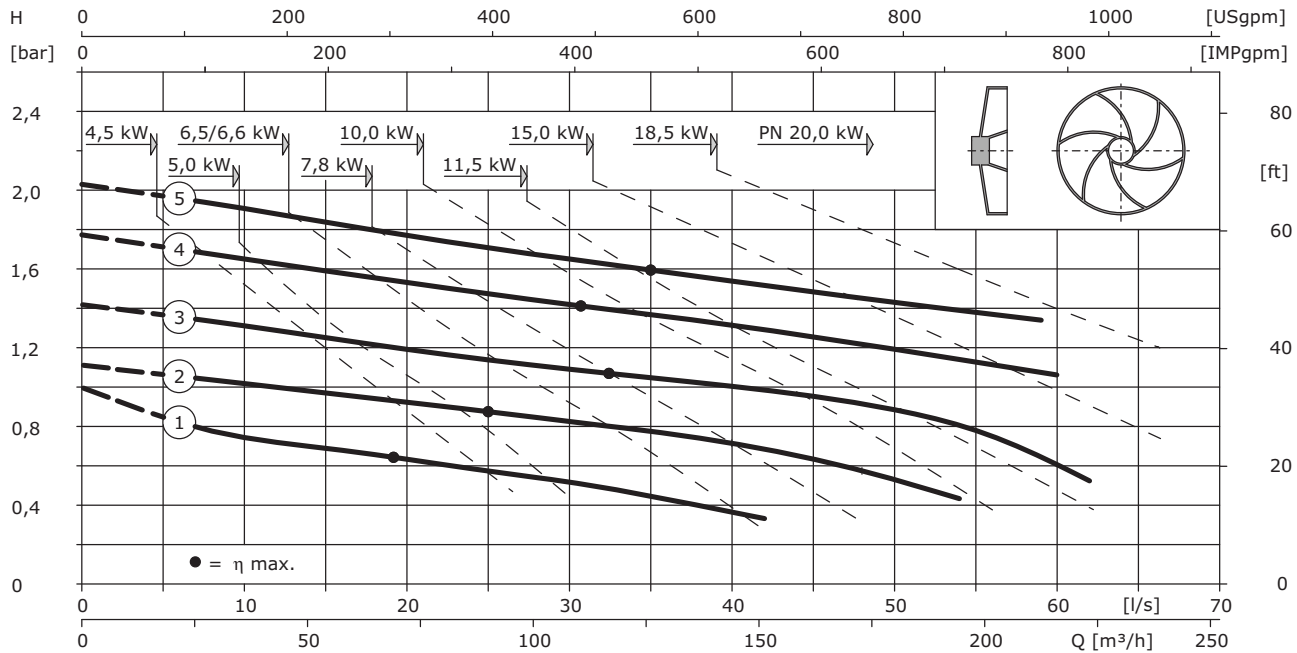
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.53W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	[mm]	[kg]	[kg]	[kg]
1	160	30	30	30
2	180	31	31	31
3	200	32	32	32
4	222	33	33	33
5	242	34	34	34

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	[mm]	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	–	71.5
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

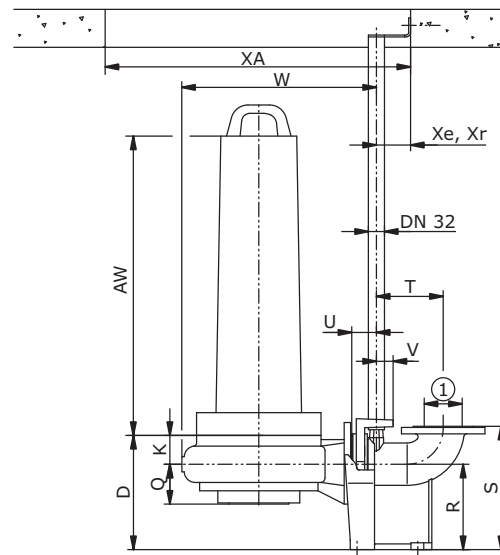
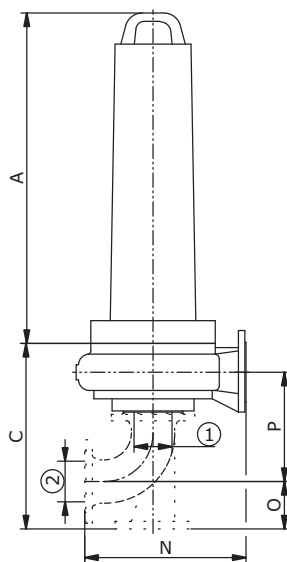
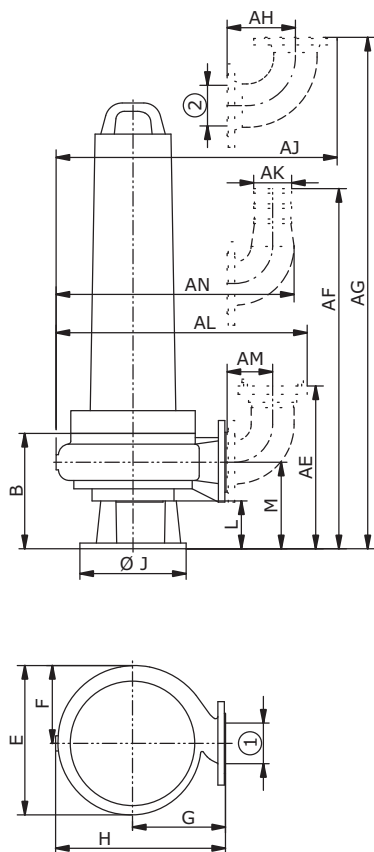
Wilo-EMU FA 10.53W (1450 rpm)

Dimension drawing

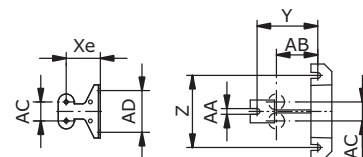
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	330	515	317	340	170	200	378	280	92	126	238	380	125	298	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

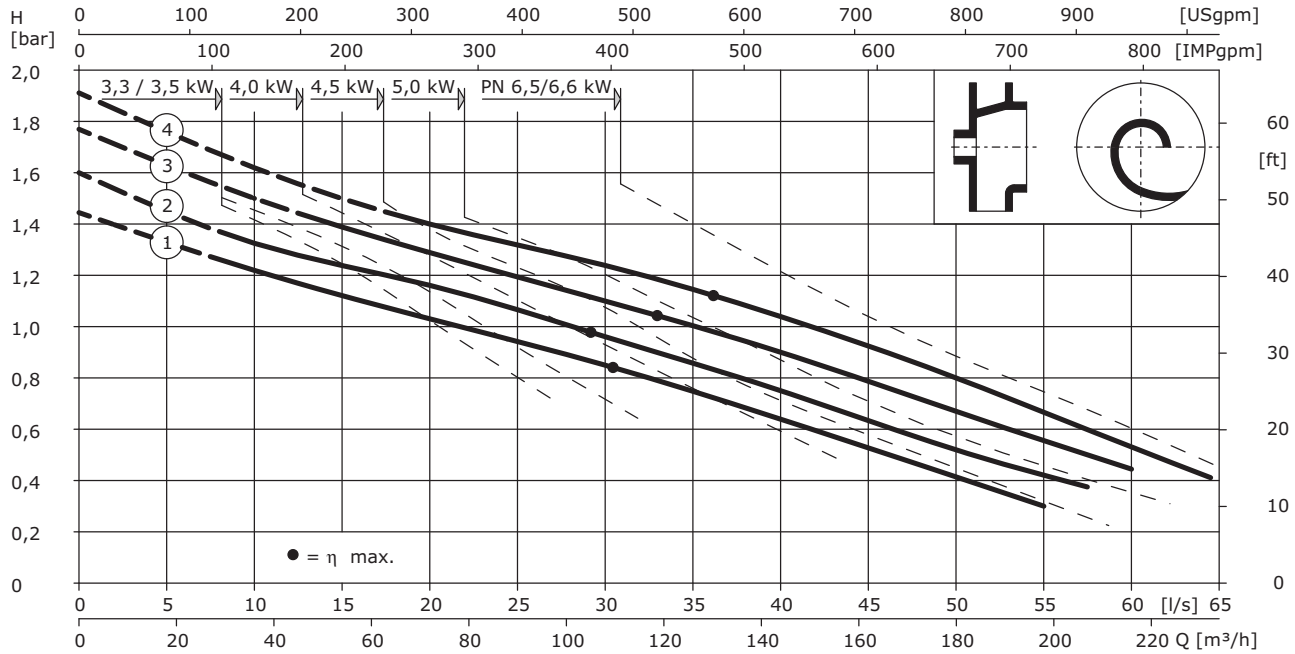
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.62E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
1	210	33	33	33
2	220	33	33	33
3	230	33	33	33
4	240	33	33	33
-	-	-	-	-

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power P_2 [kW]	Motor	Power consumption P_1 max. [kW]	Current I [A]	Dimensions		Operating mode submerged/surfaced	Ex protection	Weight [kg]
				AW [mm]	A [mm]			
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	-	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

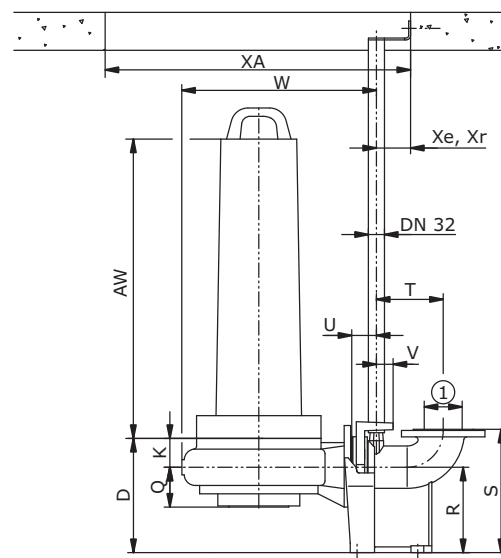
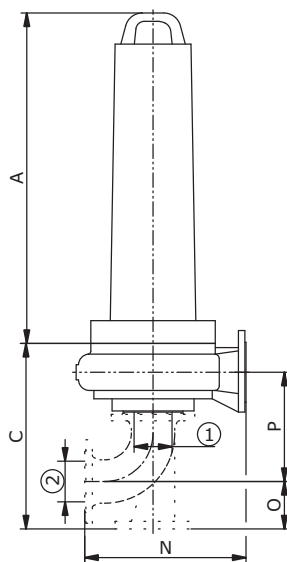
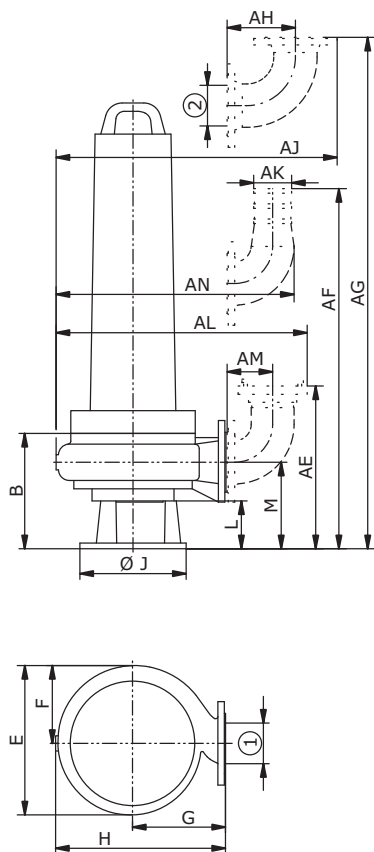
Wilo-EMU FA 10.62E (1450 rpm)

Dimension drawing

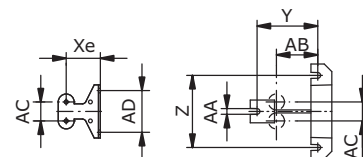
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	292	476	476	293	415	231	280	498	320	68	124	224	460	125	283	101	225	325	176	65
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	563	800	90	96	160	190	15	109	50	110	425	474	404	180	791	100	712	120	678

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

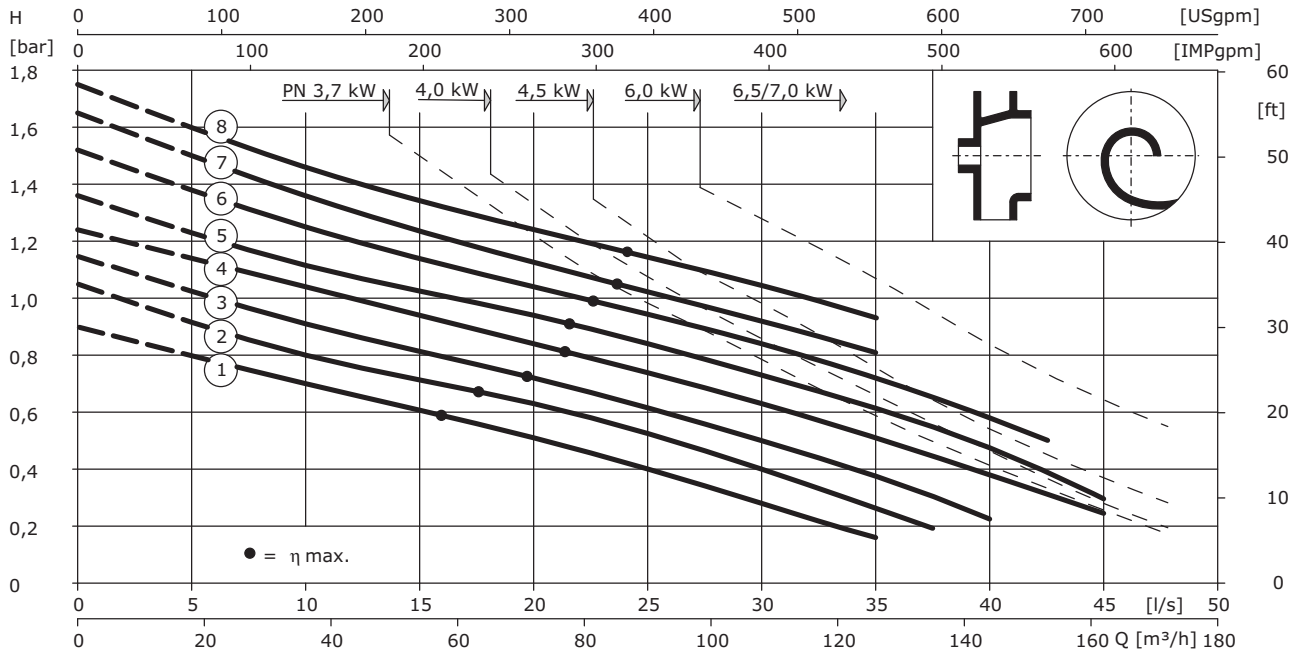
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.65E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	234	70	70	70
2	246	71	71	71
3	258	72	72	72
4	270	73	73	73
5	282	74	74	74

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	294	75	75	75
7	306	76	76	76
8	318	77	77	77
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

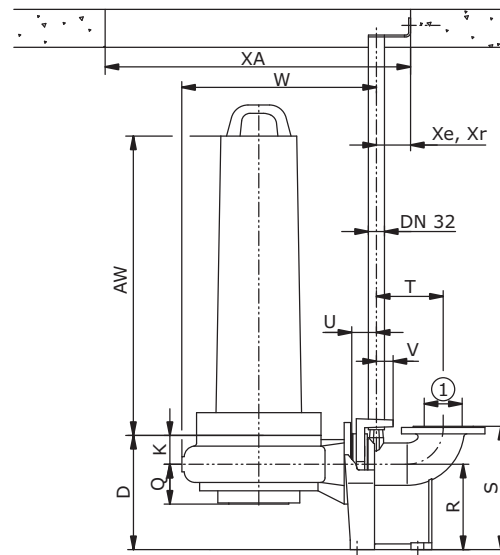
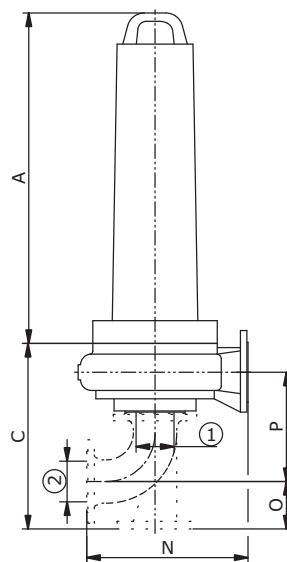
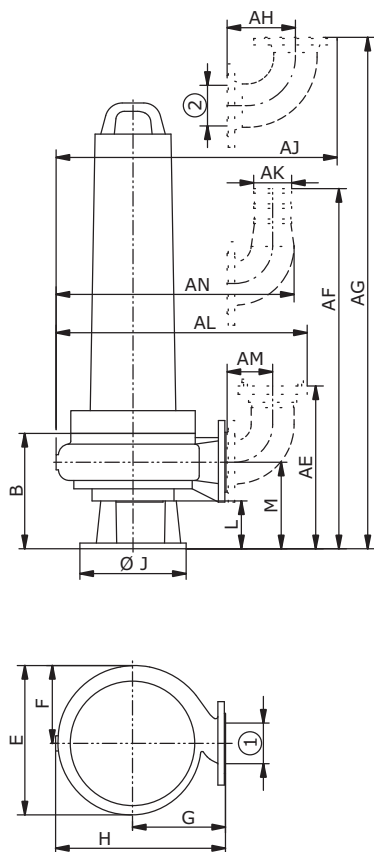
Wilo-EMU FA 10.65E (950 rpm)

Dimension drawing

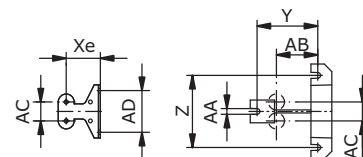
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	299	484	301	469	258	280	506	280	76	126	223	460	125	283	100	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	571	800	90	96	160	190	15	109	50	110	424	473	403	180	799	100	720	120	686

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

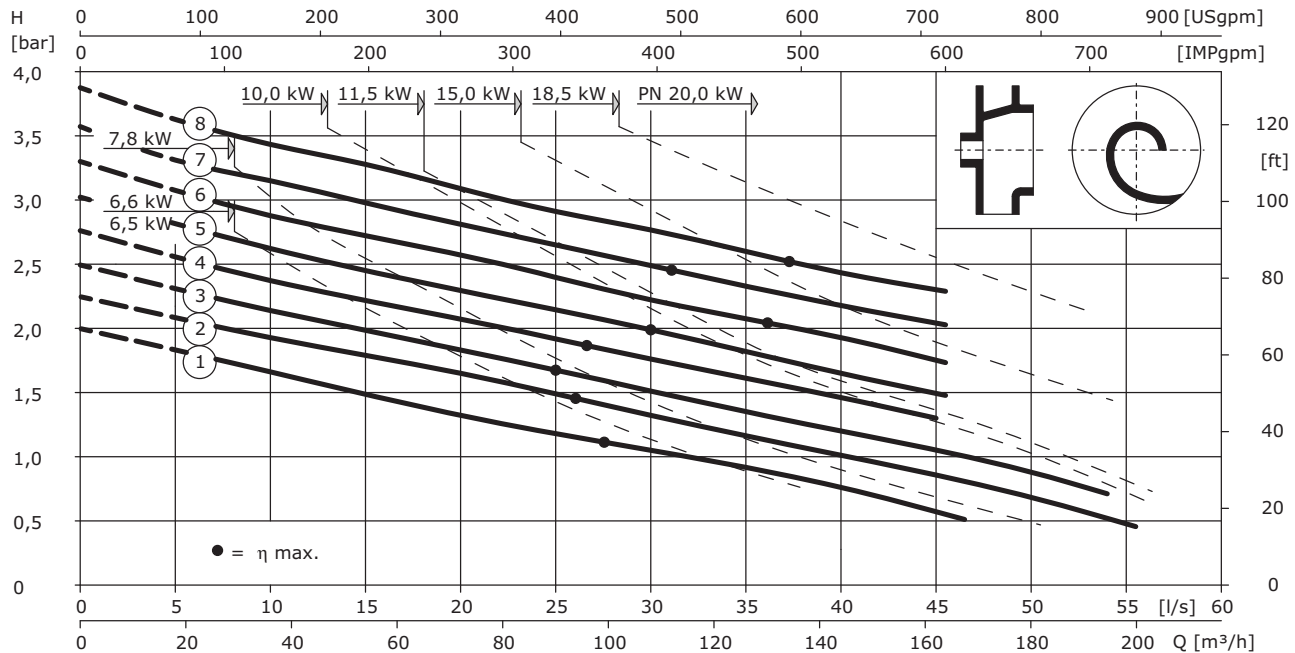
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.65E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	234	70	70	70
2	246	71	71	71
3	258	72	72	72
4	270	73	73	73
5	282	74	74	74

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	294	75	75	75
7	306	76	76	76
8	318	77	77	77
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

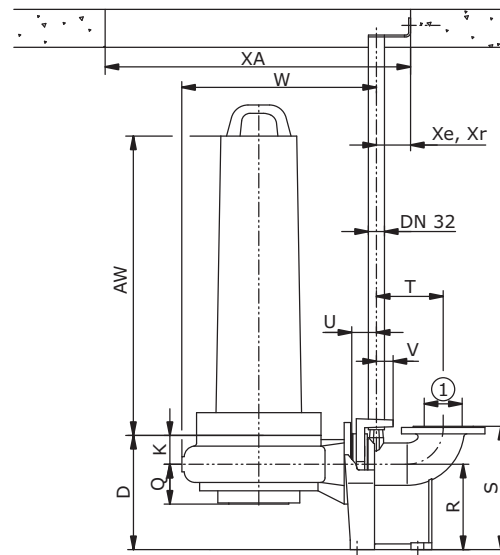
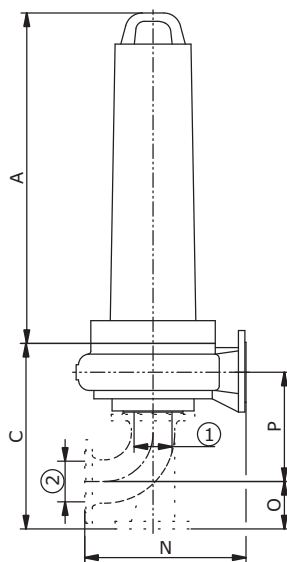
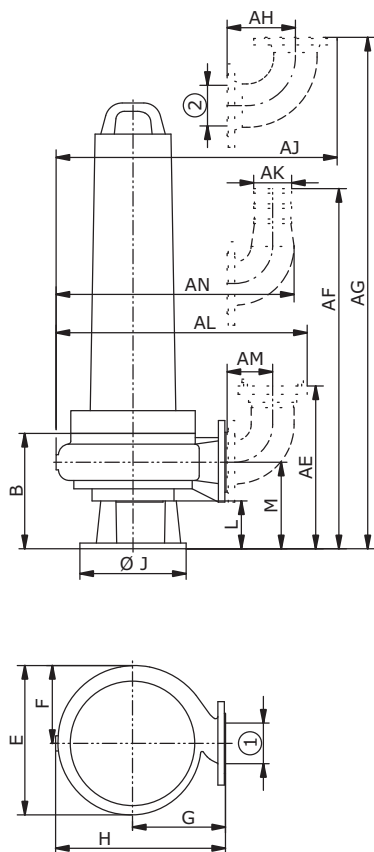
Wilo-EMU FA 10.65E (1450 rpm)

Dimension drawing

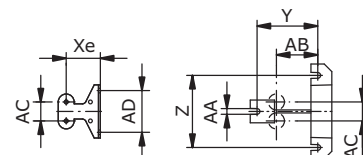
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	299	484	301	469	258	280	506	280	76	126	223	460	125	283	100	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	571	800	90	96	160	190	15	109	50	110	424	473	403	180	799	100	720	120	686

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.14512	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

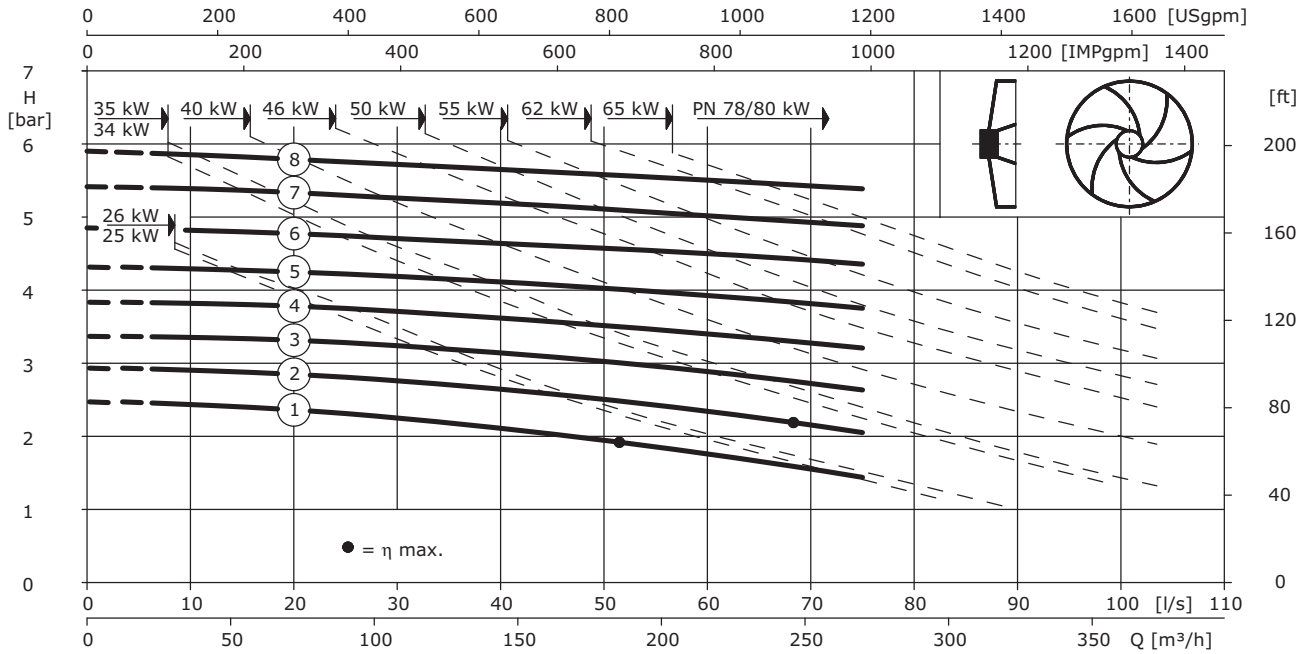
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.68W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	270	96	96	96
2	290	97	97	97
3	310	98	98	98
4	330	99	99	99
5	350	100	100	100

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	370	101	101	101
7	390	102	102	102
8	410	103	103	103
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]

Wet sump installation

25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260
40	T 30-4/29K	45.5	78	781	1035	S1/-	ATEX, FM	422
50	T 30-4/35K	57	96	841	1095	S1/-	ATEX, FM	456
55	T 34-4/29K	62	106	855	1109	S1/-	ATEX, FM	494
62	T 30-4/44K	69	116	931	1185	S1/-	ATEX, FM	506
78	T 30-4/55K	87	146	1041	1295	S1/-	ATEX, FM	567
80	T 34-4/43K	87	150	935	1189	S1/-	ATEX, FM	596

Wet and dry sump installation

25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
46	FK 34.1-4/24	55	91	998	1252	S1/S1	-	595
55	FK 34.1-4/29	64	108	998	1252	S1/S1	-	635
65	FK 34.1-4/33	76	129	998	1252	S1/S1	-	667
80	FK 34.1-4/42	92	155	1118	1372	S1/S1	-	715
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

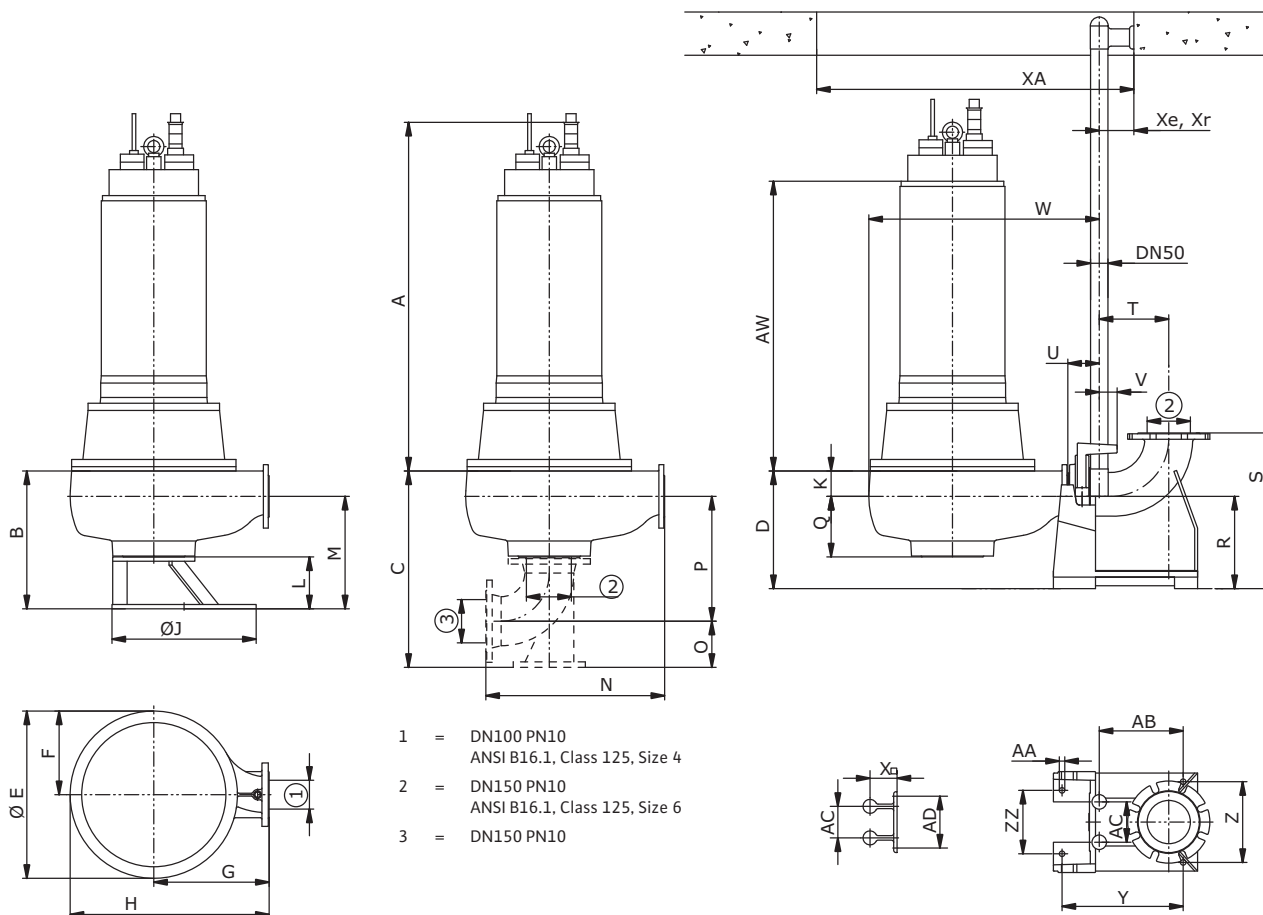
Wilo-EMU FA 10.68W (1450 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	478	681	408	580	290	400	690	500	88	180	390	620	160	433	210	320	540	241	109	
[mm]	62	799	1000	120	-	420	280	18	291	140	230	220								

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150 S/2RK 50.16020	117
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Depending on the total weight of the units, other suspensions units are possible which deviate from this. You can get further information from our sales department.

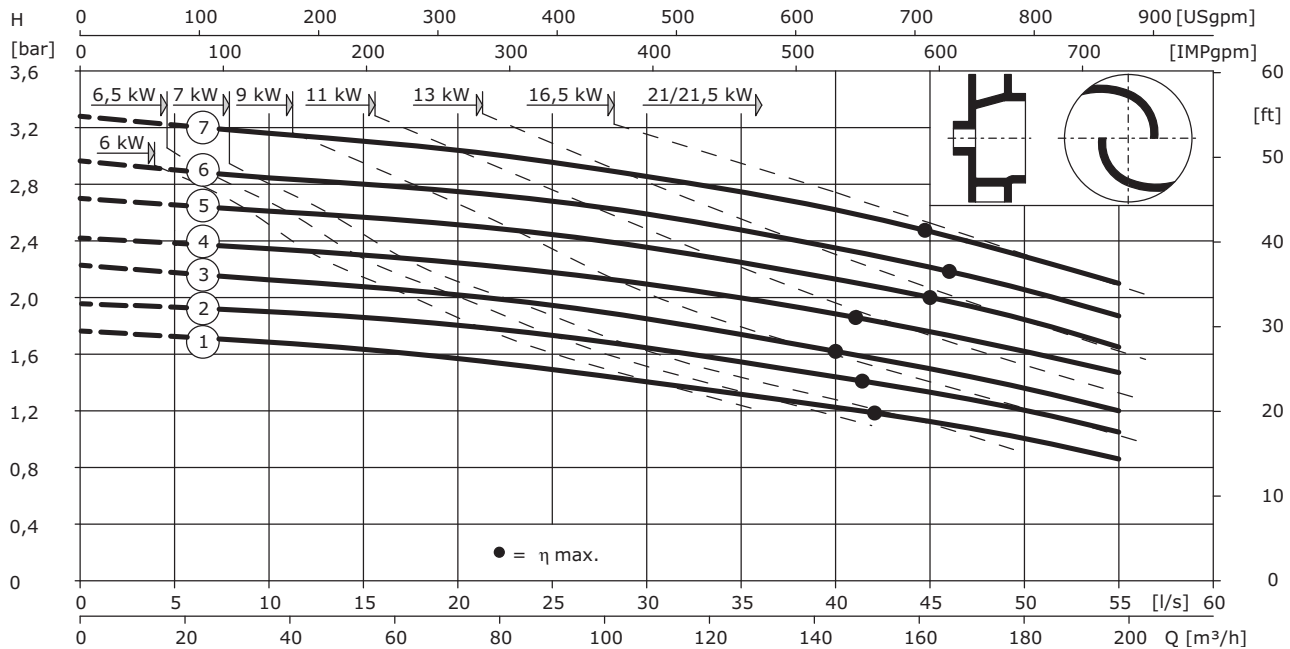
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.78Z (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	330	125	125	125
2	350	131	131	131
3	370	140	140	140
4	390	147	147	147
5	410	155	155	155

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	430	163	163	163
7	450	171	171	171
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]

Wet sump installation

6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
16.5	T 24-6/22K	19.9	33.5	613	866	S1/-	ATEX, FM	211
21.5	29	T 24-6/28K	26	34.5	43	678	26.69	931

Wet and dry sump installation

7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	–	155
21	FK 27.1-6/24	25	42	855	991	S1/S1	–	265
21	FKT 27.1-6/22K	24.5	44	820	1246	S1/S1	–	370

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

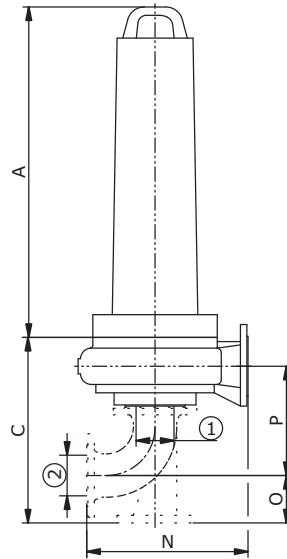
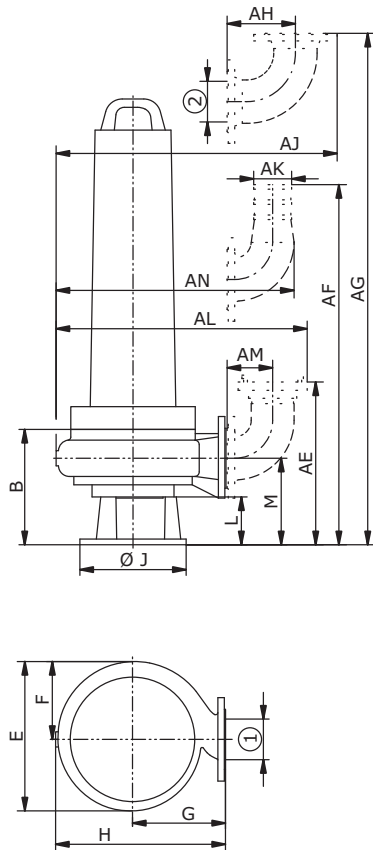
Wilo-EMU FA 10.78Z (950 rpm)

Dimension drawing

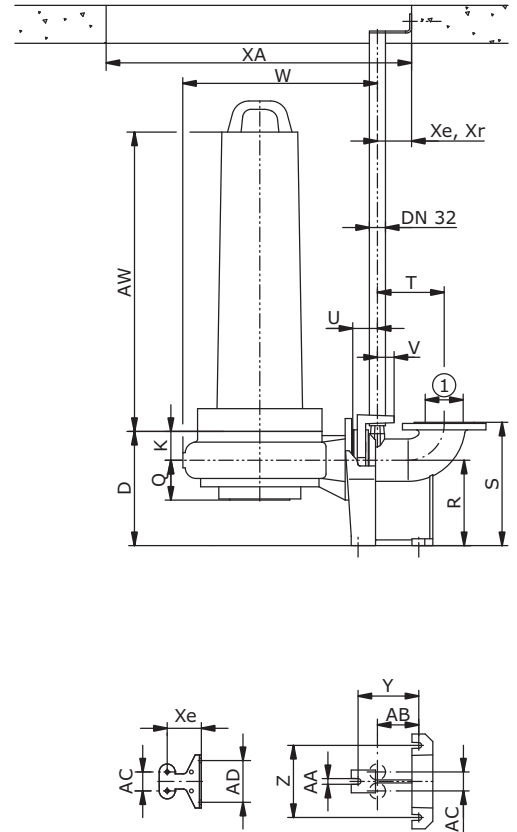
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	387	518	318	563	295	350	635	500	73	180	314	530	125	320	137	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	700	1000	90	95	160	190	15	109	50	110	515	564	494	180	928	100	849	120	815

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Depending on the total weight of the units, other suspensions units are possible which deviate from this. You can get further information from our sales department.

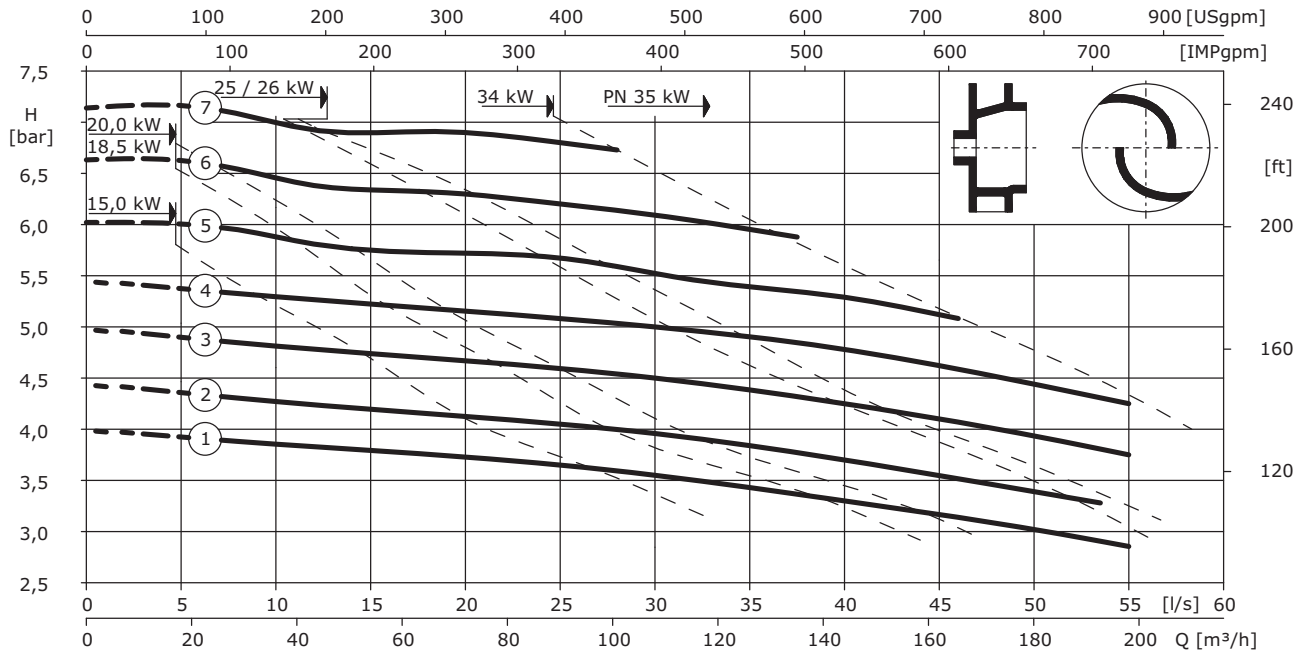
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.78Z (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	330	125	125	125
2	350	131	131	131
3	370	140	140	140
4	390	147	147	147
5	410	155	155	155

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	430	163	163	163
7	450	171	171	171
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]

Wet sump installation

15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260

Wet and dry sump installation

15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	–	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	–	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	–	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	–	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

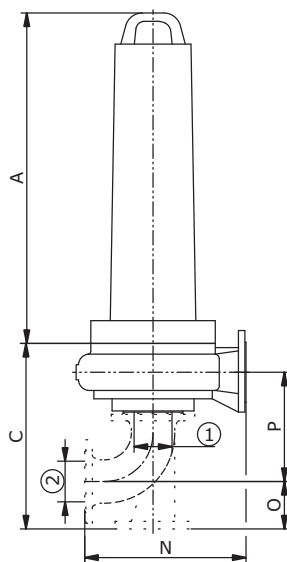
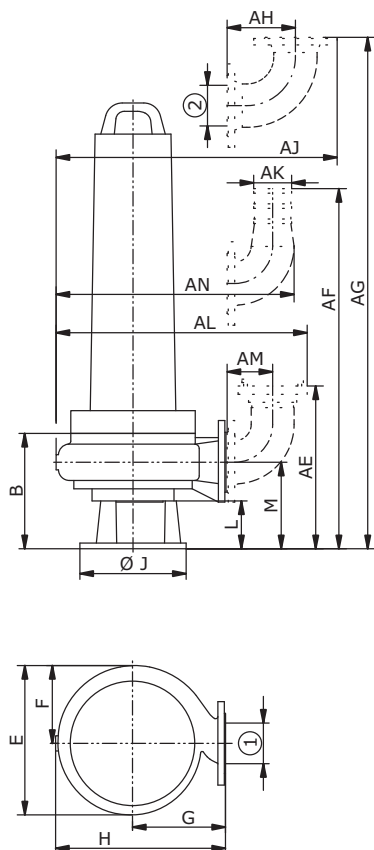
Wilo-EMU FA 10.78Z (1450 rpm)

Dimension drawing

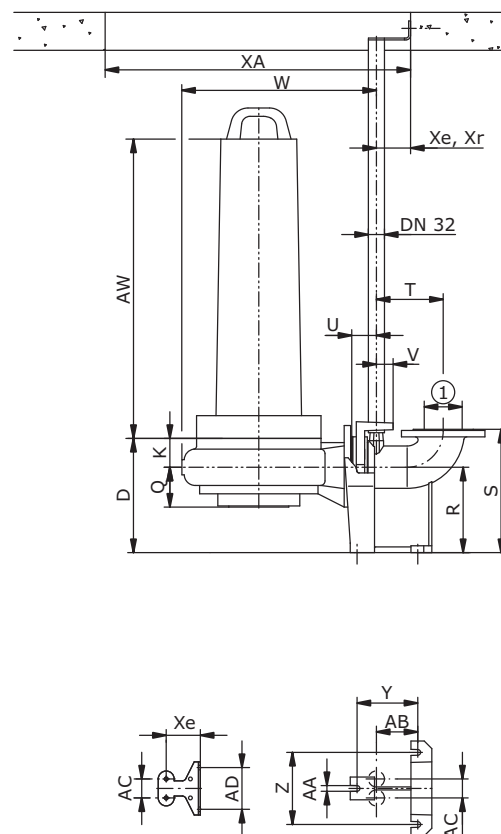
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	387	518	318	563	295	350	635	500	73	180	314	530	125	320	137	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	700	1000	90	95	160	190	15	109	50	110	515	564	494	180	928	100	849	120	815

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 100	-	15
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Depending on the total weight of the units, other suspensions units are possible which deviate from this. You can get further information from our sales department.

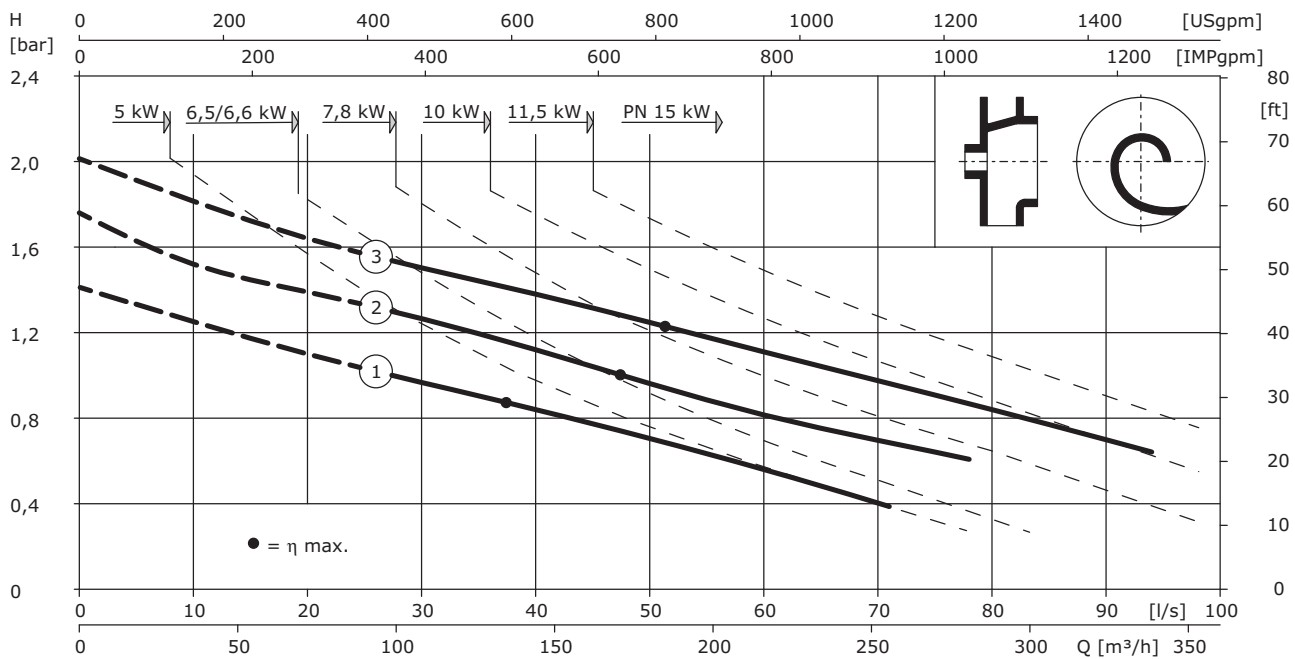
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.82E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	215	55	55	55
2	230	56	56	56
3	245	57	57	57
–	–	–	–	–
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P_2	–	P_1 max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
5	FO 17.2-4/12	6.5	10.8	384	587	S1/S1	–	71.5
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 20.2-4/22	18.3	31.5	714	821	S1/S1	–	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

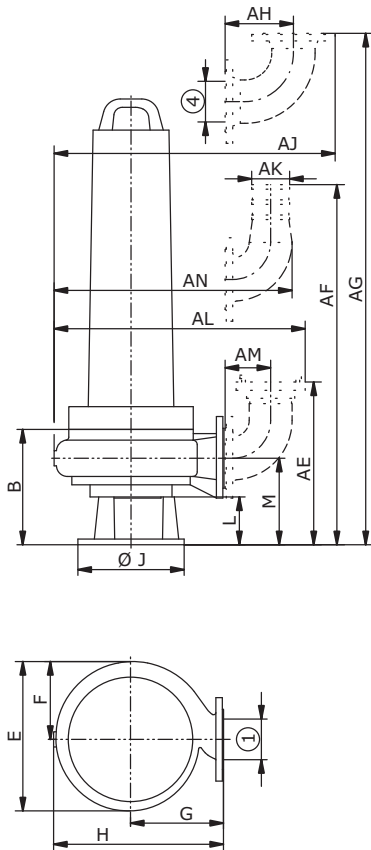
Wilo-EMU FA 10.82E (1450 rpm)

Dimension drawing

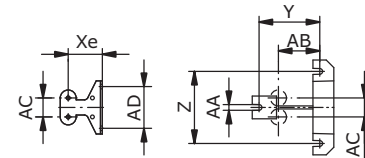
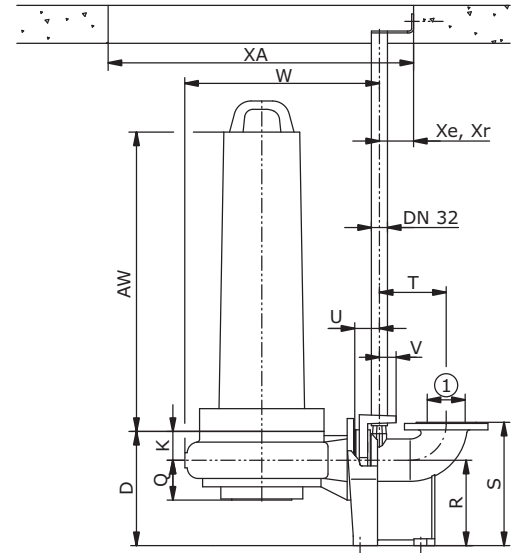
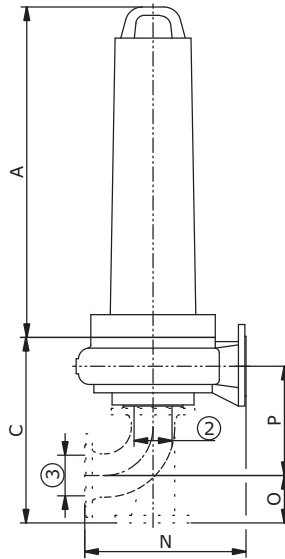
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 3 = DN150 PN10
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	381	584	584	309	433	240	280	496	500	84	180	297	500	160	340	117	225	325	176	65
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	561	800	90	96	160	190	15	109	50	110	498	547	477	180	789	100	710	120	676

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

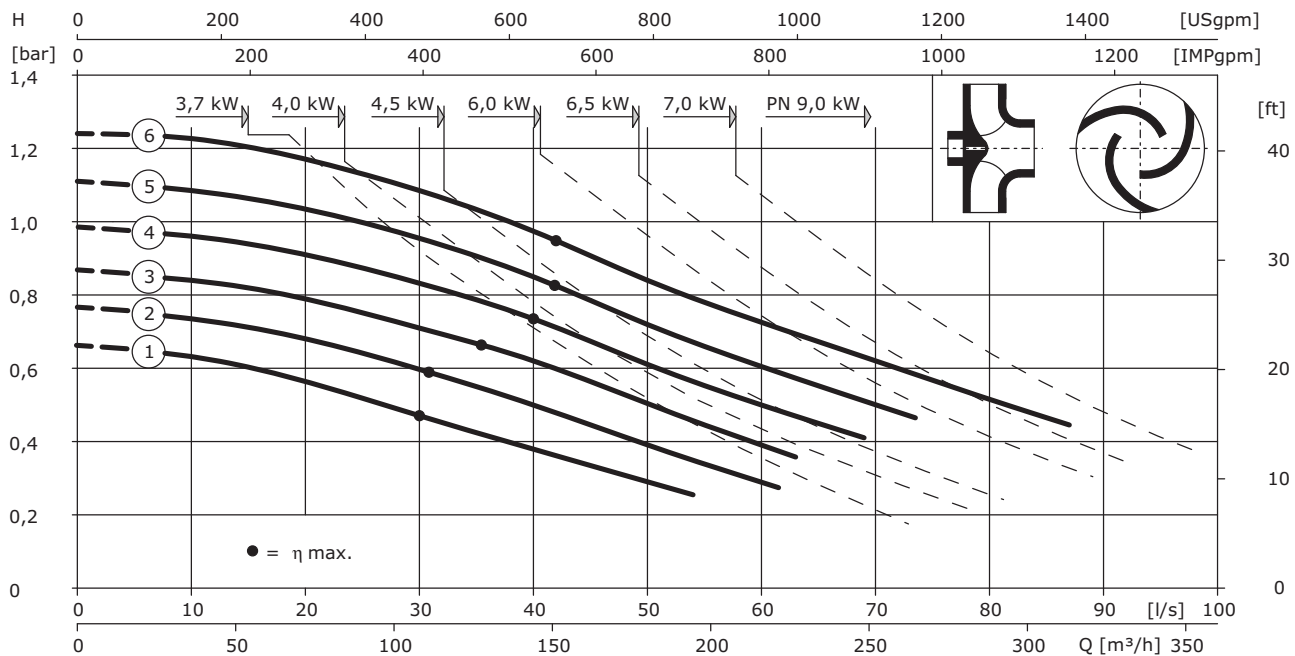
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.84D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	203	53	53	53
2	218	54	54	54
3	233	54	54	54
4	248	55	55	55
5	263	55	55	55

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	278	56	56	56
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

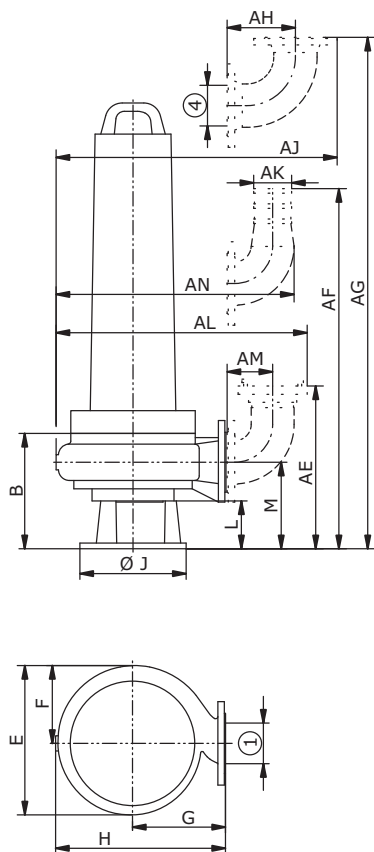
Wilo-EMU FA 10.84D (950 rpm)

Dimension drawing

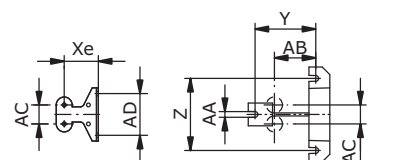
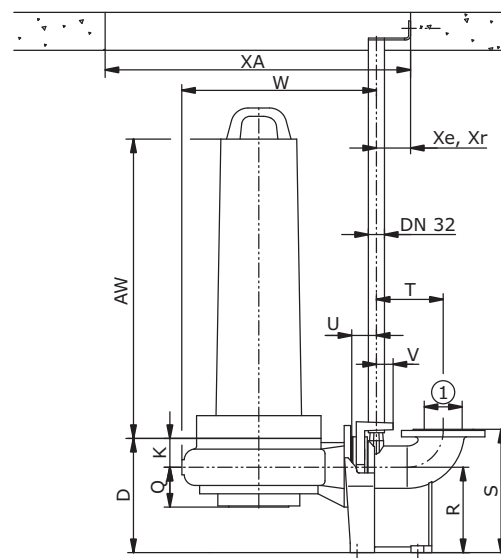
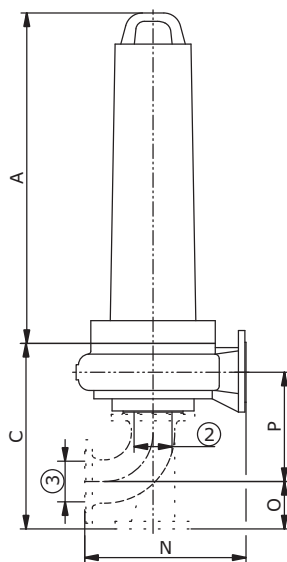
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 3 = DN150 PN10
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	381	584	584	309	433	240	280	496	500	84	180	297	500	160	340	117	225	325	176	65
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	561	800	90	96	160	190	15	109	50	110	498	547	477	180	789	100	710	120	676

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

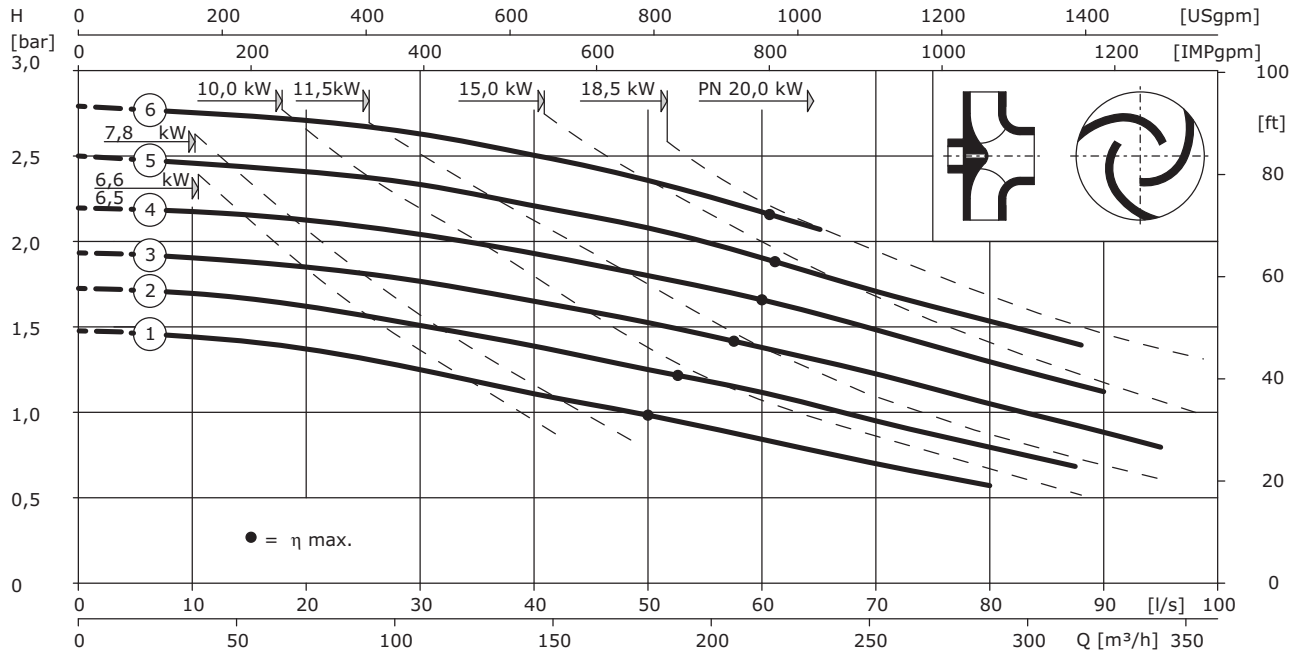
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.84D (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	203	53	53	53
2	218	54	54	54
3	233	54	54	54
4	248	55	55	55
5	263	55	55	55

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	278	56	56	56
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 20.2-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	23	23	37.5	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

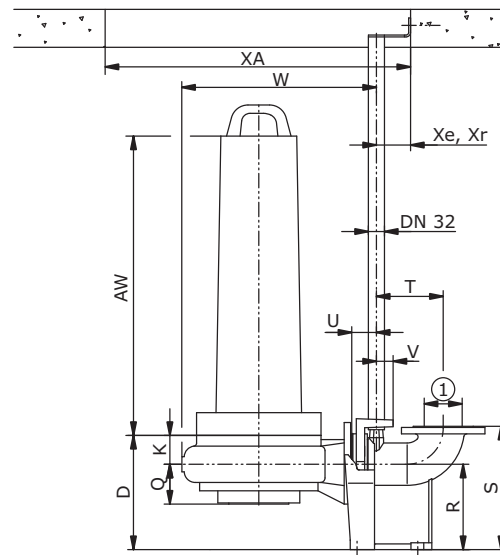
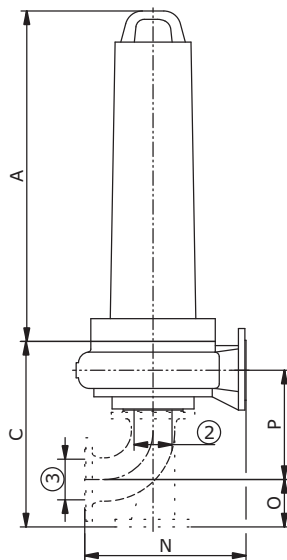
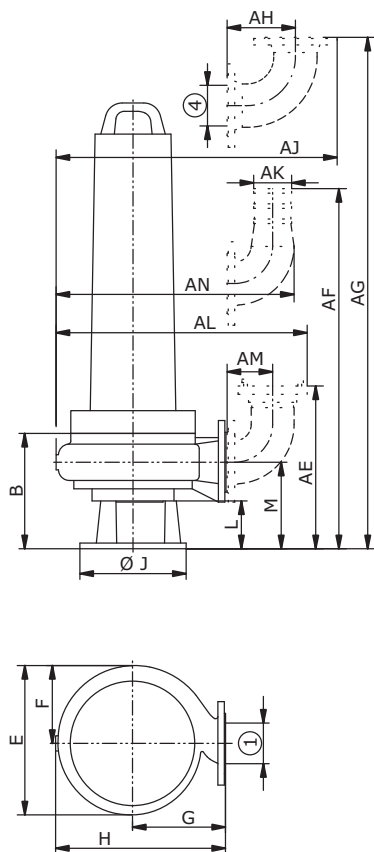
Wilo-EMU FA 10.84D (1450 rpm)

Dimension drawing

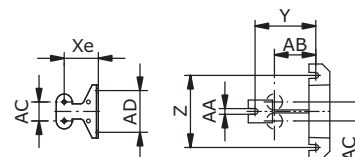
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 3 = DN150 PN10
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	381	584	584	309	433	240	280	496	500	84	180	297	500	160	340	117	225	325	176	65
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	561	800	90	96	160	190	15	109	50	110	498	547	477	180	789	100	710	120	676

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

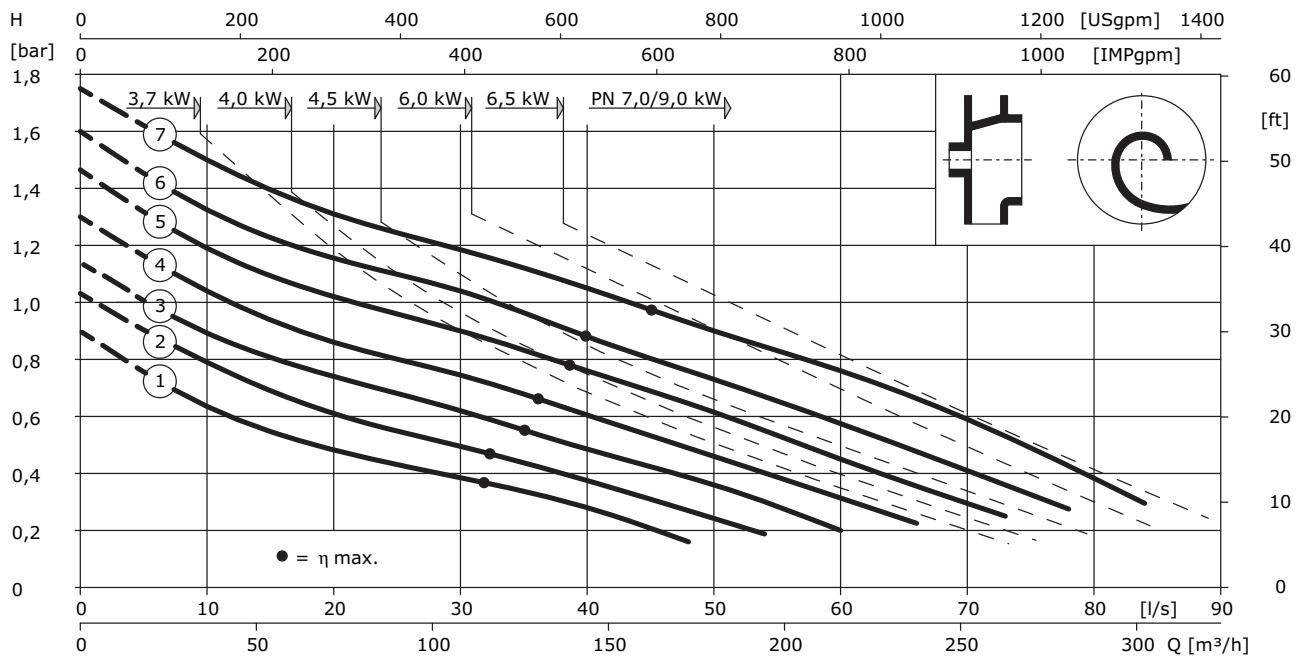
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.94E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	246	77	77	77	6	306	79.5	79.5	79.5
2	258	77.5	77.5	77.5	7	318	80	80	80
3	270	78	78	78	-	-	-	-	-
4	282	78.5	78.5	78.5	-	-	-	-	-
5	294	79	79	79	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

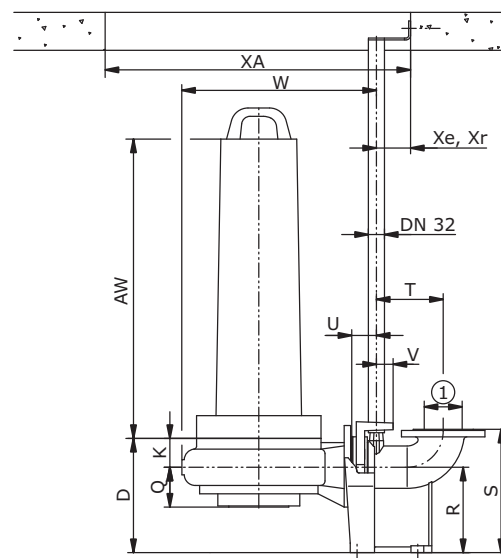
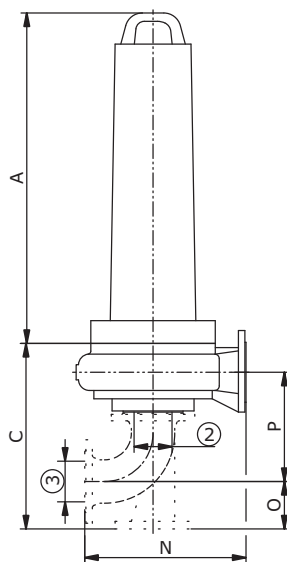
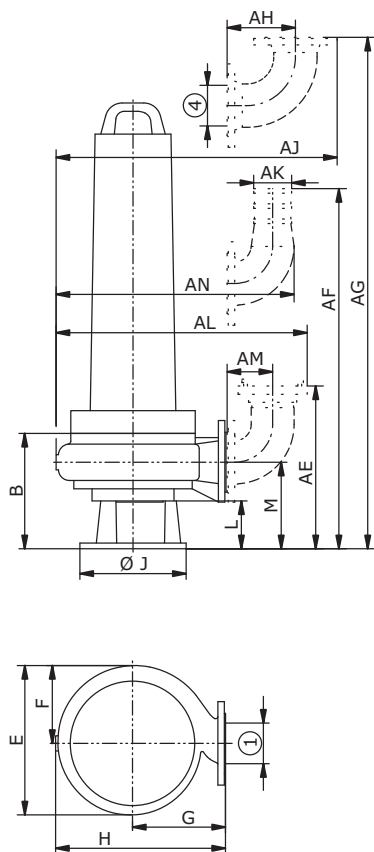
Wilo-EMU FA 10.94E (950 rpm)

Dimension drawing

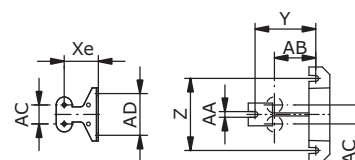
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 3 = DN150 PN10
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	382	585	310	550	308	350	618	500	85	180	297	570	160	340	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	683	1000	90	95	160	190	15	109	50	110	498	547	477	180	911	100	832	120	798

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

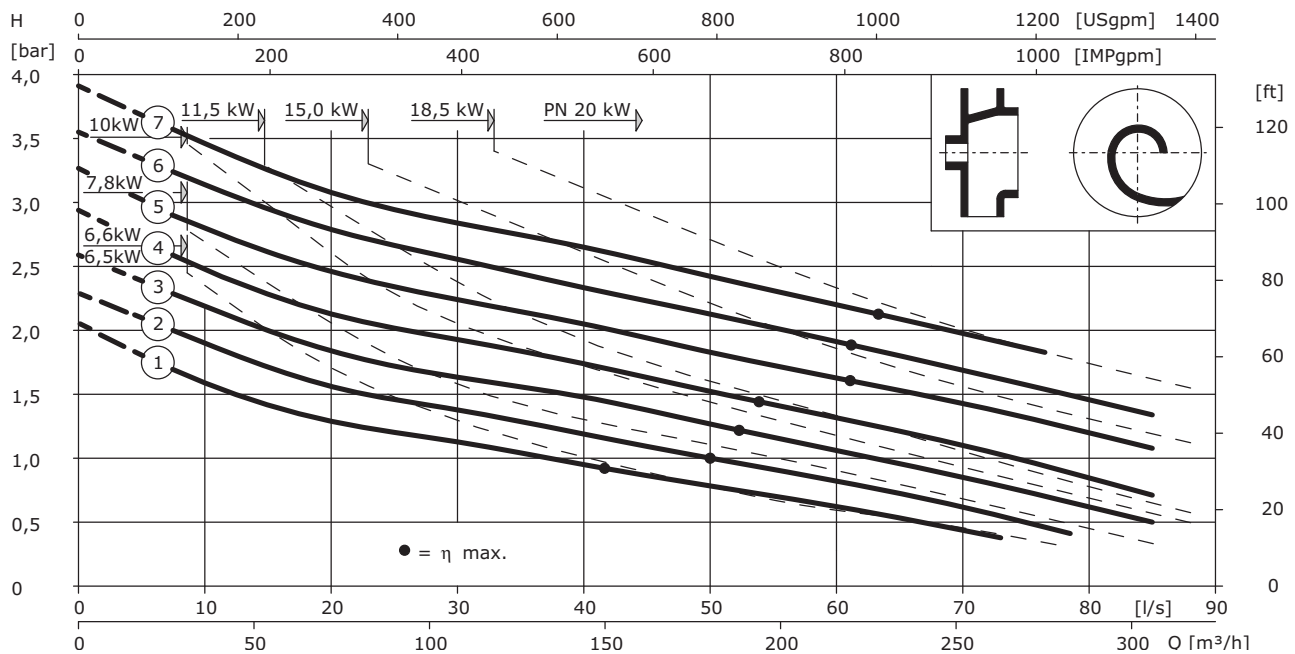
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 10.94E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	246	77	77	77
2	258	77.5	77.5	77.5
3	270	78	78	78
4	282	78.5	78.5	78.5
5	294	79	79	79

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	306	79.5	79.5	79.5
7	318	80	80	80
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]

Wet sump installation

6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182

Wet and dry sump installation

6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

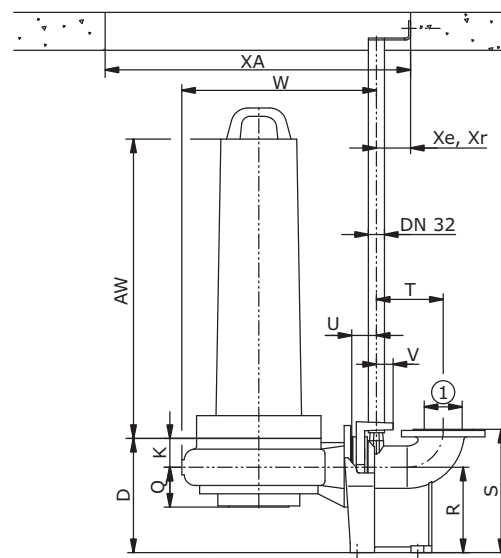
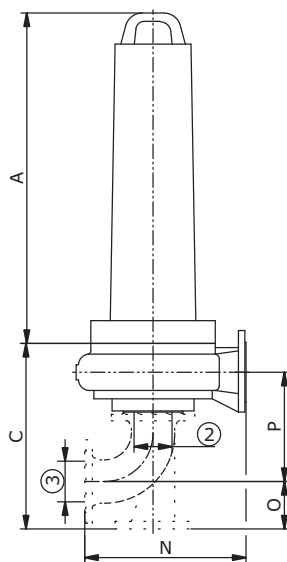
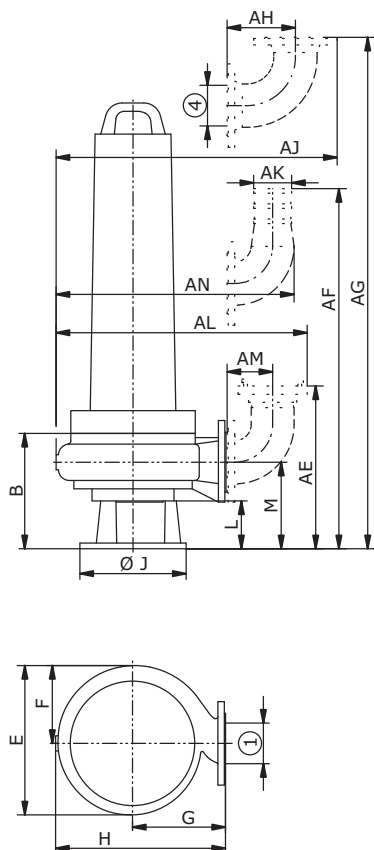
Wilo-EMU FA 10.94E (1450 rpm)

Dimension drawing

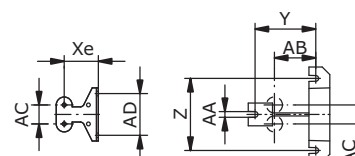
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 3 = DN150 PN10
- 4 = DN100 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	382	585	310	550	308	350	618	500	85	180	297	570	160	340	117	225	325	176	65	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	44	683	1000	90	95	160	190	15	109	50	110	498	547	477	180	911	100	832	120	798

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

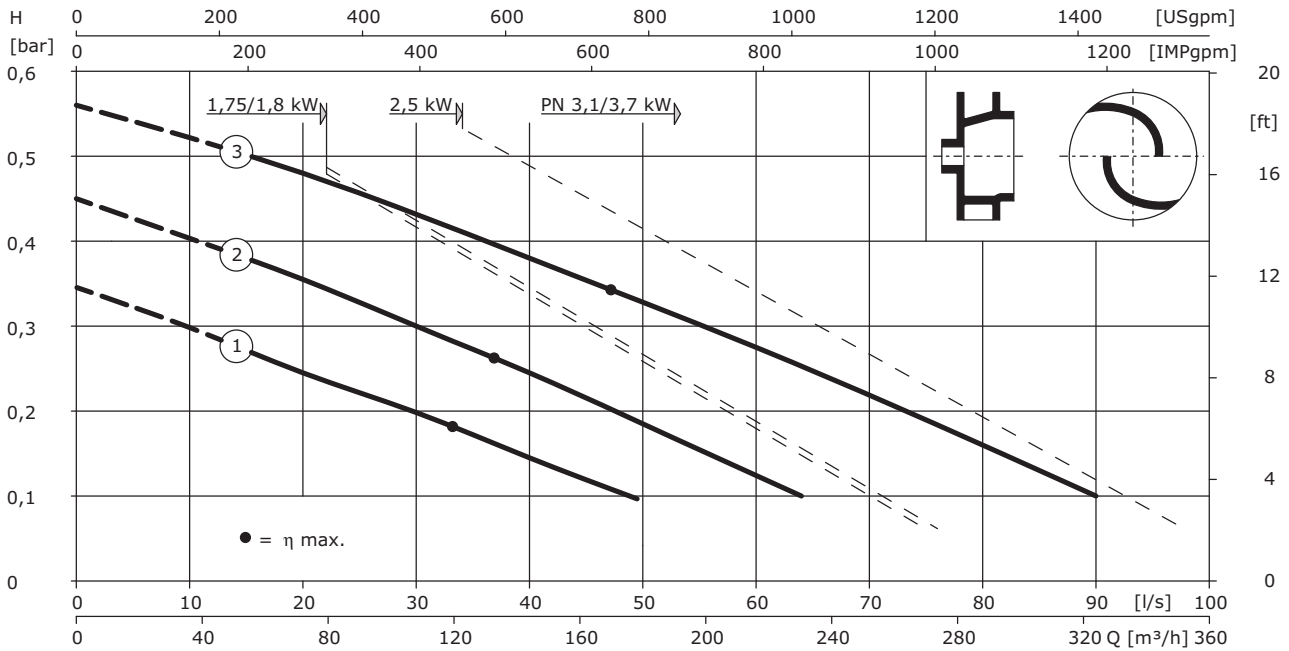
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.20Z (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	182	82	82	82
2	197	83	83	83
3	211	85	85	85
-	-	-	-	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	-	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	-	71.5

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

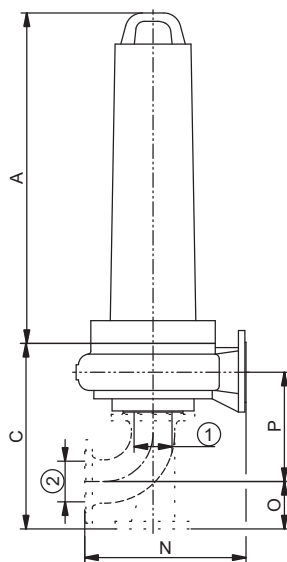
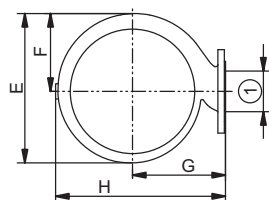
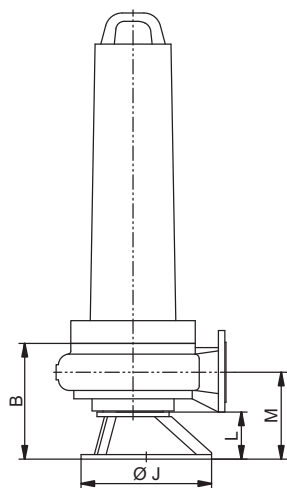
Wilo-EMU FA 15.20Z (950 rpm)

Dimension drawing

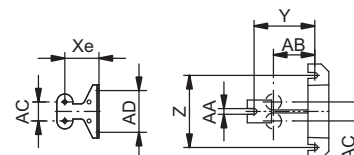
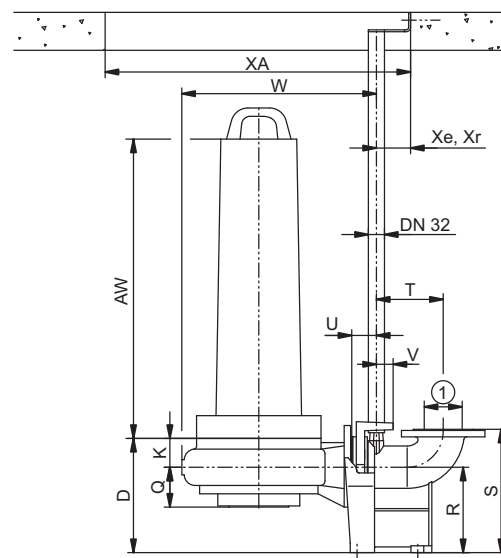
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	388	388	591	407	508	301	350	596	500	87	180	301	570	160	344	121	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	684	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

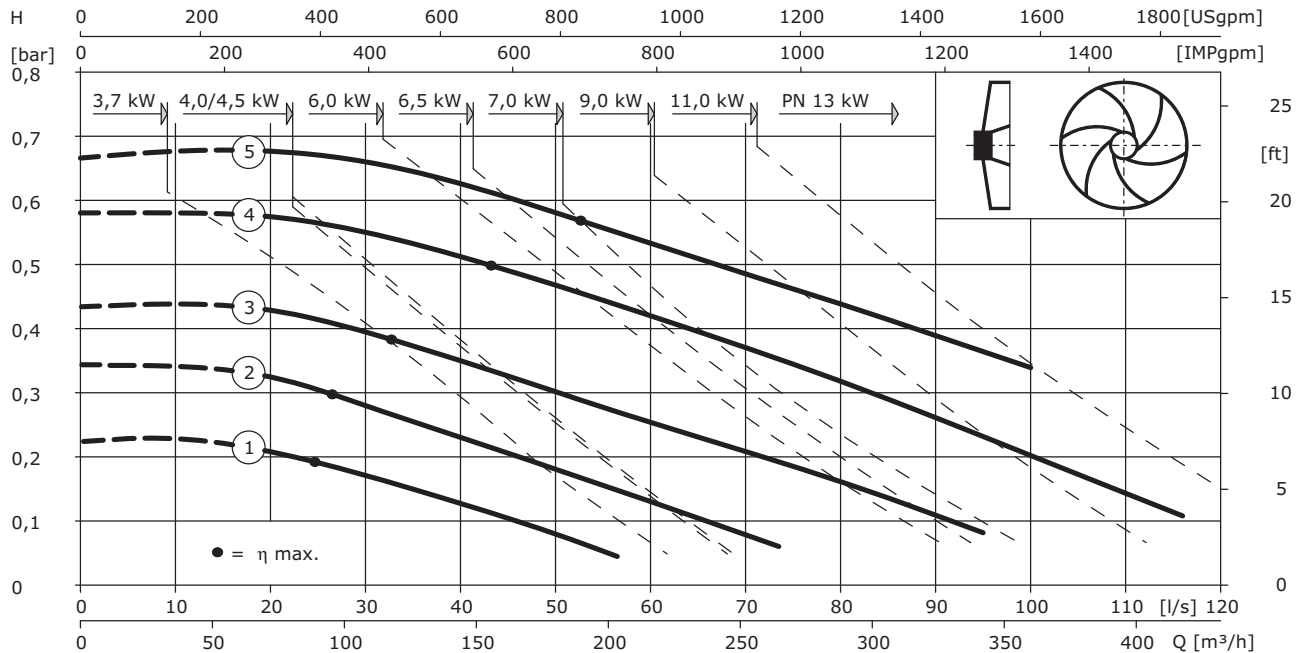
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.21W (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	160	67	67	67
2	180	68	68	68
3	200	69	69	69
4	222	70	70	70
5	242	71	71	71

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

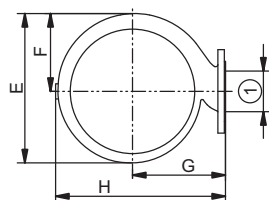
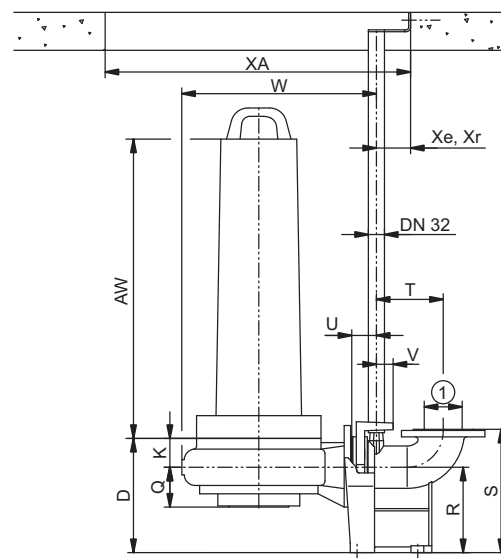
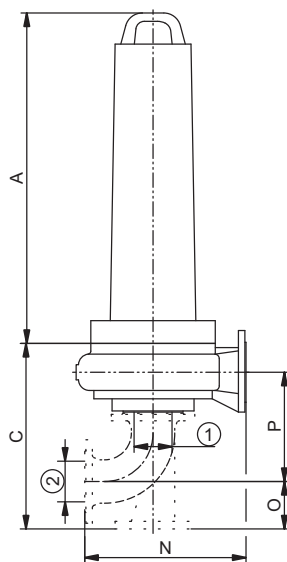
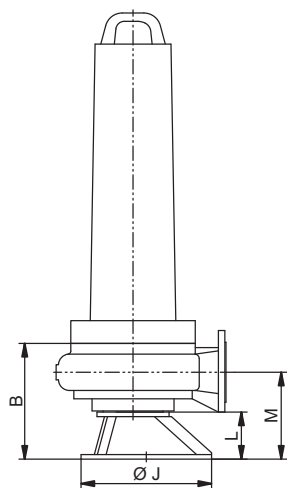
Wilo-EMU FA 15.21W (950 rpm)

Dimension drawing

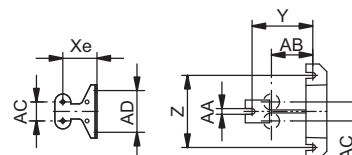
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	388	388	591	407	508	301	350	596	500	87	180	301	570	160	344	121	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	684	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

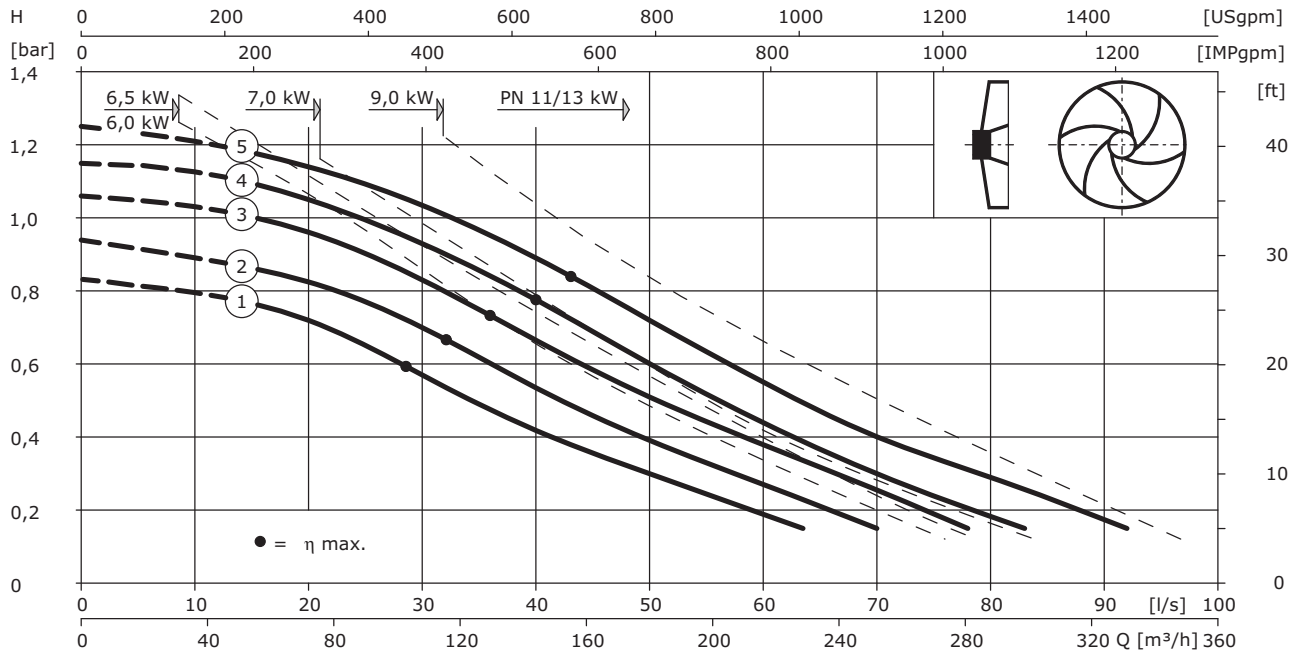
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.44W (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	290	83	83	83
2	310	86	86	86
3	330	89	89	89
4	345	92	92	92
5	363	95	95	95

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
Wet and dry sump installation								
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

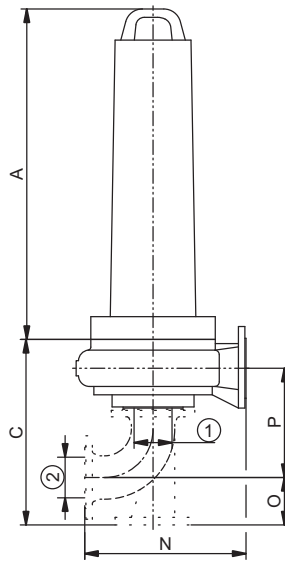
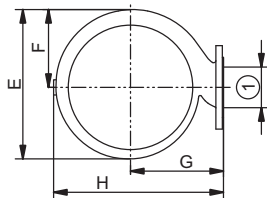
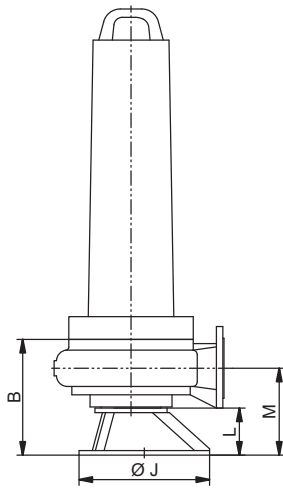
Wilo-EMU FA 15.44W (950 rpm)

Dimension drawing

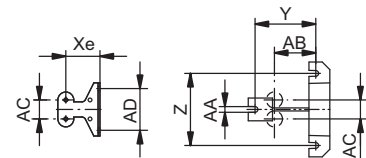
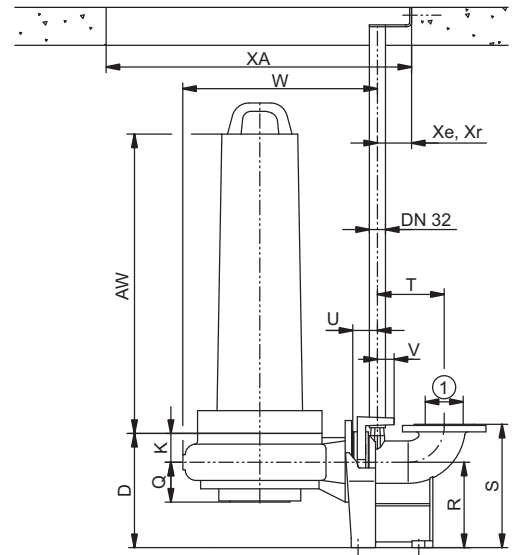
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	473	666	666	460	579	290	350	648	500	140	190	333	570	160	366	143	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	736	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

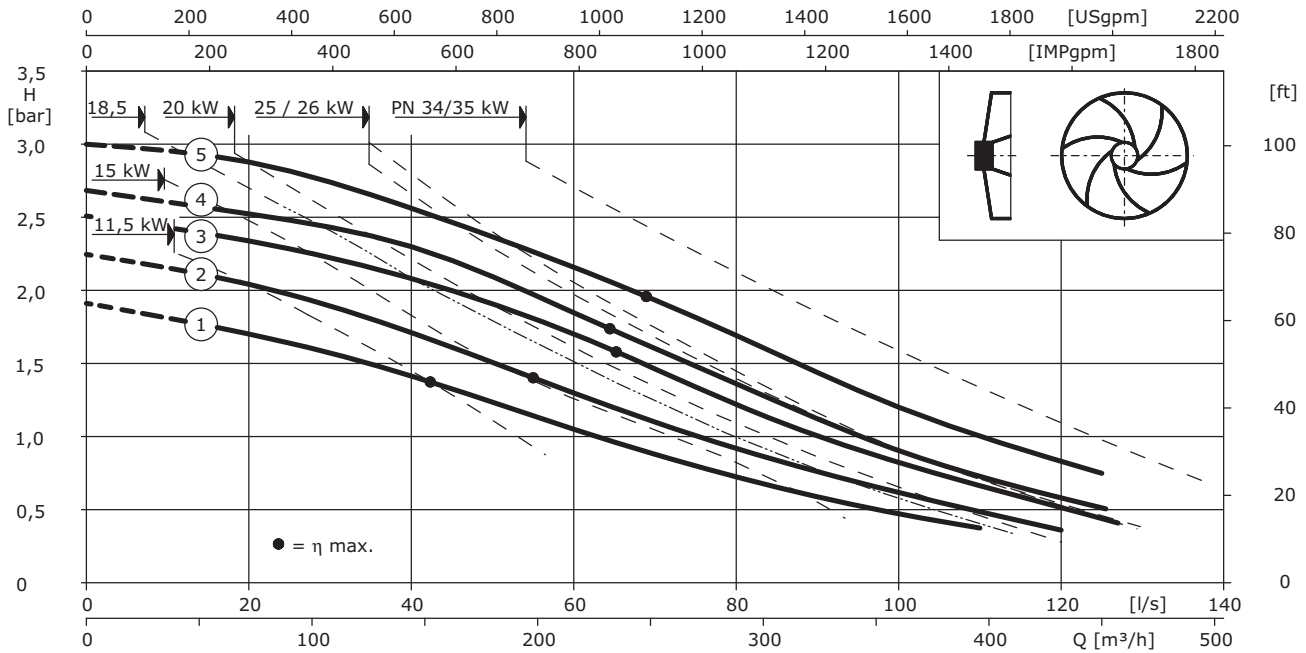
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.44W (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
1	290	83	83	83
2	310	86	86	86
3	330	89	89	89
4	345	92	92	92
5	363	95	95	95

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2 [kW]	-	P_1 max. [kW]	I [A]	AW [mm]	A [mm]	submerged/surfaced	-	-

Wet sump installation

15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260

Wet and dry sump installation

15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

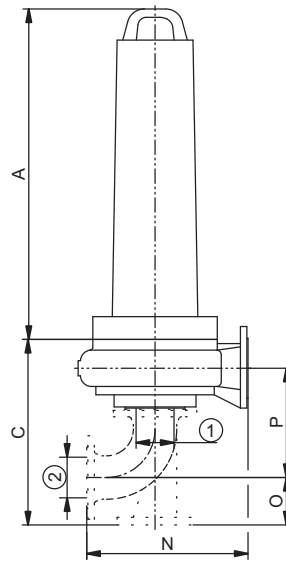
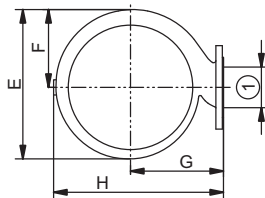
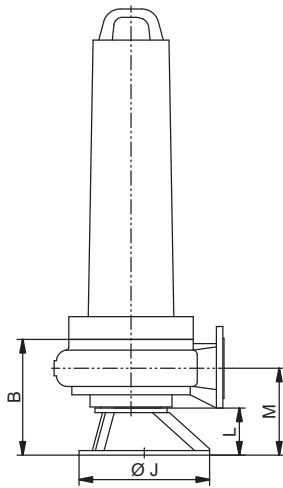
Wilo-EMU FA 15.44W (1450 rpm)

Dimension drawing

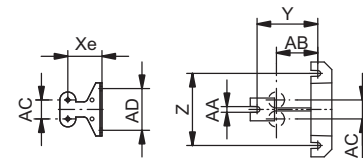
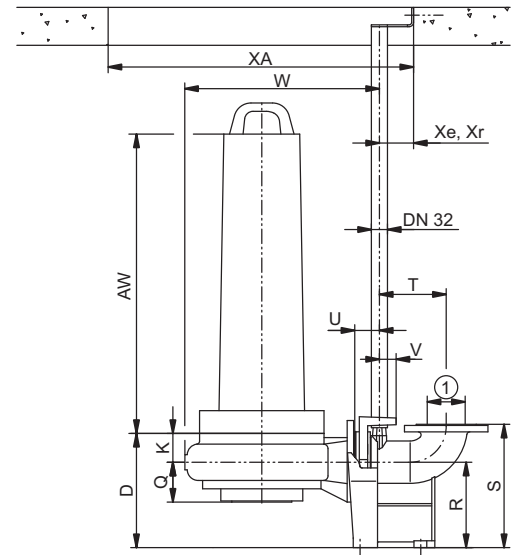
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	473	666	666	460	579	290	350	648	500	140	190	333	570	160	366	143	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	736	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

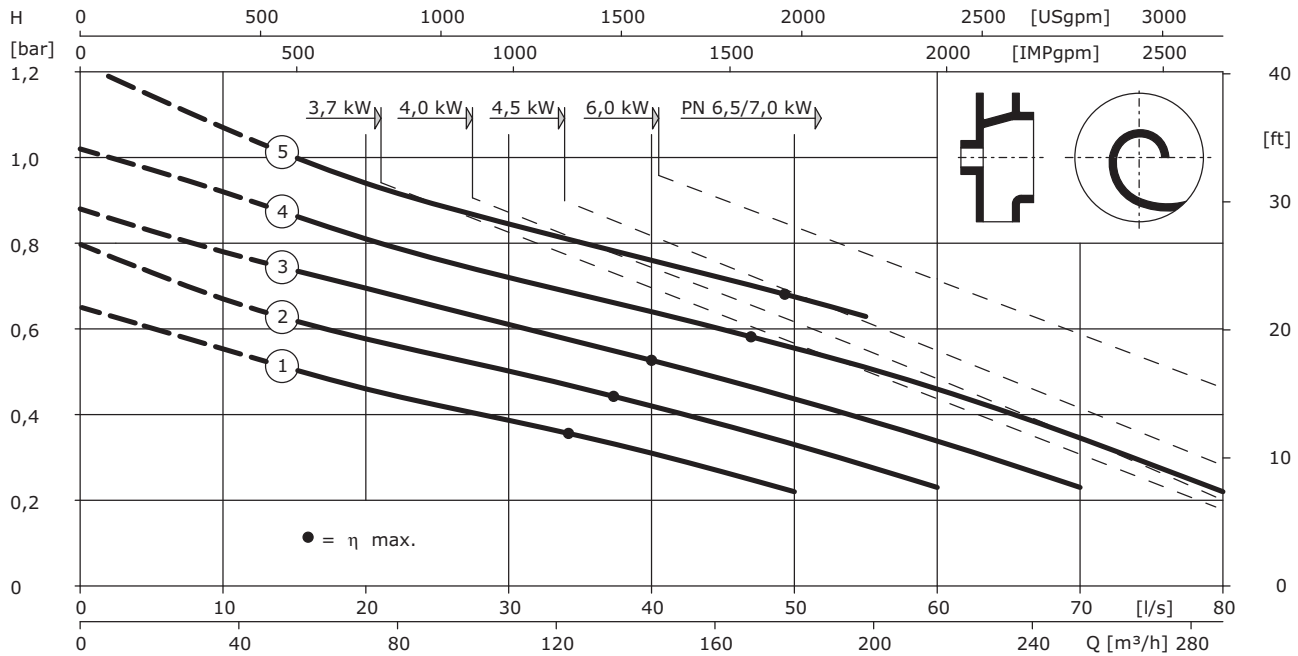
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.52E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	215	78	78	78
2	230	79	79	79
3	245	80	80	80
4	260	81	81	81
5	275	82	82	82

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂		P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]		[kW]	[A]					[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
4.5	FK 20.2-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 20.2-6/17	8.3	15.3	664	771	S1/S1	-	119

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

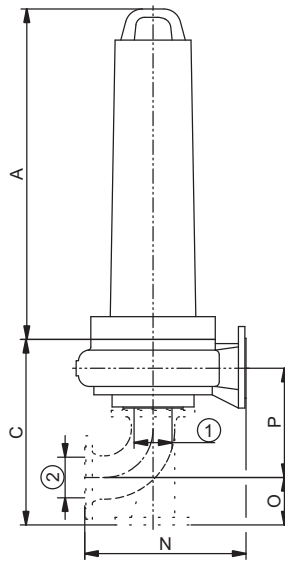
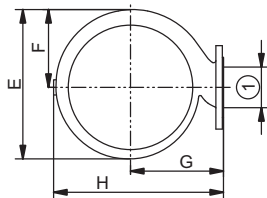
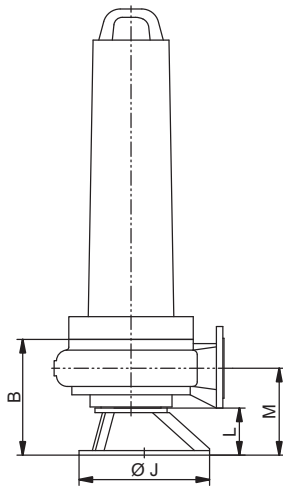
Wilo-EMU FA 15.52E (950 rpm)

Dimension drawing

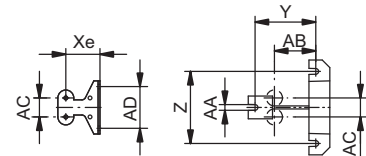
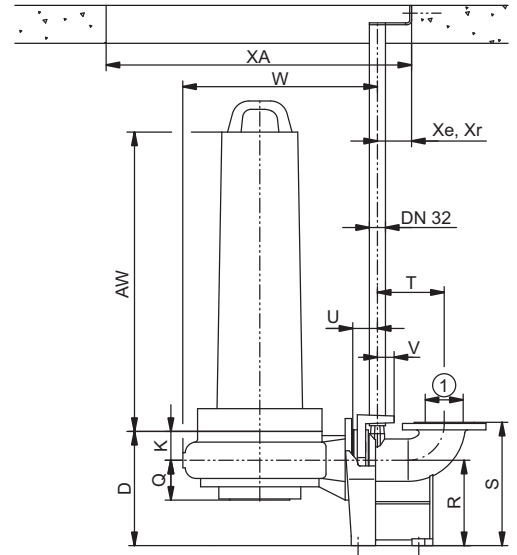
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	388	388	591	407	508	301	350	596	500	87	180	301	570	160	344	121	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	684	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L / 2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

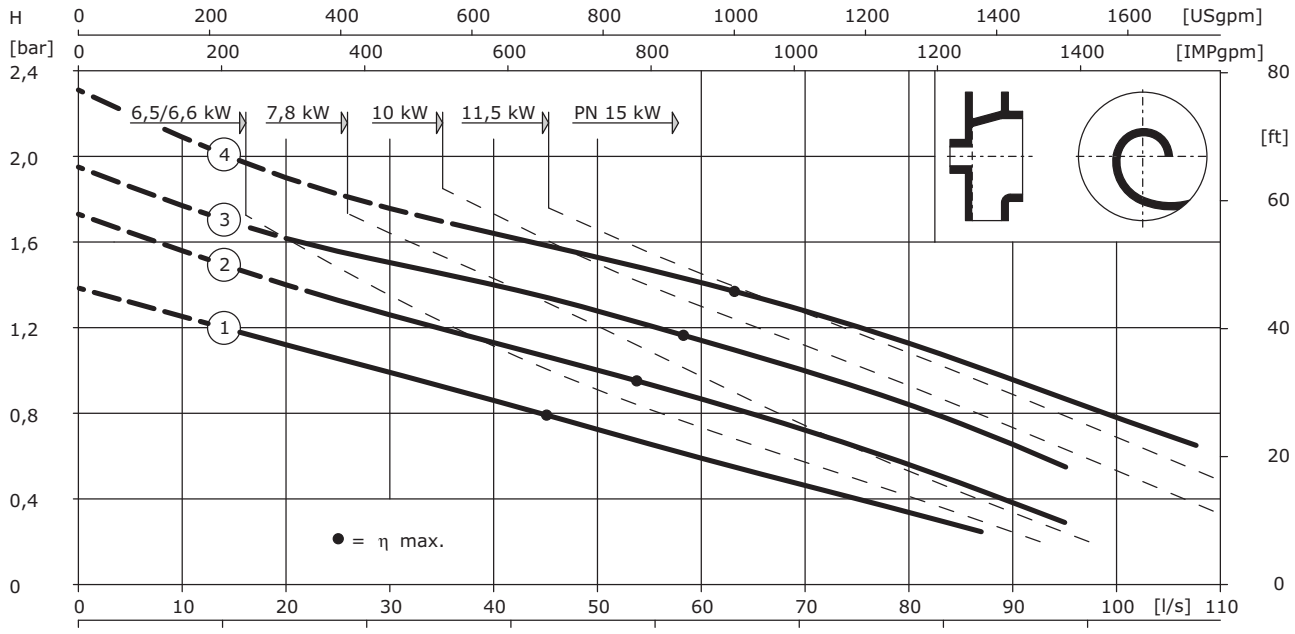
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.52E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	215	78	78	78
2	230	79	79	79
3	245	80	80	80
4	260	81	81	81
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	-	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

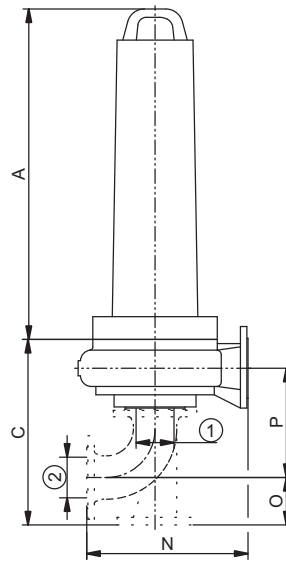
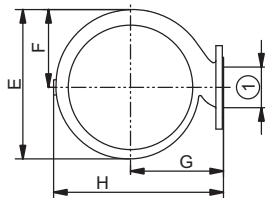
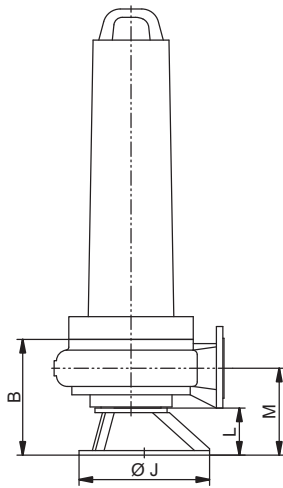
Wilo-EMU FA 15.52E (1450 rpm)

Dimension drawing

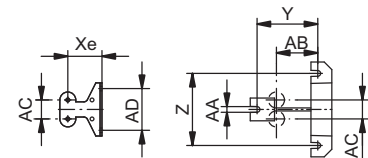
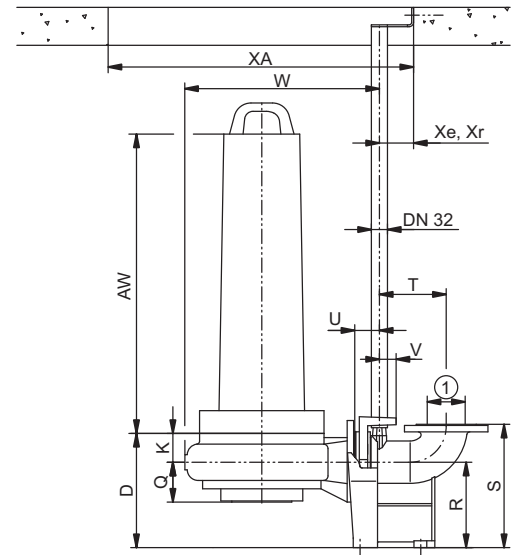
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	388	591	591	407	508	301	350	596	500	87	180	301	570	160	344	121	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	684	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

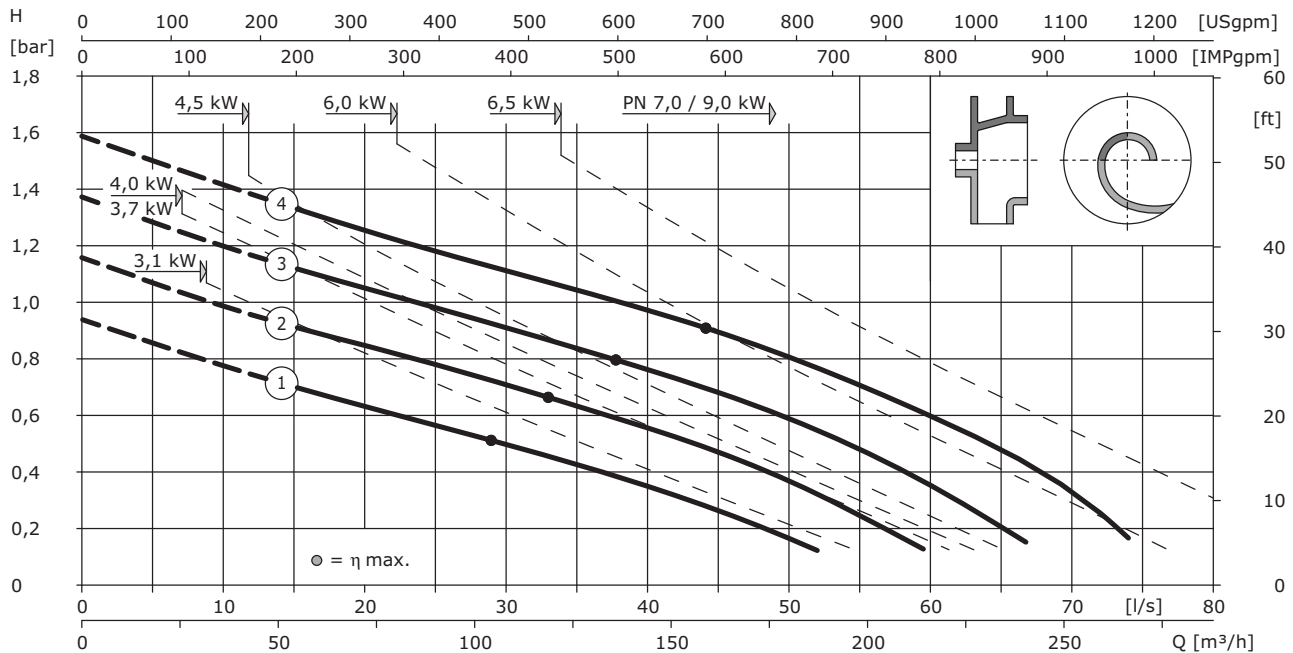
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.66E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	280	138	138	138
2	300	140	140	140
3	320	143	143	143
4	340	146	146	146
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

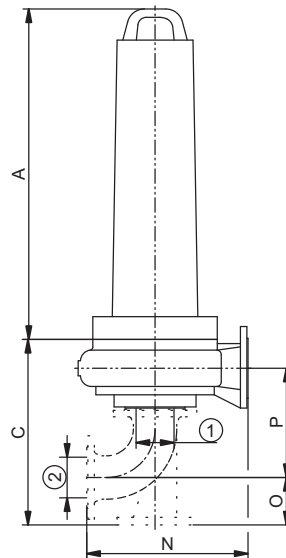
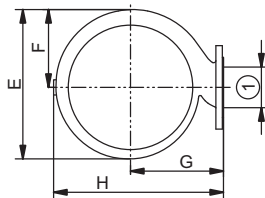
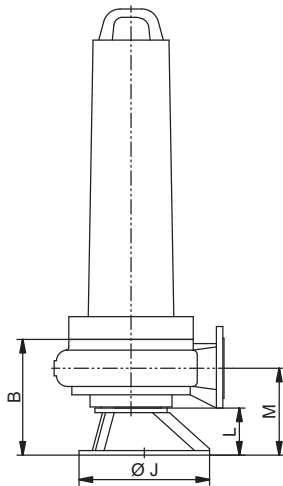
Wilo-EMU FA 15.66E (950 rpm)

Dimension drawing

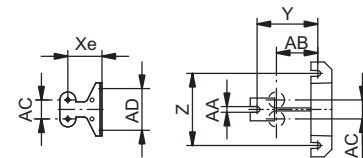
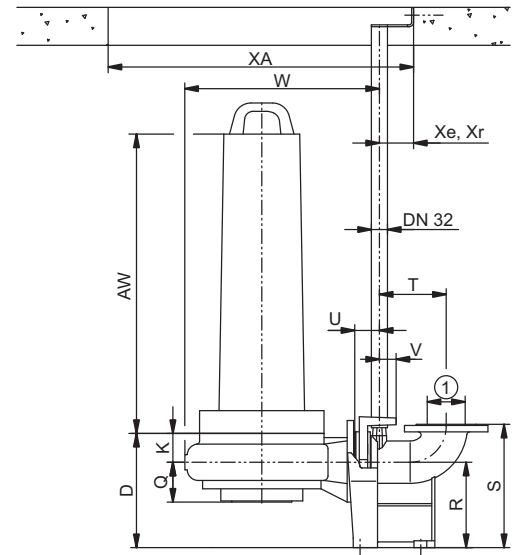
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	445	648	648	402	533	289	400	666	500	82	180	363	620	160	406	183	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	754	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

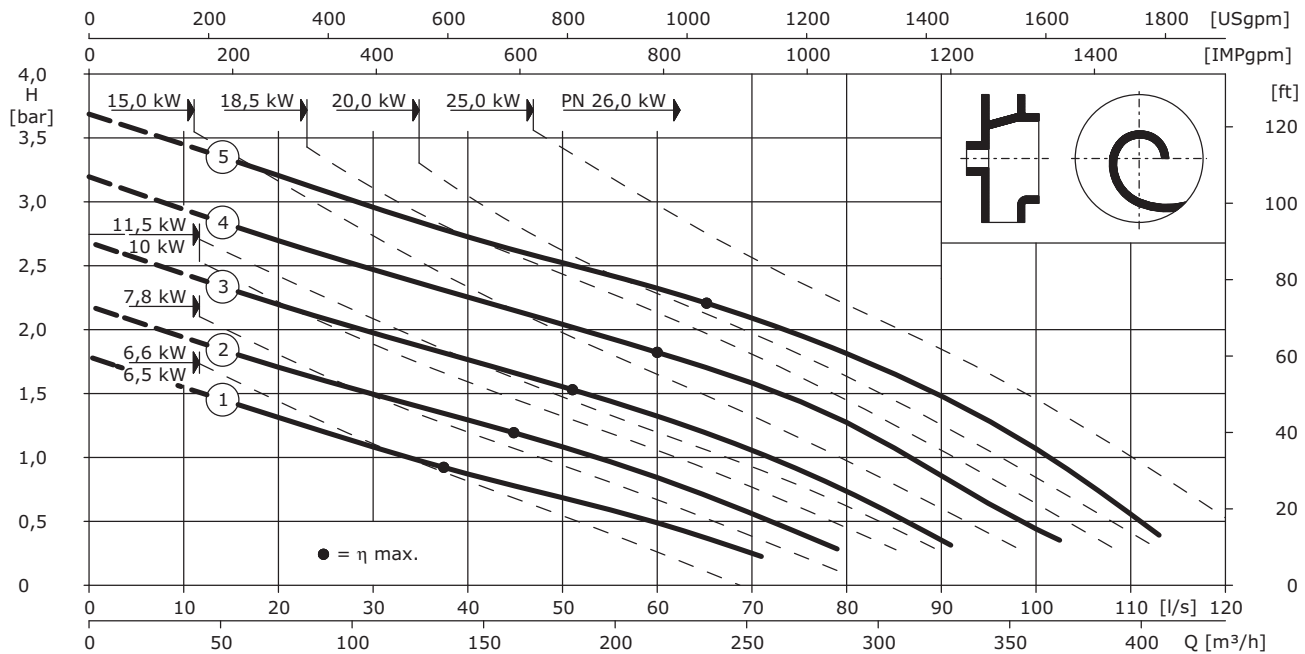
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.66E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	260	136	136	136
2	280	138	138	138
3	300	140	140	140
4	320	143	143	143
5	340	146	146	146

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
Wet and dry sump installation								
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	–	265
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	–	370

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

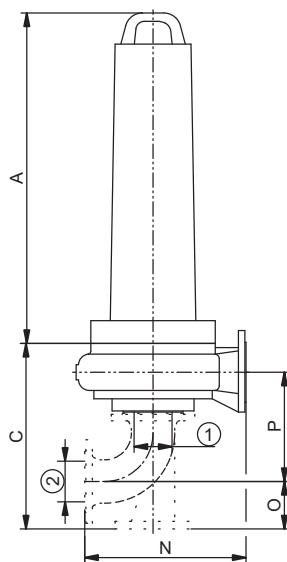
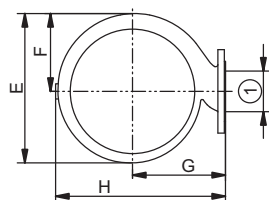
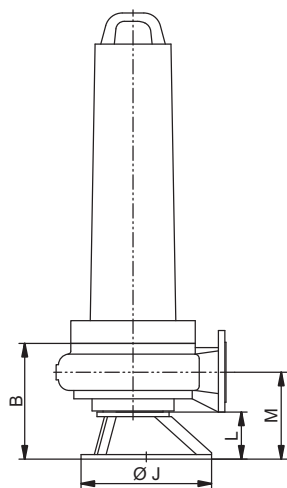
Wilo-EMU FA 15.66E (1450 rpm)

Dimension drawing

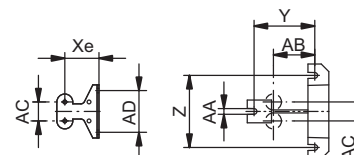
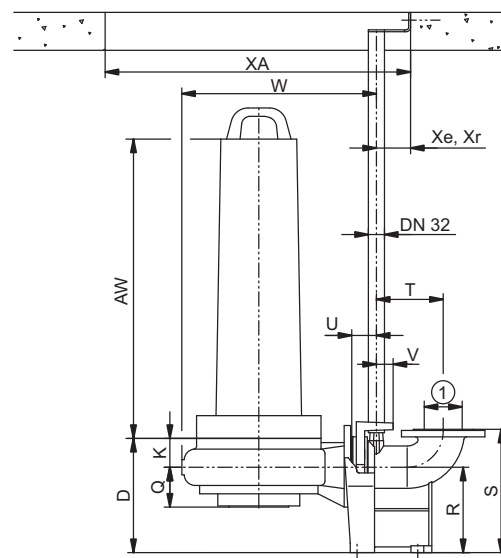
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	445	648	648	402	533	289	400	666	500	82	180	363	620	160	406	183	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	-	-	-	-	-	-	-	-	-
[mm]	38	754	1000	90	95	210	240	19	149	50	110	-	-	-	-	-	-	-	-	-

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

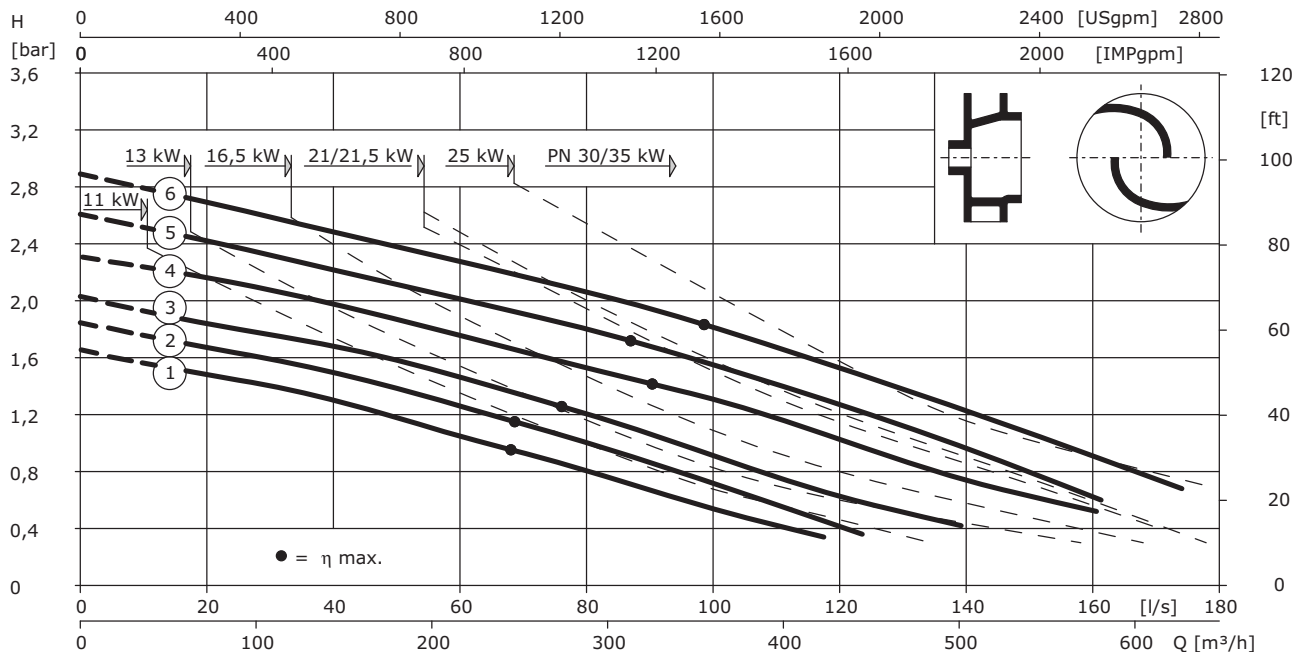
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.77Z (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA 1	TA 2			BA	TA 1	TA 2
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	310	172	270	172	6	410	186	284	186
2	330	174	272	174	-	-	-	-	-
3	350	176	274	176	-	-	-	-	-
4	370	179	277	179	-	-	-	-	-
5	390	182	280	182	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
16.5	T 24-6/22K	19.9	33.5	613	866	S1/-	ATEX, FM	211
21.5	T 24-6/28K	26	43	678	931	S1/-	ATEX, FM	233
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
Wet and dry sump installation								
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
11	FK 202-6/27	13.6	24	764	871	S1/S1	-	155
21	FK 27.1-6/24	25	42	855	991	S1/S1	-	265
25	FK 27.1-6/32	29.5	52	935	1071	S1/S1	-	320
35	FK 34.1-6/24	41	72	998	1252	S1/S1	-	595
21	FKT 27.1-6/22K	24.5	44	820	1246	S1/S1	-	370
25	FKT 27.1-6/28K	29	52	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

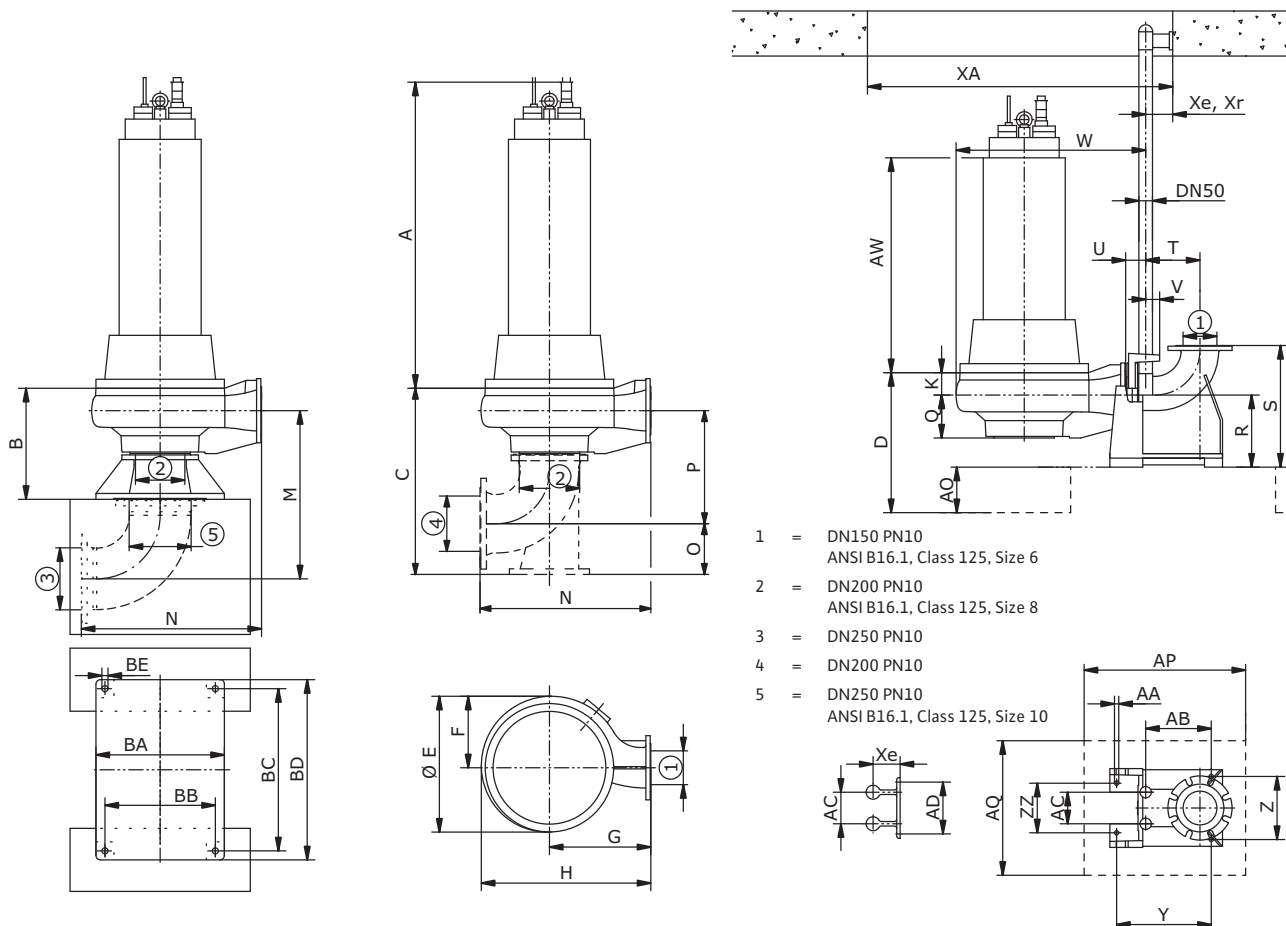
Wilo-EMU FA 15.77Z (950 rpm)

Dimension drawing

Dry sump installation 1 (TA)

Dry sump installation 2 (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	493	743	420	603	318	450	753	–	100	–	747	710	190	453	191	320	540	241	89	
[mm]	V	W	XA	Xe	Xr	Y	Z	ZZ	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE
[mm]	62	842	1000	120	–	420	280	220	18	291	140	230	70	740	660	570	490	720	800	27

Accessories and accessory weights

Description	Installation			Weight
	TA 1	TA 2	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension Unit	–	–	DN 150S/2RK 50.16020	117
Flanged elbow 90° (Q adapter)	DN 250	–	–	50
Flanged elbow 90° with hose connection 4"	–	–	–	–
Flanged elbow 90° with thread G4 / Storz A	–	–	–	–
Flanged foot elbow 90° (N adapter)	–	DN 200	–	46
Pump foot	–	–	–	–

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

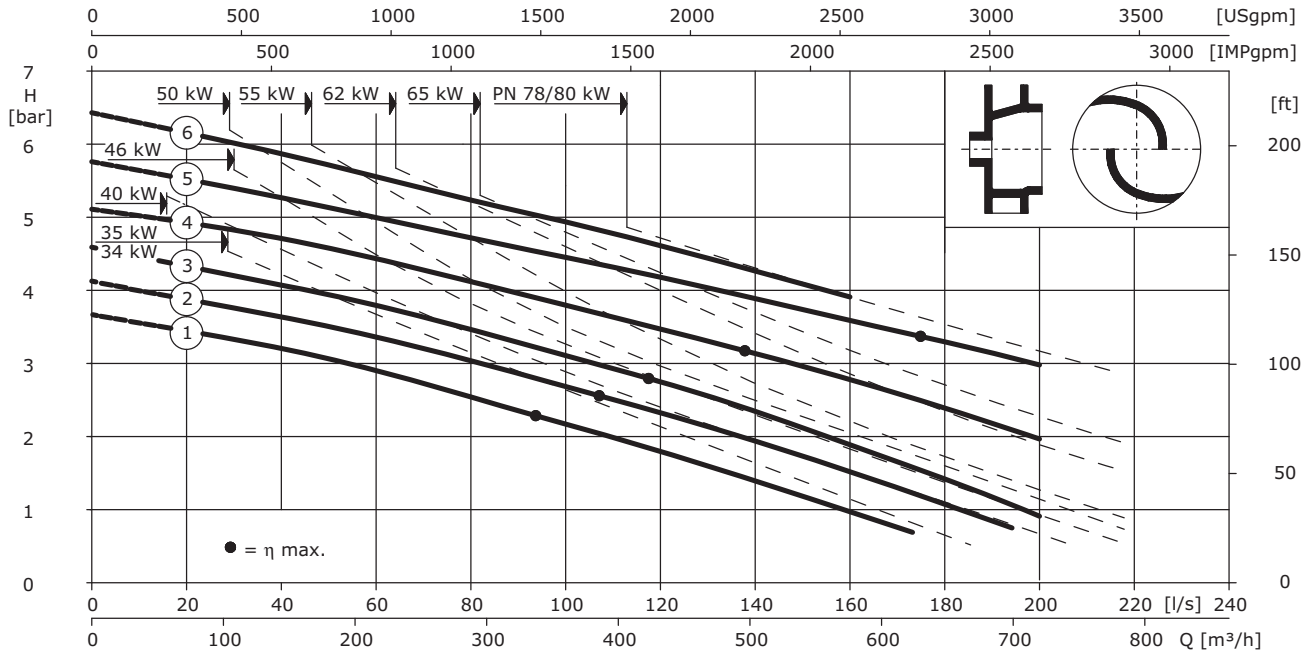
Depending on the total weight of the units, other suspensions units are possible which deviate from this. You can get further information from our sales department.

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.77Z (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA 1	TA 2			BA	TA 1	TA 2
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
-	[mm]	[kg]	[kg]	[kg]	-	[mm]	[kg]	[kg]	[kg]
1	310	172	270	172	6	410	186	284	186
2	330	174	272	174	-	-	-	-	-
3	350	176	274	176	-	-	-	-	-
4	370	179	277	179	-	-	-	-	-
5	390	182	280	182	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260
40	T 30-4/29K	45.5	78	781	1035	S1/-	ATEX, FM	422
50	T 30-4/35K	57	96	841	1095	S1/-	ATEX, FM	456
55	T 34-4/29K	62	106	855	1109	S1/-	ATEX, FM	494
62	T 30-4/44K	69	116	931	1185	S1/-	ATEX, FM	506
78	T 30-4/55K	87	146	1041	1295	S1/-	ATEX, FM	567
80	T 34-4/43K	87	150	935	1189	S1/-	ATEX, FM	596
Wet and dry sump installation								
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
46	FK 34.1-4/24	55	91	998	1252	S1/S1	-	595
55	FK 34.1-4/29	64	108	998	1252	S1/S1	-	635
65	FK 34.1-4/33	76	129	998	1252	S1/S1	-	667
80	FK 34.1-4/42	92	155	1118	1372	S1/S1	-	715
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

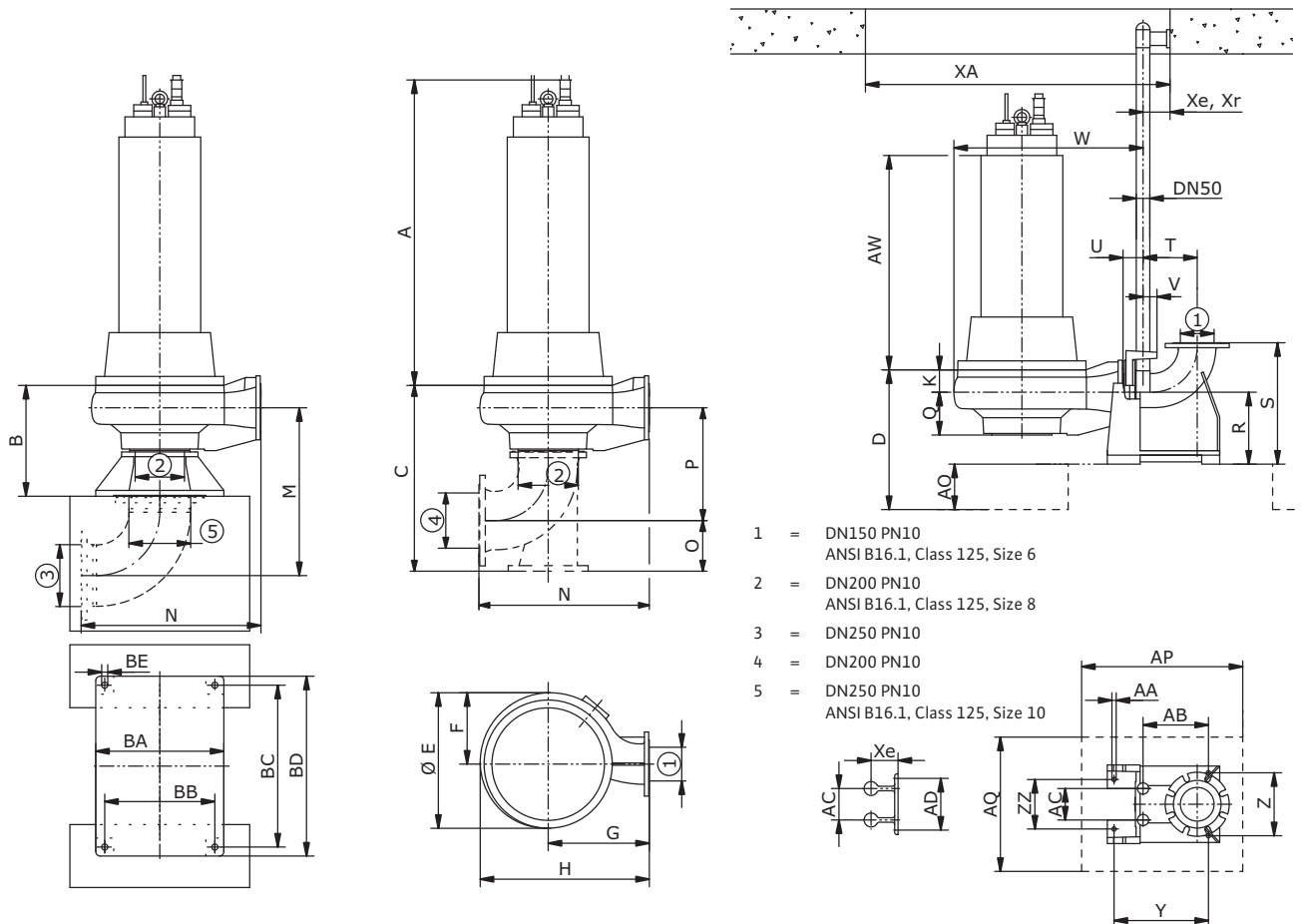
Wilo-EMU FA 15.77Z (1450 rpm)

Dimension drawing

Dry sump installation 1 (TA)

Dry sump installation 2 (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	493	743	420	603	318	450	753	–	100	–	747	710	190	453	191	320	540	241	89	
[mm]	V	W	XA	Xe	Xr	Y	Z	ZZ	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE
[mm]	62	842	1000	120	–	420	280	220	18	291	140	230	70	740	660	570	490	720	800	27

Accessories and accessory weights

Description	Installation			Weight
	TA 1	TA 2	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension Unit	–	–	DN 150S/2RK 50.16020	117
Flanged elbow 90° (Q adapter)	DN 250	–	–	50
Flanged elbow 90° with hose connection 4"	–	–	–	–
Flanged elbow 90° with thread G4 / Storz A	–	–	–	–
Flanged foot elbow 90° (N adapter)	–	DN 200	–	46
Pump foot	–	–	–	–

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

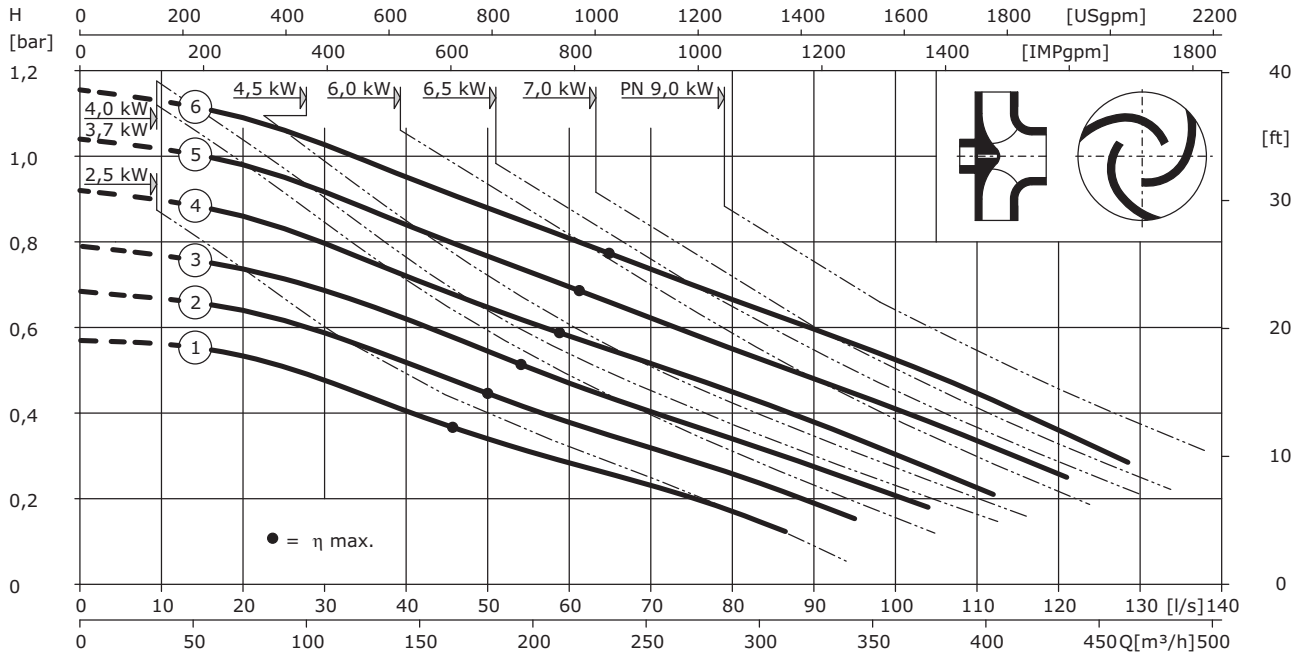
Depending on the total weight of the units, other suspensions units are possible which deviate from this. You can get further information from our sales department.

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.84D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	203	77	77	77
2	218	78	78	78
3	233	79	79	79
4	248	80	80	80
5	263	81	81	81

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	278	82	82	82
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
2.5	FO 17.2-6/12	3.6	6.7	384	587	S1/S1	–	71.5
4.5	FK 20.2-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 20.2-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 20.2-6/22	11.1	19.3	714	821	S1/S1	–	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

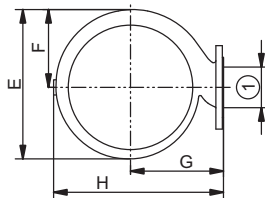
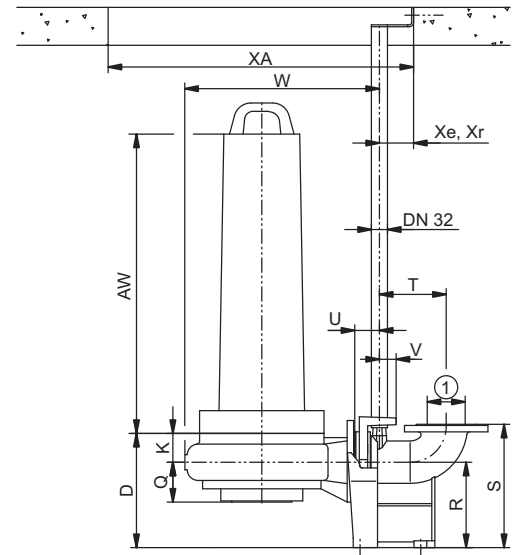
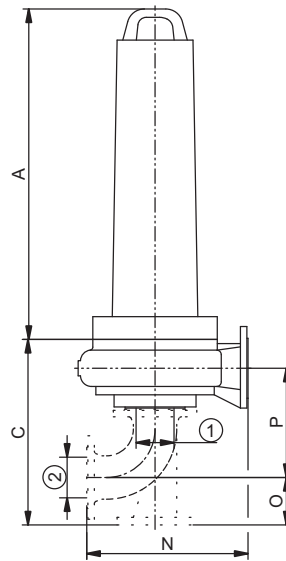
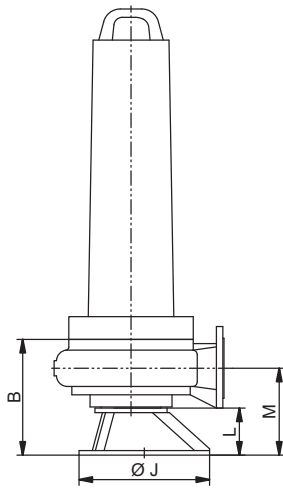
Wilo-EMU FA 15.84D (950 rpm)

Dimension drawing

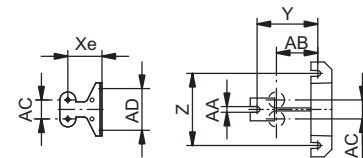
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	388	591	591	407	508	301	350	596	500	87	180	301	570	160	344	121	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	684	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

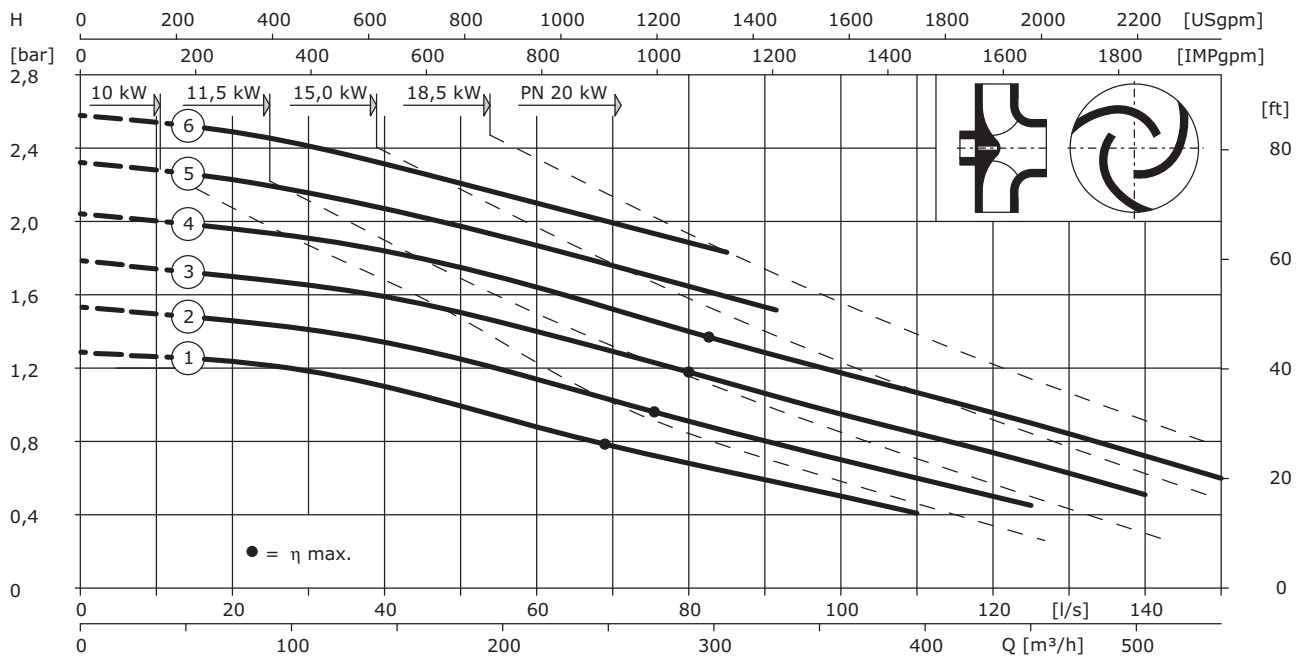
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.84D (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	203	77	77	77
2	218	78	78	78
3	233	79	79	79
4	248	80	80	80
5	263	81	81	81

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	278	82	82	82
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

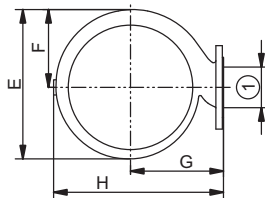
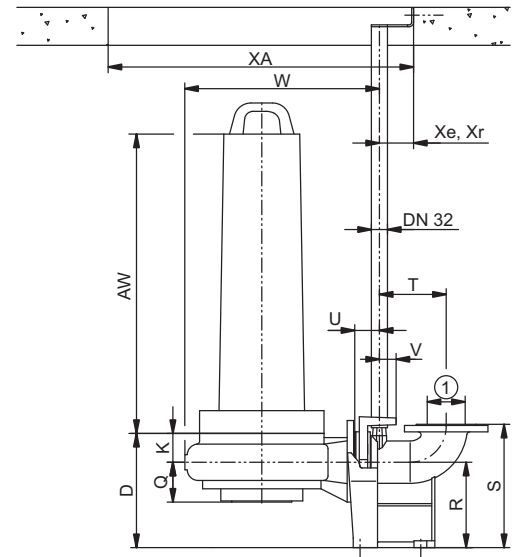
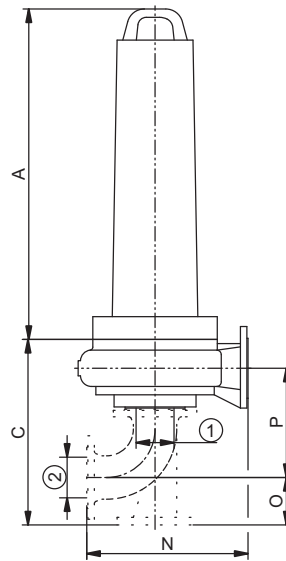
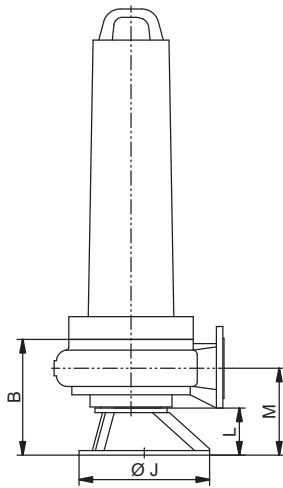
Wilo-EMU FA 15.84D (1450 rpm)

Dimension drawing

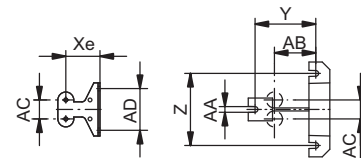
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN150 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	388	388	591	407	508	301	350	596	500	87	180	301	570	160	344	121	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	684	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 150	-	30
Pump foot	52.11207	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

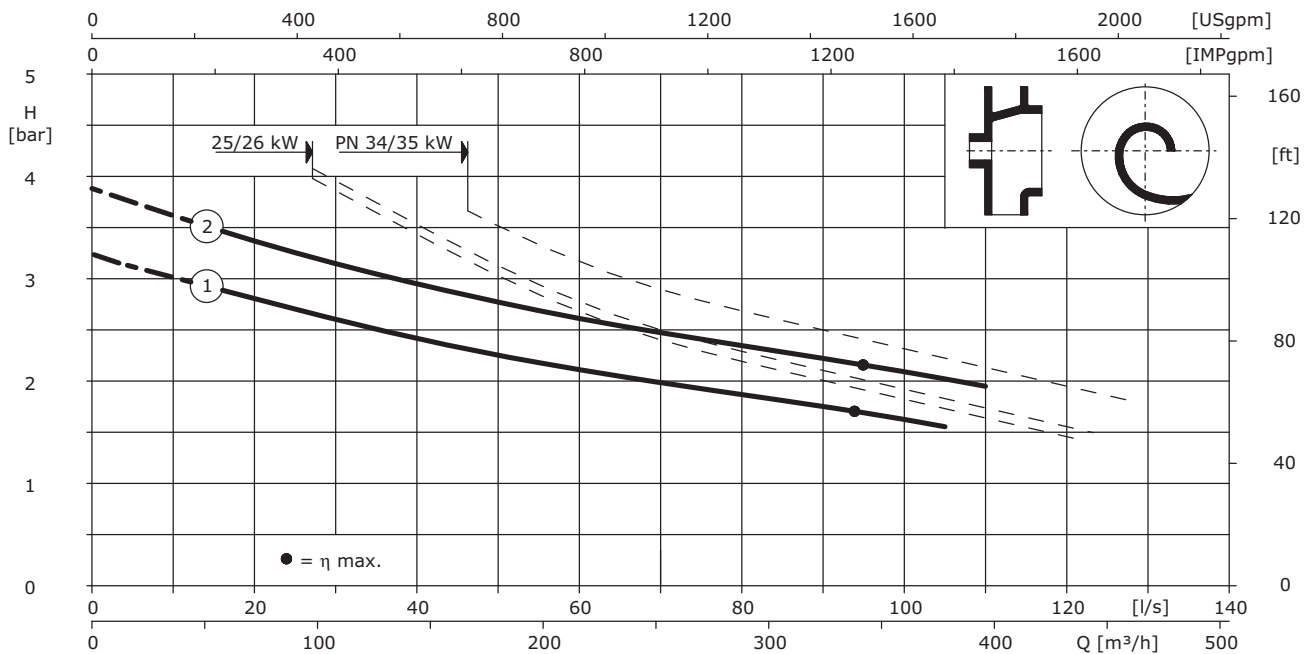
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.93E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	310	98	98	98	-	-	-	-	-
2	336	102	102	102	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260
Wet and dry sump installation								
25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150



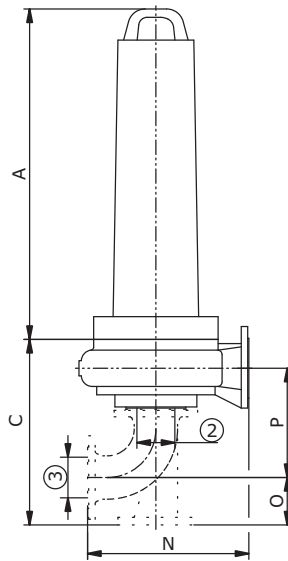
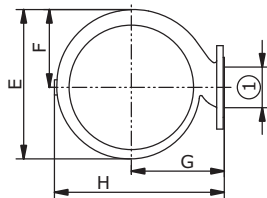
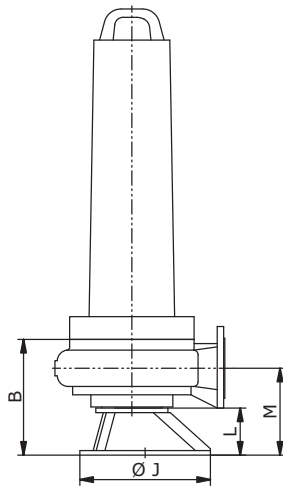
Wilo-EMU FA 15.93E (1450 rpm)

Dimension drawing

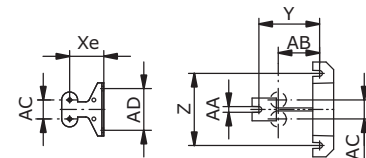
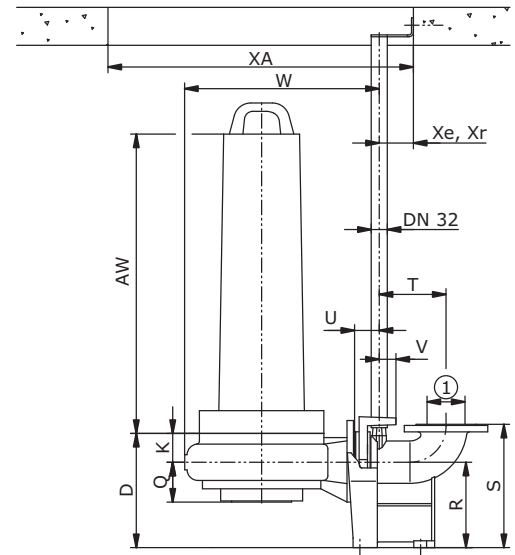
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	433	696	696	419	573	320	350	626	500	99	190	334	610	190	407	144	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	714	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

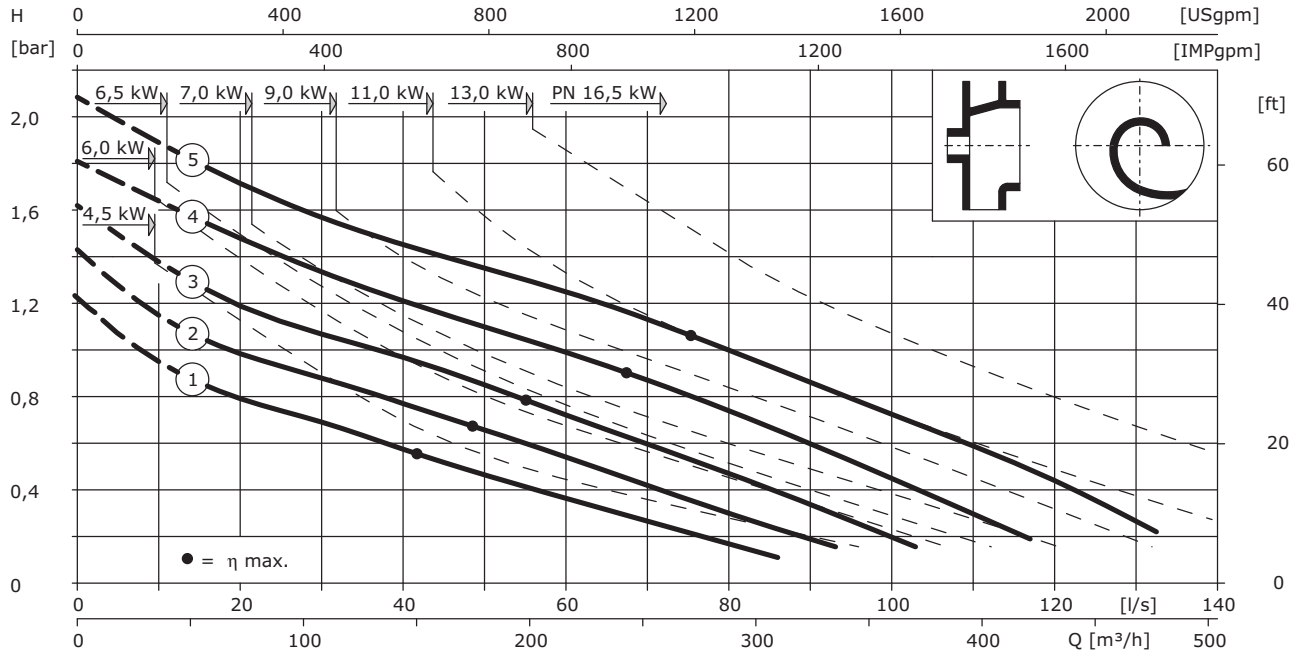
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.95E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
1	302	157	157	157
2	317	158	158	158
3	332	159	159	159
4	347	160	160	160
5	362	161	161	161

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power P ₂ [kW]	Motor	Power consumption P ₁ max. [kW]	Current I [A]	Dimensions		Operating mode submerged/surfaced	Ex protection	Weight [kg]
				AW [mm]	A [mm]			
Wet sump installation								
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
16.5	T 24-6/22K	19.9	33.5	613	866	S1/-	ATEX, FM	211
Wet and dry sump installation								
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
4.5	FK 202-6/17	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	-	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	-	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

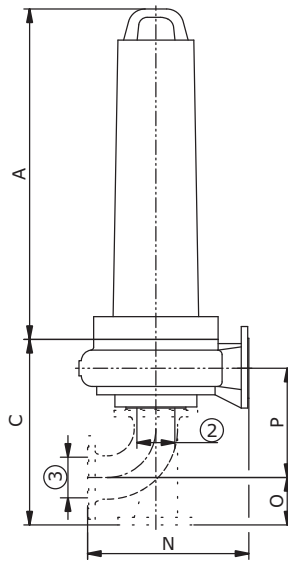
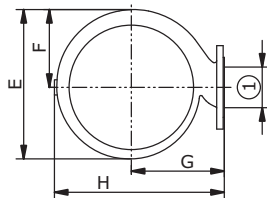
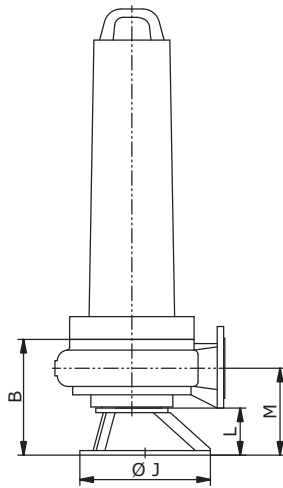
Wilo-EMU FA 15.95E (950 rpm)

Dimension drawing

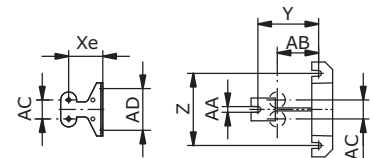
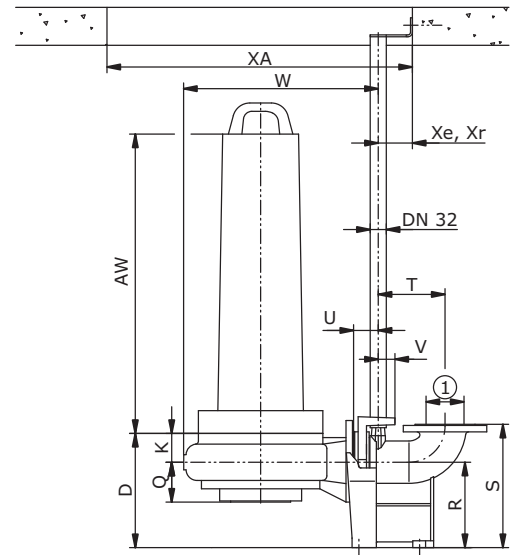
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	419	660	375	450	773	500	99	190	360	710	190	433	170	320	465	220	88	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	861	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

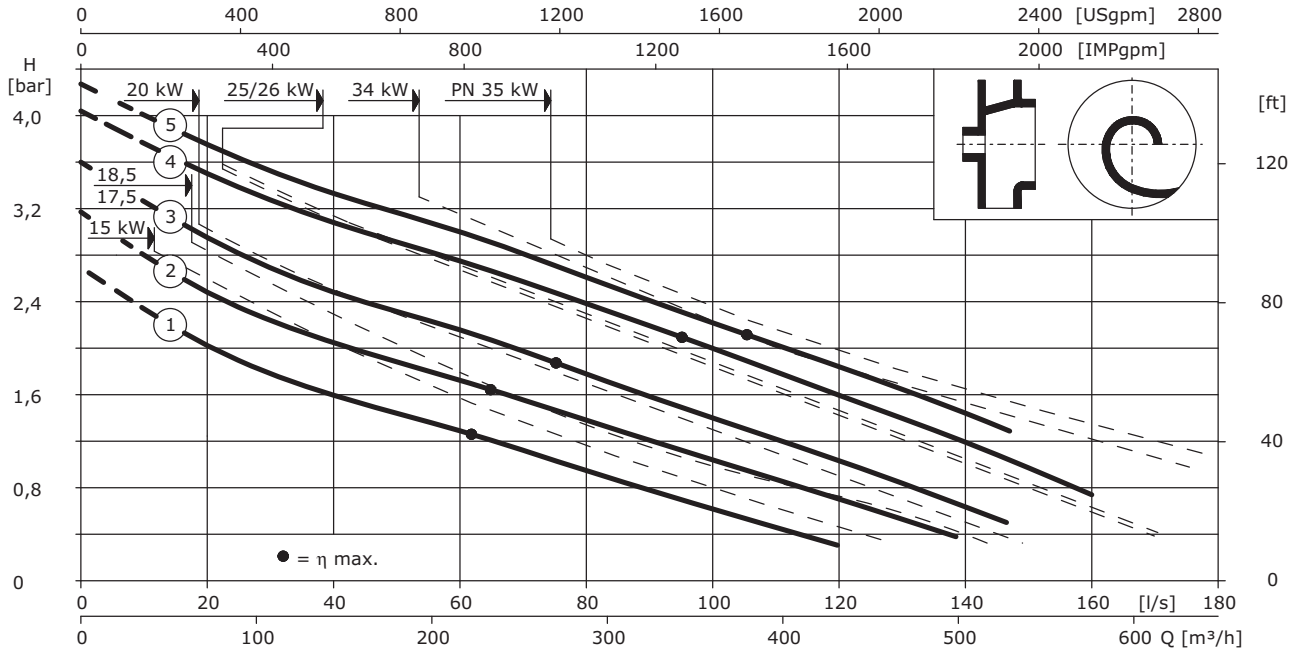
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.95E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	302	157	157	157
2	317	158	158	158
3	332	159	159	159
4	347	160	160	160
5	355	161	161	161

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]

Wet sump installation

15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
17.5	T 24-4/21K	20.5	35.5	613	866	S1/-	ATEX, FM	207
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260

Wet and dry sump installation

20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	–	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	–	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	–	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	–	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

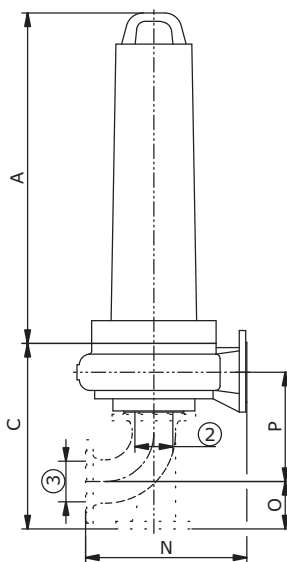
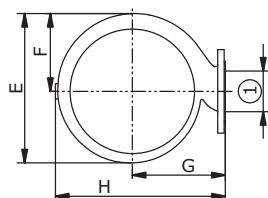
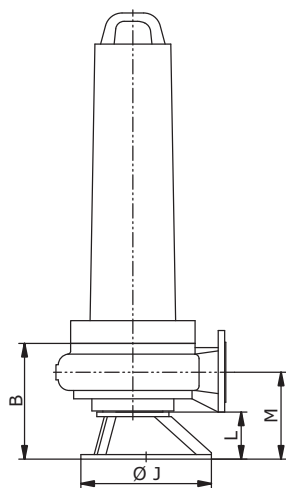
Wilo-EMU FA 15.95E (1450 rpm)

Dimension drawing

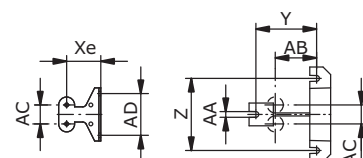
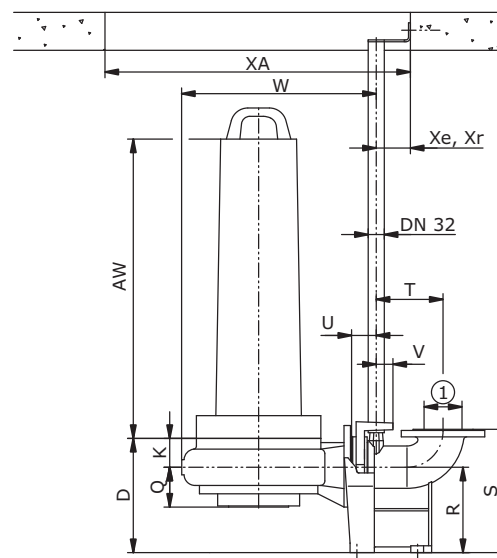
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	419	660	375	450	773	500	99	190	360	710	190	433	170	320	465	220	88	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	861	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

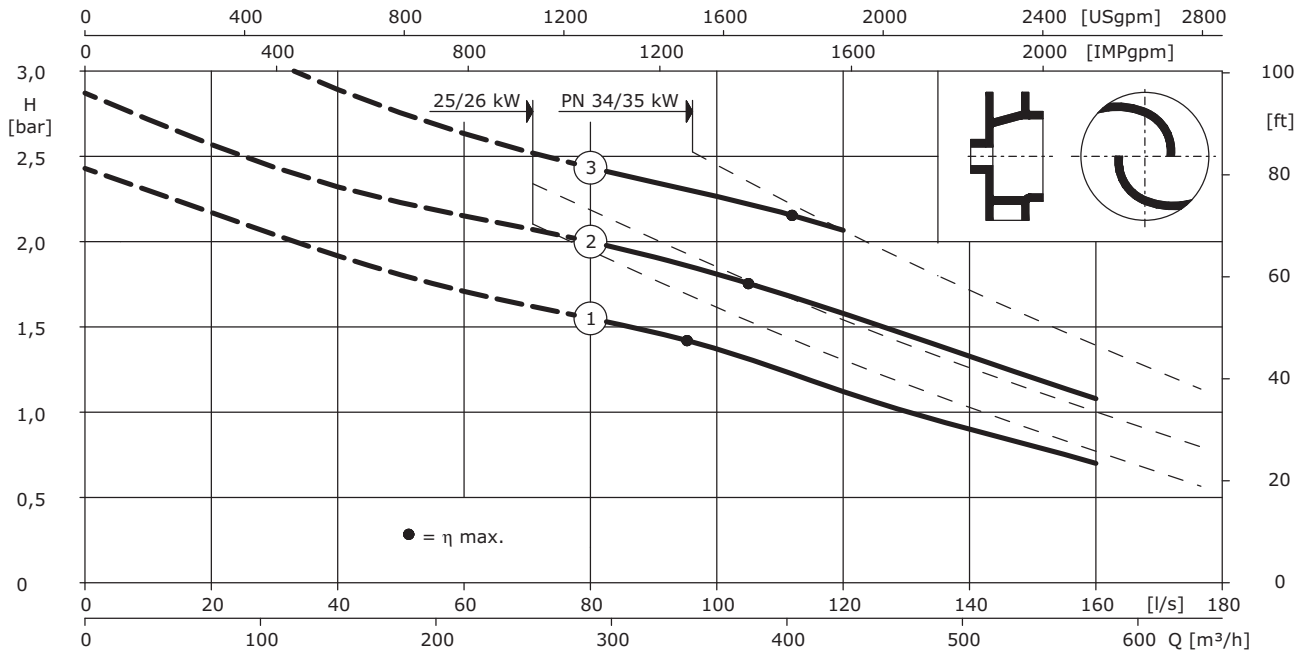
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.96Z (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller [mm]	Weight			No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]			BA [kg]	TA [kg]	T [kg]
1	280	156	156	156	-	-	-	-	-
2	300	157	157	157	-	-	-	-	-
3	320	158	158	158	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power P ₂ [kW]	Motor	Power consumption P ₁ max. [kW]	Current I [A]	Dimensions		Operating mode submerged/surfaced	Ex protection	Weight [kg]
				AW [mm]	A [mm]			
Wet sump installation								
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260
Wet and dry sump installation								
25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN50 up to DN150

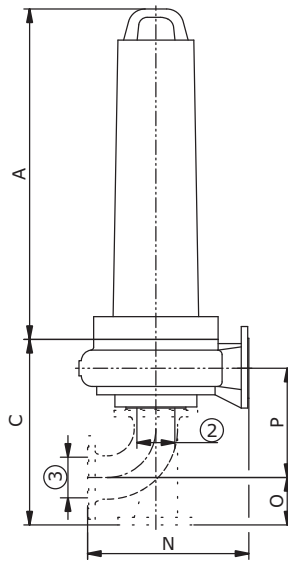
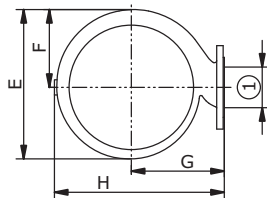
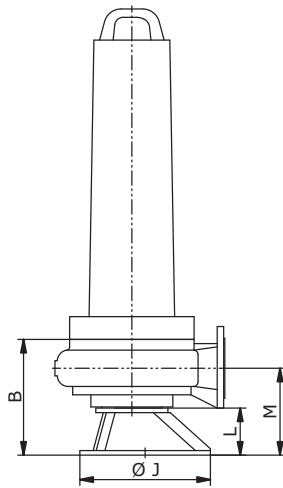
Wilo-EMU FA 15.96Z (1450 rpm)

Dimension drawing

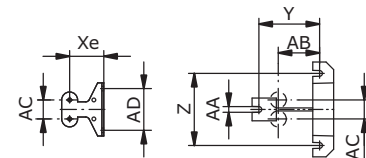
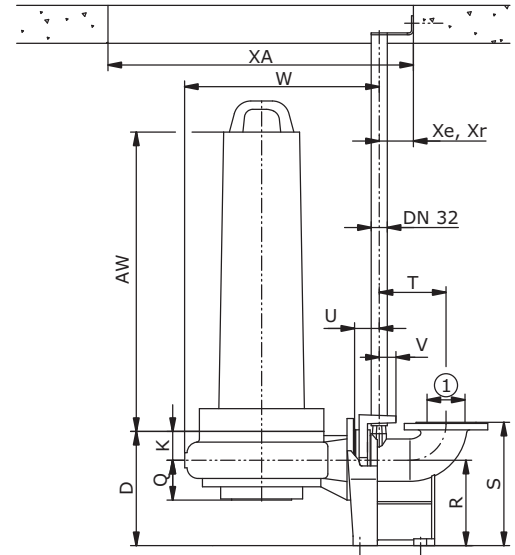
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	419	660	375	450	773	500	99	190	360	710	190	433	170	320	465	220	88	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD									
[mm]	38	861	1000	90	95	210	240	19	149	50	110									

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

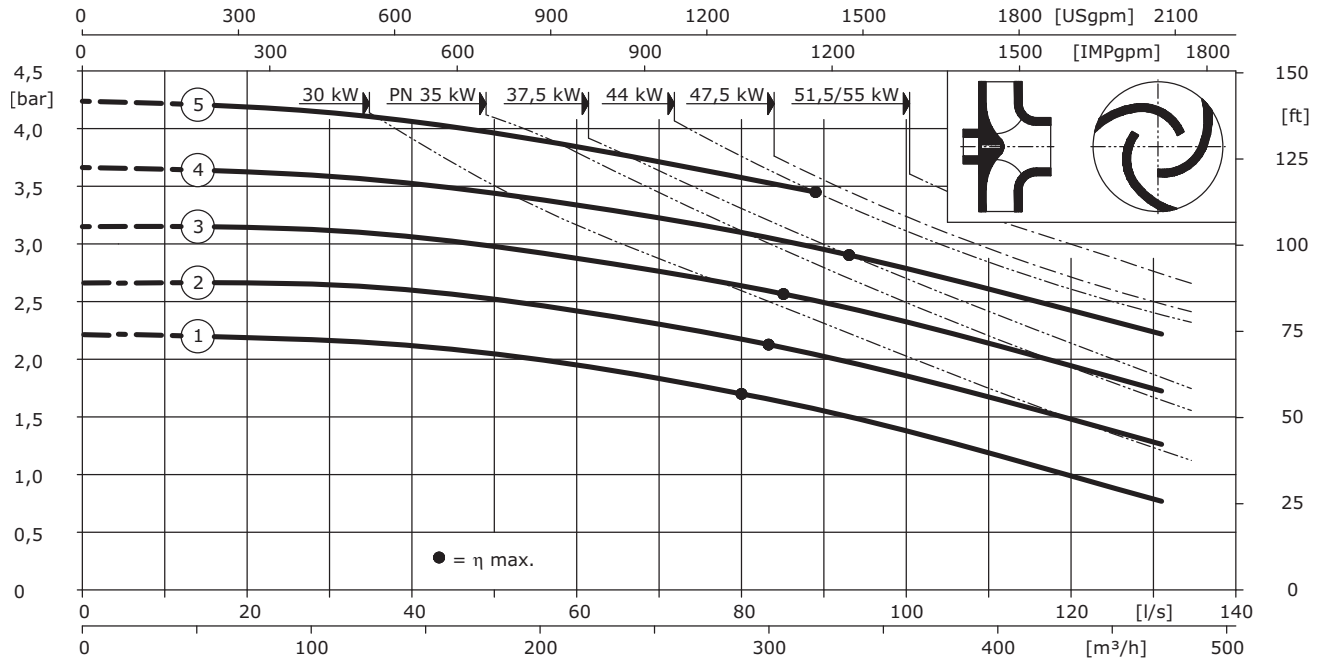
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.99D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	400	280	280	-	-	-	-	-	-
2	430	280	280	-	-	-	-	-	-
3	460	280	280	-	-	-	-	-	-
4	490	280	280	-	-	-	-	-	-
5	520	280	280	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
37.5	T 30-6/35K	42.5	75	841	1095	S1/-	ATEX, FM	456
44	T 30-6/41K	49.5	88	931	1185	S1/-	ATEX, FM	471
51.5	T 30-6/48K	58	102	1041	1295	S1/-	ATEX, FM	531
Wet and dry sump installation								
35	FK 34.1-6/24	41	72	998	1252	S1/S1	-	595
47.5	FK 34.1-6/29	56	95	998	1252	S1/S1	-	635
55	FK 34.1-6/33	64	109	998	1252	S1/S1	-	667

Sewage Pumps for Municipal and Industrial Applications



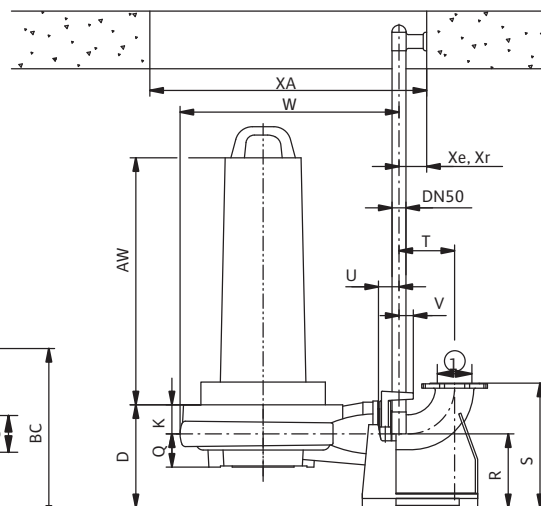
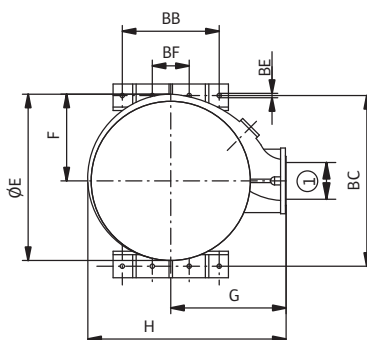
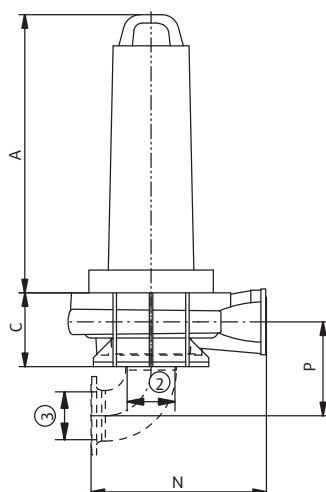
Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.99D (950 rpm)

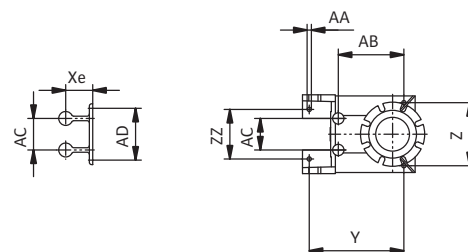
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	-	320	446	721	376	500	860	-	126	-	-	760	-	407	144	320	540	241	89
	V	W	XAe	Xe	Xr	Y	Z	ZZ	AA	AB	AC	AD	BA	BB	BC	BD	BE	BF		
[mm]	62	949	1200/800	120	-	420	280	220	18	291	140	230	-	420	740	-	19	160		

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 150S / 2RK 50.16020	117
Flanged elbow 90° (Q adapter)	-	DN 200	-	31
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

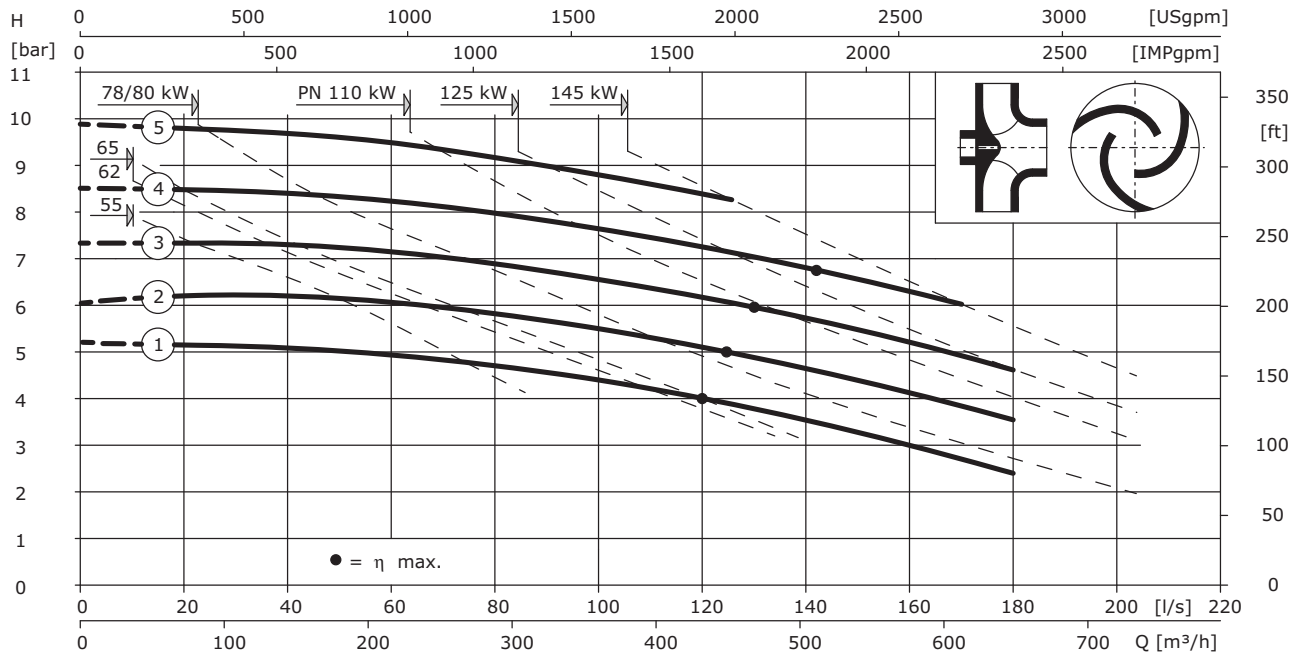
Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.99D (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	400	280	280	-	-	-	-	-	-
2	430	280	280	-	-	-	-	-	-
3	460	280	280	-	-	-	-	-	-
4	490	280	280	-	-	-	-	-	-
5	520	280	280	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
62	T 30-4/44K	69	116	931	1185	S1/-	ATEX, FM	506
78	T 30-4/55K	87	146	1041	1295	S1/-	ATEX, FM	567
80	T 34-4/43K	87	150	935	1189	S1/-	ATEX, FM	596
110	T 42-4/36G	120	205	1107	1607	S1/-	-	1020
125	T 42-4/42G	138	235	1207	1707	S1/-	-	1090
145	T 42-4/51G	161	270	1257	1757	S1/-	-	1160
Wet and dry sump installation								
55	FK 34.1-4/29	64	108	998	1252	S1/S1	-	635
65	FK 34.1-4/33	76	129	998	1252	S1/S1	-	667
80	FK 34.1-4/42	92	155	1118	1372	S1/S1	-	715
110	FK 42.1-4/36	131	230	1195	1512	S1/S1	-	1190

Sewage Pumps for Municipal and Industrial Applications



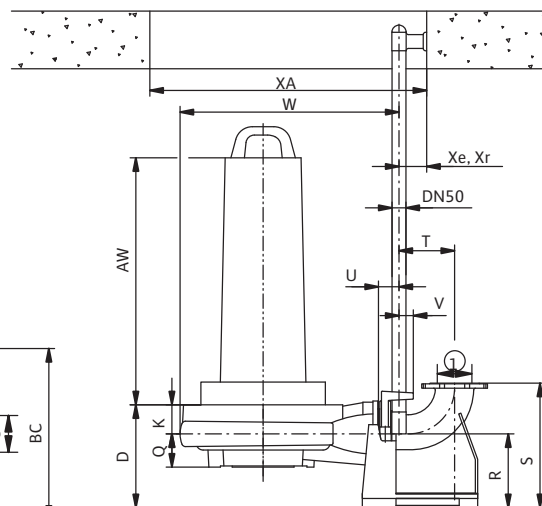
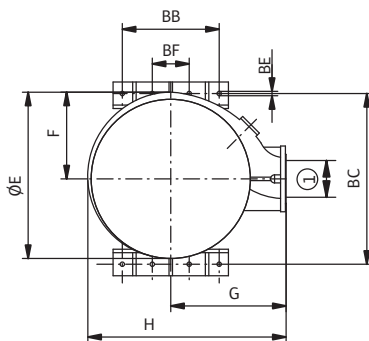
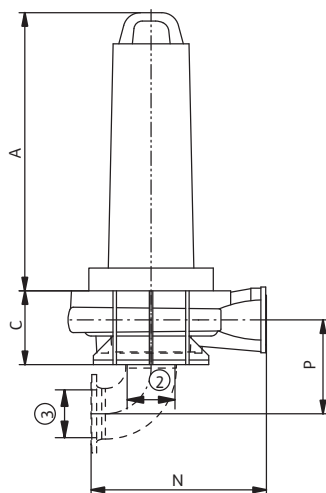
Submersible motor pumps for DN50 up to DN150

Wilo-EMU FA 15.99D (1450 rpm)

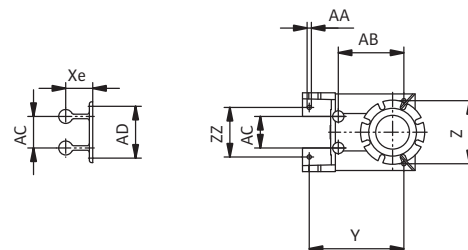
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN150 PN10
ANSI B16.1, Class 125, Size 6
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	320	446	721	376	500	860	-	126	-	-	760	-	407	144	320	540	241	89	
	V	W	XAe	Xe	Xr	Y	Z	ZZ	AA	AB	AC	AD	BA	BB	BC	BD	BE	BF		
[mm]	62	949	1200/800	120	-	420	280	220	18	291	140	230	-	420	740	-	19	160		

Accessories and accessory weights

Description	Installation			Weight [kg]
	T	TA	BA	
-	-	-	-	-
Suspension Unit	-	-	DN 150S / 2RK 50.16020	117
Flanged elbow 90° (Q adapter)	-	DN 200	-	31
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

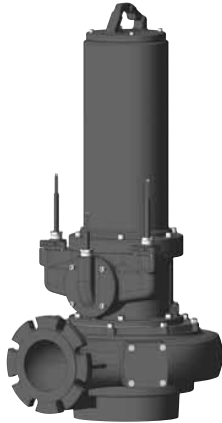
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Submersible motor pumps
DN 50 to DN 150

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps from DN 200 to DN 250

Series description Wilo-EMU FA 20... to FA 25...



Wilo-EMU FA...

Sewage pump with submersible motor

Type key for hydraulics

Example: Wilo-EMU FA 20.54E

- FA = Submersible sewage pump
- 20 = Nominal width of the pressure port DN 200 (x10)
- 54 = Performance characteristic number
- E = Impeller type

Type key for motors

Example: Wilo-EMU FK17.1-6/16K Ex

- FK = Motor version
- 17 = Size
- 1 = Distinguishing number
- 6 = Number of poles
- 16 = Package length
- K = Seal version
- Ex = Ex approval

Fields of application

Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas.

Construction

Submersible sewage pump as submersible monobloc unit for wet and dry sump installation. Portable installations are usually possible.

Hydraulics

Housing and impeller made of grey cast iron. The outlets on the pressure side are designed as horizontal flange connections. The maximum possible dry substance content, depending on the hydraulics and impeller type, is 8%. The ball passages are between 80 and 200 mm.

Different impeller shapes are used:

- E = Single-channel impeller
- Z = Two-channel impeller
- D = Three-channel impeller

The hydraulics are equipped with a counter ring and stationary wear ring made of hardened materials. These easily exchangeable wear parts guarantee long-term efficiency of the unit.

Motor

Motor housing made of grey cast iron. Depending on the type of motor, the unit can run continuously in wet or dry sump installation. The air-filled motors (T) give off their heat to the surrounding fluid and can therefore not be operated continuously outside of the fluid.

The self-cooling motors (F, FK, FO, FKT, HC) give off their heat directly to the pumped fluid via a built-in heat exchanger. They are suitable for permanent operation either submerged or surfaced.

The cable inlet is sealed longitudinally watertight in connection with the T-cable inlet. Up to the motor size 17 the cable lengths are available in fixed stages starting from 10 m. Starting from size 20 the cable length can be individually configured.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- On the fluid side with a mechanical seal, on motor side with a radial shaft sealing ring (version H)
- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Special materials and coatings against corrosion and abrasion
- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Plugs and switchgear
- Level controls

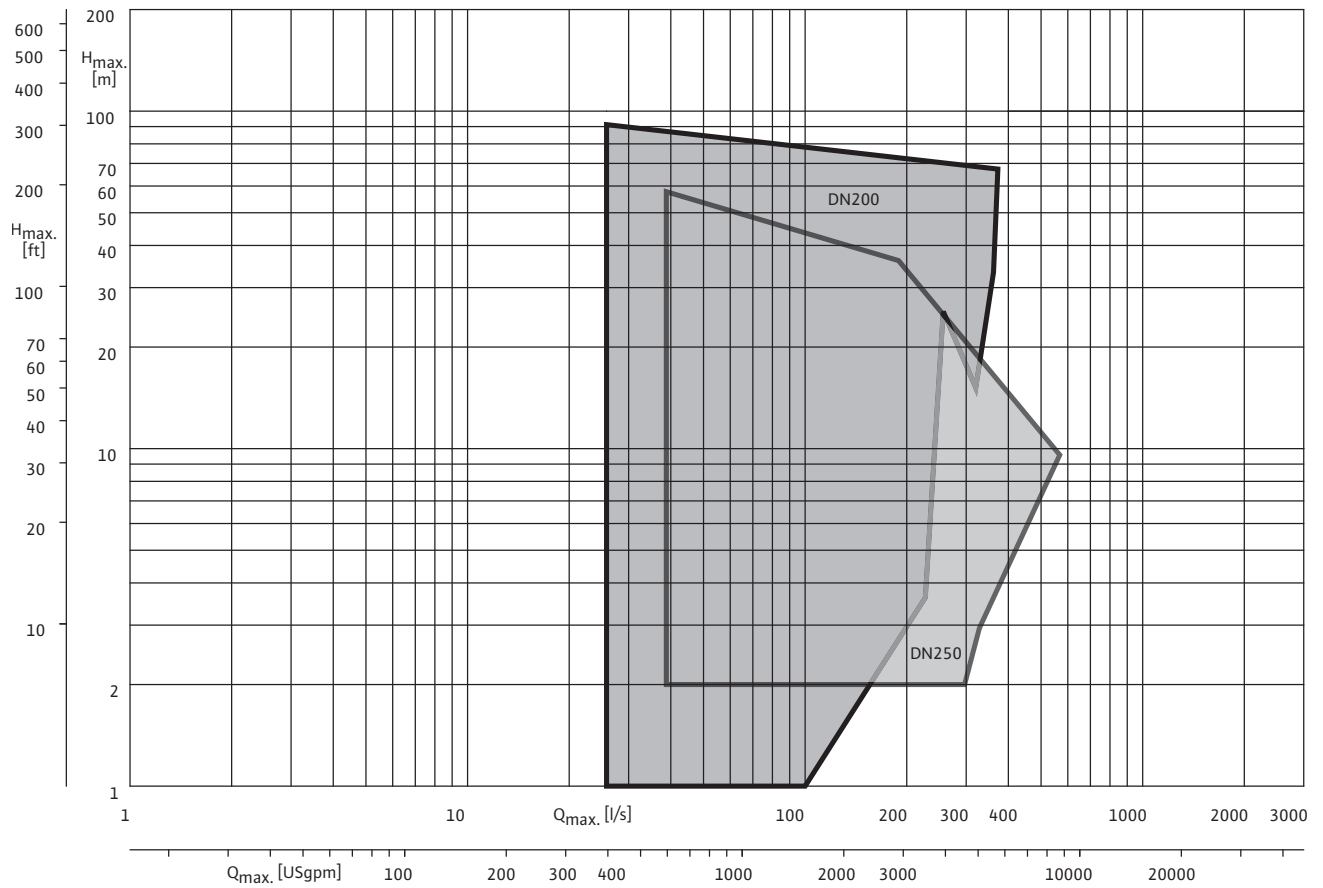
Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps from DN 200 to DN 250

Series description Wilo-EMU FA 20... to FA 25...

Overview diagram



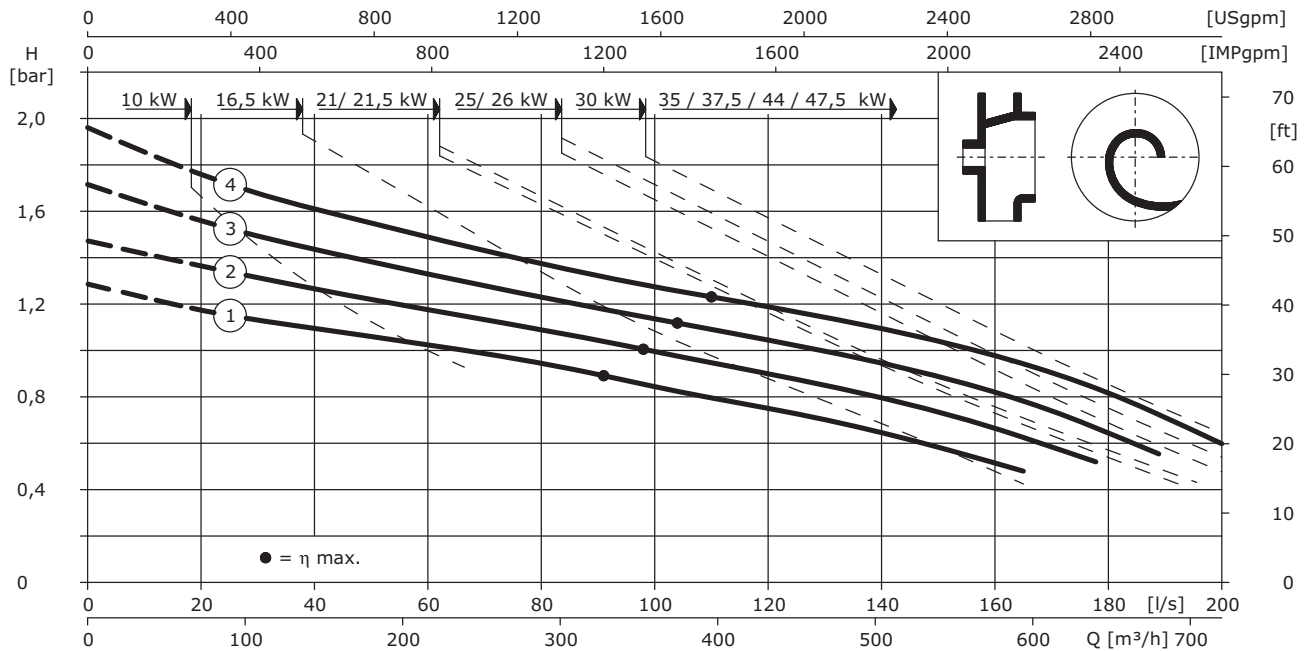
Submersible Motor Pumps DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.34E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	310	263	263	263	-	-	-	-	-
2	325	264	264	264	-	-	-	-	-
3	340	265	265	265	-	-	-	-	-
4	355	266	266	266	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	-	P_1 max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
10	T 24-6/16K	12.2	21	613	866	S1/-	ATEX, FM	185
16.5	T 24-6/22K	19.9	33.5	613	866	S1/-	ATEX, FM	211
21.5	T 24-6/28K	26	43	678	931	S1/-	ATEX, FM	233
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
37.5	T 30-6/35K	42.5	75	841	1095	S1/-	ATEX, FM	456
44	T 30-6/41K	49.5	88	931	1185	S1/-	ATEX, FM	471
Wet and dry sump installation								
21	FK 27.1-6/24	25	42	855	991	S1/S1	-	265
25	FK 27.1-6/32	29.5	52	935	1071	S1/S1	-	320
35	FK 34.1-6/24	41	72	998	1252	S1/S1	-	595
47.5	FK 34.1-6/29	56	95	998	1252	S1/S1	-	635
21	FKT 27.1-6/22K	24.5	44	820	1246	S1/S1	-	370
25	FKT 27.1-6/28K	29	52	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

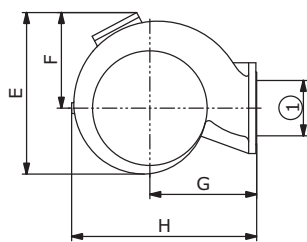
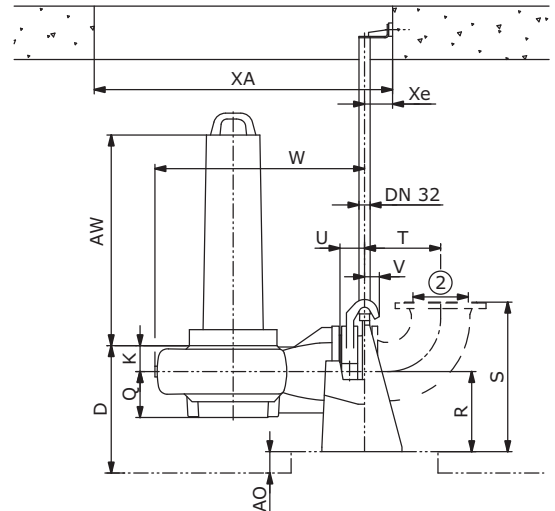
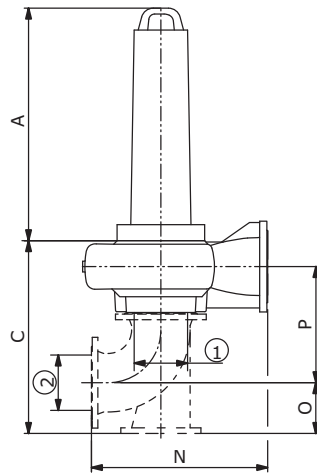
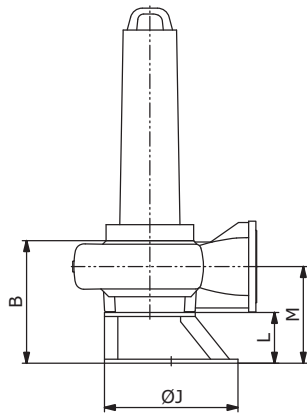
Wilo-EMU FA 20.34E (950 rpm)

Dimension drawing

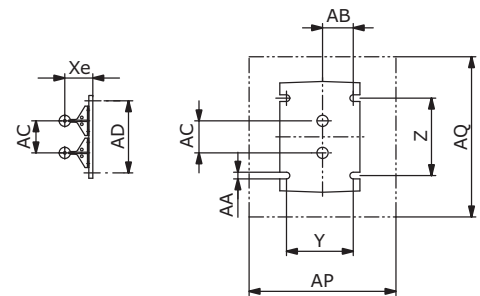
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	610	807	807	557	772	449	500	864	500	147	300	463	760	190	470	207	300	560	285	92
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	56	956	1200/1000	105	-	250	290	25	115	120	270	110	550	600						

Accessories and accessory weights

Description	Installation			Weight [kg]
	T	TA	BA	
-	-	-	-	-
Suspension Unit	-	-	DN 200 / 2R 50.15120/1	118
Flanged elbow 90° (Q adapter)	-	-	DN 200	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10253	-	-	22

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

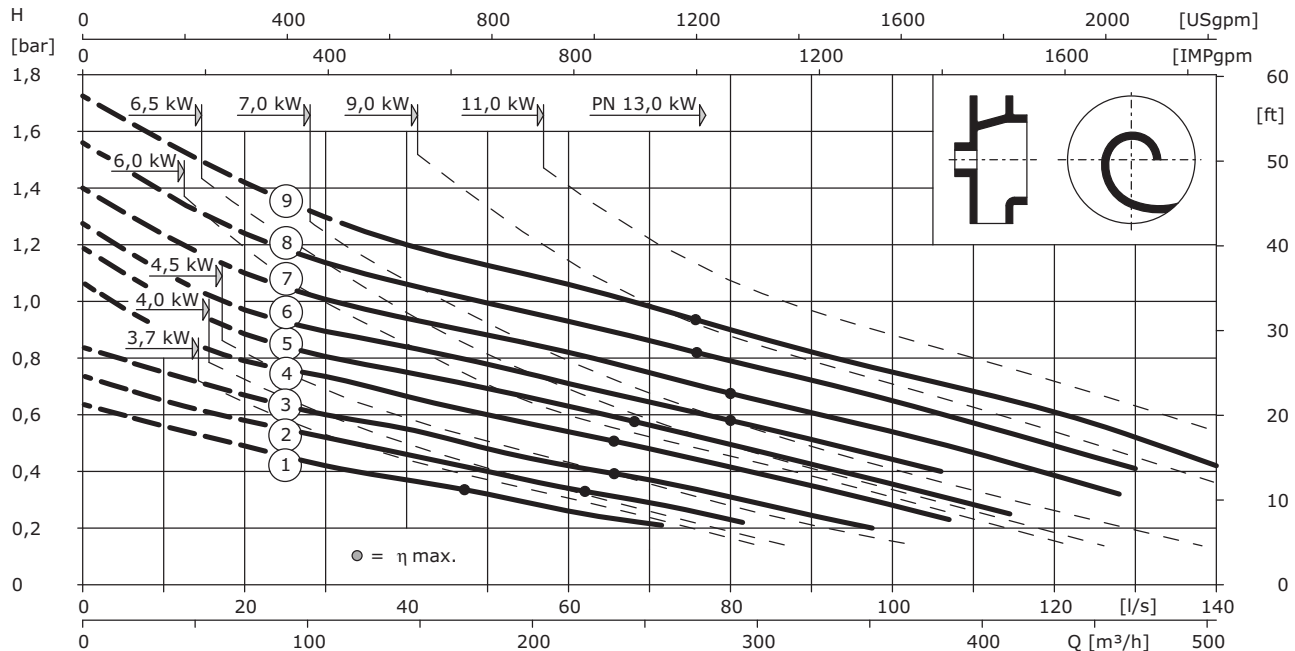
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.54E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	240	125	125	125
2	253	125	125	125
3	263	125	125	125
4	277	135	135	135
5	288	135	135	135

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	297	135	135	135
7	309	135	135	135
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]

Wet sump installation

3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185

Wet and dry sump installation

3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	-	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	-	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

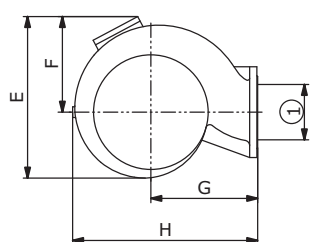
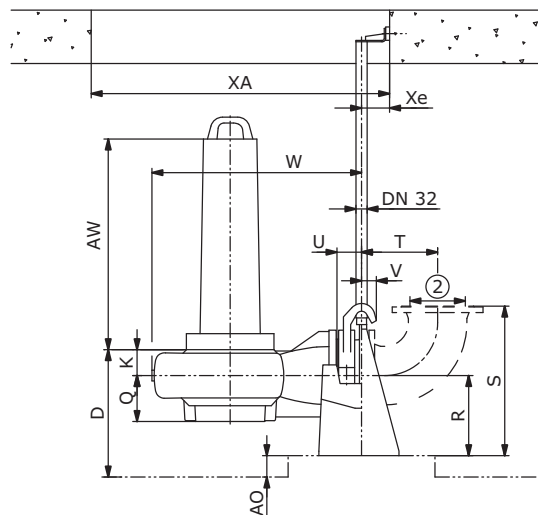
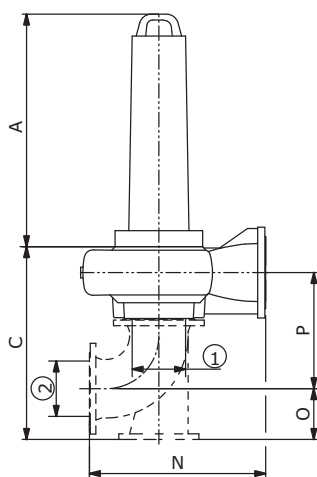
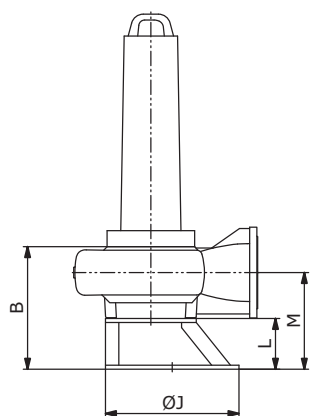
Wilo-EMU FA 20.54E (950 rpm)

Dimension drawing

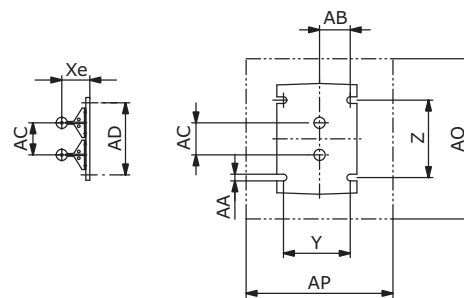
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	477	605	358	400	693	500	97	190	362	660	190	435	172	300	560	285	92	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	56	785	1000	105	-	250	290	25	115	120	270	80	550	600						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 200 / 2R 50.15120/1	118
Flanged elbow 90° (Q adapter)	-	-	DN 200	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

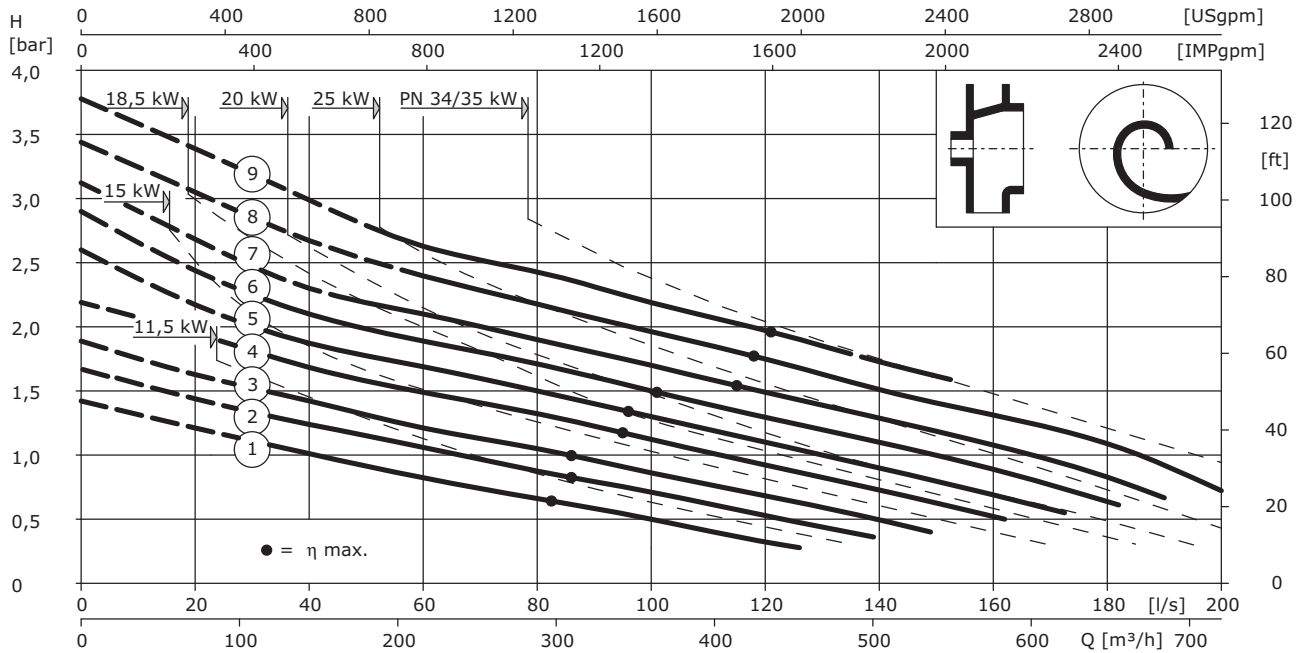
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.54E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	240	125	125	125
2	253	125	125	125
3	263	125	125	125
4	277	135	135	135
5	288	135	135	135

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	297	135	135	135
7	309	135	135	135
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
17.5	T 24-4/21K	20.5	35.5	613	866	S1/-	ATEX, FM	207
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260
Wet and dry sump installation								
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

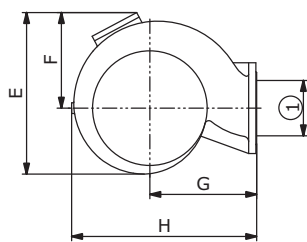
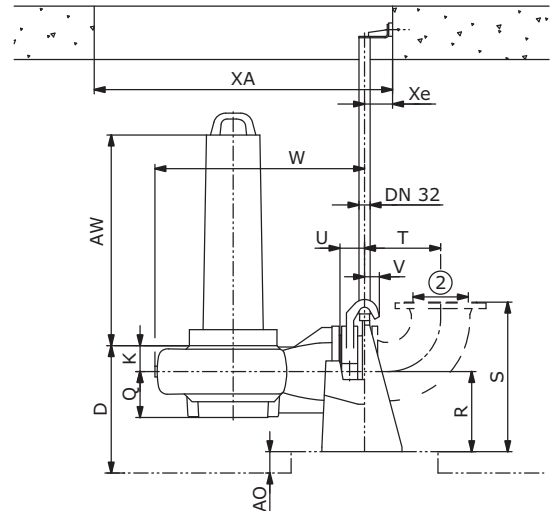
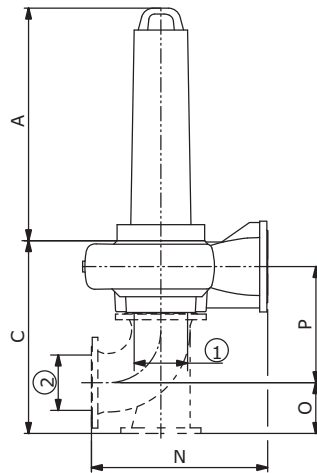
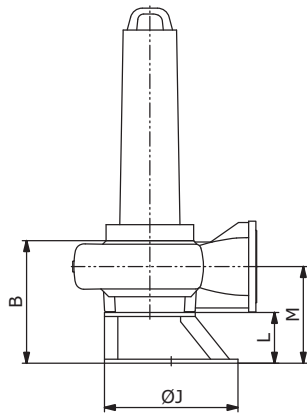
Wilo-EMU FA 20.54E (1450 rpm)

Dimension drawing

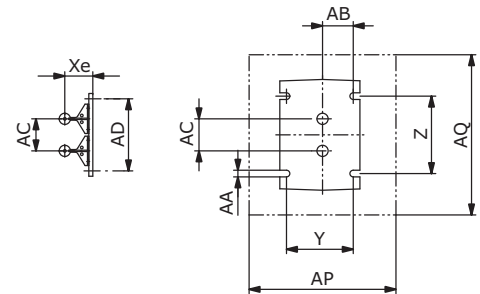
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	477	605	358	400	693	500	97	190	362	660	190	435	172	300	560	285	92	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	56	785	1000	105	-	250	290	25	115	120	270	80	550	600						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 200 / 2R 50.15120/1	118
Flanged elbow 90° (Q adapter)	-	-	DN 200	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

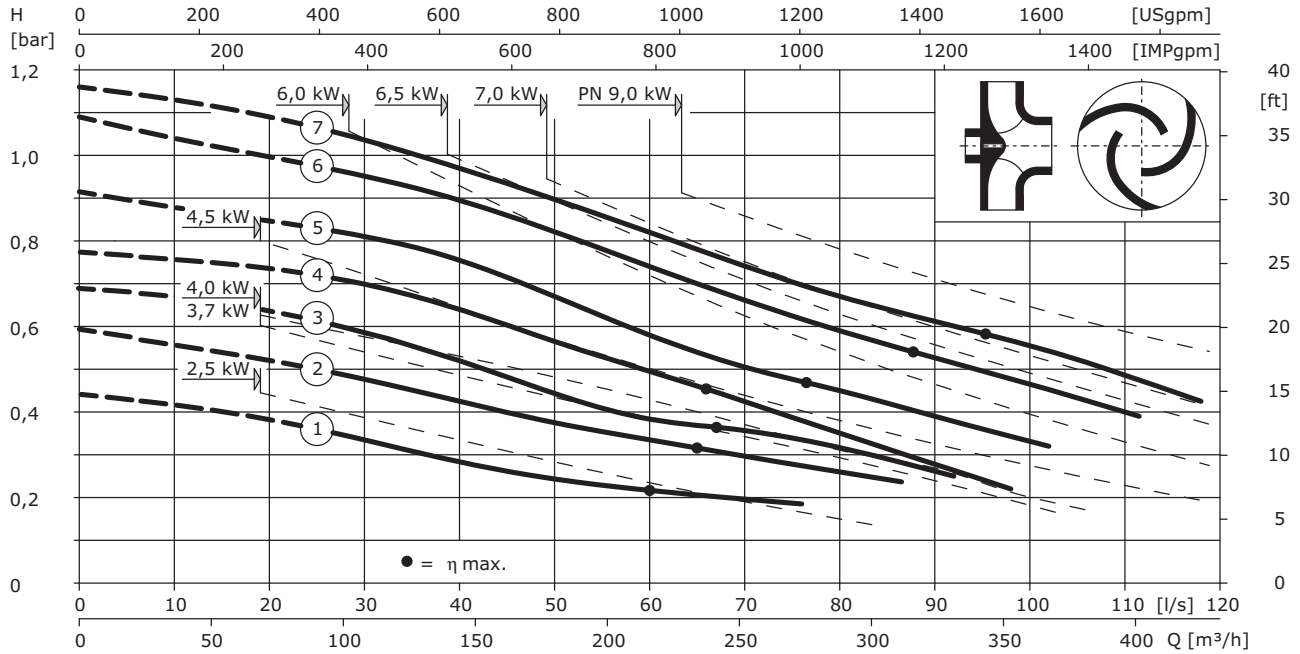
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.73D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	210	115	115	115
2	228	116	116	116
3	238	117	117	117
4	248	118	118	118
5	258	119	119	119

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	268	120	120	120
7	278	121	121	121
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	-	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	-	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

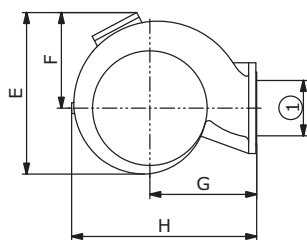
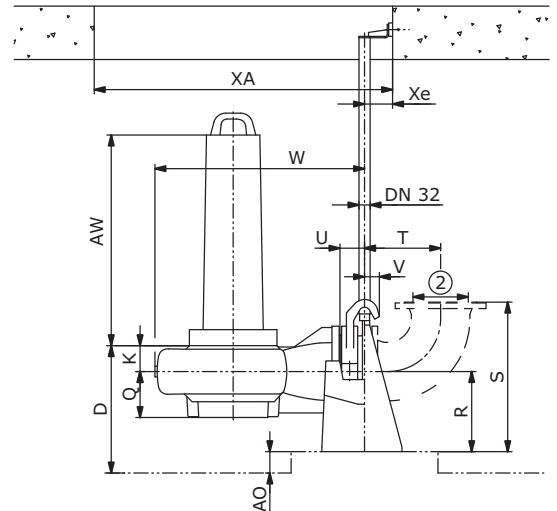
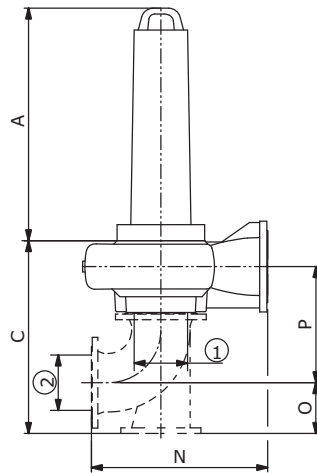
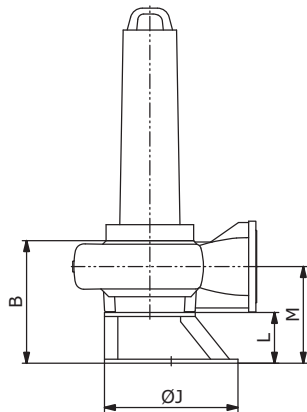
Wilo-EMU FA 20.73D (950 rpm)

Dimension drawing

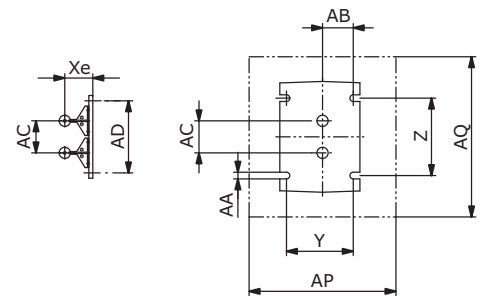
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	477	605	358	400	693	500	97	190	362	660	190	435	172	300	560	285	92	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	56	785	1000	105	-	250	290	25	115	120	270	80	550	600						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 200 / 2R 50.15120/1	118
Flanged elbow 90° (Q adapter)	-	-	DN 200	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

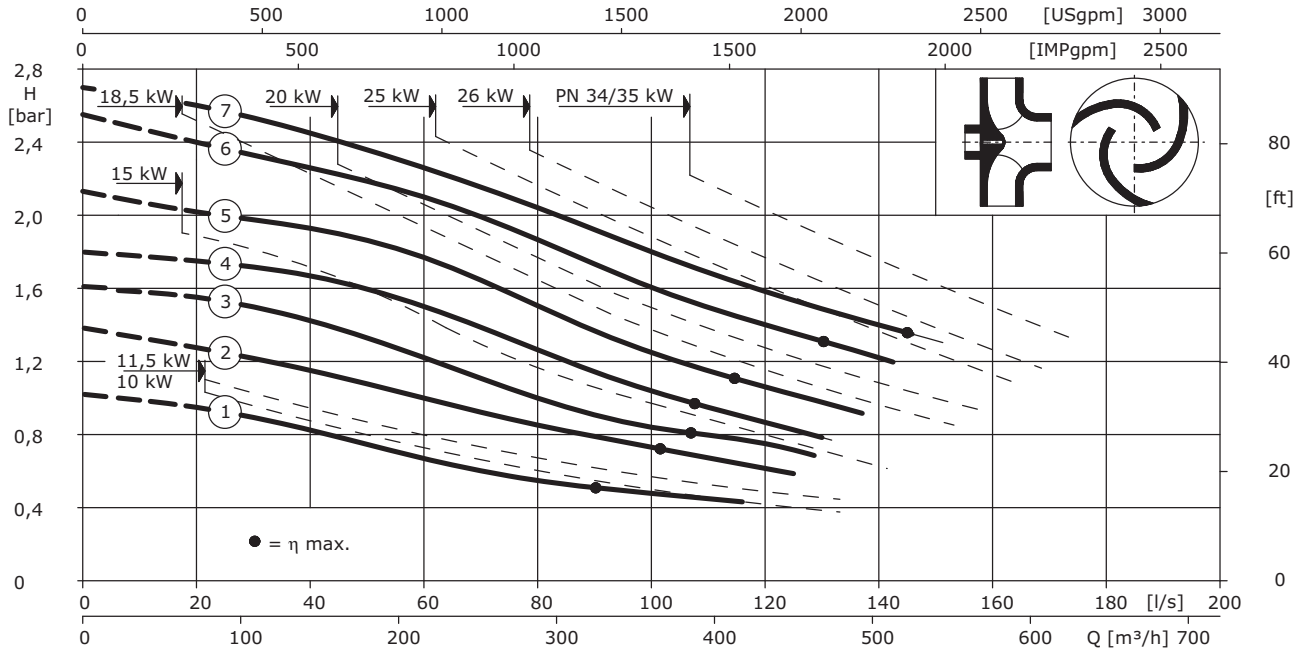
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.73D (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
1	210	115	115	115
2	228	116	116	116
3	238	117	117	117
4	248	118	118	118
5	258	119	119	119

No.	Impeller [mm]	Weight		
		BA [kg]	TA [kg]	T [kg]
6	268	120	120	120
7	278	121	121	121
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power P ₂ [kW]	Motor	Power consumption P ₁ max. [kW]	Current I [A]	Dimensions		Operating mode submerged/surfaced	Ex protection	Weight [kg]
				AW [mm]	A [mm]			
Wet sump installation								
10	T 17.2-4/24H(K)	12.2	21	510	582	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260
Wet and dry sump installation								
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

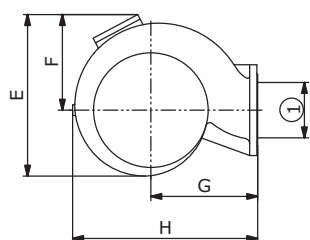
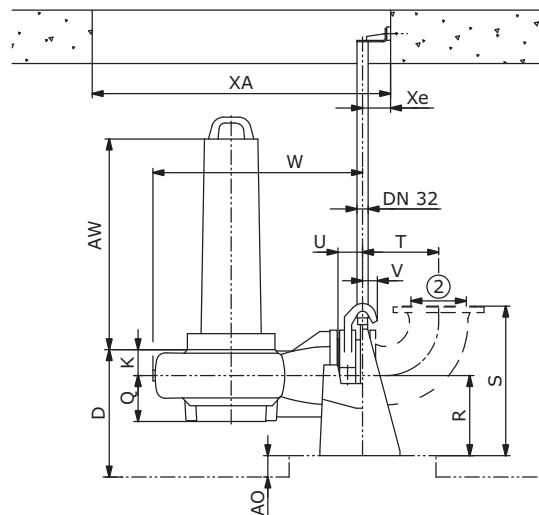
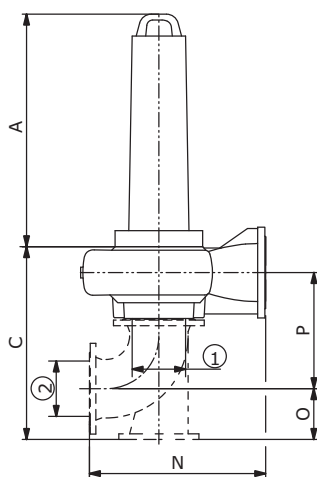
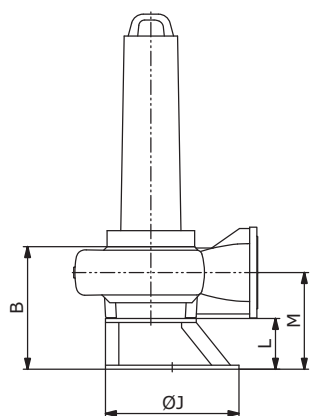
Wilo-EMU FA 20.73D (1450 rpm)

Dimension drawing

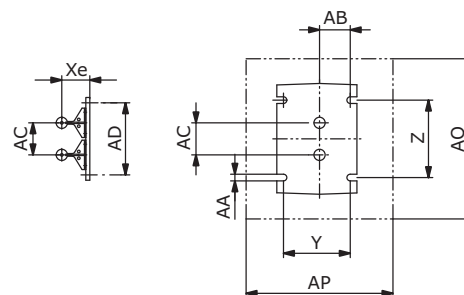
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	459	722	477	605	358	400	693	500	97	190	362	660	190	435	172	300	560	285	92	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	56	785	1000	105	-	250	290	25	115	120	270	80	550	600						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 200 / 2R 50.15120/1	118
Flanged elbow 90° (Q adapter)	-	-	DN 200	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

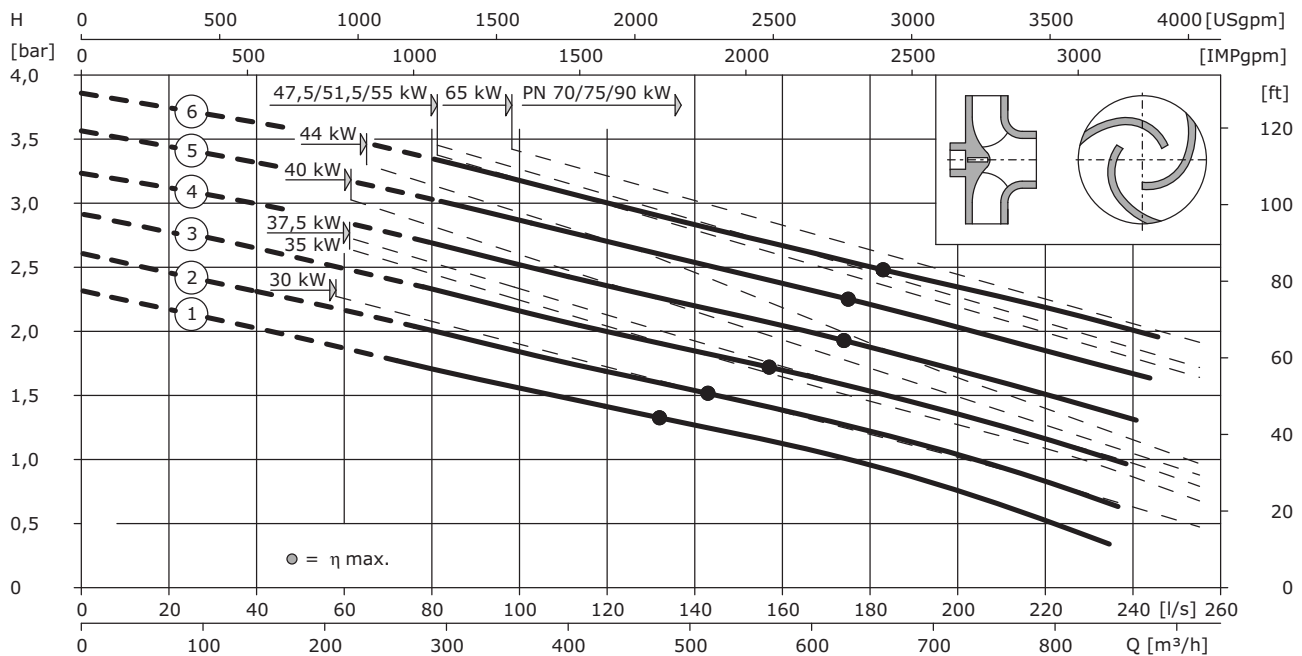
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.78D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	380	385	476	-
2	400	385	476	-
3	425	385	476	-
4	450	385	476	-
5	470	385	476	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	490	385	476	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
37.5	T 30-6/35K	42.5	75	841	1095	S1/-	ATEX, FM	456
44	T 30-6/41K	49.5	88	931	1185	S1/-	ATEX, FM	471
51.5	T 30-6/48K	58	102	1041	1295	S1/-	ATEX, FM	531
65	T 34-6/41K	70	124	935	1189	S1/-	ATEX, FM	581
70	T 34-6/50K	78	136	1005	1259	S1/-	ATEX, FM	647
90	T 42-6/36G	98	177	1107	1607	S1/-	-	1020
Wet and dry sump installation								
35	FK 34.1-6/24	41	72	998	1252	S1/S1	-	595
47.5	FK 34.1-6/29	56	95	998	1252	S1/S1	-	635
55	FK 34.1-6/33	64	109	998	1252	S1/S1	-	667
65	FK 34.1-6/42	75	129	1118	1372	S1/S1	-	715
75	FK 34.1-6/50	86	151	1198	1452	S1/S1	-	780
90	FK 34.1-6/60	103	181	1293	1547	S1/S1	-	860

Sewage Pumps for Municipal and Industrial Applications



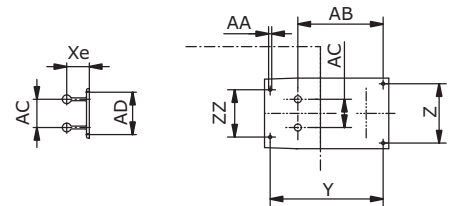
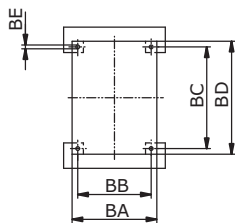
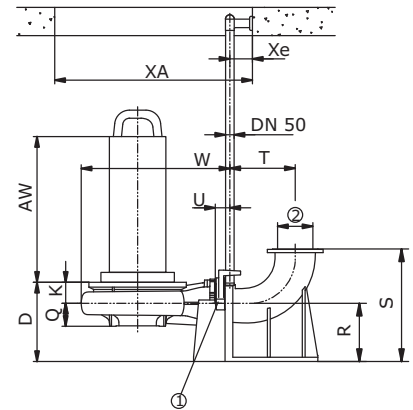
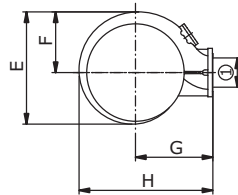
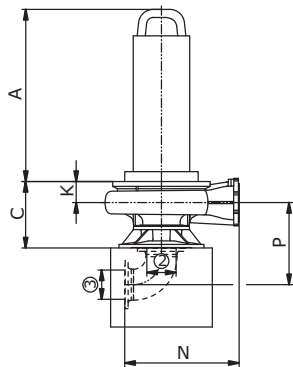
Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.78D (950 rpm)

Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN250 PN10
ANSI B16.1, Class 125, Size 10
- 3 = DN250 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm]	-	-	446.5	-	795	430	548	948	-	149	-	-	898	-	647.5	162.5	412	797	463	106
	V	W	XA	Xe	Xr	Y	Z	ZZ	AA	AB	AC	AD	BA	BB	BC	BD	BE			
[mm]	73	1054	1400	160	182	800	420	335	22	583	200	300	600	520	720	800	22			

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 250S / 2RK 51.19440	420
Flanged elbow 90° (Q adapter)	-	DN 250	-	50

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

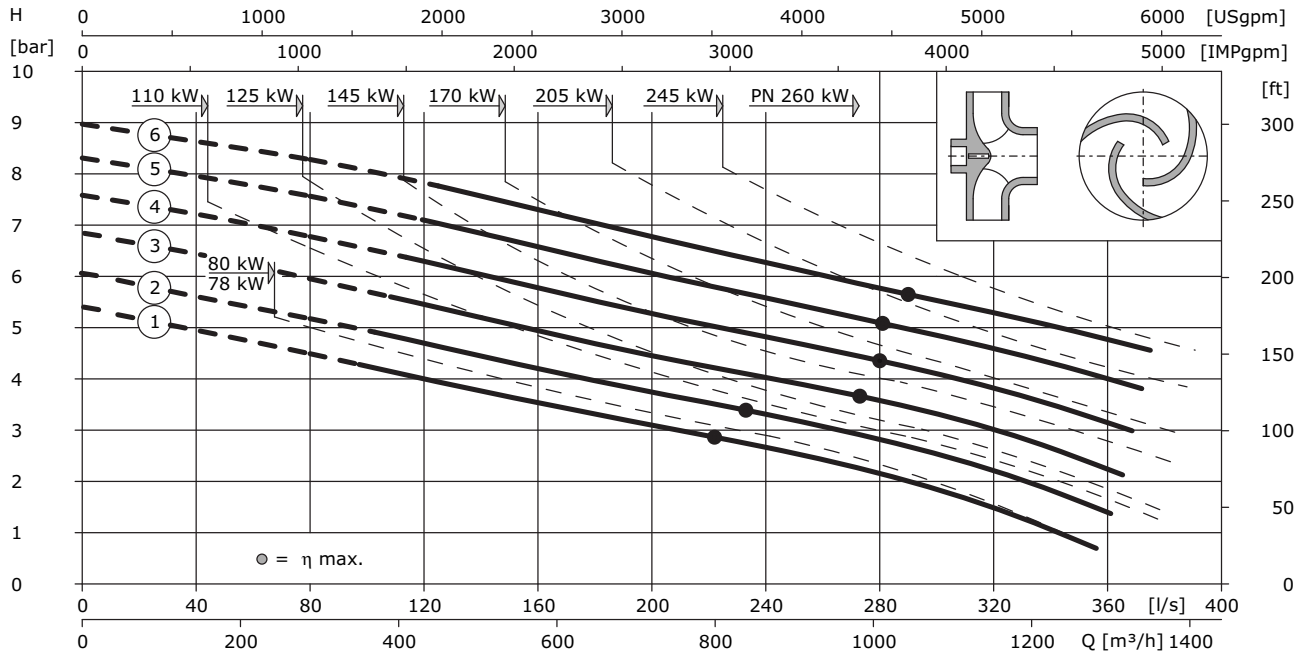
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.78D (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	380	385	476	-
2	400	385	476	-
3	425	385	476	-
4	450	385	476	-
5	470	385	476	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
6	490	385	476	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
78	T 30-4/55K	87	146	1041	1295	S1/-	ATEX, FM	567
80	T 34-4/43K	87	150	935	1189	S1/-	ATEX, FM	596
110	T 42-4/36G	120	205	1107	1607	S1/-	-	1020
125	T 42-4/42G	138	235	1207	1707	S1/-	-	1090
145	T 42-4/51G	161	270	1257	1757	S1/-	-	1160
170	T 49-4/36G	179	310	1241	2051	S1/-	FM	1485
205	T 49-4/42G	220	375	1241	2051	S1/-	FM	1600
245	T 49-4/50G	260	455	1391	2201	S1/-	FM	1765
260	T 49-4/58G	275	470	1391	2201	S1/-	-	1850
Wet and dry sump installation								
110	FK 42.1-4/36	131	230	1195	1512	S1/S1	-	1190

Sewage Pumps for Municipal and Industrial Applications



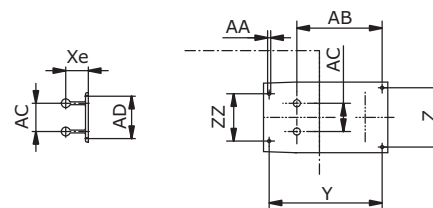
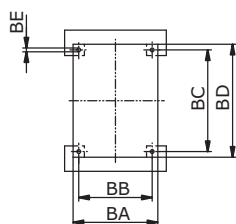
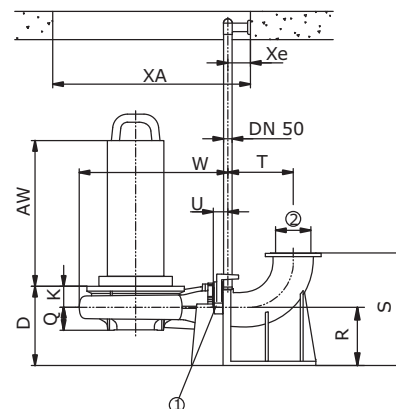
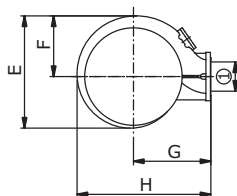
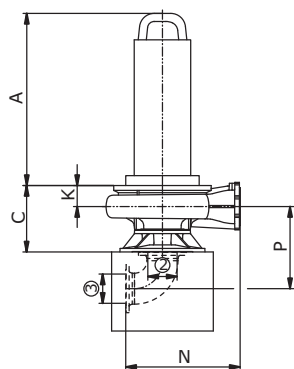
Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 20.78D (1450 rpm)

Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 2 = DN250 PN10
ANSI B16.1, Class 125, Size 10
- 3 = DN250 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm]	-	-	446.5	-	795	430	548	948	-	149	-	-	898	-	647.5	162.5	412	797	463	106
	V	W	XA	Xe	Xr	Y	Z	ZZ	AA	AB	AC	AD	BA	BB	BC	BD	BE			
[mm]	73	1054	1400	160	182	800	420	335	22	583	200	300	600	520	720	800	22			

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 250S / 2RK 51.19440	420
Flanged elbow 90° (Q adapter)	-	DN 250	-	50

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

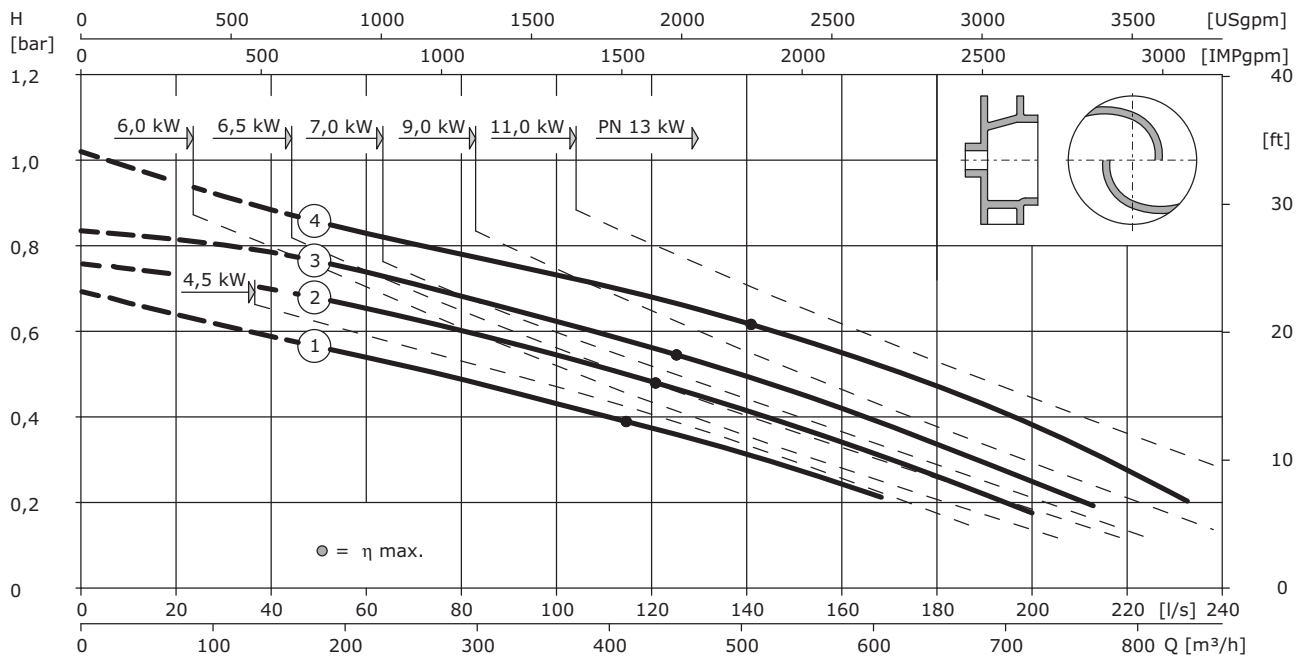
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.31Z (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	245	119	119	119
2	257	119	119	119
3	267	120	120	120
4	278	120	120	120
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
Wet and dry sump installation								
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

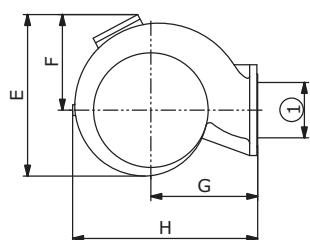
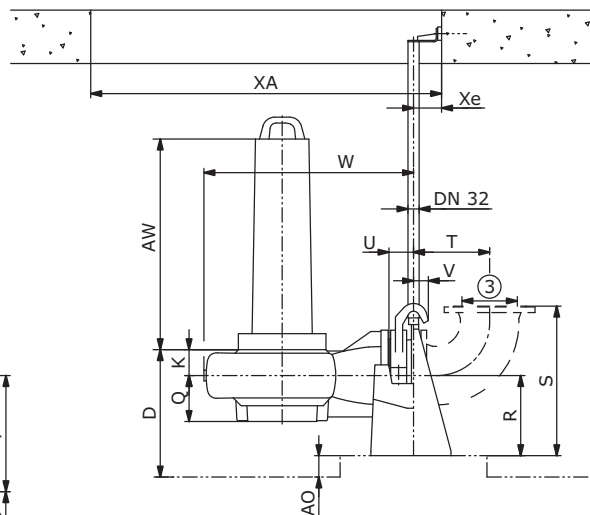
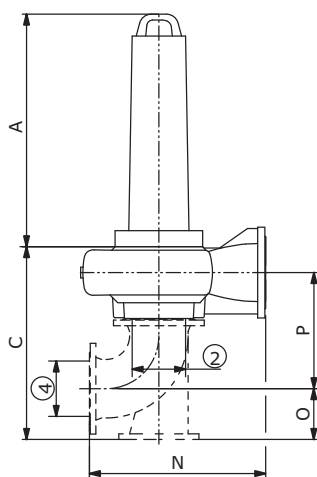
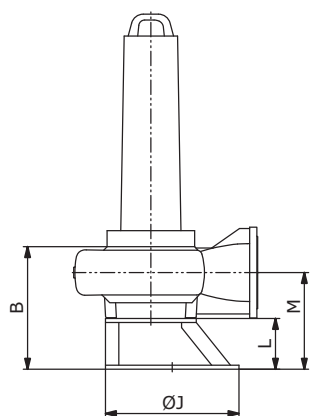
Wilo-EMU FA 25.31Z (950 rpm)

Dimension drawing

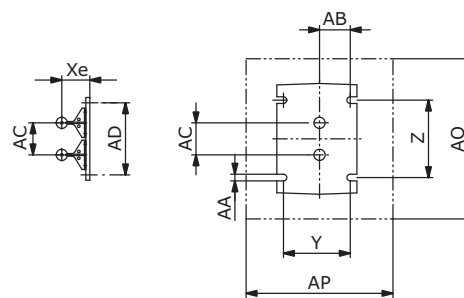
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN250 PN10
ANSI B16.1, Class 125, Size 10
- 2 = DN200 PN10
ANSI B16.1, Class 125, Size 8
- 3 = DN250 PN10
- 4 = DN200 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	425	688	688	485	655	400	400	713	500	95	190	330	660	190	403	140	250	600	378	99
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	60	812	1000	105	-	300	340	25	135	120	270	140	600	640						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 / 2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	-	DN 250	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

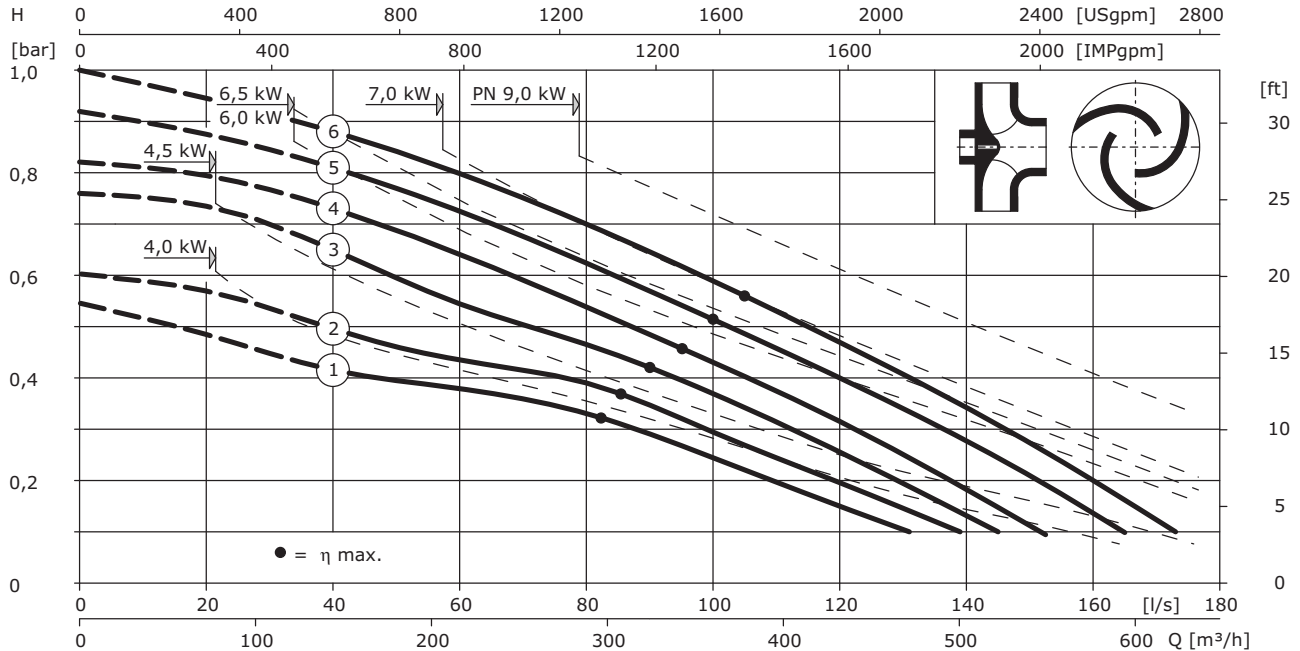
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.32D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	228	118	118	118
2	238	118	118	118
3	248	119	119	119
4	258	119	119	119
5	268	120	120	120

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	278	120	120	120
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
6	T 17.2-6/24H(K)	7.7	13.6	510	582	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

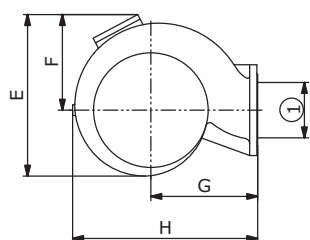
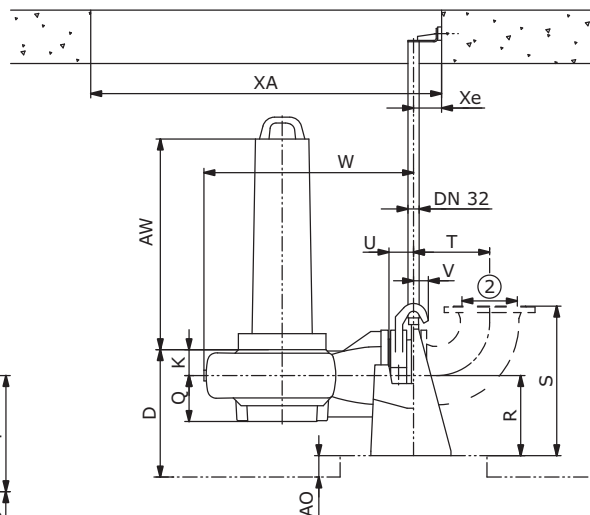
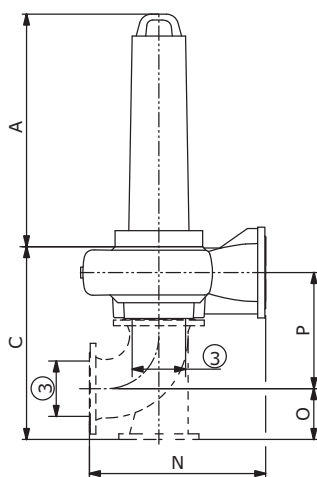
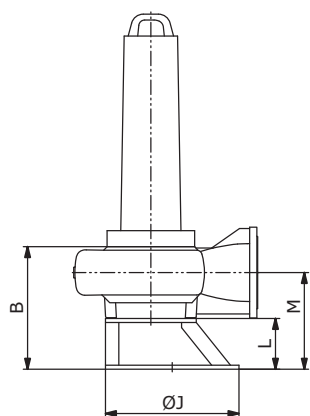
Wilo-EMU FA 25.32D (950 rpm)

Dimension drawing

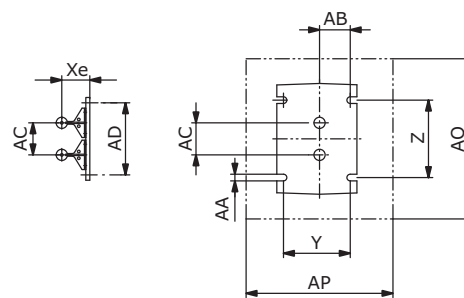
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN250 PN10
ANSI B16.1, Class 125, Size 10
- 2 = DN250 PN10
- 3 = DN200 PN10
ANSI B16.1, Class 125, Size 8



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	425	688	688	485	655	400	400	713	500	95	190	330	660	190	403	140	250	600	378	99
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	60	812	1000	105	-	300	340	25	135	120	270	140	600	640						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 /2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	-	DN 250	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 /Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

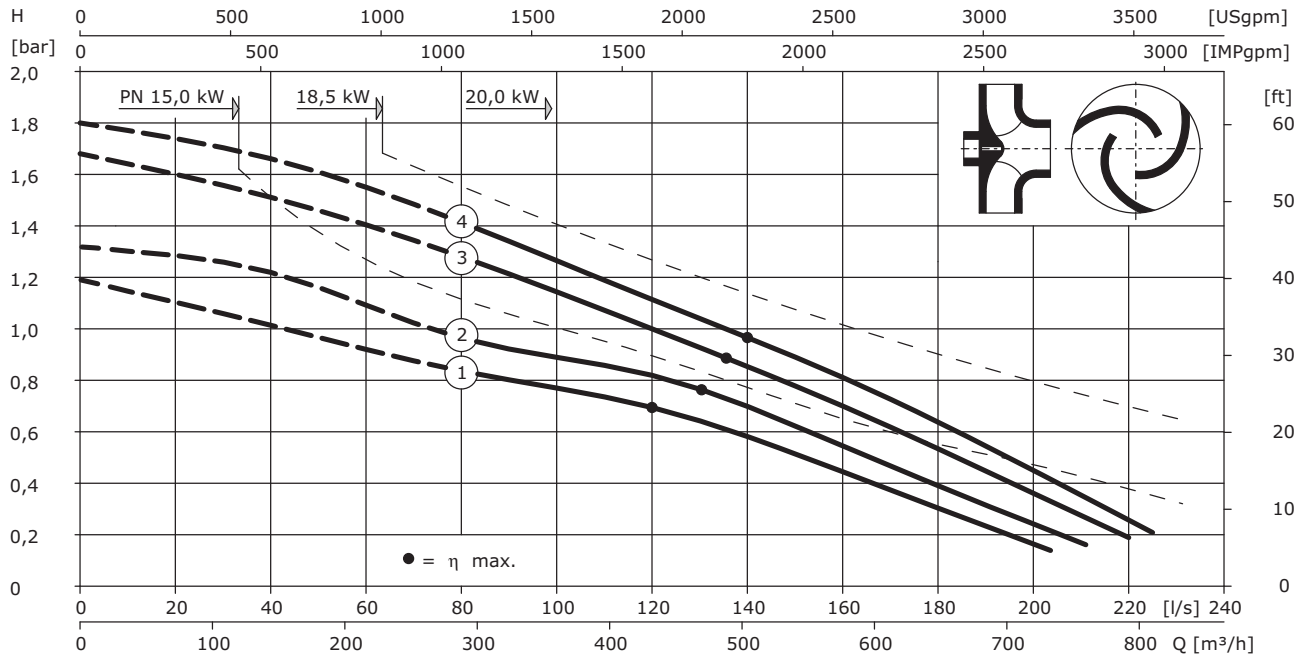
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.32D (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	228	118	118	118
2	238	118	118	118
3	248	119	119	119
4	258	119	119	119
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

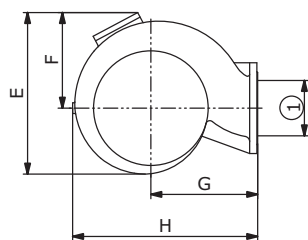
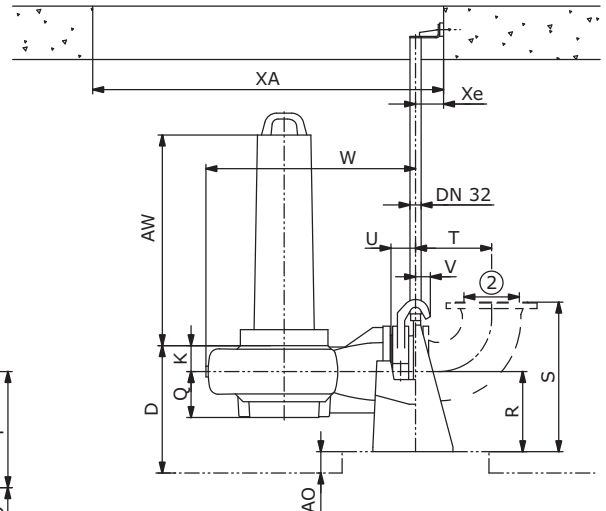
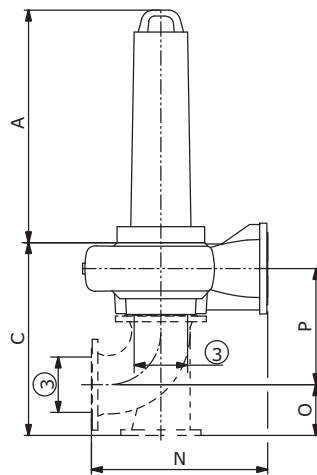
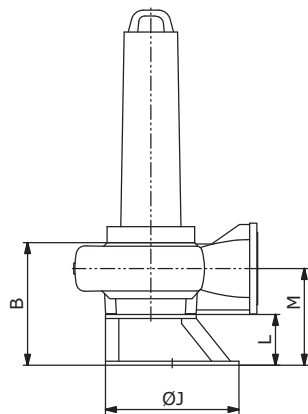
Wilo-EMU FA 25.32D (1450 rpm)

Dimension drawing

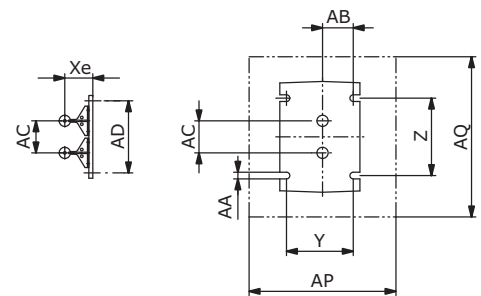
Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN250 PN10
ANSI B16.1, Class 125, Size 10
- 2 = DN250 PN10
- 3 = DN200 PN10
ANSI B16.1, Class 125, Size 8



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	425	688	688	485	655	400	400	713	500	95	190	330	660	190	403	140	250	600	378	99
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	60	812	1000	105	-	300	340	25	135	120	270	140	600	640						

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 /2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	-	DN 250	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 /Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10987	-	-	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

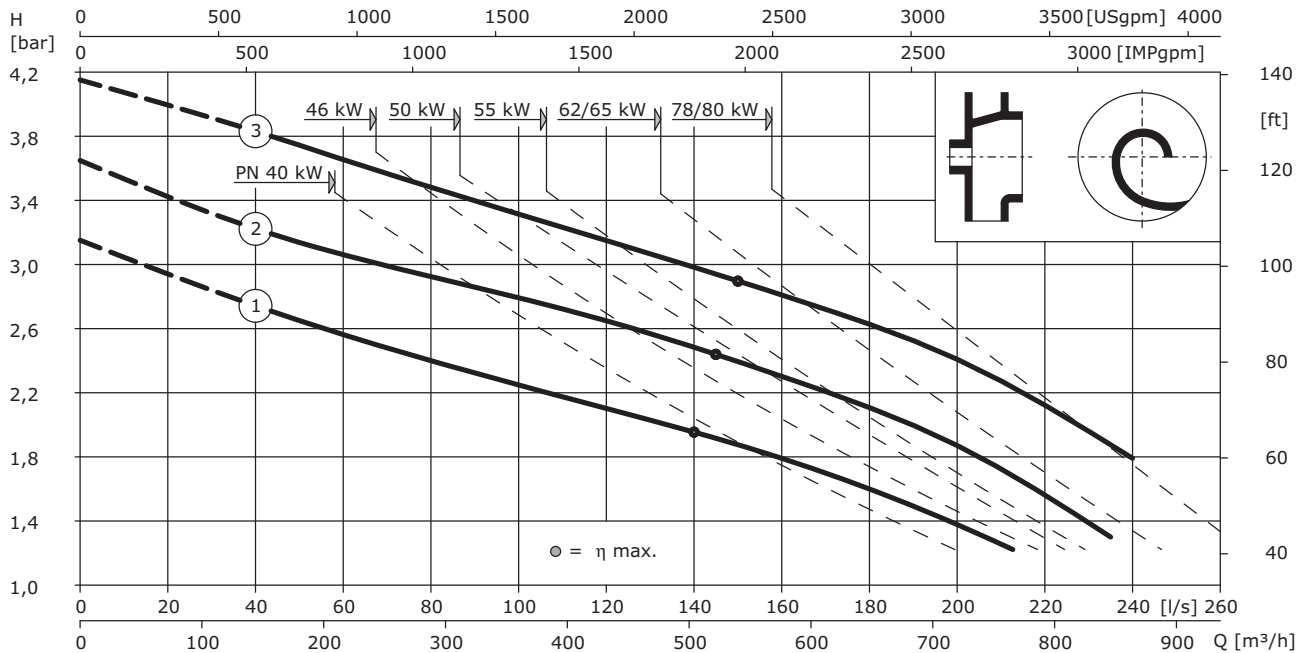
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.36E (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	316	245	245	245	-	-	-	-	-
2	338	246	246	246	-	-	-	-	-
3	360	247	247	247	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
40	T 30-4/29K	45.5	78	781	1035	S1/-	ATEX, FM	422
50	T 30-4/35K	57	96	841	1095	S1/-	ATEX, FM	456
55	T 34-4/29K	62	106	855	1109	S1/-	ATEX, FM	494
62	T 30-4/44K	69	116	931	1185	S1/-	ATEX, FM	506
78	T 30-4/55K	87	146	1041	1295	S1/-	ATEX, FM	567
80	T 34-4/43K	87	150	935	1189	S1/-	ATEX, FM	596
Wet and dry sump installation								
46	FK 34.1-4/24	55	91	998	1252	S1/S1	-	595
55	FK 34.1-4/29	64	108	998	1252	S1/S1	-	635
65	FK 34.1-4/33	76	129	998	1252	S1/S1	-	667
80	FK 34.1-4/42	92	155	1118	1372	S1/S1	-	715

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

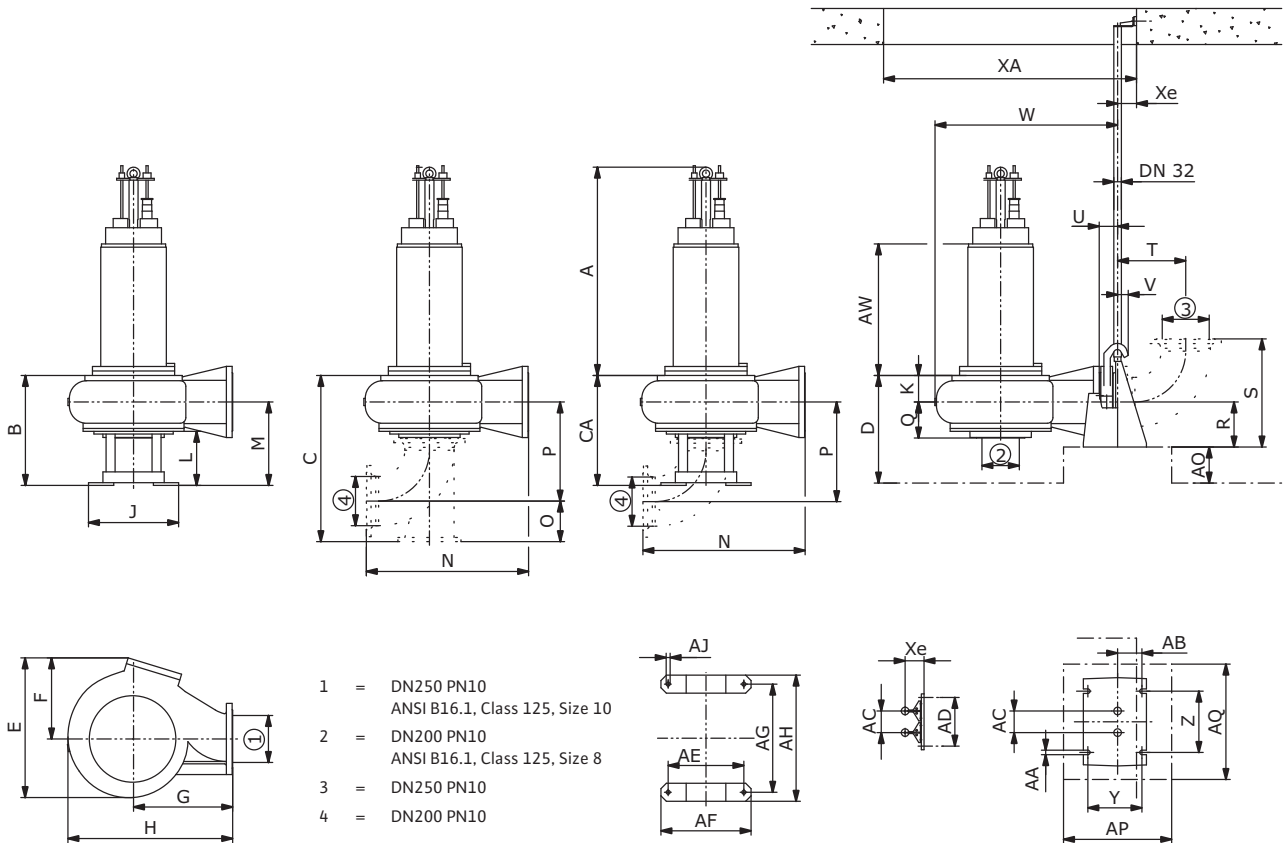
Wilo-EMU FA 25.36E (1450 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	CA	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
[mm] Motor	610	800	800	610	597	775	450	550	914	500	147	300	463	810	190	463	200	250	600	378
	U	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AO	AP	AQ
[mm]	99	60	1013	1200/1000	105	-	300	340	25	135	120	270	420	500	600	700	22	200	600	640

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 /2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	DN 200	DN 250	31
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 /Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 200	-	46
Pump foot	52.10253	-	-	22.5

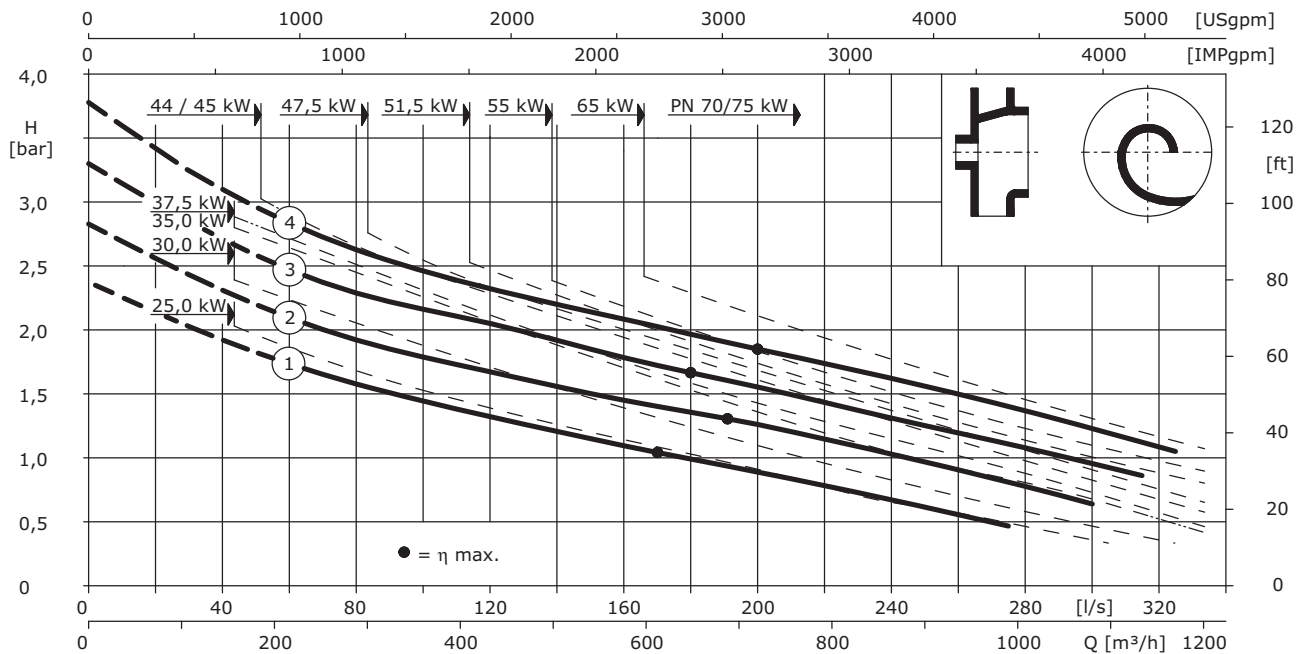
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.74E (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	420	310	310	310	-	-	-	-	-
2	440	310	310	310	-	-	-	-	-
3	460	310	310	310	-	-	-	-	-
4	480	310	310	310	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
37.5	T 30-6/35K	42.5	75	841	1095	S1/-	ATEX, FM	456
44	T 30-6/41K	49.5	88	931	1185	S1/-	ATEX, FM	471
51.5	T 30-6/48K	58	102	1041	1295	S1/-	ATEX, FM	531
45	T 34-6/29K	49	85	855	1109	S1/-	ATEX, FM	494
65	T 34-6/41K	70	124	935	1189	S1/-	ATEX, FM	581
70	T 34-6/50K	78	136	1005	1259	S1/-	ATEX, FM	647
Wet and dry sump installation								
25	FK 27.1-6/32	29.5	52	935	1071	S1/S1	-	320
35	FK 34.1-6/24	41	72	998	1252	S1/S1	-	595
47.5	FK 34.1-6/29	56	95	998	1252	S1/S1	-	635
55	FK 34.1-6/33	64	109	998	1252	S1/S1	-	667
65	FK 34.1-6/42	75	129	1118	1372	S1/S1	-	715
75	FK 34.1-6/50	86	151	1198	1452	S1/S1	-	780
25	FKT 27.1-6/28K	29	52	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

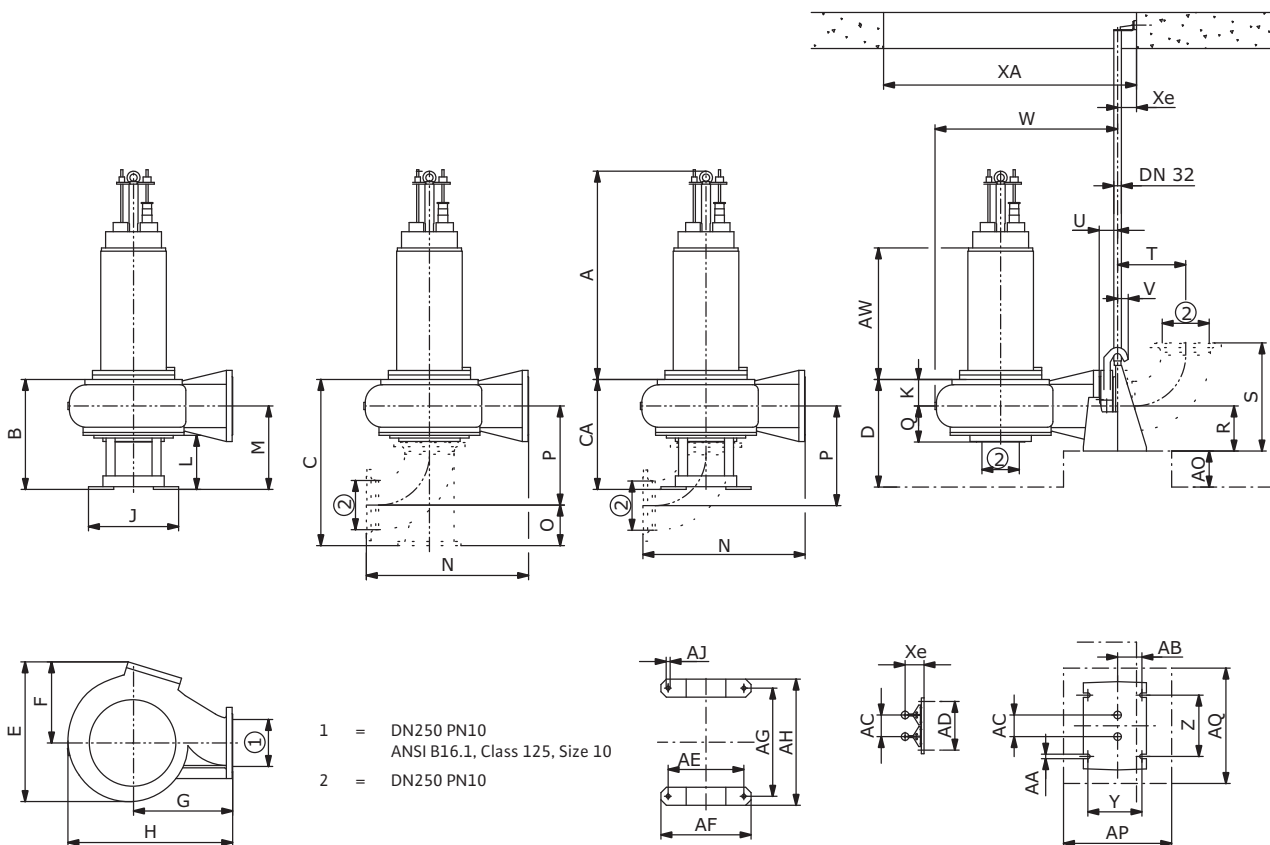
Wilo-EMU FA 25.74E (950 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Submersible motor pumps
DN 200 to DN 250

Dimensions

	A	B	C	CA	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
[mm] Motor	552	893	893	552	567	930	523	630	1073	500	117	300	435	980	225	551	198	250	600	378
	U	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AO	AP	AQ
[mm]	99	60	1172	1400/ 1200	105	-	300	340	25	135	120	270	420	500	600	700	22	200	600	640

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 /2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	DN 250	DN 250	50
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 /Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 250	-	74
Pump foot	52.10253	-	-	22.5

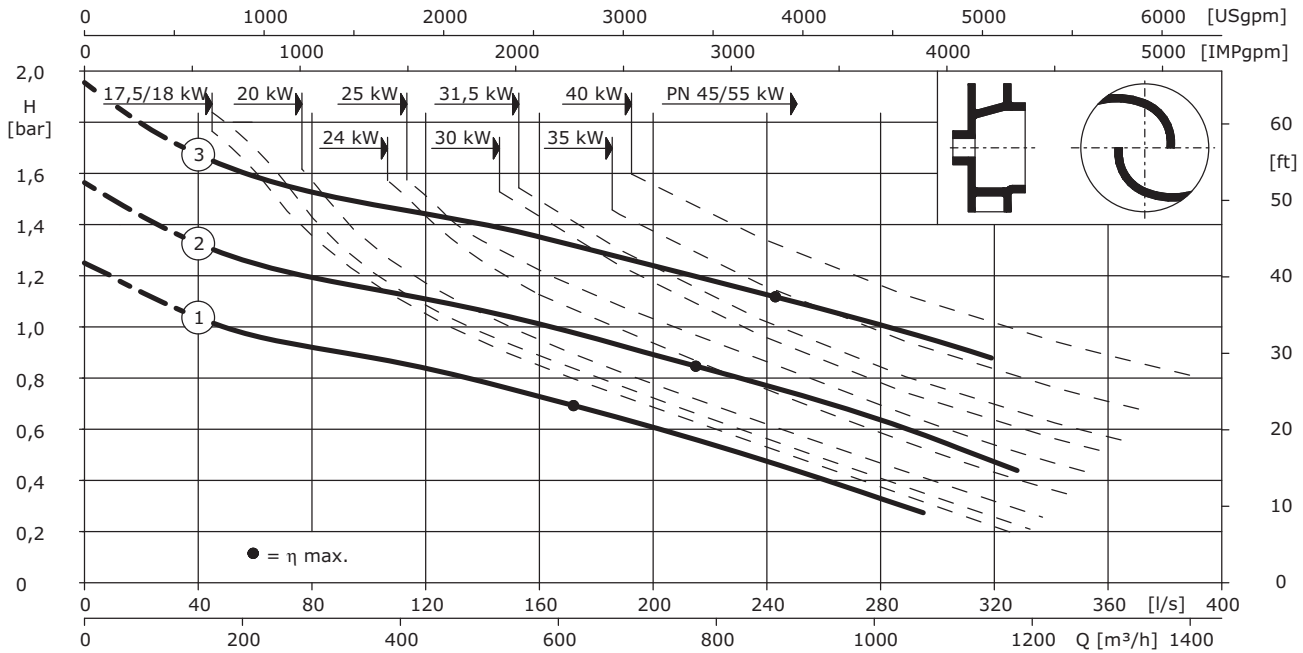
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.82Z (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	405	309	309	309
2	440	312	312	312
3	475	317	317	317
-	-	-	-	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]

Wet sump installation

20	T 30-8/29K	23	42.5	781	1035	S1/-	ATEX, FM	422
24	T 30-8/35K	27.5	51	841	1095	S1/-	ATEX, FM	456
31.5	T 30-8/45K	36	67	931	1185	S1/-	ATEX, FM	510
40	T 30-8/57K	45.5	85	1041	1295	S1/-	ATEX, FM	570
45	T 34-8/41K	52	93	935	1189	S1/-	ATEX, FM	581
55	T 34-8/50K	62	111	1005	1259	S1/-	ATEX, FM	647

Wet and dry sump installation

17.5	FK 27.1-8/32	20.5	37	935	1071	S1/S1	-	320
25	FK 34.1-8/24	29.5	54	998	1252	S1/S1	-	595
30	FK 34.1-8/29	34.5	64	998	1252	S1/S1	-	635
35	FK 34.1-8/33	40	74	998	1252	S1/S1	-	667
45	FK 34.1-8/42	51	94	1118	1372	S1/S1	-	715
55	FK 34.1-8/50	62	115	1198	1452	S1/S1	-	780
18	FKT 27.1-8/28K	21.5	38.5	820	1246	S1/S1	-	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

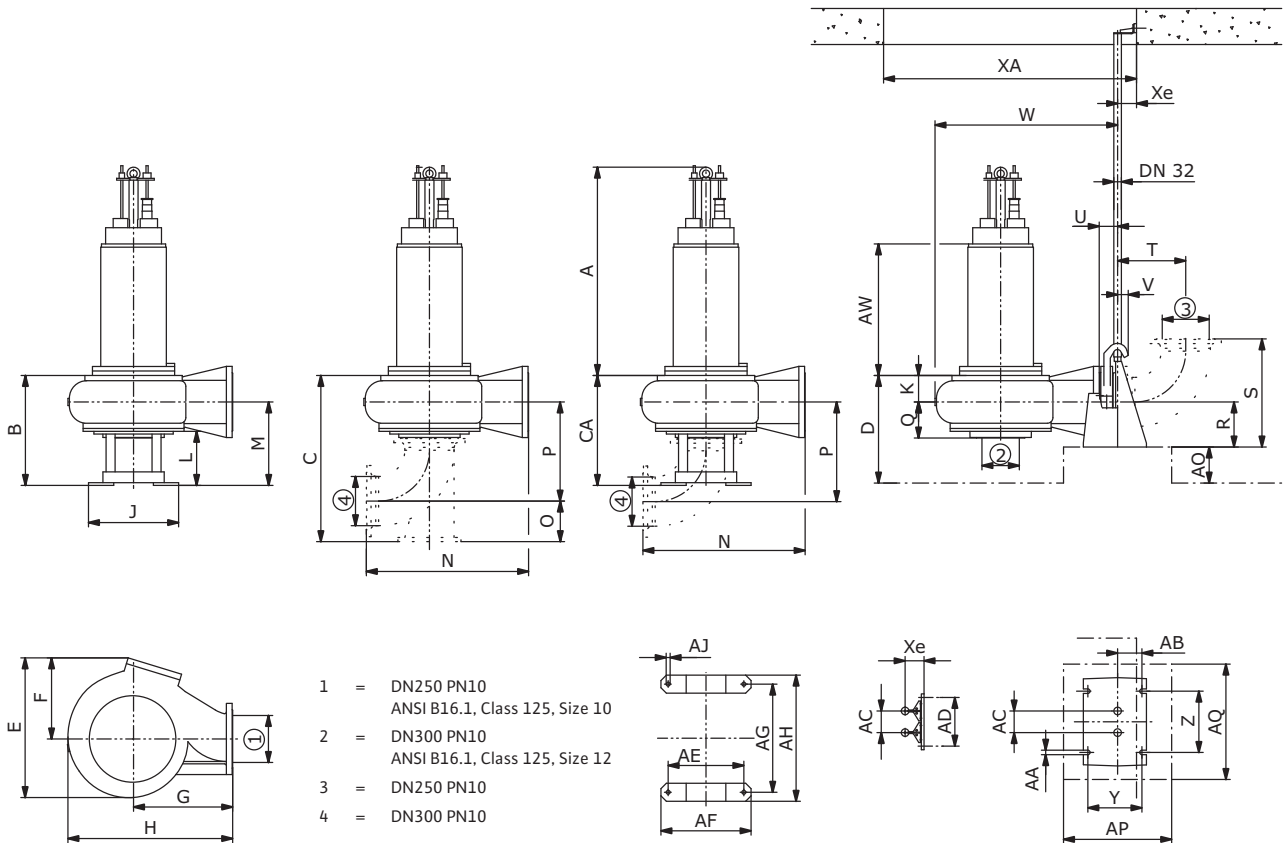
Wilo-EMU FA 25.82Z (740 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	CA	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
[mm] Motor	550	1075	550	667	930	523	630	1073	500	117	300	433	1030	255	703	300	250	600	378	
	U	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AO	AP	AQ
[mm]	99	60	1172	1400/1200	105	-	300	340	25	135	120	270	420	500	600	700	22	300	600	640

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 /2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	DN 300	DN 250	70
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 /Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 300	-	104
Pump foot	52.10253	-	-	22.5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

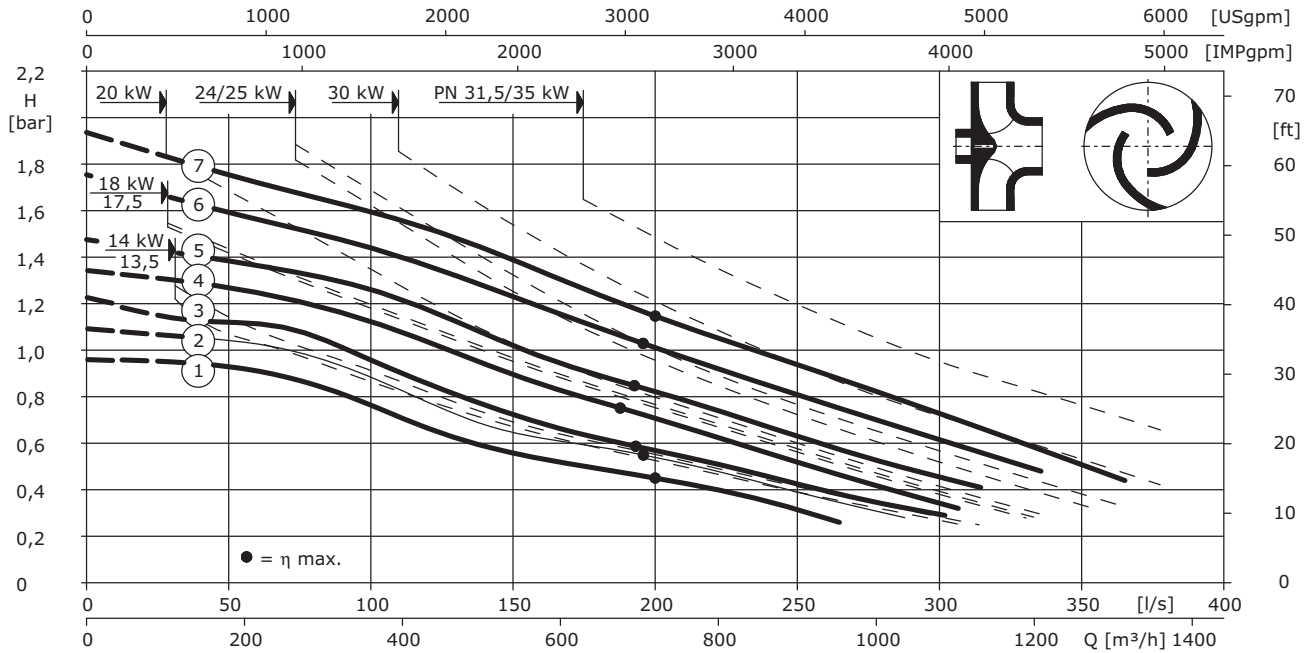
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.93D (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	336	350	350	350
2	350	350	350	350
3	365	350	350	350
4	380	350	350	350
5	400	350	350	350

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	430	350	350	350
7	451	350	350	350
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
20	T 30-8/29K	23	42.5	781	1035	S1/-	ATEX, FM	422
24	T 30-8/35K	27.5	51	841	1095	S1/-	ATEX, FM	456
31.5	T 30-8/45K	36	67	931	1185	S1/-	ATEX, FM	510
Wet and dry sump installation								
13.5	FK 27.1-8/24	15.9	29	855	991	S1/S1	–	265
17.5	FK 27.1-8/32	20.5	37	935	1071	S1/S1	–	320
25	FK 34.1-8/24	29.5	54	998	1252	S1/S1	–	595
30	FK 34.1-8/29	34.5	64	998	1252	S1/S1	–	635
35	FK 34.1-8/33	40	74	998	1252	S1/S1	–	667
14	FKT 27.1-8/22K	16.7	30	820	1246	S1/S1	–	370
18	FKT 27.1-8/28K	21.5	38.5	820	1246	S1/S1	–	390

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

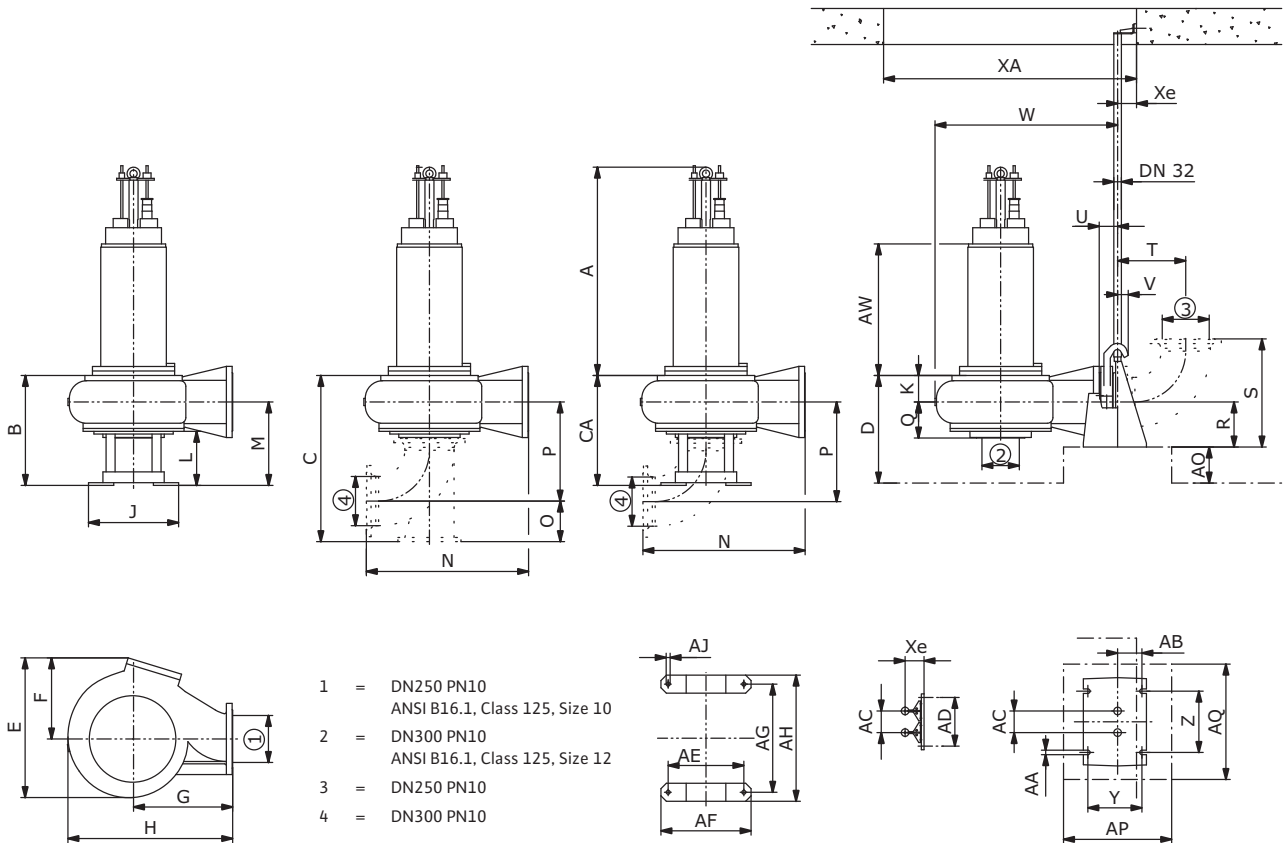
Wilo-EMU FA 25.93D (740 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	CA	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
[mm] Motor	552	953	552	547	930	523	630	1073	500	117	300	435	1030	255	581	178	250	600	378	
	U	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AO	AP	AQ
[mm]	99	60	1172	1400/1200	105	-	300	340	25	135	120	270	420	500	600	700	22	180	600	640

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 / 2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	DN 300	DN 250	70
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 300	-	104
Pump foot	52.10253	-	-	22.5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

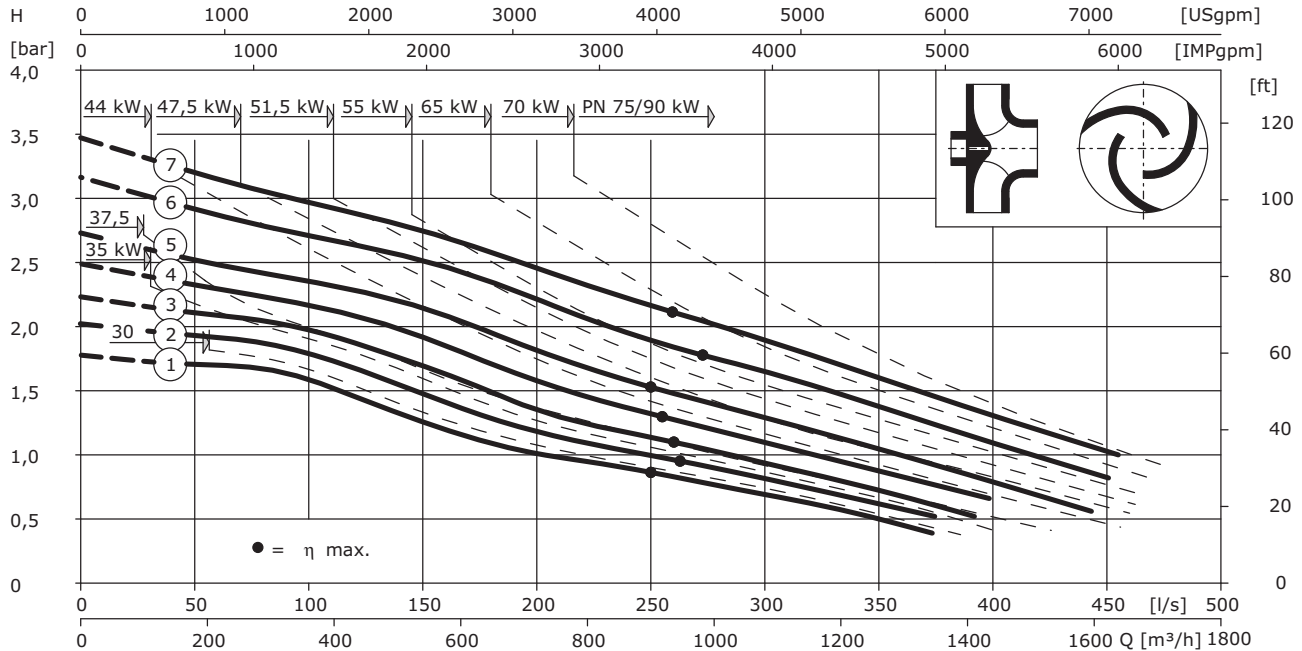
Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN200 up to DN250

Wilo-EMU FA 25.93D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	336	350	350	350
2	350	350	350	350
3	365	350	350	350
4	380	350	350	350
5	400	350	350	350

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	430	350	350	350
7	451	350	350	350
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
37.5	T 30-6/35K	42.5	75	841	1095	S1/-	ATEX, FM	456
44	T 30-6/41K	49.5	88	931	1185	S1/-	ATEX, FM	471
51.5	T 30-6/48K	58	102	1041	1295	S1/-	ATEX, FM	531
65	T 34-6/41K	70	124	935	1189	S1/-	ATEX, FM	581
70	T 34-6/50K	78	136	1005	1259	S1/-	ATEX, FM	647
Wet and dry sump installation								
35	FK 34.1-6/24	41	72	998	1252	S1/S1	–	595
47.5	FK 34.1-6/29	56	95	998	1252	S1/S1	–	635
55	FK 34.1-6/33	64	109	998	1252	S1/S1	–	667
65	FK 34.1-6/42	75	129	1118	1372	S1/S1	–	715
75	FK 34.1-6/50	86	151	1198	1452	S1/S1	–	780
90	FK 34.1-6/60	103	181	1293	1547	S1/S1	–	860

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN200 up to DN250

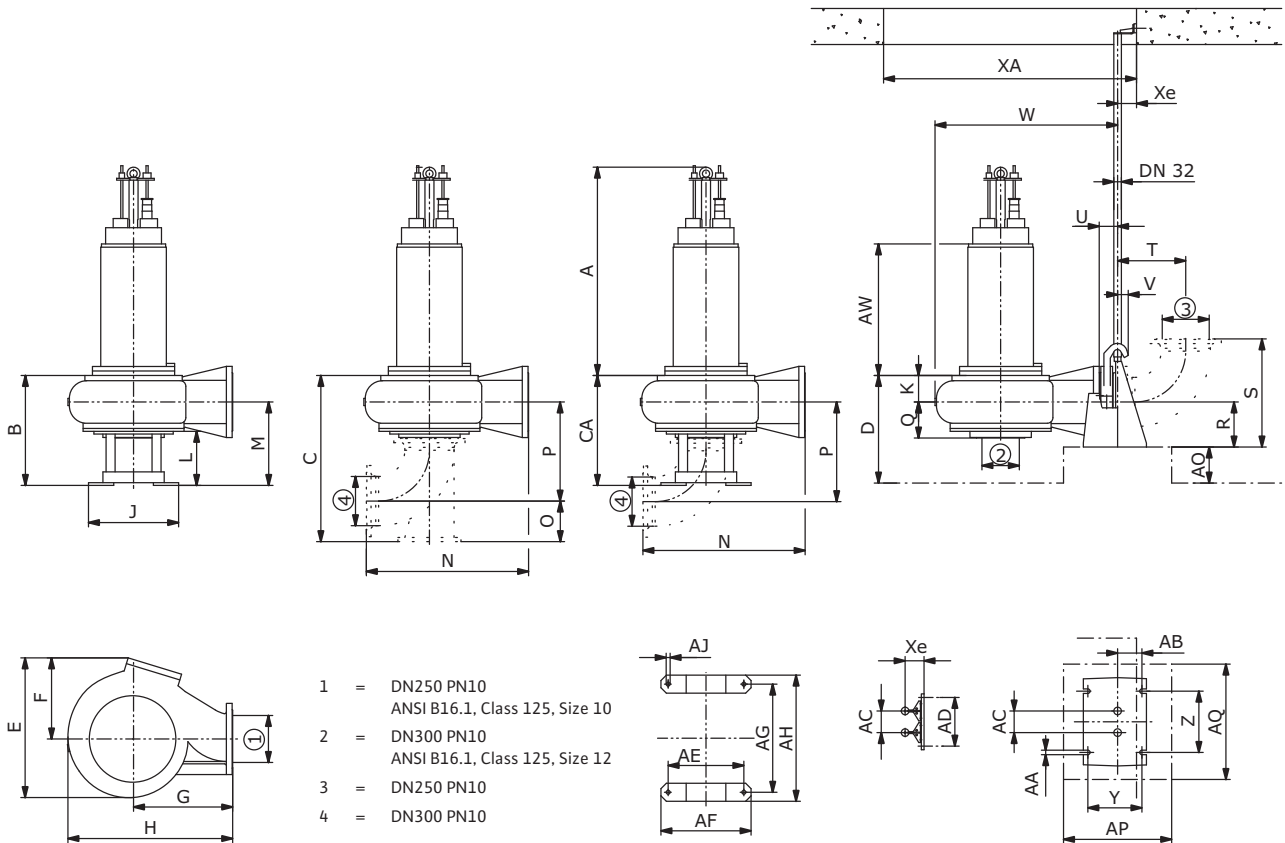
Wilo-EMU FA 25.93D (950 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	CA	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
[mm] Motor	552	953	552	547	930	523	630	1073	500	117	300	435	1030	255	581	178	250	600	378	
	U	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AO	AP	AQ
[mm]	99	60	1172	1400/1200	105	-	300	340	25	135	120	270	420	500	600	700	22	180	600	640

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 250 /2R 50.15121/1	159
Flanged elbow 90° (Q adapter)	-	DN 300	DN 250	70
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 /Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 300	-	104
Pump foot	52.10253	-	-	22.5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Submersible motor pumps
DN 200 to DN 250

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps from DN 300 to DN 600

Series description Wilo-EMU FA 30... to FA 60...



Wilo-EMU FA...

Sewage pump with submersible motor

Type key for hydraulics

Example: Wilo-EMU FA 60.83V

- FA** = Submersible sewage pump
- 60** = Nominal width of the pressure port DN 600 (x10)
- 83** = Performance characteristic number
- V** = Impeller type

Type key for motors

Example: Wilo-EMU T56-8/70G Ex

- T** = Motor version
- 56** = Size
- 8** = Number of poles
- 70** = Package length
- G** = Sealing version
- Ex** = Ex approval

Fields of application

Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas.

Construction

Submersible sewage pump as submersible monobloc unit for wet and dry sump installation.

Hydraulics

Housing and impeller made of grey cast iron. The outlets on the pressure side are designed as horizontal flange connections. The maximum possible dry substance content, depending on the hydraulics and impeller type, is 8%. The ball passages are between 80 and 170 mm.

Different impeller shapes are used:

- **Z** = Two-channel impeller
- **D** = Three-channel impeller
- **V** = Four-channel impeller

The hydraulics are equipped with a counter ring and stationary wear ring made of hardened materials. These easily exchangeable wear parts guarantee long-term efficiency of the unit.

Motor

Motor housing made of grey cast iron. Depending on the type of motor, the unit can run continuously in wet or dry sump installation.

The air-filled motors (T) give off their heat to the surrounding fluid and can therefore not be operated continuously outside of the fluid.

The self-cooling motors (F, FK, FO, FKT, HC) give off their heat directly to the pumped fluid via a built-in heat exchanger. They are suitable for permanent operation either submerged or surfaced.

The cable inlet is sealed longitudinally watertight in connection with the T-cable inlet. The cable length can be individually configured.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- On the fluid side with a mechanical seal, on motor side with a radial shaft sealing ring (version H)
- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Special materials and coatings against corrosion and abrasion
- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Switchgears
- Level controls

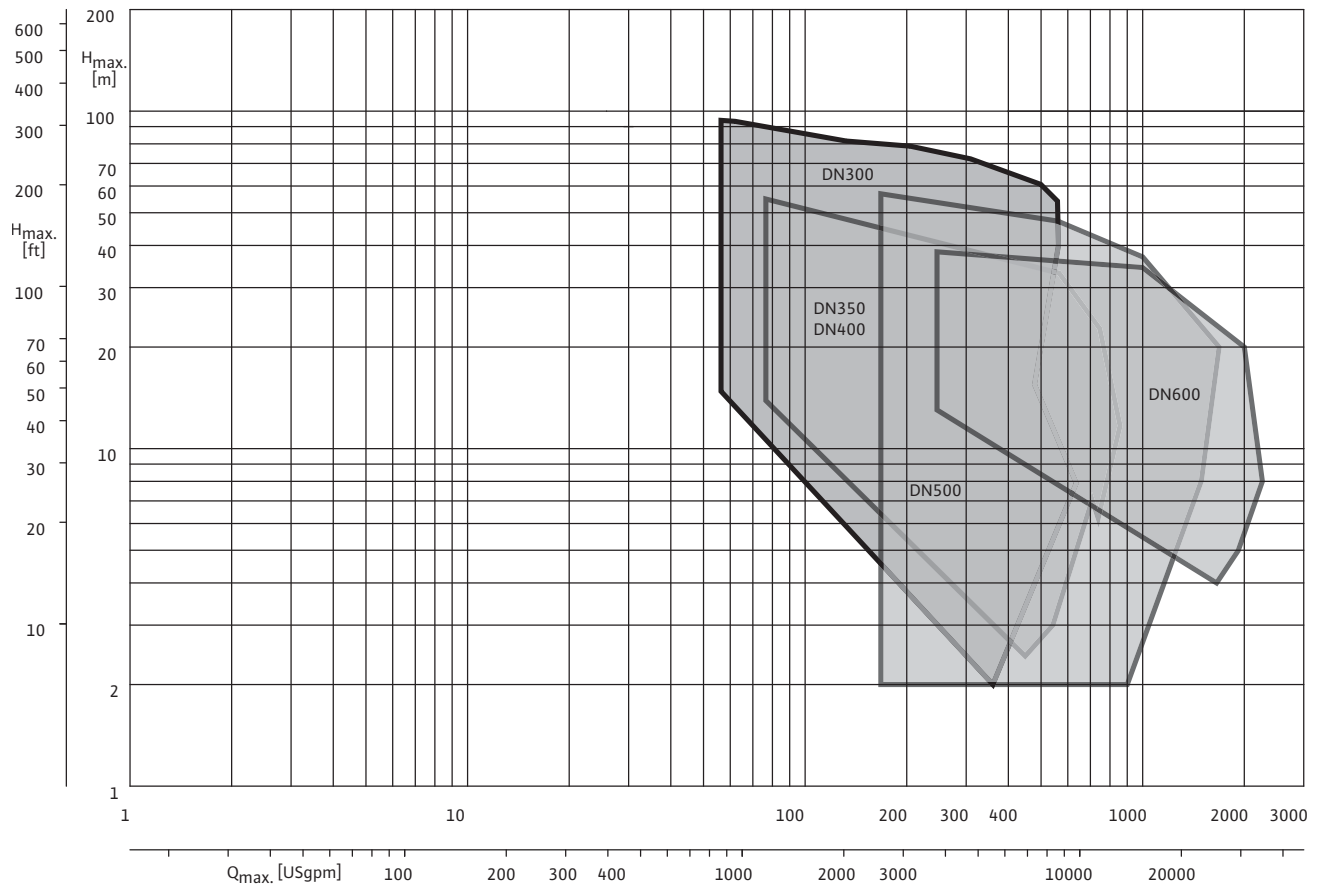
Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps from DN 300 to DN 600

Series description Wilo-EMU FA 30... to FA 60...

Overview diagram



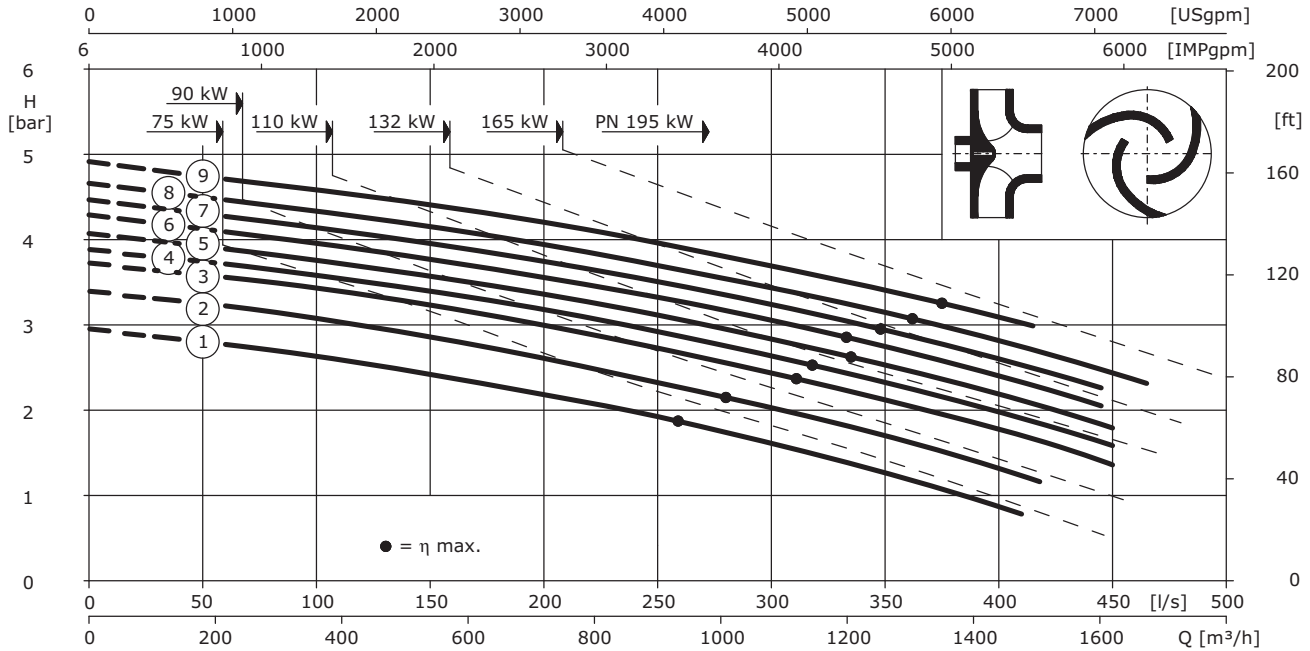
Submersible Motor Pumps DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 30.78D (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	585	640	699	-	6	691	640	699	-
2	615	640	699	-	7	705	640	699	-
3	645	640	699	-	8	720	640	699	-
4	660	640	699	-	9	740	640	699	-
5	675	640	699	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
75	T 42-8/40G	84	151	1207	1707	S1/-	-	1060
90	T 42-8/50G	99	179	1257	1757	S1/-	-	1160
110	T 49-8/36G	118	215	1241	2051	S1/-	FM	1485
132	T 49-8/43G	141	260	1241	2051	S1/-	FM	1600
165	T 49-8/53G	176	325	1391	2201	S1/-	FM	1765
195	T 49-8/58G	210	365	1391	2201	S1/-	FM	1850
Wet and dry sump installation								
75	FK 42.1-8/40	86	151	1195	1512	S1/S1	-	1235
90	FK 42.1-8/50	103	181	1350	1667	S1/S1	-	1345
110	FK 42.1-8/60	123	220	1350	1667	S1/S1	-	1540
132	FKT 49-8/53G	140	270	1423	2246	S1/S1	FM	1965
165	FKT 49-8/58G	175	315	1423	2246	S1/S1	FM	2060
195	FKT 56-8/53G	205	375	1431	2241	S1/S1	ATEX, FM	2460

Sewage Pumps for Municipal and Industrial Applications



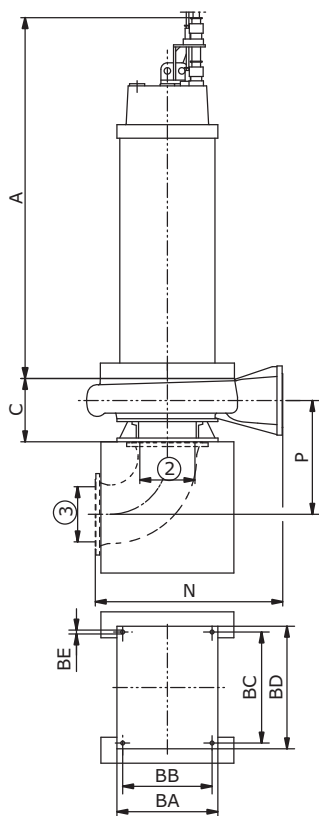
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 30.78D (740 rpm)

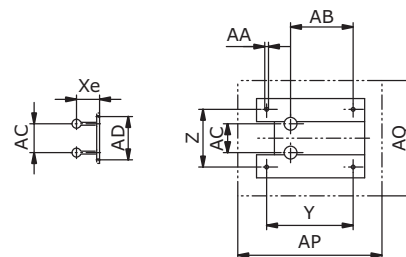
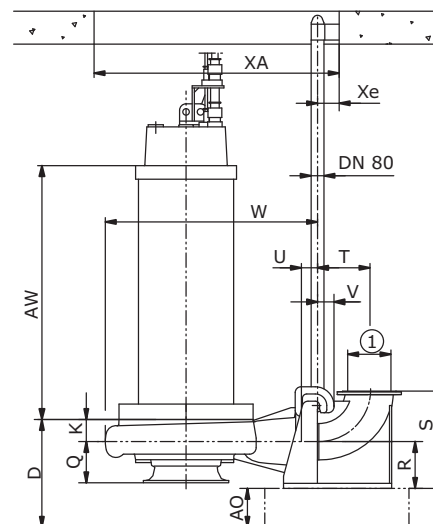
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN300 PN10
ANSI B16.1, Class 125, Size 12
- 2 = DN400 PN10
ANSI B16.1, Class 125, Size 16
- 3 = DN400 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	439	748	1113	595	800	1360	-	153	-	-	1300	-	789	286	325	675	359	112	
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	
[mm]	114	1472	1700/1300	150	-	600	400	26	434	200	410	270	1000	800	700	620	770	850	27	

Accessories and accessory weights

Description	Installation		Weight
	T	TA 1 incl. suction piece with foot plate	
-	-	-	-
-	-	-	[kg]
Suspension Unit	-	-	DN 300N / 2RK 50.16269 443.5
Flanged elbow 90° (Q adapter)	-	DN 400	116
Flanged elbow 90° with hose connection 4"	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-
Pump foot	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

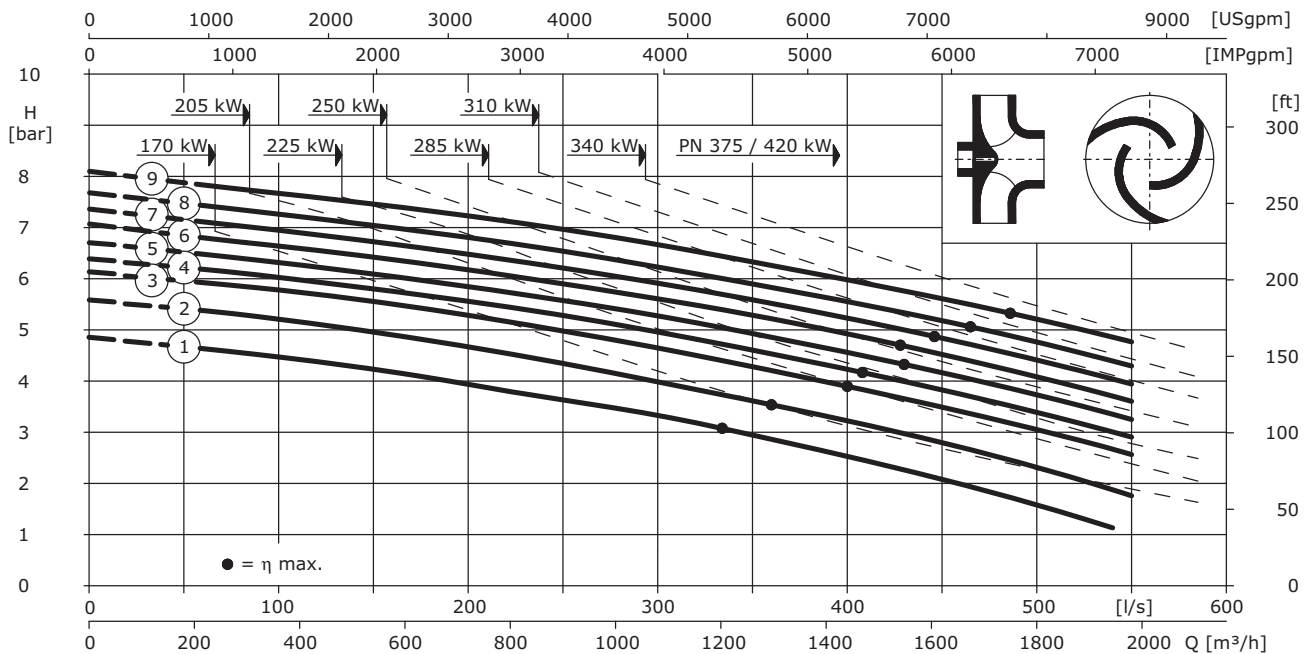
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 30.78D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	585	640	-	-	6	691	640	-	-
2	615	640	-	-	7	705	640	-	-
3	645	640	-	-	8	720	640	-	-
4	660	640	-	-	9	740	640	-	-
5	675	640	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
170	T 49-6/43G	180	305	1241	2051	S1/-	FM	1600
205	T 49-6/52G	220	365	1391	2201	S1/-	FM	1765
225	T 49-6/53G	240	400	1391	2201	S1/-	FM	1765
250	T 49-6/58G	265	445	1391	2201	S1/-	FM	1850
285	T 56-6/53G	300	510	1386	2196	S1/-	ATEX, FM	2160
310	T 56-6/58G	325	550	1386	2196	S1/-	ATEX, FM	2260
340	T 56-6/64G	355	610	1506	2316	S1/-	ATEX, FM	2375
375	T 56-6/70G	390	660	1506	2316	S1/-	-	2490
420	T 56-6/78G	435	730	1606	2416	S1/-	-	2650

Sewage Pumps for Municipal and Industrial Applications

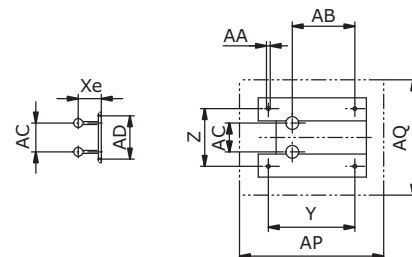
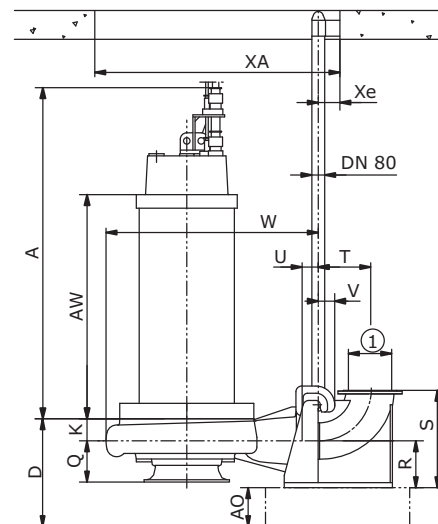
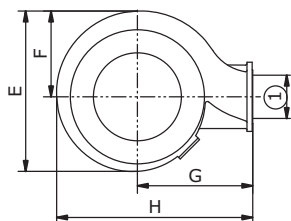
Submersible motor pumps for DN300 up to DN600



Wilo-EMU FA 30.78D (950 rpm)

Dimension drawing

Wet sump installation (BA)



1 = DN300 PN10
ANSI B16.1, Class 125, Size 12

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	-	-	748	1113	595	800	1360	-	153	-	-	-	-	-	286	325	675	359	112
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ						
[mm]	114	1472	1700/ 1300	150	-	600	400	26	434	200	410	270	1000	800						

Accessories and accessory weights

Description	Installation			Weight
	T	TA 1 incl. suction piece with foot plate	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 300N / 2RK 50.16269	443.5
Flanged elbow 90° (Q adapter)	-	-	-	-
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

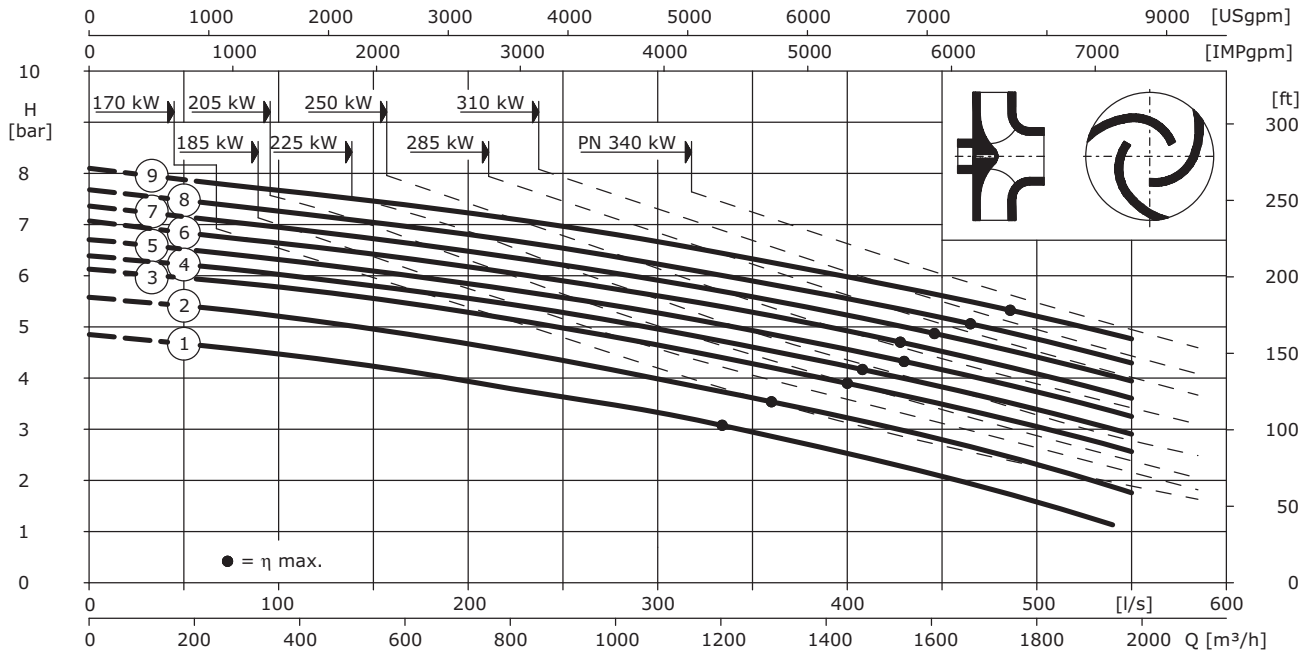
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 30.78D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	585	640	699	-	6	691	640	699	-
2	615	640	699	-	7	705	640	699	-
3	645	640	699	-	8	720	640	699	-
4	660	640	699	-	9	740	640	699	-
5	675	640	699	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet and dry sump installation								
170	FKT 49-6/52G	184	310	1423	2246	S1/S1	FM	1965
185	FKT 49-6/53G	194	335	1423	2246	S1/S1	FM	1965
205	FKT 49-6/58G	215	375	1423	2246	S1/S1	FM	2060
225	FKT 56-6/53G	245	410	1431	2241	S1/S1	ATEX, FM	2460
250	FKT 56-6/58G	270	455	1431	2241	S1/S1	ATEX, FM	2580
285	FKT 56-6/64G	305	520	1551	2361	S1/S1	ATEX, FM	2720
310	FKT 56-6/70G	325	560	1551	2361	S1/S1	-	2830
340	FKT 56-6/78G	370	640	1631	2441	S1/S1	-	2985

Sewage Pumps for Municipal and Industrial Applications



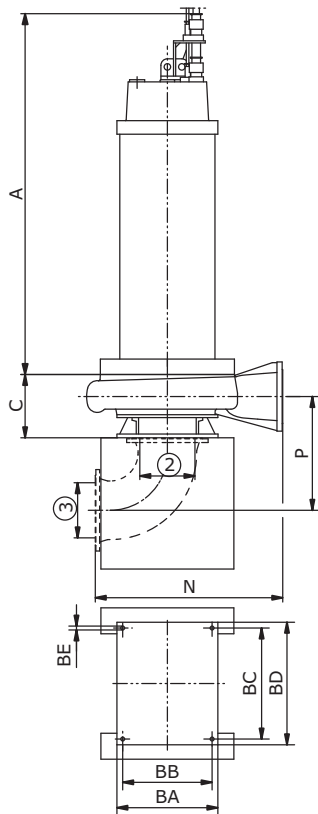
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 30.78D (950 rpm)

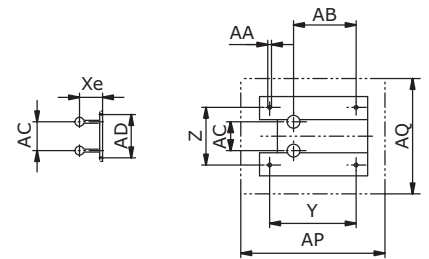
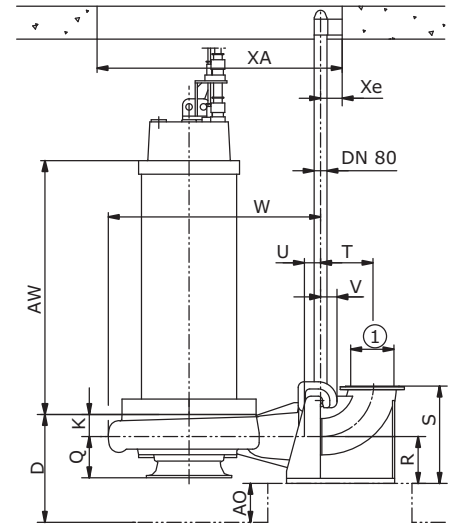
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN300 PN10
ANSI B16.1, Class 125, Size 12
- 2 = DN400 PN10
ANSI B16.1, Class 125, Size 16
- 3 = DN400 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	-	439	748	1113	595	800	1360	-	153	-	-	1300	-	789	286	325	675	359	112
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	
[mm]	114	1472	1700/ 1300	150	-	600	400	26	434	200	410	270	1000	800	700	620	770	850	27	

Accessories and accessory weights

Description	Installation			Weight
	T	TA 1 incl. suction piece with foot plate	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 300N / 2RK 50.16269	443.5
Flanged elbow 90° (Q adapter)	-	DN 400	-	116
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

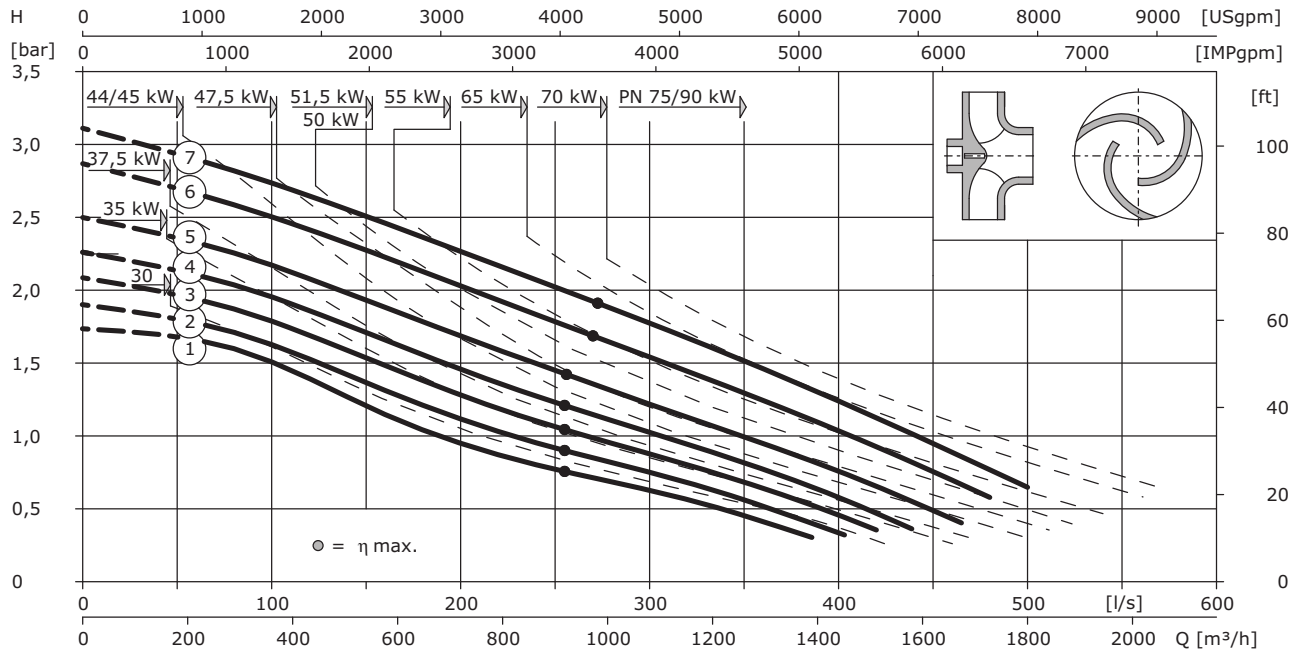
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 30.93D (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	336	340	340	340
2	350	340	340	340
3	365	340	340	340
4	380	340	340	340
5	400	340	340	340

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	430	340	340	340
7	451	340	340	340
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
30	T 30-6/28K	34	60	781	1035	S1/-	ATEX, FM	416
37.5	T 30-6/35K	42.5	75	841	1095	S1/-	ATEX, FM	456
44	T 30-6/41K	49.5	88	931	1185	S1/-	ATEX, FM	471
51.5	T 30-6/48K	58	102	1041	1295	S1/-	ATEX, FM	531
45	T 34-6/29K	49	85	855	1109	S1/-	ATEX, FM	494
50	T 34-6/32K	55	94	855	1109	S1/-	ATEX, FM	537
65	T 34-6/41K	70	124	935	1189	S1/-	ATEX, FM	581
70	T 34-6/50K	78	136	1005	1259	S1/-	ATEX, FM	647
Wet and dry sump installation								
35	FK 34.1-6/24	41	72	998	1252	S1/S1	–	595
47.5	FK 34.1-6/29	56	95	998	1252	S1/S1	–	635
55	FK 34.1-6/33	64	109	998	1252	S1/S1	–	667
65	FK 34.1-6/42	75	129	1118	1372	S1/S1	–	715
75	FK 34.1-6/50	86	151	1198	1452	S1/S1	–	780
90	FK 34.1-6/60	103	181	1293	1547	S1/S1	–	860

Sewage Pumps for Municipal and Industrial Applications



Submersible motor pumps for DN300 up to DN600

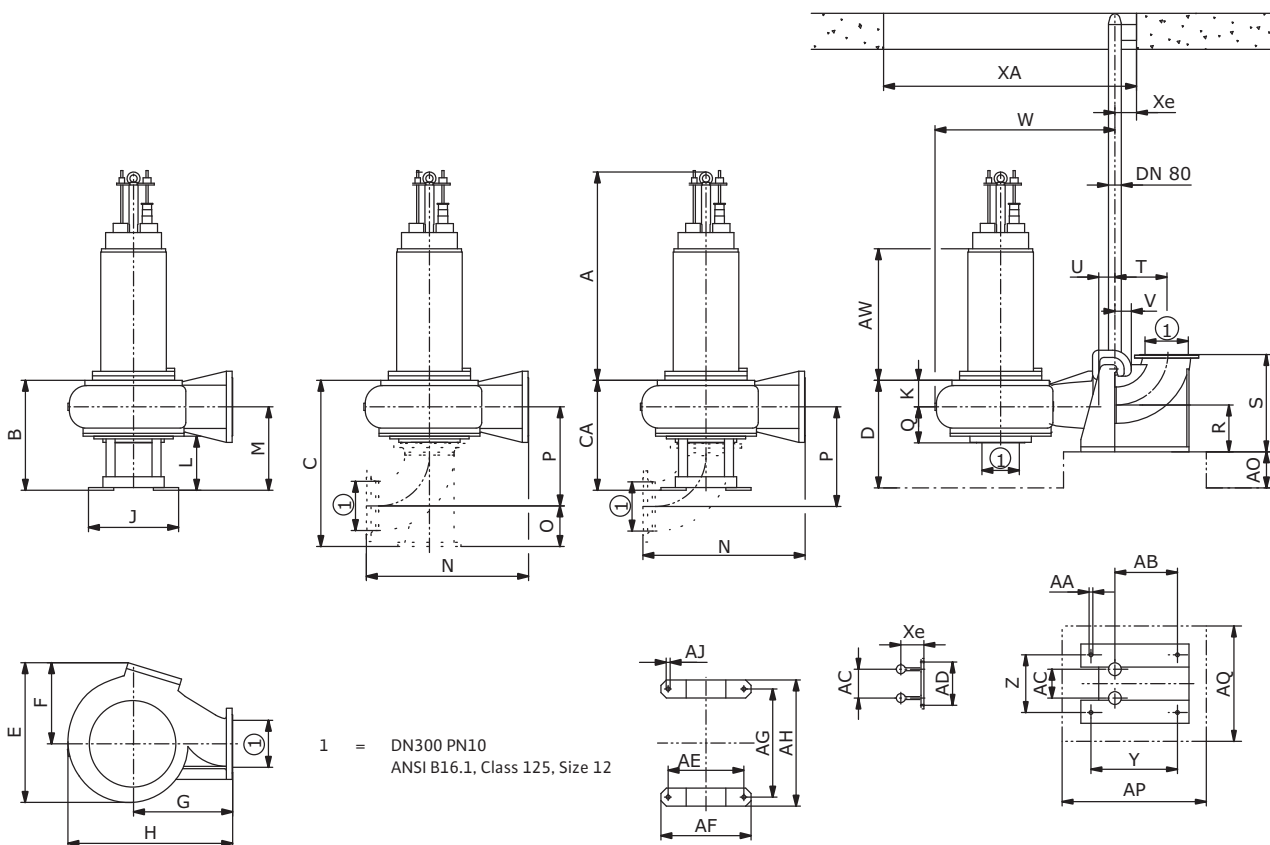
Wilo-EMU FA 30.93D (950 rpm)

Dimension drawing

Portable installation (T)

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	CA	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
[mm] Motor	552	953	552	602	930	523	680	1123	500	117	300	435	1080	255	581	178	325	675	359	
	U	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ					
[mm]	112	114	1222	1500/1200	150	-	600	400	26	434	200	410	160	1000	800					

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension Unit	-	-	DN 300N / 2RK 50.16269	443.5
Flanged elbow 90° (Q adapter)	-	DN 300	-	70
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanschbogen 90° mit Gewinde G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 300	-	104
Pump foot	52.10253	-	-	22.5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

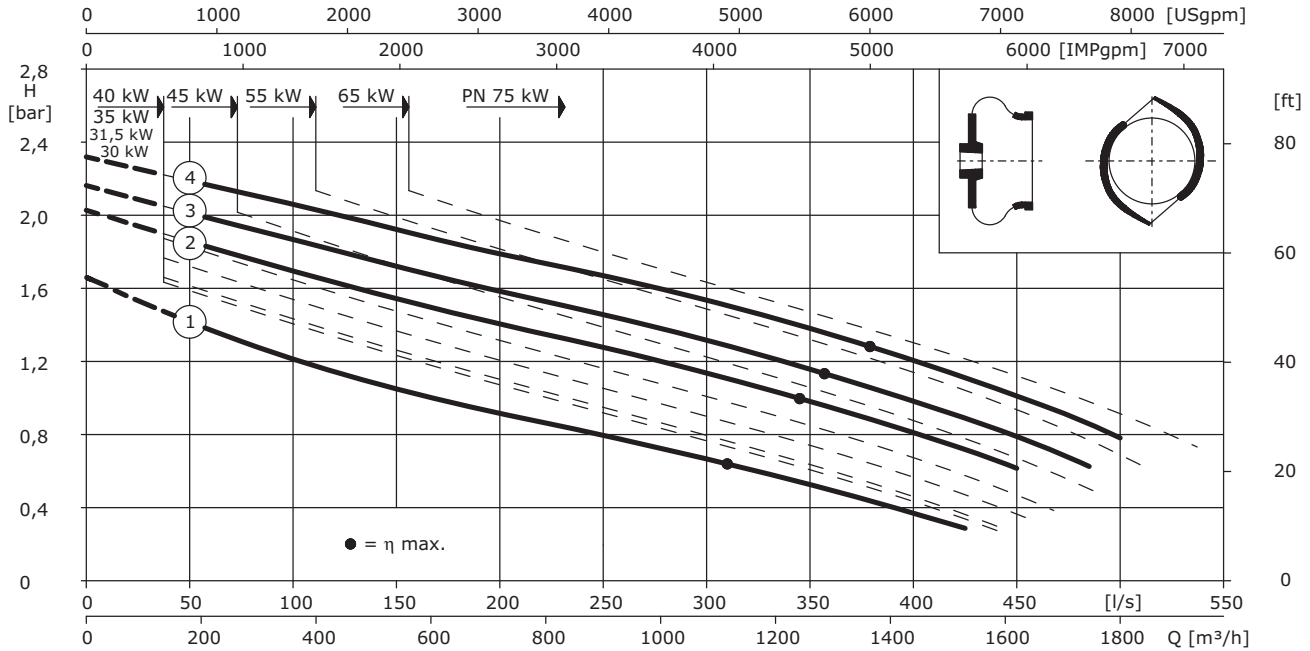
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 35.54Z (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA 1	TA 2			BA	TA 1	TA 2
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	478	605	680	548	-	-	-	-	-
2	510	605	680	548	-	-	-	-	-
3	522	605	680	548	-	-	-	-	-
4	535	605	680	548	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
31.5	T 30-8/45K	36	67	931	1185	S1/-	ATEX, FM	510
40	T 30-8/57K	45.5	85	1041	1295	S1/-	ATEX, FM	570
45	T 34-8/41K	52	93	935	1189	S1/-	ATEX, FM	581
55	T 34-8/50K	62	111	1005	1259	S1/-	ATEX, FM	647
65	T 42-8/34G	73	131	1107	1607	S1/-	-	1010
75	T 42-8/40G	84	151	1207	1707	S1/-	-	1060
Wet and dry sump installation								
30	FK 34.1-8/29	34.5	64	998	1252	S1/S1	-	635
35	FK 34.1-8/33	40	74	998	1252	S1/S1	-	667
45	FK 34.1-8/42	51	94	1118	1372	S1/S1	-	715
55	FK 34.1-8/50	62	115	1198	1452	S1/S1	-	780
65	FK 34.1-8/60	73	134	1293	1547	S1/S1	-	860
75	FK 42.1-8/40	86	151	1195	1512	S1/S1	-	1235

Sewage Pumps for Municipal and Industrial Applications

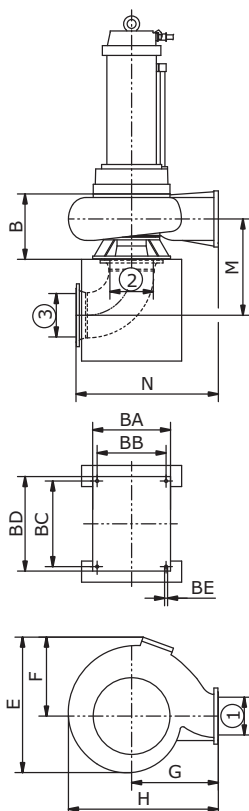


Submersible motor pumps for DN300 up to DN600

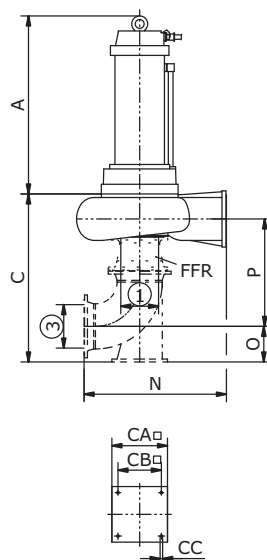
Wilo-EMU FA 35.54Z (740 rpm)

Dimension drawing

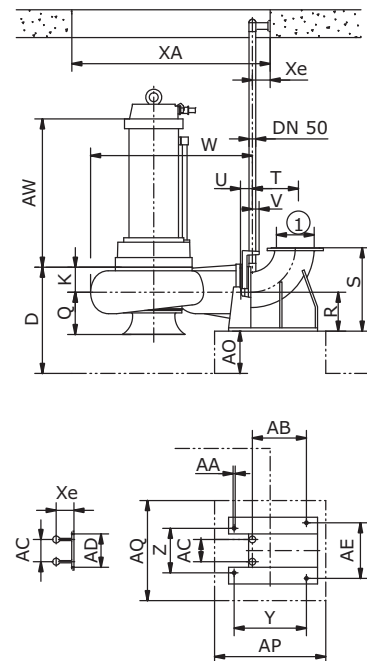
Dry sump installation 1 (TA)



Dry sump installation 2 (TA)



Wet sump installation (BA)



- 1 = DN350 PN10
ANSI B16.1, Class 125, Size 14
- 2 = DN400 PN10
ANSI B16.1, Class 125, Size 16
- 3 = DN400 PN10

Dimensions

	A	B	C	D	E	F	G	H	K	M	N	O	P	Q	R	S	T	U	V	W
[mm] Motor	588	1511	955	1218	710	780	1348	225	866	1280	320	966	380	350	750	386	107	61	1455	
	XAe	Xe	Y	Z	AA	AB	AC	AD	AE	AO	AP	AQ	BA	BB	BC	BD	BE	CA	CB	CC
[mm]	2000/ 1500	160	650	400	19	486	200	300	500	380	1000	900	700	620	770	850	27	500	390	23

Accessories and accessory weights

Description	Installation			Weight
	TA 1 incl. suction piece with foot plate	TA 2	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 350 / 2RK 50.16056	475
Flanged elbow 90° (Q adapter)	DN 400	-	-	116
Flange-Flange-Reduction (FFR)	-	DN 350 / DN 400	-	60
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 400	-	178
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

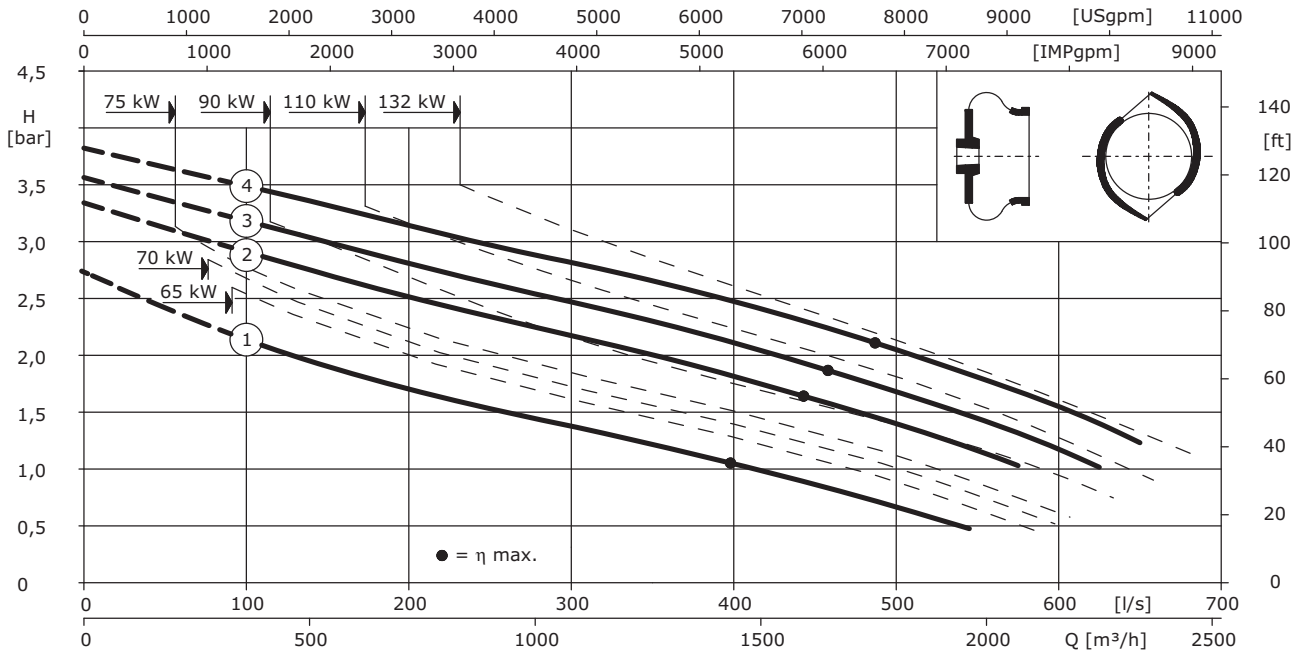
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 35.54Z (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA 1	TA 2			BA	TA 1	TA 2
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	478	605	680	548	-	-	-	-	-
2	510	605	680	548	-	-	-	-	-
3	522	605	680	548	-	-	-	-	-
4	535	605	680	548	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
65	T 34-6/41K	70	124	935	1189	S1/-	ATEX, FM	581
70	T 34-6/50K	78	136	1005	1259	S1/-	ATEX, FM	647
90	T 42-6/36G	98	177	1107	1607	S1/-	-	1020
110	T 42-6/46G	120	215	1207	1707	S1/-	-	1120
132	T 42-6/52G	144	260	1257	1757	S1/-	-	1180
Wet and dry sump installation								
65	FK 34.1-6/42	75	129	1118	1372	S1/S1	-	715
75	FK 34.1-6/50	86	151	1198	1452	S1/S1	-	780
90	FK 34.1-6/60	103	181	1293	1547	S1/S1	-	860
110	FK 42.1-6/46	125	230	1195	1512	S1/S1	-	1300
132	FK 42.1-6/50	149	270	1350	1667	S1/S1	-	1345
135	FKT 49-6/43G	143	250	1273	2096	S1/S1	FM	1800

Sewage Pumps for Municipal and Industrial Applications

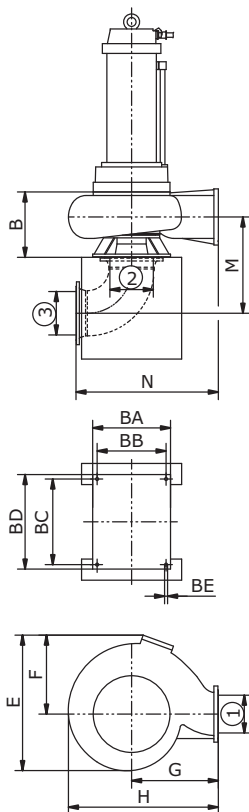


Submersible motor pumps for DN300 up to DN600

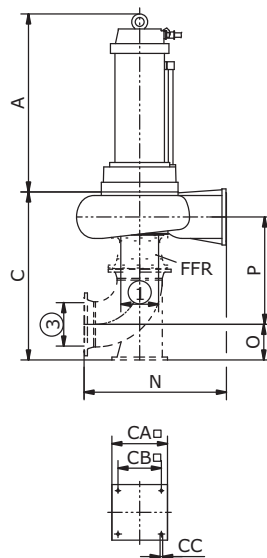
Wilo-EMU FA 35.54Z (950 rpm)

Dimension drawing

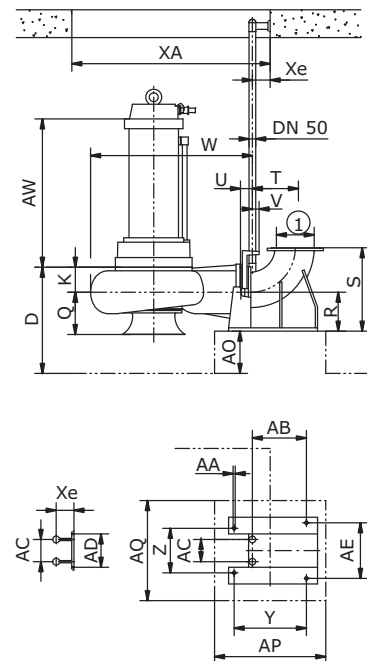
Dry sump installation 1 (TA)



Dry sump installation 2 (TA)



Wet sump installation (BA)



- 1 = DN350 PN10
ANSI B16.1, Class 125, Size 14
- 2 = DN400 PN10
ANSI B16.1, Class 125, Size 16
- 3 = DN400 PN10

Dimensions

	A	B	C	D	E	F	G	H	K	M	N	O	P	Q	R	S	T	U	V	W
[mm] Motor	588	1511	955	1218	710	780	1348	225	866	1280	320	966	380	350	750	386	107	61	1455	
	XAe	Xe	Y	Z	AA	AB	AC	AD	AE	AO	AP	AQ	BA	BB	BC	BD	BE	CA	CB	CC
[mm]	2000/ 1500	160	650	400	19	486	200	300	500	380	1000	900	700	620	770	850	27	500	390	23

Accessories and accessory weights

Description	Installation			Weight
	TA 1 incl. suction piece with foot plate	TA 2	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 350 / 2RK 50.16056	475
Flanged elbow 90° (Q adapter)	DN 400	-	-	116
Flange-Flange-Reduction (FFR)	-	DN 350 / DN 400	-	60
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 400	-	178
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

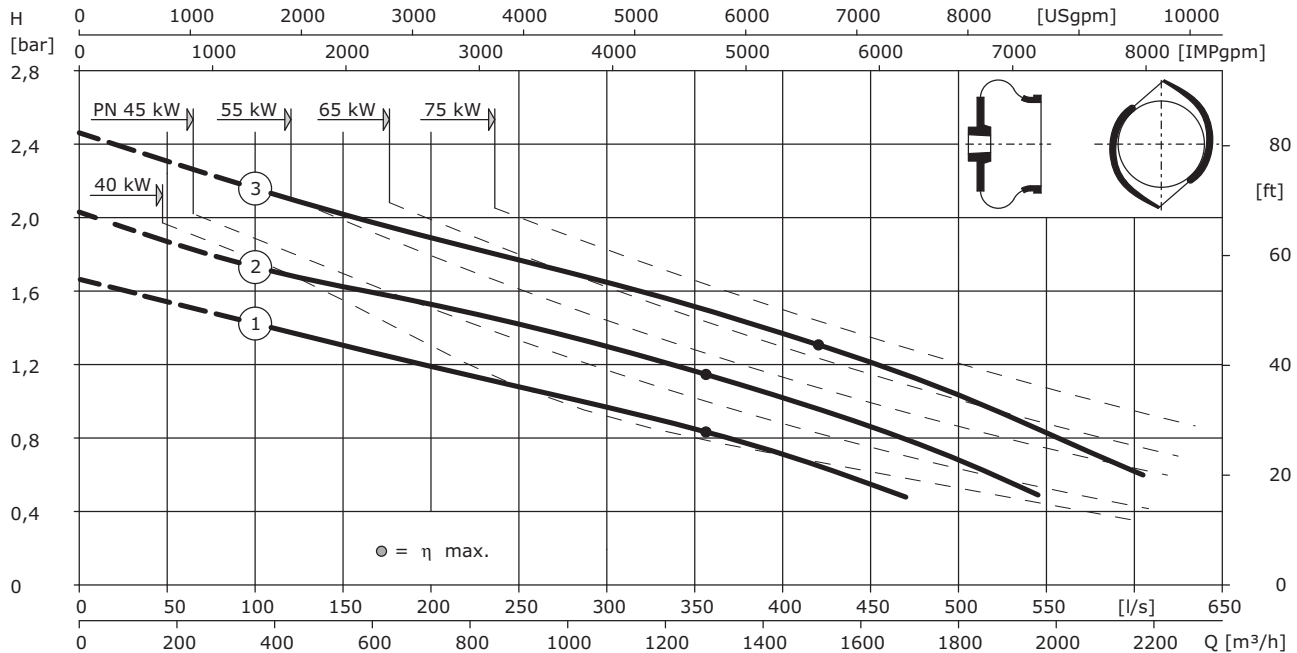
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 40.75Z (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA 1	TA 2			BA	TA 1	TA 2
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	500	859	1025	795	-	-	-	-	-
2	530	859	1025	795	-	-	-	-	-
3	560	859	1025	795	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
40	T 30-8/57K	45.5	85	1041	1295	S1/-	ATEX, FM	570
45	T 34-8/41K	52	93	935	1189	S1/-	ATEX, FM	581
55	T 34-8/50K	62	111	1005	1259	S1/-	ATEX, FM	647
65	T 42-8/34G	73	131	1107	1607	S1/-	-	1010
75	T 42-8/40G	84	151	1207	1707	S1/-	-	1060
Wet and dry sump installation								
45	FK 34.1-8/42	51	94	1118	1372	S1/S1	-	715
55	FK 34.1-8/50	62	115	1198	1452	S1/S1	-	780
65	FK 34.1-8/60	73	134	1293	1547	S1/S1	-	860
75	FK 42.1-8/40	86	151	1195	1512	S1/S1	-	1235

Sewage Pumps for Municipal and Industrial Applications

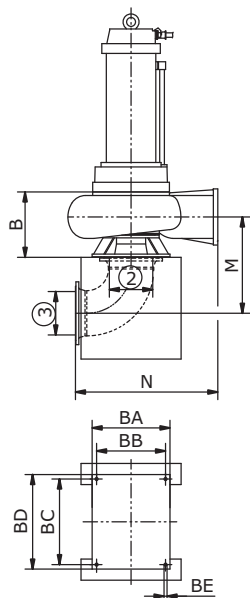


Submersible motor pumps for DN300 up to DN600

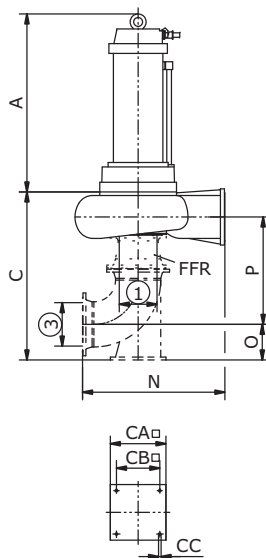
Wilo-EMU FA 40.75Z (740 rpm)

Dimension drawing

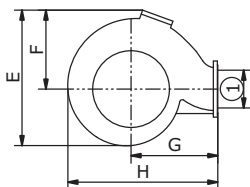
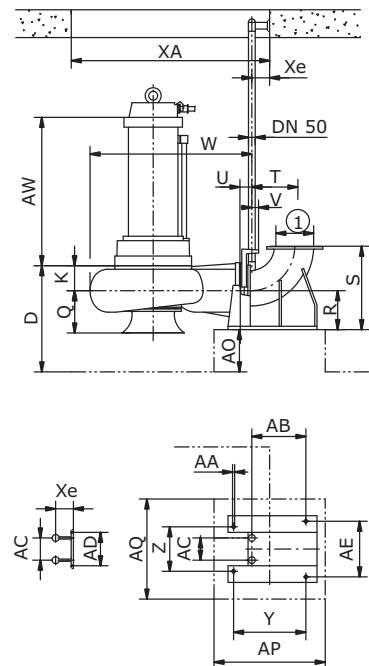
Dry sump installation 1 (TA)



Dry sump installation 2 (TA)



Wet sump installation (BA)



- 1 = DN400 PN10
ANSI B16.1, Class 125, Size 16
- 2 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 3 = DN500 PN10

Dimensions

	A	B	C	D	E	F	G	H	K	M	N	O	P	Q	R	S	T	U	V	W
[mm] Motor	673	1883	1050	1400	812	900	1565	250	1026	1500	385	1248	400	380	810	426	144	90	1709	
	XAe	Xe	Y	Z	AA	AB	AC	AD	AE	AO	AP	AQ	BA	BB	BC	BD	BE	CA	CB	CC
[mm]	2000/ 1800	160	730	520	26	499	200	300	620	420	1100	1000	900	780	980	1100	27	600	480	23

Accessories and accessory weights

Description	Installation			Weight
	TA 1 incl. suction piece with foot plate	TA 2	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 400 / 2RK 50.16008	640
Flanged elbow 90° (Q adapter)	DN 500	-	-	184
Flange-Flange-Reduction (FFR)	-	DN 400 / DN 500	-	110
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 500	-	286
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

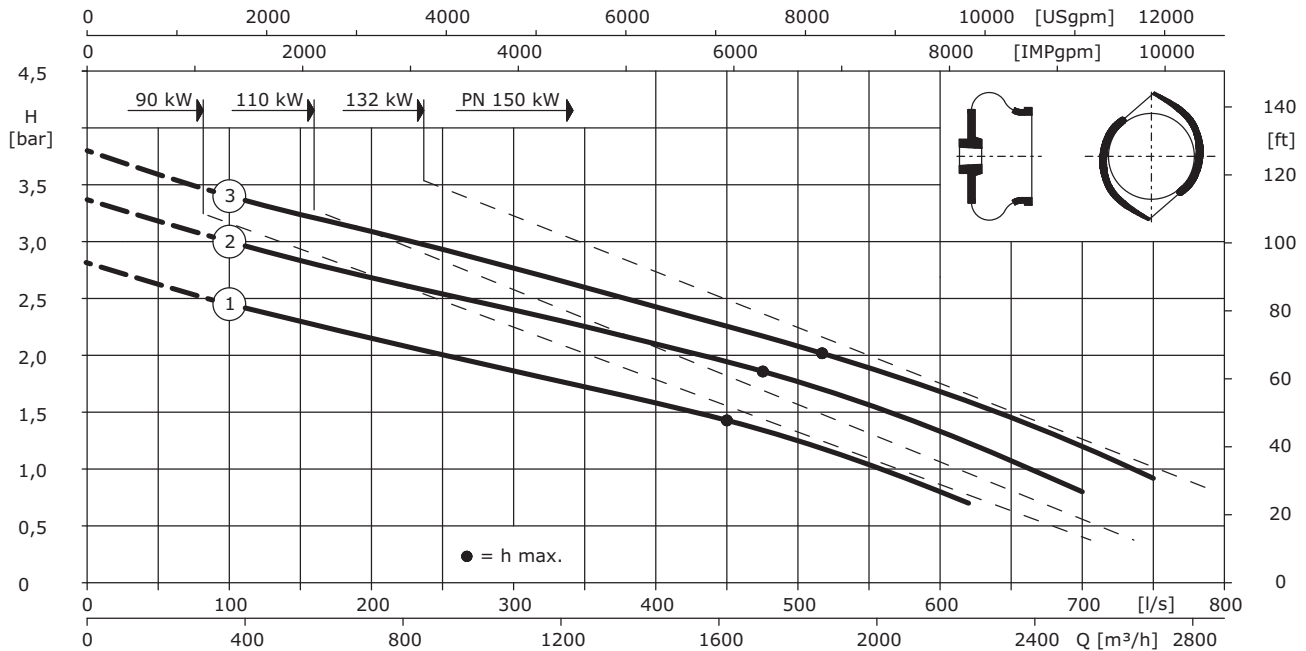
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 40.75Z (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA 1	TA 2			BA	TA 1	TA 2
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	500	859	1025	795	-	-	-	-	-
2	530	859	1025	795	-	-	-	-	-
3	548	859	1025	795	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
90	T 42-6/36G	98	177	1107	1607	S1/-	-	1020
110	T 42-6/46G	120	215	1207	1707	S1/-	-	1120
132	T 42-6/52G	144	260	1257	1757	S1/-	-	1180
Wet and dry sump installation								
90	FK 34.1-6/60	103	181	1293	1547	S1/S1	-	860
110	FK 42.1-6/46	125	230	1195	1512	S1/S1	-	1300
132	FK 42.1-6/50	149	270	1350	1667	S1/S1	-	1345
150	FK 42.1-6/60	169	305	1350	1667	S1/S1	-	1540

Sewage Pumps for Municipal and Industrial Applications

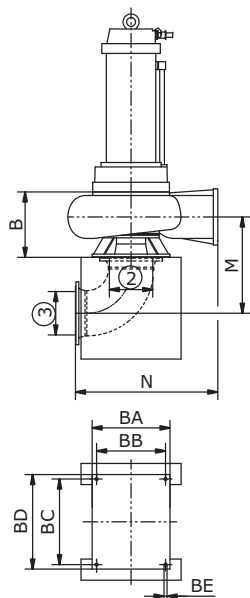


Submersible motor pumps for DN300 up to DN600

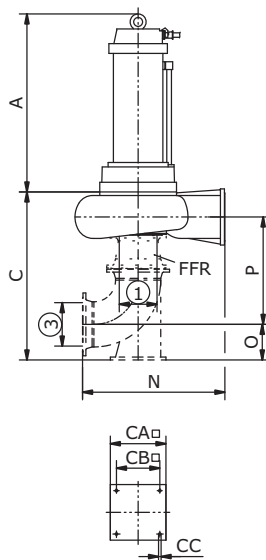
Wilo-EMU FA 40.75Z (950 rpm)

Dimension drawing

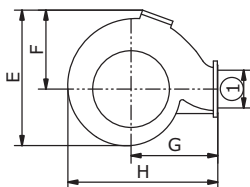
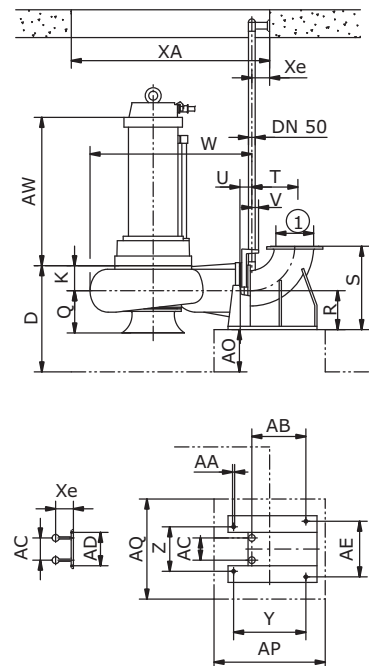
Dry sump installation 1 (TA)



Dry sump installation 2 (TA)



Wet sump installation (BA)



- 1 = DN400 PN10
ANSI B16.1, Class 125, Size 16
- 2 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 3 = DN500 PN10

Dimensions

	A	B	C	D	E	F	G	H	K	M	N	O	P	Q	R	S	T	U	V	W
[mm] Motor	673	1883	1050	1400	812	900	1565	250	1026	1500	385	1248	400	380	810	426	144	90	1709	
	XAe	Xe	Y	Z	AA	AB	AC	AD	AE	AO	AP	AQ	BA	BB	BC	BD	BE	CA	CB	CC
[mm]	2000/ 1800	160	730	520	26	499	200	300	620	420	1100	1000	900	780	980	1100	27	600	480	23

Accessories and accessory weights

Description	Installation			Weight
	TA 1 incl. suction piece with foot plate	TA 2	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 400 / 2RK 50.16008	640
Flanged elbow 90° (Q adapter)	DN 500	-	-	184
Flange-Flange-Reduction (FFR)	-	DN 400 / DN 500	-	110
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	DN 500	-	286
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

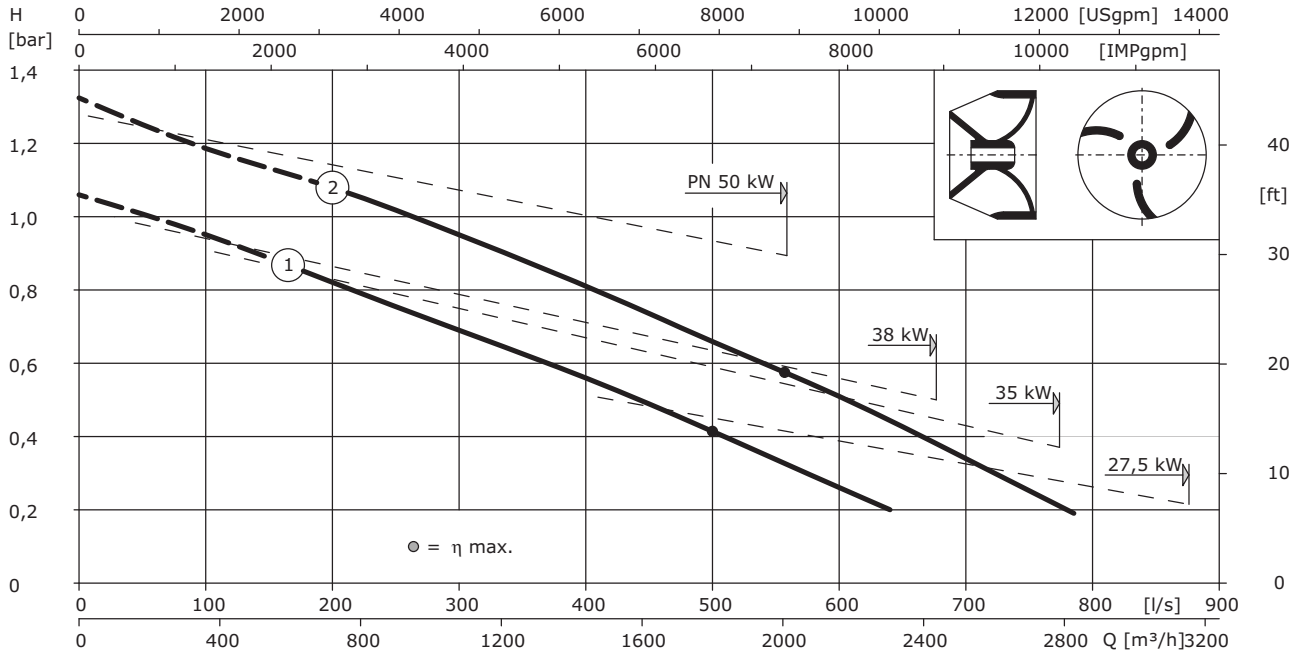
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.21D (585 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	430	990	1237	-	-	-	-	-	-
2	486	990	1237	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
27.5	T 34-10/29K	32.5	64	855	1109	S1/-	ATEX, FM	494
38	T 34-10/35K	43.5	87	855	1109	S1/-	ATEX, FM	537
50	T 34-10/49K	58	116	1005	1259	S1/-	ATEX, FM	647
Wet and dry sump installation								
27.5	FK 34.1-10/29	32.5	64	998	1252	S1/S1	-	635
35	FK 34.1-10/33	41	79	998	1252	S1/S1	-	667
50	FK 34.1-10/50	58	111	1198	1452	S1/S1	-	780

Sewage Pumps for Municipal and Industrial Applications



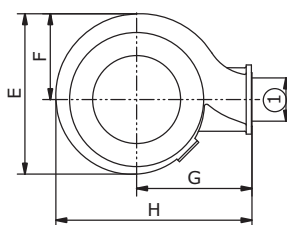
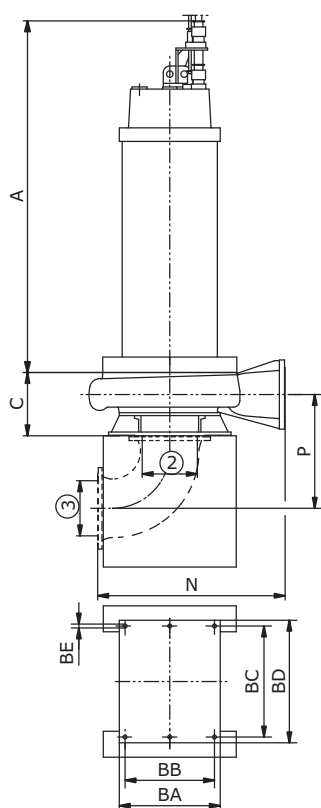
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.21D (585 rpm)

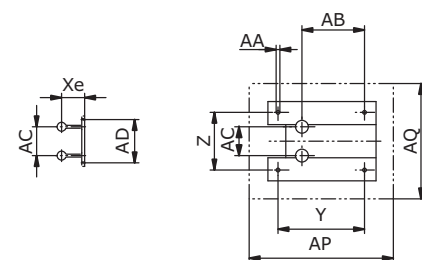
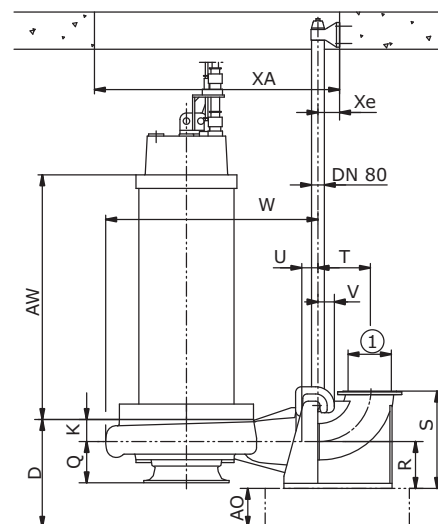
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 2 = DN600 PN10
ANSI B16.1, Class 125, Size 24
- 3 = DN600 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	-	786	1228	1345	807	950	1595	-	278	-	-	1650	-	1211	450	450	1000	556	114
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	-
[mm]	169	1710	2000/1800	140	-	830	650	26	646	300	400	500	1200	1100	1080	960	1180	1300	18	-

Accessories and accessory weights

Description	Installation			Weight
	TA	TA incl. suction piece with foot plate	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 500N / 2RK 50.16270/1	1070
Flanged elbow 90° (Q adapter)	-	DN 600	-	276
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

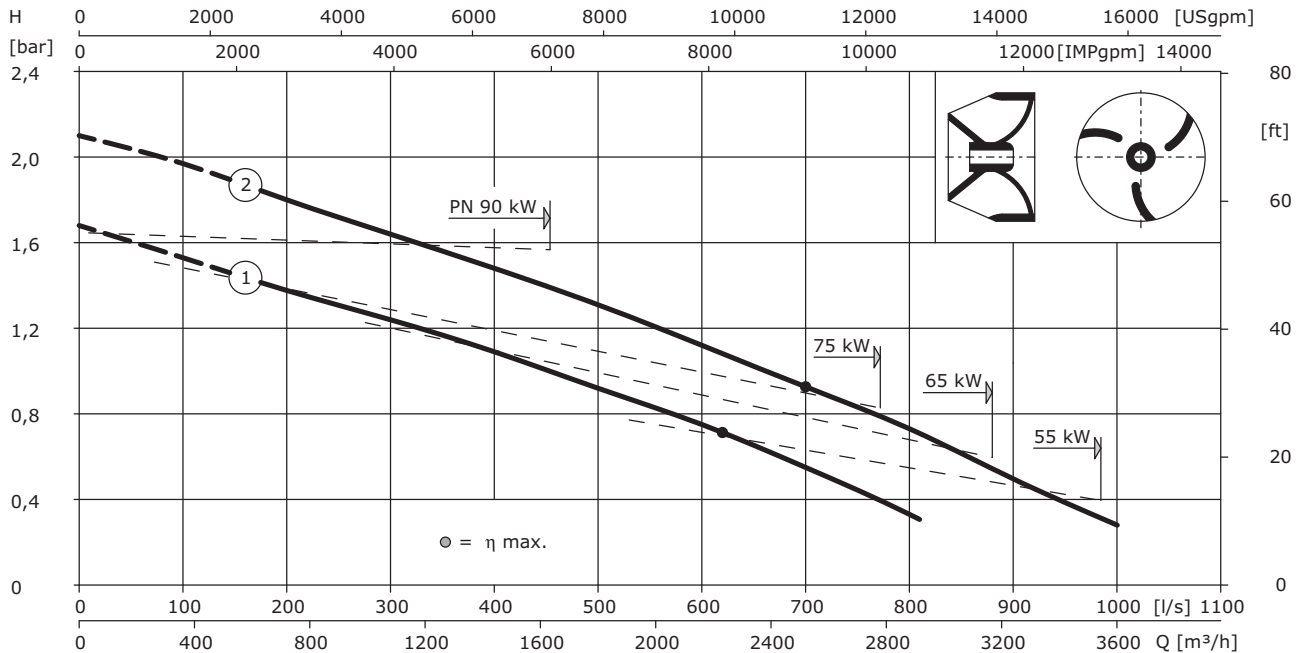
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.21D (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	430	990	1237	-	-	-	-	-	-
2	486	990	1237	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
55	T 34-8/50K	62	111	1005	1259	S1/-	ATEX, FM	647
65	T 42-8/34G	73	131	1107	1607	S1/-	-	1010
75	T 42-8/40G	84	151	1207	1707	S1/-	-	1060
90	T 42-8/50G	99	179	1257	1757	S1/-	-	1160
Wet and dry sump installation								
55	FK 34.1-8/50	62	115	1198	1452	S1/S1	-	780
65	FK 34.1-8/60	73	134	1293	1547	S1/S1	-	860
75	FK 42.1-8/40	86	151	1195	1512	S1/S1	-	1235
90	FK 42.1-8/50	103	181	1350	1667	S1/S1	-	1345

Sewage Pumps for Municipal and Industrial Applications



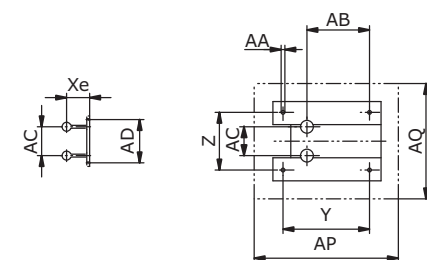
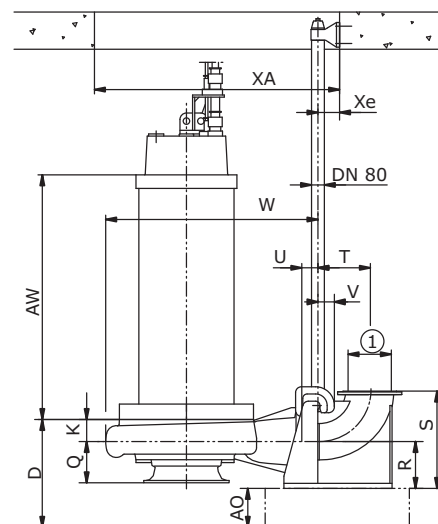
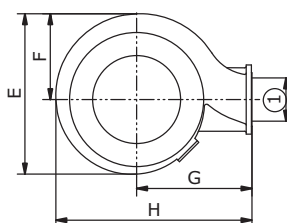
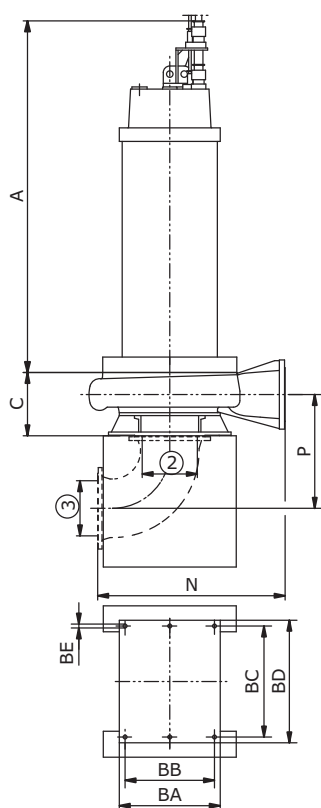
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.21D (740 rpm)

Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 2 = DN600 PN10
ANSI B16.1, Class 125, Size 24
- 3 = DN600 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	–	–	786	1228	1345	807	950	1595	–	278	–	–	1650	–	1211	450	450	1000	556	114
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	–
[mm]	169	1710	2000/ 1800	140	–	830	650	26	646	300	400	500	1200	1100	1080	960	1180	1300	18	–

Accessories and accessory weights

Description	Installation			Weight
	TA	TA incl. suction piece with foot plate	BA with inlet funnel	
–	–	–	–	–
–	–	–	–	[kg]
Suspension unit	–	–	DN 500N / 2RK 50.16270/1	1070
Flanged elbow 90° (Q adapter)	–	DN 600	–	276
Flanged elbow 90° with hose connection 4"	–	–	–	–
Flanged elbow 90° with thread G4 / Storz A	–	–	–	–
Flanged foot elbow 90° (N adapter)	–	–	–	–
Pump foot	–	–	–	–

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

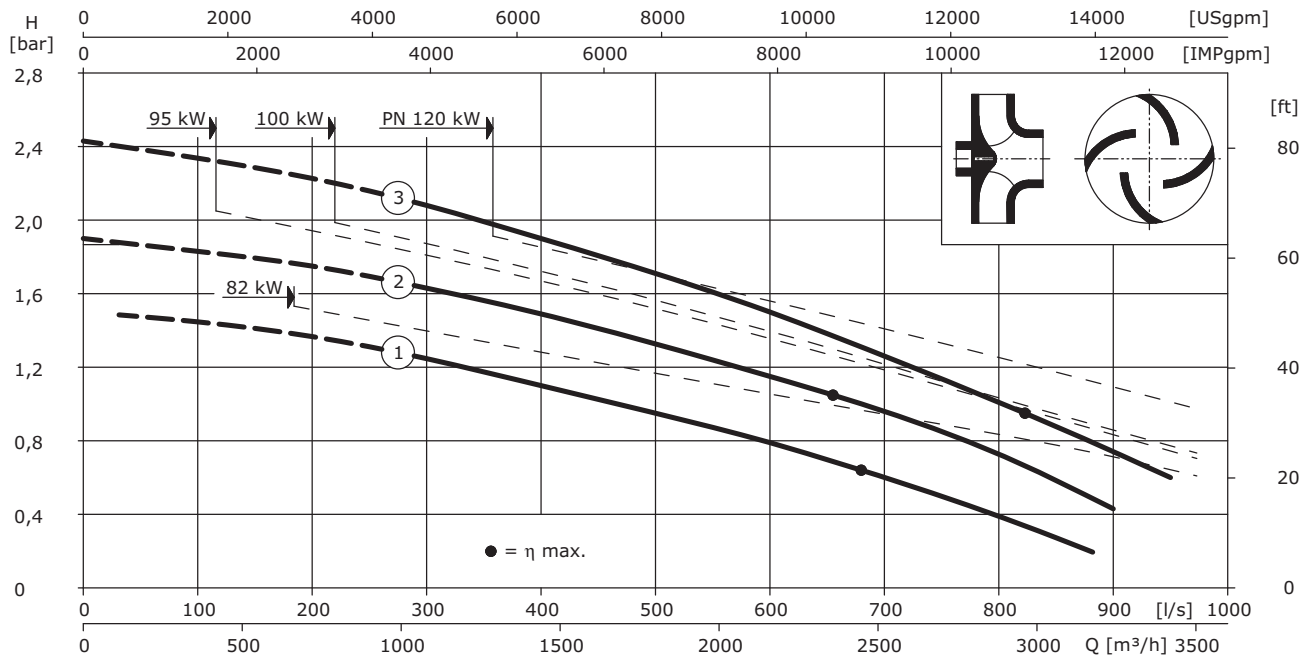
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.98V (585 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	580	1710	1940	-	-	-	-	-	-
2	635	1710	1940	-	-	-	-	-	-
3	690	1710	1940	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
82	T 49-10/30G	90	163	1241	2051	S1/-	FM	1385
95	T 49-10/36G	103	188	1241	2051	S1/-	FM	1485
120	T 49-10/43G	130	240	1241	2051	S1/-	FM	1600
Wet and dry sump installation								
100	FKT 49-10/43G	108	205	1273	2096	S1/S1	FM	1800
120	FKT 49-10/53G	129	245	1423	2246	S1/S1	FM	1965

Sewage Pumps for Municipal and Industrial Applications



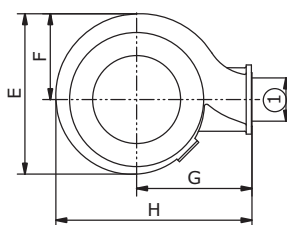
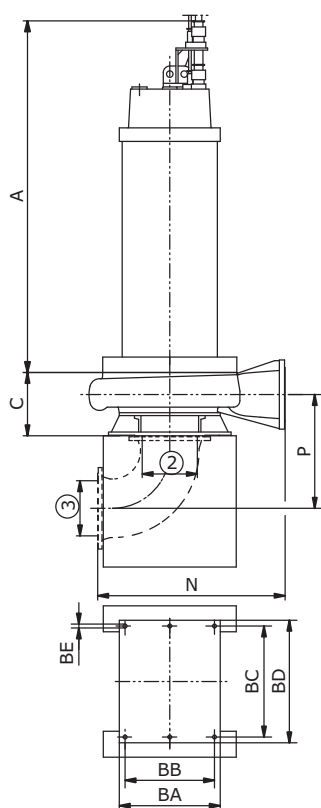
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.98V (585 rpm)

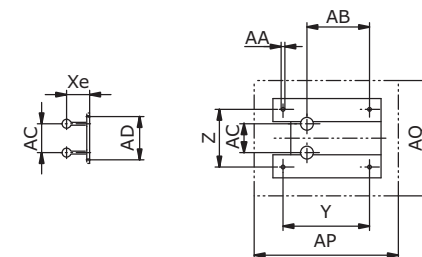
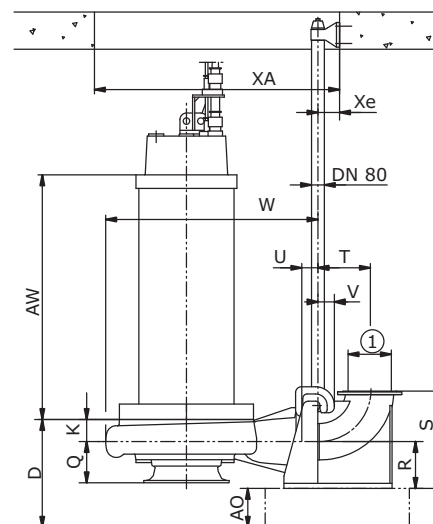
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 2 = DN600 PN10
ANSI B16.1, Class 125, Size 24
- 3 = DN600 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	-	730	1310	1530	868	1050	1806	-	230	-	-	1750	-	1203	573	450	1000	556	114
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	-
[mm]	169	1921	2200/2000	140	-	830	650	26	646	300	400	630	1200	1100	1200	1060	1280	1400	27	-

Accessories and accessory weights

Description	Installation			Weight
	TA	TA incl. suction piece with foot plate	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 500N / 2RK 50.16270/1	1070
Flanged elbow 90° (Q adapter)	-	DN 600	-	276
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

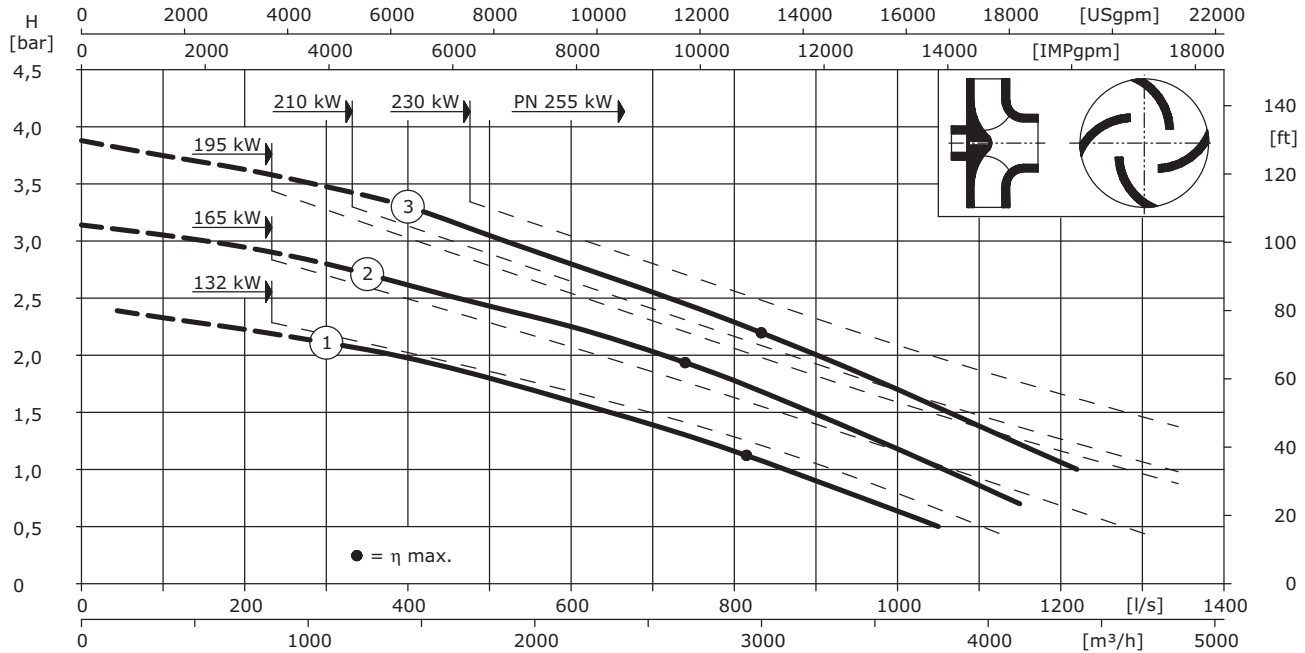
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.98V (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	580	1710	1940	-	-	-	-	-	-
2	635	1710	1940	-	-	-	-	-	-
3	690	1710	1940	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]					[kg]
Wet sump installation								
132	T 49-8/43G	141	260	1241	2051	S1/-	FM	1600
165	T 49-8/53G	176	325	1391	2201	S1/-	FM	1765
195	T 49-8/58G	210	365	1391	2201	S1/-	FM	1850
230	T 56-8/53G	245	435	1386	2196	S1/-	ATEX, FM	2160
255	T 56-8/58G	270	480	1386	2196	S1/-	ATEX, FM	2260
Wet and dry sump installation								
132	FKT 49-8/53G	140	270	1423	2246	S1/S1	FM	1965
165	FKT 49-8/58G	175	315	1423	2246	S1/S1	FM	2060
195	FKT 56-8/53G	205	375	1431	2241	S1/S1	ATEX, FM	2460
210	FKT 56-8/58G	230	405	1431	2241	S1/S1	ATEX, FM	2580
230	FKT 56-8/64G	250	445	1551	2361	S1/S1	ATEX, FM	2720
255	FKT 56-8/70G	275	490	1551	2361	S1/S1	ATEX, FM	2830

Sewage Pumps for Municipal and Industrial Applications



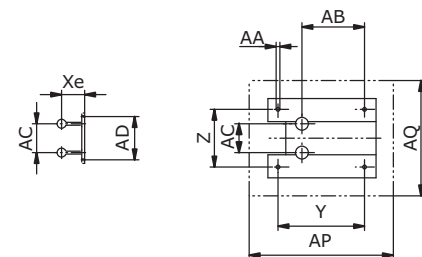
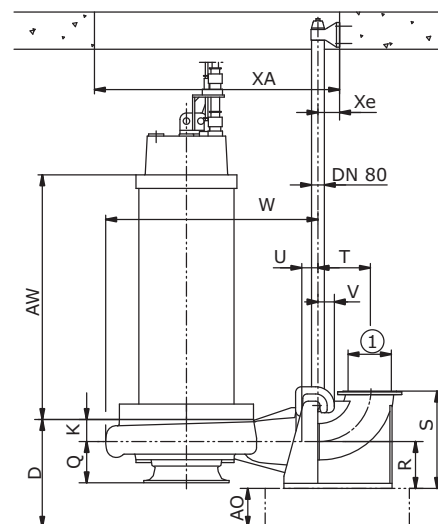
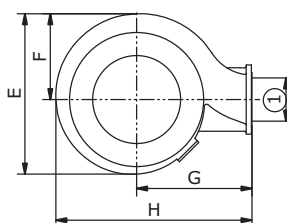
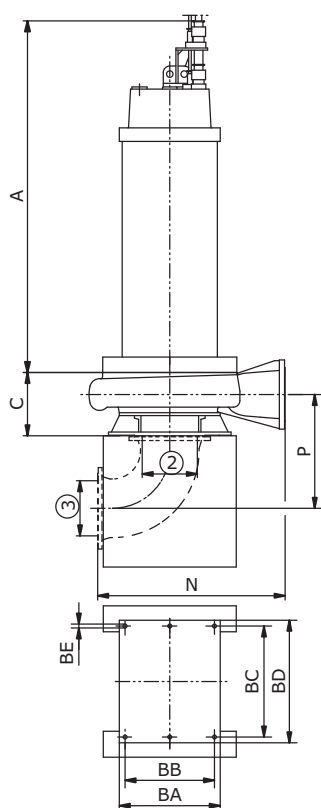
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.98V (740 rpm)

Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 2 = DN600 PN10
ANSI B16.1, Class 125, Size 24
- 3 = DN600 PN10

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	730	1310	1530	868	1050	1806	-	230	-	-	1750	-	1203	573	450	1000	556	114	
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	-
[mm]	169	1921	2200/2000	140	-	830	650	26	646	300	400	630	1200	1100	1200	1060	1280	1400	27	-

Accessories and accessory weights

Description	Installation			Weight
	TA	TA incl. suction piece with foot plate	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 500N / 2RK 50.16270/1	1070
Flanged elbow 90° (Q adapter)	-	DN 600	-	276
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

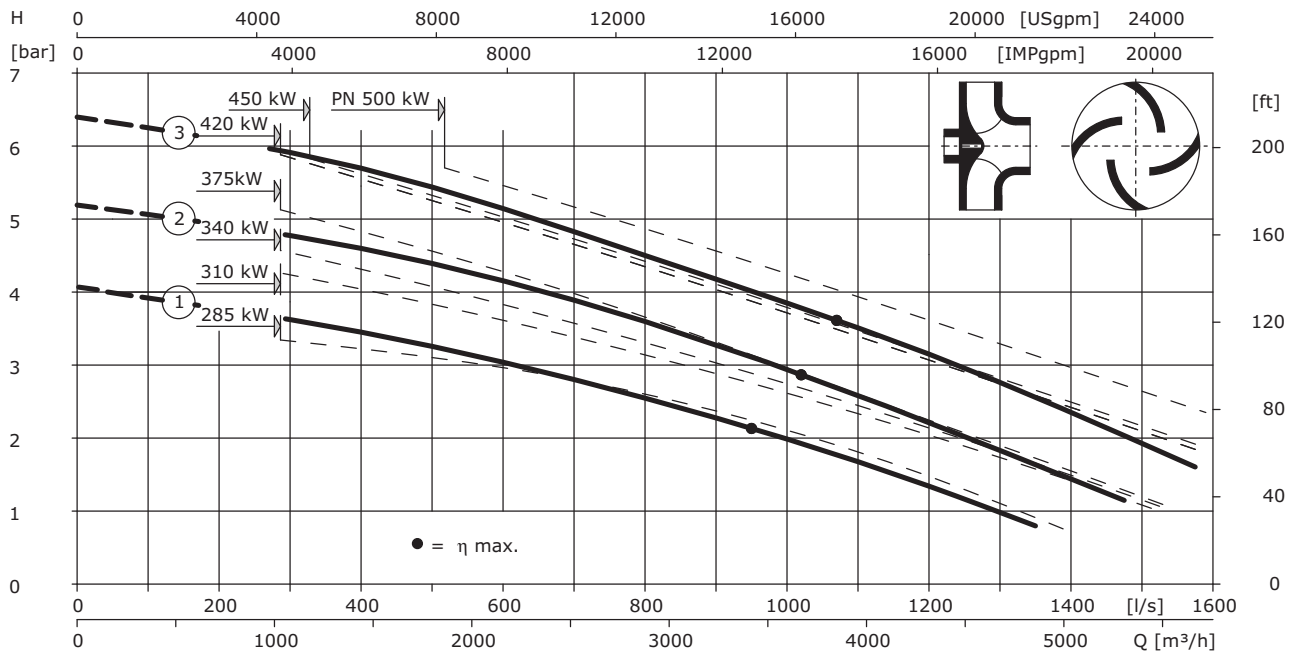
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.98V (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	580	1710	1940	-
2	635	1710	1940	-
3	690	1710	1940	-
-	-	-	-	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
285	T 56-6/53G	300	510	1386	2196	S1/-	ATEX, FM	2160
310	T 56-6/58G	325	550	1386	2196	S1/-	ATEX, FM	2260
340	T 56-6/64G	355	610	1506	2316	S1/-	ATEX, FM	2375
375	T 56-6/70G	390	660	1506	2316	S1/-	-	2490
420	T 56-6/78G	435	730	1606	2416	S1/-	-	2650
500	T 72-6/54G	520	880	1790	2615	S1/-	-	4210
Wet and dry sump installation								
285	FKT 56-6/64G	305	520	1551	2361	S1/S1	ATEX, FM	2720
310	FKT 56-6/70G	325	560	1551	2361	S1/S1	-	2830
340	FKT 56-6/78G	370	640	1631	2441	S1/S1	-	2985
420	FKT 72-6/54G	450	760	1757	2533	S1/S1	-	4695
450	FKT 72-6/60G	480	820	1840	2616	S1/S1	-	4885
500	FKT 72-6/66G	540	910	1877	2653	S1/S1	-	5090

Sewage Pumps for Municipal and Industrial Applications



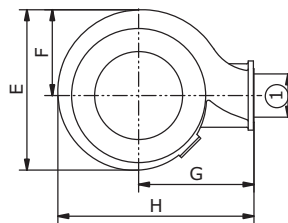
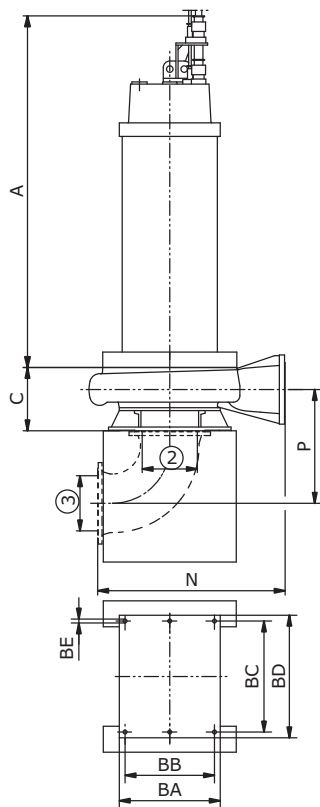
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 50.98V (950 rpm)

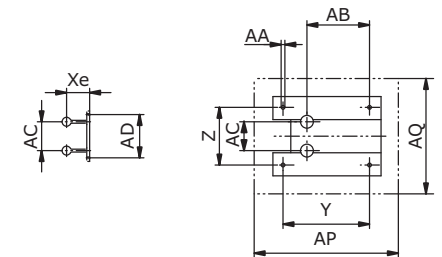
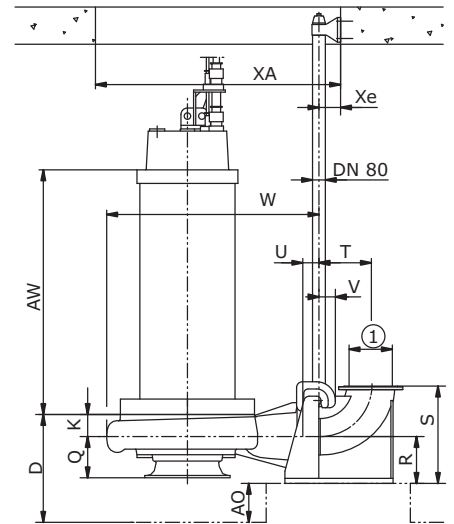
Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



- 1 = DN500 PN10
ANSI B16.1, Class 125, Size 20
- 2 = DN600 PN10
ANSI B16.1, Class 125, Size 24
- 3 = DN600 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	-	730	1310	1530	868	1050	1806	-	230	-	-	1750	-	1203	573	450	1000	556	114
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	-
[mm]	169	1921	2200/2000	140	-	830	650	26	646	300	400	630	1200	1100	1200	1060	1280	1400	27	-

Accessories and accessory weights

Description	Installation			Weight
	TA	TA incl. suction piece with foot plate	BA with inlet funnel	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 500N / 2RK 50.16270/1	1070
Flanged elbow 90° (Q adapter)	-	DN 600	-	276
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

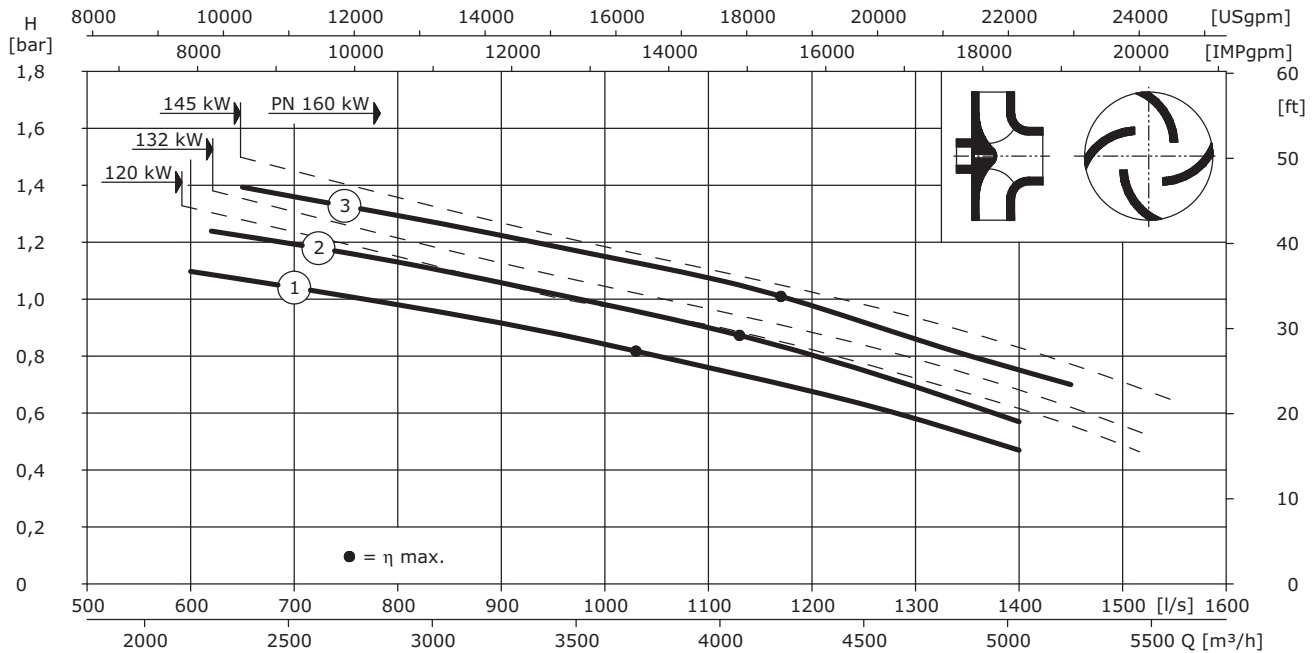
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 60.83V (585 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	485	1600	2040	-	-	-	-	-	-
2	545	1600	2040	-	-	-	-	-	-
3	605	1600	2040	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
120	T 49-10/43G	130	240	1241	2051	S1/-	FM	1600
145	T 49-10/53G	156	285	1391	2201	S1/-	FM	1765
160	T 49-10/58G	171	315	1391	2201	S1/-	FM	1850
Wet and dry sump installation								
120	FKT 49-10/53G	129	245	1423	2246	S1/S1	FM	1965
132	FKT 49-10/58G	141	270	1423	2246	S1/S1	FM	2060
160	FKT 56-10/53G	174	310	1431	2241	S1/S1	ATEX, FM	2460

Sewage Pumps for Municipal and Industrial Applications



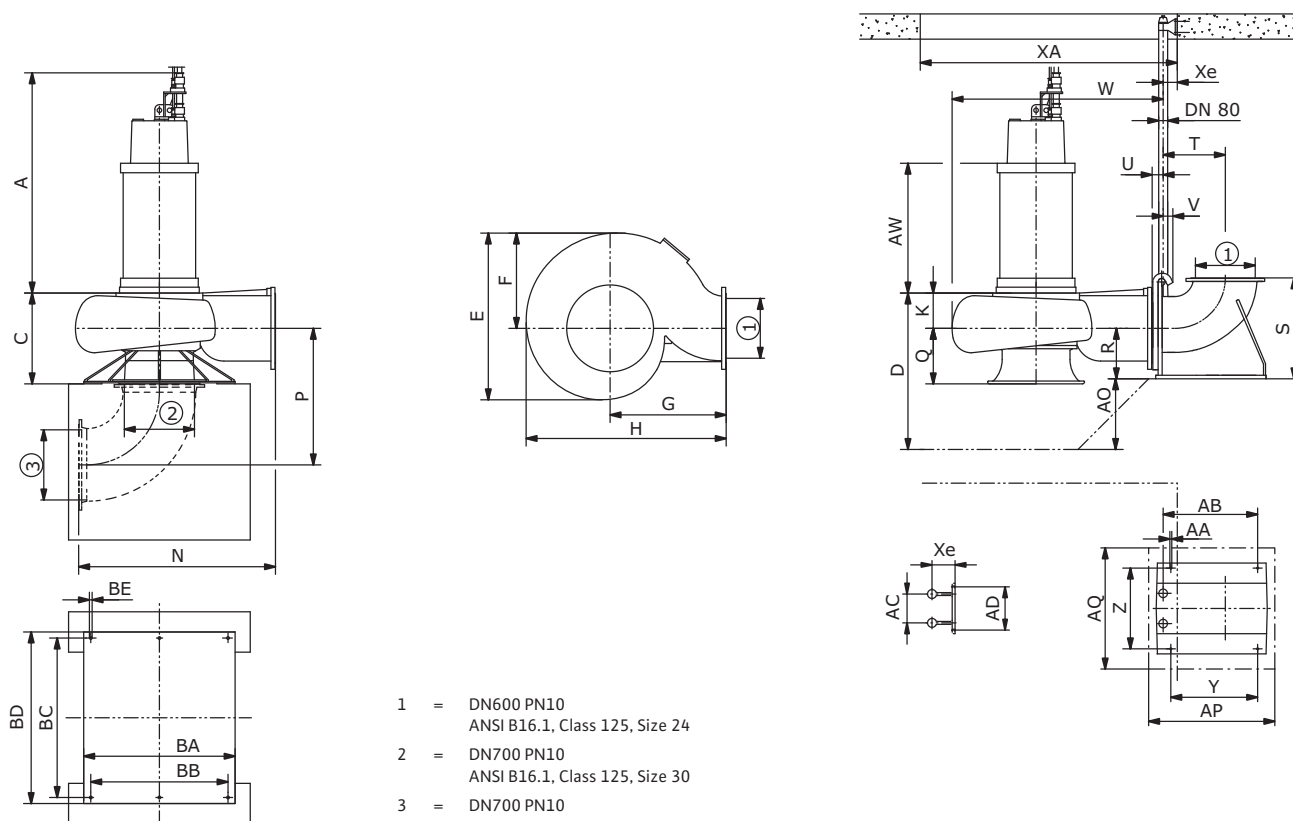
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 60.83V (585 rpm)

Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	-	940	1575	1652	944	1150	1982	-	375	-	-	1950	-	1353	550	500	1000	616	109	
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	-
[mm]	114	2091	2500/2000	140	-	860	800	26	936	300	400	700	1250	1200	1500	1360	1580	1700	27	-

Accessories and accessory weights

Description	Installation			Weight
	T	TA inkl. Saugstutzen mit Fußplatte	BA mit Einlauftrichter	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 600N / 2RK 50.15900	970
Flanged elbow 90° (Q adapter)	-	DN 700	-	394
Flanged elbow 90° with hose connection 4"	-	-	-	-
Flanged elbow 90° with thread G4 / Storz A	-	-	-	-
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	-	-	-	-

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

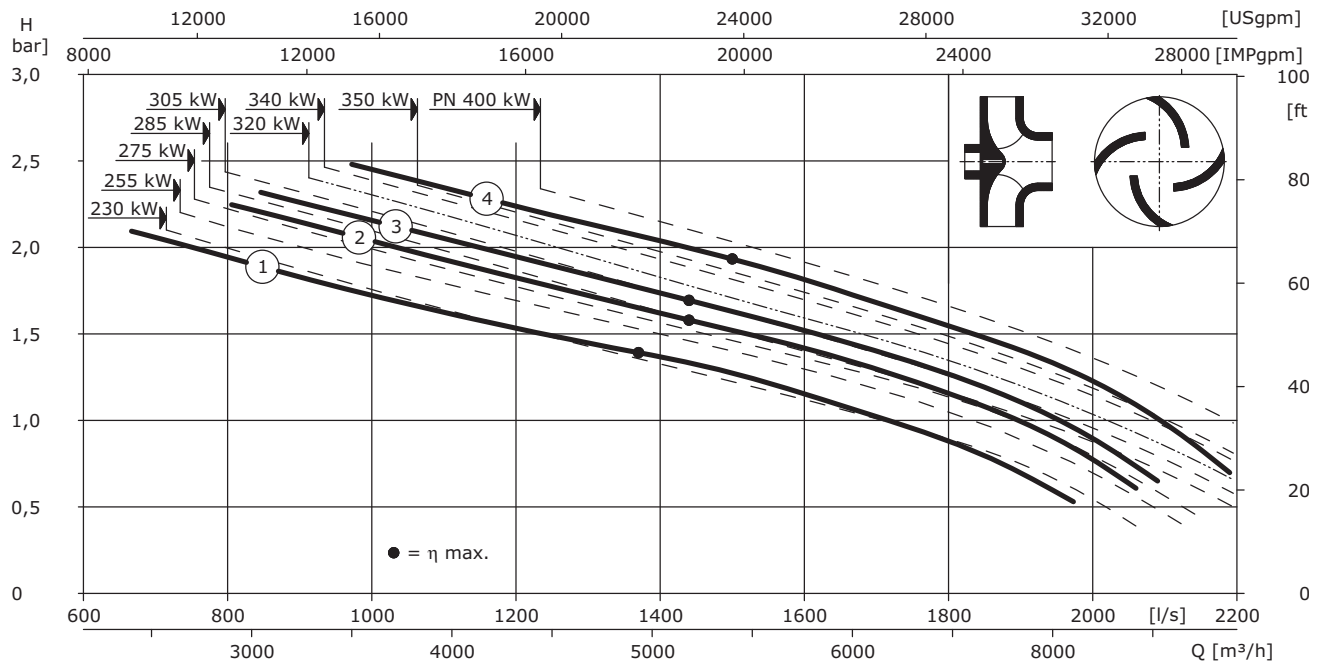
Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications

Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 60.83V (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	485	1600	2040	-
2	540	1600	2040	-
3	560	1600	2040	-
4	615	1600	2040	-
-	-	-	-	-

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
230	T 56-8/53G	245	435	1386	2196	S1/-	ATEX, FM	2160
255	T 56-8/58G	270	480	1386	2196	S1/-	ATEX, FM	2260
275	T 56-8/64G	290	520	1506	2316	S1/-	-	2375
305	T 56-8/70G	320	570	1506	2316	S1/-	-	2490
340	T 56-8/78G	360	640	1606	2416	S1/-	ATEX, FM	2650
395	T 72-8/53G	415	740	1790	2615	S1/-	-	4180
440	T 72-8/60G	460	820	1763	2588	S1/-	-	4400
Wet and dry sump installation								
230	FKT 56-8/64G	250	445	1551	2361	S1/S1	ATEX, FM	2720
255	FKT 56-8/70G	275	490	1551	2361	S1/S1	ATEX, FM	2830
285	FKT 56-8/78G	305	550	1631	2441	S1/S1	FM	2985
320	FKT 72-8/53G	345	610	1757	2533	S1/S1	-	4665
350	FKT 72-8/60G	375	670	1840	2616	S1/S1	-	4885
400	FKT 72-8/66G	430	760	1877	2653	S1/S1	-	5090

Sewage Pumps for Municipal and Industrial Applications



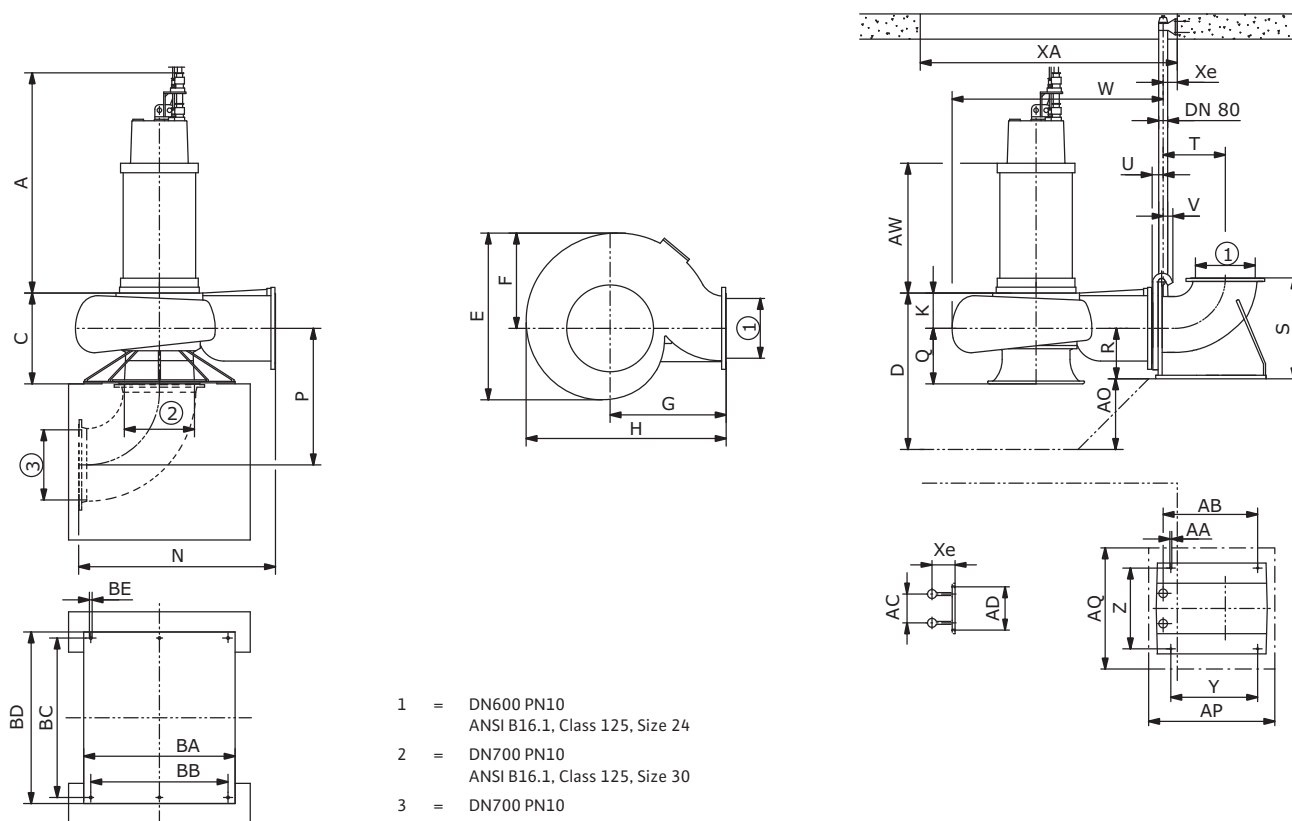
Submersible motor pumps for DN300 up to DN600

Wilo-EMU FA 60.83V (740 rpm)

Dimension drawing

Dry sump installation (TA)

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	–	940	1575	1652	944	1150	1982	–	375	–	–	1950	–	1353	550	500	1000	616	109	
	V	W	XAe	Xe	Xr	Y	Z	AA	AB	AC	AD	AO	AP	AQ	BA	BB	BC	BD	BE	–
[mm]	114	2091	2500/2000	140	–	860	800	26	936	300	400	700	1250	1200	1500	1360	1580	1700	27	–

Accessories and accessory weights

Description	Installation			Weight
	TA	TA incl. suction piece with foot plate	BA with inlet funnel	
–	–	–	–	–
–	–	–	–	[kg]
Suspension unit	–	–	DN 600N / 2RK 50.15900	970
Flanged elbow 90° (Q adapter)	–	DN 700	–	394
Flanged elbow 90° with hose connection 4"	–	–	–	–
Flanged elbow 90° with thread G4 / Storz A	–	–	–	–
Flanged foot elbow 90° (N adapter)	–	–	–	–
Pump foot	–	–	–	–

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Submersible motor pumps
DN 300 to DN 600

Sewage Pumps for Municipal and Industrial Applications



Series overview 358

Submersible motor pumps with mechanical stirring apparatus

Series description	362
Wilo EMU FA 08...WR	364
Wilo EMU FA 10...WR	370
Wilo EMU FA 15...WR	384

Submersible motor pumps with macerator

Series description	388
Wilo EMU FA 03...M	390

Submersible motor pumps made of stainless steel casting

Series description	396
Wilo EMU FA 05...RF	398
Wilo EMU FA 08...RF	404

Propeller pumps for use in pipe sumps

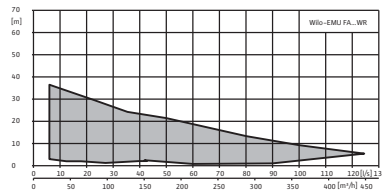
Series description	406
Wilo EMU KPR...	408

Pumps for Special Applications

Submersible motor pumps from DN 36 to DN 800

Series overview Wilo EMU FA...WR, FA...M, FA...RF, KPR...

Series: Wilo EMU FA...WR



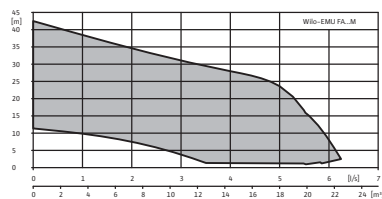
Sewage pump with submersible motor and mechanical stirring apparatus

Application

- Pumping of sewage with solid matter in pumping stations, water treatment systems, as well as in industrial and commercial areas



Series: Wilo EMU FA...M



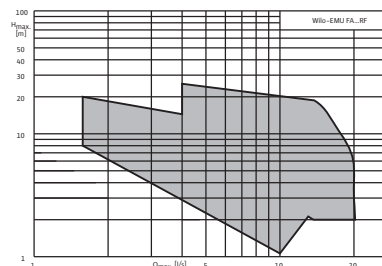
Sewage pump with submersible motor and macerator

Application

- Pumping of sewage with solid constituents in pumping stations as well as for pressurised drainage



Series: Wilo EMU FA...RF



Sewage pump with submersible motor made of stainless steel casting

Application

- Pumping of chemically aggressive sewage and process water in the industrial and commercial areas



Series overview Wilo EMU FA...WR, FA...M, FA...RF, KPR...

Series: Wilo EMU FA...WR

> Product advantages:

- Pumps for wet sump and portable installation
- Explosion-protected versions in accordance with ATEX and FM
- Longitudinally watertight cable inlet
- Heavy sturdy version made of grey cast iron for long trouble-free operation
- Special materials and coatings against corrosive or abrasive fluids
- Avoidance of deposits in the suction area of the pump

> Additional information:

	Page
• Series description	362
• Wilo EMU FA 08...WR	364
• Wilo EMU FA 10...WR	370
• Wilo EMU FA 15...WR	384

Series: Wilo EMU FA...M

> Product advantages:

- Proven hardened macerator
- Explosion-protected versions in accordance with ATEX
- Longitudinally watertight cable inlet
- Heavy sturdy version made of grey cast iron for long trouble-free operation
- Special materials and coatings against corrosive or abrasive fluids

> Additional information:

	Page
• Series description	388
• Wilo EMU FA 03...M	390

Series: Wilo EMU FA...RF

> Product advantages:

- Pumps for wet sump installation
- Explosion-protected versions in accordance with ATEX and FM
- Longitudinally watertight cable inlet
- Heavy sturdy version made of stainless steel cast iron for long trouble-free operation

> Additional information:

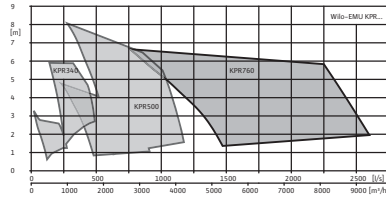
	Page
• Series description	396
• Wilo EMU FA 05...RF	398
• Wilo EMU FA 08...RF	404

Pumps for Special Applications

Submersible motor pumps from DN 36 to DN 800

Series overview Wilo EMU FA...WR, FA...M, FA...RF, KPR...

Series: Wilo EMU KPR...



Propeller pump with submersible motor for use in pipe sumps

Application

- Pumping of industrial water and mechanically pre-cleaned sewage in the industrial and municipal areas



Pumps for Special Applications

Submersible motor pumps from DN 36 to DN 800



Series overview Wilo EMU FA...WR, FA...M, FA...RF, KPR...

Series: Wilo EMU KPR...

> Product advantages:

- Explosion-protected versions in accordance with ATEX and FM
- Longitudinally watertight cable inlet
- Heavy sturdy version made of grey cast iron for long trouble-free operation
- Coatings against corrosive or abrasive media

> Additional information:

	Page
• Series description	406
• Wilo EMU KPR 340.....	408
• Wilo EMU KPR 500.....	412
• Wilo EMU KPR 760.....	416

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Series description Wilo-EMU FA...WR



Wilo-EMU FA...WR

Sewage pump with submersible motor and mechanical stirring apparatus

Type key for hydraulics

Example: Wilo-EMU FA 08.52WR

- FA** = Submersible sewage pump
- 08** = Nominal width of the pressure port DN 80 (x10)
- 52** = Performance characteristic number
- W** = Vortex impeller
- R** = Mixer head

Type key for motors

Example: Wilo-EMU T17-6/16H Ex

- T** = Motor version
- 17** = Size
- 6** = Number of poles
- 16** = Package length
- H** = Seal version
- Ex** = Ex approval

Fields of application

Pumping of sewage with sand and gravel content, as well as in the industrial and commercial areas.

Construction

Submersible sewage pump with mechanical stirring apparatus as submersible monobloc unit for wet sump and portable installation.

Hydraulics

Housing and impeller made of grey cast iron. The outlets on the pressure side are designed as horizontal flange connections. The ball passages are between 23 and 58 mm. Only vortex impellers are used, on which a mechanical stirring apparatus with a mixer head is attached, made of the chilled cast iron material abrasite. This is attached as an axial extension of the motor shaft.

Motor

Motor housing made of grey cast iron. Depending on the type of motor, the unit can run continuously in wet sump installation or portable installation.

The air-filled motors (T) give off their heat to the surrounding fluid and can therefore only be operated continuously outside of the fluid in an exceptional case. The operating mode is documented here specific to type.

The self-cooling motors (F, FO, FK, FKT, HC) give off their heat directly to the pumped fluid via a built-in heat exchanger. They are suitable for permanent operation either submerged or surfaced.

The cable inlet is sealed longitudinally watertight in connection with the T-cable inlet. Up to the size 17 the cable lengths are available in fixed stages starting from 10 m. Starting from size 20 the cable length can be individually configured.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- On the fluid side with a mechanical seal, on motor side with a radial shaft sealing ring (version H)
- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Special materials and coatings against corrosion and abrasion
- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Plugs and switchgear
- Level controls

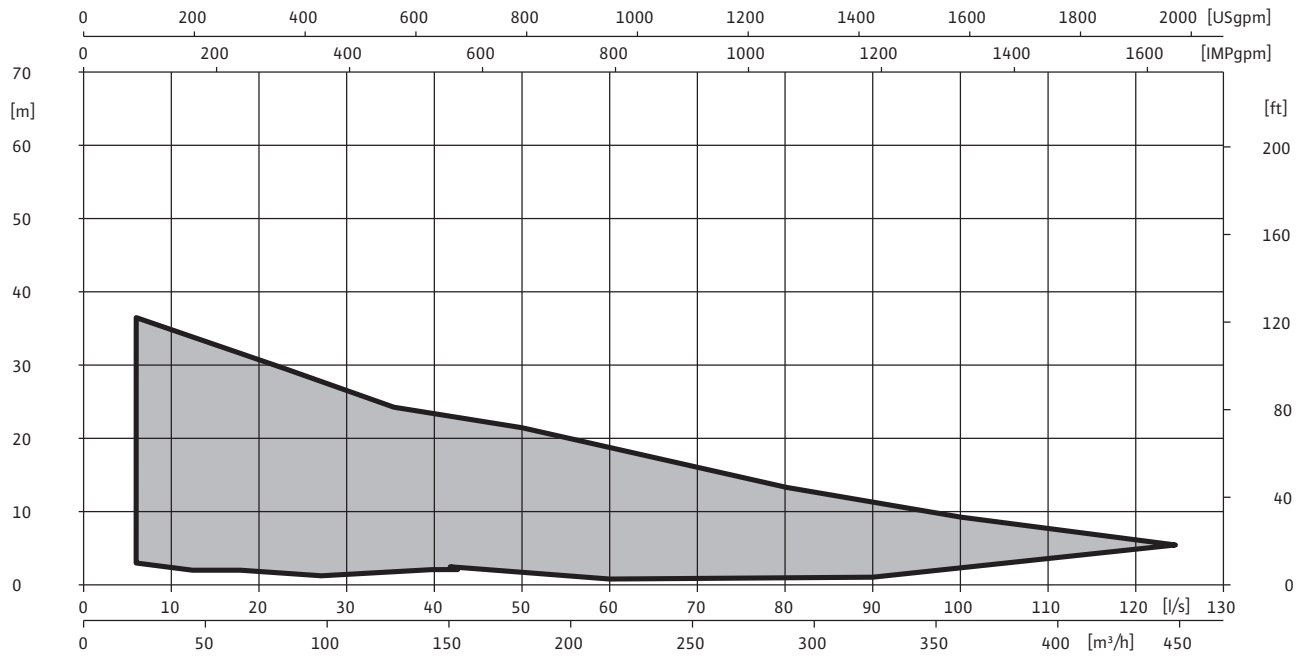
Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus



Series description Wilo-EMU FA...WR

Overview diagram



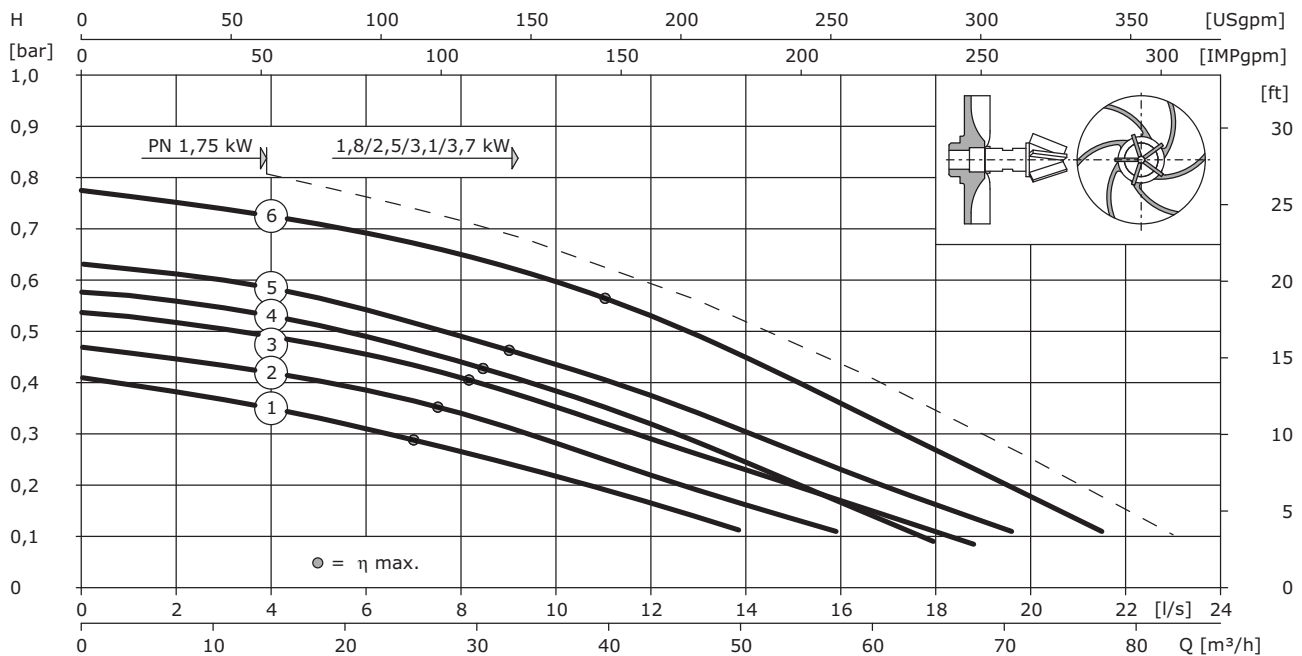
Submersible Motor Pumps with Mechanical Stirring Apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 08.52WR (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	30	–	30
2	185	30	–	30
3	200	31	–	31
4	215	32	–	32
5	230	33	–	33

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	260	35	–	35
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	–	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	–	71.5

Pumps for Special Applications

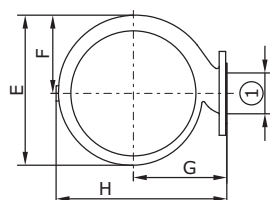
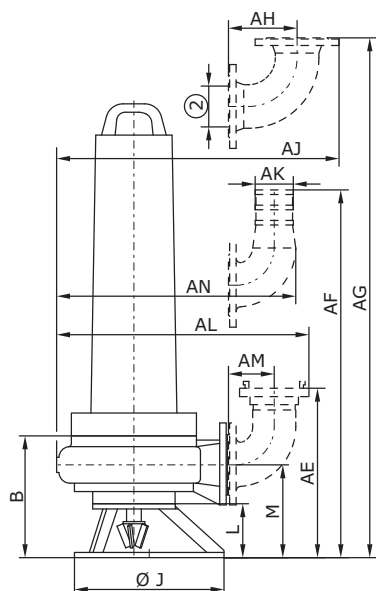
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 08.52WR (950 rpm)

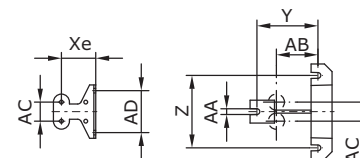
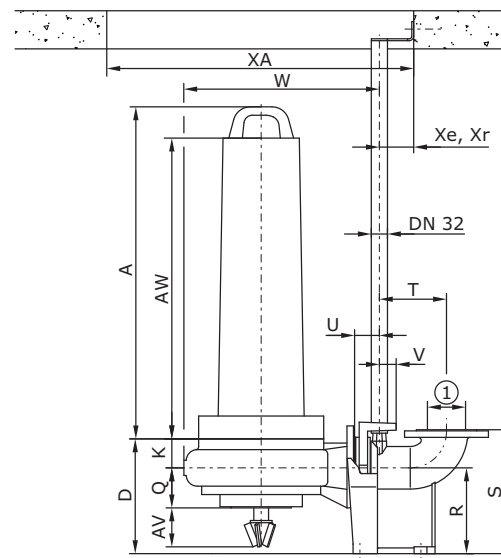
Dimension drawing

Portable installation (T)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	314	-	300	340	170	200	200	374	344	90	124	224	-	-	100	210	300	166	59	40
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524	85

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10746	-	-	6

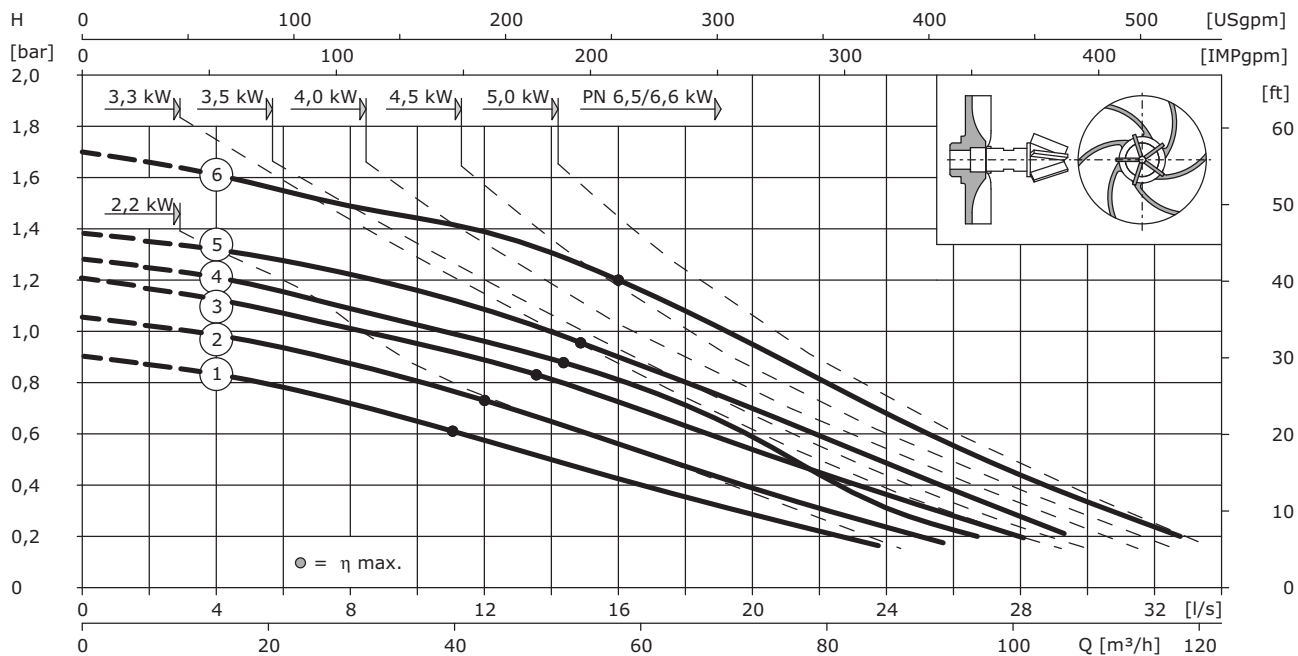
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 08.52WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	30	–	30
2	185	30	–	30
3	200	31	–	31
4	215	32	–	32
5	230	33	–	33

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	260	35	–	35
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	–	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	–	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	–	71.5

Pumps for Special Applications

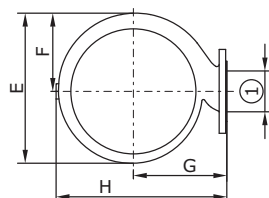
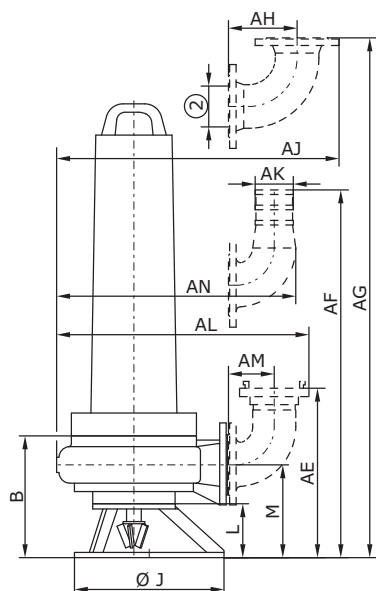
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 08.52WR (1450 rpm)

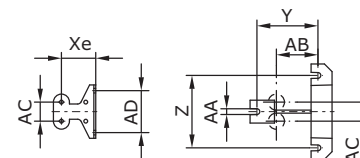
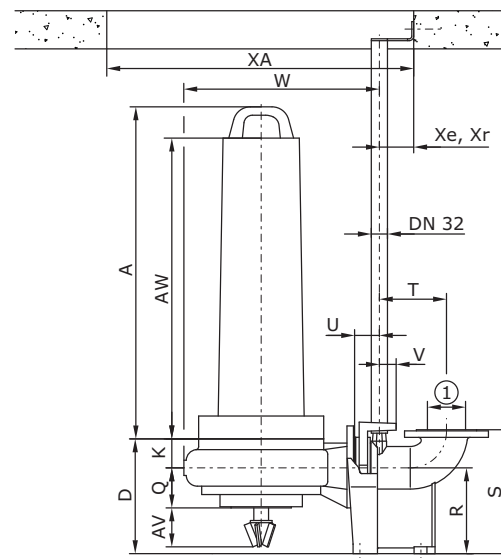
Dimension drawing

Portable installation (T)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	314	-	300	340	170	200	200	374	344	90	124	224	-	-	100	210	300	166	59	40
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524	85

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10746	-	-	6

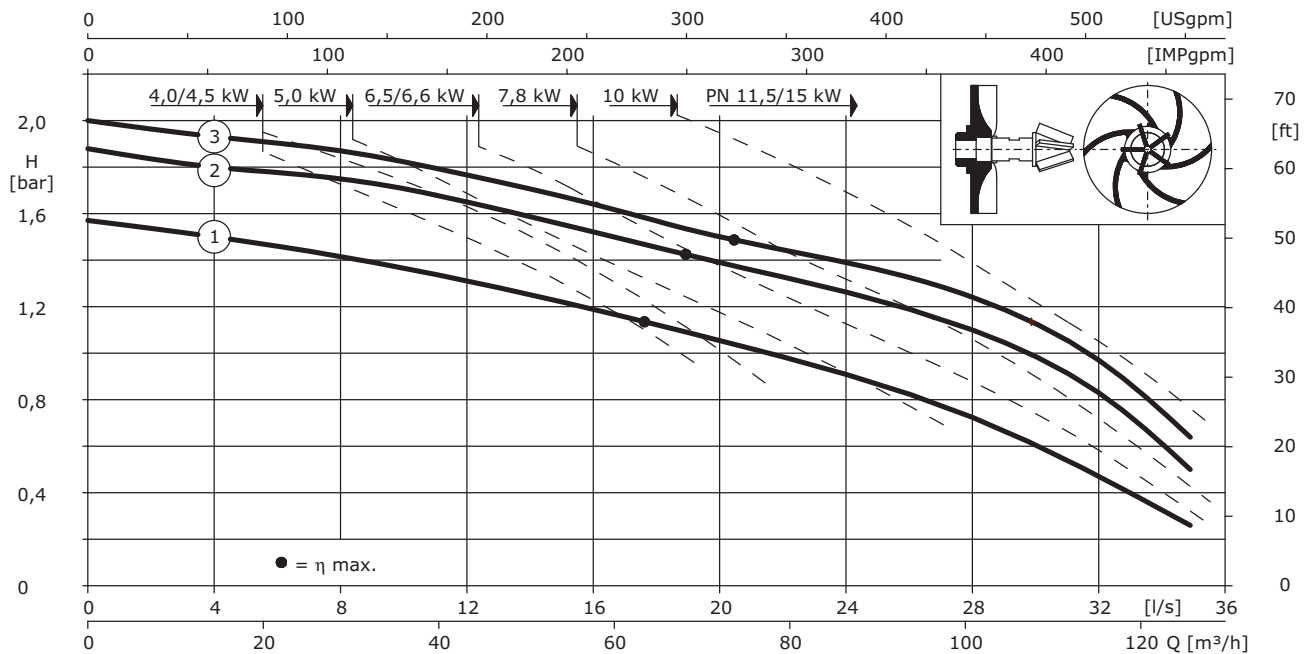
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 08.73WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	225	33	–	33
2	250	34	–	34
3	260	35	–	35
–	–	–	–	–
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
5	FO 17.2-4/12	6.5	10.8	384	587	S1/S1	–	71.5
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	–	119

Pumps for Special Applications

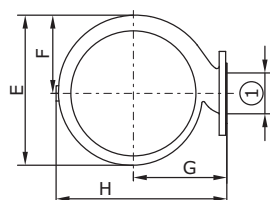
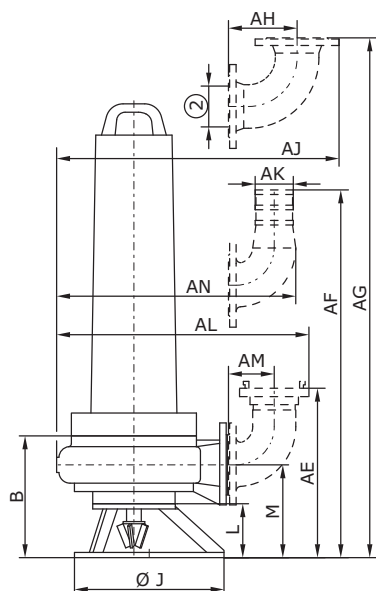
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 08.73WR (1450 rpm)

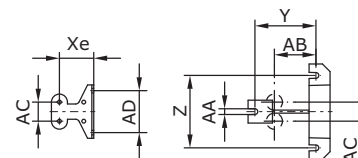
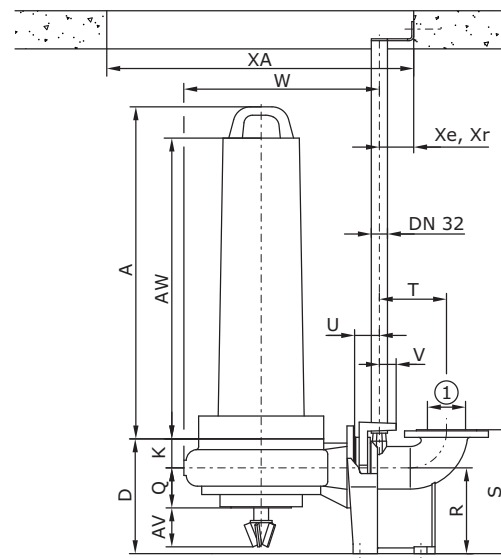
Dimension drawing

Portable installation (T)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN80 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	314	-	300	340	170	200	374	344	90	124	224	-	-	101	210	300	166	59	40	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	433	625	90	98	120	170	15	69	50	110	411	434	389	165	642	75	540	100	524	86

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580	19
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10746	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

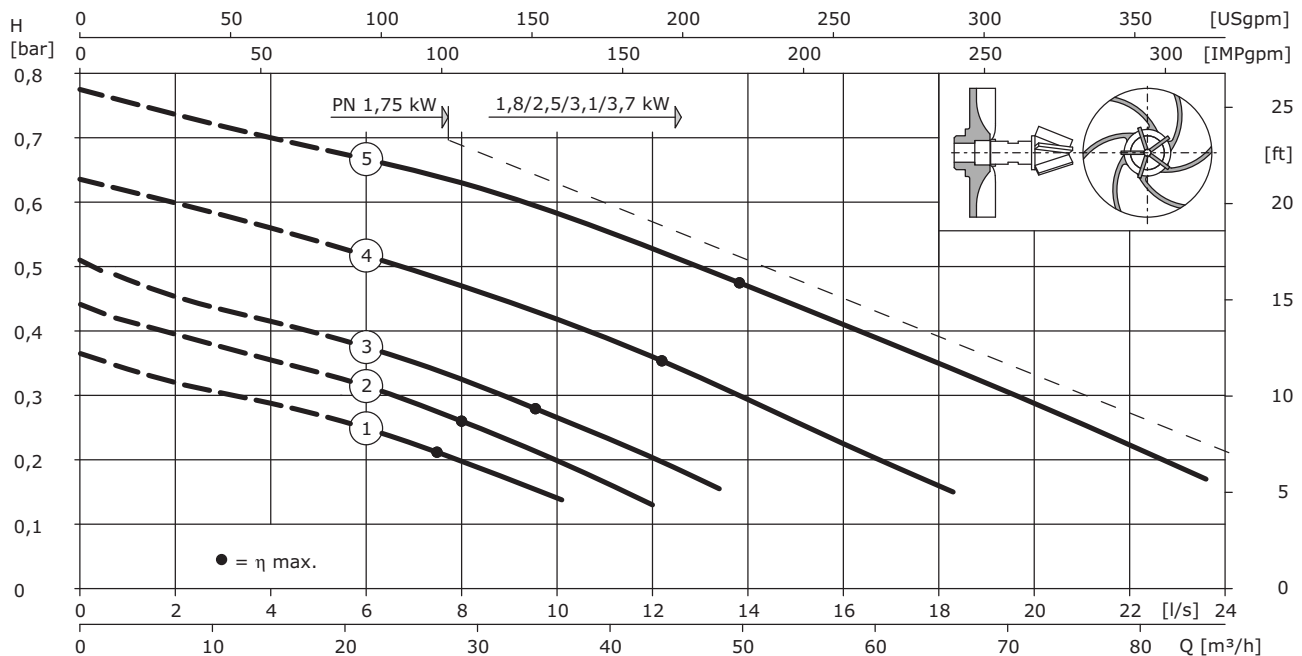
Submersible motor pumps with mechanical stirring apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.22WR (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	32	–	32
2	185	32	–	32
3	200	33	–	33
4	230	35	–	35
5	260	37	–	37

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
1.75	T 17-6/8H(K)	2.5	4.45	338	410	S1/-	ATEX, FM	43
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
1.8	FK 17.1-6/8K	2.8	5.2	430	640	S1/S1	ATEX	85
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
1.75	FO 172-6/8	2.5	4.3	384	587	S1/S1	–	67
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	–	71.5

Pumps for Special Applications

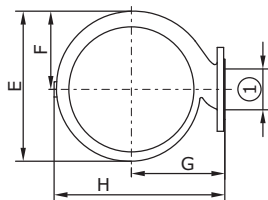
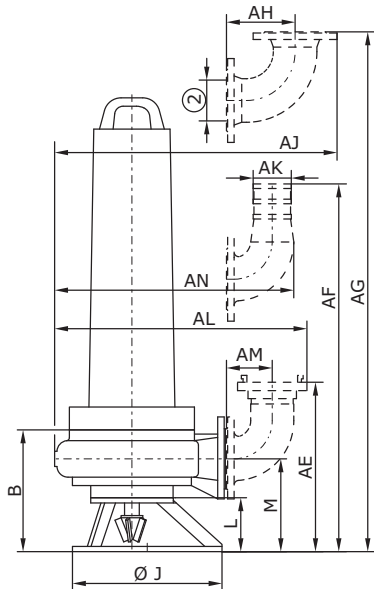
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.22WR (950 rpm)

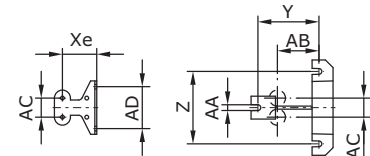
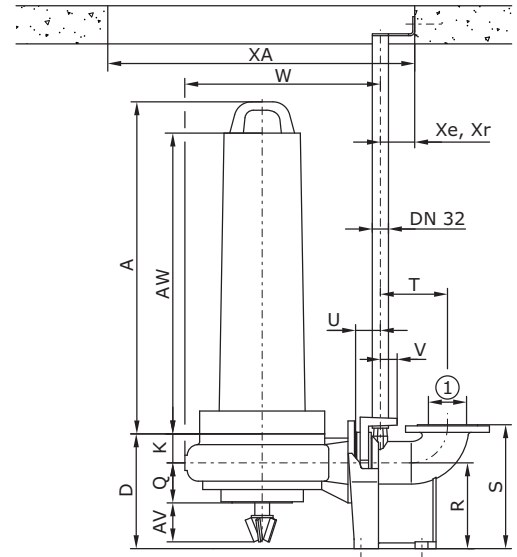
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	331	-	317	340	170	200	374	320	92	124	239	-	-	117	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554	95

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

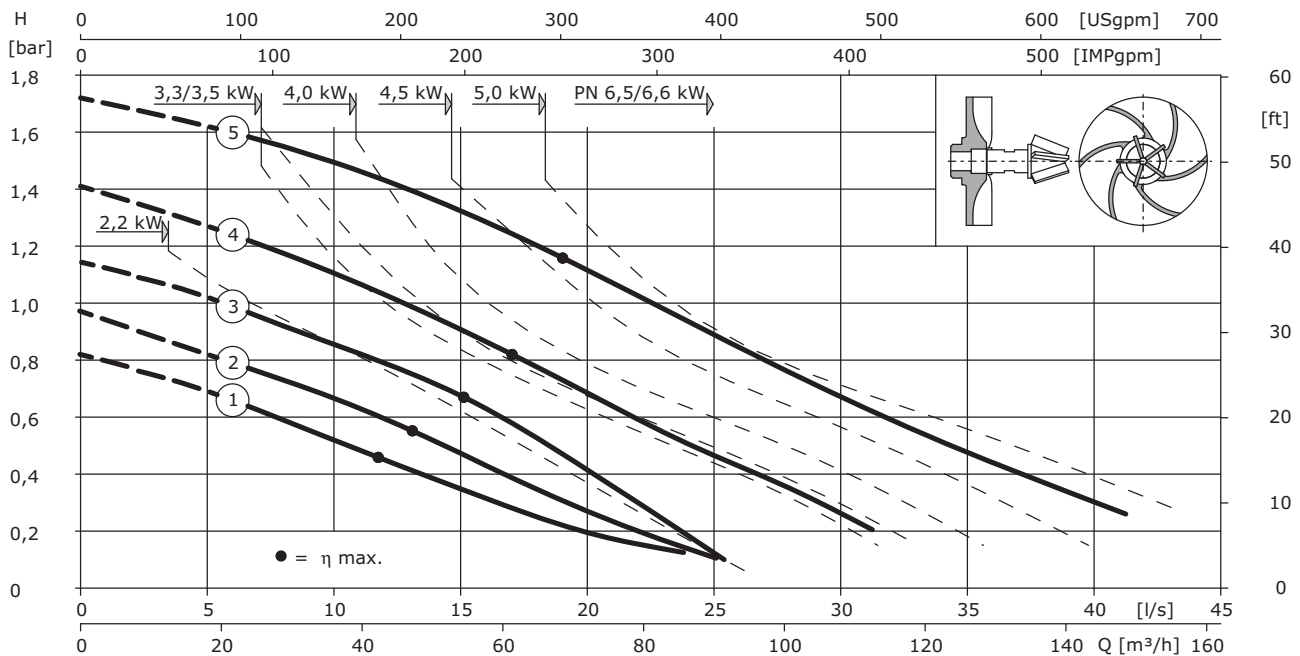
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.22WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	170	32	–	32
2	185	32	–	32
3	200	33	–	33
4	230	35	–	35
5	260	37	–	37

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
3.5	T 17-4/8H(K)	4.5	7.9	338	410	S1/-	ATEX, FM	43
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
Wet and dry sump installation								
2.2	FK 17.1-4/8K	3.05	5.7	430	640	S1/S1	ATEX	85
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
2.2	FO 172-4/8	3.05	6	384	587	S1/S1	–	67
3.3	FO 172-4/8	4.55	8	384	587	S1/S1	–	67
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	–	71.5

Pumps for Special Applications

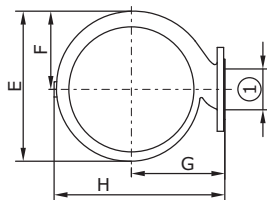
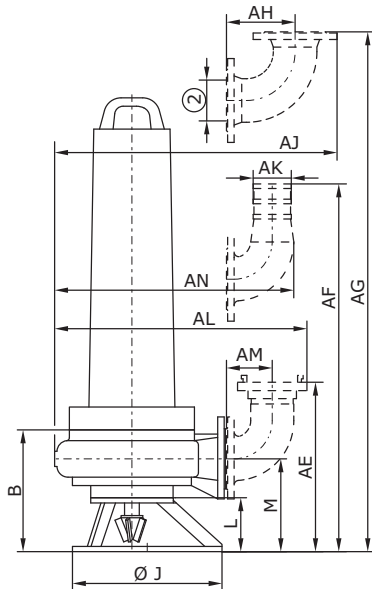
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.22WR (1450 rpm)

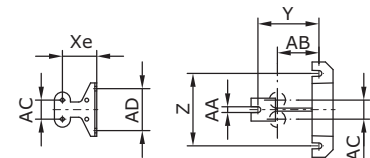
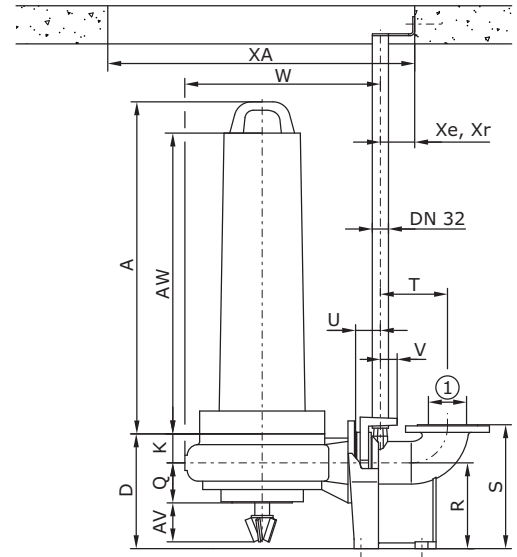
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	331	-	317	340	170	200	374	320	92	124	239	-	-	117	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554	95

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

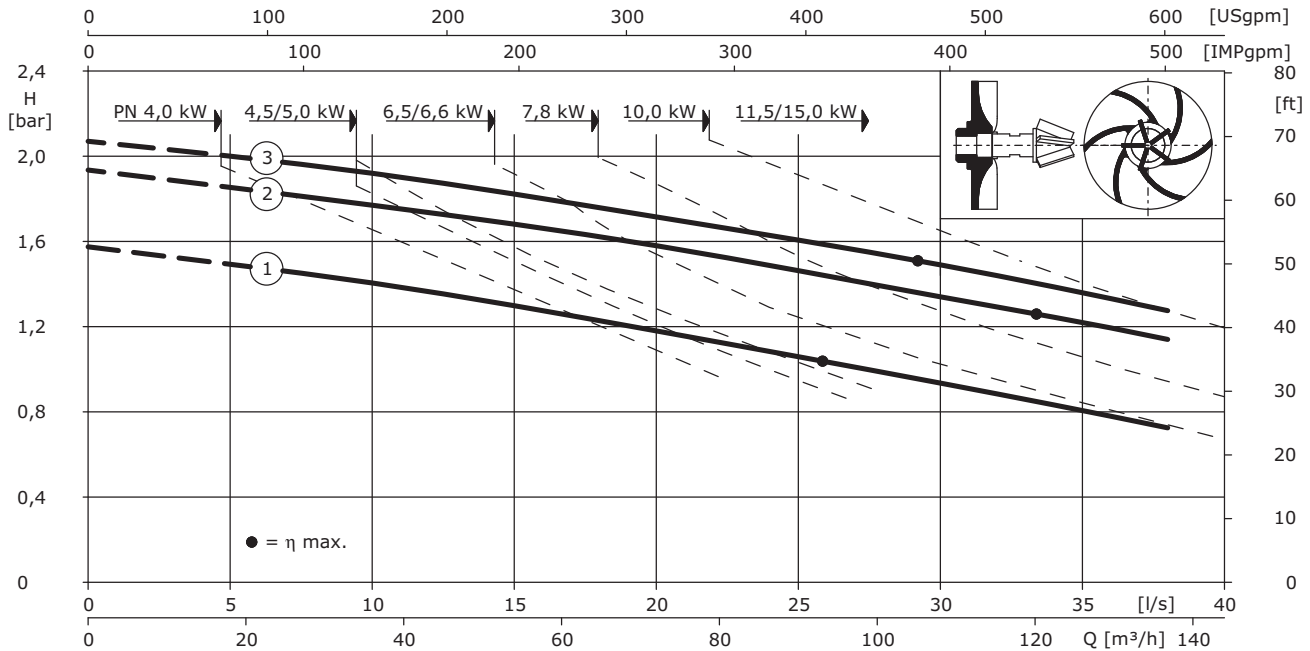
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.43WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	225	34	–	34
2	250	36	–	36
3	260	37	–	37
–	–	–	–	–
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
Wet and dry sump installation								
4	FK 17.1-4/8K	5.5	9.5	430	640	S1/S1	ATEX	85
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
5	FO 17.2-4/12	6.5	10.8	384	587	S1/S1	–	71.5
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
7.8	FK 20.2-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 20.2-4/17	14.6	24.5	664	771	S1/S1	–	119

Pumps for Special Applications

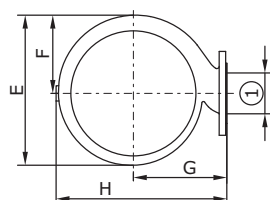
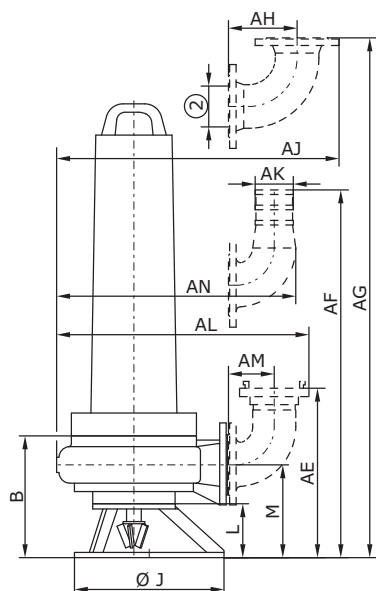
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.43WR (1450 rpm)

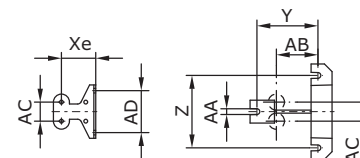
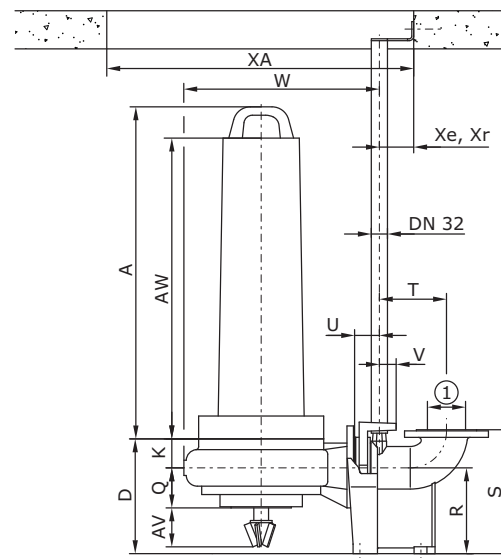
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	331	-	317	340	170	200	374	320	92	124	239	-	-	117	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	439	800	90	96	160	190	15	109	50	110	439	488	418	180	667	100	588	120	554	95

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / ZRK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

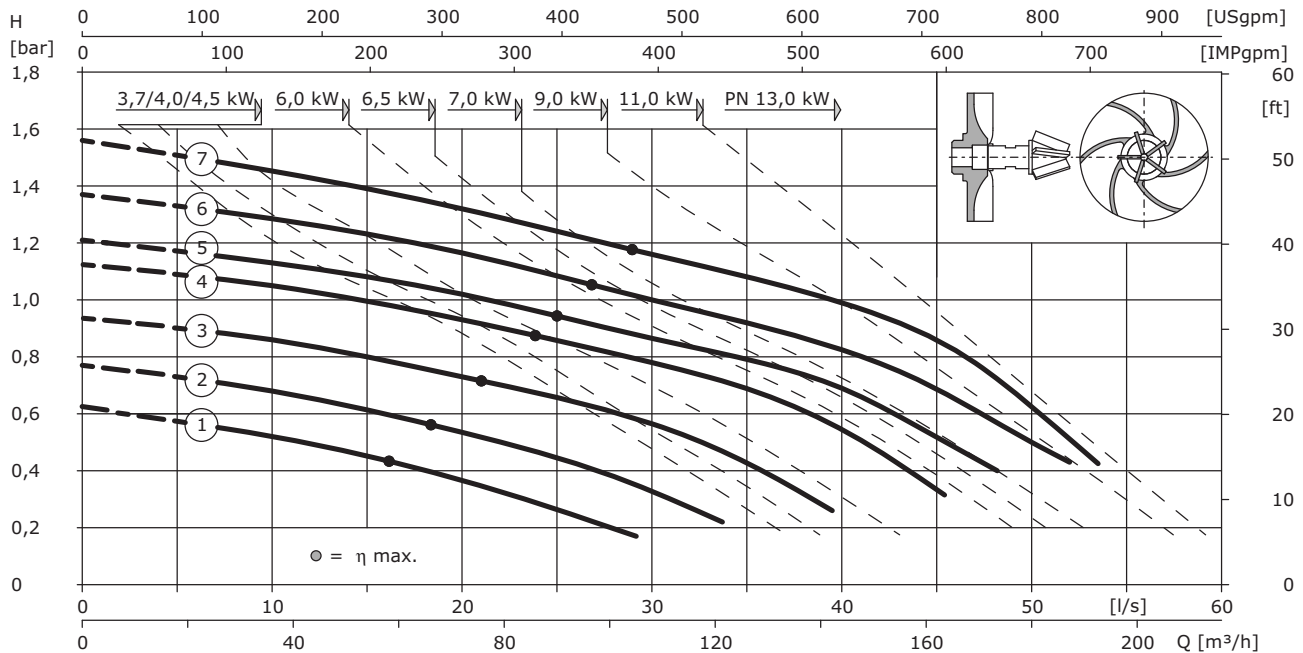
Submersible motor pumps with mechanical stirring apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.44WR (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	200	49	–	49
2	225	50	–	50
3	250	52	–	52
4	278	54	–	54
5	290	65	–	65

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	310	66	–	66
7	330	69	–	69
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
Wet and dry sump installation								
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	–	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	–	155

Pumps for Special Applications

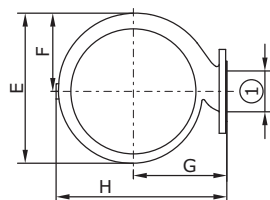
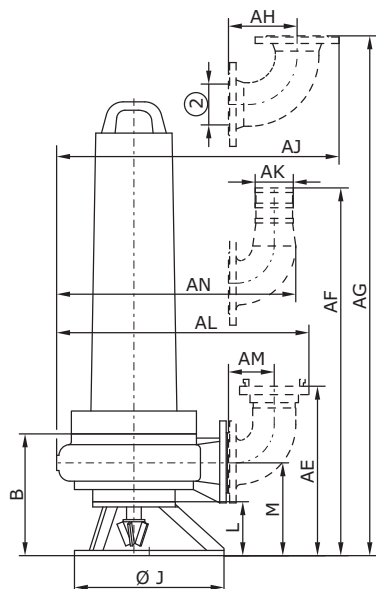
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.44WR (950 rpm)

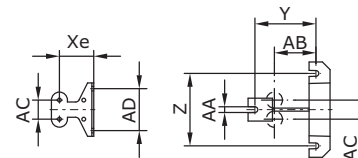
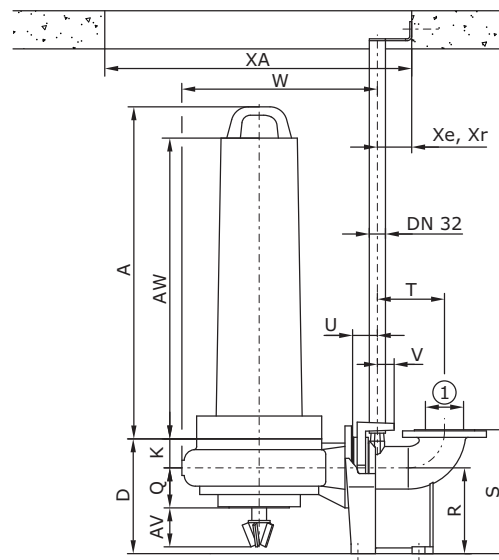
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	354	-	332	420	210	280	494	320	107	124	249	-	-	125	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	559	800	90	96	160	190	15	109	50	110	450	499	429	180	787	100	708	120	674	86

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

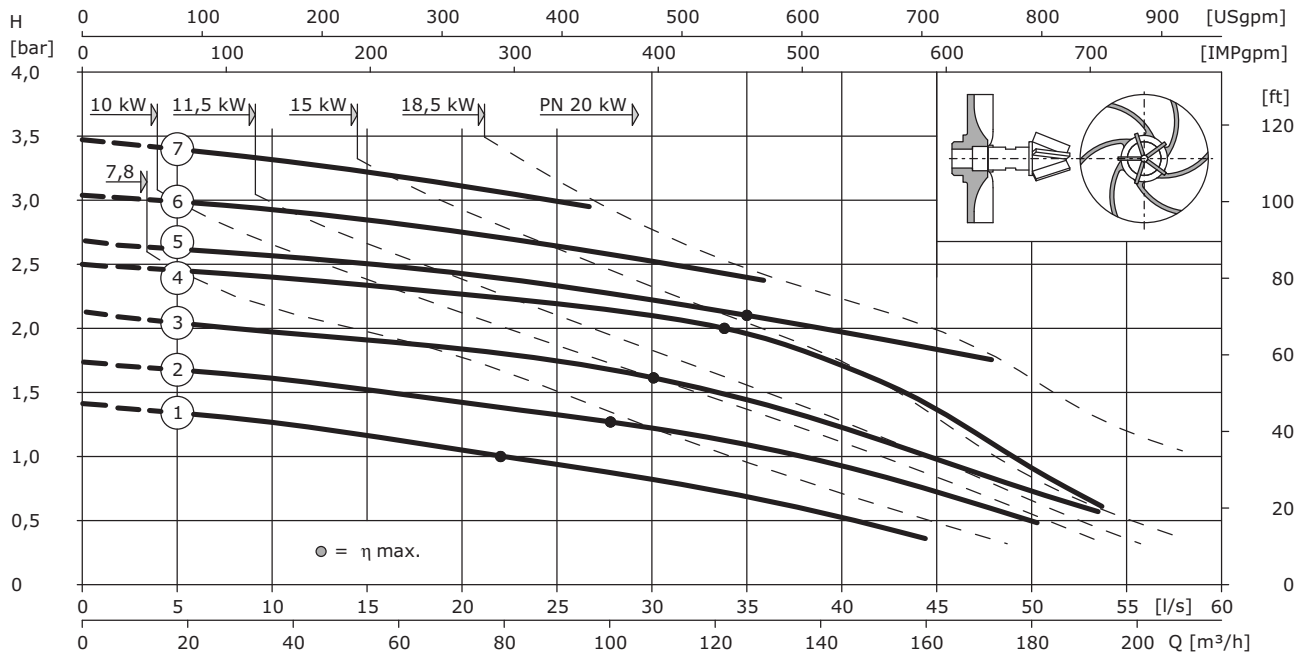
Submersible motor pumps with mechanical stirring apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.44WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	200	49	–	49
2	225	50	–	50
3	250	52	–	52
4	278	54	–	54
5	290	65	–	65

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	310	66	–	66
7	330	69	–	69
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155

Pumps for Special Applications

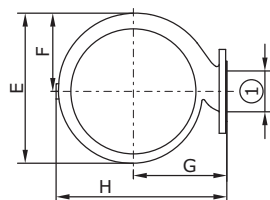
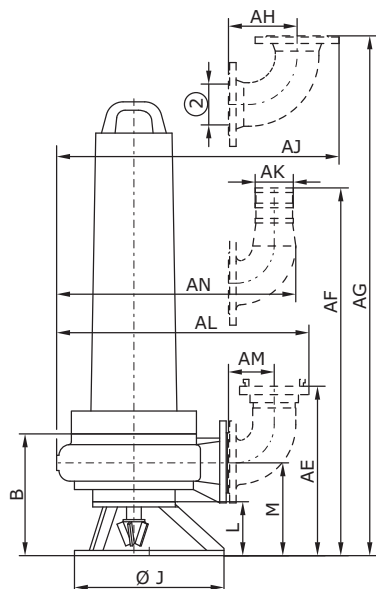
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.44WR (1450 rpm)

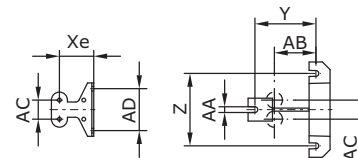
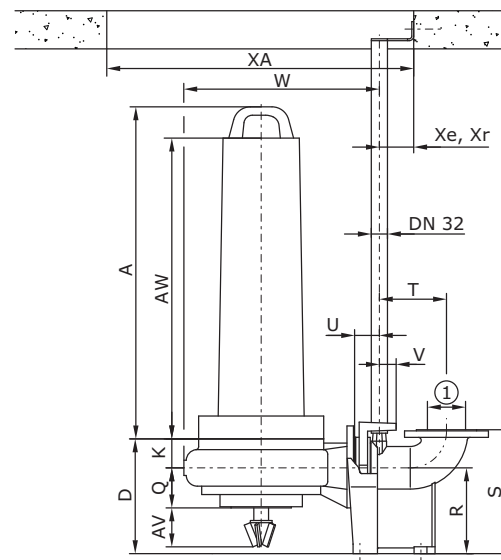
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	354	-	332	420	210	280	494	320	107	124	249	-	-	125	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	559	800	90	96	160	190	15	109	50	110	450	499	429	180	787	100	708	120	674	86

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

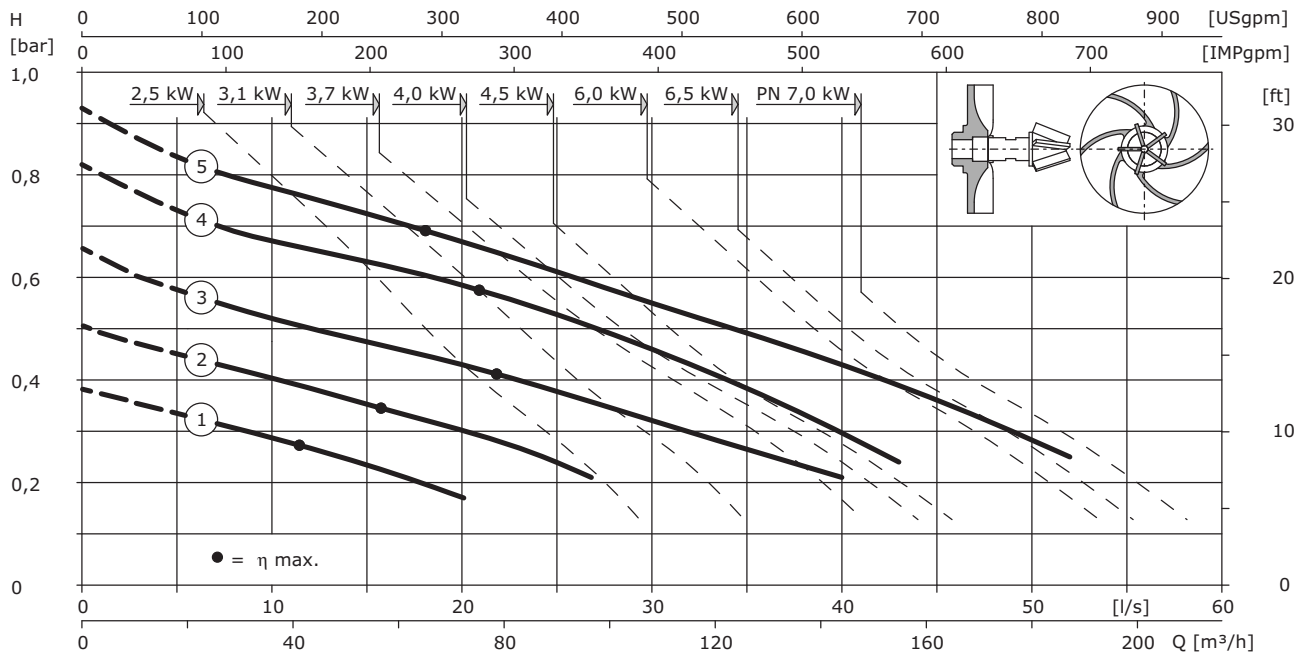
Submersible motor pumps with mechanical stirring apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.53WR (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	160	32.5	–	32.5
2	180	33.5	–	33.5
3	200	34.5	–	34.5
4	222	35.5	–	35.5
5	242	36.5	–	36.5

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
2.5	T 17-6/12H(K)	3.45	6.2	373	445	S1/-	ATEX, FM	51
3.7	T 17-6/16H(K)	5.2	9.1	411	483	S1/-	ATEX, FM	62
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
Wet and dry sump installation								
3.1	FK 17.1-6/12K	4.2	7.5	430	640	S1/S1	ATEX	92
4	FK 17.1-6/16K	5.4	9.3	550	760	S1/S1	ATEX	107
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
2.5	FO 172-6/12	3.6	6.7	384	587	S1/S1	–	71.5
4.5	FK 202-6/12	5.9	10.9	619	726	S1/S1	–	106
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	–	119

Pumps for Special Applications

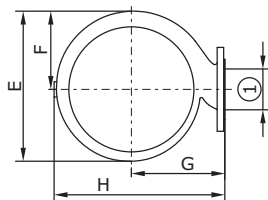
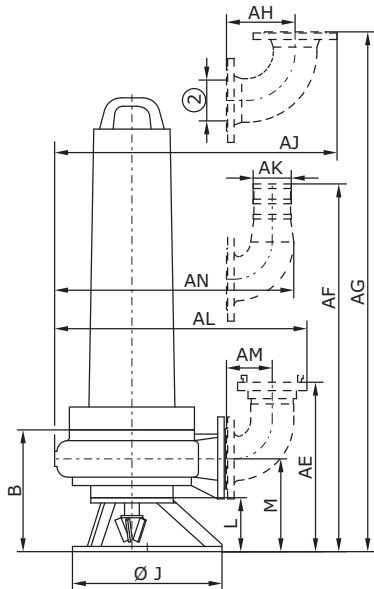
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.53WR (950 rpm)

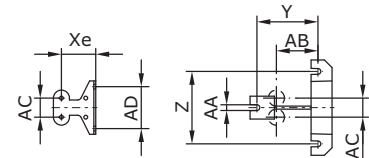
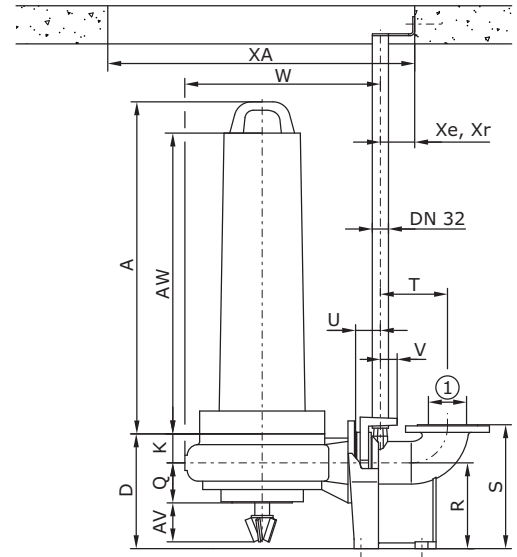
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	330	-	317	340	170	200	374	320	92	124	238	-	-	117	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554	95

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

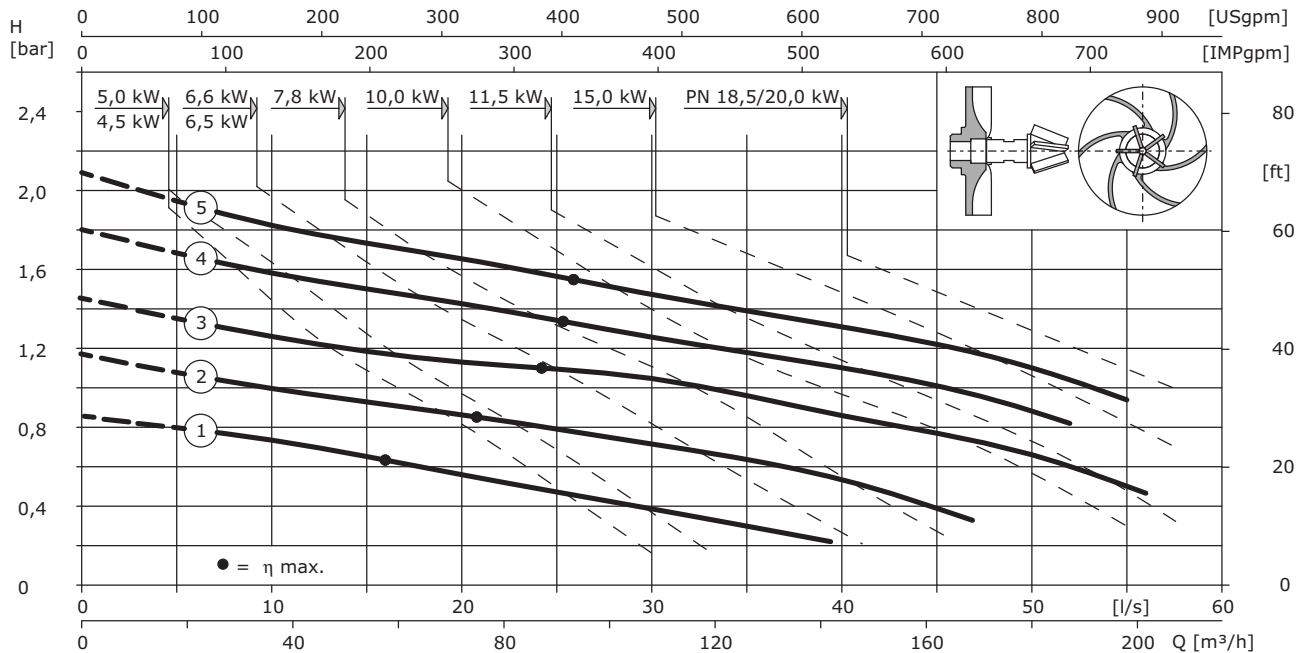
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 10.53WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
–	–	[kg]	[kg]	[kg]	–	–	[kg]	[kg]	[kg]
1	160	32.5	–	32.5	–	–	–	–	–
2	180	33.5	–	33.5	–	–	–	–	–
3	200	34.5	–	34.5	–	–	–	–	–
4	222	35.5	–	35.5	–	–	–	–	–
5	242	36.5	–	36.5	–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
4.5	T 17-4/12H(K)	5.8	9.4	373	445	S1/-	ATEX, FM	51
6.5	T 17-4/16H(K)	8.2	13.5	411	483	S1/-	ATEX, FM	62
10	T 17-4/24H(K)	12.2	21	491	563	S1/-	ATEX, FM	91
15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
Wet and dry sump installation								
5	FK 17.1-4/12K	6.5	10.8	430	640	S1/S1	ATEX	92
6.6	FK 17.1-4/16K	8.4	14.1	550	760	S1/S1	ATEX	107
10	HC 20.1-4/17G(K)	12.1	21	730	835	S1/S1	ATEX, FM	172
15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
5	FO 172-4/12	6.5	10.8	384	587	S1/S1	–	71.5
7.8	FK 202-4/12	9.9	16.6	619	726	S1/S1	–	106
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	–	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	–	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	–	155

Pumps for Special Applications

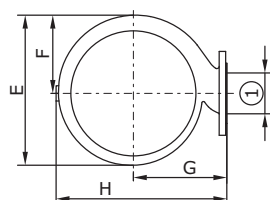
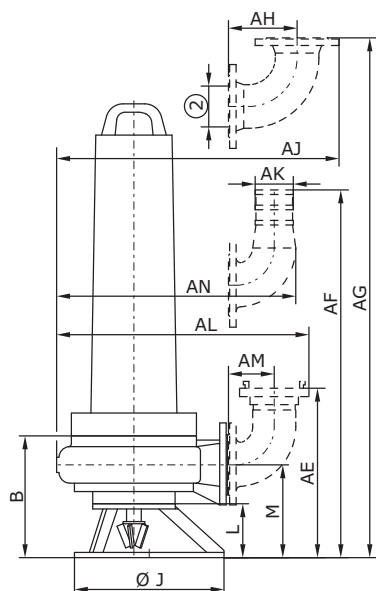
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 10.53WR (1450 rpm)

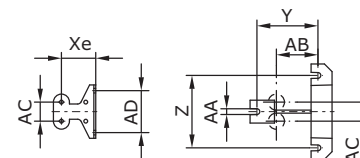
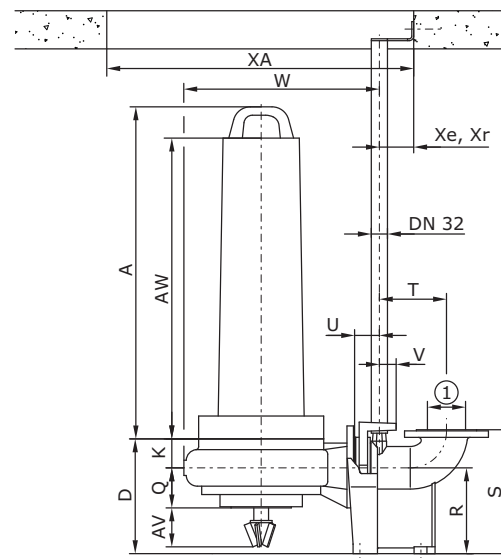
Dimension drawing

Portable installation (T)



- 1 = DN100 PN10
ANSI B16.1, Class 125, Size 4
- 2 = DN100 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V
[mm] Motor	330	-	317	340	170	200	374	320	92	124	238	-	-	117	225	325	176	65	44	
	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AV
[mm]	439	800	90	96	160	190	15	109	50	110	440	489	419	180	667	100	588	120	554	95

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 100 / 2RK 51.17585	24
Flanged elbow 90° (Q adapter)	DN 100	-	-	11
Flanged elbow 90° with hose connection 4"	DN 100	-	-	10
Flanged elbow 90° with thread G4 / Storz A	DN 100	-	-	8
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.10766	-	-	6

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

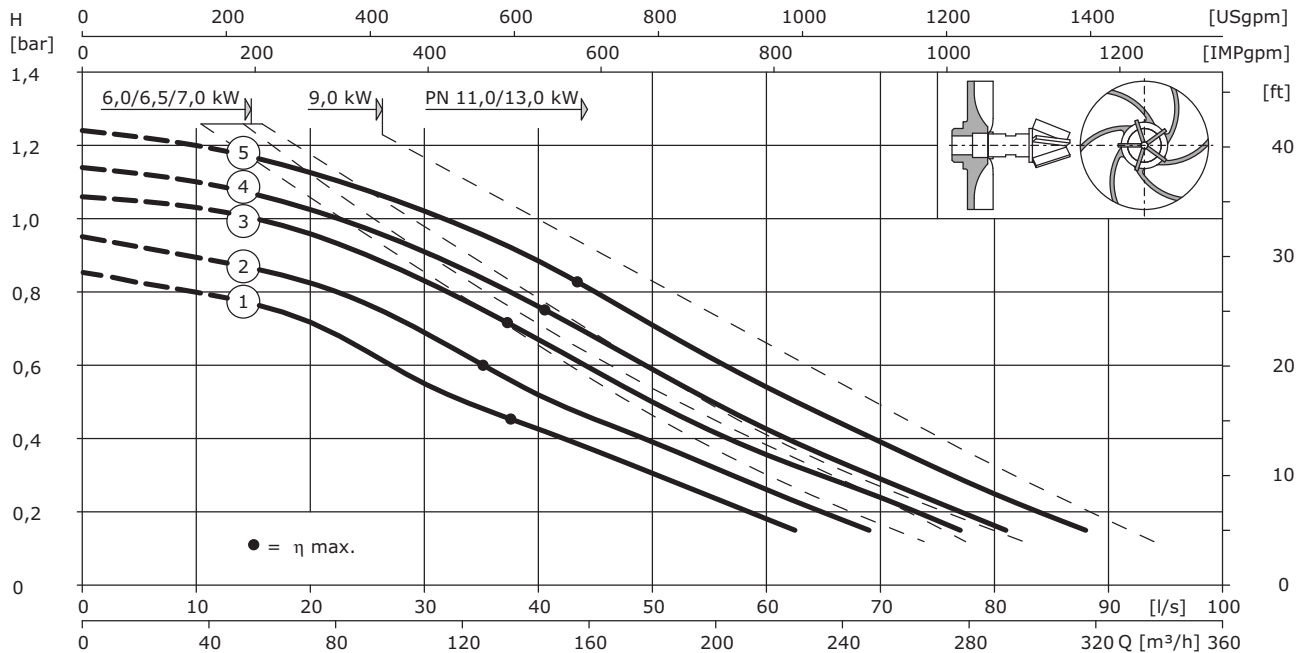
Submersible motor pumps with mechanical stirring apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 15.44WR (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
	[mm]	[kg]	[kg]	[kg]		[mm]	[kg]	[kg]	[kg]
1	290	86	-	86	-	-	-	-	-
2	310	89	-	89	-	-	-	-	-
3	330	92	-	92	-	-	-	-	-
4	345	95	-	95	-	-	-	-	-
5	363	98	-	98	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂		P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]		[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
6	T 17-6/24H(K)	7.7	13.6	491	563	S1/-	ATEX, FM	91
9	T 20.1-6/22G(K)	11.6	20	674	764	S1/S2 15	ATEX, FM	168
13	T 20.1-6/32G(K)	16.1	27.5	674	764	S1/S2 15	ATEX, FM	185
Wet and dry sump installation								
7	HC 20.1-6/17G(K)	9	15.3	730	835	S1/S1	ATEX, FM	172
9	HC 20.1-6/22G(K)	11.7	20	830	935	S1/S1	ATEX, FM	188
13	HC 20.1-6/32G(K)	16.1	27.5	830	935	S1/S1	ATEX, FM	207
6.5	FK 202-6/17	8.3	15.3	664	771	S1/S1	-	119
9	FK 202-6/22	11.1	19.3	714	821	S1/S1	-	138
11	FK 202-6/27	13.6	24	764	871	S1/S1	-	155

Pumps for Special Applications

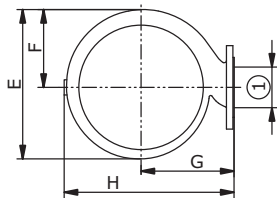
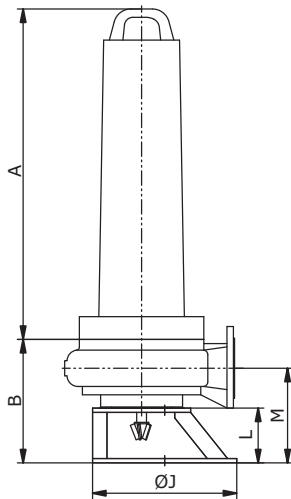
Submersible motor pumps with mechanical stirring apparatus



Wilo-EMU FA 15.44WR (950 rpm)

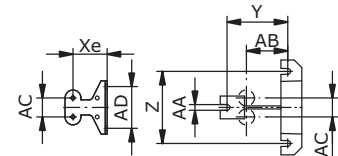
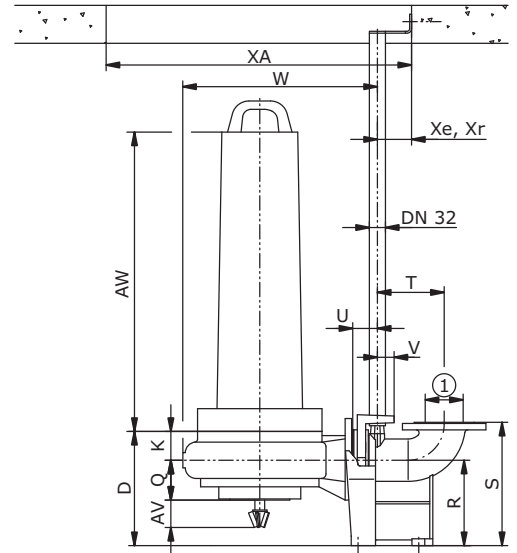
Dimension drawing

Portable installation (T)



1 = DN150 PN10
ANSI B16.1, Class 125, Size 4

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	473	–	460	579	290	350	648	500	140	190	333	–	–	–	–	143	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AV								
[mm]	38	736	1000	90	95	210	240	19	149	50	110	110								

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension unit	–	–	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	–	–	–	–
Flanged elbow 90° with hose connection 4"	–	–	–	–
Flanged elbow 90° with thread G4 / Storz A	–	–	–	–
Flanged foot elbow 90° (N adapter)	–	–	–	–
Pump foot	52.11207	–	–	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

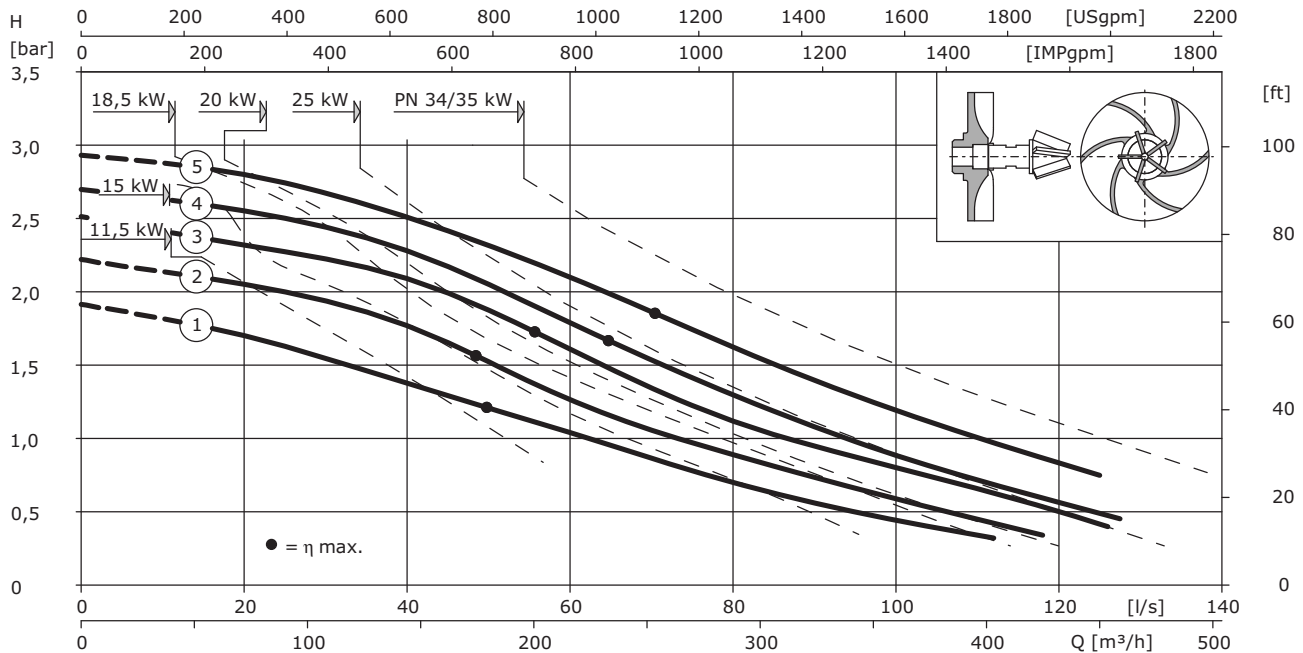
Submersible motor pumps with mechanical stirring apparatus

Pumps for Special Applications

Submersible motor pumps with mechanical stirring apparatus

Wilo-EMU FA 15.44WR (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
1	290	86	-	86
2	310	89	-	89
3	330	92	-	92
4	345	95	-	95
5	363	98	-	98

No.	Impeller	Weight		
		BA	TA	T
	[mm]	[kg]	[kg]	[kg]
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	-	P_1 max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]

Wet sump installation

15	T 20.1-4/22G(K)	18.1	30.5	674	764	S1/S2 15	ATEX, FM	168
20	T 20.1-4/30G(K)	24	41	674	764	S1/S2 15	ATEX, FM	182
25	T 24-4/29K	28.5	49.5	678	931	S1/-	ATEX, FM	233
34	T 24-4/36K	39	68	748	1001	S1/-	ATEX, FM	260

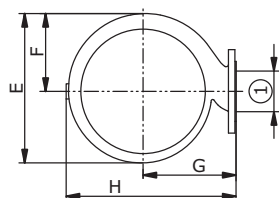
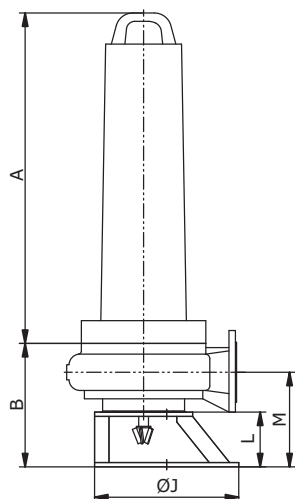
Wet and dry sump installation

15	HC 20.1-4/22G(K)	18.1	31	830	935	S1/S1	ATEX, FM	188
20	HC 20.1-4/30G(K)	24	41	830	935	S1/S1	ATEX, FM	204
11.5	FK 202-4/17	14.6	24.5	664	771	S1/S1	-	119
15	FK 202-4/22	18.3	31.5	714	821	S1/S1	-	138
18.5	FK 202-4/27	23	37.5	764	871	S1/S1	-	155
25	FK 27.1-4/24	30	52	855	991	S1/S1	-	265
35	FK 27.1-4/32	41.5	72	935	1071	S1/S1	-	320
26	FKT 27.1-4/22K	30	53	820	1246	S1/S1	-	370
35	FKT 27.1-4/28K	40	71	820	1246	S1/S1	-	390

Wilo-EMU FA 15.44WR (1450 rpm)

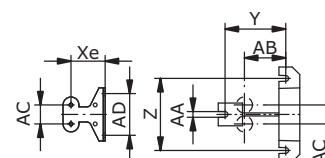
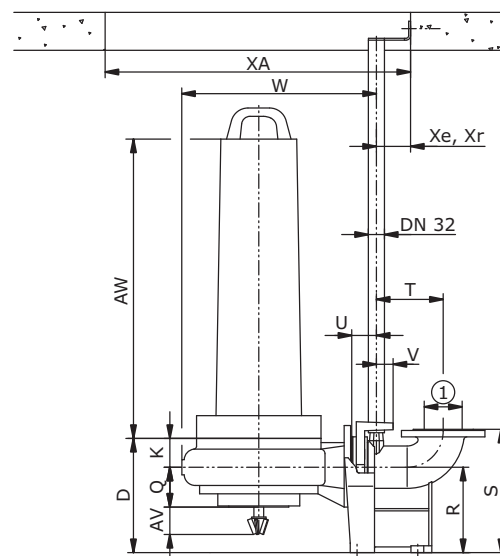
Dimension drawing

Portable installation (T)



1 = DN150 PN10
ANSI B16.1, Class 125, Size 4

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	473	–	460	579	290	350	648	500	140	190	333	–	–	–	–	143	320	465	220	88
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AV								
[mm]	38	736	1000	90	95	210	240	19	149	50	110	110								

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension unit	–	–	DN 150L/2RK 51.17590	50
Flanged elbow 90° (Q adapter)	–	–	–	–
Flanged elbow 90° with hose connection 4"	–	–	–	–
Flanged elbow 90° with thread G4 / Storz A	–	–	–	–
Flanged foot elbow 90° (N adapter)	–	–	–	–
Pump foot	52.11207	–	–	18

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with macerator

Series description Wilo-EMU FA...M



Wilo-EMU FA...M

Sewage pump with submersible motor and macerator

Type key for hydraulics

Example: Wilo-EMU FA 03.13M

- FA** = Submersible sewage pump
- 03** = Nominal width of the pressure port DN 36
- 13** = Performance characteristic number
- M** = Macerator

Type key for motors

Example: Wilo-EMU T12-2/11G Ex

- T** = Motor version
- 12** = Size
- 2** = Number of poles
- 11** = Package length
- G** = Sealing version
- Ex** = Ex approval

Fields of application

Sewage pump with macerator for pressurised drainage with long small-dimensioned pressure pipes. The upstream macerator system cuts up the admixtures in sewage to the required size.

Construction

Submersible sewage pump with macerator as submersible monobloc unit for wet sump installation and portable installation.

Hydraulics

Housing and impeller made of grey cast iron. Adjustable macerator made of the chilled cast iron abrasite. The outlets on the pressure side are designed as horizontal flange connections. The ball passages are 6 mm.

Motor

Motor housing made of grey cast iron.

The air-filled T-motors give off their heat to the surrounding fluid and can therefore only be operated continuously outside of the fluid in an exceptional case. The operating mode is documented here specific to type.

The cable inlet is sealed longitudinally watertight. Cable lengths are available at fixed stages starting from 5 m.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- On the fluid side with a mechanical seal, on motor side with a radial shaft sealing ring (version H)
- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Coatings against corrosion
- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Plugs and switchgear
- Level controls

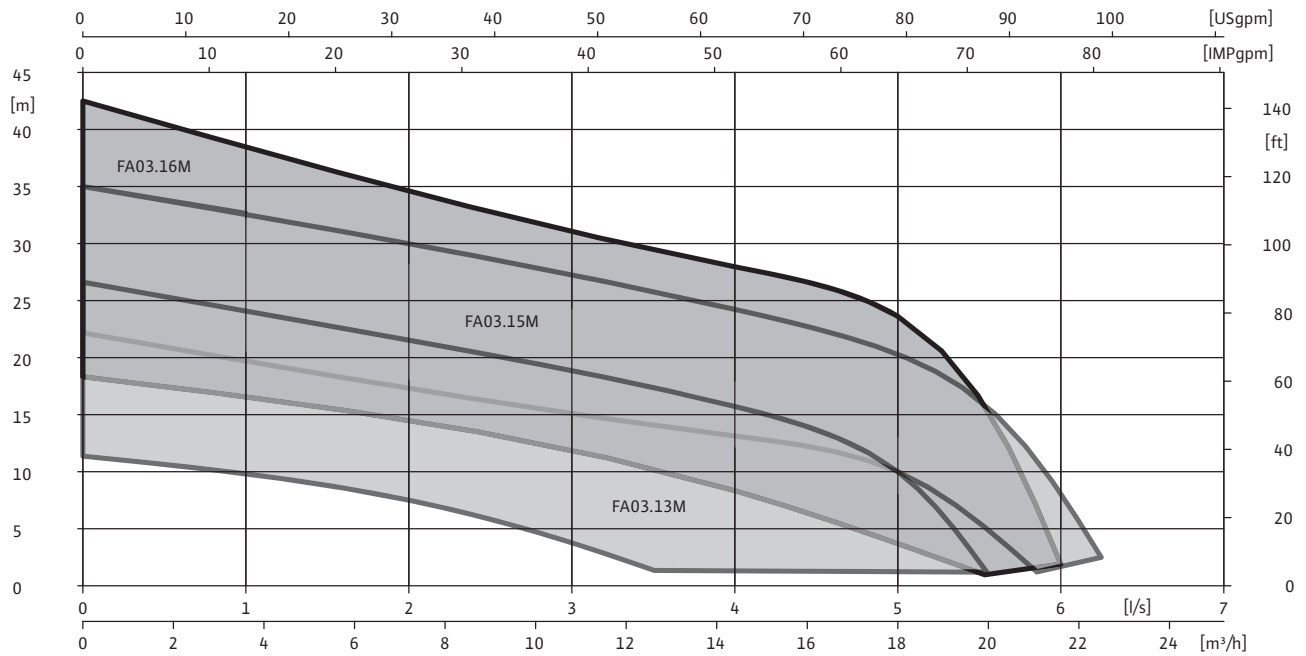
Pumps for Special Applications

Submersible motor pumps with macerator



Series description Wilo-EMU FA...M

Overview diagram



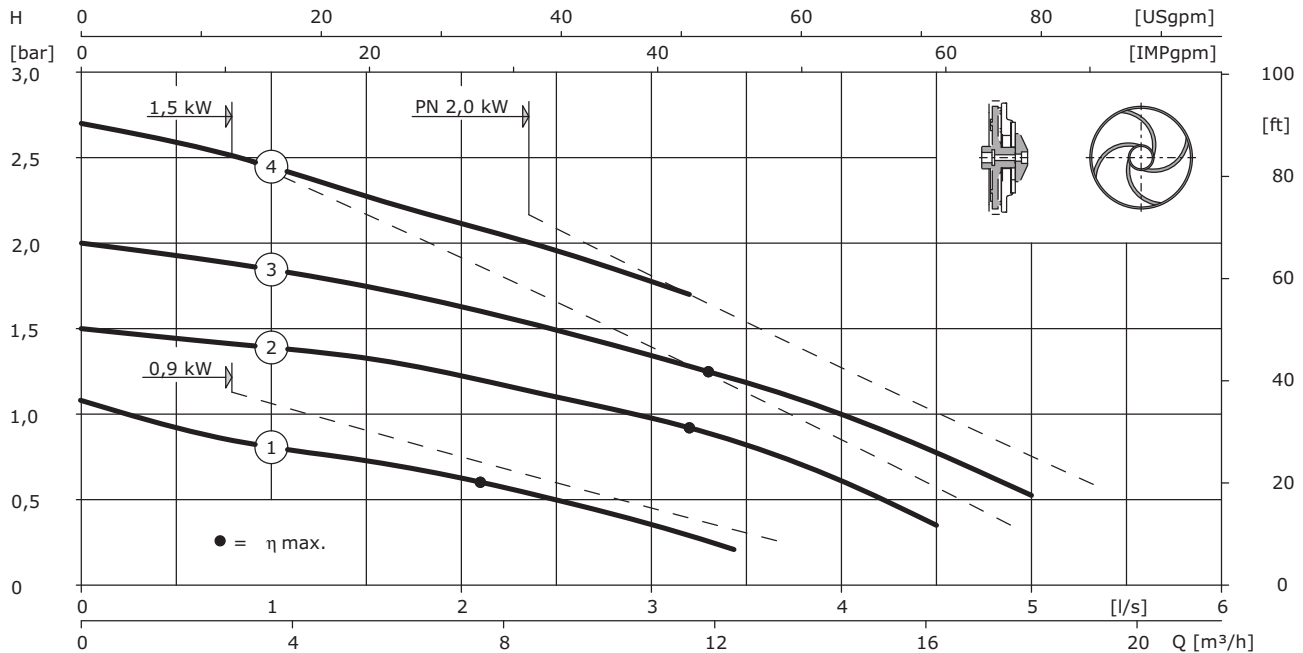
Submersible Motor Pumps with Macerator

Pumps for Special Applications

Submersible motor pumps with macerator

Wilo-EMU FA 03.13M (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	[mm]	[kg]	[kg]	[kg]
1	115	8	–	8
2	130	8	–	8
3	145	8	–	8
4	160	8	–	8
–	–	–	–	–

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	[mm]	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
0.9	T 12-2/11G	1.2	2.8	319	379	S1/S1	ATEX, FM	25
1.5	T 12-2/11G	2	3.65	319	379	S1/S2 30	ATEX, FM	25
2	T 12-2/11G	2.6	4.45	319	379	S1/S2 15	ATEX, FM	25

Pumps for Special Applications

Submersible motor pumps with macerator

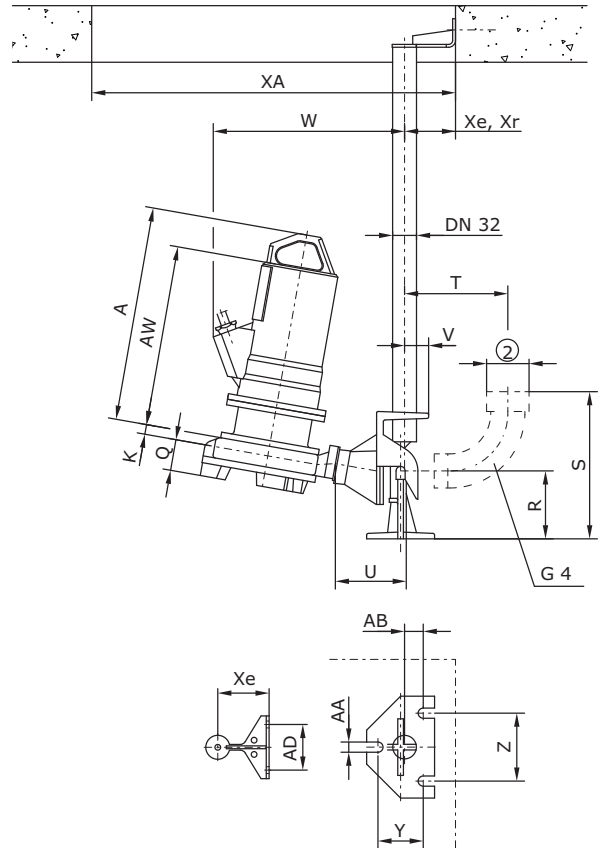
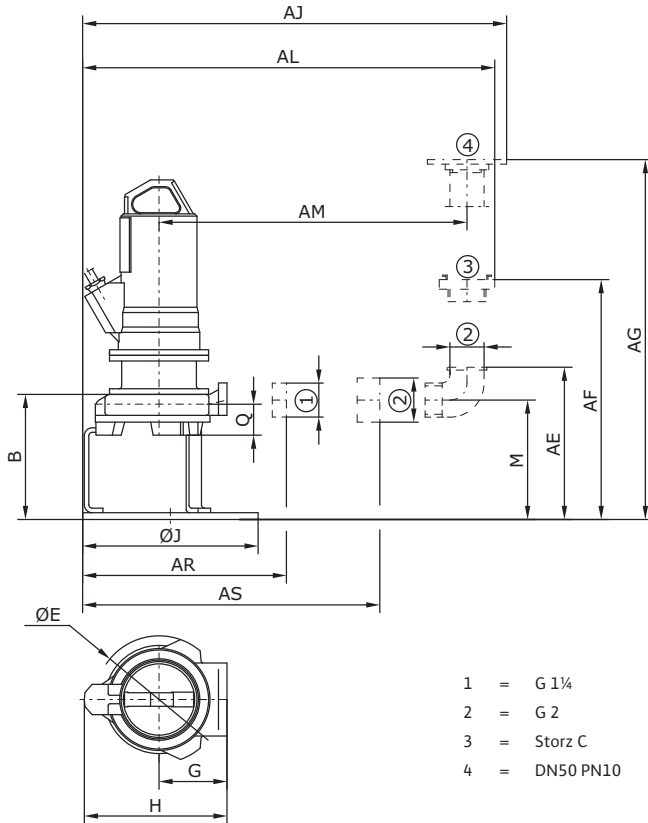


Wilo-EMU FA 03.13M (2900 rpm)

Dimension drawing

Portable installation (T)

Wet sump installation (BA)



Submersible motor pumps with macerator

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	221	-	-	225	-	120	252	310	17	-	211	-	-	-	-	54	120	260	109	125
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	Ae	Af	Ag	Ah	Aj	Al	Am	Ar	As
[mm]	43	338	625	90	95	80	120	18	33	-	80	269	288	370	-	431	397	213	283	298

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 36 / 1R 52.14650/1	7
Elbow 90° (G4), long, with internal and external thread	-	-	G2	1.5
Elbow with internal and external thread	G2	-	-	1
Elbow with internal and external thread Storz C	G2	-	-	1
Elbow with internal and external thread (long nipple / threaded flange)	G2 / DN50 PN10	-	-	3
Pump foot	52.14869	-	-	4

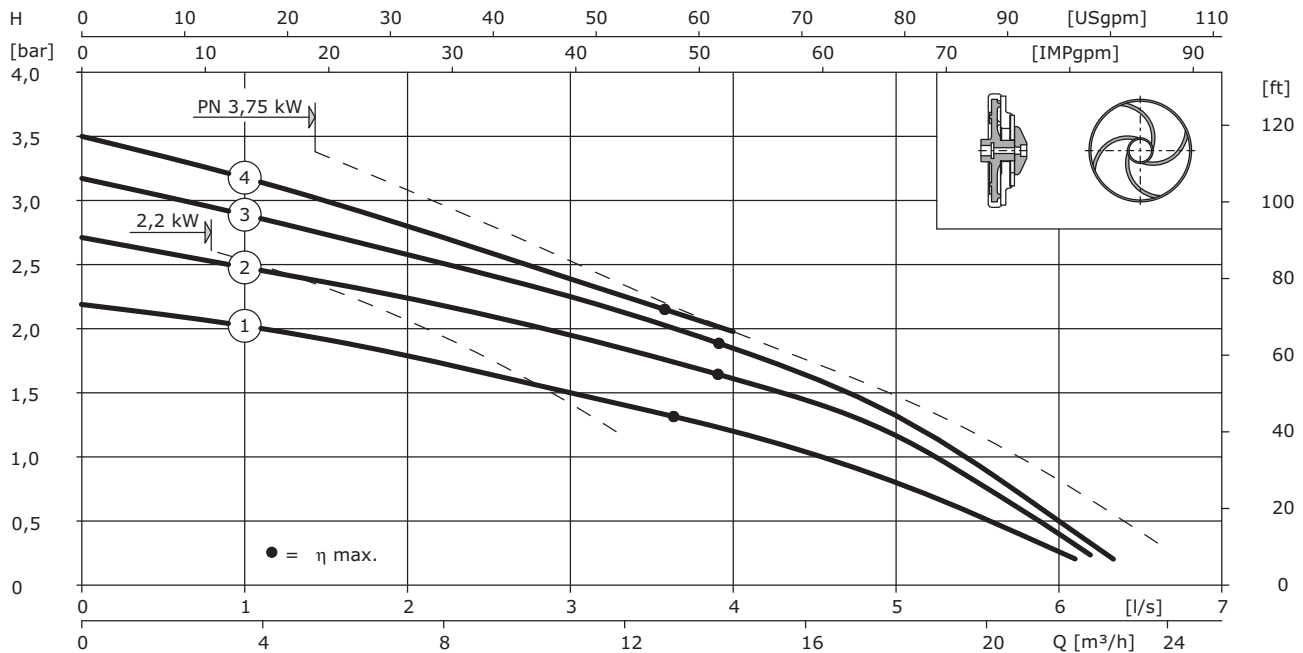
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with macerator

Wilo-EMU FA 03.15M (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	150	10	-	10	-	-	-	-	-
2	160	10	-	10	-	-	-	-	-
3	170	10	-	10	-	-	-	-	-
4	178	10	-	10	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
2.2	T 13-2/12H(K)	2.8	5	319	394	S1/S1	ATEX, FM	39
3.75	T 13-2/12H(K)	4.7	7.6	319	394	S1/S2 15	ATEX, FM	39

Pumps for Special Applications

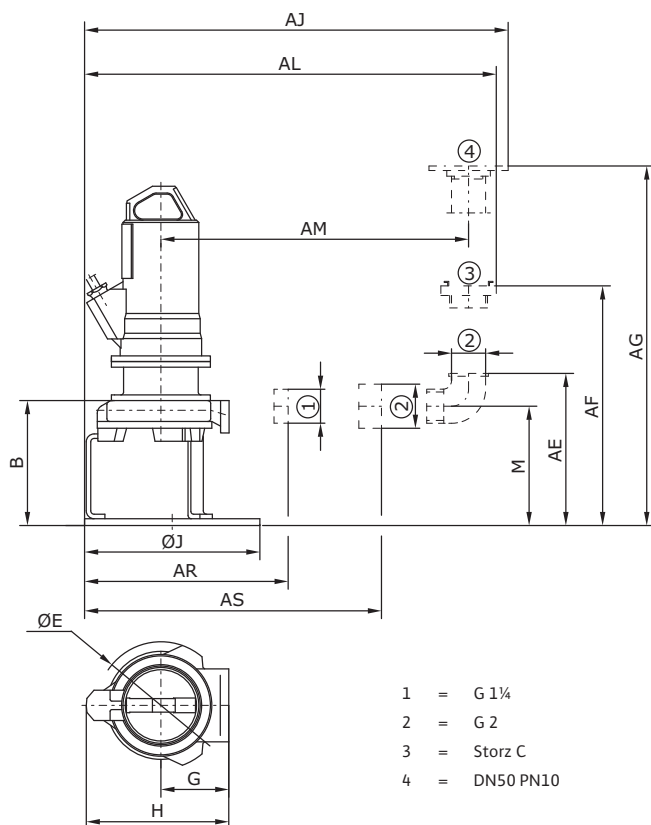
Submersible motor pumps with macerator



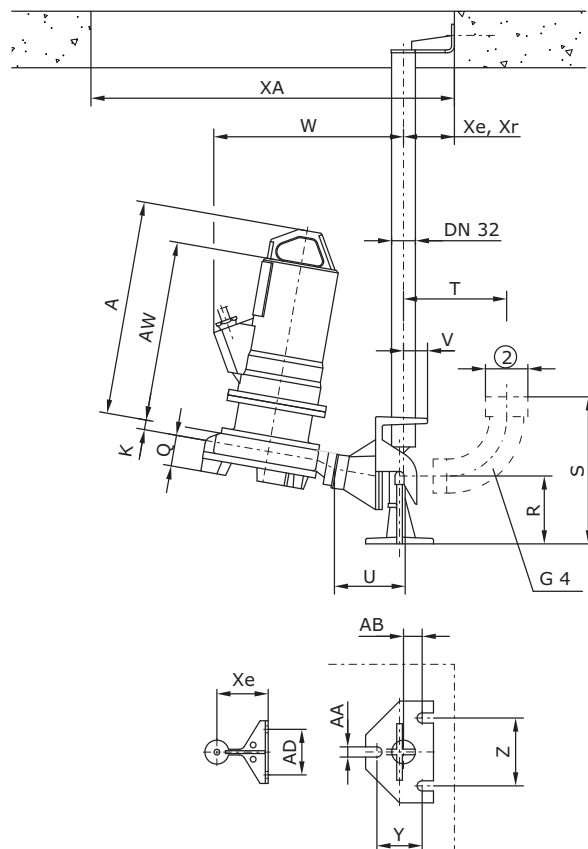
Wilo-EMU FA 03.15M (2900 rpm)

Dimension drawing

Portable installation (T)



Wet sump installation (BA)



Submersible motor pumps with macerator

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	224	-	-	230	-	140	279	310	20	-	197	-	-	-	-	54	120	260	109	125
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AL	AM	AR	AS
[mm]	43	378	625	90	95	80	120	18	33	-	80	255	274	356	-	458	424	233	310	325

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 36 / 1R 52.14650/1	7
Elbow 90° (G4), long, with internal and external thread	-	-	G2	1.5
Elbow with internal and external thread	G2	-	-	1
Elbow with internal and external thread Storz C	G2	-	-	1
Elbow with internal and external thread (long nipple / threaded flange)	G2 / DN50 PN10	-	-	3
Pump foot	52.14869	-	-	4

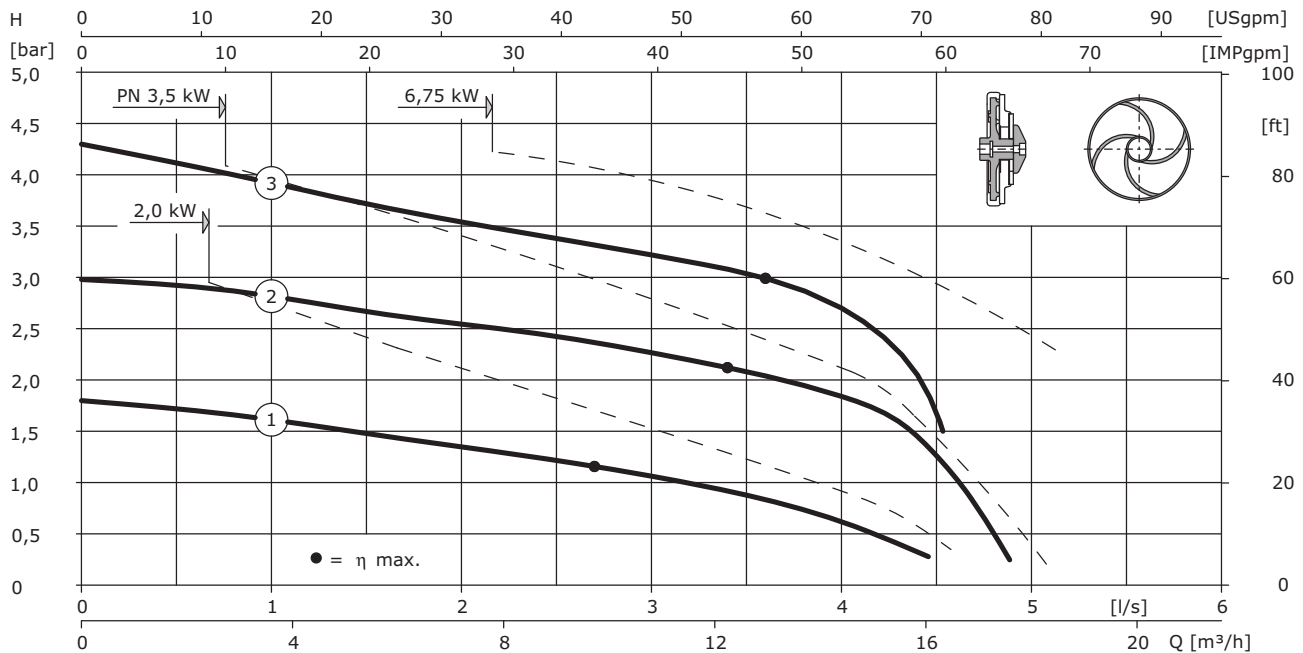
All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

Submersible motor pumps with macerator

Wilo-EMU FA 03.16M (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	136	11.5	-	11.5	-	-	-	-	-
2	166	11.5	-	11.5	-	-	-	-	-
3	196	11.5	-	11.5	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
3.5	T 17-2/8H(K)	4.35	7.2	338	410	S1/-	ATEX, FM	43
6.75	T 17-2/15H(K)	7.9	12.8	411	483	S1/-	ATEX, FM	51

Pumps for Special Applications

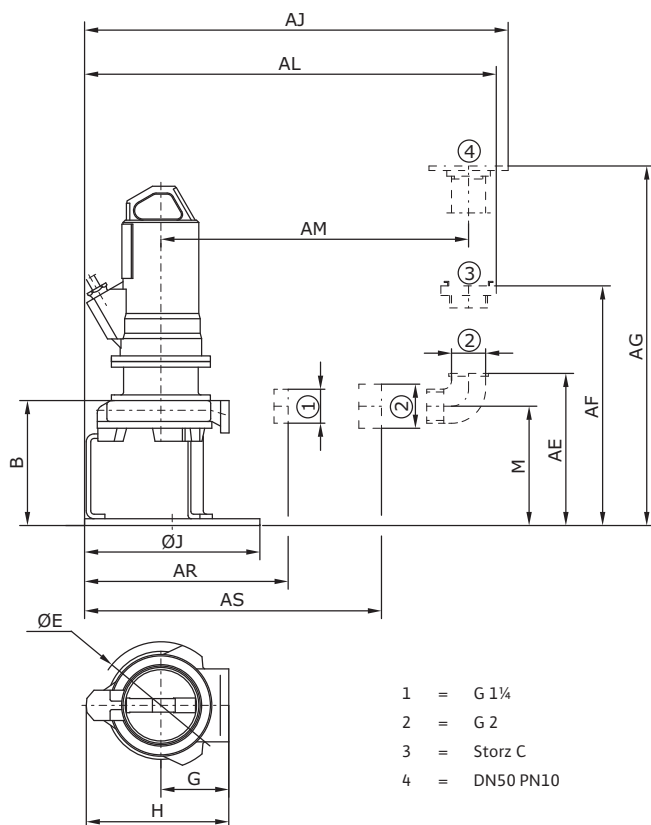
Submersible motor pumps with macerator



Wilo-EMU FA 03.16M (2900 rpm)

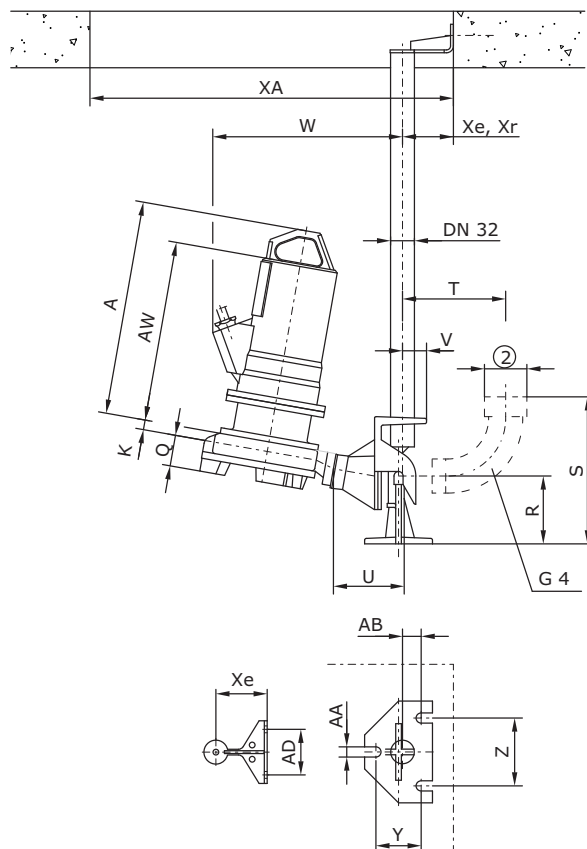
Dimension drawing

Portable installation (T)



- 1 = G 1¼
- 2 = G 2
- 3 = Storz C
- 4 = DN50 PN10

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	237	-	-	270	-	142	319	344	33	-	197	-	-	-	-	53	120	260	109	125
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AL	AM	AR	AS
[mm]	43	398	625	90	95	80	120	18	33	-	80	255	274	355	-	504	470	233	356	371

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 36 / 1R 52.14650/1	7
Elbow 90° (G4), long, with internal and external threa	-	-	G2	1.5
Elbow with internal and external thread	G2	-	-	1
Elbow with internal and external thread Storz C	G2	-	-	1
Elbow with internal and external thread (long nipple / threaded flange)	G2 / DN50 PN10	-	-	3
Pump foot	52.14008	-	-	4

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Submersible motor pumps with macerator

Pumps for Special Applications

Submersible motor pumps made of stainless steel casting

Series description Wilo-EMU FA...RF



Wilo-EMU FA...RF

Sewage pump with submersible motor made of stainless steel casting

Type key for hydraulics

Example: Wilo-EMU FA 05.23RFW

- FA** = Submersible sewage pump
- 05** = Nominal width of the pressure port DN 50 (x10)
- 23** = Performance characteristic number
- RF** = Special material, stainless steel casting
- W** = Impeller type

Type key for motors

Example: Wilo-EMU T12-2/11G Ex

- T** = Motor version
- 12** = Size
- 2** = Number of poles
- 11** = Package length
- G** = Sealing version
- Ex** = Ex approval

Fields of application

Sewage pumps for pumping aggressive fluids. All parts coming into contact with this have rust-proof stainless steel quality V4A (AISI 316). As standard with protective hose and elastomers made of Viton.

Construction

Submersible sewage pump made of rust-proof stainless steel as submersible monobloc unit for wet sump installation and portable installation.

Hydraulics

Housing and impeller made of stainless steel cast iron. The outlets on the pressure side are designed as horizontal flange connections. The maximum possible dry substance content, depending on the hydraulics and impeller type, is 8%. The ball passages are between 35 and 45 mm.

Different impeller shapes are used:

- **W** = Vortex impeller
- **E** = Single-channel impeller

The hydraulics are equipped with counter rings (single-channel impellers only) and stationary wear rings made of hardened materials. These easily exchangeable wear parts guarantee long-term efficiency of the unit.

Motor

Motor housing made of stainless steel cast iron.

The air-filled T-motors give off their heat to the surrounding fluid and can therefore only be operated for a short time outside of the fluid. The operating mode is documented here specific to type.

The cable inlet is sealed longitudinally watertight. Cable lengths are available at fixed stages starting from 10 m.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Plugs and switchgear
- Level controls

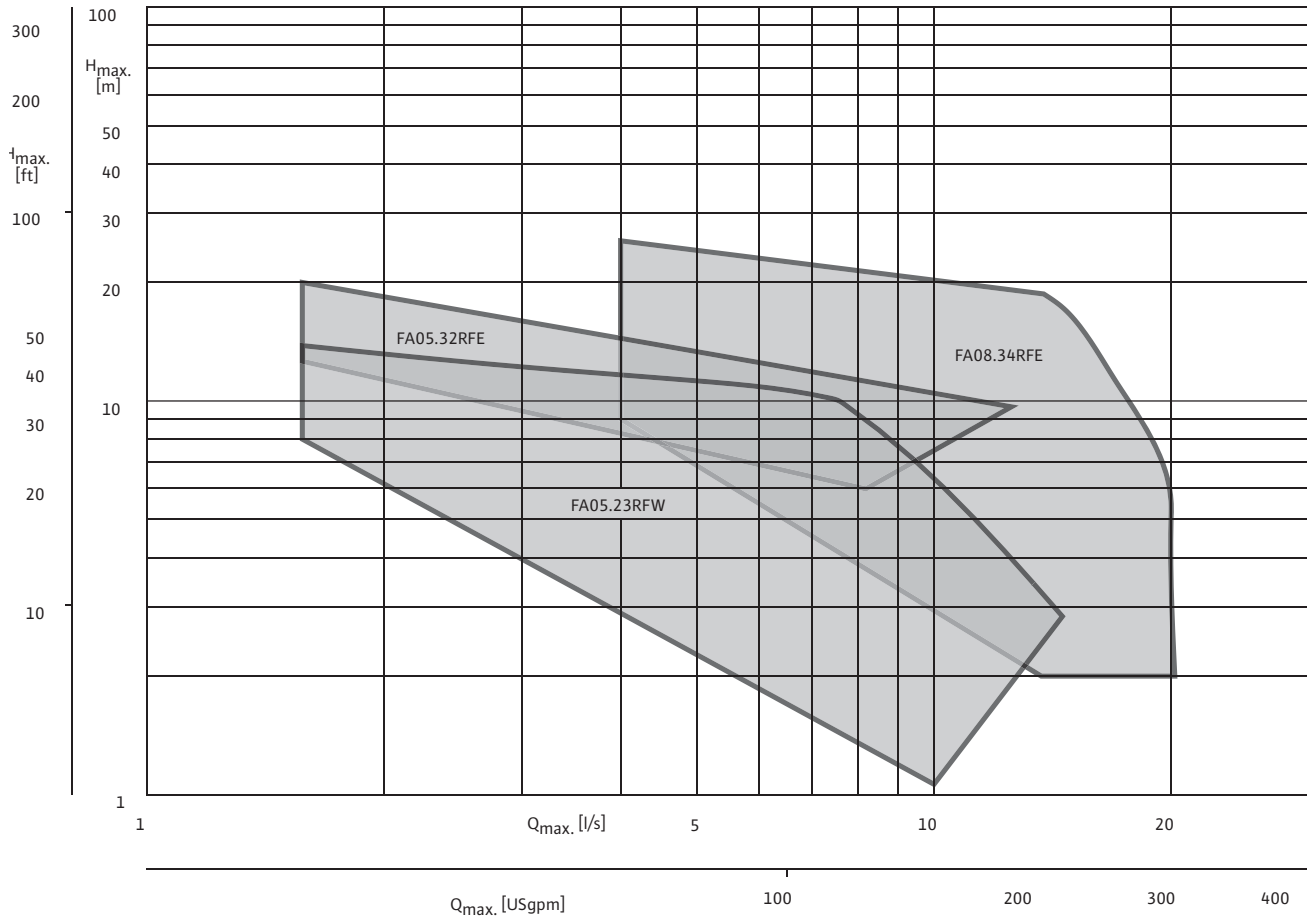
Pumps for Special Applications

Submersible motor pumps made of stainless steel casting



Series description Wilo-EMU FA...RF

Overview diagram



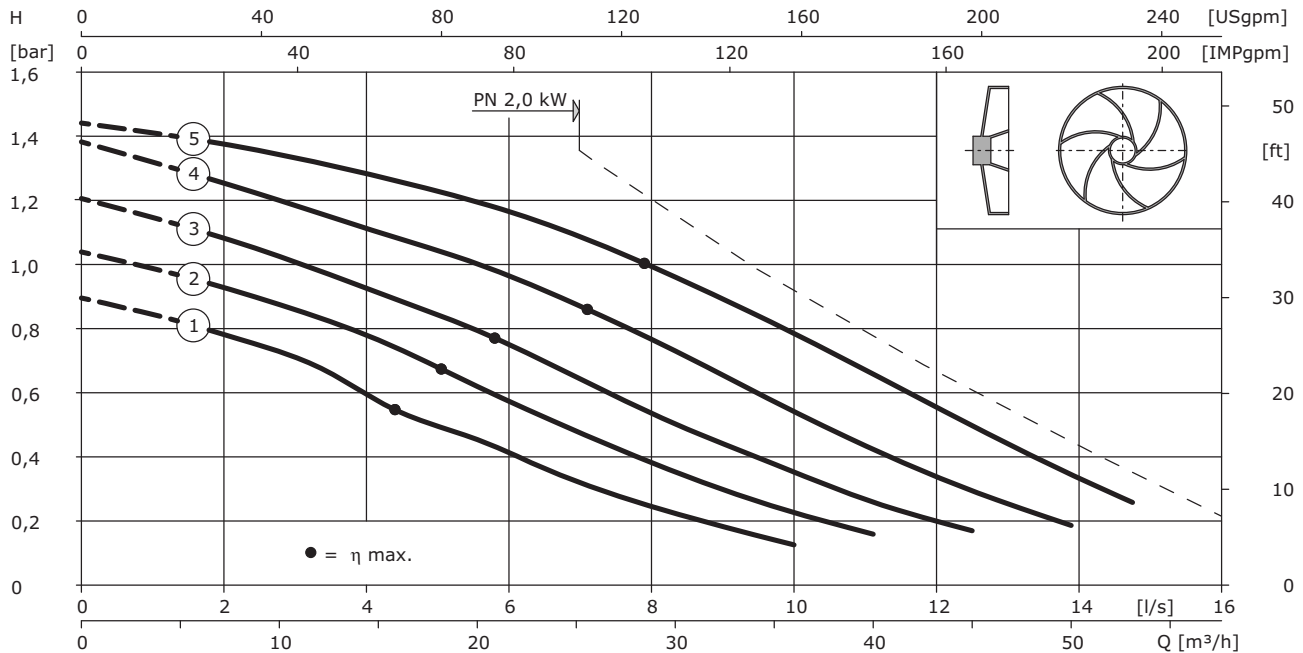
Submersible Motor Pumps Made of Stainless Steel Casting

Pumps for Special Applications

Submersible motor pumps made of Stainless Steel Casting

Wilo-EMU FA 05.23RFW (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	100	11	–	11
2	108	11	–	11
3	116	11	–	11
4	127	11	–	11
5	133	11	–	11

No.	Impeller	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	–	P ₁ max.	I	AW	A	submerged/surfaced	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
2	T 12-2/11GRF	2.6	4.45	319	379	S1/S2 15	ATEX, FM	29

Pumps for Special Applications

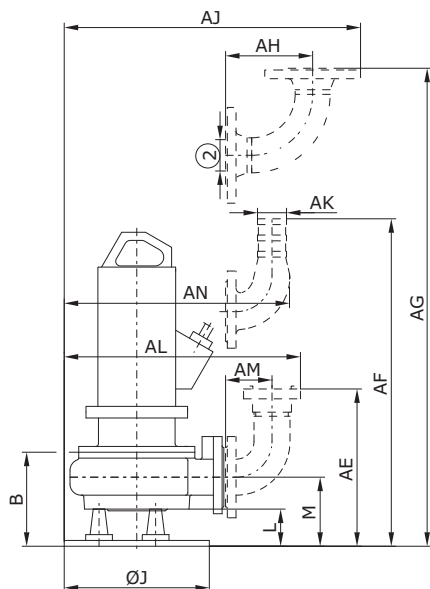
Submersible motor pumps made of Stainless Steel Casting



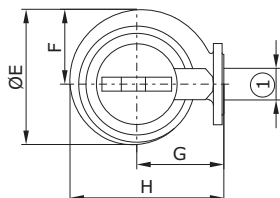
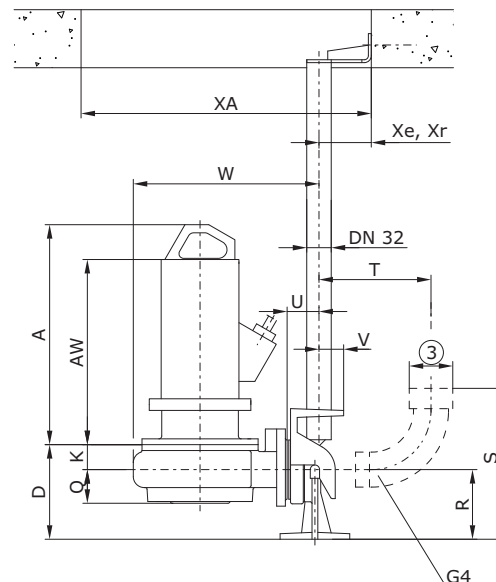
Wilo-EMU FA 05.23RFW (2900 rpm)

Dimension drawing

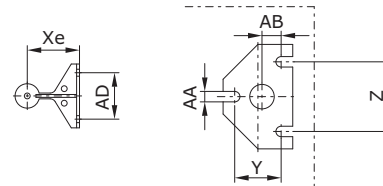
Portable installation (T)



Wet sump installation (BA)



- 1 = DN50 PN10
ANSI B16.1, Class 125, Size 2
- 2 = DN50 PN10
- 3 = G 2



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	164	–	163	233	128	150	265	250	43	68	121	–	–	–	–	57	120	260	109	55
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	320	625	90	95	80	120	18	33	–	80	273	281	271	150	511	50	407	80	389

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension unit	–	–	DN 50 / 1R 52.13917/1 RF	10
Elbow 90° (G4). Long. With internal and external thread	–	–	G2	1.5
Flanged elbow 90° (Q adapter)	DN 50	–	–	7
Flanged elbow 90° with hose connection 2"	DN 50	–	–	3
Flanged elbow 90° with thread G2 / Storz C	DN 50	–	–	3
Pump foot	52.14444 RF	–	–	5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

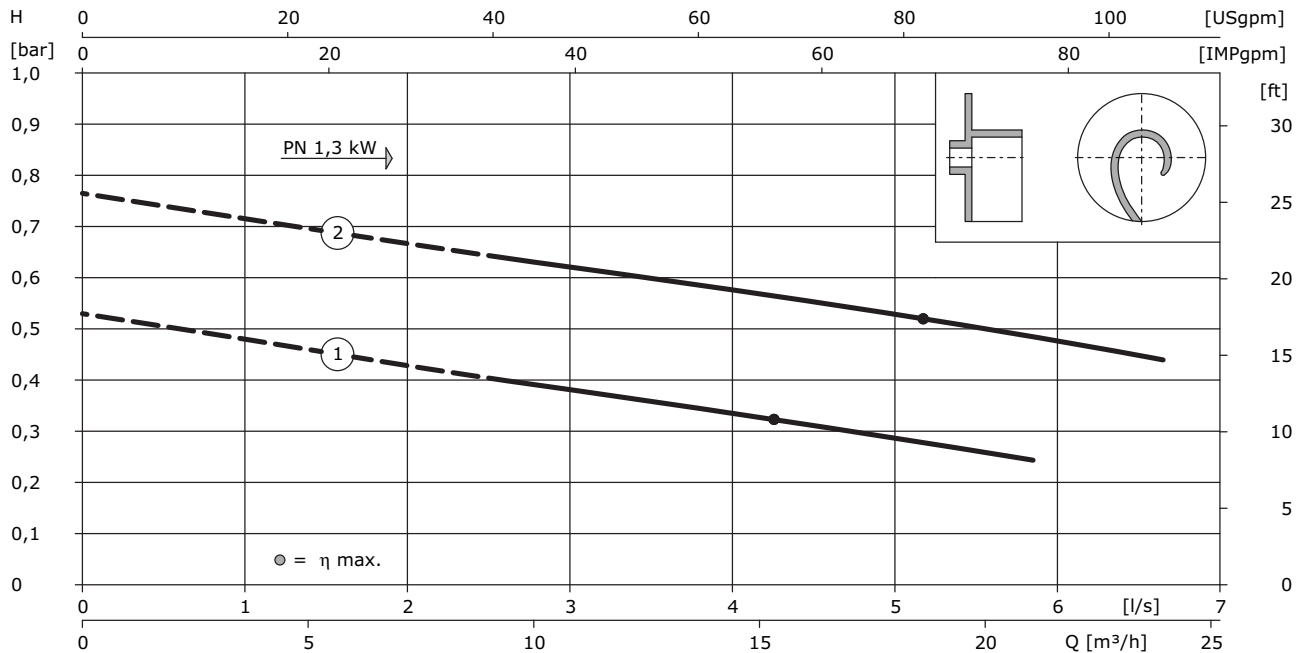
Submersible motor pumps made of stainless steel casting

Pumps for Special Applications

Submersible motor pumps made of Stainless Steel Casting

Wilo-EMU FA 05.32RFE (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	125	13	-	13	-	-	-	-	-
2	144	13	-	13	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
1.3	T 12-4/11GRF	1.74	3.25	319	379	S1/S2 15	ATEX, FM	29

Pumps for Special Applications

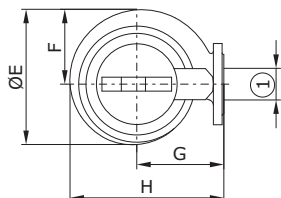
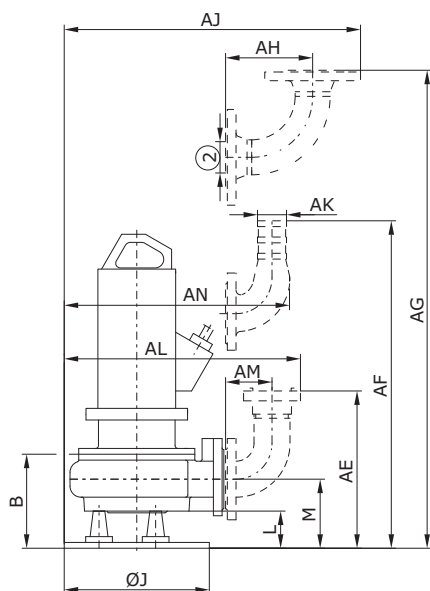
Submersible motor pumps made of Stainless Steel Casting



Wilo-EMU FA 05.32RFE (1450 rpm)

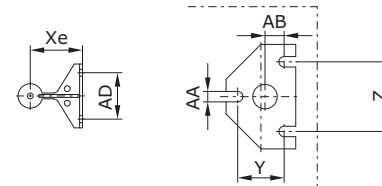
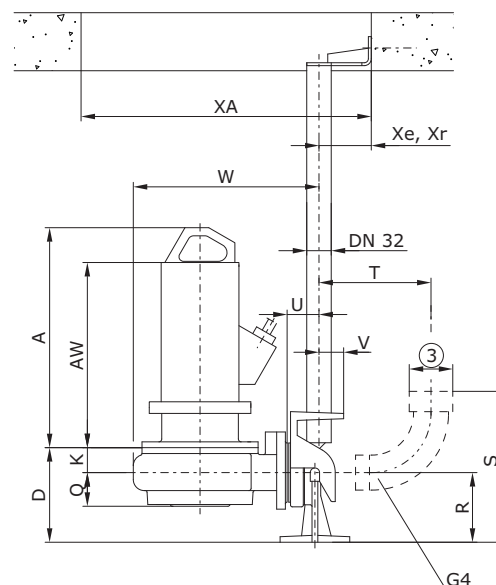
Dimension drawing

Portable installation (T)



- 1 = DN50 PN10
ANSI B16.1, Class 125, Size 2
- 2 = DN50 PN10
- 3 = G 2

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	164	–	163	233	128	150	265	250	43	68	121	–	–	–	57	120	260	109	55	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	320	625	90	95	80	120	18	33	–	80	273	281	271	150	511	50	407	80	389

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
–	–	–	–	–
–	–	–	–	[kg]
Suspension unit	–	–	DN 50 / 1R 52.13917/1 RF	10
Elbow 90° (G4). Long. With internal and external thread	–	–	G2	1.5
Flanged elbow 90° (Q adapter)	DN 50	–	–	7
Flanged elbow 90° with hose connection 2"	DN 50	–	–	3
Flanged elbow 90° with thread G2 / Storz C	DN 50	–	–	3
Pump foot	52.14444 RF	–	–	5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

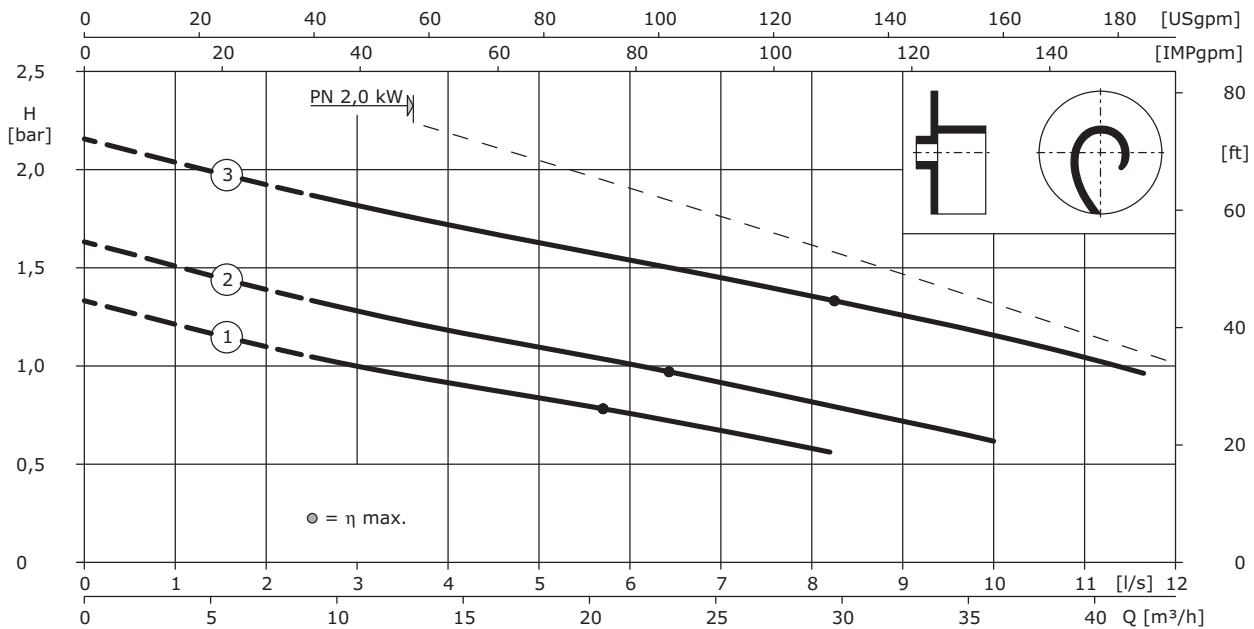
Submersible motor pumps made of stainless steel casting

Pumps for Special Applications

Submersible motor pumps made of Stainless Steel Casting

Wilo-EMU FA 05.32RFE (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight			No.	Impeller	Weight		
		BA	TA	T			BA	TA	T
-	-	[kg]	[kg]	[kg]	-	-	[kg]	[kg]	[kg]
1	100	12	-	12	-	-	-	-	-
2	112	12	-	12	-	-	-	-	-
3	125	13	-	13	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
2	T 12-2/11GRF	2.6	4.45	319	379	S1/S2 15	ATEX, FM	29

Pumps for Special Applications

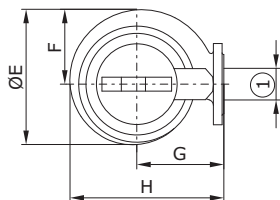
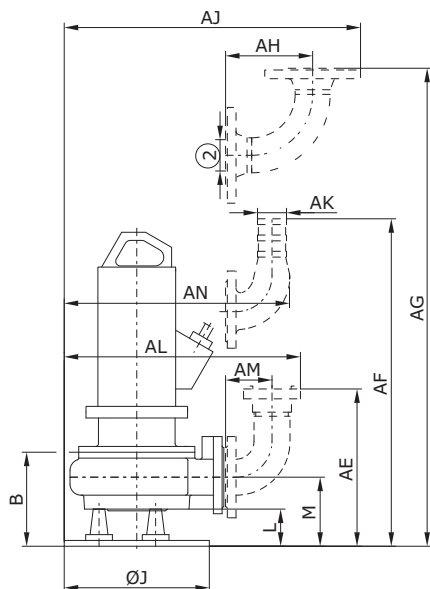
Submersible motor pumps made of Stainless Steel Casting



Wilo-EMU FA 05.32RFE (2900 rpm)

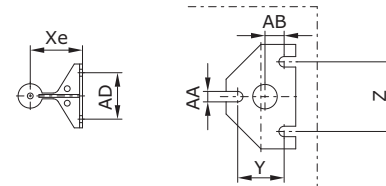
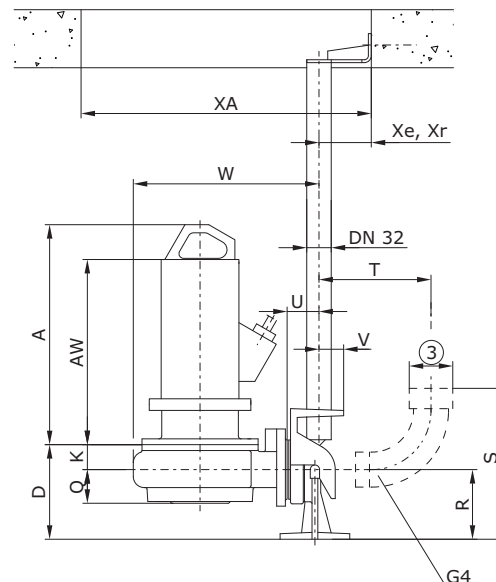
Dimension drawing

Portable installation (T)



- 1 = DN50 PN10
ANSI B16.1, Class 125, Size 2
- 2 = DN50 PN10
- 3 = G 2

Wet sump installation (BA)



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	164	-	163	233	128	150	265	250	43	68	121	-	-	-	57	120	260	109	55	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	43	320	625	90	95	80	120	18	33	-	80	273	281	271	150	511	50	407	80	389

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 50 / 1R 52.13917/1 RF	10
Elbow 90° (G4). Long. With internal and external thread	-	-	G2	1.5
Flanged elbow 90° (Q adapter)	DN 50	-	-	7
Flanged elbow 90° with hose connection 2"	DN 50	-	-	3
Flanged elbow 90° with thread G2 / Storz C	DN 50	-	-	3
Pump foot	52.14444 RF	-	-	5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

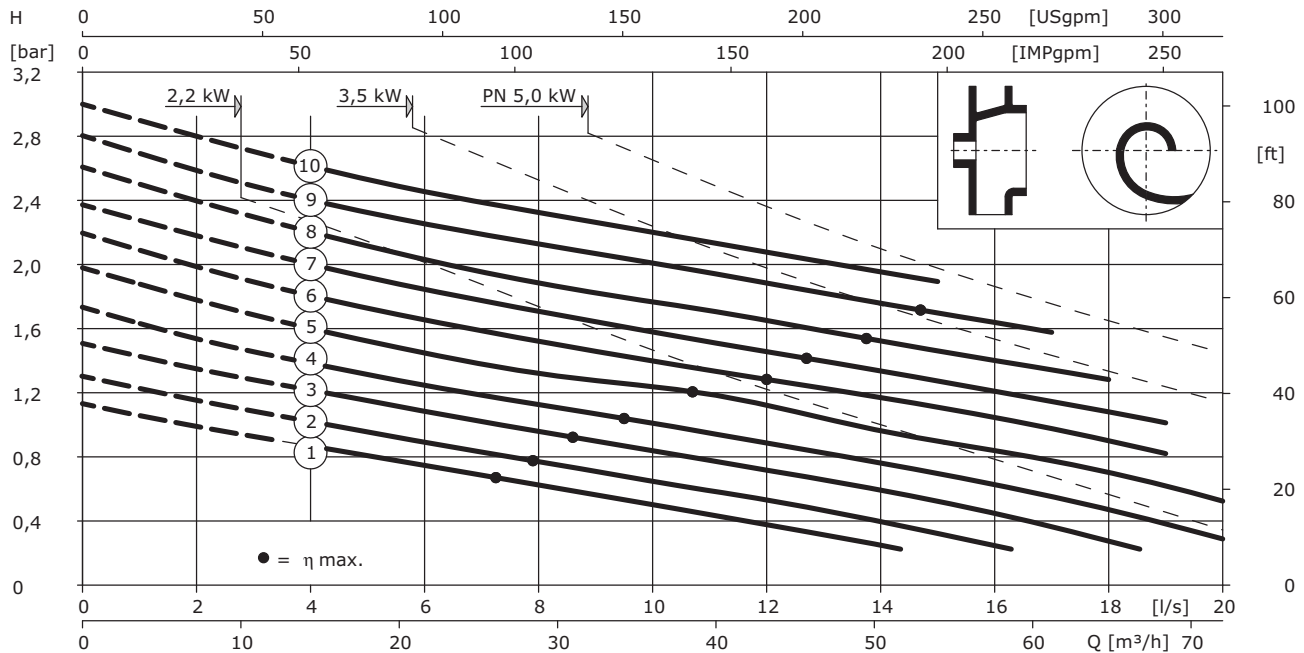
Submersible motor pumps made of stainless steel casting

Pumps for Special Applications

Submersible motor pumps made of Stainless Steel Casting

Wilco-EMU FA 08.34RFE (2900 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	105	17	-	17
2	110	17	-	17
3	115	17	-	17
4	120	17	-	17
5	125	17	-	17

No.	Impeller	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
6	130	18	-	18
7	135	18	-	18
8	140	18	-	18
9	145	18	-	18
10	150	18	-	18

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P ₂	-	P ₁ max.	I	AW	A	submerged/surfaced	-	-
[kW]	-	[kW]	[A]	[mm]	[mm]	-	-	[kg]
Wet sump installation								
2.2	T 13-2/12KRF	2.95	5.3	319	394	S1/S2 15	ATEX, FM	37
3.5	T 13-2/12KRF	4.4	7.1	319	394	S1/S2 15	ATEX, FM	37
5	T 13-2/16KRF	5.9	9.7	374	449	S1/S2 15	ATEX, FM	40

Pumps for Special Applications

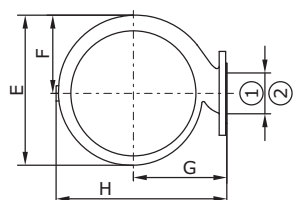
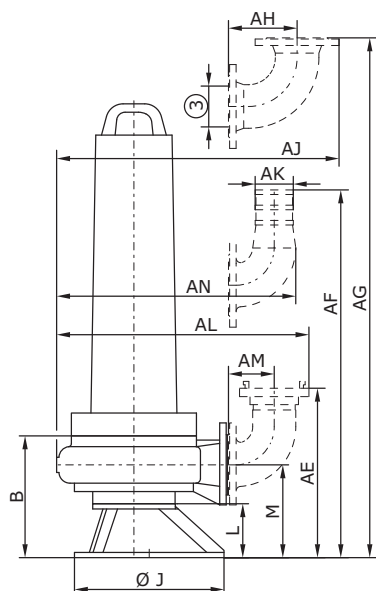
Submersible motor pumps made of Stainless Steel Casting



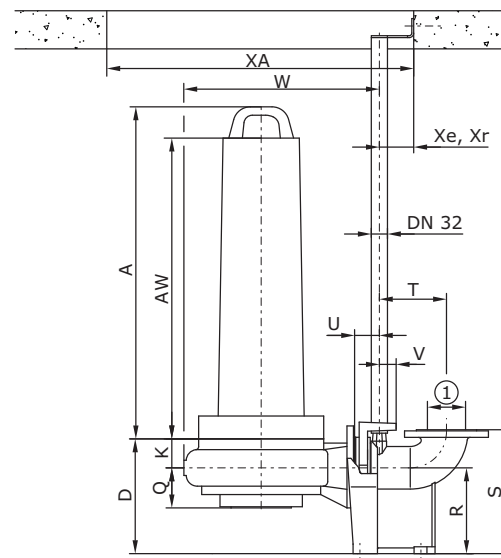
Wilo-EMU FA 08.34RFE (2900 rpm)

Dimension drawing

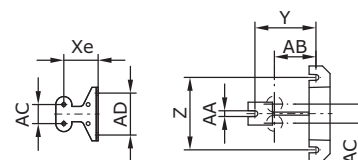
Portable installation (T)



Wet sump installation (BA)



- 1 = DN80 PN10
ANSI B16.1, Class 125, Size 3
- 2 = DN65 PN10
ANSI B16.1, Class 125, Size 2.5
- 3 = DN80 PN10



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
[mm] Motor	184	-	249	230	125	150	265	250	39	68	145	-	-	-	77	210	300	166	59	
	V	W	XA	Xe	Xr	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN
[mm]	40	324	625	90	98	120	170	15	69	50	110	332	355	310	165	468	75	431	100	415

Accessories and accessory weights

Description	Installation			Weight
	T	TA	BA	
-	-	-	-	-
-	-	-	-	[kg]
Suspension unit	-	-	DN 80 / 2RK 51.17580 RF	20
Flanged elbow 90° (Q adapter)	DN 80	-	-	10
flanged elbow 90° with hose connection 3"	DN 80	-	-	7
Flanged elbow 90° with thread G3 / Storz B	DN 80	-	-	7
Flanged foot elbow 90° (N adapter)	-	-	-	-
Pump foot	52.14444 RF	-	-	5

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Submersible motor pumps made of stainless steel casting

Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe sumps

Series description Wilo-EMU KPR...



Wilo-EMU KPR...

Propeller pump with submersible motor for use in pipe sumps

Type key for hydraulics

Example: Wilo-EMU KPR 760-16°

- KPR** = Axial pump
- 760** = Propeller diameter
- 16°** = Angle setting of the propeller blade

Type key for motors

Example: Wilo-EMU T49-10/70P Ex

- T** = Motor version
- 49** = Size
- 8** = Number of poles
- 70** = Package length
- P** = Motor for propeller pump
- Ex** = Ex approval

Fields of application

Pumping of mechanically pre-cleaned sewage and activated sludge in water treatment systems.

Further fields of application are in flood protection, as well as industrial and cooling water supplies in the industrial and commercial areas.

Construction

Submersible sewage pump as submersible monobloc unit for wet sump installation.

Hydraulics

Housing and impeller made of grey cast iron. The ball passages are between 85 and 130 mm. Adjustable axial impellers for adapting to changed system conditions.

Motor

Motor housing made of grey cast iron.

The air-filled T-motors give off their heat to the surrounding fluid. The units can only be operated directly in the pipeline in wet sump installation due to their design.

The cable inlet is sealed longitudinally watertight. The cable length can be individually configured.

Sealing

The sealing of the motor space from the fluid is done in various ways. There are different variants, depending on the type of motor:

- Two mechanical seals (G)
- Block seal cartridge (K)

Options

- Special materials and coatings against corrosion and abrasion
- Diverse monitoring equipment depending on the type of motor (sealing chamber control, bimetal or PTC thermistor temperature sensor, bearing temperature, ...)
- Switchgears
- Level controls

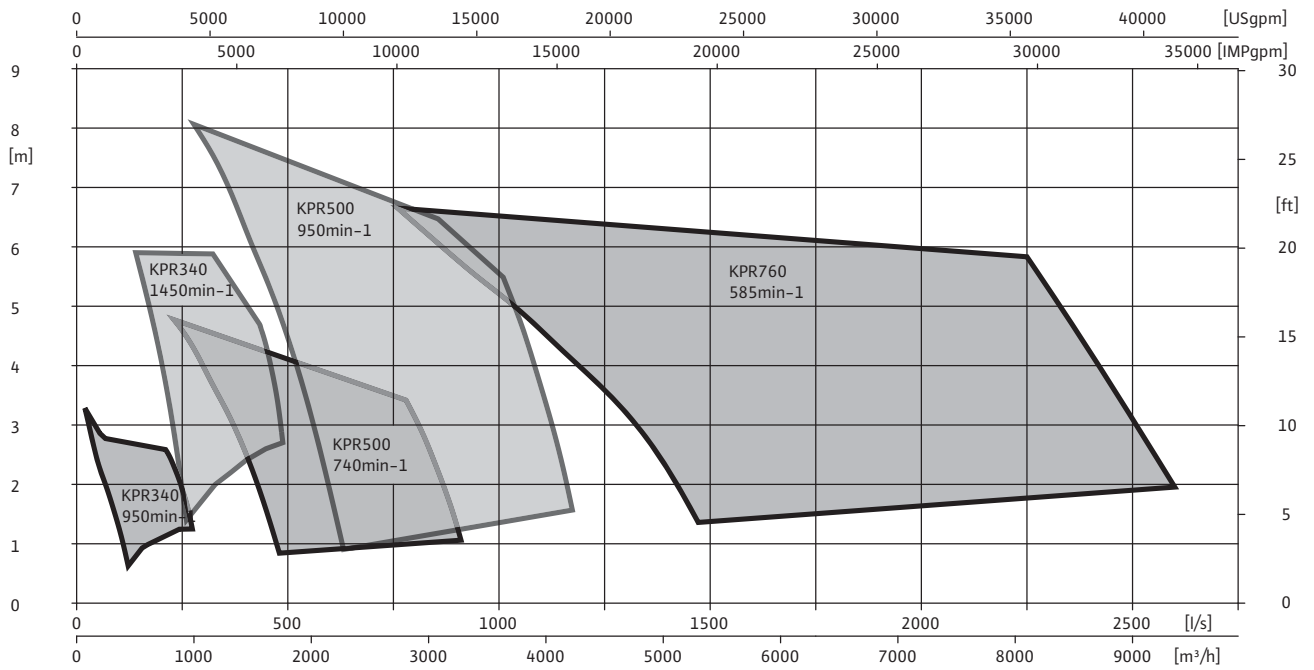
Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe sumps



Series description Wilo-EMU KPR...

Overview diagram



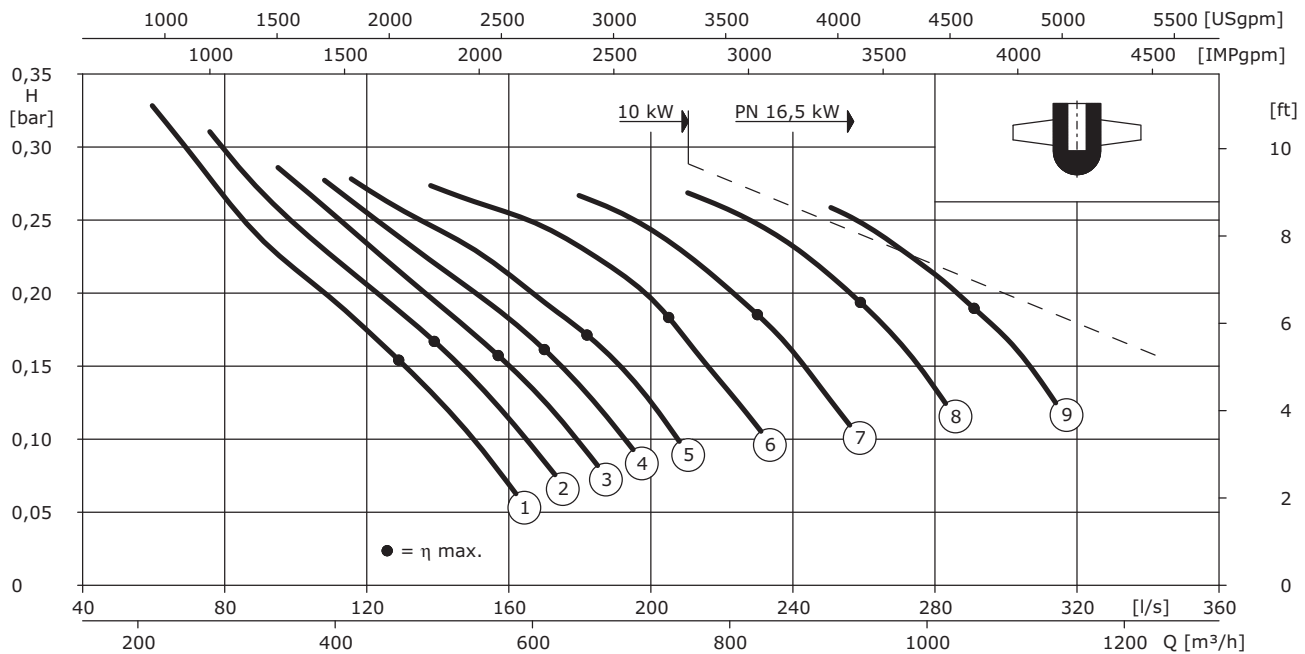
Propeller Pumps for Use in Pipe Shafts

Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe shafts

Wilo-EMU KPR 340 (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Propeller angle	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	4	160	–	–
2	5	160	–	–
3	6	160	–	–
4	7	160	–	–
5	8	160	–	–

No.	Propeller angle	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	10	160	–	–
7	12	160	–	–
8	14	160	–	–
9	16	160	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
P_2	–	P_1 max.	I	AW	A	submerged/surface	–	–
[kW]	–	[kW]	[A]	[mm]	[mm]	–	–	[kg]
Wet sump installation								
10	T 24-6/16P	12.2	21	–	893	S1/-	ATEX, FM	140
16.5	T 24-6/22P	19.9	33.5	–	893	S1/-	ATEX, FM	155

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

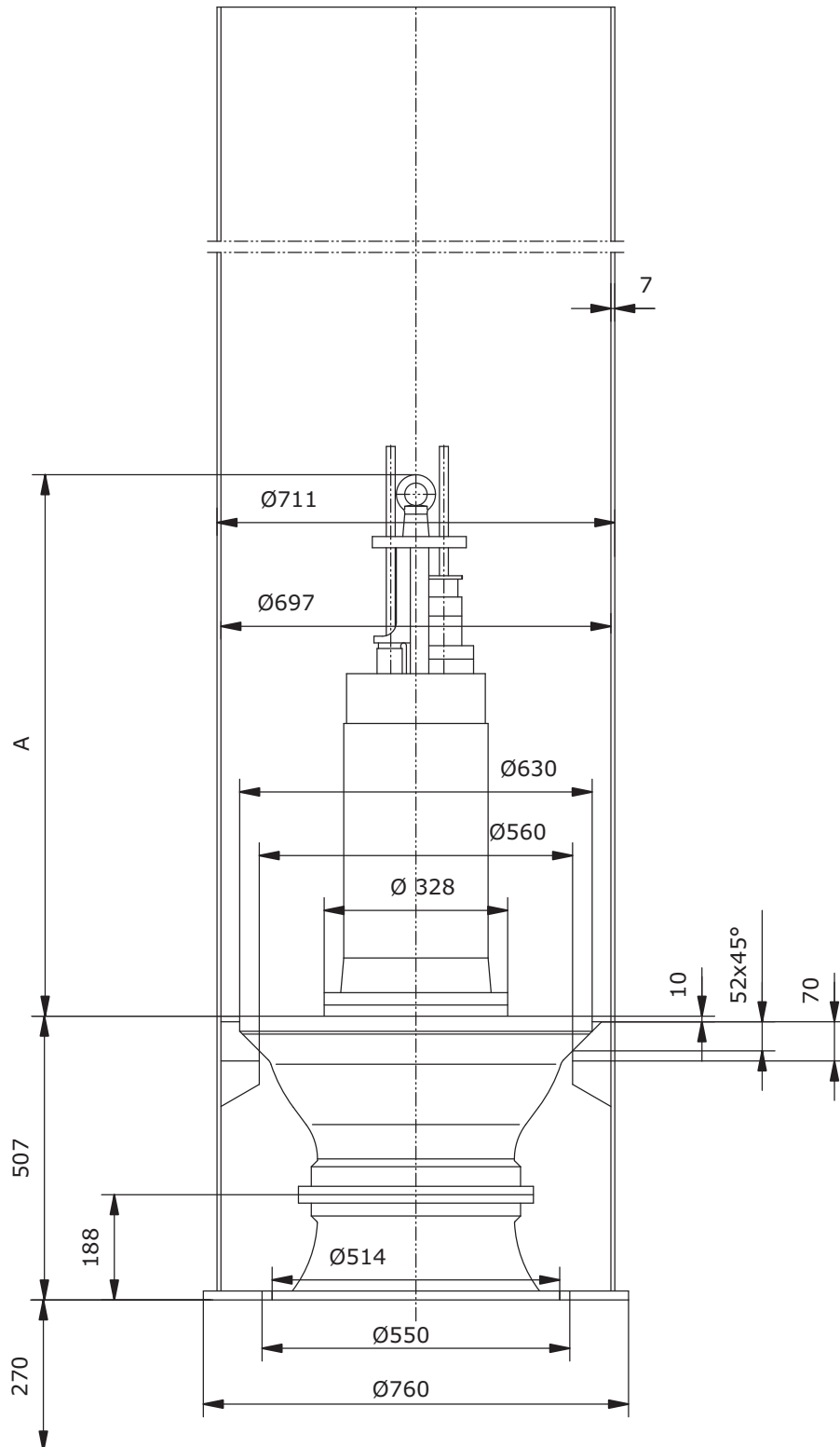
Propeller pumps with submersible motor for use in pipe shafts



Wilo-EMU KPR 340 (950 rpm)

Dimension drawing

Wet sump installation (BA)



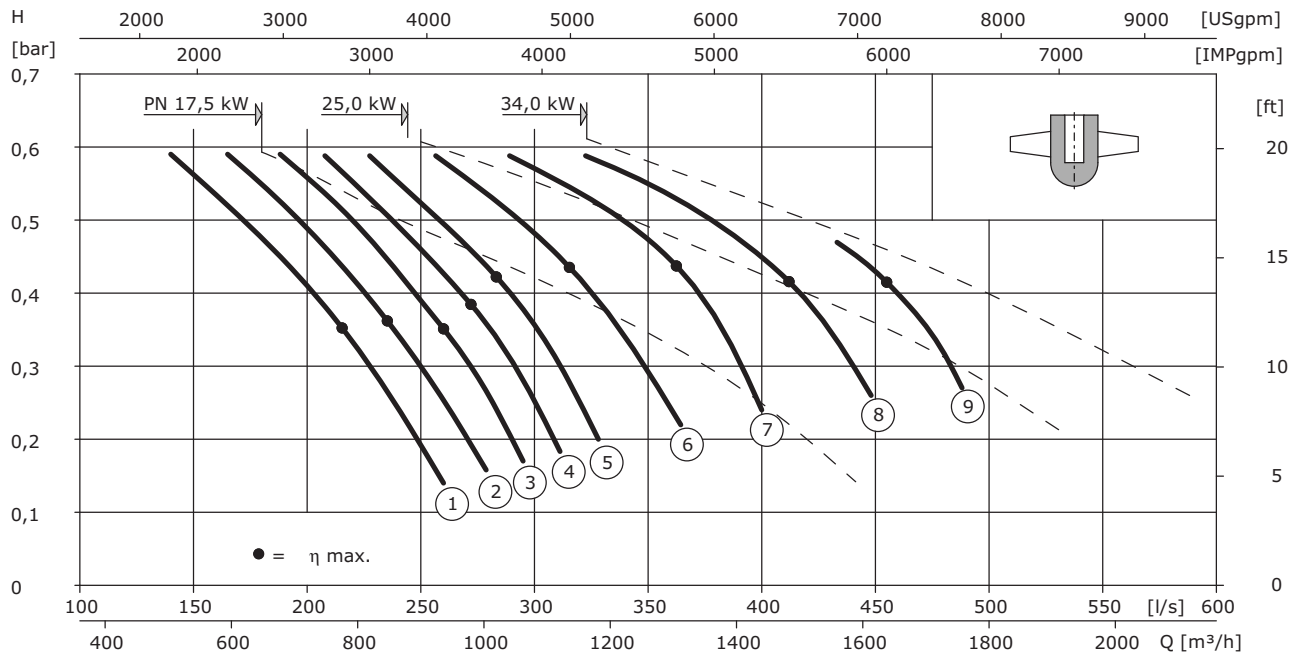
Propeller pumps to use
in pipe shafts

Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe shafts

Wilo-EMU KPR 340 (1450 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Propeller angle	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
1	4	160	-	-
2	5	160	-	-
3	6	160	-	-
4	7	160	-	-
5	8	160	-	-

No.	Propeller angle	Weight		
		BA	TA	T
-	-	[kg]	[kg]	[kg]
6	10	160	-	-
7	12	160	-	-
8	14	160	-	-
9	16	160	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	-	P ₁ max.	I	[mm]	[mm]	submerged/surface	-	-
[kW]	-	[kW]	[A]			-	-	[kg]
Wet sump installation								
17.5	T 24-4/21P	20.5	35.5	-	893	S1/-	ATEX, FM	155
25	T 24-4/29P	28.5	49.5	-	958	S1/-	ATEX, FM	190
34	T 24-4/36P	39	68	-	1028	S1/-	ATEX, FM	217

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

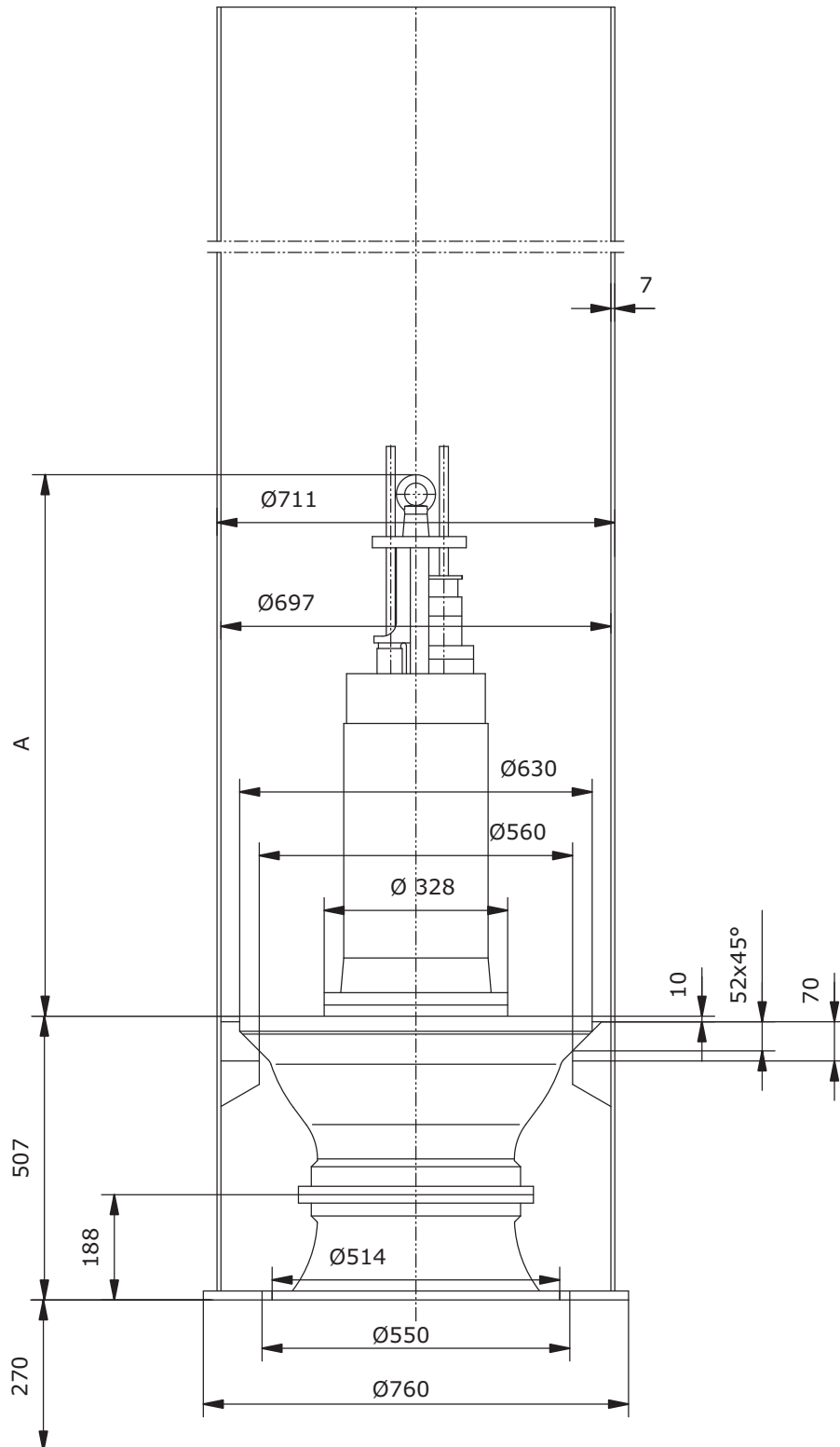
Propeller pumps with submersible motor for use in pipe shafts



Wilo-EMU KPR 340 (1450 rpm)

Dimension drawing

Wet sump installation (BA)



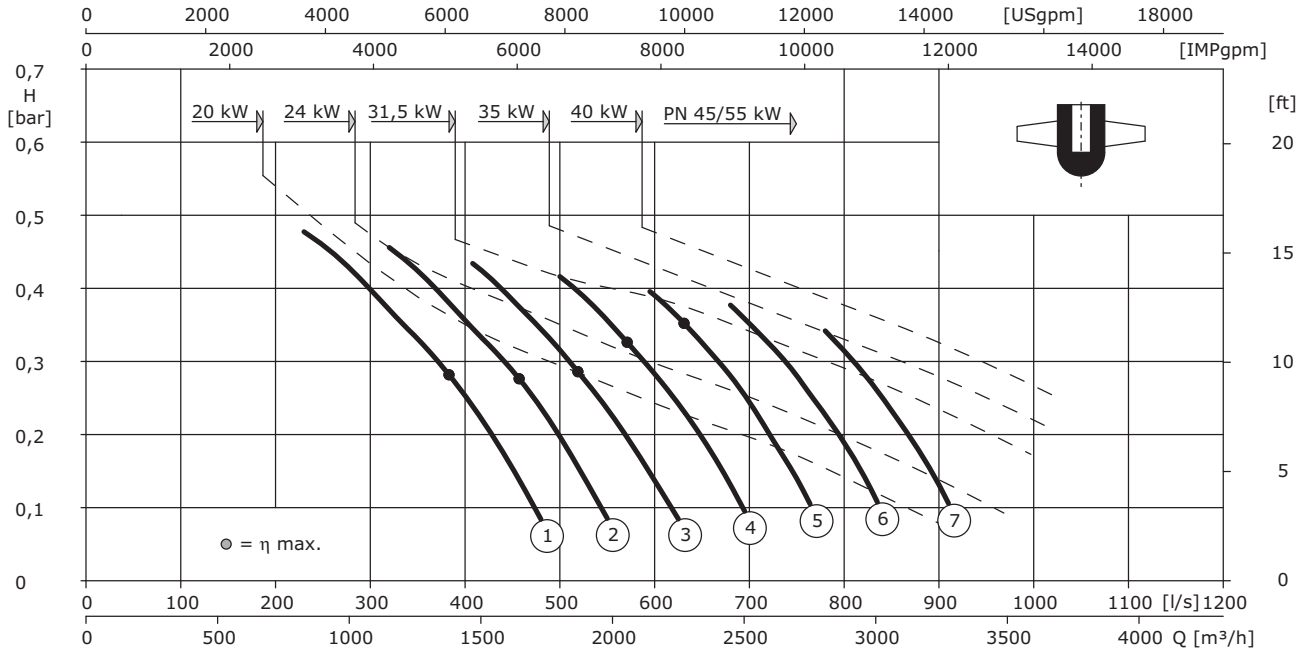
Propeller pumps to use
in pipe shafts

Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe shafts

Wilo-EMU KPR 500 (740 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Propeller angle	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
1	4	385	–	–
2	6	385	–	–
3	8	385	–	–
4	10	385	–	–
5	12	385	–	–

No.	Propeller angle	Weight		
		BA	TA	T
–	–	[kg]	[kg]	[kg]
6	14	385	–	–
7	16	385	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

Motor overview and motor weights

Nominal power	Motor	Power consumption	Current	Dimensions		Operating mode	Ex protection	Weight
				AW	A			
P ₂	–	P ₁ max.	I	[mm]	[mm]	submerged/surface	–	–
[kW]	–	[kW]	[A]			–	–	[kg]
Wet sump installation								
20	T 30-8/29P	23	42.5	–	1022	S1/-	ATEX, FM	330
24	T 30-8/35P	27.5	51	–	1082	S1/-	ATEX, FM	364
31.5	T 30-8/45P	36	67	–	1172	S1/-	ATEX, FM	415
40	T 30-8/57P	45.5	85	–	1281	S1/-	ATEX, FM	487
35	T 34-8/32P	40	73	–	1076	S1/-	ATEX, FM	420
45	T 34-8/41P	52	93	–	1156	S1/-	ATEX, FM	478
55	T 34-8/50P	62	111	–	1226	S1/-	ATEX, FM	544

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

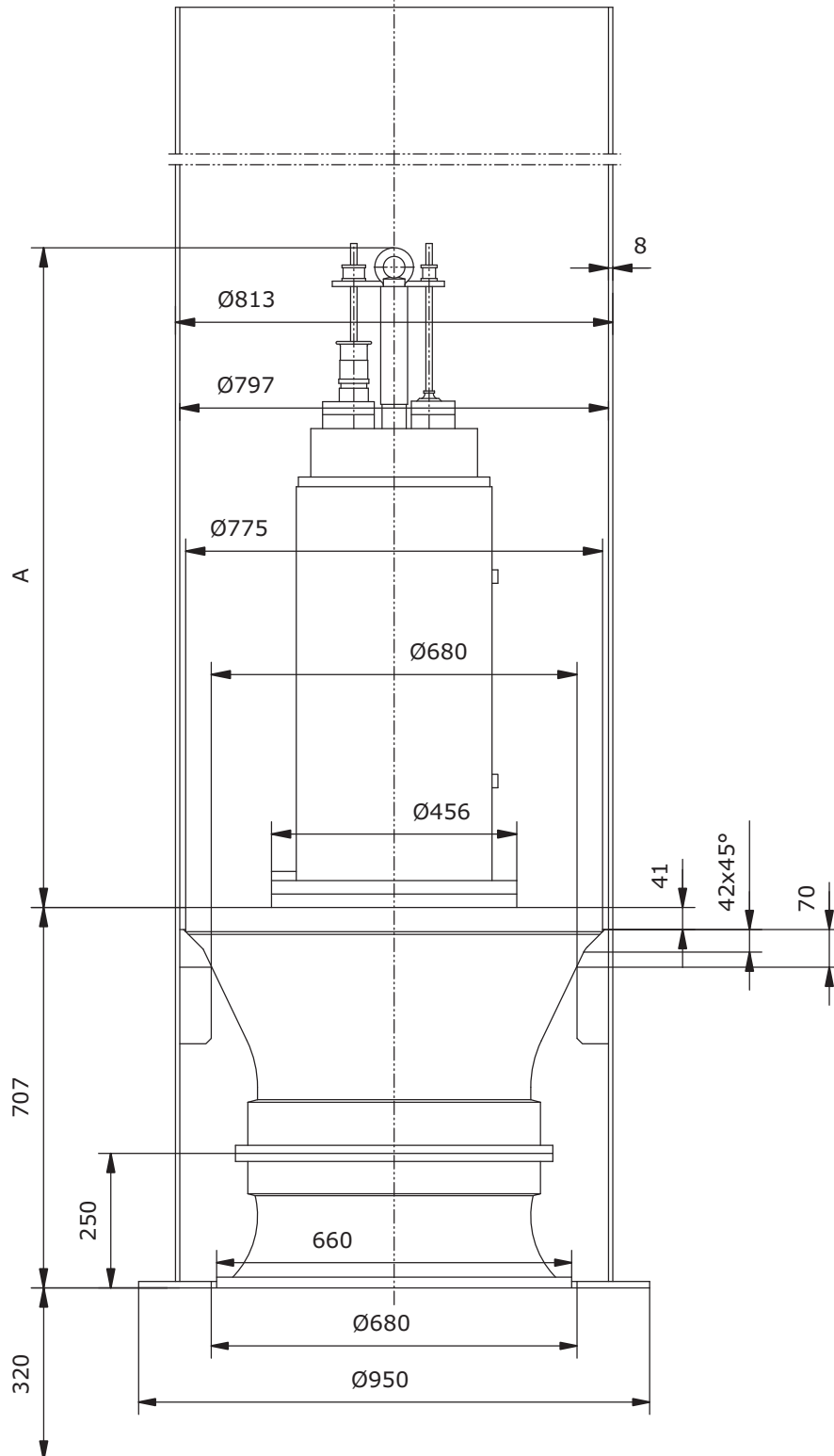
Propeller pumps with submersible motor for use in pipe shafts



Wilo-EMU KPR 500 (740 rpm)

Dimension drawing

Wet sump installation (BA)



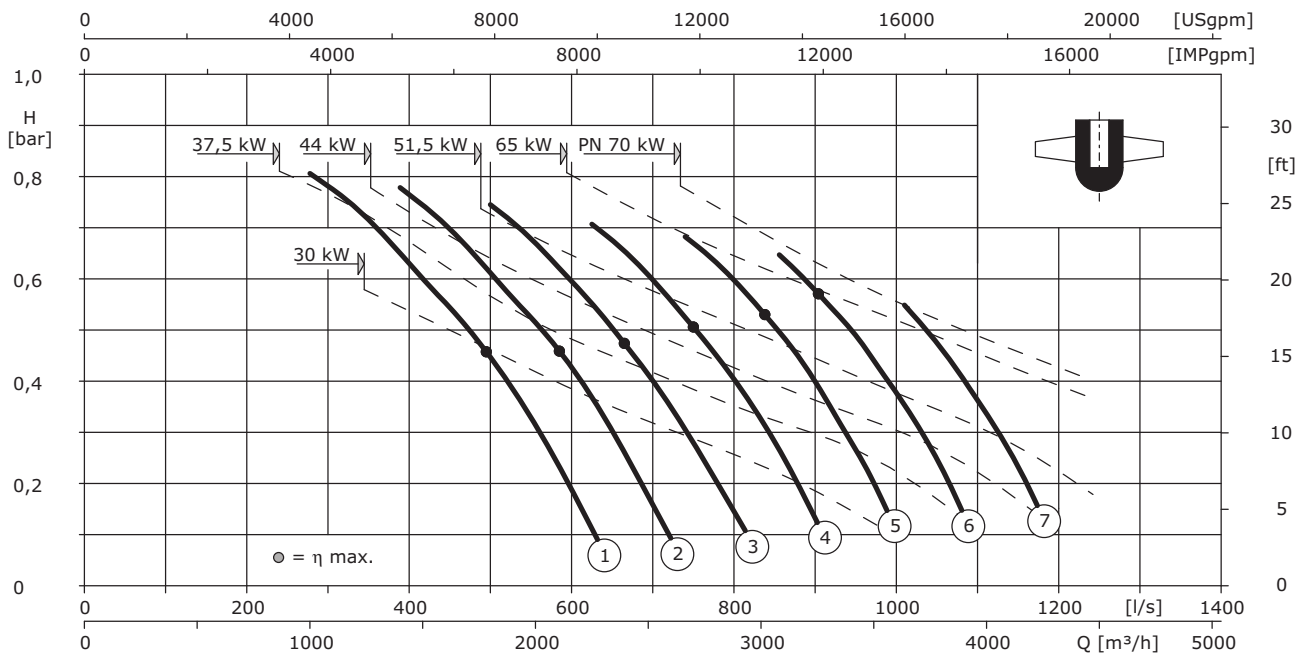
Propeller pumps to use
in pipe shafts

Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe shafts

Wilo-EMU KPR 500 (950 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Propeller angle [°]	Weight		
		BA [kg]	TA [kg]	T [kg]
1	4	385	-	-
2	6	385	-	-
3	8	385	-	-
4	10	385	-	-
5	12	385	-	-

No.	Propeller angle [°]	Weight		
		BA [kg]	TA [kg]	T [kg]
6	14	385	-	-
7	16	385	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power P ₂ [kW]	Motor	Power consumption P ₁ max. [kW]	Current I [A]	Dimensions		Operating mode	Ex protection	Weight [kg]
				AW [mm]	A [mm]	submerged/surface	-	
Wet sump installation								
30	T 30-6/28P	34	60	-	1022	S1/-	ATEX, FM	324
37.5	T 30-6/35P	42.5	75	-	1082	S1/-	ATEX, FM	364
44	T 30-6/41P	49.5	88	-	1172	S1/-	ATEX, FM	395
51.5	T 30-6/48P	58	102	-	1281	S1/-	ATEX, FM	506
65	T 34-6/41P	70	124	-	1156	S1/-	ATEX, FM	478
70	T 34-6/50P	78	136	-	1226	S1/-	ATEX, FM	544

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

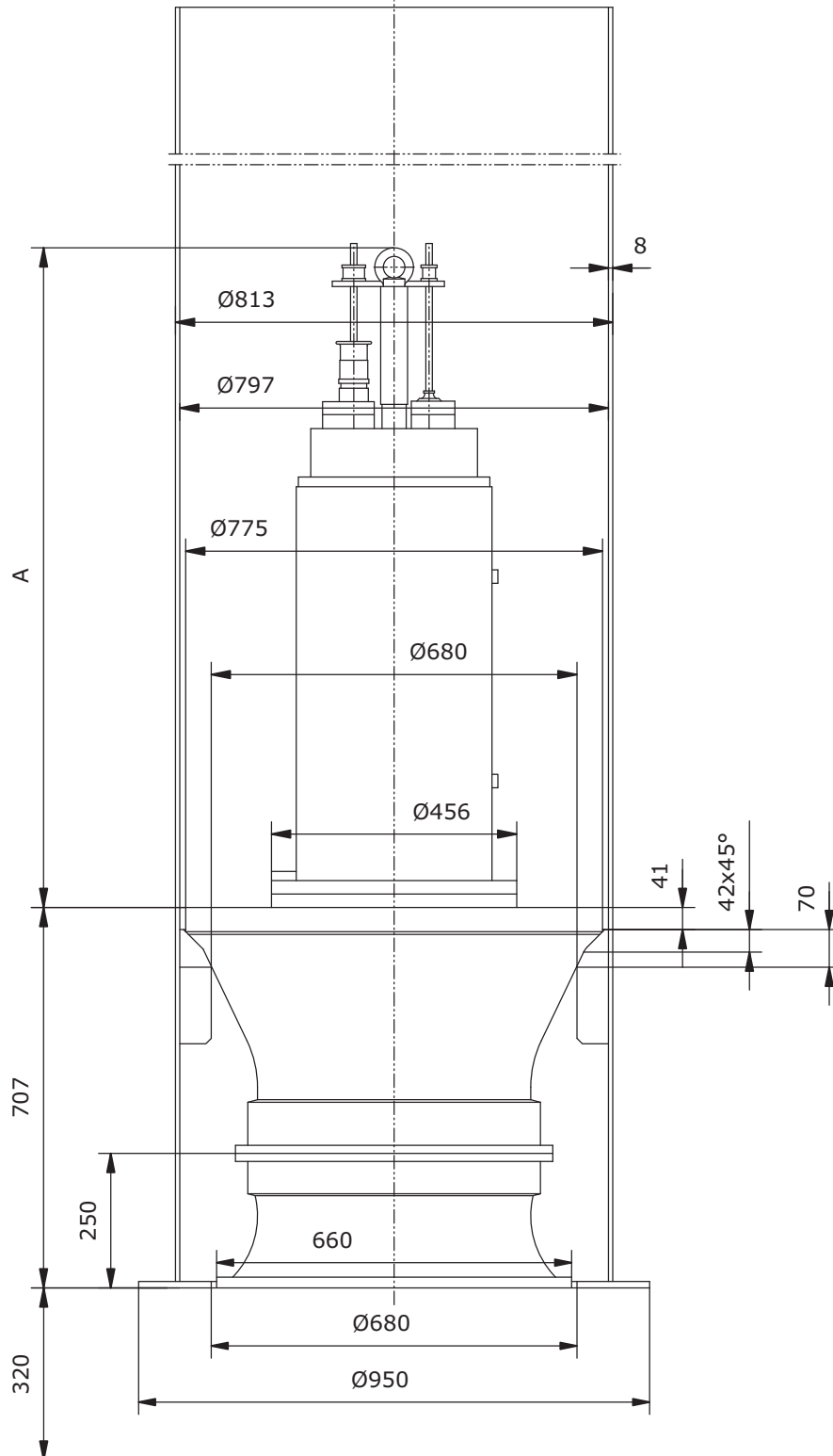
Propeller pumps with submersible motor for use in pipe shafts



Wilo-EMU KPR 500 (950 rpm)

Dimension drawing

Wet sump installation (BA)



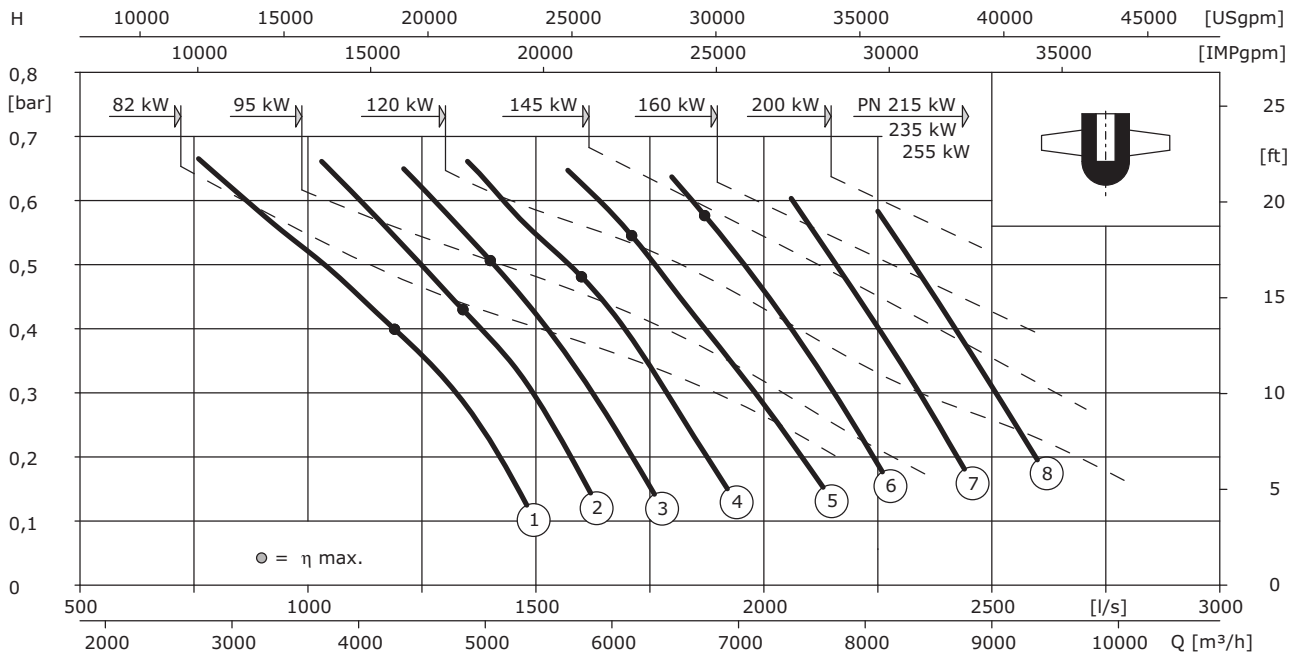
Propeller pumps to use
in pipe shafts

Pumps for Special Applications

Propeller pumps with submersible motor for use in pipe shafts

Wilo-EMU KPR 760 (585 rpm)

Pump curve according to ISO 9906 Appendix A



Impeller overview and pump weights

No.	Propeller angle [°]	Weight		
		BA [kg]	TA [kg]	T [kg]
1	6	1050	-	-
2	8	1050	-	-
3	10	1050	-	-
4	12	1050	-	-
5	14	1050	-	-

No.	Propeller angle [°]	Weight		
		BA [kg]	TA [kg]	T [kg]
6	16	1050	-	-
7	18	1050	-	-
8	20	1050	-	-
-	-	-	-	-
-	-	-	-	-

Motor overview and motor weights

Nominal power P ₂ [kW]	Motor	Power consumption P ₁ max. [kW]	Current I [A]	Dimensions		Operating mode submerged/surface	Ex protection	Weight [kg]
				AW [mm]	A [mm]			
82	T 49-10/30P	90	163	-	1906	S1/-	FM	1385
95	T 49-10/36P	103	188	-	1906	S1/-	FM	1485
120	T 49-10/43P	130	240	-	1906	S1/-	FM	1600
145	T 49-10/53P	156	285	-	2056	S1/-	FM	1765
160	T 49-10/58P	171	315	-	2056	S1/-	FM	1850
200	T 56-10/53P	215	380	-	2051	S1/-	-	2160
215	T 56-10/58P	230	405	-	2051	S1/-	-	2260
235	T 56-10/64P	250	445	-	2171	S1/-	-	2375
255	T 56-10/70P	270	480	-	2171	S1/-	-	2490

All values are valid for 400 V/50 Hz and a density of 1 kg/dm³

Pumps for Special Applications

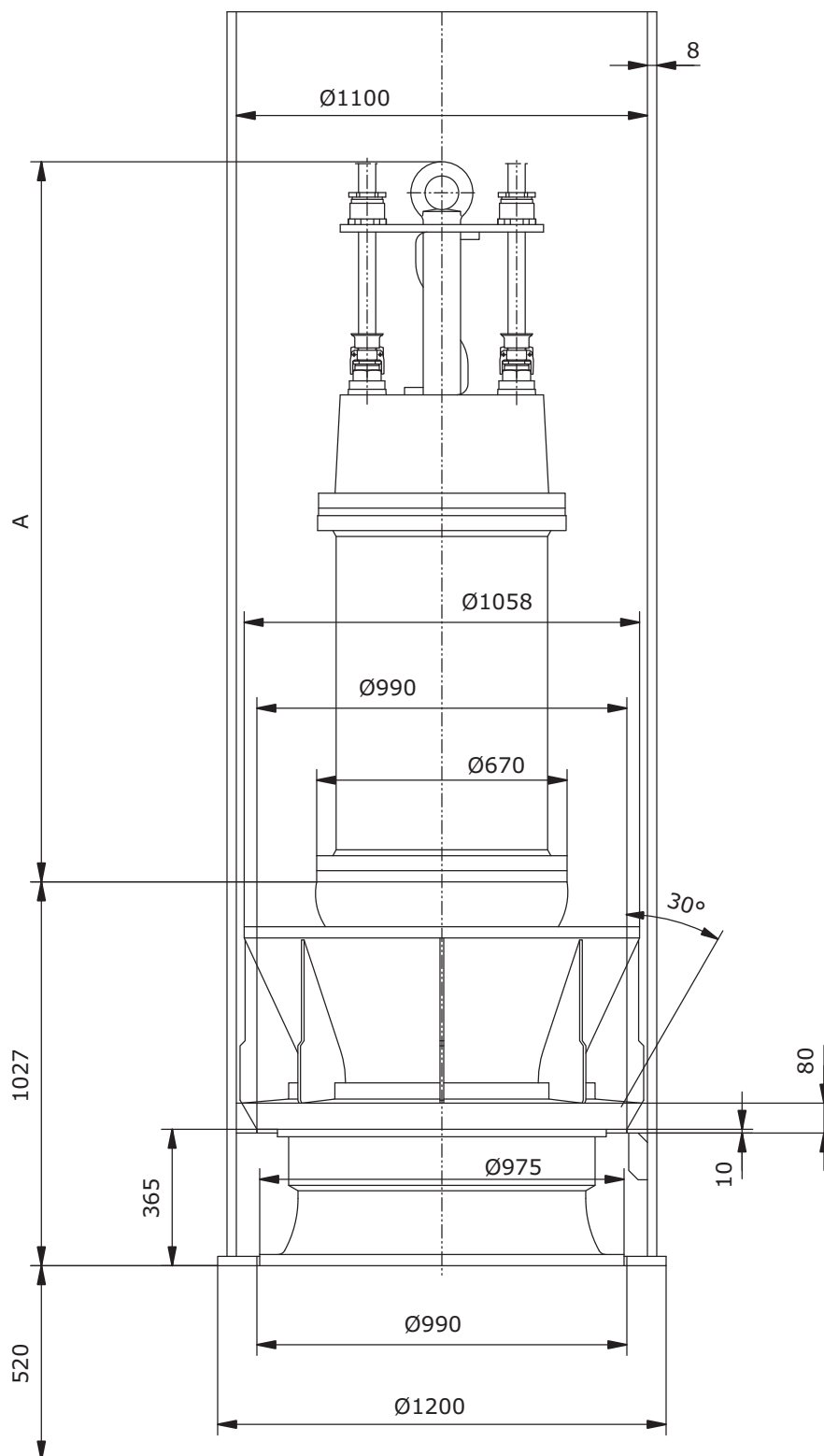
Propeller pumps with submersible motor for use in pipe shafts



Wilo-EMU KPR 760 (585 rpm)

Dimension drawing

Wet sump installation (BA)



Propeller pumps to use
in pipe shafts

Wilo Catalogue System 2008

Heating, air-conditioning, cooling Circulating pumps

Glandless pumps and accessories, package heat exchanger assembly

Catalogue A1



Heating, air-conditioning, cooling Glanded pumps

Pumps in in-line design and accessories

Catalogue A2



Heating, air-conditioning, cooling, water supply Monobloc and norm pumps, axially split case pumps

Pumps and accessories

Catalogue A3



Water supply

Domestic water supply, rainwater utilisation

Pumps, systems and accessories

Catalogue B1



Water supply

Borehole pumps 3" to 24"

Pumps and systems for building engineering / building services, domestic, municipal and industrial water supply



Catalogue B2



Water supply

High-pressure multistage centrifugal pumps

Pumps and accessories

Catalogue B3



Water supply

Pressure boosting systems

Single and multiple-pump systems in dry sump installations and accessories

Catalogue B4



Water supply

Sprinkler pumps with VdS-approval

Borehole pumps and accessories



Catalogue B5



Drainage and sewage

Drainage pumps

Submersible pumps, self-priming pumps and accessories



Catalogue C1



Drainage and sewage

Sewage pumps DN 32 to DN 600

Submersible pumps and accessories for building engineering / services, municipal and industrial applications



Catalogue C2



Drainage and sewage

Wastewater and sewage lifting units, pumps stations

Pump systems and accessories

Catalogue C3



Drainage and sewage

Submersible mixers

Mixers, re-circulation pumps, jet cleaners, grit collector pumps and accessories for municipal applications in water treatment systems



Catalogue C4





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