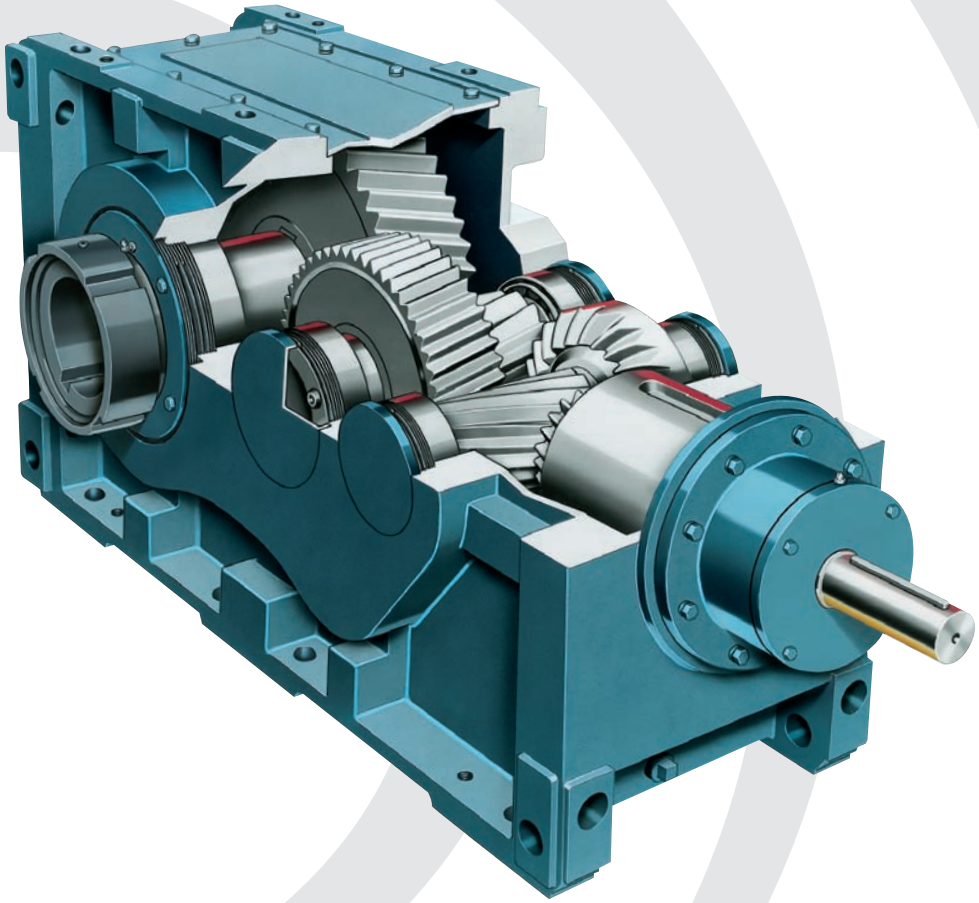
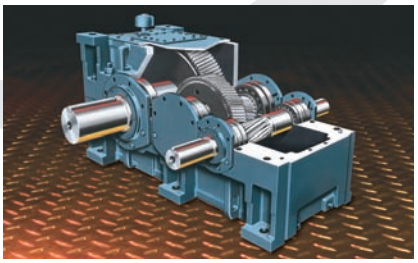
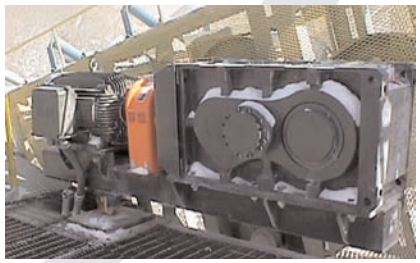
FALK™ DRIVE ONE® | ONE DRIVE FOR ONE WORLD

English–Metric



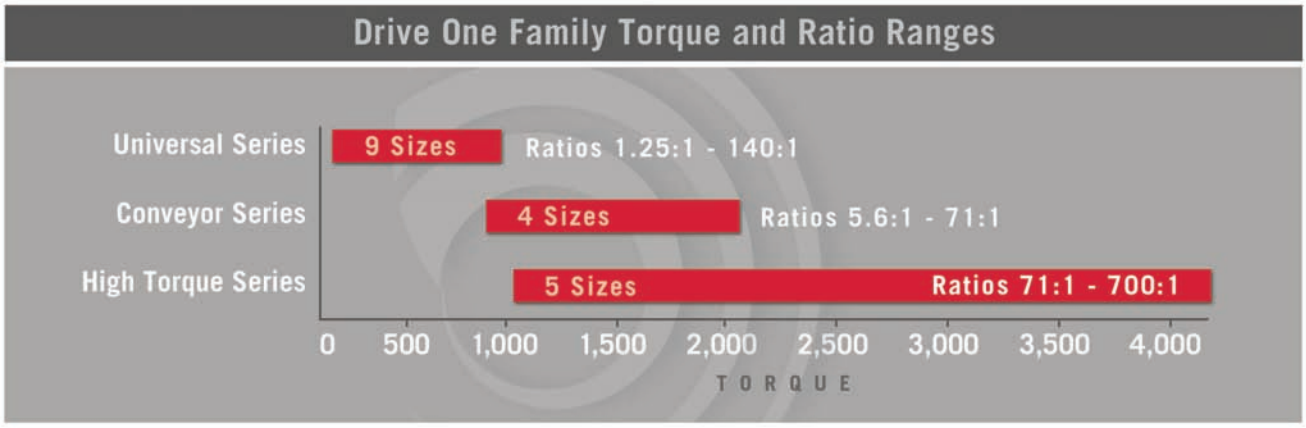




REXNORD

BE #1 WITH DRIVE ONE

The Falk name has earned a reputation for more than 100 years of delivering the highest value gear drive solutions in the power transmission industry. Carrying on with this tradition is the Drive One product family of gear drives. Its robust yet elegant design incorporates the features and benefits of past designs and leads the industry with innovation derived from our experience with heavy industry's most demanding applications. Anywhere you are the World, Drive One should be your first choice in geared power transmission equipment.



Number One in Features

- Rugged design - ductile iron housings
- Precision - ground carburized gearing.
- Proven seal designs
- Internal oil distribution system.
- Easy oil level checking

Number One in Benefits

- Stands up to the toughest environments
- Long life and quiet operation
- Minimizes leaks
- Long bearing life and cooling running drives
- Extends oil/drive life

Know-How & Customer Service

People:

- 24/7 support
- Field service
- Problem solving support

Information:

- Detailed selection guides
- Service/parts literature
- Complete online reference material

Worldwide

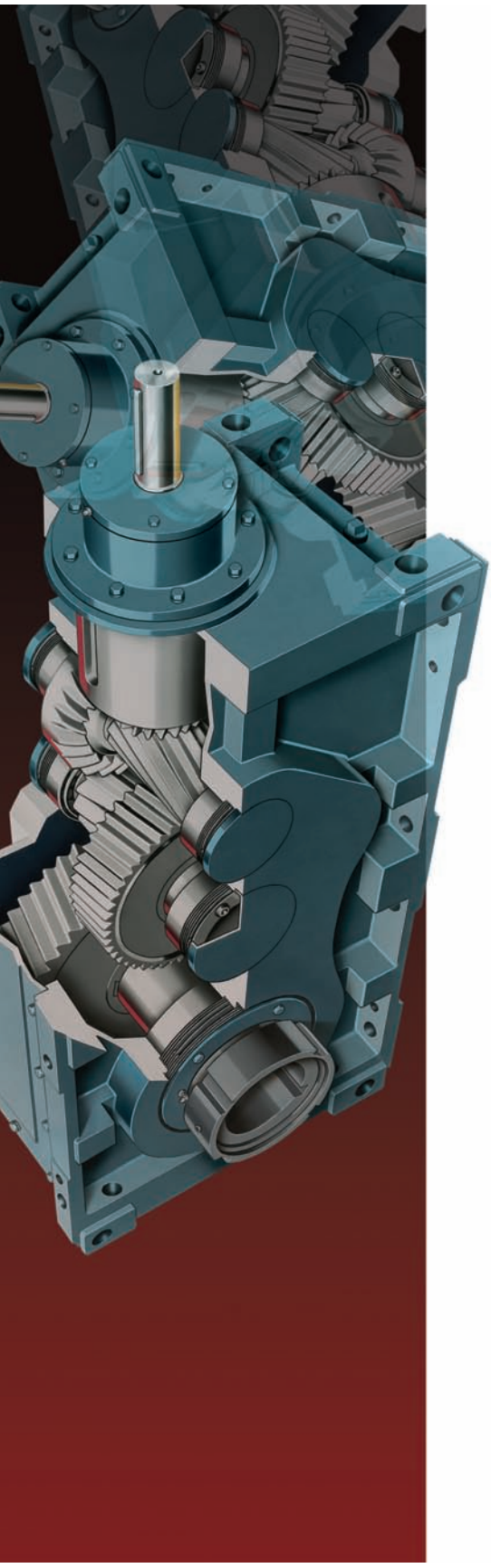
Exceptional worldwide availability and rebuild service centers reduce downtime and spare parts requirements

3 Year Heavy Duty Warranty

THREE YEAR HEAVY DUTY WARRANTY

Distributor+... Added Value

- Project coordination
- Installation assistance
- Field support
- Spares planning
- Customer in-plant knowledge



Conveyor Solutions

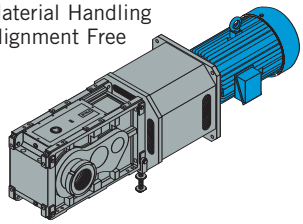
Alignment-Free:
Eliminates alignment at motor coupling and at driven equipment. Rugged motor flange accommodates standard TDand IEC flanged motors with fluid or standard couplings.

Swing Base:
Most flexible design, handles widest assortment of motor / coupling combinations.

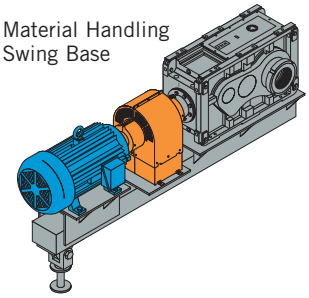
Bucket Elevator:
Inching drive package designed for low maintenance, long life, & safety.

Shaft Mounted:
Large sump capacity eliminates the need for cooling devices on most applications. Standard TA Taper® Bushing provides great flexibility to suit inch or metric driven shafts. TA Taper bushings are the easiest on and easiest off solution in the industry.

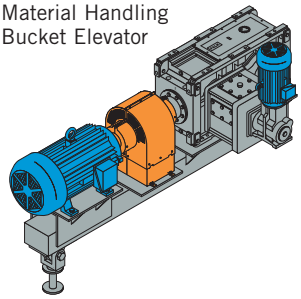
Material Handling
Alignment Free



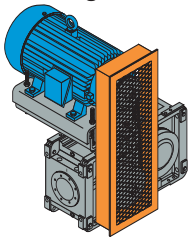
Material Handling
Swing Base



Material Handling
Bucket Elevator



Shaft-Mounted
with V-Belt Package

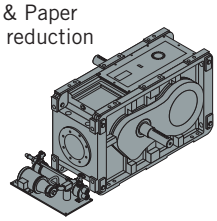


Pump & Paper Solutions

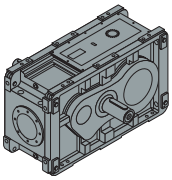
Single Reduction:
A compact drive designed for low ratios, high power, and high speeds. Pre-Engineered cooling packages ensure cool running.

Low Ratio / High Thermal:
The optional low ratio / high thermal drives provide oversize sumps to offer "No-Cooling" alternatives.

Pump & Paper
Single reduction



Pump & Paper
Low Ratio/
High
Thermal



The Complete Solution

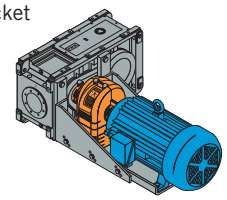
Motorized:
Standard brackets, motor adapters, and motor mounts accept NEMA and IEC motor frames.

High Ratio:
Compound drives using Ultramite primary drives enable unlimited ratio availability.

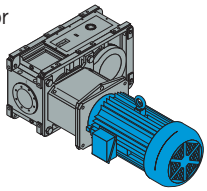
High Torque:
Planetary final stage provides a compact, cost-effective alternative to hydraulic and conventional drives.

Mixer:
Parallel and Right Angle Vertical drives offer drywell assembly and positive lubrication of upper bearings.

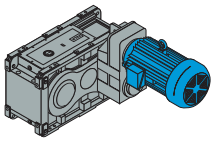
Motorized Motor Bracket



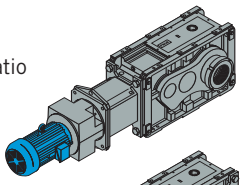
Motorized Motor Adaptor



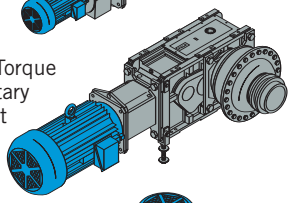
High-Ratio Parallel



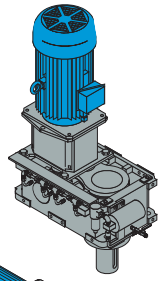
High-Ratio Right Angle



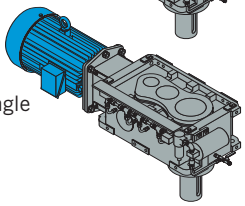
High Torque Planetary Output



Mixer Parallel Vertical



Mixer Right Angle Vertical



Quick-Change Replacement Drives...

Replace All Types and Brands with Drive One!

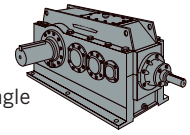
Benefits:

- Improve performance & operating life
- Cost savings - up to 65% over obsolete equipment
- Better unit & parts availability
- Easy “drop-in” replacement
- 3-year “heavy duty” warranty

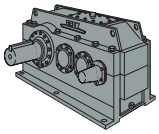
The alternative to:

- Expensive obsolete drives
- Hard-to-get imported components
- Problem applications

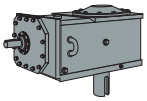
Right-Angle



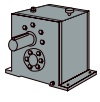
Parallel



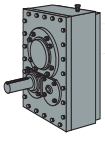
Vertical

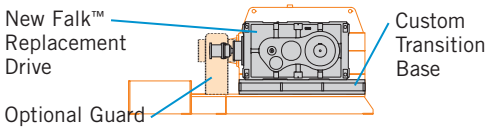


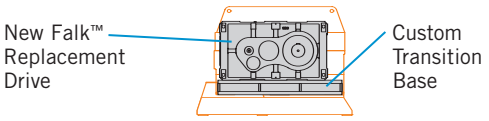
Concentric

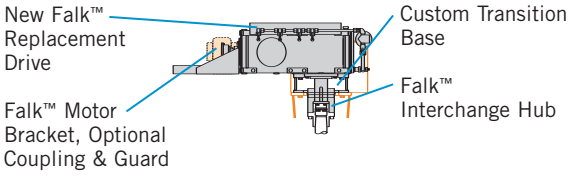


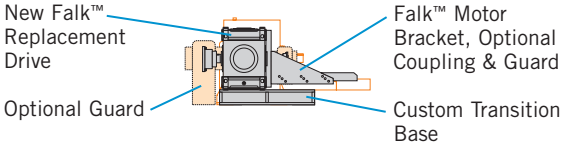
Shaft-Mounted

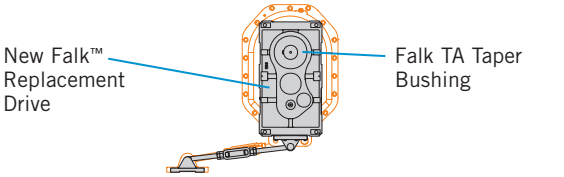












Selection Guide M161-110, July 2007

Table of Contents

THREE YEAR HEAVY DUTY WARRANTY

Factory Warranty We're so confident in the performance and reliability of our latest generation of Falk gear drives that we're backing this comprehensive offering with the best standard warranty in the business. Our full, 3-year Heavy-Duty Warranty provides "shaft-to-shaft" protection on all Falk components – including bearings and seals (warranty extends for 3 years from date of shipment). It's an industry first... and one more powerful reason why Rexnord is your ultimate bottom-line value.

Basic Information

Safety Notes

Falk Gear Drives The Falk and Rexnord name on the gear drive is the purchaser's assurance that the drive was engineered, rated and manufactured to sound design practices.

The power supplied to the geared drive must be equal to or less than the power for which the drive was selected using the appropriate mechanical service factor for the application. The customer must assume the responsibility of isolating the gear drive from any vibratory or transient load induced by the driven equipment.

Install and operate Rexnord products in conformance with applicable local and national safety codes and per Rexnord installation manuals which are shipped with gear drives and are also available upon request. Suitable guards for rotating members may be purchased from the Factory as optional accessories. Contact your local Rexnord district office for complete details.

People Conveying Equipment Selection of Rexnord gear drives for applications whose primary purpose is the transportation of people is not approved. This includes such applications as freight or passenger elevators, escalators, man lift platforms and ski tows and ski lifts.

If the primary purpose of the application is material conveyance and occasionally people are transported, the Rexnord warranty may remain in effect provided the design load conditions are not exceeded and certification to the appropriate safety codes and load conditions has been obtained by the system designer or end user from the appropriate enforcement authorities.

Gear Drive Mechanical Power Ratings Gear drive mechanical power ratings stated in this selection guide allow 100% overload for starting loads and momentary overloads associated with normal electric motor driven standard applications operating 10 hours per day under uniform conditions, applications where the recommended mechanical service factor per Page 7 or 8 of this selection guide is 1,00, and where the actual mechanical service factor of the gear drive versus full motor rated power is equal to or greater than 1,00.

For other **standard** applications not meeting conditions stated in the previous paragraph, determine the appropriate mechanical service factor from Page 7 or 8, then calculate an equivalent power by multiplying the actual power transmitted by the previously determined mechanical service factor. For these applications, the mechanical power rating of the gear drive selected must equal or exceed the equivalent power that has been calculated.

For non-standard applications, those where excessive overloads, reversing service, mechanical brakes, or oversize prime movers are present, refer to Page 6, Conditions Affecting Selection, for special instructions.

Gear Drive Basic Thermal Ratings Gear drive basic thermal ratings stated in this selection guide are based on the following assumed conditions:

Ambient temperature is 25°C (77°F).

Altitude is between sea level and 750 meters.

Ambient air velocity is between 0,5 m/s and 1,4 m/s typical of a large indoor room.

Duty cycle is continuous.

Orientation is floor mounted with shafts in same horizontal plane.

Thermal Factors & Procedures, Page 10, permit the calculation of an application adjusted thermal rating for the gear drive when local thermal conditions are different than those stated above. It is not necessary to apply the mechanical service factor to the basic thermal rating when determining the thermal adequacy of a gear drive.

Interpolation of Gear Drive Mechanical Power Ratings and Torque Ratings When the high speed shaft rpm for an actual application falls between two tabulated high speed shaft rpm's found in the selection tables, interpolate to determine gear drive rating.

Stored and Inactive Drives Each gear drive is spin-tested with a rust preventive oil that will protect parts against rust for a period of 4 months in an outdoor shelter or 12 months in a dry building after shipment from the Factory.

Periodically inspect stored or inactive drives and spray internal parts with rust inhibitor every six months or more often, if necessary. Drain oil before adding rust inhibitor. Indoor dry storage is recommended.

Drives ordered for extended storage can be treated at the Factory with a special preservative and sealed to rust-proof parts for periods longer than those cited above, if specified on the order.

Refer to Service Manual 128-014 for preparation of stored and inactive gear drives.

Conditions Affecting Selection

Non–Standard Selection Procedures

Some applications require special procedures, or are refer to Factory.

Excessive Overloads The maximum momentary or starting load applied to the gear drive must not exceed 200% of the rated load capacity of the gear drive (100% overload). Rated load capacity of the gear drive is defined as the power rating published in this selection guide with a mechanical service factor of 1,00. If the actual maximum momentary or starting load exceeds the conditions stated above, calculate an equivalent input power associated with the excessive overload by dividing the maximum overload by two. The gear drive selected must have a rated load capacity equal to or greater than the equivalent input power.

Frequency of Starts Starting frequency is an important consideration when selecting a gear drive. Applications involving 2 to 3 equally spaced starts per hour must utilize a minimum 1,5 service factor for unloaded starts, and a minimum 1,75 service factor for fully loaded starts. For applications involving more than 3 starts per hour, refer to Factory the application specifics such as starting frequency and maximum starting torque. AC motors also have similar limitations. The addition of a fluid coupling as a soft start device would increase the number of allowable starts.

Reversing Service Applications involving either more than 20 reversals per 10 hour period, or less than 20 reversals per 10 hour period with peak torques greater than 200% of normal load must be referred to Factory.

Brake Equipped Applications When a gear drive is equipped with a "working" brake that is used to decelerate the motion of the system and the brake is located between the prime mover and the gear drive, select the gear drive based on the brake rating or the highest equivalent input power, whichever is greater. If the brake is used for holding only and is applied after the motion of the system has come to rest, the brake rating must be less than 200% of the rated load capacity of the gear drive selected for the application. If the brake rating is greater than 200% of the rated load capacity, refer the application to the Factory. Also refer to the Factory all applications in which the brake is located at the output shaft of the gear drive.

Oversize Prime Movers Recommended Mechanical Service Factors do not cover applications that require oversize prime movers for high energy or peak loads. Refer such applications to Falk for selection of suitable gear drives.

Speed Variation or Multi-Speed Applications — The gear drives offered in this selection guide are designed to operate with splash lubrication on any single speed application and any ratio shown in the selection guide unless otherwise noted. It is essential that all orders indicate the operating speed requirements and ratio so that the proper internal oil distribution accessories can be supplied for the specific speed.

Falk gear drives use different oil levels for various gear drive sizes, speeds and ratios. Consequently, to operate an existing gear drive at different speeds from those shown on the nameplate, full application and nameplate information must be referred to the Factory for review of the lubrication system.

All variable or multi-speed applications will be referred to the Engineering Department to specify lubrication components for adequate lubrication at the slowest speed, without excessive temperature or churning at the highest speed. It is essential that all orders indicate minimum and maximum speeds, as well as the speed duration cycles. A separate motor-driven oil pump (at an extra charge) may be required.

When selecting gear drives for multi-speed or variable speed applications, determine the speed at which the greatest torque is developed and select the gear drive on this basis. If the speed is not listed in the selection table, interpolate to determine the gear drive rating.

Application Adjusted Thermal Rating, Page 10, The Application Adjusted Thermal Rating is the actual power that a gear drive will transmit continually for 3 hours or more without overheating. Although it is not necessary to apply the mechanical service factor when determining thermal adequacy of a gear drive, the Application Adjusted Thermal Rating considers thermal factors associated with the application that will affect the ability of the gear drive to dissipate thermal energy. These thermal factors include ambient temperature, altitude above sea level, ambient air velocity, inlet water temperature (when cooling tubes are offered), gear drive orientation and duty cycle. Thermal factors on Page 10 are used to adjust the Basic Thermal Rating when determining the Application Adjusted Thermal Rating.

A check of the application adjusted thermal rating versus the actual power transmitted is necessary for the following applications:

- Continuous duty application where the gear drive runs continuously without shutdown for 3 hours or more per day.
- Intermittent duty applications where the gear drive operates for 3 hours or more per day, and run time intervals exceed the duration of the immediately following shutdown intervals. If any run time interval equals or exceeds 3 hours, the application is considered continuous duty.

The duty cycle factor permits an upward adjustment of the basic thermal rating associated with intermittent duty applications above, and takes into account simply the % operating time per hour of the gear drive, regardless of duration relationship between run time intervals and down time intervals, and provided no specific run time interval exceeds one hour in duration.

Other short interval intermittent duty applications, not meeting criteria stated above, may generate only modest thermal energy to be dissipated by the gear drive. Refer full application details to the Factory for selection of the minimum cooling method that is adequate.

Effects of Solar Energy If a drive operates in the sun at ambient temperatures over 38°C (100°F), then special measures must be taken to protect the drive from solar energy. This protection can consist of a canopy over the gear drive or reflective paint on the gear drive. If neither is possible, a heat exchanger or other cooling device may be required.

Overhung Loads and Thrust Loads Overhung loads and thrust loads must be taken into account when selecting a gear drive. If either an overhung load or thrust load is imposed on the gear drive, or if both an overhung load and thrust load are applied simultaneously, refer application details to the Factory for correct gear drive selection.

Product Modifications The Factory can supply special product modifications to suit your application needs. Contact your local Representative for housing modifications, special ratios, special shafts, special mounting orientations, accessory modifications and other special application requirements.

Seal Housing Grease All gear drives will be shipped with Falk LTG grease in the seal housing cavities. Where this grease could contaminate products produced by customer processes, such as in the food and drug industries, clearly indicate on your purchase order that, "Gear drive seal housing cavities must not contain grease."

Oil Pump Equipped Application When a gear drive is equipped with an external motor driven oil pump, and the ambient temperature falls below 10°C (50 °F), or the oil viscosity is in excess of 8000 SSU, an oil heater may be required to maintain a satisfactory flow rate at startup to prevent bearing failure. Consult the Factory.

Table 1 Mechanical Service Factor conversions

Table 2 or 3 3 to 10 Hour Service Factor	3 to 10 Hours per Day	Over 10 Hours per Day	Intermittent–Up to 3 Hours per Day †	
	Multi-Cyl. Engine ‡	Multi-Cyl. Engine ‡	Motor	Multi-Cyl. Engine ‡
1,00	1,25	1,50	1,00	1,00
1,25	1,50	1,75	1,00	1,25
1,50	1,75	2,00	1,25	1,50
1,75	2,00	2,25	1,50	1,75
2,00	2,25	2,50	1,75	2,00

† For applications operating one half hour or less per day and applications driven by single cylinder engines, refer to the Factory.

‡ These service factors are based on the assumption that the system is free from serious critical and torsional vibrations and that maximum momentary or starting loads do not exceed 200% of the normal load.

Occasional and intermittent service or engine driven applications

For multi-cylinder engine driven applications and all applications operating intermittently up to 3 hours per day, refer to Table 2 or 3 for the Service Factor of the same application operating 3 to 10 hours per day. Next, in the first column of Table 1, find this same Service Factor in bold face type. Then, to the right, under the desired hours service and prime mover, locate the converted Service Factor.

For example, from Table 3, the Service Factor is 1,25 for a uniformly loaded belt conveyor. From Table 1, for the same application the following are the Service Factors for various conditions.

1. Engine driven 3 to 10 hours per day; use 1,50 Service Factor.
2. Engine driven up to 3 hours intermittently; use 1,25 Service Factor.
3. Motor driven up to 3 hours intermittently; use 1,00 Service Factor.

MOUNTING POSITION — Standard mounting positions for types DH & DB are with the input and output shafts horizontal and for DV & DX with the output shafts vertical.

Allowable mounting angles for standard oil levels are;

	Bridge	Slope
DH & DB	0° Up & 4° Down	± 1.5°

Consult the Factory for other angles.

Drawing Symbols Thy following symbols are used throughout the dimensioned drawings.

= OIL DIPSTICK

= BREATHER

= OIL FILL

= OIL DRAIN

Table 2 Mechanical Service Factors listed by industry

for electric motor, steam turbine or hydraulic motor drives . . . recommendations are MINIMUM and normal conditions are assumed.

Industry	Service 3 to 10 Hour	Service Over 10 Hour
BOTTLING AND BREWING		
Bottling Machinery	1,00	1,25
Brew Kettles, Continuous Duty	1,25	1,25
Can Filling machines	1,00	1,25
Cookers—Continuous Duty	1,25	1,25
Mash Tubs—Continuous Duty	1,25	1,25
Scale Hoppers—Frequent Starts	1,25	1,50
CLAY WORKING INDUSTRY		
Brick Press	1,75	2,00
Briquette Machines	1,75	2,00
Clay Working Machinery	1,25	1,50
Pug Mills	1,25	1,50
DISTILLING	See Brewing	
DREDGES		
Cable Reels, Conveyors	1,25	1,50
Cutter Head, Jig Drives & Pumps	2,00	2,00
Maneuvering Winches	1,75	2,00
Screen Drives	1,75	2,00
Stackers, Utility Winches	1,25	1,50
FOOD INDUSTRY		
Beet Slicers	1,25	1,50
Bottling, Can Filling Machine	1,00	1,25
Cereal Cookers	1,00	1,25
Dough Mixers, Meat Grinders	1,25	1,50
LUMBER INDUSTRY		
Barkers—Spindle Feed	1,25	1,50
Barkers—Main Drive	1,75	1,75
Carriage Drive	Refer to Factory	
Conveyors		
Burner	1,25	1,50
Main or Heavy Duty	1,50	1,50
Main Log	1,75	2,00
Re-Saw Merry-Go-Round	1,25	1,50
Slab	1,75	2,00
Transfer	1,25	1,50
Chains—Floor	1,50	1,50
Chains—Green	1,50	1,75
Cut-Off Saws—Chain & Drag	1,50	1,75
Debarking Drums	1,75	2,00
Feeds—Edger	1,25	1,50
Feeds—Gang	1,75	1,75
Feeds—Trimmer	1,25	1,50
Log Deck	1,75	1,75
Log Hauls—Incline, Well Type	1,75	1,75
Log Turning Devices	1,75	1,75
Planer Feed	1,25	1,50
Planer Tilting Hoists	1,50	1,50
Rolls—Live—Off Bearing—Roll Cases	1,75	1,75
Sorting Table, Tipple Hoist	1,25	1,50
Transfers—Chain & Craneway	1,50	1,75
Tray Drives	1,25	1,50
Veneer Lathe Drives	Refer to Factory	
OIL INDUSTRY		
Chillers	1,25	1,50
Oil Well Pumping	Refer to Factory	
Paraffin Filter Press	1,25	1,50
Rotary Kilns	1,25	1,50
PAPER MILLS ★		
Agitator (Mixer)	. . .	1,50
Agitator for Pure Liquids	. . .	1,25
Barking Drums, Barkers—Mech.	. . .	2,00
Beater	. . .	1,50
Breaker Stack	. . .	1,25
♦Calender	. . .	1,25
Chipper	. . .	2,00
Chip Feeder	. . .	1,50
Coating Rolls	. . .	1,25
Conveyors—		
Chip, Bark, Chemical	. . .	1,25
Log (incl. Slab)	. . .	2,00
Couch Rolls	. . .	1,25
Cutter	. . .	2,00
Cylinder molds	. . .	1,25
♦Dryers—		
Paper Mach. & Conveyor Type	. . .	1,25
Embosser	. . .	1,25
Extruder	. . .	1,50
Fourdrinier Rolls—Lumpbreaker, Wire Turning Dandy & Return Rolls	. . .	1,25
Jordan	. . .	1,50
Kiln Drive	. . .	1,50
Mt. Hope & Paper Rolls	. . .	1,25
Platter	. . .	1,50
Presses (Felt & Suction)	. . .	1,25
Pulper (Continuous)	. . .	2,00
Repulper (Heavy Shock)	. . .	2,00
Reel (Surface Type)	. . .	1,25
Screens		
Chip & Rotary	. . .	1,50
Vibrating	. . .	2,00
Size Press	. . .	1,25
Super Calenders ●	. . .	1,25
Thickener & Washer		
AC Motor	. . .	1,50
DC Motor	. . .	1,25
Vacuum Pumps	. . .	1,50
Wind & Unwind Stand	. . .	1,25
Winders (Surface Type)	. . .	1,25
♦Yankee Dryers	. . .	1,25
PLASTIC INDUSTRY		
Batch Drop Mill, 2 smooth rolls	1,25	1,25
Calenders	1,50	1,50
Compounding Mills	1,25	1,25
Continuous Feed, Holding & Blend Mill	1,25	1,25
Extruders	1,50	1,50
Variable Speed Drive	1,50	1,50
Fixed Speed Drive	1,75	1,75
Intensive Internal Mixers		
Batch Mixers	1,75	1,75
Continuous Mixers	1,50	1,50
RUBBER INDUSTRY		
Batch Drop Mill, 2 smooth rolls	1,50	1,50
Calenders	1,50	1,50
Cracker, 2 corrugated rolls	2,00	2,00
Cracker Warmer—2 roll, 1 corrugated roll	1,75	1,75
Extruders		
Continuous Screw Operation	1,75	1,75
Intermittent Screw Operation	1,75	1,75
Holding, Feed & Blend Mill—2 Roll	1,25	1,25
Intensive Internal Mixers		
Batch Mixers	1,75	1,75
Continuous Mixers	1,50	1,50
Mixing Mill—2 smooth rolls (if corrugated rolls are used, use Cracker Warmer service factors)	1,50	1,50
Refiner—2 roll	1,50	1,50
SEWAGE DISPOSAL		
Bar Screens	1,25	1,25
Chemical Feeders	1,25	1,25
Collectors	1,25	1,25
Dewatering Screens	1,50	1,50
Scum Breakers	1,50	150
Slow or Rapid Mixers	1,50	1,50
Thickeners	1,50	1,50
Vacuum Filters	1,50	1,50
SUGAR INDUSTRY		
Cane Knives, Crushers	. . .	1,75
Mills (low speed end)	. . .	1,75
TEXTILE INDUSTRY		
Batchers, Calenders	1,25	1,50
Card Machines	1,25	1,50
Dry Cans, Dryers	1,25	1,50
Dyeing Machinery	1,25	1,50
Knitting Machinery	Refer to Falk	
Looms, Mangles, Nappers, Pads	1,25	1,50
Range Drives	Refer to Factory	
Slashers, Soapers, Spinners, Tenter Frames, Washers, Winders	1,25	1,50
WINDLASS	Refer to Factory	

★ Service Factors for paper mill applications are applied to the nameplate rating of the electric drive motor at the motor rated base speed and are consistent with those shown in TAPPI standards.

♦ Anti-friction bearings only.

■ A service factor of 1,00 may be applied at base speed of a super calender operating over a speed range of part constant power and part constant torque where the constant power speed range is greater than 1,5 to 1. A service factor of 1,25 is applicable to super calenders operating at constant torque over the entire

Table 3 Mechanical Service Factors listed by application

for electric motor, steam turbine or hydraulic motor drives . . . recommendations are MINIMUM and normal conditions are assumed

Application	Service 3 to 10 Hour	Service Over 10 Hour
AGITATORS		
Pure Liquids	1.00	1.25
Liquids & Solids	1.25	1.50
Liquids-Variable Density	1.25	1.50
APRON CONVEYORS		
Uniformly Loaded or Fed.	1.25	1.50
Heavy Duty	1.25	1.50
APRON FEEDERS	1.25	1.50
ASSEMBLY CONVEYORS		
Uniformly Loaded or Fed.	1.25	1.25
Heavy Duty	1.25	1.50
BALL MILLS	See Mills. Rotary	
BARGE HAUL PULLERS	1.75	2.00
BARKING		
Drums (Coupling Connected)		2.00
Mechanical		2.00
BAR SCREENS (Sewage)	1.25	1.25
BATCHERS (Textile)	1.25	1.50
BELT CONVEYORS		
Uniformly Loaded or Fed.	1.25	1.25
Heavy Duty	1.25	1.50
BELT FEEDERS	1.25	1.50
BENDING ROLLS (Machine)	1.25	1.50
BLOWERS		
Centrifugal	1.25	1.25
Lobe	1.25	1.50
Vane	1.25	1.50
BOTTLING MACHINERY	1.00	1.25
BREWING	See Table 2	
BRICK PRESS (Clay Working)	1.75	2.00
BRIQUETTE MACHINES (Clay Working)	1.75	2.00
BUCKET		
Conveyors Uniform	1.25	1.50
Conveyors Heavy Duty	1.25	1.50
Elevators Continuous	1.25	1.50
Elevators Uniform	1.25	1.50
Elevators Heavy Duty	1.25	1.50
CALENDERS		
Rubber and Plastic	See Table 2	
Textile	1.25	1.50
CANE KNIVES		1.75
CAN FILLING MACHINES	1.00	1.25
CARD MACHINES (Textile)	1.25	1.50
CAR DUMPERS	1.75	2.00
CAR PULLERS	1.25	1.50
CEMENT KILNS	See Mills. Rotary	
CENTRIFUGAL		
Blowers, Compressors, Discharge Elevators, Fans or Pumps	1.25	1.25
CHAIN CONVEYORS		
Uniformly Loaded or Fed.	1.25	1.25
Heavy Duty	1.25	1.50
CHEMICAL FEEDERS (Sewage)	1.25	1.25
CLARIFIERS	1.00	1.25
CLASSIFIERS	1.25	1.50
CLAY WORKING	See Table 2	
COLLECTORS (Sewage)	1.25	1.25
COMPRESSORS		
Centrifugal	1.25	1.25
Lobe	1.25	1.50
Reciprocating		
Multi-Cylinder	1.50	1.75
Single-Cylinder	1.75	2.00
CONCRETE MIXERS		
Continuous	1.25	1.50
Intermittent	1.25	1.50
▲**CONVEYORS—Uniformly loaded or Fed:**		
Apron or Bucket	1.25	1.50
Assembly, Belt, Chain, Flight, Oven, Screw	1.25	1.25
▲**CONVEYORS—Heavy Duty. Not Uniformly Fed**		
Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.25	1.50
CONVEYORS—Severe Duty		
Live Roll	Refer to Factory	
Reciprocating Shaker	1.5	2.00
COOKERS (Brewing & Distilling), (food)	1.25	1.25
COOLING TOWER FANS	Refer to Factory	
▲**CRANES**		
Dry Dock Cranes, Main Hoist, Bridge and Trolley Travel	Refer to Factory	
CRUSHERS		
Ore or Stone	1.75	2.00
Sugar		1.75
DEWATERING SCREENS (Sewage)	1.50	1.50
DISC FEEDERS	1.00	1.25
DISTILLING	See Table 2	
DOUBLE ACTING PUMPS		
2 or more Cylinders	1.25	1.50
Single Cylinder	Refer to Factory	
DOUGH MIXER (Food)	1.25	1.50
DRAW BENCH (Metal Mills)		
Carriage & Main Drive	1.25	1.50
DREDGES	See Table 2	
DRY DOCK CRANES	Refer to Factory	
DRYERS & COOLERS (Mills. Rotary)		1.50
DYEING MACHINERY (Textile)	1.25	1.50
ELEVATORS		
Bucket-Uniform Lood	1.25	1.50
Bucket-Heavy Duty	1.25	1.50
Bucket-Continuous	1.25	1.50
Centrifugal Discharge	1.25	1.25
▲Escalators	**Not Approved**	
▲Freight	**Not Approved**	
Gravity Discharge	1.00	1.25
▲Man Lifts, Passenger	**Not Approved**	
EXTRUDERS (Plastic & Rubber)	See Table 2	
FANS		
Centrifugal	1.25	1.25
Cooling Towers	Refer to Factory	
Forced Draft		1.25
Induced Draft	1.50	1.50
Large (Mine. etc.)	1.50	1.50
Large Industrial	1.50	1.50
Light (Small Diameter)	1.00	1.25
FEEDERS		
Apron. Belt	1.25	1.50
Disc	1.00	1.25
Reciprocating	1.75	2.00
Screw	1.25	1.50
FLIGHT CONVEYORS		
Uniform	1.25	1.25
Heavy	1.25	1.50
FOOD INDUSTRY	See Table 2	
GENERATORS (Not Welding)	1.00	1.25
GRAVITY DISCHARGE ELEVATORS	1.00	1.25
HAMMER MILLS	1.75	2.00
▲**HOISTS**		
Heavy Duty	1.75	2.00
Medium Duty	1.25	1.50
Skip Hoist	1.25	1.50
INDUCED DRAFT FANS	1.50	1.50
KILNS	See Mills. Rotary	
LAUNDRY WASHERS	1.50	2.00
LAUNDRY TUMBLERS	1.25	1.50
LINE SHAFTS		
Driving Processing Equipment	1.25	1.50
Other Line Shafts, Light	1.00	1.25
LIVE ROLL CONVEYORS	Refer to Factory	
LOBE BLOWERS OR COMPRESSORS	1.25	1.50
LOG HAULS (Lumber)		
Incline-well Type	1.75	1.75
LOOMS (Textile)	1.25	1.50
LUMBER INDUSTRY	See Table 2	
MACHINE TOOLS		
Auxiliary Drives	1.00	1.25
Bending Rolls	1.25	1.50
Main Drives	1.25	1.50
Notching Press (Belted)	Refer to Factory	
Plate Planers	1.75	2.00
Punch Press (Geared)	1.75	2.00
Tapping machines	1.75	2.00
MANGLE (Textile)	1.25	1.50
MASH TUBS (Brewing & Distilling)	1.25	1.25
MEAT GRINDERS (Food)	1.25	1.50
METAL MILLS		
Draw Bench Carriages & Main Drives	1.25	1.50
Pinch, Dryer & Scrubber Rolls, Reversing	Refer to Factory	
Slitters	1.25	1.50
Table Conveyors. Non-Reversing Group Drives	1.50	1.50
Non-Reversing Individual Drives	2.00	2.00
Reversing	Refer to Factory	
Wire Drawing & Flattening Machines	1.25	1.50
Wire Winding Machines	1.50	1.50
MILLS. ROTARY		
Ball and Rod Mills with Spur Ring Gear		2.00
with Helical Ring Gear		1.50
Direct Connected		2.00
Cement Kilns, Dryers & Coolers		1.50
Pebble, Plain & Wedge Bar Mills		1.50
Tumbling Barrels	1.75	2.00
MIXER (Also see Agitators)		
Concrete, Cont. & Int.	1.25	1.50
Constant Density	1.25	1.50
Variable Density	1.25	1.50
NAPPERS (Textile)	1.25	1.50
OIL INDUSTRY	See Table 2	
ORE CRUSHERS	1.75	2.00
OVEN CONVEYORS		
Uniform	1.25	1.25
Heavy Duty	1.25	1.50
PAPER MILLS	See Table 2	
▲**PASSENGER ELEVATORS**	**Not Approved**	
PEBBLE MILLS		1.50
PLATE PLANERS	1.75	2.00
PRINTING PRESSES	Refer to Factory	
PROPORTIONING PUMPS	1.25	1.50
PUG MILLS (Clay)	1.25	1.50
PULLERS (Barge Haul)	1.75	2.00
PUMPS		
Centrifugal	1.25	1.25
Proportioning	1.25	1.50
Reciprocating		
Single Act., 3 or more Cyl.	1.25	1.50
Double Act., 2 or more Cyl.	1.25	1.50
Single Act., 1 or 2 Cyl.	Refer to Factory	
Double Acting, 1 Cyl.	Refer to Factory	
Rotary: Gear, Lobe, Vane	1.00	1.25
PUNCH PRESSES (Gear Driven)	1.75	2.00
RECIPROCATING		
Conveyors & Feeders	1.75	2.00
RECIPROCATING COMPRESSORS		
Multl-Cylinder	1.50	1.75
Single Cylinder	1.75	2.00
ROD MILLS	See Mills. Rotary	
ROTARY		
Pumps	1.00	1.25
Screens (Sand or Gravel)	1.25	1.50
RUBBER & PLASTICS INDUSTRIES	See Table 2	
SAND MULLERS	1.25	1.50
SCREENS		
Air Washing	1.00	1.25
Rotary—Sand or Gravel	1.25	1.50
Traveling Water Intake	1.00	1.25
SCREW CONVEYORS		
Uniform	1.25	1.25
Heavy Duty or Feeder	1.25	1.50
SCUM BREAKERS (Sewage)	1.50	1.50
SEWAGE DISPOSAL	See Table 2	
SHAKER CONVEYORS	1.75	2.00
SHEETERS (Rubber)		1.50
SINGLE ACTING PUMP		
I or 2 Cylinders	Refer to Factory	
3 or more Cylinders	1.25	1.50
▲**SKI TOWS & LIFTS**	**Not Approved**	
▲**SKIP HOIST**	1.25	1.50
SLAB PUSHERS	1.50	1.50
SLITTERS (Metal)	1.25	1.50
SLUDGE COLLECTORS (Sewage)	1.25	1.25
SOAPERS (Textile)	1.25	1.50
SPINNERS (Textile)	1.25	1.50
STEERING GEARS	Refer to Factory	
STOKERS	1.00	1.25
STONE CRUSHERS	1.75	2.00
SUGAR INDUSTRY	See Table 2	
TABLE CONVEYORS (Non-Reversing)		
Group Drives	1.50	1.50
Individual Drives	2.00	2.00
Reversing	Refer to Factory	
TENTER FRAMES (Textile)	1.25	1.50
TEXTILE INDUSTRY	See Table 2	
THICKENERS (Sewage)	1.50	1.50
TUMBLING BARRELS	1.75	2.00
VACUUM FILTERS (Sewage)	1.50	1.50
VANE BLOWERS	1.25	1.50
WINCHES (Dredges)	1.25	1.50
WINDERS (Textile)	1.25	1.50
WINDLASS	Refer to Factory	
WIRE		
Drawing Machines	1.25	1.50
Winding Machines	1.50	1.50

▲ Selection of Falk products for applications whose primary purpose is the transportation of people is not approved. This includes such applications as freight or passenger elevators, escalators, man lifts, work lift platforms and ski tows and ski lifts.
If the primary purpose of the application is material conveyance and occasionally people are transported, the Factory warranty may remain in effect provided the design load conditions are not exceeded and certification to the appropriate safety codes and load conditions has been obtained by the system designer or end user from the appropriate enforcement authorities.

Contact the Factory for proper selection of a mixer drive.

How to Select

Before making a selection, refer to Basic Information and Conditions Affecting Selection on Pages 5 and 6.

Information Required

The following basic information is required to select a Drive One gear drive for your application.

Prime Mover Data
- Type – electric or hydraulic motor or engine
- Power rating in kW or hp
- Speed – constant or variable
- Dimensions – if Falk will furnish motor mounting accessory or coupling

Driven Machine Data
- Type – conveyor, kiln, etc.
- Power demand in kW, or hp, or equivalent torque.
- Speed and direction of rotation
- Service – Hours per day; reversals per minute if reversing; minutes per hour (duty cycle) if not continuous

Gear Drive Data
- Type – parallel shaft or right angle
- Horizontal or vertical output shaft
- Ambient temperature at drive location
- Altitude above sea level
- Ambient air velocity at drive location
- Mounting position – if inclined or non-standard orientation

Shaft Connections
- Shaft diameters and key sizes
- Overhung loads – provide full description of sheave, sprocket, or pinion
- Thrust load and direction

Power Selection Method

The power selection method is based on the power rating of the prime mover.

1. Determine the mechanical service factor.
   Electric motor driven applications, see Tables 2 & 3, Pages 7 & 8.
   Engine driven or intermittent applications, see Table 1, Page 7.
2. Calculate equivalent power by multiplying the rated power of the prime mover by the mechanical service factor determined in Step 1.
3. Determine gear drive nominal ratio.
   Divide the high speed shaft rpm by the low speed shaft rpm to determine your ideal ratio. Choose a nominal ratio that most closely approximates your ideal ratio. Nominal ratios are found in the power ratings tables, see Step 4.
4. Using the equivalent power determined in Step 2, and the gear drive nominal ratio that most closely approximates the ideal ratio determined in Step 3, select the gear drive size using the Power Ratings Tables.
   Power Ratings Tables:
   Parallel shaft gear drives, see Pages 22 thru 33 & 114.
   Right angle shaft drives, see Pages 78 thru 85 & 119.
   Locate the proper page within the power ratings tables based on nominal ratio and high speed shaft rpm. Once on the proper page, go to the portion of the table associated with your high speed shaft rpm, and using the appropriate nominal ratio, trace to the right through the columns. Determine the column of the first power rating that equals or exceeds the equivalent power determined in Step 2. The size of the gear drive selected is at the top of the column. Once a gear drive size has been selected, an exact ratio can be determined from the exact ratio tables.
5. Check thermal rating using procedures outlined on Page 10. The application adjusted thermal rating of the cooling method selected must equal or exceed the actual power transmitted.
6. When overhung loads or thrust loads are present, check to assure they are within the capacity of the gear drive selected. Overhung load (radial load) is imposed by sheaves, sprockets, and open pinions that are mounted directly on the shaft extensions of the gear drive. Gear drive shaft extensions that are flexible coupling connected need not be checked for overhung load, flexible couplings do not impose significant overhung load.

   Refer H.S. Shaft overhung load applications to the Factory.

   Thrust load (axial load) applied to the gear drive is unusual. In these applications, the magnitude of the thrust load, and the direction of thrust load, is supplied by the system designer. Thrust loads must be within the capacity of the gear drive.

   Refer thrust load applications to the Factory.

   Complex shaft loadings involving simultaneous application of overhung load, thrust load, or bending moment (as in mixers and agitators) should be referred directly to the Factory.

Torque Selection Method

For convenience, low speed shaft torque ratings of gear drives are provided, and a purely mechanical selection of a gear drive can be made using torque values. Simply follow the steps outlined in the power selection method, substituting torque values for power values. In order to check thermal adequacy, and check shaft ratings, it will be necessary to convert the torque to power using the appropriate formula below:

$$\text{Input Power (kW)} = \frac{\text{Torque (Nm) x Output Speed (rpm)}}{9550}$$

Example Selections

An example using the **Power Selection Method** and an example using the **Torque Selection Method** is found on Page 11.

Thermal Factors & Procedures

Checking Thermal Rating

Checking the thermal rating is extremely important. If the gear drive's capacity to dissipate thermal energy is insufficient, it will overheat, and severe damage may occur.

Gear drive basic thermal ratings are defined on Page 5. A discussion of application adjusted thermal rating, and when it is applicable, is found on Page 6.

Thermal Rating Factors

Thermal horsepower ratings published herein are based on a 25°C(77°F) ambient temperature at sea level. For other conditions, the thermal horsepower rating must be multiplied by the factors shown in Tables 1 & 2.

Application Adjusted Thermal Rating

Once a mechanically adequate gear drive selection has been made per Steps 1-4 on Page 9, determine the application adjusted thermal rating of the gear drive. The application adjusted thermal rating of the gear drive selected must equal or exceed the actual power transmitted.

In most cases, the nameplate power rating of the motor is assumed to equal the actual power transmitted. It is not necessary to apply the mechanical service factor when determining thermal adequacy of a gear drive.

Use the following formula to determine application adjusted thermal rating:

$P_{TA} = P_T \times B_1 \times B_2 \times B_3 \times B_4 \times B_5$ where:

- P_{TA} = Application Adjusted Thermal Rating
- P_T = Basic Thermal Rating
- B_1 = Ambient Temperature Factor (Table 1)
- B_2 = Altitude Factor (Table 2)
- B_3 = Ambient Air Velocity Factor (Table 3)
- B_4 = Duty Cycle Factor (Table 4)
- B_5 = Orientation Factor (Table 5)

Basic Thermal Ratings for parallel shaft gear drives are found on Pages 34.39.

Basic Thermal Ratings for right angle shaft gear drives are found on Pages 86-88.

For the gear drive you have selected mechanically, choose an auxiliary cooling method whose application adjusted thermal rating equals or exceeds the actual power transmitted. If no listed cooling method is adequate, contact the Factory for selection of an optional heat exchanger, or consider a larger gear drive with greater thermal capacity.

TABLE 1 — Ambient Temperature Factor – B_1

(For all cooling methods)

Ambient Temperature ★	Factor with no Auxiliary Cooling or with Fan
10°C	1,17
15°C	1,12
20°C	1,06
25°C	1,00
30°C	0,94
35°C	0,88
40°C	0,81
45°C	0,74
50°C	0,66

★ Factors for other ambient temperatures can be interpolated.

TABLE 2 — Altitude Factor – B_2

(For air cooled methods, no cooling tubes)

Altitude Above Sea Level – Meters	Factor
0	1,00
750	0,95
1500	0,90
2250	0,85
3000	0,81
3750	0,76
4500	0,72
5250	0,68

TABLE 3 — Ambient Air Velocity Factor † – B_3

(For no auxiliary cooling)

Sustained Ambient Air Velocity † m/s	Installed Environment	Factor for no Auxiliary Cooling
< 0,5	Confined Space	0,75
0,5 to 1,4	Large Indoor Room	1,00
1,4 to 3,7	Large Indoor Room	1,40
> 3,7	Outdoors	1,90

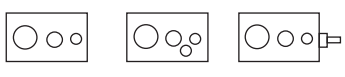
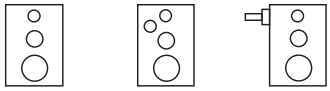
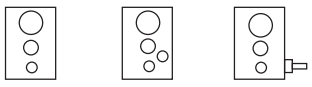
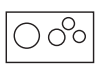
† The sustained ambient air velocity must be a continuous flow of air directly onto the gear drive. If the air flow cannot be relied upon to be continuous, an ambient air velocity factor of 1.00 must be used.

TABLE 4 — Duty Cycle Factor ‡ – B_4

% Operating Time Per Hour	Factor With or Without Auxiliary Cooling
100%	1,00
80%	1,05
60%	1,15
40%	1,35
20%	1,80

‡ The duty cycle factor must be based on the percentage of each hour that the drive is operating. For example: a gear drive operating for 48 minutes of every hour of the day has an 80% duty cycle, but a drive operating for 4 hours and resting for 4 hours has a 100% duty cycle. Where the % Operating Time Per Hour falls between values tabulated above, use the next higher % Operating Time.

TABLE 5 — Orientation Factor – B_5 - Horizontal Output Drives Only

Input Speed rpm	HS Shaft at Same Height as LS Shaft			HS Shaft over LS Shaft			LS Shaft over HS Shaft			1st Int Shaft over HS Shaft
										
	DH2	DH3	DB3	DH2	DH3	DZ3	DH2	DH3	DZ3	DH3
1800	1,00			0,57			0,29			
1500	1,00			0,66			0,45			
1200	1,00			0,74			0,58			
1000	1,00			0,79			0,68			
900	1,00			0,82			0,73			
700	1,00			0,83			0,80			
600	1,00			0,90			0,87			

Power Selection Example

A draw bench operates 10 hours per day. The gear drive required for the application is driven at the high speed shaft by a 75 kW electric motor at 1 000 RPM. A low speed shaft speed of 36 RPM at the gear drive has been requested.

Ambient temperature at the draw bench never exceeds 25° C. The draw bench is located in a small indoor room, with air flow less than 0,5 meters per second. Altitude above sea level is 150 meters. The high speed and low speed shafts of the selected gear drive will be connected to the driving and driven equipment by flexible couplings. Select a parallel shaft gear drive for this application as follows:

1. The mechanical service factor is 1,25 for a draw bench drive operating 10 hours per day, from Page 8, Table 3 (Metal Mills).
2. The equivalent power in kW = 1,25 x 75 = 93,75 kW.
3. The ideal ratio is 1 000 ÷ 36 = 27,78. The closest nominal ratio is 28,0:1 from the Double Reduction Power Ratings Table on Page 26.
4. Using the Double Reduction Power Ratings Table on Page 26, and in the section associated with a high speed shaft rpm of 1 000, and in the row associated with a nominal ratio of 28,0:1, trace right through the columns to the first power rating that equals or exceeds the equivalent power of 93,75 kW calculated in Step 2. The selection is a size M1170 (shown at the top of the column) that has a power rating of 121 kW.
   Actual mechanical service factor is 121 ÷ 75 = 1,61.
   Exact ratio is 27,86:1, found on Page 47 (exact ratio table)
5. Check thermal rating. The application adjusted thermal rating of the cooling method selected must equal or exceed the actual power transmitted (75 kW).
   Basic thermal rating for the size M1170DH2, nominal ratio 28,0:1, high speed shaft at 1 000 RPM, no auxiliary cooling, equals 171,0 kW, per Page 36.

   Thermal factors from Page 10 for no auxiliary cooling are as follows:

   B1 = Ambient Temperature Factor from Thermal Table 1 = 1,00

   B2 = Altitude factor from Thermal Table 2 = 1,00

   B3 = Ambient Air Velocity Factor from Thermal Table 3 = 0,75

   B4 = Duty Cycle Factor from Thermal Table 4 = 1,00

   B5 = Orientation factor from Thermal Table 5 = 1,00

   Application Adjusted Thermal rating with **no auxiliary cooling** = 171,0 x 1,00 x 1,00 x 0,75 x 1,00 x 1,00 = 128,3 kW

   Application Adjusted Thermal rating does equal or exceed the 75 kW transmitted, no auxiliary cooling is required.
6. It is not necessary to check overhung load or thrust capacity of the gear drive for this example. Gear drive shaft extensions are connected by flexible couplings, which do not impose significant overhung load. No thrust load is present.

Torque Selection Example

A dredge utility winch requires 20 000 Nm of torque at its output shaft, which operates at 16 RPM. The winch is in service 10 hours per day and is driven by a coupling-connected 40 kW, 1 000 rpm electric motor. The ambient temperature never exceeds 25° C. The approximate air velocity is 3,0 meters per second, and the dredge operates in the North Sea (sea level). The winch never operates more than 30 minutes in a given hour. The space available is best suited for a right angle gear drive. Select a gear drive for this application.

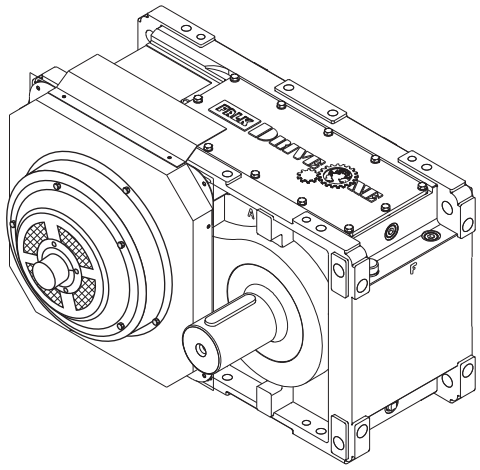
1. The Service Factor is 1,25 for a dredge utility winch operating 10 hours per day, from Page 7, Table 2 under Dredges.
2. The equivalent torque is 1,25 x 20 000 = 25 000 Nm
3. The ideal ratio is 1 000 ÷ 16 = 62,5. The nearest standard nominal ratio is 63,0 from the Right Angle Triple Reduction Table on Page 82.
4. Using the Triple Reduction Table on Page 82, in the 1 000 RPM high speed shaft section and at the 63,0:1 ratio and 16,0 rpm, trace right to 37,8 (x 1 000, the first torque exceeding the equivalent torque of 25 000 Nm) and read the drive size M1170 at the top of the column.
5. The basic thermal capacity with no auxiliary cooling for an M1170DB3, 63,0:1, at 1 000 RPM from the table on Page 87 is 80 kW. The ambient temperature factor (B1) from Table 1, Page 10, is 1,00. The altitude factor (B2) from Table 2, Page 10 is 1,00. The ambient air velocity factor (B3) is 1,4 from Table 3, Page 10. The Duty Cycle is 50% (30 min / hour), so the duty cycle factor (B4) is 1,15 from Table 4, Page 10. The Orientation factor (B5) is 1,00, from Table 5, Page 10.
6. The application adjusted thermal capacity is 80 x 1,00 x 1,00 x 1,40 x 1,15 x 1,00 = 128,8 kW, which exceeds the power rating of the motor (40 kW). Therefore, no additional cooling is required.
7. It is not necessary to check overhung load or thrust capacity of the gear drive for this example. Gear drive shaft extensions are connected by flexible couplings, which do not impose significant overhung load. No thrust load is present.

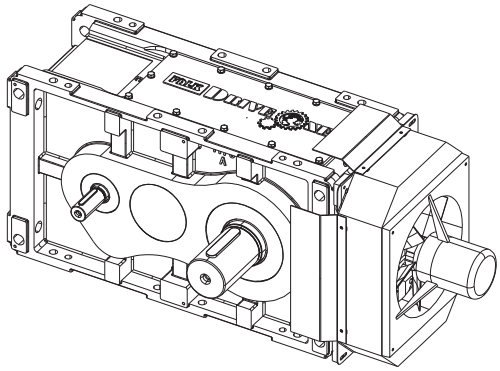
Accessory & Option Information

Shaft Driven Cooling Fans
See Pages 127-132

Shaft driven cooling fans provide a simple and inexpensive way to utilize the full mechanical rating of gear drives by lowering the operating temperatures, thus increasing thermal power capacity. Cooling fans have been successfully used on electric motors and other related machinery for many years. They eliminate the need for water or electrically powered cooling, pumps, and external piping. The sound level at standard motor rpm is about the same as that from fans on totally enclosed, fan cooled driving motors. Less than 0.25% of cataloged power rating is required to drive the fans. Shaft driven fans are available for use with DH parallel shaft drives, DB & DZ right-angle drives and also DX vertical drives. Dimensions, arrangements, and clearances for shaft driven fans are shown in this selection guide.

For applications requiring fan cooling and two usable H.S. shaft extensions (with inching drives, emergency drives, etc), consult the Factory.





Electric Cooling Fans
See Pages 133-139

Electric fans are unaffected by shaft rotation and speed, and includes a thermostatic control to turn the fan off when it is not required. The electric fan can be mounted on either end of a parallel shaft drive, and on the L.S. end of a right angle drive. This permits full use of available shaft extensions. Electric fans are available with the following standard motor packages:

60 Hz, 3-Phase, 220/380 VAC
60 Hz, 3-Phase, 265/460 VAC
50 Hz, 3-Phase, 220/380 VAC

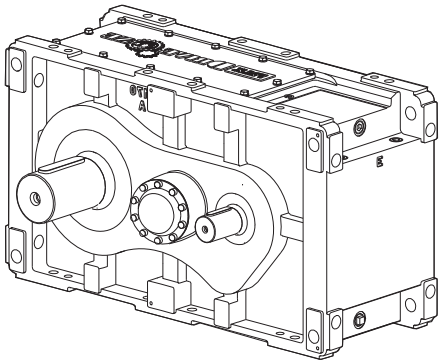
Other motor packages may be available at an extra charge. Consult the Factory for price and availability.

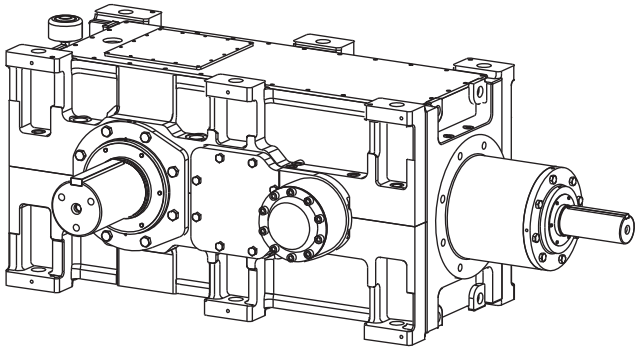
Dimensions, arrangements, and clearances for electric fans are shown in this selection guide. Additional information, including motor ratings, and thermostatic control wiring diagrams are also available from the Factory.

Backstops
See Pages 140 & 141

Backstops prevent reverse rotation or backrun without backlash for conveyors, elevator head shafts, and similar applications. The *Drive One* backstop is a sprag type design.

The backstop shares the drive sump oil.





GMAX™ LUBRICANTS 6000

GMAX 6000 Factory Fill

The gearing in Falk Drives factory filled with GMAX 6000 is warranted for a period of 10 years from date of shipment against tooth failure or surface distress.

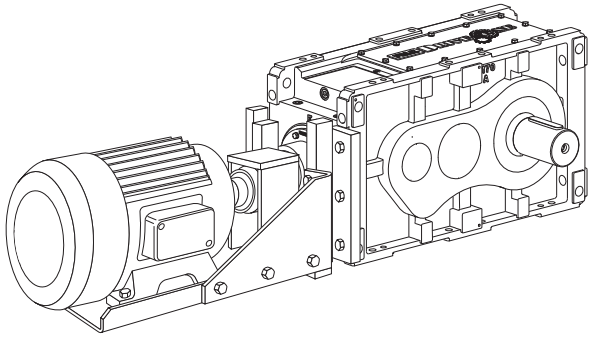
GMAX 6000 allows for extended change intervals and prevents the need for seasonal lubricant changes.

- Fulfills all Falk lubrication requirements
- Reduces energy consumption
- Decreases operating temperatures
- Provides superior viscosity stability
- Affords exceptional wear protection
- Extends gearing fatigue life
- Eliminates seasonal lube changes
- Reduces low-temp starting torque
- Reduces fluid maintenance and disposal costs
- Improved tolerance of water contamination

Accessory & Option Information

Motor Brackets
See Pages 147 & 148

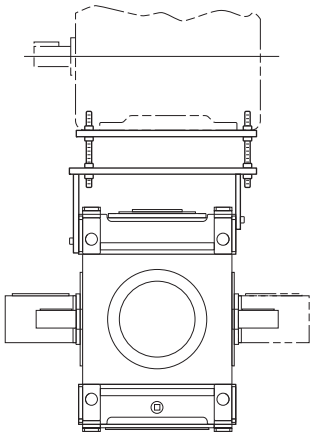
Motor brackets may be used for Types DH and DB. These motor brackets provide an economical "soft" mounting for standard NEMA T-frame and IEC B3 induction motors. It is expected that the weight, location, and starting torque of the motor will cause cantilevered motor brackets to deflect or twist to varying degrees. They are engineered to be within acceptable deflection limits as determined by the Factory. However, because the motor bracket is a "soft" motor support, deflection and vibration magnitudes of the bracket may exceed levels normally considered acceptable for rigidly, "hard" mounted machinery.



Motor Mounts
See Pages 156 & 157

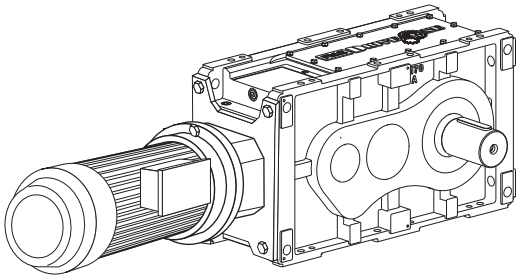
Motor mounts are selectively pre-designed for Types DH and DB drives. Motor mounts provide a convenient drive support for the motor when the drive is belt driven.

For detailed information on motor mounts, contact the Factory.



Flange Motor Adapters
See Pages 145 & 146

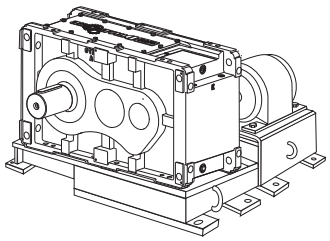
Flanged motor adapters are available for Types DH and DB drives. This adapter allows a flange-mounted motor to be directly mounted to the high speed side of the drive.



Bedplates

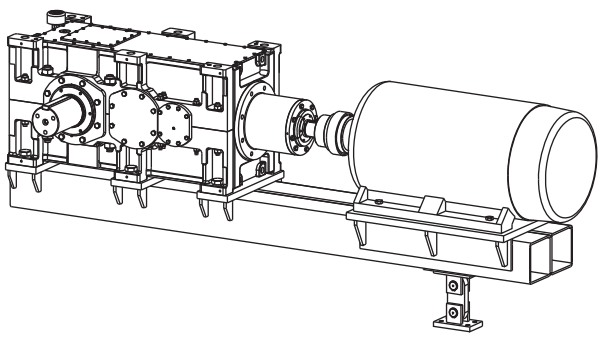
A bedplate is recommended to insure proper alignment of a base mounted drive with the motor. Falk can provide fabricated steel bedplates for all popular sizes of standard Types DH and DB drives. These bedplates accommodate standard NEMA and IEC motors within the power range of the drive and many of the larger non-NEMA motors. Special bedplates can be designed and manufactured for unique motor and special accessory combinations.

Supports for tachometers, brakes, timing devices, foot-mounted fluid couplings, or other accessories can be added. Contact the Factory for further details on this accessory.



Swing Base
See Pages 149-153

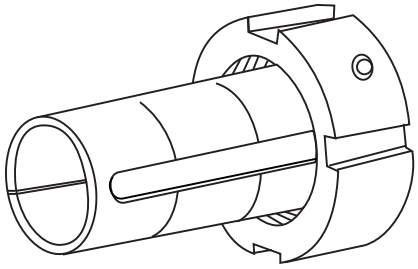
Swing bases have been pre-engineered for over 500 combinations of Drive One, NEMA and IEC motors and Falk couplings. Finite element analysis has been performed to assure trouble-free operation. Designed specifically for use with the DBT right angle shaft mounted drive, the swing base provides an economical and readily available alternative to bedplates.



Accessory & Option Information

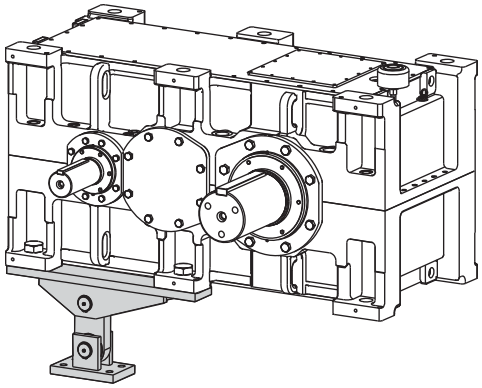
TA Taper Bushings
See Page 125

Available with both inch and metric bores, Falk TA Taper ductile iron bushings provide for easy-on easy-off shaft mounting convenience for hollow shaft drives.



Non-Adjustable Torque Arm
See Page 142

Torque arms are available for all shaft mounted Drive One sizes, both DH and DB. It are used to support the drive in a standard horizontal position, and are suitable for use on swing bases, bedplates, Alignment-Free, or mounted directly to the drive. The torque arm requires a hole in the driven equipment support structure to provide a low profile attachment. An optional support pedestal is available. The customer is responsible for determining the structural integrity of their support structure.

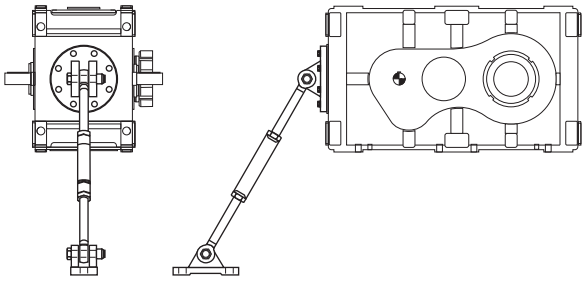


Premium Seals

The standard seal arrangement consists of Tandem seals with an external, purgeable grease barrier to prevent abrasive contaminants from reaching the seal lips. Optional Premium lip/labyrinth seals are also available. Consult the Factory.

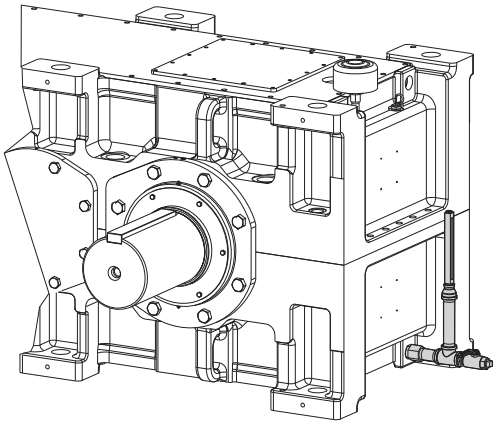
Adjustable Torque Arm (Tie Rod)
See Page 144

Designed for use with DHT parallel shaft drives, this torque arm consists of two rod ends and a turnbuckle, allowing for some length adjustment.



Oil Sight Gauge & Oil Drain Valve
See Page 156

Provided at the low speed end of the drive. The oil sight gauge allows for quick visual confirmation of correct lubrication levels and the oil drain ball valve simplifies oil changes.

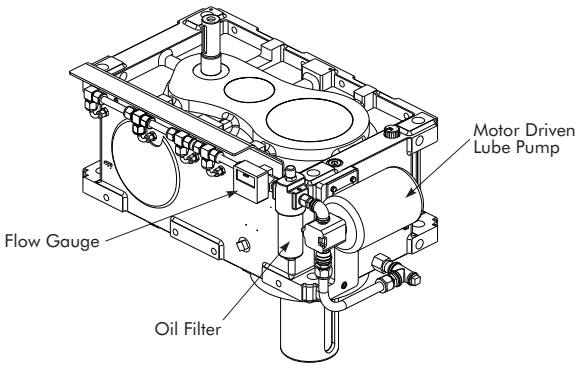


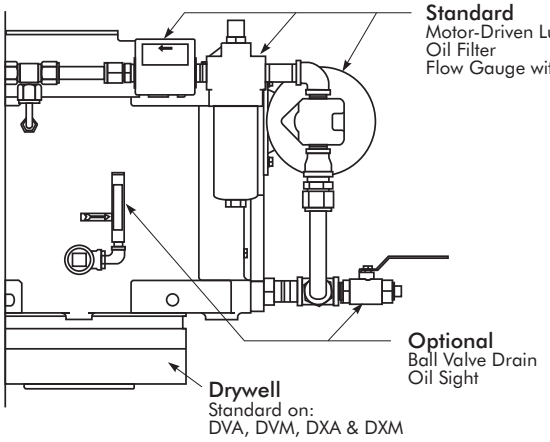
Accessory & Option Information

Vertical Drive Features
See Pages 64-75 & 104-111

Vertical drives are equipped as standard with a motor-driven lube pump. Also included are a filter and a flow gauge with switch to ensure continuous flow of clean oil to bearings and gears. For positive prevention of oil leaks from vertical down shafts, drive Types DVA, DVM, DXA, and DXM include an internal drywell.

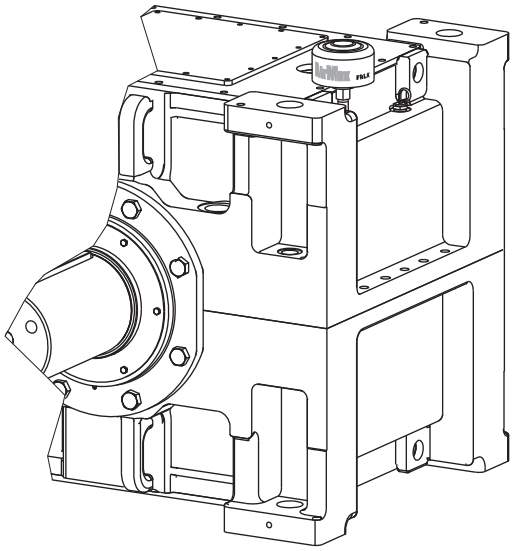
Vertical drive options include a ball valve drain and a standpipe oil sight.





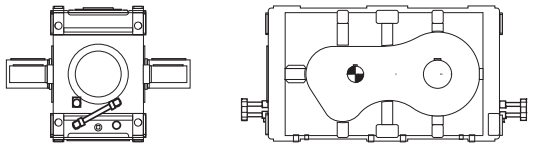
AirMax Breather
See Page 162

The AirMax breather gives moisture and particulate protection for enclosed gear drives.

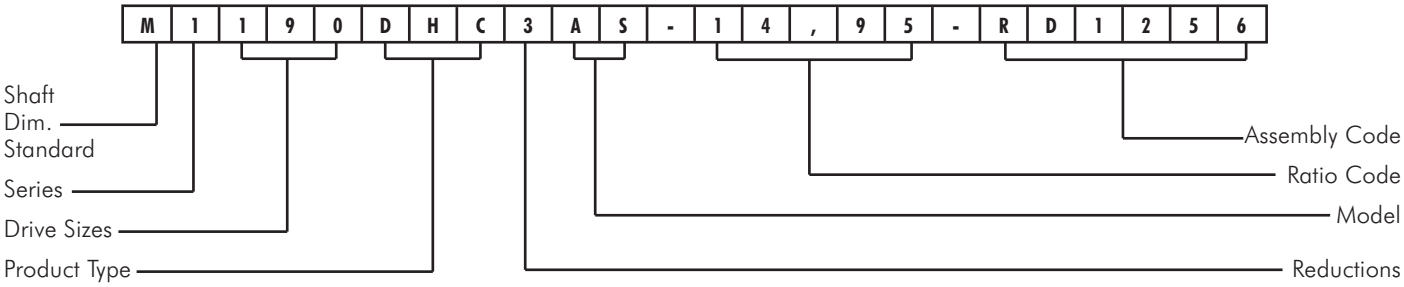


Cooling Tubes - Single Reduction Drives Only
See Page 161

Cooling tubes are an economical alternative for thermal requirements that are beyond the capability of fans. A series of straight, finned tubes are provided directly in the oil sump of the drive. Water is circulated through these tubes to cool the oil. Since there are no joints or connections inside the drive, leakage of water into the oil sump is eliminated. The thermal ratings shown in this selection guide are for 21°C (70°F) inlet water temperature.



Drive One Nomenclature



Shaft Dimensional Standard

M = Standard metric input and output shafts (diameter/bore, length, key & keyway)

Series

1000 Series

Drive Sizes

130 thru 250

Product Type

D = Drive One designation

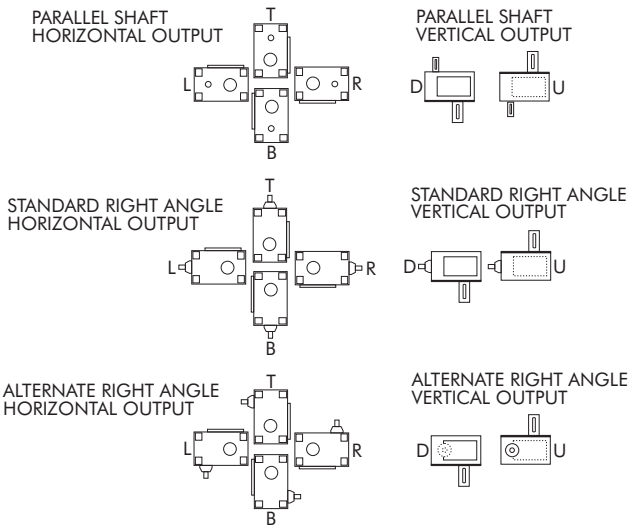
Input Shaft/Output Shaft Configuration

H = Parallel, horizontal L.S. shaft
B = Right angle, horizontal L.S. shaft (input & output shafts in same plane)
Z = Right angle, horizontal L.S. shaft (input & output shafts not in same plane)
V = Parallel, vertical L.S. shaft
X = Right angle, vertical L.S. shaft (input & output shafts in same plane)

Output Shaft Type

C = Solid shaft (cylindrical OD) - All sizes
T = Hollow shaft (tapered ID)
Q = Hollow shaft, straight bored & keyed, with keeper plate
J = Hollow shaft, keyless, with shrink disc
A = Solid shaft with oversize OD and increased bearing span (Agitator design), includes drywell
M = Hollow shaft, straight bored and keyed with keeper plate, with increased bearing span (Mixer design), includes drywell

HOUSING/SHAFT ORIENTATION



P = Planetary Secondary, Hollow LS Shaft with Shrink Disc
R = Planetary Secondary, Solid LS Shaft, for Flange Mounting
B = Planetary Secondary, Solid LS Shaft, for Foot Mounting
F = Planetary Secondary, Solid LS Shaft, Moment Connection
L = Low Ratio / High Thermal, Solid LS Shaft

Reductions

Number of reductions/Stages in gear drive

Model

Model Code 1

Initial Model A. Subsequent models B, C, D, etc.

Model Code 2

N = Having no special features or housing rework
R = Having housing reworked for standard option (e.g. backstop, etc.)
S = Having special feature or features

Ratio Code

Exact ratio expressed as (5) characters including decimal point

Examples: 1,321:1, 14,95:1, 155,7:1, 1196,:1.

Assembly Code

Assembly Code 1 - Housing/Shaft Orientation

T = Horizontal LSS - (HSS above LSS)
R = Horizontal LSS - (HSS right or left of LSS, Inspection cover down)
B = Horizontal LSS - (HSS below LSS)
L = Horizontal LSS - (HSS right or left of LSS, Inspection cover up)
D = Vertical LSS - L.S. shaft down
U = Vertical LSS - L.S. shaft up

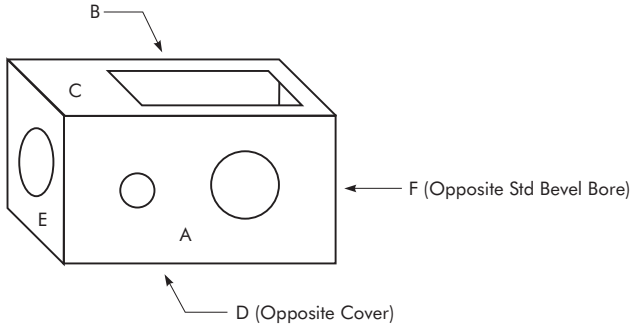
Assembly Code 2 - Mounting Arrangement

A, B, C, D, E, F = Mounted via A, B, C, D, E, F, housing face (see housing faces)
J = Shaft Mounted Drive (Parallel shaft)
H = Alignment Free Drive (Right angle shaft)

Assembly Code 3, 4, 5, 6 - Assembly Number

See assembly figures

MOUNTING ARRANGEMENT



How to Order

The following information is required to order a *Drive One* gear drive to meet your application requirements. Much of the information listed below is also used to make a selection and is repeated here in the event a selection will be made by a Falk district office. Note that it is not necessary to specify nomenclature, as described on Page 16, when ordering a *Drive One* gear drive.

Gear Drive

- Size, type and ratio.
- High Speed Shaft rpm and Low Speed Shaft rpm.
- Service Factor.
- External shaft loads – thrust and overhung load.
- Factors affecting thermal performance – ambient temperature, altitude, ambient air velocity, duty cycle, gear drive orientation and inlet water temperature (if cooling water is to be used).
- Auxiliary equipment required – couplings, backstops, etc.
- Mounting position and shaft assembly number (see Pages 18-20 for parallel shaft drives and Pages 76 & 77 for right-angle drives).

Motor – Prime Mover

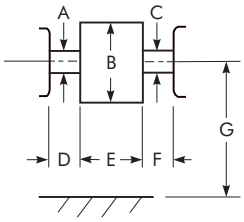
- Type – motor or engine.
- Power rating – kW.
- Speed – rpm.
- Frame size – dimension prints if the Factory is to furnish mounting surface and/or mount the equipment.
- Motor – type, class, weight, or any special characteristics (such as brakemotor, explosion-proof, etc.).
- Identify if motor is to be furnished or installed by the Factory.

Driven Machine

- Required power or torque.
- Speed – rpm.
- Application description – belt conveyor, agitator, etc.
- Service – duty cycle, hours per day, reversals per minute if reversing.
- Ambient temperature and operating conditions – outdoor, taconite dust, etc.

Auxiliary Equipment Furnished By the Factory

- Motors – if the Factory is to furnish, provide complete specifications.
- Bedplates – supply drawing of motor and any auxiliary equipment not supplied by the Factory.
- Flange motor adapters or motor brackets – supply drawing of motor.
- Motor mount – supply drawing of motor and the required belt centers and mounting arrangement.
- Backstops – specify direction of rotation of the low speed shaft (CW or CCW) when facing the drive from the end of the exposed low speed shaft extension. Also specify backstop location (right or left side facing HS end).
- Electric fan position, Hz and volts.
- Couplings – specify size, type, drive and driven hub bores and keyways.
- Coupling guards – furnish description of couplings and/or other equipment to be guarded, and all dimensions A through G below.
- Swing base – supply frame size or drawing of the motor and HS coupling size or shaft gap.



B & E...Max Cplg Dim
D & F..Exposed Shaft

Special or specification requirements

Advise the Factory of any special project related specifications such as: noise level specifications, bearing L_{10} requirements, etc.

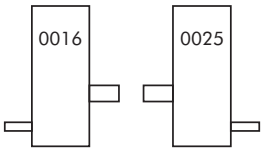
Type DHL Parallel Shaft

Shaft Assemblies & Rotations

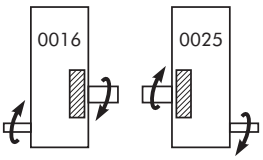
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DHL Assemblies

Standard Assemblies



Type DHL Relative Shaft Rotations ‡



‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

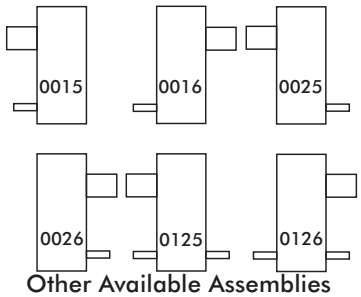
Type DHC Parallel Shaft

Shaft Assemblies & Rotations

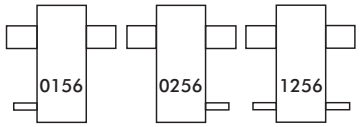
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DHC Assemblies

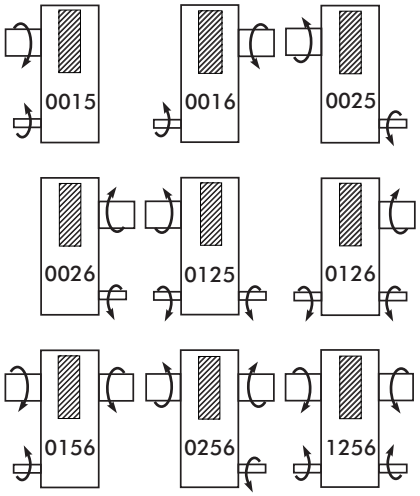
Standard Assemblies



Other Available Assemblies

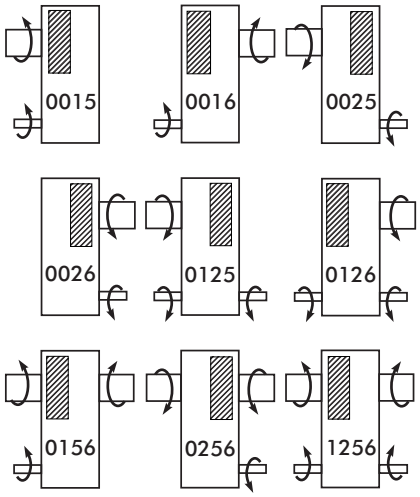


Type DHC1 Relative Shaft Rotations ‡

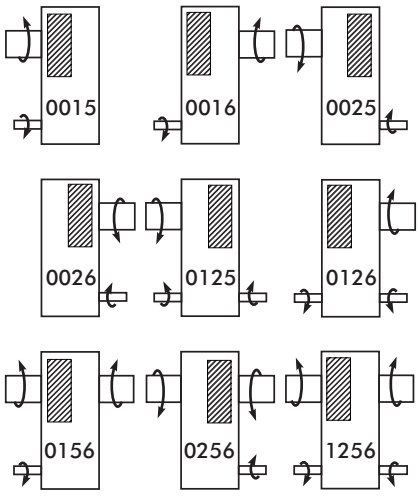


‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Type DHC2 Relative Shaft Rotations ‡



Type DHC3 Relative Shaft Rotations ‡

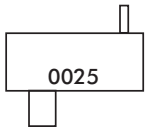


Types DHT, DHJ, DVA & DVC Parallel Shaft

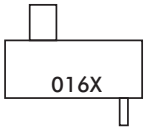
Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DVA & DVC Assembly L.S. Shaft Down

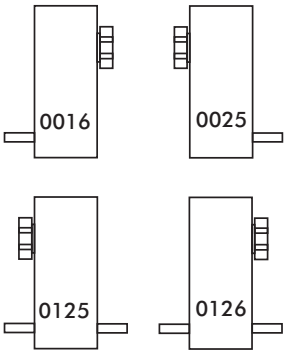


Type DVC Assembly L.S. Shaft Up



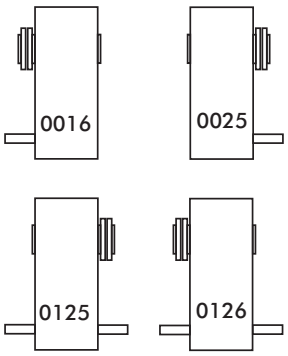
Type DHT Assemblies

Standard Assemblies

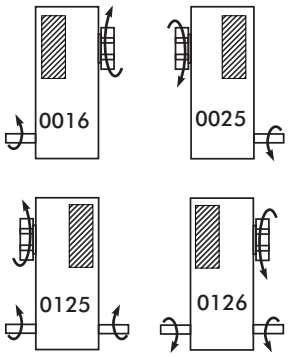


Type DHJ Assemblies

Standard Assemblies

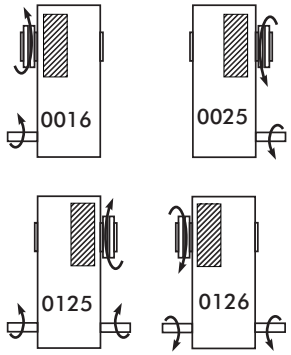


Type DHT2 Relative Shaft Rotations ‡

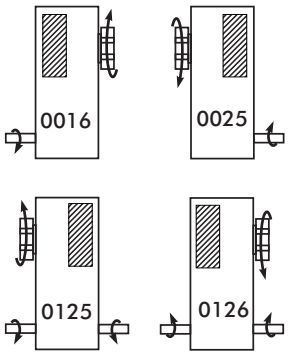


‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

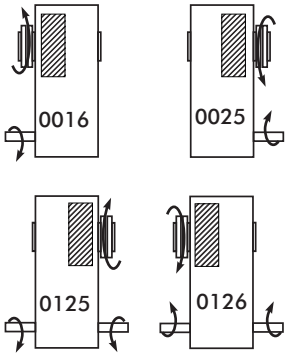
Type DHJ2 Relative Shaft Rotations ‡



Type DHT3 Relative Shaft Rotations ‡



Type DHJ3 Relative Shaft Rotations ‡



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Type DHL Parallel Shaft

Power Ratings – kW/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1800	1,25	1440	209	262	451	634	972	1309	1519	2378
	1,40	1286	195	252	451	632	972	1287	1463	2378
	1,60	1125	173	233	451	602	972	1195	1330	2324
	1,80	1000	152	221	403	544	900	1143	1261	2035
	2,00	900	134	208	357	512	829	1052	1220	1922
	2,24	804	122	191	331	481	742	967	1116	1989
	2,50	720	110	185	280	424	657	741	1039	1691
	2,80	643	96,4	176	250	373	576	761	974	1599
	3,15	571	87,3	149	220	329	526	751	877	1251
	3,55	507	75,4	118	155	237	426	529	842	1105
	4,00	450	65,9	103	155	207	350	540	768	1018
	4,50	400	57,8	91,7	136	204	313	488	686	951
	5,00	360	52,4	87,7	120	187	312	448	688	886
	5,60	321	46,6	77,2	120	175	258	395	528	762
1500	1,25	1200	174	219	376	529	810	1091	1337	1982
	1,40	1071	163	210	376	526	810	1072	1288	1982
	1,60	938	144	194	376	502	810	996	1171	1982
	1,80	833	128	184	336	453	750	953	1110	1791
	2,00	750	113	174	297	426	691	876	1074	1692
	2,24	670	102	159	277	401	618	806	982	1724
	2,50	600	92,3	161	236	353	547	617	914	1488
	2,80	536	81,4	149	212	314	480	634	857	1407
	3,15	476	72,7	126	186	279	439	625	772	1042
	3,55	423	63,5	98,6	129	209	374	440	702	921
	4,00	375	55,4	90,8	129	173	292	450	676	896
	4,50	333	48,6	76,4	120	173	275	438	604	837
	5,00	300	44,0	76,4	100	165	263	393	584	780
	5,60	268	39,1	67,9	100	149	227	348	464	671
1200	1,25	960	142	175	301	423	648	872	1075	1585
	1,40	857	130	168	301	421	648	858	1075	1585
	1,60	750	115	155	301	401	648	797	1002	1585
	1,80	667	103	147	272	362	600	762	950	1523
	2,00	600	90,6	139	243	341	553	701	919	1443
	2,24	536	81,8	127	227	323	495	645	840	1379
	2,50	480	73,8	131	193	289	442	494	782	1273
	2,80	429	65,2	121	172	256	391	508	733	1204
	3,15	381	58,2	102	151	227	359	507	661	834
	3,55	338	51,4	78,9	103	178	304	352	561	737
	4,00	300	44,8	77,7	103	138	233	360	572	766
	4,50	267	39,2	61,1	102	138	233	357	517	716
	5,00	240	35,5	61,1	80,0	138	214	320	467	667
	5,60	214	31,5	56,0	80,0	120	190	291	397	574
1000	1,25	800	120	146	251	352	540	727	896	1321
	1,40	714	108	140	251	351	540	715	896	1321
	1,60	625	95,9	129	251	334	540	664	857	1321
	1,80	556	85,5	123	230	302	502	635	806	1269
	2,00	500	75,5	116	205	284	566	584	768	1203
	2,24	446	68,2	106	191	269	420	537	704	1149
	2,50	400	61,5	110	163	244	374	412	657	1061
	2,80	357	54,4	102	145	216	330	423	619	1048
	3,15	317	48,5	86,2	127	192	303	429	581	695
	3,55	282	43,0	65,8	86,0	149	253	294	468	614
	4,00	250	37,6	65,8	86,0	115	194	300	477	647
	4,50	222	32,9	51,0	86,0	115	194	301	434	630
	5,00	200	29,7	51,0	66,7	115	180	269	389	587
	5,60	179	26,4	46,9	66,7	101	159	245	345	505

Torque Ratings – kNm/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1800	1,25	1440	1,40	1,73	2,98	4,21	6,41	8,77	10,1	15,8
	1,40	1286	1,46	1,87	3,35	4,73	7,22	9,67	10,8	17,4
	1,60	1125	1,46	1,97	3,89	5,09	8,13	10,1	11,3	19,5
	1,80	1000	1,44	2,10	3,90	5,24	8,56	10,7	11,9	19,6
	2,00	900	1,44	2,18	3,85	5,51	8,66	11,3	12,8	20,1
	2,24	804	1,45	2,28	3,92	5,72	8,82	11,7	13,4	23,4
	2,50	720	1,45	2,45	3,76	5,66	8,77	9,89	13,8	22,6
	2,80	643	1,44	2,59	3,74	5,53	8,62	11,1	14,3	23,9
	3,15	571	1,46	2,50	3,71	5,48	8,69	12,7	14,8	20,9
	3,55	507	1,42	2,21	2,88	4,50	8,01	10,0	15,7	20,6
	4,00	450	1,38	2,21	3,26	4,45	7,34	11,3	16,5	21,4
	4,50	400	1,38	2,18	3,27	4,92	7,43	11,9	16,1	22,4
	5,00	360	1,38	2,30	3,22	4,90	8,36	12.0	18,1	23,3
	5,60	321	1,36	2,31	3,58	5,13	7,72	11,6	15,6	22,4
1500	1,25	1200	1,4	1,73	2,98	4,21	6,41	8,77	10,6	15,8
	1,40	1071	1,46	1,87	3,35	4,73	7,22	9,67	11,4	17,4
	1,60	938	1,46	1,97	3,89	5,09	8,13	10,1	11,9	20.0
	1,80	833	1,46	2,10	3,90	5,24	8,56	10,7	12,6	20,7
	2,00	750	1,46	2,18	3,85	5,51	8,66	11,3	13,5	21,2
	2,24	670	1,46	2,28	3,94	5,72	8,82	11,7	14,1	24,3
	2,50	600	1,46	2,56	3,81	5,66	8,77	9,89	14,6	23,8
	2,80	536	1,46	2,63	3,80	5,58	8,62	11,1	15,1	25,2
	3,15	476	1,46	2,53	3,77	5,58	8,71	12,7	15,7	20,9
	3,55	423	1,44	2,21	2,88	4,76	8,43	10,0	15,7	20,6
	4,00	375	1,40	2,34	3,26	4,45	7,34	11,3	17,4	22,6
	4,50	333	1,39	2,18	3,45	5,01	7,85	12,5	17,1	23,6
	5,00	300	1,39	2,40	3,22	5,18	8,48	12,7	18,4	24,6
	5,60	268	1,37	2,44	3,58	5,23	8,15	12,2	16,5	23,6
1200	1,25	960	1,43	1,73	2,98	4,21	6,41	8,77	10,7	15,8
	1,40	857	1,46	1,87	3,35	4,73	7,22	9,67	11,9	17,4
	1,60	750	1,46	1,97	3,89	5,09	8,13	10,1	12,8	20.0
	1,80	667	1,46	2,10	3,95	5,24	8,56	10,7	13,4	22.0
	2,00	600	1,46	2,18	3,92	5,51	8,66	11,3	14,4	22,6
	2,24	536	1,46	2,28	4,03	5,76	8,83	11,7	15,1	24,3
	2,50	480	1,46	2,60	3,89	5,79	8,86	9,89	15,6	25,5
	2,80	429	1,46	2,67	3,87	5,69	8,77	11,1	16,1	27.0
	3,15	381	1,46	2,57	3,83	5,68	8,90	12,9	16,7	20,9
	3,55	338	1,45	2,21	2,88	5,09	8,57	10,0	15,7	20,6
	4,00	300	1,41	2,50	3,26	4,45	7,34	11,3	18,4	24,2
	4,50	267	1,40	2,18	3,69	5,01	8,31	12,8	18,2	25,3
	5,00	240	1,40	2,40	3,22	5,43	8,60	12,9	18,4	26,3
	5,60	214	1,38	2,51	3,58	5,29	8,49	12,8	17,7	25,2
1000	1,25	800	1,45	1,73	2,98	4,21	6,41	8,77	10,7	15,8
	1,40	714	1,46	1,87	3,35	4,73	7,22	9,67	11,9	17,4
	1,60	625	1,46	1,97	3,89	5,09	8,13	10,1	13,1	20.0
	1,80	556	1,46	2,10	4,01	5,24	8,60	10,7	13,7	22.0
	2,00	500	1,46	2,18	3,98	5,51	8,76	11,3	14,5	22,6
	2,24	446	1,46	2,28	4,08	5,76	8,99	11,7	15,2	24,3
	2,50	400	1,46	2,63	3,93	5,87	9,01	9,89	15,7	25,5
	2,80	357	1,46	2,69	3,92	5,77	8,90	11,1	16,4	28,2
	3,15	317	1,46	2,59	3,87	5,75	9,03	13,1	17,7	20,9
	3,55	282	1,46	2,21	2,88	5,09	8,57	10,0	15,7	20,6
	4,00	250	1,42	2,54	3,26	4,45	7,34	11,3	18,4	24,5
	4,50	222	1,41	2,18	3,72	5,01	8,31	12,9	18,4	26,7
	5,00	200	1,41	2,40	3,22	5,43	8,68	13.0	18,4	27,7
	5,60	179	1,39	2,52	3,58	5,33	8,56	12,9	18,4	26,7

Type DHL Parallel Shaft

Power Ratings – kW/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
900	1,25	720	109	131	226	317	486	654	807	1189
	1,40	643	97,6	126	226	316	486	643	807	1189
	1,60	563	86,3	116	226	301	486	597	771	1189
	1,80	500	76,9	110	209	272	457	572	725	1142
	2,00	450	68.0	104	186	256	423	526	691	1082
	2,24	402	61,4	95,3	173	242	381	483	633	1034
	2,50	360	55,4	99,6	147	221	340	370	591	955
	2,80	321	48,9	91,9	132	196	300	381	557	949
	3,15	286	43,6	77,9	115	174	275	389	540	625
	3,55	254	38,7	59,2	77,4	134	228	264	421	552
	4,00	225	33,9	59,2	77,4	104	175	270	429	583
	4,50	200	29,7	45,9	77,4	104	175	273	391	585
	5,00	180	26,8	45,9	60.0	104	163	244	350	532
	5,60	161	23,8	42,3	60.0	91,2	144	222	310	469
750	1,25	600	90,9	109	188	264	405	545	672	991
	1,40	536	81,3	105	188	263	405	536	672	991
	1,60	469	71,9	96,9	188	251	405	498	642	991
	1,80	417	64,1	92,1	176	227	387	476	604	952
	2,00	375	56,6	86,8	157	213	358	438	576	902
	2,24	335	51,1	79,4	146	202	322	403	528	862
	2,50	300	46,1	83,4	124	185	287	309	492	796
	2,80	268	40,8	77,1	111	165	252	317	464	805
	3,15	238	36,4	65,3	96,8	146	231	326	453	521
	3,55	211	32,3	49,3	64,5	112	190	220	351	460
	4,00	188	28,4	49,3	64,5	86,4	146	225	357	486
	4,50	167	24,8	38,2	64,5	86,4	146	229	326	498
	5,00	150	22,4	38,2	50.0	86,4	136	205	292	448
	5,60	134	19,9	35,4	50.0	76,4	121	186	258	407
600	1,25	480	72,7	87,4	150	211	324	436	538	793
	1,40	429	65,1	84.0	150	211	324	429	538	793
	1,60	375	57,5	77,5	150	201	324	398	514	793
	1,80	333	51,3	73,7	143	181	311	381	484	761
	2,00	300	45,3	69,5	127	171	291	351	461	722
	2,24	268	40,9	63,6	118	161	261	322	422	689
	2,50	240	36,9	66,7	100	148	232	247	394	636
	2,80	214	32,6	62,2	89,2	133	204	254	372	645
	3,15	190	29,1	52,6	78,1	118	187	260	363	417
	3,55	169	25,8	39,5	51,6	89,2	152	176	281	368
	4,00	150	22,8	39,5	51,6	69,1	117	180	286	388
	4,50	133	19,9	30,6	51,6	69,1	117	185	261	398
	5,00	120	18.0	30,6	40.0	69,1	110	165	234	362
	5,60	107	16.0	28,5	40.0	61,5	97,2	150	207	329

Torque Ratings – kNm/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
900	1,25	720	1,46	1,73	2,98	4,21	6,41	8,77	10,7	15,8
	1,40	643	1,46	1,87	3,35	4,73	7,22	9,67	11,9	17,4
	1,60	563	1,46	1,97	3,89	5,09	8,13	10,1	13,1	20.0
	1,80	500	1,46	2,10	4,04	5,24	8,69	10,7	13,7	22.0
	2,00	450	1,46	2,18	4,01	5,51	8,84	11,3	14,5	22,6
	2,24	402	1,46	2,28	4,11	5,76	9,07	11,7	15,2	24,3
	2,50	360	1,46	2,64	3,96	5,91	9,08	9,89	15,7	25,5
	2,80	321	1,46	2,71	3,94	5,81	8,97	11,1	16,4	28,4
	3,15	286	1,46	2,60	3,89	5,78	9,09	13,2	18,3	20,9
	3,55	254	1,46	2,21	2,88	5,09	8,57	10,0	15,7	20,6
	4,00	225	1,43	2,54	3,26	4,45	7,34	11,3	18,4	24,5
	4,50	200	1,42	2,18	3,72	5,01	8,31	13.0	18,4	27,5
	5,00	180	1,41	2,40	3,22	5,43	8,72	13,1	18,4	27,9
	5,60	161	1,39	2,53	3,58	5,35	8,60	13.0	18,4	27,5
750	1,25	600	1,46	1,73	2,98	4,21	6,41	8,77	10,7	15,8
	1,40	536	1,46	1,87	3,35	4,73	7,22	9,67	11,9	17,4
	1,60	469	1,46	1,97	3,89	5,09	8,13	10,1	13,1	20.0
	1,80	417	1,46	2,10	4,09	5,24	8,83	10,7	13,7	22.0
	2,00	375	1,46	2,18	4,06	5,51	8,97	11,3	14,5	22,6
	2,24	335	1,46	2,28	4,15	5,76	9,19	11,7	15,2	24,3
	2,50	300	1,46	2,66	4.00	5,94	9,19	9,89	15,7	25,5
	2,80	268	1,46	2,73	3,97	5,86	9,07	11,1	16,4	28,8
	3,15	238	1,46	2,62	3,92	5,83	9,18	13,2	18,4	20,9
	3,55	211	1,46	2,21	2,88	5,09	8,57	10,0	15,7	20,6
	4,00	188	1,43	2,54	3,26	4,45	7,34	11,3	18,4	24,5
	4,50	167	1,42	2,18	3,72	5,01	8,31	13,1	18,4	28,1
	5,00	150	1,42	2,40	3,22	5,43	8,78	13,2	18,4	28,2
	5,60	134	1,39	2,54	3,58	5,38	8,65	13,1	18,4	28,7
600	1,25	480	1,46	1,73	2,98	4,21	6,41	8,77	10,7	15,8
	1,40	429	1,46	1,87	3,35	4,73	7,22	9,67	11,9	17,4
	1,60	375	1,46	1,97	3,89	5,09	8,13	10,1	13,1	20.0
	1,80	333	1,46	2,10	4,14	5,24	8,88	10,7	13,7	22.0
	2,00	300	1,46	2,18	4,10	5,51	9,10	11,3	14,5	22,6
	2,24	268	1,46	2,28	4,19	5,76	9,31	11,7	15,2	24,3
	2,50	240	1,46	2,66	4,03	5,94	9,30	9,89	15,7	25,5
	2,80	214	1,46	2,75	4,01	5,92	9,17	11,1	16,4	28,9
	3,15	190	1,46	2,64	3,95	5,89	9,28	13,2	18,4	20,9
	3,55	169	1,46	2,21	2,88	5,09	8,57	10,0	15,7	20,6
	4,00	150	1,44	2,54	3,26	4,45	7,34	11,3	18,4	24,5
	4,50	133	1,43	2,18	3,72	5,01	8,31	13,2	18,4	28,1
	5,00	120	1,42	2,40	3,22	5,43	8,84	13,3	18,4	28,5
	5,60	107	1,40	2,55	3,58	5,41	8,71	13,2	18,4	28,9

Type DHC Parallel Shaft

Power Ratings – kW/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1800	1,25	1440	992	1274	1902	3258	. . .	. . .	. . .
	1,40	1286	890	1250	1902	2919	3852	. . .	. . .
	1,60	1125	776	1091	1772	2577	3516	5008	. . .
	1,80	1000	677	966	1537	2276	3108	4491	5660
	2,00	900	615	858	1377	2060	2814	4058	5067
	2,24	804	535	786	1211	1842	2519	3535	4589
	2,50	720	471	689	1059	1668	2282	3184	4110
	2,80	643	420	608	933	1494	2044	2834	3629
	3,15	571	368	525	808	1287	1805	2471	3268
	3,55	507	312	455	713	1072	1509	2216	2906
	4,00	450	264	406	619	924	1269	1930	2544
	4,50	400	243	345	526	805	1159	1627	2000
	5,00	360	219	311	466	718	1020	1416	1789
	5,60	321	170	270	400	580	850	1174	1539
1500	1,25	1200	827	1062	1585	2867	3669	5350	. . .
	1,40	1071	742	1062	1585	2569	3391	5008	6326
	1,60	938	647	932	1477	2268	3094	4408	5605
	1,80	833	564	834	1281	2003	2736	3953	4982
	2,00	750	513	722	1148	1813	2477	3572	4459
	2,24	670	446	661	1009	1622	2217	3050	4039
	2,50	600	393	574	882	1437	2008	2710	3617
	2,80	536	350	507	778	1254	1761	2371	3194
	3,15	476	307	438	673	1072	1508	2106	2876
	3,55	423	266	379	595	893	1258	1862	2477
	400	375	224	342	516	770	1091	1608	2152
	4,50	333	206	292	444	671	970	1356	1760
	5,00	300	185	263	395	605	850	1180	1575
	5,60	268	143	228	339	510	716	979	1282
1200	1,25	960	661	850	1268	2408	3138	4280	5442
	1,40	857	594	850	1268	2173	2900	4127	5412
	1,60	750	517	745	1181	1903	2628	3590	4795
	1,80	667	451	667	1024	1654	2264	3230	4262
	2,00	600	410	578	918	1458	2046	2874	3815
	2,24	536	357	528	807	1298	1822	2440	3455
	2,50	480	314	459	706	1150	1614	2168	3094
	2,80	429	282	405	622	1003	1409	1896	2732
	3,15	381	250	354	538	858	1206	1684	2349
	3,55	338	217	309	480	716	1006	1489	1982
	4,00	300	183	279	422	625	876	1286	1722
	4,50	267	167	238	362	549	785	1085	1505
	5,00	240	150	214	322	493	694	953	1299
	5,60	214	116	185	275	421	584	799	1038
1000	1,25	800	551	708	1057	2007	2618	3567	4535
	1,40	714	495	708	1057	1811	2553	3439	4535
	1,60	625	431	621	985	1586	2190	2992	4220
	1,80	556	376	556	854	1379	1887	2691	3751
	2,00	500	342	481	765	1215	1705	2395	3358
	2,24	446	298	440	673	1081	1518	2033	2975
	2,50	400	266	385	588	958	1345	1807	2621
	2,80	357	239	343	521	836	1174	1580	2313
	3,15	317	211	300	457	719	1005	1404	1958
	3,55	282	183	262	407	607	846	1241	1651
	4,00	250	154	235	357	529	743	1076	1435
	4,50	222	141	201	306	464	665	919	1271
	5,00	200	126	180	271	416	587	808	1102
	5,60	179	98	156	232	355	493	676	879

Torque Ratings – kNm/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1800	1,25	1440	6,61	8,43	12,6	21,7	. . .	. . .	. . .
	1,40	1286	6,67	9,22	14,2	21,7	28,7	. . .	. . .
	1,60	1125	6,62	9,26	15,0	21,8	29,7	42,4	. . .
	1,80	1000	6,49	9,28	14,8	21,8	29,8	42,5	54,9
	2,00	900	6,46	9,29	14,6	21,9	29,9	42,6	55,0
	2,24	804	6,36	9,30	14,3	21,9	29,9	42,7	55,1
	2,50	720	6,28	9,23	14,2	21,9	29,9	42,7	55,1
	2,80	643	6,20	9,11	14,0	21,9	30,0	42,7	55,2
	3,15	571	6,09	8,91	13,7	21,4	30,0	41,1	55,2
	3,55	507	5,88	8,57	13,5	20,6	28,9	41,1	55,2
	4,00	450	5,55	8,61	13,1	20,0	27,5	40,5	55,3
	4,50	400	5,77	8,36	12,8	19,1	27,5	39,3	48,0
	5,00	360	5,70	8,34	12,5	18,8	26,8	38,0	48,0
	5,60	321	5,16	8,09	12,0	17,0	24,9	35,4	46,8
1500	1,25	1200	6,61	8,43	12,6	22,9	29,3	42,5	. . .
	1,40	1071	6,67	9,41	14,2	22,9	30,3	44,6	57,7
	1,60	938	6,62	9,49	15,0	23,0	31,4	44,8	57,9
	1,80	833	6,49	9,61	14,8	23,1	31,5	44,9	58,0
	2,00	750	6,46	9,39	14,6	23,1	31,5	45,0	58,1
	2,24	670	6,36	9,39	14,3	23,1	31,6	44,2	58,2
	2,50	600	6,28	9,23	14,2	22,6	31,6	43,6	58,2
	2,80	536	6,20	9,11	14,0	22,1	31,0	42,9	58,3
	3,15	476	6,09	8,91	13,7	21,4	30,1	42,1	58,3
	3,55	423	6,02	8,57	13,5	20,6	28,9	41,5	56,5
	4,00	375	5,66	8,70	13,1	20,0	28,4	40,5	56,1
	4,50	333	5,87	8,51	12,9	19,1	27,6	39,3	50,7
	5,00	300	5,78	8,47	12,7	19,0	26,8	38,0	50,7
	5,60	268	5,22	8,20	12,2	18,0	25,2	35,4	46,8
1200	1,25	960	6,61	8,43	12,6	24,0	31,3	42,5	54,8
	1,40	857	6,67	9,41	14,2	24,3	32,4	46,0	61,7
	1,60	750	6,62	9,49	15,0	24,1	33,3	45,6	61,9
	1,80	667	6,49	9,61	14,8	23,8	32,6	45,9	62,1
	2,00	600	6,46	9,39	14,6	23,2	32,6	45,2	62,2
	2,24	536	6,36	9,39	14,3	23,1	32,4	44,2	62,2
	2,50	480	6,28	9,23	14,2	22,6	31,8	43,6	62,3
	2,80	429	6,24	9,11	14,0	22,1	31,0	42,9	62,3
	3,15	381	6,21	9,01	13,7	21,4	30,1	42,1	59,5
	3,55	338	6,14	8,75	13,6	20,6	28,9	41,5	56,5
	4,00	300	5,76	8,87	13,4	20,3	28,5	40,5	56,1
	4,50	267	5,96	8,66	13,2	19,5	28,0	39,3	54,2
	5,00	240	5,86	8,60	12,9	19,4	27,3	38,3	52,3
	5,60	214	5,29	8,31	12,4	18,5	25,7	36,2	47,4
1000	1,25	800	6,61	8,43	12,6	24,0	31,3	42,5	54,8
	1,40	714	6,67	9,41	14,2	24,3	34,2	46,0	62,1
	1,60	625	6,62	9,49	15,0	24,1	33,3	45,6	65,4
	1,80	556	6,49	9,61	14,8	23,8	32,6	45,9	65,5
	2,00	500	6,46	9,39	14,6	23,2	32,6	45,2	65,6
	2,24	446	6,38	9,39	14,3	23,1	32,4	44,2	64,3
	2,50	400	6,38	9,28	14,2	22,6	31,8	43,6	63,3
	2,80	357	6,35	9,26	14,1	22,1	31,0	42,9	63,3
	3,15	317	6,30	9,16	14,0	21,5	30,1	42,1	59,5
	3,55	282	6,22	8,88	13,8	21,0	29,2	41,5	56,5
	4,00	250	5,82	8,99	13,6	20,6	29,0	40,6	56,1
	4,50	222	6,02	8,75	13,3	19,8	28,4	39,9	55,0
	5,00	200	5,92	8,69	13,1	19,7	27,7	39,0	53,2
	5,60	179	5,33	8,39	12,5	18,7	26,0	36,7	48,1

Type DHC Parallel Shaft

Power Ratings – kW/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
900	1,25	720	496	637	951	1806	2356	3210	4081
	1,40	643	445	637	951	1630	2307	3095	4081
	1,60	563	388	559	886	1427	1971	2692	3920
	1,80	500	338	500	768	1241	1698	2422	3456
	2,00	450	308	433	689	1094	1535	2155	3025
	2,24	402	271	398	605	973	1366	1830	2678
	2,50	360	241	350	532	862	1211	1626	2359
	2,80	321	217	312	474	755	1057	1422	2082
	3,15	286	192	272	415	654	909	1263	1762
	3,55	254	166	237	369	552	769	1119	1486
	4,00	225	139	213	323	480	674	978	1302
	4,50	200	127	181	277	421	603	835	1156
	5,00	180	114	163	246	377	532	733	1001
	5,60	161	88	141	210	321	447	613	798
750	1,25	600	413	531	793	1505	1963	2675	3401
	1,40	536	371	531	793	1358	1922	2579	3401
	1,60	469	323	466	738	1189	1643	2244	3300
	1,80	417	285	417	640	1034	1415	2019	2880
	2,00	375	261	366	574	911	1279	1796	2521
	2,24	335	230	337	510	812	1138	1525	2231
	2,50	300	204	296	451	727	1009	1355	1966
	2,80	268	183	264	401	640	891	1185	1735
	3,15	238	161	229	350	553	771	1053	1469
	3,55	211	140	200	312	466	651	949	1255
	4,00	188	117	179	272	404	569	828	1103
	4,50	167	107	152	233	354	509	705	978
	5,00	150	96	137	206	317	448	618	845
	5,60	134	74	118	176	270	376	516	673
600	1,25	480	331	425	634	1204	1571	2140	2721
	1,40	429	299	425	634	1087	1538	2064	2721
	1,60	375	264	377	591	951	1314	1795	2640
	1,80	333	233	341	518	829	1132	1615	2304
	2,00	300	213	298	469	738	1024	1437	2016
	2,24	268	187	275	416	664	922	1220	1785
	2,50	240	165	241	367	593	825	1095	1573
	2,80	214	148	214	326	521	727	968	1405
	3,15	190	131	186	284	449	628	842	1201
	3,55	169	113	162	252	378	528	773	1023
	4,00	150	95	145	220	327	461	673	897
	4,50	133	86	123	188	286	412	572	794
	5,00	120	77	110	166	256	362	500	685
	5,60	107	60	95	142	218	303	417	545

Torque Ratings – kNm/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
900	1,25	720	6,61	8,43	12,6	24,0	31,3	42,5	54,8
	1,40	643	6,67	9,41	14,2	24,3	34,3	46,0	62,1
	1,60	563	6,62	9,49	15,0	24,1	33,3	45,6	67,5
	1,80	500	6,49	9,61	14,8	23,8	32,6	45,9	67,1
	2,00	450	6,48	9,39	14,6	23,2	32,6	45,2	65,7
	2,24	402	6,45	9,42	14,3	23,1	32,4	44,2	64,3
	2,50	360	6,44	9,38	14,3	22,6	31,8	43,6	63,3
	2,80	321	6,40	9,35	14,2	22,1	31,0	42,9	63,3
	3,15	286	6,35	9,23	14,1	21,7	30,2	42,1	59,5
	3,55	254	6,26	8,95	13,9	21,2	29,5	41,5	56,5
	4,00	225	5,86	9,05	13,7	20,8	29,2	41,1	56,6
	4,50	200	6,05	8,80	13,4	20,0	28,7	40,3	55,5
	5,00	180	5,95	8,73	13,2	19,8	27,9	39,3	53,7
	5,60	161	5,35	8,43	12,6	18,8	26,2	37,0	48,5
750	1,25	600	6,61	8,43	12,6	24,0	31,3	42,5	54,8
	1,40	536	6,67	9,41	14,2	24,3	34,3	46,0	62,1
	1,60	469	6,62	9,49	15,0	24,1	33,3	45,6	68,2
	1,80	417	6,56	9,62	14,8	23,8	32,6	45,9	67,1
	2,00	375	6,59	9,51	14,6	23,2	32,6	45,2	65,7
	2,24	335	6,55	9,59	14,5	23,1	32,4	44,2	64,3
	2,50	300	6,53	9,53	14,5	22,9	31,8	43,6	63,3
	2,80	268	6,48	9,48	14,4	22,5	31,4	42,9	63,3
	3,15	238	6,42	9,35	14,3	22,1	30,8	42,1	59,6
	3,55	211	6,32	9,04	14,1	21,4	30,0	42,3	57,2
	4,00	188	5,91	9,13	13,9	21,0	29,6	41,7	57,5
	4,50	167	6,10	8,87	13,5	20,2	29,0	40,9	56,4
	5,00	150	5,99	8,80	13,3	20,0	28,2	39,8	54,5
	5,60	134	5,38	8,48	12,7	19,0	26,5	37,4	49,1
600	1,25	480	6,61	8,43	12,6	24,0	31,3	42,5	54,8
	1,40	429	6,73	9,41	14,2	24,3	34,3	46,0	62,1
	1,60	375	6,77	9,60	15,0	24,1	33,3	45,6	68,2
	1,80	333	6,69	9,83	14,9	23,8	32,6	45,9	67,1
	2,00	300	6,71	9,70	14,9	23,5	32,6	45,2	65,7
	2,24	268	6,65	9,76	14,8	23,6	32,9	44,2	64,3
	2,50	240	6,62	9,67	14,8	23,3	32,5	44,1	63,3
	2,80	214	6,56	9,60	14,6	22,9	32,0	43,8	64,1
	3,15	190	6,49	9,46	14,5	22,4	31,3	42,1	60,9
	3,55	169	6,38	9,14	14,3	21,7	30,4	43,1	58,3
	4,00	150	5,96	9,22	14,0	21,3	30,0	42,4	58,5
	4,50	133	6,14	8,95	13,7	20,4	29,3	41,4	57,2
	5,00	120	6,03	8,86	13,4	20,2	28,5	40,3	55,2
	5,60	107	5,42	8,54	12,7	19,2	26,7	37,8	49,7

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Power Ratings – kW/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1800	5,00	360	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2213	. . .	. . .	. . .	. . .	. . .
	5,60	321	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2068	2214	3710	. . .	5850	. . .
	6,30	286	142	232	350	547	802	1213	1519	1899	2069	3293	4201	5262	6626
	7,10	254	131	214	318	502	736	1085	1423	1724	1900	2922	3729	4605	6002
	8,00	225	121	193	291	455	667	976	1300	1612	1726	2563	3309	4112	5253
	9,00	200	112	179	270	420	595	887	1200	1449	1636	2292	2902	3656	4691
	10,0	180	103	164	251	392	561	781	1089	1291	1503	2058	2595	3306	4171
	11,2	161	96,6	151	235	363	522	704	964	1165	1388	1883	2332	2949	3771
	12,5	144	89,9	142	212	330	468	640	877	1050	1257	1702	2133	2670	3363
	14,0	129	82,9	128	191	299	420	586	798	945	1133	1524	1928	2401	3045
	16,0	113	76,6	114	171	267	382	510	698	846	1020	1372	1726	2143	2739
	18,0	100	70,2	102	155	235	337	457	635	759	912	1232	1554	1911	2444
	20,0	90	63,2	89,0	138	207	303	415	556	684	819	1084	1395	1717	2180
	22,4	80	54,9	80,5	121	186	269	367	509	615	737	978	1228	1574	1959
	25,0	72	48,8	73,1	108	172	239	328	458	. . .	663	. . .	1107	. . .	1795
	28,0	64	42,4	64,3	97,7	154	215	300	407	. . .	. . .	. . .	. . .	. . .	. . .
1500	5,00	300	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1948	. . .	. . .	. . .	. . .	. . .
	5,60	268	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1820	1948	3092	. . .	4875	. . .
	6,30	238	125	204	308	481	706	1021	1337	1668	1821	2744	3501	4385	5562
	7,10	211	116	188	280	442	647	921	1252	1471	1672	2435	3108	3837	5002
	8,00	188	107	170	257	401	587	826	1119	1367	1519	2149	2757	3427	4377
	9,00	167	98,7	157	238	370	524	749	1016	1227	1440	1943	2434	3047	3909
	10,0	150	90,8	144	220	341	494	659	924	1091	1323	1744	2201	2781	3475
	11,2	134	85,0	131	201	310	439	593	813	983	1177	1592	1975	2501	3173
	12,5	120	79,1	119	178	277	393	538	739	884	1060	1437	1803	2260	2853
	14,0	107	72,9	107	160	250	352	493	671	796	954	1285	1627	2029	2578
	16,0	94	66,1	95,1	143	224	320	428	587	711	858	1155	1455	1808	2315
	18,0	83	58,7	85,2	129	197	283	383	533	638	766	1036	1308	1610	2062
	20,0	75	52,8	74,5	115	173	254	348	467	574	687	910	1173	1445	1836
	22,4	67	46,1	67,3	101	156	225	307	426	516	618	821	1031	1323	1648
	25,0	60	41,0	61,1	90,6	144	200	274	383	. . .	556	. . .	929	. . .	1509
	28,0	54	35,6	53,7	81,6	129	180	251	341	. . .	. . .	. . .	. . .	. . .	. . .
1200	5,00	240	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1585	. . .	. . .	. . .	. . .	. . .
	5,60	214	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1540	1585	2473	. . .	3900	. . .
	6,30	190	107	174	264	412	604	833	1075	1362	1558	2203	2801	3508	4449
	7,10	169	99,0	161	240	378	554	749	1035	1200	1430	1978	2495	3070	4002
	8,00	150	91,3	146	219	343	497	671	911	1113	1295	1755	2241	2769	3502
	9,00	133	84,4	133	197	305	439	608	826	997	1201	1583	1988	2489	3159
	10,0	120	77,6	121	178	275	402	533	749	885	1075	1418	1793	2270	2840
	11,2	107	72,7	106	162	250	355	479	659	796	954	1292	1606	2037	2589
	12,5	96	67,0	95,8	143	223	317	435	598	715	858	1164	1464	1836	2323
	14,0	86	59,4	86,4	129	202	284	398	542	643	771	1040	1319	1646	2095
	16,0	75	53,1	76,4	115	180	258	345	473	574	693	933	1177	1464	1878
	18,0	67	47,2	68,5	103	158	228	309	430	514	618	836	1057	1301	1670
	20,0	60	42,4	59,8	92,5	138	204	280	376	462	554	734	947	1167	1485
	22,4	54	37,2	54,0	81,0	125	181	247	343	415	498	661	831	1067	1331
	25,0	48	33,1	49,0	72,7	115	160	220	308	. . .	447	. . .	749	. . .	1218
	28,0	43	28,7	43,1	65,5	103	144	202	274	. . .	. . .	. . .	. . .	. . .	. . .
1000	5,00	200	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1321	. . .	. . .	. . .	. . .	. . .
	5,60	179	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1305	1321	2081	. . .	3250	. . .
	6,30	159	93,9	146	232	352	522	703	896	1152	1321	1868	2358	2933	3708
	7,10	141	87,1	140	211	327	467	632	874	1012	1243	1674	2116	2601	3346
	8,00	125	80,4	124	185	291	417	565	768	939	1092	1482	1896	2346	2967
	9,00	111	74,3	111	165	256	369	511	695	839	1012	1335	1679	2105	2676
	10,0	100	68,3	101	149	231	337	448	630	744	905	1194	1512	1916	2401
	11,2	89	62,0	88,5	136	209	297	402	553	669	802	1087	1352	1717	2186
	12,5	80	56,1	80,1	120	187	266	364	502	600	721	979	1231	1546	1958
	14,0	71	49,7	72,2	108	169	238	333	455	539	647	873	1108	1384	1764
	16,0	63	44,4	63,9	96,1	151	216	289	397	481	581	783	989	1229	1579
	18,0	56	39,4	57,2	86,0	132	190	258	360	430	518	701	887	1092	1402
	20,0	50	35,4	49,9	77,3	115	171	234	315	387	464	615	794	978	1246
	22,4	45	31,2	45,1	67,7	105	151	207	287	347	417	553	696	894	1116
	25,0	40	27,7	40,9	60,7	96,4	134	184	258	. . .	374	. . .	627	. . .	1020
	28,0	36	24,0	35,9	54,7	86,2	121	169	229	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Torque Ratings – kNm/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1800	5,00	360	. . .	. . .	. . .	. . .	. . .	. . .	. . .	62,2	. . .	. . .	. . .	. . .	. . .
	5,60	321	. . .	. . .	. . .	. . .	. . .	. . .	. . .	64,3	69,9	112	. . .	175	. . .
	6,30	286	4,65	7,72	11,7	17,9	26,2	41,1	49,5	67,6	72,3	112	141	175	220
	7,10	254	4,82	8,03	12,0	18,6	27,0	41,2	51,8	70,5	76,0	112	141	175	222
	8,00	225	5,03	8,29	12,7	19,1	27,6	41,7	54,3	71,4	79,3	112	141	175	222
	9,00	200	5,22	8,57	13,2	20,0	28,0	42,1	55,7	72,3	81,4	112	141	175	222
	10,0	180	5,43	8,64	13,6	20,8	29,0	42,6	56,0	73,1	84,2	113	141	175	222
	11,2	161	5,63	9,17	14,1	21,4	30,7	42,9	56,8	73,7	86,3	114	142	175	222
	12,5	144	5,82	9,51	14,4	21,8	30,9	43,2	57,2	74,3	89,4	115	144	177	222
	14,0	129	6,06	9,55	14,5	21,9	31,1	43,4	57,6	74,8	90,1	116	145	179	225
	16,0	113	6,29	9,58	14,5	22,0	31,2	43,7	58,0	75,3	90,7	117	146	181	227
	18,0	100	6,50	9,61	14,5	22,1	31,4	43,9	58,3	75,7	91,2	118	147	182	229
	20,0	90	6,51	9,64	14,6	22,0	31,5	44,1	58,6	76,1	91,7	119	148	184	231
	22,4	80	6,43	9,66	14,7	22,2	31,6	44,3	58,8	76,4	92,1	119	149	184	233
	25,0	72	6,30	9,68	14,7	22,3	31,7	44,4	59,1	. . .	92,5	. . .	150	. . .	234
	28,0	64	6,06	9,70	14,7	22,3	31,8	44,5	59,3	. . .	. . .	. . .	. . .	. . .	. . .
1500	5,00	300	. . .	. . .	. . .	. . .	. . .	. . .	. . .	65,7	. . .	. . .	. . .	. . .	. . .
	5,60	268	. . .	. . .	. . .	. . .	. . .	. . .	. . .	67,9	73,8	112	. . .	175	. . .
	6,30	238	4,91	8,16	12,3	19,0	27,6	41,5	52,3	71,3	76,3	112	141	175	222
	7,10	211	5,10	8,48	12,6	19,6	28,5	42,0	54,7	72,2	80,3	112	141	175	222
	8,00	188	5,32	8,76	13,4	20,1	29,1	42,4	56,1	72,7	83,7	113	141	175	222
	9,00	167	5,51	9,05	14,0	21,2	29,6	42,7	56,6	73,4	86,0	114	142	175	222
	10,0	150	5,74	9,13	14,4	21,8	30,6	43,1	57,0	74,1	89,0	115	143	176	222
	11,2	134	5,95	9,54	14,4	21,9	31,0	43,4	57,5	74,6	89,8	116	145	178	224
	12,5	120	6,14	9,57	14,5	22,0	31,1	43,6	57,8	75,1	90,4	117	146	180	226
	14,0	107	6,40	9,60	14,6	22,0	31,3	43,8	58,1	75,6	91,0	118	147	182	228
	16,0	94	6,51	9,63	14,6	22,1	31,4	44,0	58,5	76,0	91,5	118	148	183	230
	18,0	83	6,52	9,65	14,5	22,2	31,5	44,2	58,7	76,3	92,0	119	149	184	232
	20,0	75	6,53	9,68	14,7	22,0	31,6	44,3	59,0	76,6	92,4	120	150	185	234
	22,4	67	6,48	9,69	14,7	22,3	31,7	44,5	59,2	76,9	92,8	120	150	186	235
	25,0	60	6,35	9,71	14,7	22,4	31,8	44,6	59,4	. . .	93,1	. . .	151	. . .	236
	28,0	54	6,11	9,73	14,8	22,4	31,9	44,7	59,6	. . .	. . .	. . .	. . .	. . .	. . .
1200	5,00	240	. . .	. . .	. . .	. . .	. . .	. . .	. . .	66,8	. . .	. . .	. . .	. . .	. . .
	5,60	214	. . .	. . .	. . .	. . .	. . .	. . .	. . .	71,8	75,1	112	. . .	175	. . .
	6,30	190	5,25	8,72	13,2	20,3	29,5	42,3	52,6	72,7	81,6	112	141	175	222
	7,10	169	5,45	9,07	13,5	21,0	30,5	42,7	56,5	73,6	85,8	114	141	175	222
	8,00	150	5,68	9,36	14,3	21,5	30,8	43,0	57,0	74,0	89,2	115	143	176	222
	9,00	133	5,90	9,54	14,5	21,9	31,0	43,3	57,4	74,6	89,7	116	145	178	224
	10,0	120	6,14	9,56	14,5	22,0	31,1	43,6	57,8	75,1	90,4	117	146	180	226
	11,2	107	6,36	9,60	14,6	22,0	31,3	43,8	58,2	75,6	91,0	118	147	181	228
	12,5	96	6,50	9,63	14,6	22,1	31,4	44,0	58,5	75,9	91,5	118	148	183	230
	14,0	86	6,52	9,65	14,6	22,2	31,5	44,1	58,7	76,3	92,0	119	149	184	232
	16,0	75	6,53	9,67	14,7	22,2	31,6	44,3	59,0	76,6	92,4	120	150	185	233
	18,0	67	6,55	9,69	14,5	22,3	31,7	44,5	59,2	76,9	92,8	120	150	186	235
	20,0	60	6,56	9,71	14,7	22,0	31,8	44,6	59,4	77,1	93,1	121	151	187	236
	22,4	54	6,54	9,72	14,8	22,4	31,9	44,7	59,6	77,3	93,4	121	152	188	237
	25,0	48	6,40	9,74	14,8	22,4	31,9	44,8	59,7	. . .	93,6	. . .	152	. . .	238
	28,0	43	6,15	9,75	14,8	22,5	32,0	44,9	59,8	. . .	. . .	. . .	. . .	. . .	. . .
1000	5,00	200	. . .	. . .	. . .	. . .	. . .	. . .	. . .	66,8	. . .	. . .	. . .	. . .	. . .
	5,60	179	. . .	. . .	. . .	. . .	. . .	. . .	. . .	73,0	75,1	113	. . .	175	. . .
	6,30	159	5,55	8,74	13,9	20,8	30,7	42,9	52,6	73,8	83,0	114	142	175	222
	7,10	141	5,76	9,45	14,3	21,8	30,9	43,2	57,2	74,5	89,5	115	144	178	222
	8,00	125	6,00	9,56	14,5	21,9	31,1	43,5	57,7	74,9	90,3	117	145	179	225
	9,00	111	6,23	9,59	14,5	22,0	31,2	43,7	58,0	75,3	90,7	117	147	181	228
	10,0	100	6,48	9,61	14,6	22,1	31,4	43,9	58,3	75,8	91,3	118	148	182	230
	11,2	89	6,51	9,64	14,6	22,1	31,5	44,1	58,7	76,2	91,8	119	149	184	231
	12,5	80	6,53	9,66	14,7	22,2	31,6	44,3	58,9	76,5	92,2	119	149	185	233
	14,0	71	6,54	9,68	14,7	22,3	31,7	44,4	59,1	76,8	92,6	120	150	186	234
	16,0	63	6,55	9,70	14,7	22,3	31,8	44,6	59,3	77,0	92,9	120	151	187	236
	18,0	56	6,56	9,72	14,5	22,4	31,8	44,7	59,5	77,3	93,3	121	151	188	237
	20,0	50	6,57	9,73	14,8	22,0	31,9	44,8	59,7	77,5	93,5	121	152	188	238
	22,4	45	6,58	9,75	14,8	22,5	32,0	44,9	59,8	77,6	93,8	122	152	189	239
	25,0	40	6,43	9,76	14,8	22,5	32,0	45,0	59,9	. . .	94,0	. . .	153	. . .	239
	28,0	36	6,18	9,77	14,8	22,5	32,1	45,0	60,0	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Power Ratings – kW/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
900	5,00	180	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1189	. . .	. . .	. . .	. . .	. . .
	5,60	161	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1185	1189	1892	. . .	2935	. . .
	6,30	143	87,2	131	216	317	470	637	807	1044	1189	1696	2143	2668	3345
	7,10	127	80,9	126	193	295	423	572	792	917	1126	1519	1921	2363	3044
	8,00	113	74,7	112	167	263	377	511	695	850	989	1343	1720	2129	2695
	9,00	100	69,0	100	149	231	333	462	629	759	916	1209	1521	1908	2428
	10,0	90	61,8	91,2	134	208	304	405	570	673	818	1080	1369	1736	2176
	11,2	80	55,9	79,8	122	189	268	363	500	604	725	983	1223	1554	1980
	12,5	72	50,6	72,2	108	169	240	329	453	543	651	884	1113	1399	1773
	14,0	64	44,8	65,1	97,4	152	214	301	411	486	584	789	1002	1251	1595
	16,0	56	40,0	57,6	86,6	136	195	261	358	434	524	707	893	1111	1427
	18,0	50	35,5	51,6	77,4	119	172	233	325	388	467	633	801	986	1267
	20,0	45	31,9	45,0	69,7	104	154	211	284	349	418	555	717	883	1125
	22,4	40	28,1	40,6	61,0	94,2	136	186	259	313	376	499	628	807	1007
	25,0	36	25,0	36,9	54,7	86,9	121	166	233	. . .	337	. . .	565	. . .	921
	28,0	32	21,6	32,4	49,3	77,7	109	152	206	. . .	. . .	. . .	. . .	. . .	. . .
750	5,00	150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	991	. . .	. . .	. . .	. . .	. . .
	5,60	134	. . .	. . .	. . .	. . .	. . .	. . .	. . .	991	991	1600	. . .	2490	. . .
	6,30	119	76,8	109	181	264	391	536	672	880	991	1432	1812	2259	2788
	7,10	106	71,2	105	162	248	354	480	666	771	949	1280	1622	1996	2577
	8,00	94	65,3	93,6	140	220	317	429	584	714	832	1130	1450	1796	2277
	9,00	83	58,4	83,9	125	194	279	387	528	637	770	1016	1280	1607	2048
	10,0	75	51,7	76,3	112	174	255	339	478	564	687	907	1151	1461	1833
	11,2	67	46,8	66,7	102	158	225	304	419	506	608	825	1027	1306	1666
	12,5	60	42,2	60,4	90,5	141	201	275	380	454	546	742	928	1174	1490
	14,0	54	37,4	54,4	81,4	127	179	252	344	407	489	661	840	1050	1340
	16,0	47	33,4	48,1	72,3	114	163	218	300	363	439	592	748	931	1197
	18,0	42	29,7	43,1	64,5	99,6	143	195	272	325	391	530	671	826	1062
	20,0	38	26,6	37,6	58,2	86,4	129	177	237	292	350	464	600	739	943
	22,4	33	23,5	33,9	50,9	78,7	114	156	216	262	314	417	526	676	843
	25,0	30	20,9	30,8	45,6	72,5	101	139	194	. . .	282	. . .	473	. . .	771
	28,0	27	18,1	27,0	41,1	64,8	90,7	137	172	. . .	. . .	. . .	. . .	. . .	. . .
600	5,00	120	. . .	. . .	. . .	. . .	. . .	. . .	. . .	793	. . .	. . .	. . .	. . .	. . .
	5,60	107	. . .	. . .	. . .	. . .	. . .	. . .	. . .	793	793	1299	. . .	2027	. . .
	6,30	95	65,7	87,4	146	211	313	433	538	711	793	1160	1471	1836	2230
	7,10	85	59,2	84,0	130	200	283	388	538	623	767	1036	1314	1619	2094
	8,00	75	52,5	75,2	112	177	255	346	471	576	671	913	1173	1454	1846
	9,00	67	46,9	67,4	100	156	225	312	426	514	621	820	1034	1299	1658
	10,0	60	41,5	61,3	90,3	140	205	273	385	454	554	731	929	1180	1467
	11,2	54	37,5	53,6	82,2	127	181	245	337	407	490	665	828	1054	1346
	12,5	48	33,9	48,4	72,6	113	161	221	305	365	439	597	742	947	1202
	14,0	43	30,0	43,6	65,3	102	144	202	276	327	393	532	676	845	1080
	16,0	38	26,8	38,6	58,0	91,1	131	175	241	292	353	476	602	749	964
	18,0	33	23,8	34,5	51,6	79,9	115	156	218	261	314	426	539	664	855
	20,0	30	21,4	30,1	46,6	69,1	103	142	190	234	281	373	482	594	758
	22,4	27	18,8	27,2	40,8	63,0	91,2	125	174	210	252	335	422	543	678
	25,0	24	16,8	24,6	36,6	58,1	80,9	111	156	. . .	226	. . .	380	. . .	619
	28,0	21	14,5	21,6	32,9	52,0	72,7	102	138	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Torque Ratings – kNm/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
900	5,00	180	. . .	. . .	. . .	. . .	. . .	. . .	. . .	66,8	. . .	. . .	. . .	. . .	. . .
	5,60	161	. . .	. . .	. . .	. . .	. . .	. . .	. . .	73,6	75,1	114	. . .	175	. . .
	6,30	143	5,73	8,74	14,4	20,8	30,7	43,2	52,6	74,3	83,0	115	144	177	222
	7,10	127	5,94	9,45	14,5	21,9	31,1	43,4	57,6	75,0	90,1	116	145	179	225
	8,00	113	6,20	9,59	14,5	22,0	31,2	43,7	58,0	75,3	90,8	117	146	181	227
	9,00	100	6,43	9,61	14,6	22,1	31,4	43,9	58,3	75,7	91,2	118	147	182	229
	10,0	90	6,52	9,64	14,6	22,2	31,5	44,1	58,6	76,1	91,7	119	148	183	231
	11,2	80	6,53	9,66	14,7	22,2	31,6	44,3	58,9	76,5	92,2	119	149	185	233
	12,5	72	6,54	9,68	14,7	22,3	31,7	44,4	59,1	76,7	92,6	120	150	186	234
	14,0	64	6,55	9,70	14,7	22,3	31,8	44,5	59,3	77,0	92,9	120	151	187	235
	16,0	56	6,56	9,72	14,8	22,4	31,8	44,7	59,5	77,2	93,2	121	151	187	237
	18,0	50	6,57	9,73	14,5	22,4	31,9	44,7	59,6	77,4	93,5	121	152	188	238
	20,0	45	6,58	9,75	14,8	22,0	32,0	44,9	59,8	77,6	93,7	122	152	189	239
	22,4	40	6,59	9,76	14,8	22,5	32,0	45,0	59,9	77,8	94,0	122	153	189	240
	25,0	36	6,45	9,77	14,8	22,5	32,1	45,0	60,0	. . .	94,1	. . .	153	. . .	240
	28,0	32	6,20	9,78	14,9	22,5	32,1	45,1	60,1	. . .	. . .	. . .	. . .	. . .	. . .
750	5,00	150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	66,8	. . .	. . .	. . .	. . .	. . .
	5,60	134	. . .	. . .	. . .	. . .	. . .	. . .	. . .	73,9	75,1	116	. . .	178	. . .
	6,30	119	6,05	8,74	14,5	20,8	30,7	43,6	52,6	75,1	83,0	117	146	180	222
	7,10	106	6,27	9,45	14,6	22,0	31,2	43,8	58,2	75,7	91,1	118	147	182	228
	8,00	94	6,51	9,63	14,6	22,1	31,4	44,0	58,5	75,9	91,7	118	148	183	231
	9,00	83	6,52	9,65	14,7	22,2	31,6	44,2	58,8	76,3	92,0	119	149	184	232
	10,0	75	6,54	9,67	14,7	22,3	31,6	44,4	59,0	76,6	92,4	120	150	185	234
	11,2	67	6,55	9,69	14,7	22,3	31,7	44,5	59,2	76,9	92,8	120	150	186	235
	12,5	60	6,56	9,71	14,7	22,4	31,8	44,6	59,4	77,2	93,1	121	150	187	236
	14,0	54	6,57	9,72	14,8	22,4	31,9	44,7	59,6	77,4	93,4	121	152	188	237
	16,0	47	6,58	9,74	14,8	22,4	31,9	44,8	59,7	77,6	93,6	121	152	189	238
	18,0	42	6,58	9,75	14,5	22,5	32,0	44,9	59,9	77,7	93,9	122	153	189	239
	20,0	38	6,59	9,76	14,8	22,0	32,0	45,0	60,0	77,9	94,1	122	153	190	240
	22,4	33	6,60	9,77	14,8	22,5	32,1	45,1	60,1	78,0	94,3	122	153	190	241
	25,0	30	6,47	9,78	14,9	22,6	32,1	45,1	60,2	. . .	94,4	. . .	154	. . .	241
	28,0	27	6,22	9,79	14,9	22,6	32,2	45,2	60,3	. . .	. . .	. . .	. . .	. . .	. . .
600	5,00	120	. . .	. . .	. . .	. . .	. . .	. . .	. . .	66,8	. . .	. . .	. . .	. . .	. . .
	5,60	107	. . .	. . .	. . .	. . .	. . .	. . .	. . .	73,9	75,1	118	. . .	182	. . .
	6,30	95	6,47	8,74	14,6	20,8	30,6	44,0	52,6	76,0	83,0	118	148	183	222
	7,10	85	6,52	9,45	14,6	22,2	31,2	44,2	58,7	76,4	92,0	119	149	184	232
	8,00	75	6,54	9,67	14,7	22,3	31,6	44,4	59,0	76,6	92,5	120	150	185	234
	9,00	67	6,55	9,69	14,7	22,3	31,7	44,5	59,2	76,9	92,7	120	150	186	235
	10,0	60	6,56	9,71	14,7	22,4	31,8	44,6	59,4	77,2	93,1	121	151	187	234
	11,2	54	6,57	9,73	14,8	22,4	31,9	44,7	59,6	77,4	93,4	121	152	188	237
	12,5	48	6,58	9,74	14,8	22,4	31,9	44,8	59,7	77,6	93,6	121	150	188	238
	14,0	43	6,58	9,75	14,8	22,5	32,0	44,9	59,8	77,8	93,9	122	153	189	239
	16,0	38	6,59	9,76	14,8	22,5	32,0	45,0	60,0	77,9	94,1	122	153	190	240
	18,0	33	6,60	9,77	14,5	22,5	32,1	45,1	60,1	78,0	94,3	122	153	190	241
	20,0	30	6,60	9,78	14,9	22,0	32,1	45,1	60,2	78,1	94,4	122	154	191	241
	22,4	27	6,61	9,79	14,9	22,6	32,2	45,2	60,3	78,3	94,6	123	154	191	242
	25,0	24	6,50	9,79	14,9	22,6	32,2	45,2	60,3	. . .	94,7	. . .	154	. . .	242
	28,0	21	6,24	9,80	14,9	22,6	32,2	45,3	60,4	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Power Ratings – kW/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1800	25,0	72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	541	. . .	886	. . .	1393	. . .
	28,0	64	. . .	. . .	. . .	. . .	. . .	. . .	. . .	482	576	795	1004	1237	1590
	31,5	57	39,5	53,5	88,6	122	178	255	334	432	520	712	900	1099	1413
	36,0	50	35,5	50,1	78,4	118	167	232	303	388	465	625	806	985	1255
	40,0	45	31,3	45,2	68,6	105	147	204	277	348	418	577	707	910	1124
	45,0	40	27,8	41,0	61,5	97,0	132	182	251	515	375	517	653	806	1038
	50,0	36	24,1	36,0	55,4	86,7	119	167	223	281	340	462	585	715	921
	56,0	32	22,8	33,1	50,3	73,0	105	148	201	251	303	405	523	640	817
	63,0	29	20,5	28,8	44,5	67,4	94,8	134	176	226	271	364	458	584	730
	71,0	25	18,0	26,0	38,9	60,0	83,7	118	160	202	243	. . .	412	. . .	667
	80,0	23	16,1	23,6	34,9	55,3	75,1	105	146	174	218	. . .	. . .	. . .	. . .
	90,0	20	13,9	20,7	31,4	49,4	67,3	96,1	129	156	188	. . .	. . .	. . .	. . .
	100	18	12,7	18,3	27,7	39,7	60,4	84,4	112	140	168	. . .	. . .	. . .	. . .
	112	16	11,2	16,5	24,3	38,3	53,3	74,3	102	125	150	. . .	. . .	. . .	. . .
	125	14	10,0	15,0	21,7	35,3	47,9	66,1	92,5	. . .	135	. . .	. . .	. . .	. . .
	140	13	8,67	13,2	19,6	31,5	42,9	60,5	82,1	. . .	. . .	. . .	. . .	. . .	. . .
1500	25,0	60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	453	. . .	743	. . .	1170	. . .
	28,0	54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	404	480	666	842	1038	1335
	31,5	48	33,0	44,5	74,0	104	153	213	279	361	435	596	755	921	1185
	36,0	42	29,7	41,8	65,5	98,6	139	194	253	325	389	523	675	825	1052
	40,0	38	26,1	37,8	57,3	87,8	123	170	231	291	350	483	592	762	942
	45,0	33	23,3	34,2	51,4	81,0	110	152	209	264	314	432	547	675	870
	50,0	30	20,1	30,1	46,3	72,4	98,8	139	186	235	284	386	489	598	771
	56,0	27	19,0	27,6	42,0	61,6	87,6	123	167	210	253	338	438	535	683
	63,0	24	17,1	24,1	37,1	56,3	79,0	112	146	188	226	304	383	488	611
	71,0	21	15,0	21,7	32,5	50,1	69,8	98,4	134	169	203	. . .	344	. . .	558
	80,0	19	13,5	19,7	29,1	46,2	62,6	87,6	121	145	182	. . .	. . .	. . .	. . .
	90,0	17	11,6	17,3	26,2	41,2	56,1	80,2	108	130	157	. . .	. . .	. . .	. . .
	100	15	10,6	15,3	23,1	33,4	50,3	70,4	93,1	117	140	. . .	. . .	. . .	. . .
	112	13	9,33	13,8	20,2	31,9	44,5	61,9	85,0	104	126	. . .	. . .	. . .	. . .
	125	12	8,37	12,5	18,1	29,4	39,9	55,2	77,1	. . .	112	. . .	. . .	. . .	. . .
	140	11	7,24	11,0	16,3	26,3	35,7	50,5	68,4	. . .	. . .	. . .	. . .	. . .	. . .
1200	25,0	48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	364	. . .	598	. . .	943	. . .
	28,0	43	. . .	. . .	. . .	. . .	. . .	. . .	. . .	324	384	536	678	836	1076
	31,5	38	26,5	35,6	59,4	84,3	122	171	223	290	349	479	607	741	954
	36,0	33	23,8	33,5	52,5	79,1	111	155	202	261	313	420	543	663	846
	40,0	30	21,0	30,3	45,9	70,4	98,3	137	185	234	281	388	476	612	757
	45,0	27	18,7	27,4	41,2	64,9	88,2	122	167	212	252	347	439	542	699
	50,0	24	16,2	24,1	37,1	58,0	79,0	112	149	188	228	310	393	480	619
	56,0	21	15,2	22,1	33,6	49,8	70,1	98,8	134	168	203	271	351	429	548
	63,0	19	13,7	19,3	29,7	45,1	63,2	89,6	117	151	181	244	307	392	490
	71,0	17	12,0	17,4	26,0	40,1	55,8	78,8	107	135	163	. . .	276	. . .	448
	80,0	15	10,8	15,8	23,3	37,0	50,1	70,2	97,0	117	146	. . .	. . .	. . .	. . .
	90,0	13	9,33	13,8	21,0	33,0	44,9	64,3	86,1	104	125	. . .	. . .	. . .	. . .
	100	12	8,48	12,2	18,5	26,9	40,3	56,4	74,5	93,4	112	. . .	. . .	. . .	. . .
	112	11	7,47	11,0	16,2	25,6	35,6	49,6	68,0	83,6	101	. . .	. . .	. . .	. . .
	125	10	6,70	10,0	14,5	23,6	31,9	44,2	61,7	. . .	90,1	. . .	. . .	. . .	. . .
	140	8,6	5,80	8,78	13,1	21,0	28,6	40,4	54,7	. . .	. . .	. . .	. . .	. . .	. . .
1000	25,0	40	. . .	. . .	. . .	. . .	. . .	. . .	. . .	305	. . .	501	. . .	789	. . .
	28,0	36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	271	320	448	567	700	901
	31,5	32	22,1	29,7	49,6	71,0	102	143	186	243	292	401	508	620	799
	36,0	28	19,8	28,0	43,8	66,0	92,7	130	168	218	261	351	454	555	708
	40,0	25	17,5	25,2	38,3	58,8	81,9	114	154	195	234	324	397	512	633
	45,0	22	15,6	22,9	34,4	54,2	73,5	102	140	177	210	290	367	453	584
	50,0	20	13,5	20,1	30,9	48,4	65,8	93,1	124	157	190	259	328	401	517
	56,0	18	12,7	18,4	28,0	41,8	58,4	82,5	112	141	169	227	293	359	458
	63,0	16	11,4	16,1	24,8	37,6	52,7	74,8	97,6	126	151	204	257	327	409
	71,0	14	10,0	14,5	21,7	33,4	46,5	65,8	89,1	113	136	. . .	231	. . .	374
	80,0	13	9,00	13,1	19,4	30,8	41,7	58,6	80,9	97,2	122	. . .	. . .	. . .	. . .
	90,0	11	7,79	11,5	17,5	27,5	37,4	53,6	71,8	86,8	105	. . .	. . .	. . .	. . .
	100	10	7,07	10,2	15,4	22,5	33,5	47,0	62,0	77,9	93,5	. . .	. . .	. . .	. . .
	112	8,9	6,22	9,20	13,5	21,3	29,6	41,4	56,6	69,8	83,9	. . .	. . .	. . .	. . .
	125	8,0	5,59	8,34	12,1	19,6	26,6	36,8	51,4	. . .	75,1	. . .	. . .	. . .	. . .
	140	7,1	4,84	7,32	10,9	17,5	23,8	33,7	45,6	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Torque Ratings – kNm/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1800	25,0	72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	76,8	. . .	120	. . .	185	. . .
	28,0	64	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,0	91,9	120	151	186	234
	31,5	57	6,56	9,05	14,8	20,5	29,6	44,7	55,8	77,3	93,2	121	151	186	236
	36,0	50	6,57	9,73	14,8	22,4	31,0	44,8	58,1	77,5	93,5	121	152	187	237
	40,0	45	6,58	9,75	14,8	22,5	31,0	44,9	58,2	77,6	93,7	121	152	188	238
	45,0	40	6,43	9,76	14,8	22,5	31,4	45,0	58,9	77,8	94,0	122	153	188	238
	50,0	36	6,18	9,77	14,8	22,5	31,3	45,0	59,1	77,9	94,1	122	153	189	239
	56,0	32	6,60	9,77	14,9	21,7	30,8	45,1	57,8	78,1	94,3	122	153	189	240
	63,0	29	6,60	9,78	14,9	22,6	31,0	45,1	58,1	78,2	94,5	123	154	190	240
	71,0	25	6,61	9,79	14,9	22,6	31,0	45,2	58,2	78,3	94,6	. . .	154	. . .	241
	80,0	23	6,50	9,80	14,9	22,6	31,4	45,3	58,9	78,4	94,7	. . .	. . .	. . .	. . .
	90,0	20	6,24	9,80	14,9	22,6	31,3	45,3	59,1	78,5	94,9	. . .	. . .	. . .	. . .
	100	18	6,62	9,81	14,9	20,9	31,0	45,3	58,1	78,6	95,0	. . .	. . .	. . .	. . .
	112	16	6,62	9,81	14,9	22,7	31,0	45,4	58,2	78,6	95,0	. . .	. . .	. . .	. . .
	125	14	6,54	9,82	14,9	22,7	31,4	45,4	58,9	. . .	95,1	. . .	. . .	. . .	. . .
	140	13	6,28	9,82	14,9	22,7	31,3	45,4	59,1	. . .	. . .	. . .	. . .	. . .	. . .
1500	25,0	60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,2	. . .	121	. . .	186	. . .
	28,0	54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,4	91,9	121	152	187	236
	31,5	48	6,58	9,05	14,8	20,9	30,5	44,8	55,8	77,6	93,7	121	152	188	237
	36,0	42	6,58	9,75	14,8	22,5	31,0	44,9	58,1	77,7	93,9	122	153	188	238
	40,0	38	6,59	9,76	14,8	22,5	31,0	45,0	58,2	77,9	94,1	122	153	188	239
	45,0	33	6,46	9,77	14,8	22,5	31,4	45,1	58,9	78,0	94,3	122	153	189	239
	50,0	30	6,20	9,78	14,9	22,5	31,3	45,1	59,1	78,1	94,4	122	154	189	240
	56,0	27	6,61	9,79	14,9	21,9	30,8	45,2	57,8	78,3	94,6	123	154	190	241
	63,0	24	6,61	9,80	14,9	22,6	31,0	45,2	58,1	78,4	94,7	123	154	190	241
	71,0	21	6,61	9,80	14,9	22,6	31,0	45,3	58,2	78,4	94,8	. . .	154	. . .	241
	80,0	19	6,52	9,81	14,9	22,6	31,4	45,3	58,9	78,5	94,9	. . .	. . .	. . .	. . .
	90,0	17	6,26	9,81	14,9	22,7	31,3	45,3	59,1	78,6	95,0	. . .	. . .	. . .	. . .
	100	15	6,62	9,82	14,9	21,1	31,0	45,4	58,1	78,7	95,1	. . .	. . .	. . .	. . .
	112	13	6,63	9,82	14,9	22,7	31,0	45,4	58,2	78,7	95,2	. . .	. . .	. . .	. . .
	125	12	6,55	9,82	14,9	22,7	31,4	45,4	58,9	. . .	95,2	. . .	. . .	. . .	. . .
	140	11	6,28	9,83	14,9	22,7	31,3	45,5	59,1	. . .	. . .	. . .	. . .	. . .	. . .
1200	25,0	48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,6	. . .	121	. . .	187	. . .
	28,0	43	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,7	91,9	122	153	188	238
	31,5	38	6,59	9,05	14,8	21,3	30,5	45,0	55,8	77,9	94,1	122	153	189	239
	36,0	33	6,60	9,77	14,8	22,5	31,0	45,1	58,1	78,0	94,3	122	153	189	239
	40,0	30	6,60	9,78	14,9	22,6	31,0	45,1	58,2	78,1	94,4	122	154	189	240
	45,0	27	6,49	9,79	14,9	22,6	31,4	45,2	58,9	78,2	94,6	123	154	190	240
	50,0	24	6,23	9,80	14,9	22,6	31,3	45,2	59,1	78,4	94,7	123	154	190	241
	56,0	21	6,61	9,80	14,9	22,2	30,8	45,3	57,8	78,4	94,8	123	154	190	241
	63,0	19	6,62	9,81	14,9	22,6	31,0	45,3	58,1	78,5	94,9	123	155	191	242
	71,0	17	6,62	9,81	14,9	22,7	31,0	45,4	58,2	78,6	95,0	. . .	155	. . .	242
	80,0	15	6,54	9,81	14,9	22,7	31,4	45,4	58,9	78,7	95,1	. . .	. . .	. . .	. . .
	90,0	13	6,27	9,82	14,9	22,7	31,3	45,4	59,1	78,7	95,2	. . .	. . .	. . .	. . .
	100	12	6,63	9,82	14,9	21,2	31,0	45,4	58,1	78,8	95,2	. . .	. . .	. . .	. . .
	112	11	6,63	9,83	14,9	22,7	31,0	45,5	58,2	78,8	95,3	. . .	. . .	. . .	. . .
	125	10	6,56	9,83	14,9	22,7	31,4	45,5	58,9	. . .	95,3	. . .	. . .	. . .	. . .
	140	8,6	6,29	9,83	14,9	22,7	31,3	45,5	59,1	. . .	. . .	. . .	. . .	. . .	. . .
1000	25,0	40	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,8	. . .	122	. . .	188	. . .
	28,0	36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,0	91,9	122	153	189	239
	31,5	32	6,60	9,05	14,9	21,5	30,5	45,1	55,8	78,1	94,4	122	153	189	240
	36,0	28	6,60	9,79	14,9	22,6	31,0	45,2	58,1	78,2	94,5	123	154	190	240
	40,0	25	6,61	9,79	14,9	22,6	31,0	45,2	58,2	78,3	94,6	123	154	190	241
	45,0	22	6,51	9,80	14,9	22,6	31,4	45,3	58,9	78,4	94,8	123	154	190	241
	50,0	20	6,25	9,80	14,9	22,6	31,3	45,3	59,1	78,5	94,9	123	154	191	242
	56,0	18	6,62	9,81	14,9	22,3	30,8	45,3	57,8	78,6	95,0	123	155	191	242
	63,0	16	6,62	9,81	14,9	22,7	31,0	45,4	58,1	78,6	95,0	123	155	191	242
	71,0	14	6,63	9,82	14,9	22,7	31,0	45,4	58,2	78,7	95,1	. . .	155	. . .	243
	80,0	13	6,55	9,82	14,9	22,7	31,4	45,4	58,9	78,8	95,2	. . .	. . .	. . .	. . .
	90,0	11	6,28	9,82	14,9	22,7	31,3	45,4	59,1	78,8	95,3	. . .	. . .	. . .	. . .
	100	10	6,63	9,83	14,9	21,4	31,0	45,5	58,1	78,8	95,3	. . .	. . .	. . .	. . .
	112	8,9	6,63	9,83	14,9	22,7	31,0	45,5	58,2	78,9	95,4	. . .	. . .	. . .	. . .
	125	8,0	6,57	9,83	14,9	22,7	31,4	45,5	58,9	. . .	95,4	. . .	. . .	. . .	. . .
	140	7,1	6,30	9,83	15,0	22,7	31,3	45,5	59,1	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Power Ratings – kW/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
900	25,0	36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	275	. . .	452	. . .	712	. . .
	28,0	32	. . .	. . .	. . .	. . .	. . .	. . .	. . .	244	288	404	511	631	813
	31,5	29	19,9	26,7	44,6	64,3	91,8	129	167	219	263	361	458	559	720
	36,0	25	17,9	25,2	39,5	59,5	83,4	117	152	196	235	316	409	500	639
	40,0	23	15,7	22,7	34,5	52,9	73,7	103	138	176	211	292	358	461	571
	45,0	20	14,1	20,6	30,9	48,8	66,1	91,6	126	159	189	261	331	408	527
	50,0	18	12,2	18,1	27,9	43,6	59,3	83,9	111	142	171	233	296	362	466
	56,0	16	11,4	16,6	25,3	37,8	52,6	74,3	100	127	152	204	264	323	413
	63,0	14	10,3	14,5	22,3	33,9	47,4	67,3	87,9	114	136	183	231	295	369
	71,0	13	9,04	13,1	19,5	30,1	41,9	59,2	80,2	102	122	. . .	208	. . .	337
	80,0	11	8,11	11,8	17,5	27,8	37,6	52,7	72,8	87,5	109	. . .	. . .	. . .	. . .
	90,0	10	7,01	10,4	15,7	24,8	33,7	48,3	64,6	78,2	94,2	. . .	. . .	. . .	. . .
	100	9,0	6,37	9,18	13,9	20,3	30,3	42,4	55,8	70,1	84,2	. . .	. . .	. . .	. . .
	112	8,0	5,60	8,28	12,2	19,2	26,7	37,2	51,0	62,8	75,5	. . .	. . .	. . .	. . .
	125	7,2	5,04	7,51	10,9	17,7	23,9	33,2	46,3	. . .	67,6	. . .	. . .	. . .	. . .
	140	6,4	4,35	6,59	9,80	15,8	21,4	30,3	41,0	. . .	. . .	. . .	. . .	. . .	. . .
750	25,0	30	. . .	. . .	. . .	. . .	. . .	. . .	. . .	229	. . .	378	. . .	596	. . .
	28,0	27	. . .	. . .	. . .	. . .	. . .	. . .	. . .	204	240	338	428	528	680
	31,5	24	16,6	22,3	37,2	54,0	76,5	108	139	183	220	302	383	467	602
	36,0	21	14,9	21,0	32,9	49,6	69,5	97,6	126	164	197	264	342	418	534
	40,0	19	13,1	19,0	28,8	44,1	61,4	85,8	115	147	176	244	299	385	477
	45,0	17	11,8	17,2	25,8	40,7	55,1	76,4	105	133	158	218	276	341	440
	50,0	15	10,2	15,1	23,2	36,4	49,4	70,0	92,9	118	143	195	247	302	389
	56,0	13	9,53	13,8	21,1	31,7	43,8	61,9	83,7	106	127	170	221	270	345
	63,0	12	8,56	12,1	18,6	28,2	39,5	56,2	73,2	94,7	114	153	193	246	308
	71,0	11	7,54	10,9	16,3	25,1	34,9	49,4	66,8	84,8	102	. . .	173	. . .	281
	80,0	9,4	6,77	9,87	14,6	23,1	31,3	44,0	60,6	73,0	91,3	. . .	. . .	. . .	. . .
	90,0	8,3	5,85	8,66	13,1	20,7	28,0	40,2	53,8	65,2	78,6	. . .	. . .	. . .	. . .
	100	7,5	5,31	7,65	11,6	17,0	25,2	35,3	46,5	58,5	70,2	. . .	. . .	. . .	. . .
	112	6,7	4,67	6,90	10,1	16,0	22,2	31,0	42,5	52,4	63,0	. . .	. . .	. . .	. . .
	125	6,0	4,20	6,26	9,07	14,7	19,9	27,6	38,5	. . .	56,4	. . .	. . .	. . .	. . .
	140	5,4	3,63	5,49	8,17	13,2	17,9	25,3	34,2	. . .	. . .	. . .	. . .	. . .	. . .
600	25,0	24	. . .	. . .	. . .	. . .	. . .	. . .	. . .	184	. . .	303	. . .	478	. . .
	28,0	21	. . .	. . .	. . .	. . .	. . .	. . .	. . .	164	192	271	343	423	546
	31,5	19	13,3	17,8	29,8	43,6	61,2	86,2	111	146	176	242	307	375	483
	36,0	17	11,9	16,8	26,4	39,7	55,6	78,2	101	131	158	212	274	335	428
	40,0	15	10,5	15,2	23,1	35,4	49,1	68,7	92,3	118	141	195	240	309	383
	45,0	13	9,42	13,8	20,7	32,6	44,1	61,2	83,7	106	127	175	221	273	353
	50,0	12	8,15	12,1	18,6	29,1	39,5	56,0	74,3	94,7	115	156	198	242	312
	56,0	11	7,63	11,1	16,9	25,5	35,1	49,6	66,9	84,6	102	136	177	216	276
	63,0	10	6,85	9,66	14,9	22,6	31,6	45,0	58,6	75,8	91,0	123	154	197	247
	71,0	8,6	6,03	8,71	13,0	20,1	27,9	39,5	53,5	67,9	81,7	. . .	139	. . .	225
	80,0	7,5	5,42	7,90	11,7	18,5	25,0	35,2	48,5	58,4	73,1	. . .	. . .	. . .	. . .
	90,0	6,7	4,69	6,93	10,5	16,5	22,4	32,2	43,1	52,2	62,9	. . .	. . .	. . .	. . .
	100	6,0	4,25	6,12	9,27	13,7	20,1	28,3	37,2	46,8	56,2	. . .	. . .	. . .	. . .
	112	5,4	3,74	5,53	8,11	12,8	17,8	24,9	34,0	41,9	50,4	. . .	. . .	. . .	. . .
	125	4,8	3,36	5,01	7,26	11,8	16,0	22,1	30,8	. . .	45,1	. . .	. . .	. . .	. . .
	140	4,3	2,91	4,39	6,54	10,5	14,3	20,2	27,4	. . .	. . .	. . .	. . .	. . .	. . .

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
Torque Ratings – kNm/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE												
			M1130	1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
900	25,0	36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,0	. . .	122	. . .	189	. . .
	28,0	32	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,1	91,9	122	153	189	240
	31,5	29	6,60	9,05	14,9	21,6	30,5	45,2	55,8	78,2	94,5	123	154	190	240
	36,0	25	6,61	9,79	14,9	22,6	31,0	45,2	58,1	78,3	94,6	123	154	190	241
	40,0	23	6,61	9,80	14,9	22,6	31,0	45,3	58,2	78,4	94,8	123	154	190	241
	45,0	20	6,52	9,80	14,9	22,6	31,4	45,3	58,9	78,5	94,9	123	154	191	242
	50,0	18	6,25	9,81	14,9	22,6	31,3	45,3	59,1	78,6	94,9	123	155	191	242
	56,0	16	6,62	9,81	14,9	22,4	30,8	45,4	57,8	78,6	95,0	123	155	191	242
	63,0	14	6,62	9,82	14,9	22,7	31,0	45,4	58,1	78,7	95,1	123	155	191	243
	71,0	13	6,63	9,82	14,9	22,7	31,0	45,4	58,2	78,7	95,2	. . .	155	. . .	243
	80,0	11	6,55	9,82	14,9	22,7	31,4	45,5	58,9	78,8	95,2	. . .	. . .	. . .	. . .
	90,0	10	6,29	9,83	14,9	22,7	31,3	45,5	59,1	78,8	95,3	. . .	. . .	. . .	. . .
	100	9.0	6,63	9,83	14,9	21,4	31,0	45,5	58,1	78,9	95,4	. . .	. . .	. . .	. . .
	112	8.0	6,63	9,83	14,9	22,7	31,0	45,5	58,2	78,9	95,4	. . .	. . .	. . .	. . .
	125	7.2	6,57	9,83	15,0	22,7	31,4	45,5	58,9	. . .	95,4	. . .	. . .	. . .	. . .
	140	6.4	6,30	9,84	15,0	22,7	31,3	45,5	59,1	. . .	. . .	. . .	. . .	. . .	. . .
750	25,0	30	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,2	. . .	122	. . .	189	. . .
	28,0	27	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,3	91,9	123	154	190	241
	31,5	24	6,61	9,05	14,9	21,8	30,5	45,3	55,8	78,4	94,7	123	154	190	241
	36,0	21	6,61	9,80	14,9	22,6	31,0	45,3	58,1	78,5	94,8	123	154	191	242
	40,0	19	6,62	9,81	14,9	22,6	31,0	45,3	58,2	78,5	94,9	123	155	191	242
	45,0	17	6,53	9,81	14,9	22,7	31,4	45,4	58,9	78,6	95,0	123	155	191	242
	50,0	15	6,27	9,82	14,9	22,7	31,3	45,4	59,1	78,7	95,1	123	155	191	243
	56,0	13	6,63	9,82	14,9	22,6	30,8	45,4	57,8	78,7	95,2	124	155	191	243
	63,0	12	6,63	9,82	14,9	22,7	31,0	45,4	58,1	78,8	95,2	124	155	192	243
	71,0	11	6,63	9,83	14,9	22,7	31,0	45,5	58,2	78,8	95,3	. . .	155	. . .	243
	80,0	9,4	6,56	9,83	14,9	22,7	31,4	45,5	58,9	78,9	95,3	. . .	. . .	. . .	. . .
	90,0	8,3	6,29	9,83	14,9	22,7	31,3	45,5	59,1	78,9	95,4	. . .	. . .	. . .	. . .
	100	7,5	6,63	9,83	15,0	21,5	31,0	45,5	58,1	78,9	95,4	. . .	. . .	. . .	. . .
	112	6,7	6,64	9,83	15,0	22,7	31,0	45,5	58,2	79,0	95,5	. . .	. . .	. . .	. . .
	125	6,0	6,58	9,84	15,0	22,7	31,4	45,5	58,9	. . .	95,5	. . .	. . .	. . .	. . .
	140	5,4	6,31	9,84	15,0	22,7	31,3	45,6	59,1	. . .	. . .	. . .	. . .	. . .	. . .
600	25,0	24	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,4	. . .	123	. . .	190	. . .
	28,0	21	. . .	. . .	. . .	. . .	. . .	. . .	. . .	78,5	91,9	123	154	191	241
	31,5	19	6,62	9,05	14,9	22,0	30,5	45,3	55,8	78,5	94,9	123	155	191	242
	36,0	17	6,62	9,81	14,9	22,7	31,0	45,4	58,1	78,6	95,0	123	155	191	242
	40,0	15	6,62	9,82	14,9	22,7	31,0	45,4	58,2	78,7	95,1	123	155	191	243
	45,0	13	6,54	9,82	14,9	22,7	31,4	45,4	58,9	78,7	95,2	123	155	191	243
	50,0	12	6,28	9,82	14,9	22,7	31,3	45,4	59,1	78,8	95,2	124	155	192	243
	56,0	11	6,63	9,83	14,9	22,7	30,8	45,5	57,8	78,8	95,3	124	155	192	243
	63,0	10	6,63	9,83	14,9	22,7	31,0	45,5	58,1	78,8	95,3	124	155	192	243
	71,0	8,6	6,63	9,83	14,9	22,7	31,0	45,5	58,2	78,9	95,4	. . .	156	. . .	244
	80,0	7,5	6,57	9,83	15,0	22,7	31,4	45,5	58,9	78,9	95,4	. . .	. . .	. . .	. . .
	90,0	6,7	6,30	9,83	15,0	22,7	31,3	45,5	59,1	79,0	95,5	. . .	. . .	. . .	. . .
	100	6,0	6,64	9,84	15,0	21,6	31,0	45,5	58,1	79,0	95,5	. . .	. . .	. . .	. . .
	112	5,4	6,64	9,84	15,0	22,7	31,0	45,6	58,2	79,0	95,5	. . .	. . .	. . .	. . .
	125	4,8	6,58	9,84	15,0	22,7	31,4	45,6	58,9	. . .	95,5	. . .	. . .	. . .	. . .
	140	4,3	6,31	9,84	15,0	22,7	31,3	45,6	59,1	. . .	. . .	. . .	. . .	. . .	. . .

Type DHL Parallel Shaft

Basic Thermal Ratings ★ – kW/Single Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1800	1.25 Thru 2.5	None	136	213	289	318	362	418	468	593
		Electric Fan	377	603	833	938	1081	1277	1450	1885
	2.8 Thru 5.6	None	106	172	237	267	309	366	416	541
		Electric Fan	265	447	638	743	887	1082	1255	1691
1500	1.25 Thru 2.5	None	130	204	278	308	350	407	457	582
		Electric Fan	326	531	743	849	992	1187	1360	1796
	2.8 Thru 5.6	None	99	160	223	253	295	352	402	527
		Electric Fan	221	386	561	666	809	1004	1177	1613
1200	1.25 Thru 2.5	None	124	195	267	297	338	396	446	571
		Electric Fan	284	482	670	776	919	1114	1287	1723
	2.8 Thru 5.6	None	91	149	210	240	282	339	389	515
		Electric Fan	185	336	497	603	746	941	1114	1550
1000	1.25 Thru 2.5	None	119	189	260	290	330	389	439	564
		Electric Fan	251	435	612	717	861	1056	1229	1664
	2.8 Thru 5.6	None	86	143	201	231	273	330	380	506
		Electric Fan	157	296	449	553	696	893	1066	1501
900	1.25 Thru 2.5	None	117	186	255	285	328	384	434	559
		Electric Fan	235	413	585	690	833	1028	1201	1637
	2.8 Thru 5.6	None	84	139	197	227	268	326	376	501
		Electric Fan	143	277	425	529	673	869	1042	1477
750	1.25 Thru 2.5	None	113	181	249	279	321	378	428	553
		Electric Fan	211	380	544	649	792	988	1161	1597
	2.8 Thru 5.6	None	80	133	189	219	261	318	368	494
		Electric Fan	124	249	390	495	638	834	1007	1442
600	1.25 Thru 2.5	None	111	177	245	274	316	374	424	549
		Electric Fan	187	347	503	607	750	946	1119	1555
	2.8 Thru 5.6	None	76	129	183	213	255	312	362	488
		Electric Fan	104	221	356	461	604	799	972	1408

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DHC Parallel Shaft

Basic Thermal Ratings ★ – kW/Single Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1800	1,25 Thru 2,8	None	55	66	79	91	105	125	152
		Electric Fan	127	154	185	212	246	293	355
		Cooling Tube	. . .	. . .	679	766	897	1048	1784
	3,15 Thru 5,6	None	77	96	116	133	154	187	227
		Electric Fan	180	224	271	311	361	436	531
		Cooling Tube	. . .	. . .	713	808	946	1110	1859
1500	1,25 Thru 2,8	None	53	64	77	88	102	122	148
		Electric Fan	119	144	173	198	230	273	332
		Cooling Tube	. . .	. . .	620	703	825	966	1645
	3,15 Thru 5,6	None	75	93	113	129	150	181	221
		Electric Fan	168	210	253	290	337	408	497
		Cooling Tube	. . .	. . .	655	744	872	1025	1718
1200	1,25 Thru 2,8	None	51	62	75	85	99	118	143
		Electric Fan	110	133	159	182	211	252	306
		Cooling Tube	. . .	. . .	567	645	757	887	1515
	3,15 Thru 5,6	None	72	90	109	125	145	176	214
		Electric Fan	154	193	233	267	310	375	457
		Cooling Tube	. . .	. . .	601	684	803	945	1586
1000	1,25 Thru 2,8	None	50	61	73	84	97	116	140
		Electric Fan	102	123	148	169	197	234	284
		Cooling Tube	. . .	. . .	521	593	697	819	1399
	3,15 Thru 5,6	None	71	89	107	123	142	172	210
		Electric Fan	144	179	217	248	289	349	425
		Cooling Tube	. . .	. . .	555	632	743	875	1468
900	1,25 Thru 2,8	None	49	60	72	82	95	113	138
		Electric Fan	99	120	143	164	191	227	276
		Cooling Tube	. . .	. . .	497	566	667	784	1339
	3,15 Thru 5,6	None	69	87	105	120	140	169	206
		Electric Fan	139	174	210	241	280	338	412
		Cooling Tube	. . .	. . .	530	604	711	839	1408
750	1,25 Thru 2,8	None	48	59	70	80	93	111	135
		Electric Fan	94	114	136	156	181	216	262
		Cooling Tube	. . .	. . .	456	521	613	722	1236
	3,15 Thru 5,6	None	68	85	103	118	137	165	202
		Electric Fan	132	165	200	229	266	321	392
		Cooling Tube	. . .	. . .	488	558	657	776	1302
600	1,25 Thru 2,8	None	46	56	67	76	89	105	128
		Electric Fan	89	108	129	148	172	205	249
		Cooling Tube	. . .	. . .	411	470	556	654	1122
	3,15 Thru 5,6	None	65	81	98	112	130	157	191
		Electric Fan	126	157	190	217	253	305	372
		Cooling Tube	. . .	. . .	442	506	597	706	1185

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – kW/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE								
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210
1800	6,3 • Thru 12,5	None ▲	85	133	180	199	225	261	292	371	371
		Shaft Fan	149	232	316	348	394	457	512	649	649
		Elec. Fan ▲	235	377	520	586	676	798	906	1178	1178
	14,0 Thru 28,0	None ▲	67	107	148	167	193	229	260	339	339
		Shaft Fan	117	187	260	292	339	401	455	592	592
		Elec. Fan ▲	166	280	399	465	554	676	784	1057	1057
1500	6,3 • Thru 12,5	None ▲	81	127	174	192	218	254	286	364	364
		Shaft Fan	131	206	281	312	354	412	463	590	590
		Elec. Fan ▲	203	332	465	530	620	742	850	1122	1122
	14,0 Thru 28,0	None ▲	62	100	139	158	184	220	251	330	330
		Shaft Fan	100	162	226	256	298	356	407	534	534
		Elec. Fan ▲	138	241	350	416	506	628	736	1008	1008
1200	6,3 • Thru 12,5	None ▲	77	122	167	186	211	248	279	357	357
		Shaft Fan	116	183	251	279	317	371	418	536	536
		Elec. Fan ▲	177	301	419	485	574	696	805	1077	1077
	14,0 Thru 28,0	None ▲	57	93	131	150	176	212	243	321	321
		Shaft Fan	85	140	197	225	265	318	365	482	482
		Elec. Fan ▲	116	209	311	377	466	588	696	969	969
1000	6,3 • Thru 12,5	None ▲	75	118	163	181	207	243	274	353	353
		Shaft Fan	105	166	228	254	290	340	384	494	494
		Elec. Fan ▲	157	272	383	448	538	660	768	1040	1040
	14,0 Thru 28,0	None ▲	54	89	126	145	171	207	238	316	316
		Shaft Fan	75	125	176	203	239	289	333	443	443
		Elec. Fan ▲	98	185	280	346	435	558	666	938	938
900	6,3 • Thru 12,5	None ▲	73	116	160	178	205	240	271	350	350
		Shaft Fan	99	157	215	241	276	324	366	472	472
		Elec. Fan ▲	147	258	365	431	520	643	751	1023	1023
	14,0 Thru 28,0	None ▲	52	87	123	142	168	204	235	313	313
		Shaft Fan	70	117	166	191	227	275	317	423	423
		Elec. Fan ▲	90	173	265	331	421	543	651	923	923
750	6,3 • Thru 12,5	None ▲	71	113	156	174	201	236	268	346	346
		Shaft Fan	90	144	198	222	255	300	340	439	439
		Elec. Fan ▲	132	238	340	406	495	617	726	998	998
	14,0 Thru 28,0	None ▲	50	83	119	137	163	199	230	309	309
		Shaft Fan	63	106	151	174	208	253	293	392	392
		Elec. Fan ▲	77	156	244	309	399	521	629	902	902
600	6,3 • Thru 12,5	None ▲	69	111	153	172	197	233	265	343	343
		Shaft Fan	82	132	182	204	235	278	315	408	408
		Elec. Fan ▲	117	217	314	380	469	591	699	972	972
	14,0 Thru 28,0	None ▲	47	80	115	133	160	195	227	305	305
		Shaft Fan	57	96	137	159	190	232	270	363	363
		Elec. Fan ▲	65	138	222	288	377	500	608	880	880

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DV, apply a multiplier of 0,8 to the thermal ratings with no cooling or electric fans. Type DV gear drives are not available with shaft fans.

● Size 1200 includes 5,0-12,5 ratios. Size 1210 includes 5,6-12,5 ratios.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – kW/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1800	5.60 Thru 11.2	None	327	327	386	386
		1 Shaft Fan	851	851	1004	1004
		2 Shaft Fans	1374	1374	1621	1621
		Electric Fan	3196	3196	3771	3771
	12.5 Thru 25.0	None	321	321	418	418
		1 Shaft Fan	670	670	873	873
		2 Shaft Fans	1019	1019	1329	1329
		Electric Fan	2450	2450	3197	3197
1500	5.60 Thru 11.2	None	370	370	472	472
		1 Shaft Fan	761	761	970	970
		2 Shaft Fans	1151	1151	1468	1468
		Electric Fan	2944	2944	3758	3758
	12.5 Thru 25.0	None	329	329	442	442
		1 Shaft Fan	600	600	806	806
		2 Shaft Fans	871	871	1171	1171
		Electric Fan	2289	2289	3078	3078
1200	5.60 Thru 11.2	None	400	400	527	527
		1 Shaft Fan	689	689	907	907
		2 Shaft Fans	977	977	1286	1286
		Electric Fan	2711	2711	3570	3570
	12.5 Thru 25.0	None	331	331	451	451
		1 Shaft Fan	538	538	734	734
		2 Shaft Fans	746	746	1016	1016
		Electric Fan	2110	2110	2874	2874
1000	5.60 Thru 11.2	None	404	404	546	546
		1 Shaft Fan	630	630	849	849
		2 Shaft Fans	872	872	1177	1177
		Electric Fan	2579	2579	3480	3480
	12.5 Thru 25.0	None	325	325	450	450
		1 Shaft Fan	489	489	670	670
		2 Shaft Fans	664	664	917	917
		Electric Fan	2006	2006	2771	2771
900	5.60 Thru 11.2	None	406	406	555	555
		1 Shaft Fan	613	613	838	838
		2 Shaft Fans	820	820	1122	1122
		Electric Fan	2512	2512	3435	3435
	12.5 Thru 25.0	None	322	322	448	448
		1 Shaft Fan	473	473	658	658
		2 Shaft Fans	624	624	868	868
		Electric Fan	1954	1954	2719	2719
750	5.60 Thru 11.2	None	405	405	559	559
		1 Shaft Fan	570	570	786	786
		2 Shaft Fans	735	735	1013	1013
		Electric Fan	2375	2375	3276	3276
	12.5 Thru 25.0	None	314	314	438	438
		1 Shaft Fan	435	435	607	607
		2 Shaft Fans	555	555	776	776
		Electric Fan	1840	1840	2570	2570
600	5.60 Thru 11.2	None	403	403	559	559
		1 Shaft Fan	531	531	735	735
		2 Shaft Fans	659	659	913	913
		Electric Fan	2219	2219	3072	3072
	12.5 Thru 25.0	None	308	308	430	430
		1 Shaft Fan	399	399	557	557
		2 Shaft Fans	490	490	684	684
		Electric Fan	1719	1719	2401	2401

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – kW/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE								
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210
1800	31,5 •	None ▲	41	67	94	107	125	151	171	227	227
	Thru	Shaft Fan	72	118	164	188	218	265	299	397	397
	63,0	Elec. Fan ▲	118	193	270	308	357	434	490	651	651
	71,0	None ▲	25	43	63	76	90	118	133	185	185
	Thru	Shaft Fan	43	76	111	133	158	206	232	324	324
	140	Elec. Fan ▲	71	124	182	218	259	338	381	531	531
1500	31,5 •	None ▲	38	63	88	101	116	143	161	215	215
	Thru	Shaft Fan	62	102	143	163	188	232	261	348	348
	63,0	Elec. Fan ▲	105	172	241	276	319	392	441	588	588
	71,0	None ▲	24	42	60	72	86	110	125	173	173
	Thru	Shaft Fan	39	67	98	117	139	179	203	280	280
	140	Elec. Fan ▲	66	114	166	198	235	302	343	474	474
1200	31,5 •	None ▲	36	59	83	95	110	136	153	205	205
	Thru	Shaft Fan	54	88	124	143	166	205	229	308	308
	63,0	Elec. Fan ▲	95	156	219	253	292	362	405	543	543
	71,0	None ▲	23	40	58	69	82	105	119	164	164
	Thru	Shaft Fan	35	60	87	104	123	158	178	246	246
	140	Elec. Fan ▲	62	107	154	184	217	279	314	435	435
1000	31,5 •	None ▲	34	56	79	91	105	131	147	197	197
	Thru	Shaft Fan	47	78	111	127	147	184	206	276	276
	63,0	Elec. Fan ▲	86	143	202	232	268	335	375	502	502
	71,0	None ▲	23	39	57	67	80	101	114	157	157
	Thru	Shaft Fan	32	55	79	94	112	141	160	219	219
	140	Elec. Fan ▲	58	100	145	171	203	257	291	399	399
900	31,5 •	None ▲	33	55	77	89	103	129	144	193	193
	Thru	Shaft Fan	44	74	104	120	139	174	194	261	261
	63,0	Elec. Fan ▲	83	137	193	223	258	324	361	485	485
	71,0	None ▲	23	39	55	66	78	98	112	153	153
	Thru	Shaft Fan	31	52	74	89	106	133	151	206	206
	140	Elec. Fan ▲	57	97	139	165	197	247	281	384	384
750	31,5 •	None ▲	32	52	75	86	99	125	139	188	188
	Thru	Shaft Fan	40	67	95	109	126	158	177	239	239
	63,0	Elec. Fan ▲	77	128	182	209	242	304	340	459	459
	71,0	None ▲	22	38	54	64	76	95	108	148	148
	Thru	Shaft Fan	28	48	69	81	97	121	137	188	188
	140	Elec. Fan ▲	55	93	133	156	186	233	264	360	360
600	31,5 •	None ▲	30	50	72	83	96	121	135	183	183
	Thru	Shaft Fan	36	60	85	98	114	144	161	217	217
	63,0	Elec. Fan ▲	71	119	169	195	227	285	319	431	431
	71,0	None ▲	22	37	53	63	74	92	105	142	142
	Thru	Shaft Fan	26	44	63	75	88	110	125	169	169
	140	Elec. Fan ▲	52	88	125	148	174	218	248	336	336

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DV, apply a multiplier of 0,8 to the thermal ratings with no cooling or electric fans.
Type DV gear drives are not available with shaft fans.

● Size 1200 includes 25,0-63,0 ratios.
Size 1210 includes 28,0-63,0ratios.

Type DH & DV ▲ Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – kW/Triple Reduction

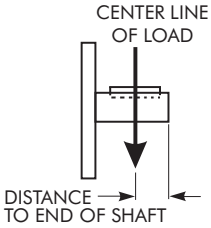
High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1800	25.5 Thru 45.0	None	245	245	334	334
		1Shaft Fan	422	422	574	574
		2 Shaft Fans	599	599	814	814
		Electric Fan	1650	1650	2246	2246
	50.0 Thru 71.0	None	201	201	284	284
		1 Shaft Fan	329	329	467	467
		2 Shaft Fans	457	457	649	649
		Electric Fan	1253	1253	1778	1778
1500	25.5 Thru 45.0	None	241	241	333	333
		1Shaft Fan	378	378	524	524
		2 Shaft Fans	515	515	714	714
		Electric Fan	1532	1532	2123	2123
	50.0 Thru 71.0	None	189	189	192	192
		1 Shaft Fan	293	293	413	413
		2 Shaft Fans	397	397	559	559
		Electric Fan	1166	1166	1643	1643
1200	25.5 Thru 45.0	None	236	236	330	330
		1Shaft Fan	345	345	482	482
		2 Shaft Fans	453	453	635	635
		Electric Fan	1424	1424	1992	1992
	50.0 Thru 71.0	None	181	181	258	258
		1 Shaft Fan	262	262	374	374
		2 Shaft Fans	344	344	490	490
		Electric Fan	1088	1088	1551	1551
1000	25.5 Thru 45.0	None	224	224	315	315
		1Shaft Fan	312	312	439	439
		2 Shaft Fans	400	400	564	564
		Electric Fan	1331	1331	1872	1872
	50.0 Thru 71.0	None	172	172	245	245
		1 Shaft Fan	238	238	339	339
		2 Shaft Fans	303	303	434	434
		Electric Fan	1018	1018	1454	1454
900	25.5 Thru 45.0	None	218	218	307	307
		1Shaft Fan	296	296	418	418
		2 Shaft Fans	374	374	528	528
		Electric Fan	1285	1285	1813	1813
	50.0 Thru 71.0	None	166	166	238	238
		1 Shaft Fan	225	225	322	322
		2 Shaft Fans	284	284	406	406
		Electric Fan	984	984	1406	1406
750	25.5 Thru 45.0	None	209	209	298	298
		1Shaft Fan	271	271	388	388
		2 Shaft Fans	334	334	477	477
		Electric Fan	1216	1216	1736	1736
	50.0 Thru 71.0	None	160	160	230	230
		1 Shaft Fan	207	207	298	298
		2 Shaft Fans	254	254	366	366
		Electric Fan	937	937	1347	1347
600	25.5 Thru 45.0	None	201	201	288	288
		1Shaft Fan	250	250	359	359
		2 Shaft Fans	300	300	430	430
		Electric Fan	1133	1133	1626	1626
	50.0 Thru 71.0	None	154	154	221	221
		1 Shaft Fan	191	191	275	275
		2 Shaft Fans	227	227	329	329
		Electric Fan	876	876	1266	1266

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DH, DV & DB Overhung Loads

Low Speed Shaft

$$\text{Overhung Load (Newtons)} = \frac{19\,100\,000 \times \text{kW} \times F_c \times L_f}{\text{Pitch Dia (mm)} \times \text{rpm}}$$



F_c = Load Connection Factor.

Sprocket ★	1,00
Machined Pinion & Gear ★	1,25
Synchronous (Timing) Belt	1,30
V–Belt	1,50
Flat Belt	2,50

L_f = Load Location Factor.

Low Speed Shaft – See table below.
High Speed Shaft – Refer to Factory.

★ Refer all multiple chain sprocket and pinion mounted applications to the Factory for deflection analysis.

Overhung Loads — Overhung load is imposed upon a shaft when a pinion, sprocket or sheave is used as a power takeoff. The magnitude of the load varies with the type of takeoff and its proximity to the shaft bearing. Calculate the load (including minimum required service factor) and check the result against the tabulated overhung load rating. The above overhung load formula considers the transmitted power rating without service factor. This is appropriate for applications where starting loads, momentary overloads and brake capacities do not exceed 200% of drive rating, (100% overload). For other considerations, compute the equivalent power by multiplying the transmitted power by the appropriate service factor.

Locate the center line of the load as close to the drive seal cage as practical to minimize the overhung load and increase bearing life.

Consult the Factory for Higher Overhung Load Ratings — In many cases, overhung load capacity in excess of that published is available. If the actual load should exceed the published capacity, refer full details to the Factory; provide complete application information, as well as direction of rotation, location, and direction of applied load.

Low Speed Shaft Overhung Load — Calculate low speed shaft overhung load using the formula and F_c values at left. The L_f load location factors tabulated below are based on the distance from the center line of the load to the end of the shaft.

Example — A 100 kW, 1200 rpm electric motor, coupling connected to a Drive One Size M1160 drive used to drive a uniformly loaded belt conveyor. The drive is a DH2 configuration mounted on its "D" surface. The drive's low speed shaft rotates at 75 rpm and is chain connected to the conveyor on the extension opposite the low speed gear. The low speed sprocket has a pitch diameter of 700 mm and is located 80 mm from the end of the shaft. Calculate the overhung load as follows :

$$\text{Overhung Load} = \frac{19\,100\,000 \times 100 \times 1{,}00 \times 1{,}10}{700 \times 75} = 40\,019 \text{ N}$$

The allowable overhung load for a M1160DH2 drive that is mounted on the "D" surface with extension opposite the low speed gear is found on Page 43. The value for the allowable overhung load is found by interpolating for the given output rpm. The allowable overhung load is 48 900 N. The applied overhung load is less than the allowable, therefore, this application is acceptable.

Type DH, DV & DB L_f Load Location Factors ★

Low Speed Shaft

Based on distance from center line of load to end of shaft

Distance mm	Single Reduction (DHC) DRIVE SIZE							Double & Triple Reduction (DH, DV & DB) DRIVE SIZE												Distance mm
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250	
0	1,45	1,41	1,48	1,48	1,48	1,48	1,52	1,42	1,41	1,42	1,48	1,48	1,47	1,52	1,47	1,47	1,36	1,36	1,40	1,40	0
10	1,40	1,35	1,43	1,44	1,44	1,43	1,48	1,35	1,35	1,37	1,43	1,43	1,42	4,48	1,43	1,43	1,33	1,33	1,38	1,38	10
20	1,34	1,30	1,38	1,39	1,39	1,39	1,44	1,29	1,30	1,31	1,38	1,38	1,38	1,44	1,40	1,40	1,31	1,31	1,35	1,35	20
30	1,28	1,25	1,33	1,35	1,35	1,35	1,40	1,23	1,25	1,26	1,33	1,33	1,33	1,39	1,36	1,36	1,28	1,28	1,33	1,33	30
40	1,22	1,20	1,28	1,31	1,31	1,30	1,36	1,16	1,20	1,20	1,29	1,29	1,28	1,35	1,32	1,32	1,25	1,25	1,30	1,30	40
50	1,16	1,15	1,23	1,26	1,26	1,26	1,32	1,10	1,15	1,15	1,24	1,24	1,24	1,31	1,29	1,29	1,22	1,22	1,28	1,28	50
60	1,10	1,09	1,18	1,22	1,22	1,22	1,28	1,03	1,09	1,09	1,19	1,19	1,19	1,26	1,25	1,25	1,19	1,19	1,25	1,25	60
70	1,05	1,04	1,13	1,17	1,18	1,17	1,24	0,98	1,04	1,04	1,14	1,14	1,14	1,22	1,22	1,22	1,17	1,17	1,23	1,23	70
80	0,99	0,99	1,08	1,13	1,13	1,13	1,20	0,95	0,99	0,99	1,10	1,10	1,09	1,17	1,18	1,18	1,14	1,14	1,20	1,20	80
90	0,96	0,97	1,03	1,09	1,09	1,09	1,16	0,92	0,97	0,97	1,05	1,05	1,05	1,13	1,14	1,14	1,11	1,11	1,18	1,18	90
100	0,93	0,94	0,99	1,04	1,04	1,04	1,12	0,89	0,94	0,94	1,00	1,00	1,00	1,09	1,11	1,11	1,08	1,08	1,15	1,15	100
110	0,90	0,91	0,96	1,00	1,00	1,00	1,08	0,85	0,91	0,92	0,98	0,98	0,98	1,04	1,07	1,07	1,06	1,06	1,13	1,13	110
120	0,87	0,88	0,94	0,98	0,98	0,98	1,04	0,82	0,88	0,89	0,95	0,96	0,96	1,00	1,04	1,04	1,03	1,03	1,10	1,10	120
130	0,84	0,86	0,91	0,96	0,96	0,96	1,00	0,79	0,86	0,87	0,93	0,93	0,94	0,98	1,00	1,00	1,00	1,00	1,08	1,08	130
140	0,81	0,83	0,89	0,93	0,94	0,94	0,98	...	0,83	0,85	0,91	0,91	0,92	0,96	0,98	0,98	0,99	0,99	1,05	1,05	140
150	0,78	0,80	0,87	0,91	0,92	0,92	0,97	...	0,80	0,82	0,89	0,89	0,90	0,95	0,97	0,97	0,98	0,98	1,03	1,03	150
160	...	...	0,84	0,89	0,89	0,90	0,95	...	...	0,80	0,86	0,87	0,88	0,93	0,95	0,95	0,97	0,97	1,00	1,00	160
170	...	...	0,82	0,87	0,87	0,88	0,93	...	...	...	0,84	0,85	0,86	0,91	0,94	0,94	0,96	0,96	0,99	0,99	170
180	...	...	0,79	0,85	0,85	0,87	0,91	...	...	...	0,82	0,82	0,84	0,89	0,92	0,92	0,95	0,95	0,98	0,98	180
190	...	...	...	0,83	0,83	0,85	0,90	...	...	...	...	...	...	0,88	0,91	0,91	0,94	0,94	0,97	0,97	190
200	...	...	...	0,80	0,81	0,83	0,88	...	...	...	...	...	...	0,86	0,89	0,89	0,93	0,93	0,96	0,96	200
210	...	...	...	0,78	0,79	0,81	0,86	...	...	...	...	...	...	0,84	0,87	0,87	0,92	0,92	0,95	0,95	210
220	...	...	...	...	...	...	0,85	...	...	...	...	...	...	0,82	0,86	0,86	0,91	0,91	0,94	0,94	220
230	...	...	...	...	...	...	0,83	...	...	...	...	...	...	...	0,84	0,84	0,90	0,90	0,93	0,93	230
240	...	...	...	...	...	...	0,81	...	...	...	...	...	...	...	0,83	0,83	0,89	0,89	0,93	0,93	240
250	...	...	...	...	...	...	0,79	...	...	...	...	...	...	...	0,81	0,81	0,87	0,87	0,92	0,92	250
260	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,79	0,79	0,86	0,86	0,91	0,91	260
270	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,85	0,85	0,90	0,90	270
280	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,84	0,84	0,89	0,89	280
290	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,83	0,83	0,88	0,88	290
300	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,82	0,82	0,87	0,87	300
310	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,81	0,81	0,86	0,86	310
320	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,80	0,80	0,85	0,85	320
330	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,79	0,79	0,84	0,84	330
340	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,78	0,78	0,83	0,83	340
350	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0,82	0,82	350

★ Interpolate for intermediate values.

Type DH Single Reduction & DBL Double Reduction

Low Speed Shaft Overhung Load

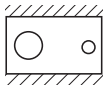
REFER TO THE FACTORY

Type DHC Single Reduction

Low Speed Shaft Overhung Load •/kN

Refer to Low Speed Gear Position on Page 19

Drive Mounted on "C" or "D" Surface



DH1

High Speed Shaft rpm	Nominal Ratio	Approx LS Shaft rpm	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1800	1,25	1440	8,4	24,3	12,6	5,3	*	*	14,6
	1,40	1286	9,1	24,1	9,5	8,6	*	5,8	22,1
	1,60	1125	10,1	25,8	8,5	10,5	*	12,4	25,5
	1,80	1000	11,2	27,4	12,8	12,0	5,7	17,4	28,7
	2,00	900	11,9	29,0	14,3	13,4	9,8	19,6	31,8
	2,24	804	13,0	30,3	16,0	15,0	14,4	22,8	35,0
	2,50	720	14,1	32,2	17,9	16,4	17,8	25,3	38,4
	2,80	643	15,1	34,1	19,7	18,1	19,9	28,1	42,3
	3,15	571	16,2	36,4	21,9	20,9	22,3	32,8	45,9
	3,55	507	17,7	38,8	23,8	24,5	26,7	35,7	50,0
	4,00	450	19,4	40,7	26,0	27,4	31,5	39,9	54,8
	4,50	400	20,1	43,5	28,7	30,4	33,4	45,6	67,4
	5,00	360	21,1	44,0	30,7	32,7	36,8	50,4	71,6
	5,60	321	22,2	44,0	33,4	37,6	42,0	57,3	78,1
1200	1,25	960	11,2	29,5	17,0	8,1	*	18,6	30,0
	1,40	857	12,0	29,2	15,5	10,4	*	14,0	25,0
	1,60	750	13,1	31,0	15,8	12,5	*	20,2	28,8
	1,80	667	14,3	32,6	17,8	14,9	11,4	22,5	32,4
	2,00	600	15,1	34,9	19,4	17,4	16,2	25,9	36,0
	2,24	536	16,3	36,3	21,4	19,4	20,1	31,1	39,5
	2,50	480	17,5	38,6	23,4	21,8	23,1	34,7	43,4
	2,80	429	18,5	40,7	25,4	24,6	26,6	38,9	47,8
	3,15	381	19,7	43,1	27,8	27,8	30,8	42,9	55,4
	3,55	338	21,1	44,0	29,7	31,7	35,7	47,0	63,7
	4,00	300	22,2	44,0	31,9	34,5	39,4	52,1	69,6
	4,50	267	22,2	44,0	34,6	37,5	42,3	58,2	76,1
	5,00	240	22,0	44,0	36,7	39,7	45,8	63,0	83,3
	5,60	214	22,2	44,0	39,8	43,5	51,1	69,9	95,0
600	1,25	480	16,9	40,0	26,1	19,9	24,1	36,0	52,5
	1,40	429	17,7	40,0	24,9	21,4	22,1	34,5	48,0
	1,60	375	18,9	42,1	25,5	24,0	26,5	38,8	45,4
	1,80	333	20,1	44,0	27,6	26,8	30,3	41,8	51,4
	2,00	300	21,0	44,0	29,3	29,3	32,9	45,8	57,6
	2,24	268	22,2	44,0	31,4	31,3	35,2	51,8	63,8
	2,50	240	22,2	44,0	33,6	33,8	38,3	55,5	69,9
	2,80	214	22,2	44,0	35,8	36,8	42,0	59,9	74,4
	3,15	190	22,2	44,0	38,5	40,3	46,3	65,8	83,4
	3,55	169	22,2	44,0	40,9	44,6	51,7	68,5	92,2
	4,00	150	22,2	44,0	43,1	48,2	55,8	74,0	98,7
	4,50	133	22,2	44,0	43,1	51,8	59,6	80,9	105,4
	5,00	120	22,2	44,0	43,1	54,7	63,9	86,7	113,8
	5,60	107	22,2	44,0	43,1	59,1	70,1	95,0	127,5

• Published ratings are for standard assemblies and are based on the most unfavorable conditions of loading. Interpolate for speeds between those shown. For speeds below 600 rpm use ratings for 600 rpm.

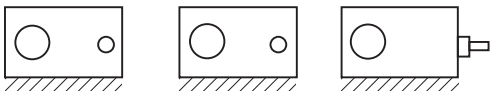
* Consult the Factory for overhung load ratings.

Type DH & DB Double & Triple Reduction - Sizes M1130-M1210

Low Speed Shaft Overhung Load •/kN

Refer to Low Speed Gear Position on Pages 18-20 & 80-81

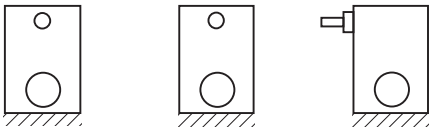
Drive Mounted on "D" Surface



DH2 **DH3** **DB3**

Output rpm	M1130		M1140		M1150		M1160		M1170		M1180		M1190		M1200		M1210	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	20,5	20,5	40,9	40,9	38,3	29,5	44,4	28,2	52,9	28,6	71,4	40,7	90,5	51,9	129,9	82,3	125,0	73,9
250	20,5	20,5	40,9	40,9	38,3	31,6	47,1	30,4	56,1	31,1	75,7	44,1	96,1	56,1	137,4	88,4	132,3	79,8
210	20,5	20,5	40,9	40,9	38,3	34,2	48,9	33,2	60,2	34,3	81,1	48,4	102,9	61,4	146,7	96,3	141,5	87,3
170	20,5	20,5	40,9	40,9	38,3	37,7	48,9	37,0	65,5	38,6	88,1	54,3	112,0	68,6	158,8	106,7	153,5	97,4
130	20,5	20,5	40,9	40,9	38,3	38,3	48,9	42,5	73,0	45,0	97,8	62,7	124,6	78,9	175,6	121,6	170,2	111,9
90	20,5	20,5	40,9	40,9	38,3	38,3	48,9	48,9	84,5	55,4	116,0	76,4	144,2	95,6	201,7	145,5	196,1	135,4
50	20,5	20,5	40,9	40,9	38,3	38,3	48,9	48,9	89,8	77,3	142,3	104,7	182,1	129,9	231,3	193,7	245,8	183,5
10	20,5	20,5	40,9	40,9	38,3	38,3	48,9	48,9	89,8	89,8	145,9	145,9	195,7	195,7	231,3	231,3	266,9	266,9

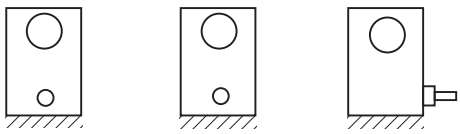
Drive Mounted on "F" Surface



DH2 **DH3** **DZ3**

Output rpm	M1130		M1140		M1150		M1160		M1170		M1180		M1190		M1200		M1210	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	29,8	22,6	44,0	43,6	39,6	29,5	44,4	28,2	52,9	28,6	71,4	40,7	90,5	51,9	122,3	82,3	106,8	73,9
250	29,8	23,9	44,0	44,0	39,6	31,6	47,1	30,4	56,1	31,1	75,7	44,1	96,1	56,1	122,3	88,4	106,8	79,8
210	29,8	25,5	44,0	44,0	39,6	34,2	48,9	33,2	60,2	34,3	80,0	48,4	102,9	61,4	122,3	96,3	106,8	87,3
170	29,8	27,6	44,0	44,0	39,6	37,7	48,9	37,0	62,3	38,6	80,0	54,3	111,2	68,6	122,3	106,7	106,8	97,4
130	29,8	29,8	44,0	44,0	39,6	39,6	48,9	42,5	62,3	45,0	80,0	62,7	111,2	78,9	122,3	121,6	106,8	106,8
90	29,8	29,8	44,0	44,0	39,6	39,6	48,9	48,9	62,3	55,4	80,0	76,4	111,2	95,6	122,3	122,3	106,8	106,8
50	29,8	29,8	44,0	44,0	39,6	39,6	48,9	48,9	62,3	62,3	80,0	80,0	111,2	111,2	122,3	122,3	106,8	106,8
10	29,8	29,8	44,0	44,0	39,6	39,6	48,9	48,9	62,3	62,3	80,0	80,0	111,2	111,2	122,3	122,3	106,8	106,8

Drive Mounted on "E" Surface



DH2 **DH3** **DZ3**

Output rpm	M1130		M1140		M1150		M1160		M1170		M1180		M1190		M1200		M1210	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	29,8	22,6	44,0	43,6	39,6	29,5	44,4	28,2	52,9	28,6	71,4	40,7	90,5	51,9	122,3	82,3	106,8	73,9
250	29,8	23,9	44,0	44,0	39,6	31,6	44,9	30,4	56,1	31,1	74,3	44,1	96,1	56,1	122,3	88,4	106,8	79,8
210	29,8	25,5	44,0	44,0	39,6	34,2	44,9	33,2	60,2	34,3	74,3	48,4	102,9	61,4	122,3	96,3	106,8	87,3
170	29,8	27,6	44,0	44,0	39,6	37,7	44,9	37,0	62,3	38,6	74,3	54,3	111,2	68,6	122,3	106,7	106,8	97,4
130	29,8	29,8	44,0	44,0	39,6	39,6	44,9	42,5	62,3	45,0	74,3	62,7	111,2	78,9	122,3	121,6	106,8	106,8
90	29,8	29,8	44,0	44,0	39,6	39,6	44,9	44,9	62,3	55,4	74,3	74,3	111,2	95,6	122,3	122,3	106,8	106,8
50	29,8	29,8	44,0	44,0	39,6	39,6	44,9	44,9	62,3	62,3	74,3	74,3	111,2	111,2	122,3	122,3	106,8	106,8
10	29,8	29,8	44,0	44,0	39,6	39,6	44,9	44,9	62,3	62,3	74,3	74,3	111,2	111,2	122,3	122,3	106,8	106,8

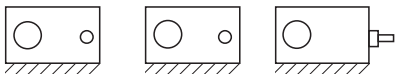
• Published ratings are for standard assemblies and are based on the most unfavorable conditions of loading. For speeds below 10 rpm use ratings for 10 rpm.

Type DH & DB Double & Triple Reduction - Sizes M1220-M1250

Low Speed Shaft Overhung Load •/kN

Refer to Low Speed Gear Position on Pages 18-20 & 80-81

Drive Mounted on "D" Surface



DH2 **DH3** **DB3**

Output rpm	M1220		M1230		M1240		M1250	
	Extension Opposite Low Speed Gear	Extension On Low Speed Gear Side	Extension Opposite Low Speed Gear	Extension On Low Speed Gear Side	Extension Opposite Low Speed Gear	Extension On Low Speed Gear Side	Extension Opposite Low Speed Gear	Extension On Low Speed Gear Side
290	276	258	278	219	227	163	222	146
250	276	275	295	235	243	177	238	160
210	276	276	312	256	263	195	259	177
170	276	276	312	283	290	219	287	201
130	276	276	312	312	328	254	326	236
90	276	276	312	312	347	310	389	295
50	276	276	312	312	347	347	389	389
10	276	276	312	312	347	347	389	389

• Overhung load values shown are for loads applied at one shaft diameter from the seal cage. Published overhung load ratings are based on a combination of the most unfavorable conditions of loading. Consult the factory for application specific review if additional capacity is required. Interpolate for values at intermediate speeds. The last overhung load listed applies to all lower output speeds for that drive size and mounting surface.

Type DVA Parallel Shaft — Shaft Up or Down
Low Speed Shaft Thrust Capacity *
Double & Triple Reduction

THRUST UP

kN — Multiply values listed by 1000

Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
340	. . .	. . .	. . .	. . .	. . .	47,5	51,1
290	21,8	33,1	35,3	91,6	101	50,1	52,4
260	22,8	34,4	36,5	94,6	104	51,6	53,9
230	23,0	35,1	37,3	96,8	107	52,9	55,4
205	24,1	36,3	38,5	100	110	54,7	57,2
185	24,6	37,5	39,7	103	114	56,3	59,2
165	25,6	38,9	40,9	107	118	57,8	60,5
145	26,5	40,3	42,0	110	122	60,0	62,8
130	27,2	41,7	43,7	114	126	61,8	64,5
115	28,4	43,1	44,9	118	132	63,9	66,4
100	29,1	44,6	46,6	121	135	66,0	68,6
90	30,4	46,1	47,9	127	140	68,2	70,8
80	31,2	48,4	49,3	131	146	70,4	73,2
70	33,3	50,5	51,8	137	154	74,4	77,4
60	34,1	52,3	54,0	141	160	77,0	79,9
50	36,0	55,0	57,4	149	166	81,1	83,2
45	37,4	56,8	58,8	158	176	83,9	87,1
40	38,5	60,8	60,6	167	181	86,7	90,1
30	41,2	68,0	67,1	184	191	92,4	95,8
20	45,9	75,8	73,9	214	216	110	109
15	54,4	85,6	89,3	245	344	142	130
10	64,7	98,9	107	283	384	175	162
6	76,2	117	127	323	420	208	197

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1800 rpm.

Type DVA Parallel Shaft — Shaft Up or Down
Low Speed Shaft Thrust Capacity *
Double & Triple Reduction

THRUST DOWN

kN — Multiply values listed by 1000

Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
340	. . .	. . .	. . .	. . .	. . .	45,0	48,7
290	21,0	31,7	33,9	89,1	98,9	47,3	79,9
260	22,0	32,9	35,0	92,0	102	48,8	51,3
230	22,2	33,5	35,8	94,1	104	50,0	52,8
205	23,3	34,7	37,0	97,2	107	51,6	54,1
185	23,7	35,8	38,1	100	111	53,2	56,3
165	24,6	37,2	39,3	104	115	54,5	57,5
145	25,5	38,5	40,3	107	119	56,6	59,7
130	26,2	39,9	41,9	111	123	58,3	61,3
115	27,3	41,2	43,1	115	129	60,3	63,1
100	28,0	42,7	44,7	118	132	62,2	65,1
90	29,3	44,1	47,2	125	137	64,3	67,3
80	30,1	46,3	47,3	130	142	66,3	70,8
70	32,1	48,2	49,6	133	151	70,2	73,5
60	32,9	50,0	51,8	141	156	72,7	75,9
50	34,5	52,6	55,0	145	162	76,5	78,9
45	36,1	54,3	56,4	158	171	79,1	82,8
40	37,1	61,9	58,0	167	176	81,7	85,5
30	40,5	65,5	62,1	184	187	87,1	90,9
20	44,3	73,1	71,0	209	207	105	104
15	52,7	82,6	86,4	241	247	136	125
10	63,0	95,8	104	279	287	169	156
6	74,5	114	124	318	333	203	192

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1800 rpm.

Type DXA Right Angle Shaft — Shaft Up or Down
Low Speed Shaft Thrust Capacity *
Triple Reduction

THRUST UP

kN — Multiply values listed by 1000

Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
150	. . .	. . .	. . .	. . .	. . .	75,4	77,8
125	28,4	51,1	55,9	137	151	71,0	75,4
105	28,9	49,4	53,4	138	154	65,4	65,4
90	30,5	47,9	51,5	137	156	69,2	67,3
75	31,4	49,1	51,2	137	159	71,1	69,2
65	33,6	51,9	54,0	144	168	76,0	73,4
50	35,4	55,3	59,3	154	180	80,2	78,2
40	38,3	58,5	60,8	163	190	85,5	82,8
30	41,3	63,8	66,5	184	207	93,7	90,5
25	44,4	68,2	71,4	202	216	114	100
20	47,3	78,6	76,1	221	229	125	116
15	54,9	84,7	89,1	247	253	144	134
10	66,1	107	107	281	293	174	164
6	78,3	122	131	289	345	222	203

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1800 rpm.

Type DXA Right Angle Shaft — Shaft Up or Down
Low Speed Shaft Thrust Capacity *
Triple Reduction

THRUST DOWN

kN — Multiply values listed by 1000

Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
150	. . .	. . .	. . .	. . .	. . .	72,5	75,1
125	27,4	49,7	54,5	135	148	68,1	72,5
105	27,9	47,6	51,7	135	151	61,8	61,8
90	29,4	45,9	49,6	134	153	65,3	63,4
75	30,3	47,0	49,1	133	156	67,1	65,3
65	32,3	49,6	51,8	141	165	71,7	69,2
50	34,1	52,9	55,4	150	176	75,6	74,0
40	36,9	55,9	58,3	159	186	80,7	78,1
30	39,8	61,0	63,8	180	203	88,4	85,4
25	42,8	65,2	68,5	198	211	111	94,5
20	45,6	75,9	73,1	216	224	119	111
15	53,2	82,8	86,2	243	248	138	128
10	64,2	104	104	277	288	169	158
6	76,6	119	128	325	340	217	197

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1800 rpm.

Exact Ratios/Parallel Shaft Drives

Single Reduction - Type DHC

Nominal Ratio	DRIVE SIZE						
	M1130	M1140	M1150	M1160	M1170	M1180	M1190
1,25	1,256	1,247	1,247	1,253	1,253	1,247	1,265
1,40	1,411	1,391	1,412	1,403	1,403	1,400	1,433
1,60	1,609	1,600	1,600	1,593	1,593	1,596	1,623
1,80	1,807	1,811	1,811	1,808	1,808	1,784	1,830
2,00	1,981	2,043	2,000	2,000	2,000	1,978	2,048
2,24	2,239	2,233	2,233	2,238	2,238	2,275	2,263
2,50	2,512	2,526	2,526	2,474	2,474	2,528	2,529
2,80	2,784	2,824	2,824	2,765	2,765	2,844	2,867
3,15	3,121	3,200	3,200	3,133	3,133	3,138	3,185
3,55	3,552	3,556	3,556	3,615	3,615	3,500	3,583
4,00	3,962	4,000	4,000	4,087	4,087	3,957	4,095
4,50	4,478	4,571	4,571	4,476	4,476	4,550	4,526
5,00	4,905	5,053	5,053	4,947	4,947	5,056	5,059
5,60	5,722	5,647	5,647	5,529	5,529	5,688	5,733

Single Reduction - Type DHL

Nominal Ratio	DRIVE SIZE							
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1,25	1,262	1,243	1,243	1,250	1,243	1,263	1,250	1,250
1,40	1,410	1,400	1,400	1,412	1,400	1,417	1,395	1,382
1,60	1,595	1,600	1,625	1,594	1,576	1,595	1,600	1,583
1,80	1,789	1,788	1,824	1,818	1,794	1,771	1,778	1,818
2,00	2,025	1,971	2,031	2,028	1,969	2,031	1,971	1,971
2,24	2,242	2,258	2,233	2,241	2,241	2,273	2,258	2,219
2,50	2,486	2,500	2,533	2,516	2,519	2,516	2,500	2,517
2,80	2,813	2,778	2,821	2,793	2,821	2,759	2,767	2,815
3,15	3,154	3,148	3,179	3,318	3,115	3,192	3,185	3,148
3,55	3,556	3,520	3,500	3,583	3,542	3,583	3,520	3,520
4,00	3,960	4,040	3,962	4,045	3,955	3,955	4,040	3,960
4,50	4,500	4,478	4,533	4,550	4,478	4,500	4,435	4,435
5,00	4,958	4,941	5,063	4,938	5,056	5,056	4,947	4,947
5,60	5,500	5,632	5,625	5,529	5,632	5,526	5,588	5,526

Exact Ratios/Parallel Shaft Drives

Double Reduction - Type DH(All Sizes) & DV(Sizes M1130-M1210)

Nominal Ratio	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
5,00	. . .	. . .	. . .	. . .	. . .	. . .	. . .	5,298	. . .	. . .	. . .	. . .	. . .
5,60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	5,859	5,952	5,688	. . .	5,628	. . .
6,30	6,189	6,282	6,282	6,184	6,151	6,386	6,146	6,710	6,583	6,407	6,313	6,257	6,259
7,10	6,917	7,074	7,074	6,985	6,926	7,162	6,857	7,706	7,540	7,221	7,111	7,150	6,959
8,00	7,821	8,084	8,211	7,885	7,796	8,062	7,867	8,352	8,658	8,233	8,014	8,007	7,952
9,00	8,777	9,033	9,214	8,995	8,876	8,956	8,741	9,403	9,384	9,206	9,138	9,006	8,905
10,0	9,932	9,957	10,26	10,03	9,740	10,27	9,689	10,67	10,57	10,36	10,22	9,960	10,02
11,2	11,00	11,41	11,28	11,09	11,09	11,49	11,10	11,93	11,99	11,44	11,50	11,20	11,08
12,5	12,19	12,63	12,80	12,45	12,46	12,72	12,29	13,34	13,40	12,77	12,69	12,51	12,45
14,0	13,80	14,04	14,26	13,82	13,96	13,95	13,60	14,92	14,99	14,38	14,17	14,05	13,91
16,0	15,47	15,91	16,06	15,52	15,41	16,14	15,66	16,78	16,76	16,10	15,96	15,90	15,63
18,0	17,44	17,79	17,68	17,73	17,52	18,12	17,31	18,80	18,86	18,04	17,87	17,98	17,68
20,0	19,42	20,41	20,02	20,01	19,56	19,99	19,86	20,97	21,12	20,65	20,03	20,15	20,00
22,4	22,07	22,63	22,91	22,51	22,16	22,75	21,80	23,42	23,56	23,00	22,92	22,10	22,41
25,0	24,32	24,97	25,58	24,43	25,01	25,56	24,32	. . .	26,32	. . .	25,53	. . .	24,58
28,0	26,98	28,45	28,42	27,36	27,86	27,94	27,48	. . .	. . .	. . .	. . .	. . .	. . .

Triple Reduction - Type DH(All Sizes) & DV(Sizes M1130-M1210)

Nominal Ratio	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
25,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	26,76	. . .	25,48	. . .	24,98	. . .
28,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	30,11	30,07	28,52	28,28	28,27	27,78
31,5	31,29	31,93	31,39	31,72	31,33	33,03	31,47	33,72	33,83	31,96	31,65	31,97	31,44
36,0	34,85	36,65	35,53	35,82	34,98	36,46	36,12	37,62	37,89	36,58	35,47	35,83	35,55
40,0	39,60	40,63	40,66	40,28	39,61	41,49	39,64	42,02	42,27	39,68	40,60	38,87	39,84
45,0	43,63	44,83	45,40	43,71	44,72	46,61	44,23	46,48	47,21	44,41	44,04	43,99	43,23
50,0	48,40	51,09	50,45	48,95	49,81	50,95	49,96	52,29	52,22	49,77	49,29	49,75	48,93
56,0	54,59	55,73	55,67	55,91	55,16	57,58	54,31	58,55	58,75	56,97	55,24	55,75	55,33
63,0	60,80	63,96	63,01	63,12	61,59	63,55	62,33	65,32	65,79	63,47	63,23	61,14	62,01
71,0	69,09	70,90	72,11	70,99	69,75	72,31	68,42	72,97	73,40	. . .	70,43	. . .	67,99
80,0	76,13	78,23	80,53	77,04	78,74	81,24	76,33	84,85	81,98	. . .	. . .	. . .	. . .
90,0	84,45	89,16	89,47	86,28	87,71	88,80	86,22	95,02	95,33	. . .	. . .	. . .	. . .
100	98,19	100,9	101,3	99,24	96,67	101,2	98,08	106,0	103,8	. . .	. . .	. . .	. . .
112	111,6	111,9	116,0	111,6	109,5	115,2	107,7	118,4	119,1	. . .	. . .	. . .	. . .
125	122,9	123,4	129,5	121,1	123,6	129,4	120,1	. . .	133,0	. . .	. . .	. . .	. . .
140	136,4	140,7	143,9	135,6	137,7	141,4	135,7	. . .	. . .	. . .	. . .	. . .	. . .

WR^2/Parallel Shaft Drives (Type DH)

Approximate WR^2 (kg-m^2) Referred to Drive High Speed Shaft ★

Nominal Ratios	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
SINGLE REDUCTION													
1,25	0,499	0,947	1,820	3,217	5,296	9,599	15,605	. . .	. . .	. . .	. . .	. . .	. . .
1,40	0,368	0,709	1,331	2,405	3,950	7,071	11,312	. . .	. . .	. . .	. . .	. . .	. . .
1,60	0,265	0,504	0,960	1,732	2,842	5,088	8,179	. . .	. . .	. . .	. . .	. . .	. . .
1,80	0,201	0,378	0,723	1,297	2,150	3,926	6,149	. . .	. . .	. . .	. . .	. . .	. . .
2,00	0,164	0,289	0,575	1,039	1,690	3,102	4,778	. . .	. . .	. . .	. . .	. . .	. . .
2,24	0,126	0,239	0,456	0,814	1,334	2,279	3,791	. . .	. . .	. . .	. . .	. . .	. . .
2,50	0,0992	0,185	0,350	0,664	1,089	1,836	3,012	. . .	. . .	. . .	. . .	. . .	. . .
2,80	0,0812	0,148	0,282	0,542	0,888	1,475	2,402	. . .	. . .	. . .	. . .	. . .	. . .
3,15	0,0662	0,118	0,222	0,410	0,707	1,162	1,960	. . .	. . .	. . .	. . .	. . .	. . .
3,55	0,0485	0,0943	0,180	0,317	0,563	0,946	1,594	. . .	. . .	. . .	. . .	. . .	. . .
4,00	0,0398	0,0768	0,147	0,259	0,384	0,761	1,286	. . .	. . .	. . .	. . .	. . .	. . .
4,50	0,0325	0,0618	0,119	0,227	0,329	0,604	0,941	. . .	. . .	. . .	. . .	. . .	. . .
5,00	0,0285	0,0532	0,101	0,192	0,281	0,518	0,784	. . .	. . .	. . .	. . .	. . .	. . .
5,60	0,0218	0,0447	0,0843	0,136	0,233	0,433	0,649	. . .	. . .	. . .	. . .	. . .	. . .
SINGLE REDUCTION (DHL)													
1,25	0,01346	0,02842	0,06773	0,11126	0,21969	0,42958	0,77127	1,44124	. . .	. . .	. . .	. . .	. . .
1,40	0,01210	0,02429	0,05943	0,09796	0,19335	0,37660	0,68199	1,28242	. . .	. . .	. . .	. . .	. . .
1,60	0,01084	0,02107	0,05087	0,09296	0,17025	0,32964	0,58581	1,09977	. . .	. . .	. . .	. . .	. . .
1,80	0,00983	0,01882	0,04544	0,07619	0,14930	0,29385	0,52190	0,94415	. . .	. . .	. . .	. . .	. . .
2,00	0,00890	0,01708	0,04096	0,06873	0,13637	0,25400	0,46197	0,86459	. . .	. . .	. . .	. . .	. . .
2,24	0,00815	0,01497	0,03763	0,06278	0,12049	0,22556	0,39879	0,76066	. . .	. . .	. . .	. . .	. . .
2,50	0,00781	0,01421	0,03484	0,05907	0,11217	0,20383	0,35676	0,67122	. . .	. . .	. . .	. . .	. . .
2,80	0,00700	0,01264	0,03100	0,05669	0,09937	0,18544	0,31942	0,59479	. . .	. . .	. . .	. . .	. . .
3,15	0,00668	0,01110	0,02923	0,04937	0,08917	0,15999	0,27736	0,52534	. . .	. . .	. . .	. . .	. . .
3,55	0,00487	0,00922	0,02004	0,03400	0,06214	0,12278	0,25185	0,43283	. . .	. . .	. . .	. . .	. . .
4,00	0,00450	0,00887	0,01689	0,02886	0,05435	0,11008	0,21170	0,37805	. . .	. . .	. . .	. . .	. . .
4,50	0,00421	0,00765	0,01454	0,02483	0,05049	0,09592	0,20086	0,33334	. . .	. . .	. . .	. . .	. . .
5,00	0,00412	0,00712	0,01279	0,02262	0,04345	0,08437	0,17475	0,30370	. . .	. . .	. . .	. . .	. . .
5,60	0,00398	0,00658	0,01138	0,01968	0,03769	0,07672	0,15011	0,26210	. . .	. . .	. . .	. . .	. . .
DOUBLE REDUCTION													
5,00	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2,201	. . .	. . .	. . .	. . .	. . .
5,60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1,904	2,297	5,187	. . .	11,39	. . .
6,30	0,0260	0,0520	0,1049	0,183	0,346	0,639	1,197	1,573	1,982	4,391	5,734	9,793	12,72
7,10	0,0221	0,0428	0,0888	0,154	0,293	0,544	1,025	1,303	1,633	3,739	4,822	8,153	10,87
8,00	0,0186	0,0352	0,0727	0,137	0,250	0,462	0,848	1,170	1,348	3,158	4,078	7,020	8,975
9,00	0,0159	0,0301	0,0628	0,110	0,211	0,402	0,736	1,001	1,209	2,753	3,420	6,045	7,676
10,0	0,0136	0,0263	0,0550	0,0962	0,188	0,337	0,637	0,858	1,032	2,401	2,962	5,377	6,564
11,2	0,0118	0,0219	0,0492	0,0853	0,160	0,293	0,534	0,744	0,882	2,149	2,566	4,608	5,800
12,5	0,0106	0,0197	0,0445	0,0784	0,145	0,260	0,468	0,644	0,763	1,908	2,285	3,987	4,944
14,0	0,0091	0,0170	0,0382	0,0730	0,125	0,232	0,411	0,528	0,659	1,651	2,017	3,411	4,255
16,0	0,0082	0,0143	0,0350	0,0620	0,111	0,195	0,349	0,453	0,540	1,510	1,736	3,011	3,624
18,0	0,0055	0,0113	0,0239	0,0423	0,0774	0,150	0,308	0,392	0,462	1,325	1,578	2,575	3,177
20,0	0,0047	0,0094	0,0197	0,0351	0,0663	0,132	0,255	0,351	0,400	1,143	1,380	2,271	2,705
22,4	0,0039	0,0083	0,0163	0,0294	0,0595	0,113	0,237	0,299	0,357	1,049	1,185	2,069	2,375
25,0	0,0035	0,0073	0,0138	0,0263	0,0502	0,0981	0,205	. . .	0,304	. . .	1,082	. . .	2,156
28,0	0,0031	0,0062	0,0118	0,0222	0,0431	0,0885	0,173	. . .	. . .	. . .	. . .	. . .	. . .
TRIPLE REDUCTION													
25,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	0,295	. . .	0,920	. . .	1,751	. . .
28,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	0,272	0,299	0,856	0,947	1,605	1,819
31,5	0,00339	0,00662	0,0123	0,0206	0,0415	0,0746	0,161	0,254	0,275	0,806	0,877	1,482	1,658
35,5	0,00316	0,00596	0,0111	0,0187	0,0380	0,0693	0,145	0,238	0,257	0,756	0,823	1,385	1,523
40,0	0,00293	0,00557	0,0100	0,0171	0,0348	0,0636	0,136	0,223	0,239	0,485	0,768	1,004	1,418
45,0	0,00278	0,00525	0,00937	0,0162	0,0321	0,0588	0,127	0,139	0,225	0,458	0,496	0,944	1,032
50,0	0,00265	0,00490	0,00880	0,0150	0,0301	0,0557	0,119	0,131	0,140	0,438	0,467	0,893	0,965
56,0	0,00165	0,00336	0,00560	0,00945	0,0178	0,0325	0,0783	0,125	0,132	0,417	0,445	0,853	0,910
63,0	0,00157	0,00315	0,00520	0,00881	0,0166	0,0308	0,0729	0,120	0,126	0,404	0,422	0,825	0,866
71,0	0,00149	0,00302	0,00486	0,00831	0,0156	0,0289	0,0700	0,115	0,120	. . .	0,408	. . .	0,836
80,0	0,00145	0,00292	0,00466	0,00802	0,0147	0,0274	0,0670	0,0774	0,116	. . .	. . .	. . .	. . .
90,0	0,00140	0,00280	0,00448	0,00764	0,0141	0,0263	0,0642	0,0752	0,0778	. . .	. . .	. . .	. . .
100	0,000842	0,00189	0,00272	0,00442	0,0092	0,0168	0,0322	0,0731	0,0755	. . .	. . .	. . .	. . .
112	0,000814	0,00183	0,00259	0,00422	0,00878	0,0160	0,0311	0,0713	0,0733	. . .	. . .	. . .	. . .
125	0,000795	0,00179	0,00251	0,00410	0,00843	0,0154	0,0299	. . .	0,0715	. . .	. . .	. . .	. . .
140	0,000778	0,00174	0,00244	0,00395	0,00817	0,0150	0,0287	. . .	. . .	. . .	. . .	. . .	. . .

★ Values in these tables are approximate. Where accurate figures are required, or for ratios not shown, consult the Factory. WR^2 referred to drive low speed shaft equals (exact total ratio)^2 times WR^2 referred to high speed shaft.

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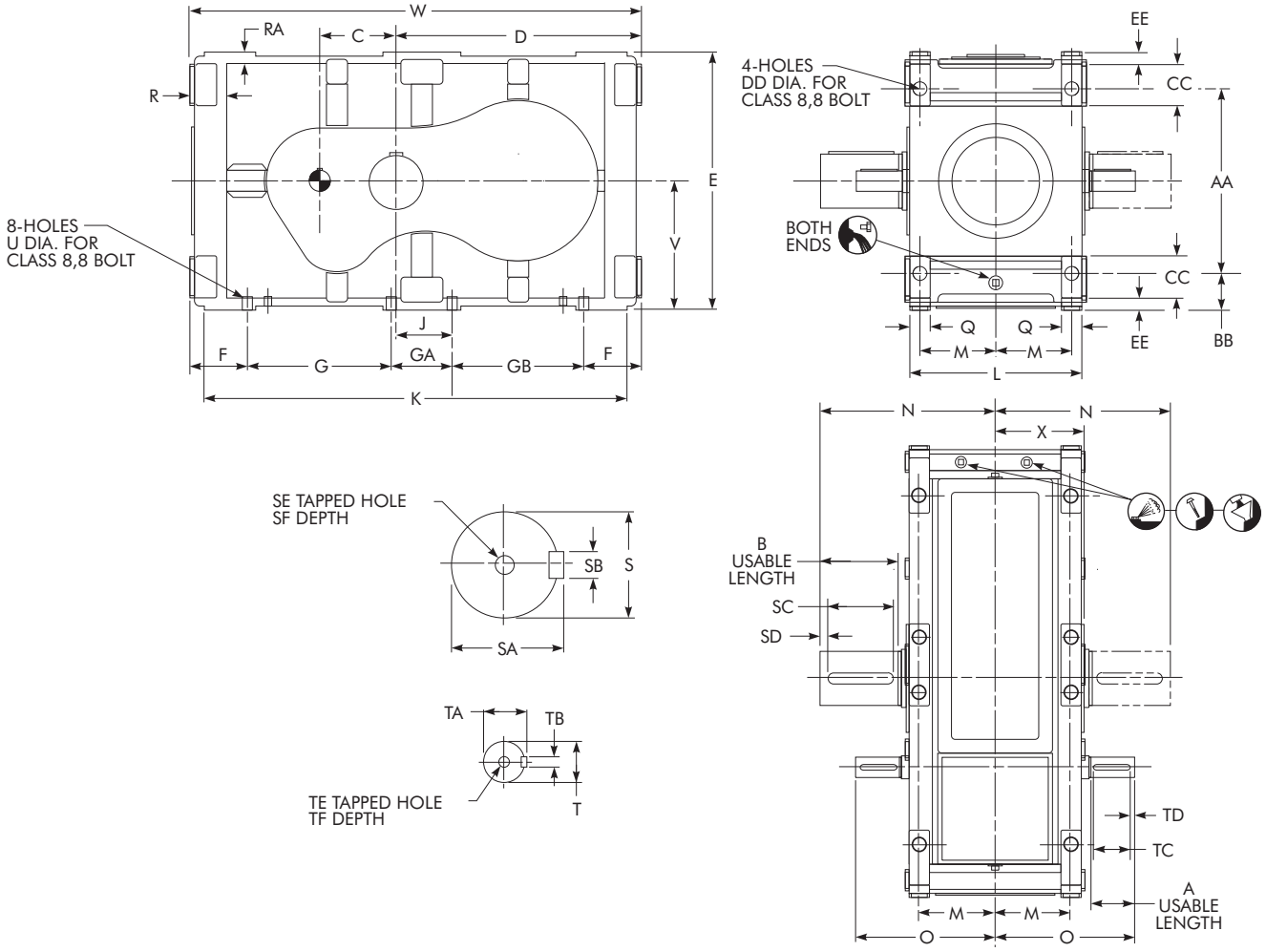
Type DHL1 Single Reduction

Sizes M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	1,25-3,15	100	250	67	87	110	80	402	24	424	30	112	200	100	200	90	664	290	125	247	275	40	82	25
	3,55-5,60	50																			225			
M1140	1,25-3,15	100	316	67	78	130	90	446	28	472	30	116	230	120	230	100	752	340	150	272	299,5	50	87	30
	3,55-5,60	70																			269,8			
M1150	1,25-3,15	100	330	90	100	150	100	500	28	530	30	121	270	150	253	126	855	370	165	310	318	50	86,5	30
	3,55-5,60	85																			298			
M1160	1,25-3,15	95	370	90	95	170	100	540	28	560	30	125	297,5	165	277,5	137	930	405	177,5	327,5	332	50	85	30
	3,55-5,60	100																			332			

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1130	1,25-3,15	42 k6	45	12	56	10	M16	36	40 k6	43	12	90	10	M16	36	14,5	212	724	155	288
	3,55-5,60								28 j6	31	8	50	5	M10	22					
M1140	1,25-3,15	55 m6	59	16	56	10	M20	42	42 k6	45	12	90	10	M16	36	18,5	236	812	180	417
	3,55-5,60								32 k6	35	10	70	5	M12	28					
M1150	1,25-3,15	70 m6	74,5	20	80	10	M20	42	50 k6	53,5	14	90	10	M16	36	18,5	265	915	195	524
	3,55-5,60								35 k6	38	10	80	5	M12	28					
M1160	1,25-3,15	75 m6	80	20	80	10	M20	42	55 m6	59	16	90	10	M20	42	24	280	990	212,5	612
	3,55-5,60								42 k6	45	12			M16	36					

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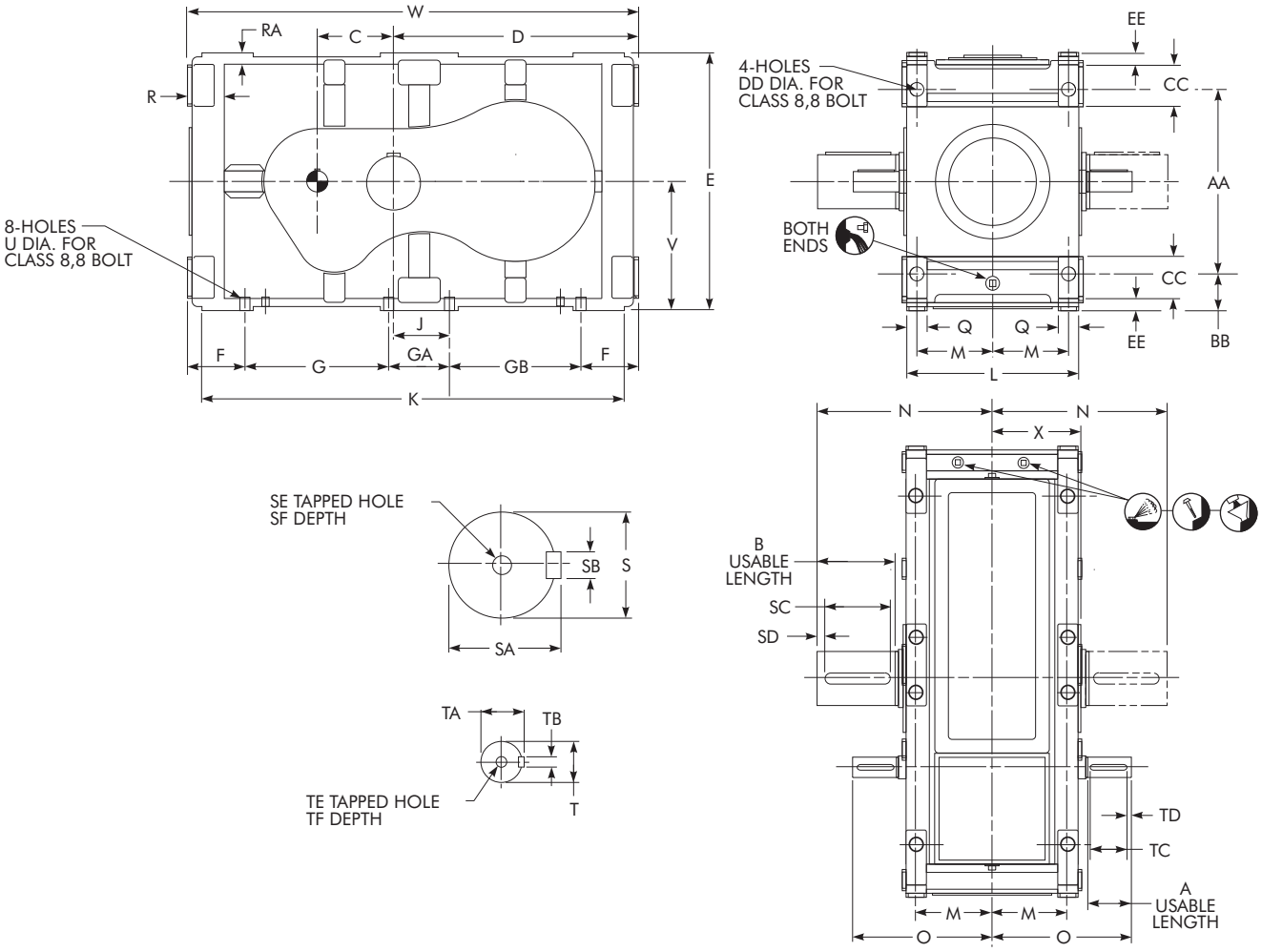
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DHL1 Single Reduction

Sizes M1170 – M1200/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	1,25-3,15	125	430	115	100	195	100	590	35	630	30	140	350	150	320	130	1040	410	180	355	364	50	90	30
	3,55-5,60	95																			334			
M1180	1,25-3,15	125	470	110	100	225	100	670	35	670	30	140	410	180	360	170	1170	470	210	385	395	50	95	30
	3,55-5,60	130																						
M1190	1,25-3,15	155	540	150	105	260	110	745	42	750	30	150	465	180	435	160	1320	510	215	442,5	445	85	110	30
	3,55-5,60	120																			415			
M1200	1,25-3,15	155	640	185	130	290	150	885	42	900	40	160	545	200	560	165	1545	570	245	505	475	85	110	35
	3,55-5,60	160																						

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1170	1,25-3,15	80 m6	85	22	100	15	M20	42	65 m6	69	18	110	10	M20	42	24	315	1100	215	804
	3,55-5,60								50 k6	53,5	14	90		M16	36					
M1180	1,25-3,15	95 m6	100	25	100	15	M24	50	70 m6	74,5	20	110	10	M20	42	28	335	1230	245	1163
	3,55-5,60								60 m6	64	18									
M1190	1,25-3,15	100 m6	106	28	125	15	M24	50	80 m6	85	22	140	15	M20	42	35	375	1380	265	1412
	3,55-5,60								70 m6	74,5	20	110	10							
M1200	1,25-3,15	140 m6	148	36	160	20	M24	50	85 m6	90	22	140	15	M20	42	35	450	1625	295	2153
	3,55-5,60								80 m6	85										

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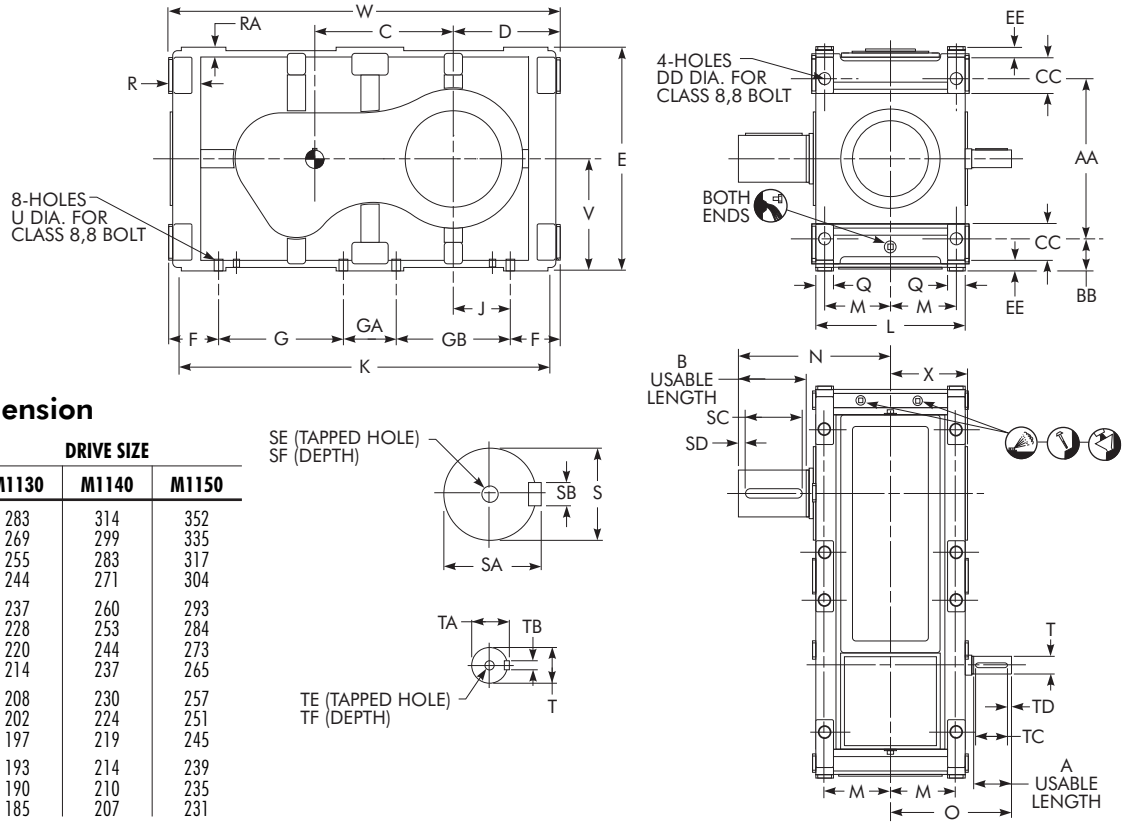
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DHC1 Single Reduction

Sizes M1130 – M1150/Dimensions — Millimeters



"C" Dimension

Nominal Ratio	DRIVE SIZE		
	M1130	M1140	M1150
1,25	283	314	352
1,40	269	299	335
1,60	255	283	317
1,80	244	271	304
2,00	237	260	293
2,24	228	253	284
2,50	220	244	273
2,80	214	237	265
3,15	208	230	257
3,55	202	224	251
4,00	197	219	245
4,50	193	214	239
5,00	190	210	235
5,60	185	207	231

Drive Size ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N	O	Q	R	RA
M1130	1,25-3,15	125	250	150	87	80	212	24	424	30	112	200	100	200	100	664	290	125	325	305	40	82	25
	3,55-5.6	100																		275			
M1140	1,25-3,15	125	316	155	78	90	236	28	472	30	116	230	120	230	120	752	340	150	355	330	50	87	30
	3,55-5,6	100																		300			
M1150	1,25-3,15	160	330	180	100	100	265	28	530	30	121	270	150	253	144	855	370	165	398	375	50	86,5	30
	3,55-5,6	130																		345			

Drive Size ★	Ratios	Low Speed Shaft							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1130	1,25-3,15	90 m6	95	25	125	15	M24	50	65 m6	69	18	110	10	M20	42	14,5	212	724	155	345
	3,55-5.6								50 k6	53	14	90		M16	36					
M1140	1,25-3,15	110 m6	116	28	125	15	M24	50	70 m6	74	20	110	10	M20	42	18,5	236	812	180	480
	3,55-5,6								55 m6	59	16	90								
M1150	1,25-3,15	120 m6	127	32	160	15	M24	50	80 m6	85	22	140	15	M20	42	18,5	265	915	195	610
	3,55-5,6								65 m6	69	18	110	10							

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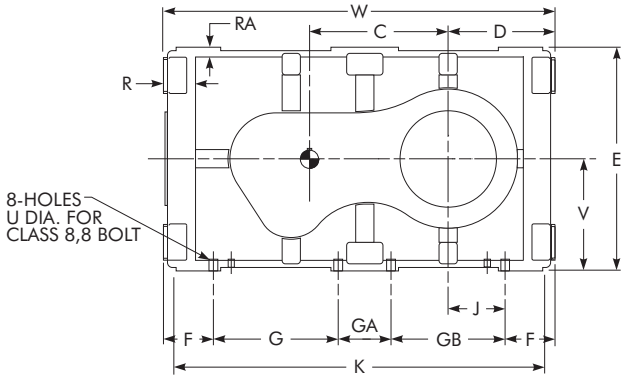
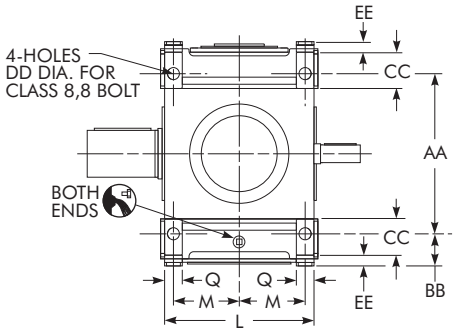
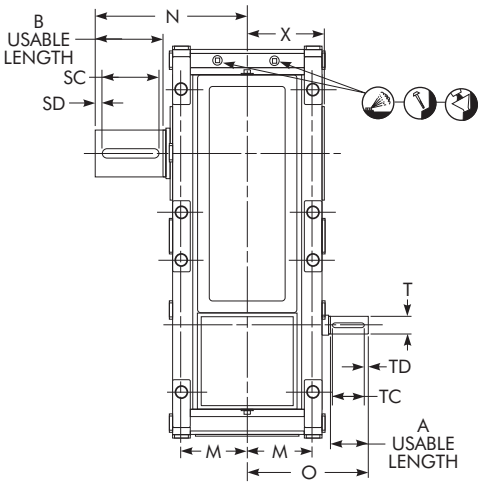
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

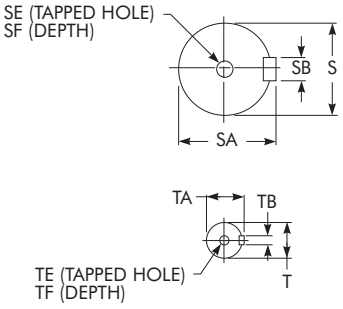
Type DHC1 Single Reduction

Sizes M1160 – M1190/Dimensions — Millimeters









"C" Dimension

Nominal Ratio	DRIVE SIZE			
	M1160	M1170	M1180	M1190
1,25	388	432	500	552
1,40	370	412	476	525
1,60	350	390	452	498
1,80	335	375	435	477
2,00	324	360	420	460
2,24	312	348	401	443
2,50	303	338	389	429
2,80	294	328	377	416
3,15	285	318	368	404
3,55	276	308	359	393
4,00	269	300	350	383
4,50	265	295	341	376
5,00	260	290	335	370
5,60	256	285	330	363

Drive Size ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N	O	Q	R	RA
M1160	1,25-2,8	195	370	220	95	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	452	433	50	85	30
	3,15-5,6	160																		393			
M1170	1,25-3,55	195	430	220	100	100	300	35	630	30	140	350	150	320	160	1040	410	180	460	436	50	90	30
	4,0-5,6	160																		396			
M1180	1,25-2,8	190	470	220	100	100	335	35	670	30	140	410	180	360	195	1170	470	210	485	460	50	95	30
	3,15-5,6	155																		425			
M1190	1,25-4,0	235	540	255	105	110	375	42	750	30	150	465	180	435	225	1320	510	215	545	528	50	110	30
	4,5-5,6	155																		448			

Drive Size ★	Ratios	Low Speed Shaft							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1160	1,25-2,8	130 m6	137	32	180	20	M24	50	100 m6	106	28	180	15	M24	50	24	280	990	212,5	800
	3,15-5,6								80 m6	85	22	140		M20	42					
M1170	1,25-3,55	130 m6	137	32	180	20	M24	50	110 m6	116	28	180	15	M24	50	24	315	1100	215	920
	4,0-5,6								80 m6	85	22	140		M20	42					
M1180	1,25-2,8	150 m6	158	36	180	20	M24	50	120 m6	127	32	180	15	M24	50	28	335	1230	245	1310
	3,15-5,6								90 m6	95	25	140		M20	42					
M1190	1,25-4,0	170 m6	179	40	220	20	M24	50	130 m6	137	32	200	20	M24	50	35	375	1380	265	1730
	4,5-5,6								95 m6	100	25	140	15							

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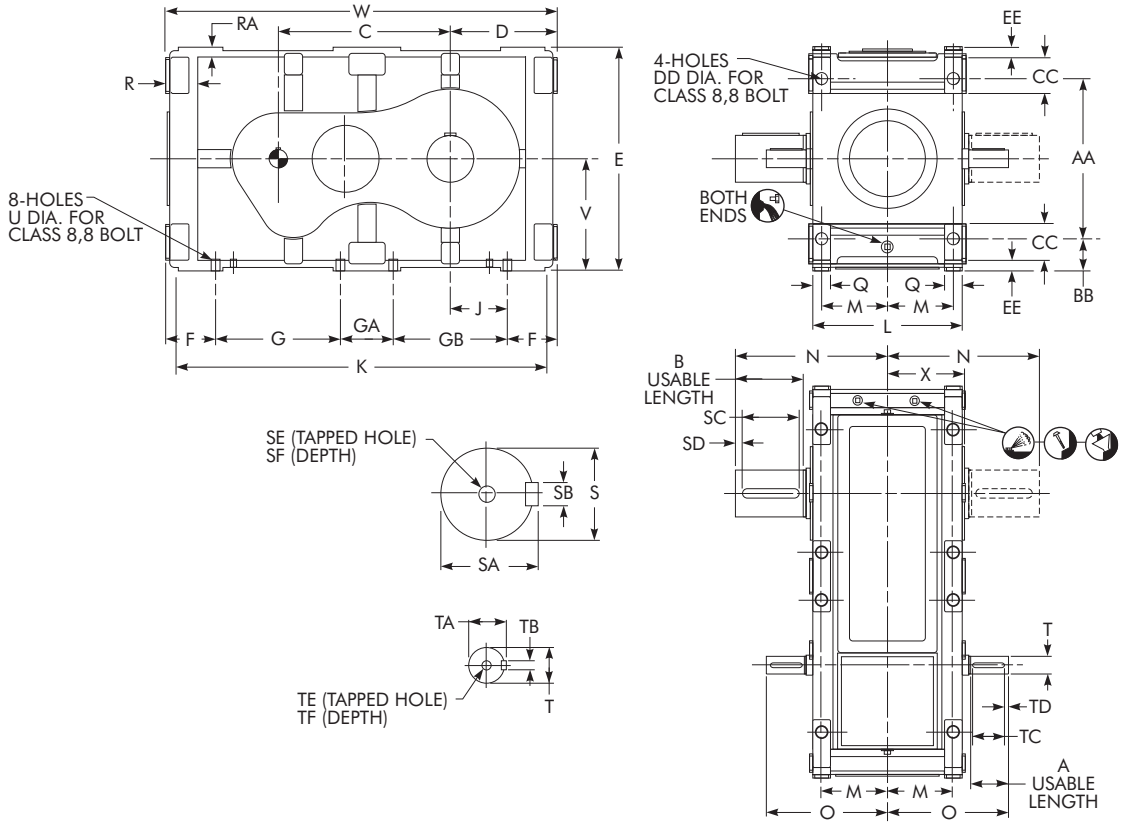
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DHC2 Double Reduction

Sizes M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	6,3-16,0	100	250	120	87	300	80	212	24	424	30	112	200	100	200	100	664	290	125	295	275	40	82	25
	18,0-28,0	50																			225			
M1140	6,3-16,0	100	316	155	78	340	90	236	28	472	30	116	230	120	230	120	752	340	150	355	299,5	50	87	30
	18,0-28,0	70																			269,8			
M1150	6,3-16,0	100	330	155	100	385	100	265	28	530	30	121	270	150	253	144	855	370	165	373	318	50	86,5	30
	18,0-28,0	85																			298			
M1160	6,3-28,0	100	370	190	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	422	332	50	85	30

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1130	6,3-16,0	90 m6	95	25	100	15	M24	50	40 k6	43	12	90	10	M16	36	14,5	212	724	155	348
	18,0-28,0								28 j6	31	8	50	5	M10	22					
M1140	6,3-16,0	110 m6	116	28	125	15	M24	50	42 k6	45	12	90	10	M16	36	18,5	236	812	180	503
	18,0-28,0								32 k6	35	10	70	5	M12	28					
M1150	6,3-16,0	120 m6	127	32	125	15	M24	50	50 k6	53,5	14	90	10	M16	36	18,5	265	915	195	630
	18,0-28,0								35 k6	38	10	80	5	M12	28					
M1160	6,3-16,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	90	10	M20	42	24	280	990	212,5	735
	18,0-28,0								42 k6	45	12			M16	36					

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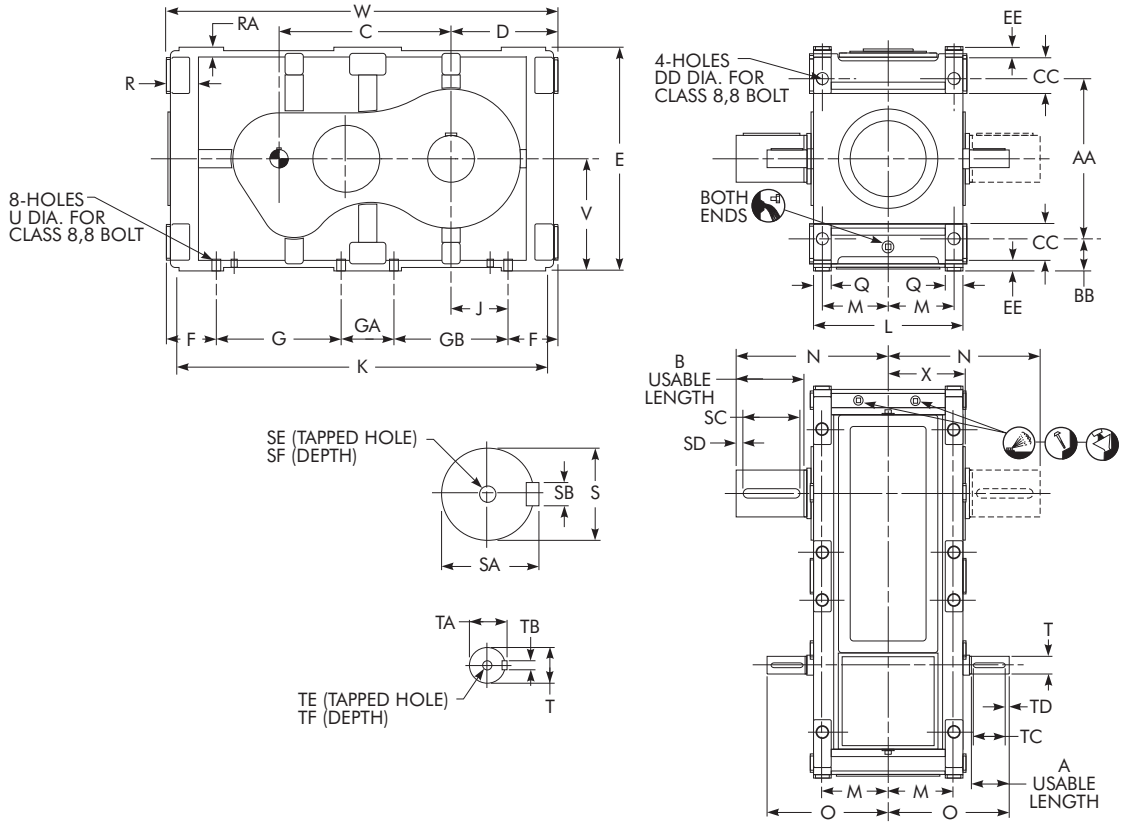
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DHC2 Double Reduction

Sizes M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	6,3-16,0	125	430	190	100	485	100	300	35	630	30	140	350	150	320	160	1040	410	180	430	364	50	90	30
	18,0-28,0	95																			334			
M1180	6,3-28,0	130	470	190	100	560	100	335	35	670	30	140	410	180	360	195	1170	470	210	455	395	50	95	30
M1190	6,3-16,0	155	540	225	105	630	110	375	42	750	30	150	465	180	435	225	1320	510	215	515	445	85	110	30
	18,0-28,0	120																			415			
M1200	5,0-12,5	155	640	270	130	700	150	475	42	900	40	160	545	200	560	315	1545	570	245	585	475	85	110	35
	14,0-22,4	160																						
M1210	5,60-14,0	155	640	270	130	725	150	450	42	900	40	160	545	200	560	290	1545	570	245	585	475	85	110	35
	16,0-25,0	160																						

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1170	6,3-16,0	130 m6	137	32	160	20	M24	50	65 m6	69	18	110	10	M20	42	24	315	1100	215	967
	18,0-28,0								50 k6	53,5	14	90		M16	36					
M1180	6,3-16,0	150 m6	158	36	160	20	M24	50	70 m6	74,5	20	110	10	M20	42	28	335	1230	245	1400
	18,0-28,0								60 m6	64	18									
M1190	6,3-16,0	170 m6	179	40	200	20	M24	50	80 m6	85	22	140	15	M20	42	35	375	1380	265	1700
	18,0-28,0								70 m6	74,5	20	110	10							
M1200	5,00-12,5	190 m6	200	45	220	20	M24	50	85 m6	90	22	140	15	M20	42	35	450	1625	295	2593
	14,0-22,4								80 m6	85										
M1210	5,6-14,0	200 m6	210	45	220	20	M24	50	85 m6	90	22	140	15	M20	42	35	450	1625	295	2698
	16,0-25,0								80 m6	85										

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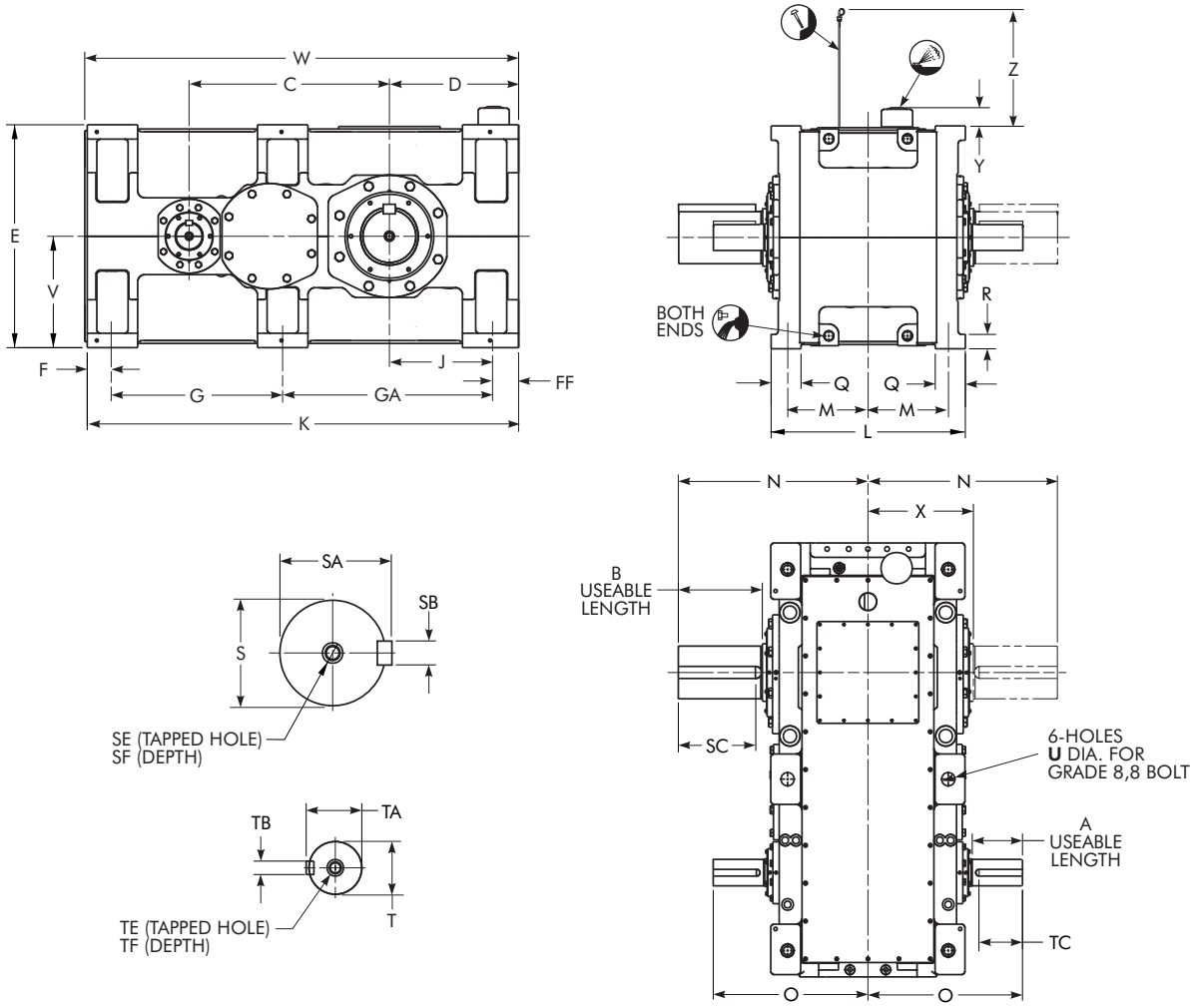
● Single low speed shaft extension is standard; double extension is special.

Type DHC2 Double Reduction

Sizes M1220 – M1250/Dimensions — Millimeters



DRIVE SIZE ★	A	B	C	D	E	F	FF	G	GA	J	K	L	M	N ●	O	Q	R
M1220	240	350	795	580	930	100	110	715	875	470	1800	810	335	790	680	125	60
M1230	240	350	835	540	930	100	110	715	875	430	1800	810	335	790	680	125	60
M1240	270	410	930	670	1100	120	140	830	1005	530	2095	900	375	895	765	140	65
M1250	270	410	980	620	1100	120	140	830	1005	480	2095	900	375	895	765	140	65

DRIVE SIZE ★	Low Speed Shaft						High Speed Shaft						U	V	W	X	Y	Z	Approx Wt kg
	S	SA	SB	SC	SE	SF	T	TA	TB	TC	TE	TF							
M1220	220 m6	231	50	320	M30	60	110 m6	116	28	210	M24	50	48	465	1815	440	84	708	4472
M1230	220 m6	231	50	320	M30	60	110 m6	116	28	210	M24	50	48	465	1815	440	84	708	4700
M1240	250 m6	262	56	360	M30	60	120 m6	127	32	230	M24	50	55	550	2110	485	82	798	6491
M1250	250 m6	262	56	360	M30	60	120 m6	127	32	230	M24	50	55	550	2110	485	82	798	6889

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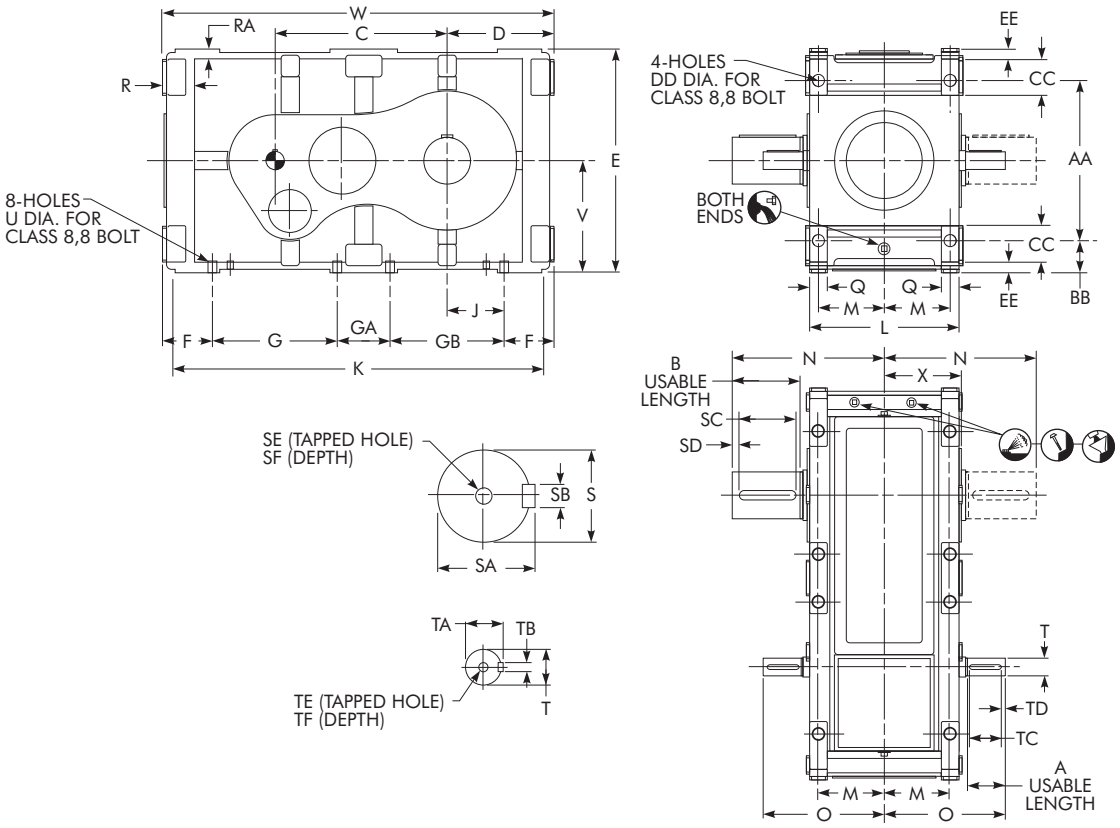
● Single low speed shaft extension is standard; double extension is special.

Type DHC3 Triple Reduction

Size M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	31,5-140,0	50	250	120	87	300	80	212	24	424	30	112	200	100	200	100	664	290	125	295	225	40	82	25
M1140	31,5-140,0	50	316	155	78	340	90	236	28	472	30	116	230	120	230	120	752	340	150	355	249,3	50	87	30
M1150	31,5-90,0	75	330	155	100	385	100	265	28	530	30	121	270	150	253	144	855	370	165	373	287,5	50	86,5	30
	100,0-140,0	68																			281			
M1160	31,50-140,0	70	370	190	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	422	302	50	85	30

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1130	31,5-140,0	90 m6	95	25	100	15	M24	50	24 j6	27	8	50	5	M8	19	14,5	212	724	155	350
M1140	31,5-140,0	110 m6	116	28	125	15	M24	50	25 j6	28	8	50	5	M10	22	18,5	236	812	180	509
M1150	31,5-90,0	120 m6	127	32	125	15	M24	50	30 j6	33	8	70	5	M10	22	18,5	265	915	195	635
	100,0-140,0								25 j6	28		63								
M1160	31,5-90,0	130 m6	137	32	160	20	M24	50	35 k6	38	10	70	5	M12	28	24	280	990	212,5	765
	100,0-140,0								30 j6	33	8			M10	22					

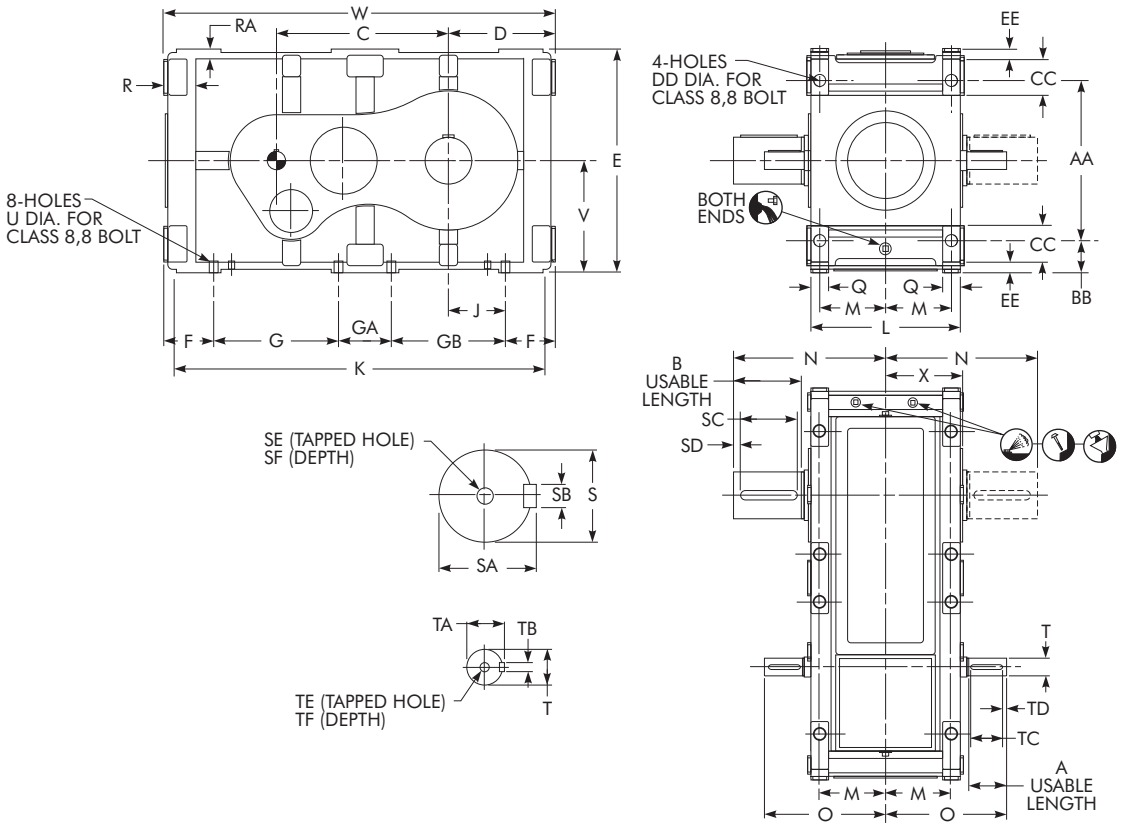
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DHC3 Triple Reduction

Size M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	31,50-140,0	100	430	190	100	485	100	300	35	630	30	140	350	150	320	160	1040	410	180	430	334	50	90	30
M1180	31,50-140,0	100	470	190	100	560	100	335	35	670	30	140	410	180	360	195	1170	470	210	455	365	50	95	30
M1190	31,50-140,0	100	540	225	105	630	110	375	42	750	30	150	465	180	435	225	1320	510	215	515	386,5	85	110	30
M1200	25,0-112,0	130	640	270	130	700	150	475	42	900	40	160	545	200	560	315	1545	570	245	585	445	85	110	35
M1210	28,0-125,0	130	640	270	130	725	150	450	42	900	40	160	545	200	560	290	1545	570	245	585	445	85	110	35

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1170	31,50-140,0	130 m6	137	32	160	20	M24	50	40 k6	43	12	90	10	M16	36	24	315	1100	215	967
M1180	31,50-140,0	150 m6	158	36	160	20	M24	50	45 k6	48,5	14	90	10	M16	36	28	335	1230	245	1420
M1190	31,5-90,0	170 m6	179	40	200	20	M24	50	55 m6	59	16	90	10	M20	42	35	375	1380	265	1750
	100,0-140,0								42 k6	45	12			M16	36					
M1200	25,0-112,0	190 m6	200	45	220	20	M24	50	65 m6	69	18	110	10	M20	42	35	450	1625	295	2628
M1210	28,0-125,0	200 m6	210	45	220	20	M24	50	65 m6	69	18	110	10	M20	42	35	450	1625	295	2733

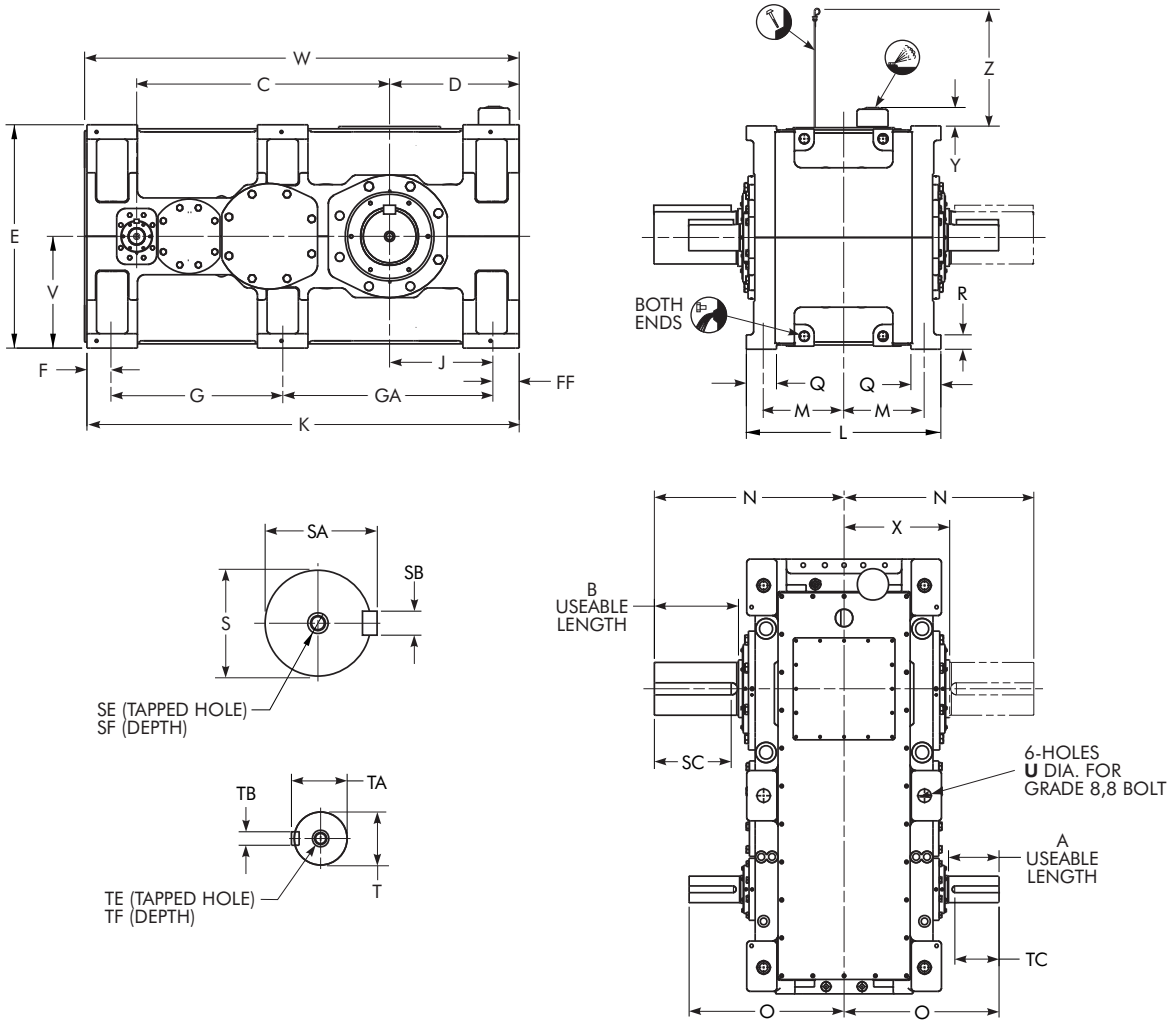
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DHC3 Triple Reduction

Size M1220 – M1250/Dimensions — Millimeters



DRIVE SIZE ★	A	B	C	D	E	F	FF	G	GA	J	K	L	M	N ●	O	Q	R
M1220	170	350	1020	580	930	100	110	715	875	470	1800	810	335	790	600	125	60
M1230	170	350	1060	540	930	100	110	715	875	430	1800	810	335	790	600	125	60
M1240	200	410	1190	670	1100	120	140	830	1005	530	2095	900	375	895	675	140	65
M1250	200	410	1240	620	1100	120	140	830	1005	480	2095	900	375	895	675	140	65

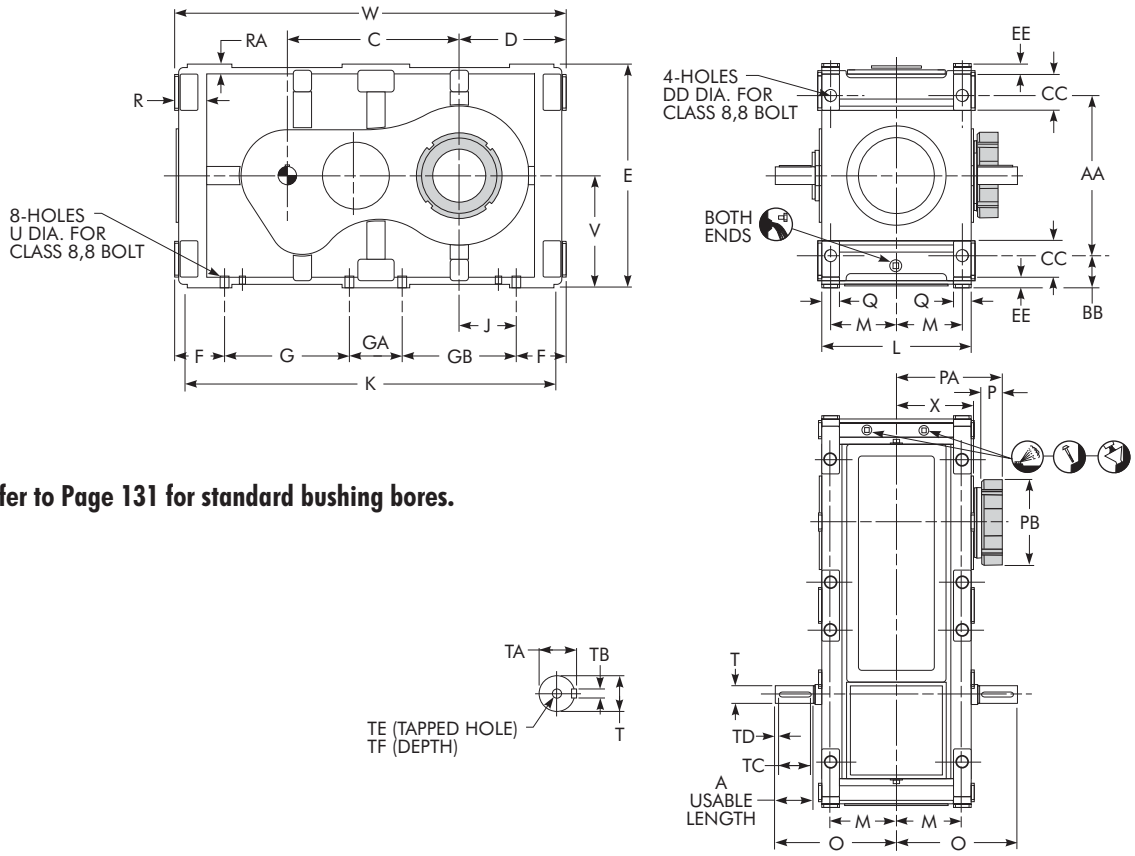
DRIVE SIZE ★	Low Speed Shaft						High Speed Shaft						U	V	W	X	Y	Z	Approx Wt kg
	S	SA	SB	SC	SE	SF	T	TA	TB	TC	TE	TF							
M1220	220 m6	231	50	320	M30	60	70 m6	74.5	20	160	M24	50	48	465	1815	440	84	583	4493
M1230	220 m6	231	50	320	M30	60	70 m6	74.5	20	160	M24	50	48	465	1815	440	84	583	4722
M1240	250 m6	262	56	360	M30	60	90 m6	95	25	180	M24	50	55	550	2110	485	82	673	6552
M1250	250 m6	262	56	360	M30	60	90 m6	95	25	180	M24	50	55	550	2110	485	82	673	6953

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

● Single low speed shaft extension is standard; double extension is special.

Type DHT2 Double Reduction with TA Taper Bushing

Sizes M1130 – M1160/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1130	6,3-16,0	100	250	87	300	80	212	24	424	30	112	200	100	200	100	664	290	125	275	56	242	185	40	82	25
	18,0-28,0	50																	225						
M1140	6,3-16,0	100	316	78	340	90	236	28	472	30	116	230	120	230	120	752	340	150	299,5	56	267	205	50	87	30
	18,0-28,0	70																	269,8						
M1150	6,3-16,0	100	330	100	385	100	265	28	530	30	121	270	150	253	144	855	370	165	318	56	278	225	50	86,5	30
	18,0-28,0	85																	298						
M1160	6,3-28,0	100	370	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	332	60	303	240	50	85	30

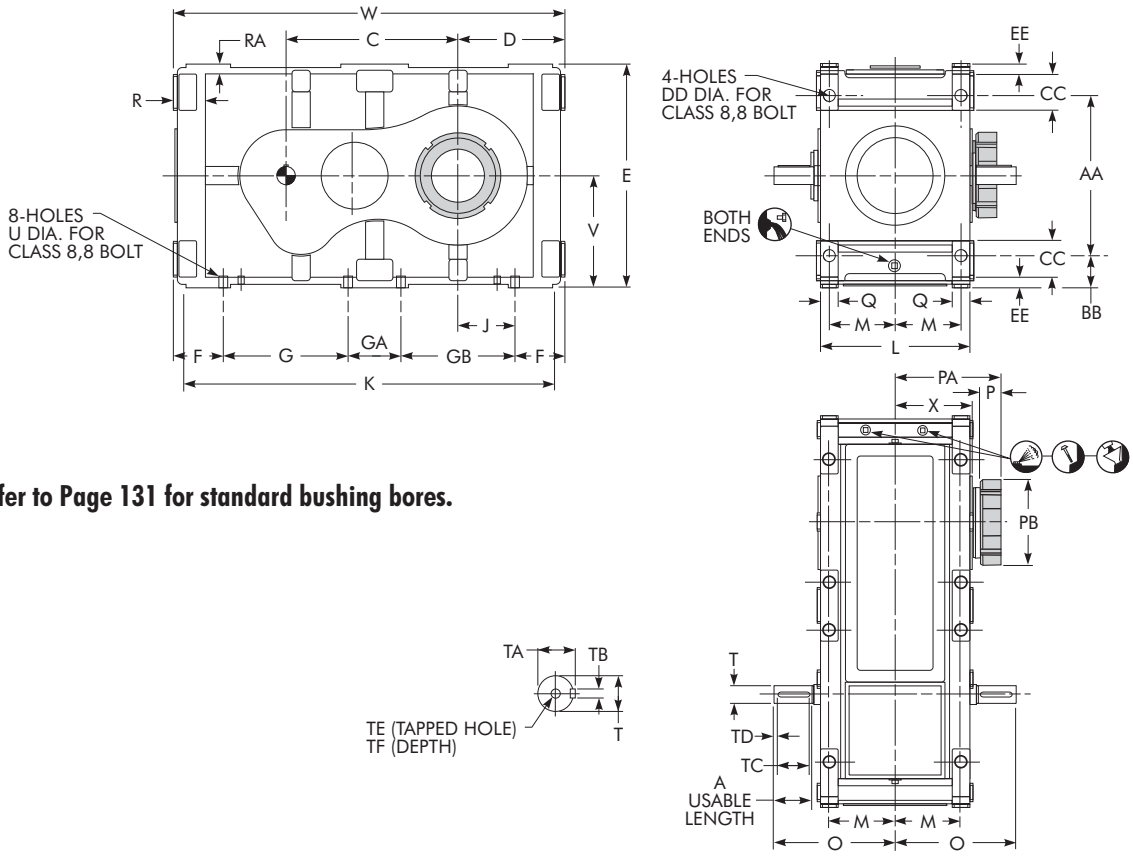
DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF					
M1130	6,3-16,0	40 k6	43	12	90	10	M16	36	14,5	212	724	155	324
	18,0-28,0	28 j6	31	8	50	5	M10	22					
M1140	6,3-16,0	42 k6	45	12	90	10	M16	36	18,5	236	812	180	464
	18,0-28,0	32 k6	35	10	70	5	M12	28					
M1150	6,3-16,0	50 k6	53,5	14	90	10	M16	36	18,5	265	915	195	570
	18,0-28,0	35 k6	38	10	80	5	M12	28					
M1160	6,3-16,0	55 m6	59	16	90	10	M20	42	24	280	990	212,5	655
	18,0-28,0	42 k6	45	12			M16	36					

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DHT2 Double Reduction with TA Taper Bushing

Sizes M1170 – M1210/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1170	6,3-16,0	125	430	100	485	100	300	35	630	30	140	350	150	320	160	1040	410	180	364	60	300	260	50	90	30
	18,0-28,0	95																	334						
M1180	6,3-28,0	130	470	100	560	100	335	35	670	30	140	410	180	360	195	1170	470	210	395	60	335	280	50	95	30
M1190	6,3-16,0	155	540	105	630	110	375	42	750	30	150	465	180	435	225	1320	510	215	445	65	355	295	85	110	30
	18,0-28,0	120																	415						
M1200	5,0-12,5	155	640	130	700	150	475	42	900	40	160	545	200	560	315	1545	570	245	475	. . .	331	280	85	110	35
	14,0-22,4	160																							
M1210	5,6-14,0	155	640	130	725	150	450	42	900	40	160	545	200	560	290	1545	570	245	475	. . .	331	280	85	110	35
	16,0-25,0	160																							

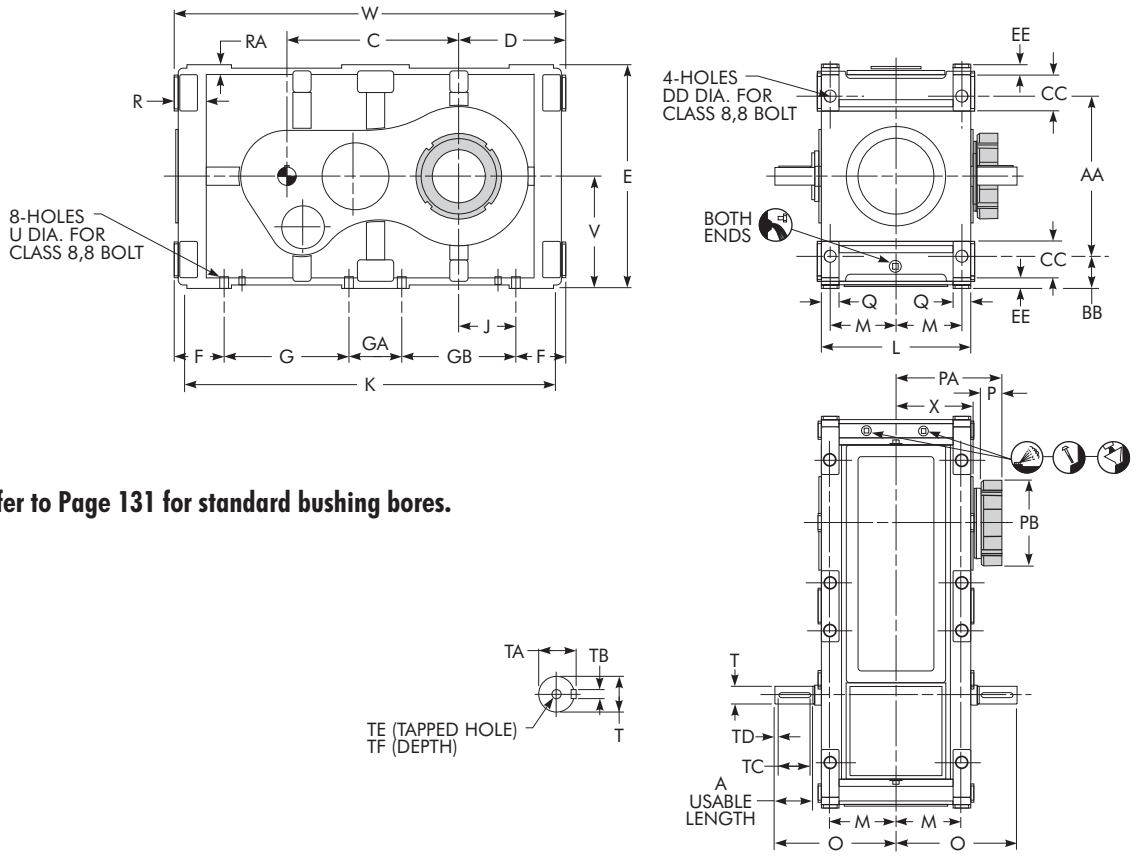
DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF					
M1170	6,3-16,0	65 m6	69	18	110	10	M20	42	24	315	1100	215	967
	18,0-28,0	50 k6	53,5	14	90		M16	36					
M1180	6,3-16,0	70 m6	74,5	20	110	10	M20	42	28	335	1230	245	1400
	18,0-28,0	60 m6	64	18									
M1190	6,3-16,0	80 m6	85	22	140	15	M20	42	35	375	1380	265	1700
	18,0-28,0	70 m6	74,5	20	110	10	M20	42					
M1200	5,0-12,5	85 m6	90	22	140	15	M20	42	35	450	1625	295	2409
	14,0-22,4	80 m6	85										
M1210	5,6-14,0	85 m6	90	22	140	15	M20	42	35	450	1625	295	2499
	16,0-25,0	80 m6	85										

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DHT3 Triple Reduction with TA Taper Bushing

Size M1130 – M1160/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1130	31,5-140,0	50	250	87	300	80	212	24	424	30	112	200	100	200	100	664	290	125	225	56	242	185	40	82	25
M1140	31,5-140,0	50	316	78	340	90	236	28	472	30	116	230	120	230	120	752	340	150	249,3	56	267	205	50	87	30
M1150	31,5-90,0	75	330	100	385	100	265	28	530	30	121	270	150	253	144	855	370	165	287,5	56	278	225	50	86,5	30
	100,0-140,0	68																	281						
M1160	31,50-140,0	70	370	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	302	60	303	240	50	85	30

DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF					
M1130	31,5-140,0	24 j6	27	8	50	5	M8	19	14,5	212	724	155	326
M1140	31,5-140,0	25 j6	28	8	50	5	M10	22	18,5	236	812	180	471
M1150	31,5-90,0	30 j6	33	8	70	5	M10	22	18,5	265	915	195	575
	100,0-140,0	25 j6	28		63								
M1160	31,5-90,0	35 k6	38	10	70	5	M12	28	24	280	990	212,5	685
	100,0-140,0	30 j6	33	8			M10	22					

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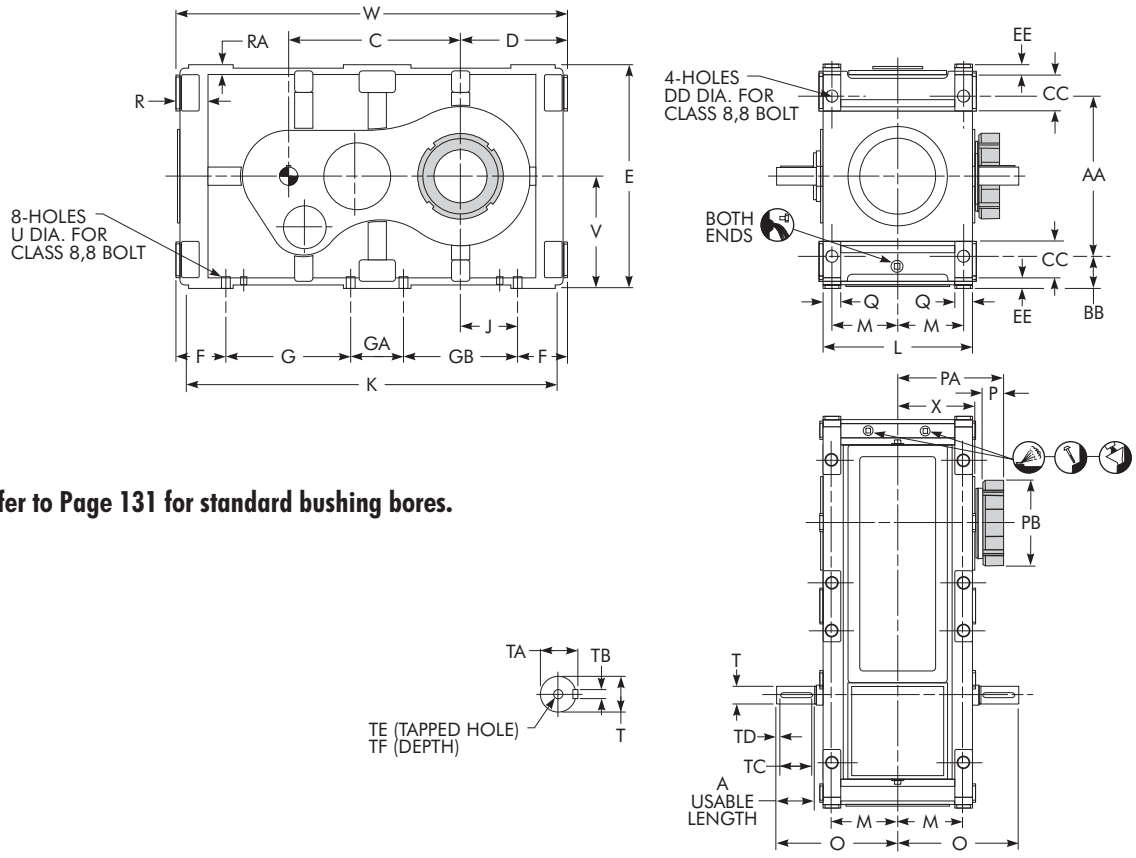
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DHT3 Triple Reduction with TA Taper Bushing

Size M1170 – M1210/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1170	31,50-140,0	100	430	100	485	100	300	35	630	30	140	350	150	320	160	1040	410	180	334	60	300	260	50	90	30
M1180	31,50-140,0	100	470	100	560	100	335	35	670	30	140	410	180	360	195	1170	470	210	365	60	335	280	50	95	30
M1190	31,50-140,0	100	540	105	630	110	375	42	750	30	150	465	180	435	225	1320	510	215	386,5	65	355	295	85	110	30
M1200	25,0-112,0	130	640	130	700	150	475	42	900	40	160	545	200	560	315	1545	570	245	445	. . .	331	280	85	110	35
M1210	28,0-125,0	130	640	130	725	150	450	42	900	40	160	545	200	560	290	1545	570	245	445	. . .	331	280	85	110	35

DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF					
M1170	31,50-140,0	40 k6	43	12	90	10	M16	36	24	315	1100	215	967
M1180	31,50-140,0	45 k6	48,5	14	90	10	M16	36	28	335	1230	245	1420
M1190	31,5-90,0	55 m6	59	16	90	10	M20	42	35	375	1380	265	1750
	100,0-140,0	42 k6	45	12			M16	36					
M1200	25,0-112,0	65 m6	69	18	110	10	M20	42	35	450	1625	295	2443
M1210	28,0-125,0	65 m6	69	18	110	10	M20	42	35	450	1625	295	2533

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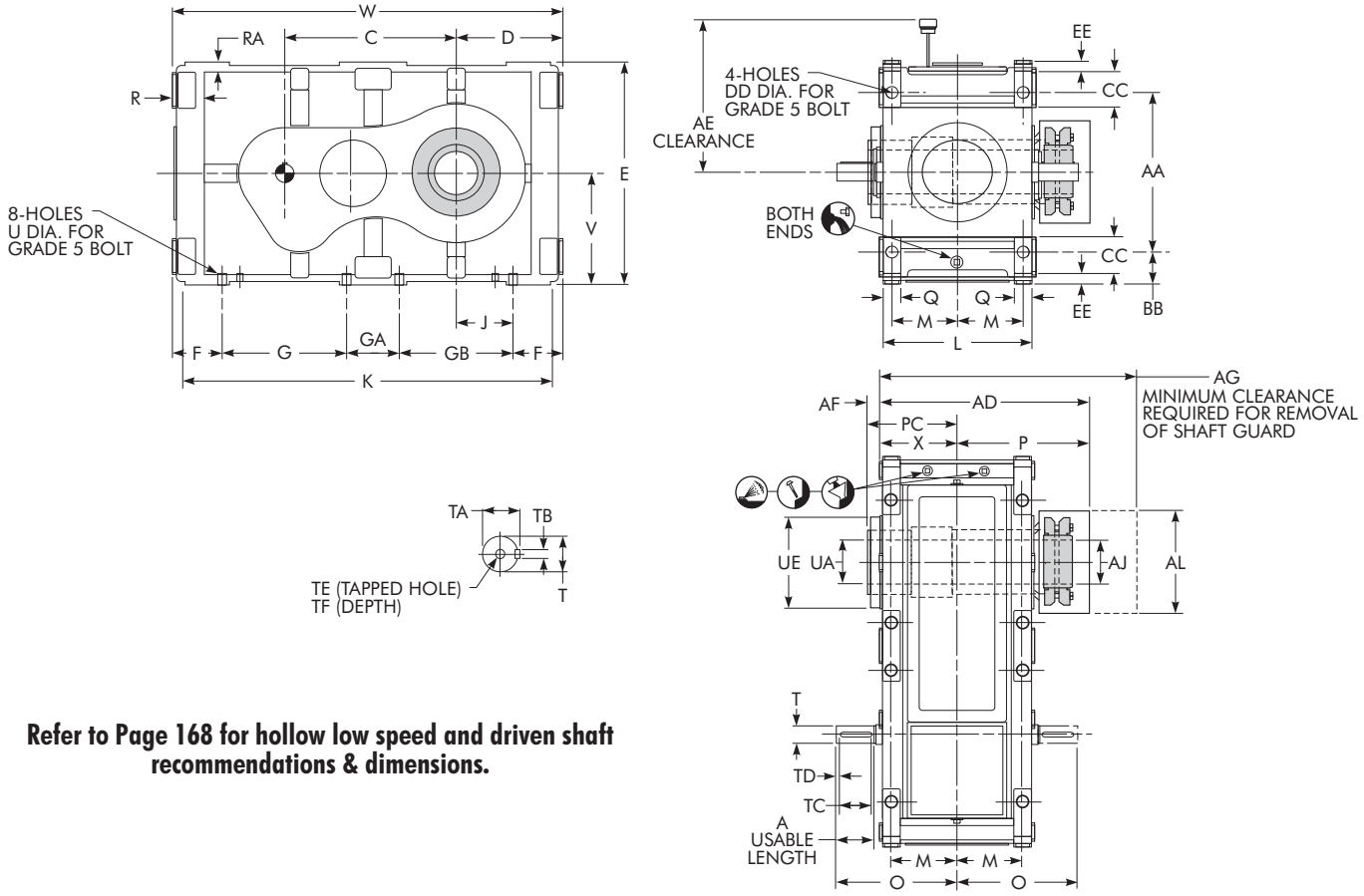
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DHJ2 Double Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1130 – M1160/Dimensions — Millimeters



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.

DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	6,30 - 16,0	100	250	421	307	20	537	85	215	87	300	80	212	24	424	30	112	200	100	200	100	664	290
	18,0 - 28,0	50																					
M1140	6,30 - 16,0	100	316	478	344	19	601	100	260	78	340	90	236	28	472	30	116	230	120	230	120	752	340
	18,0 - 28,0	70																					
M1150	6,30 - 16,0	100	330	518	381	21	651	110	279	100	385	100	265	28	530	30	121	270	150	253	144	855	370
	18,0 - 28,0	85																					
M1160	6,30 - 16,0	100	370	564	398	19	707	130	350	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405
	18,0 - 28,0																						

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †							U	UA ■	UE	V	W	X	Approx Wt kg
									T	TA	TB	TC	TD	TE	TF							
M1130	6,30 - 16,0	125	275	264	175	40	82	25	40 k6	43	12	90	10	M16	36	14,5	90	190	212	724	155	324
	18,0 - 28,0		225						28 j6	31	8	50	5	M10	22							
M1140	6,30 - 16,0	150	299,5	297	199	50	87	30	42 k6	45	12	90	10	M16	36	18,5	105	235	236	812	180	464
	18,0 - 28,0		269,8						32 k6	35	10	70	5	M12	28							
M1150	6,30 - 16,0	165	318	330	216	50	86,5	30	50 k6	53,5	14	90	10	M16	36	18,5	115	238	265	915	195	570
	18,0 - 28,0		298						35 k6	38	10	80	5	M12	28							
M1160	6,30 - 16,0	177,5	332	350	232	50	85	30	55 m6	59	16	90	10	M20	42	24	135	260	280	990	212,5	655
	18,0 - 28,0								42 k6	45	12			M16	36							

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

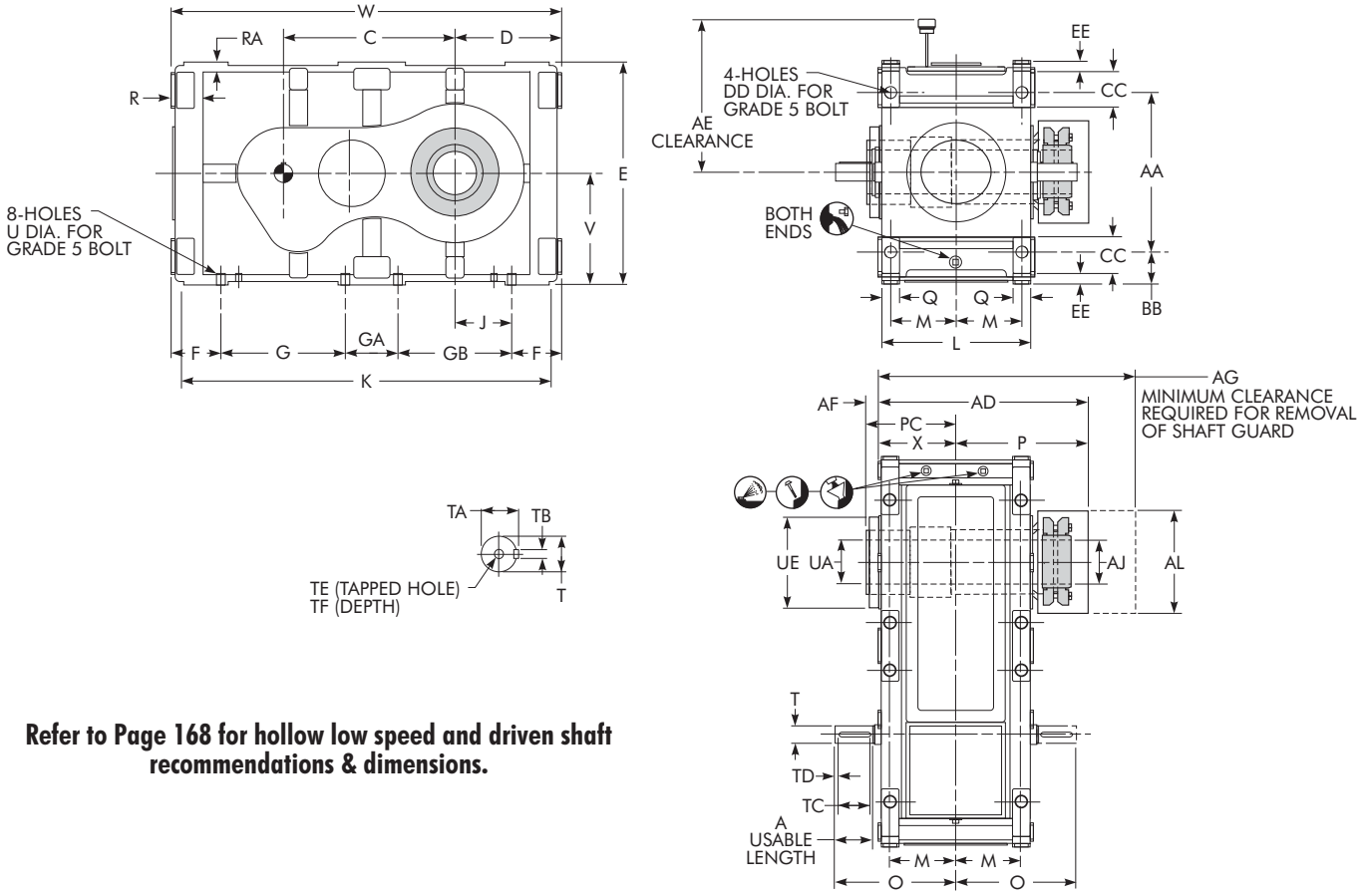
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● J7 tolerance.

■ H7 tolerance.

Type DHJ2 Double Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1170 – M1210/Dimensions — Millimeters



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.

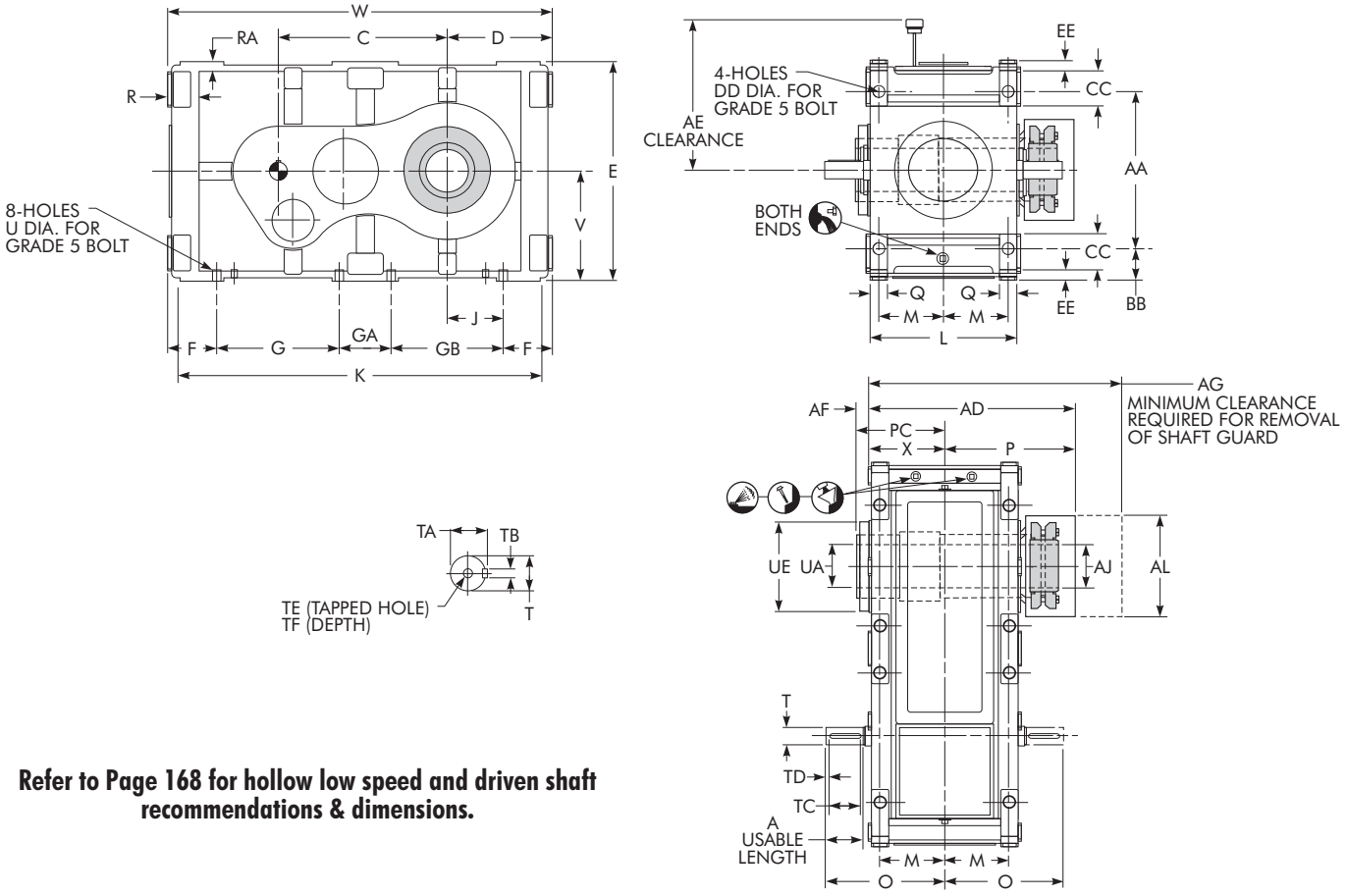
DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ •	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	6,30 - 16,0	125	430	570	465	21	715	140	329	100	485	100	300	35	630	30	140	350	150	320	160	1040	410
	18,0 - 28,0	95																					
M1180	6,30 - 16,0	130	470	660	507	20	835	165	400	100	560	100	335	35	670	30	140	410	180	360	195	1170	470
	18,0 - 28,0																						
M1190	6,30 - 16,0	155	540	707	596	23	885	180	440	105	630	110	375	42	750	30	150	465	180	435	225	1320	510
	18,0 - 28,0	120																					
M1200	5,00 - 12,5	155	640	787	751	22	972	200	475	130	700	150	475	42	900	40	160	545	200	560	315	1545	570
	14,0 - 22,4	160																					
M1210	5,60 - 14,0	155	640	787	751	22	972	200	475	130	725	150	450	42	900	40	160	545	200	560	290	1545	570
	16,0 - 25,0	160																					

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft t							U	UA ■	UE	V	W	X	Approx Wt kg
									T	TA	TB	TC	TD	TE	TF							
M1170	6,30 - 16,0	180	364	353	236	50	90	30	65 m6	69	18	110	10	M20	42	24	145	290	315	1100	215	967
	18,0 - 28,0		334						50 k6	53,5	14	90		M16	36							
M1180	6,30 - 16,0	210	395	414	265	50	95	30	70 m6	74,5	20	110	10	M20	42	28	170	350	335	1230	245	1400
	18,0 - 28,0								60 m6	64	18											
M1190	6,30 - 16,0	215	445	440	288	85	110	30	80 m6	85	22	140	15	M20	42	35	185	370	375	1380	265	1700
	18,0 - 28,0		415						70 m6	74,5	20	110	10									
M1200	5,00 - 12,5	245	475	500	317	85	110	35	85 m6	90	22	140	15	M20	42	35	210	390	450	1625	295	2409
	14,0 - 22,4								80 m6	85												
M1210	5,60 - 14,0	245	475	500	317	85	110	35	85 m6	90	22	140	15	M20	42	35	210	390	450	1625	295	2499
	16,0 - 25,0								80 m6	85												

★ See footnotes on Page 64.

Type DHJ3 Triple Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1130 – M1160/Dimensions — Millimeters



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.

DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	31,5 - 140,0	50	250	421	307	20	537	85	215	87	300	80	212	24	424	30	112	200	100	200	100	664	290
M1140	31,5 - 140,0	50	316	478	344	19	601	100	260	78	340	90	236	28	472	30	116	230	120	230	120	752	340
M1150	31,5 - 90,0	75	330	518	381	21	651	110	279	100	385	100	265	28	530	30	121	270	150	253	144	855	370
	100,0 - 140,0	68																					
M1160	31,5 - 140,0	70	370	564	398	19	707	130	350	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †							U	UA ■	UE	V	W	X	Approx Wt kg
									T	TA	TB	TC	TD	TE	TF							
M1130	31,5 - 140,0	125	225	264	175	40	82	25	24 j6	27	8	50	5	M8	19	14,5	90	190	212	724	155	326
M1140	31,5 - 140,0	150	249,3	297	199	50	87	30	25 j6	28	8	50	5	M10	22	18,5	105	235	236	812	180	471
M1150	31,5 - 90,0	165	287,5	330	216	50	86,5	30	30 j6	33	8	70	5	M10	22	18,5	115	238	265	915	195	575
	100,0 - 140,0		281						25 j6	28		63										
M1160	31,5 - 90,0	177,5	302	350	232	50	85	30	35 k6	38	10	70	5	M12	28	24	135	260	280	990	212,5	685
	100,0 - 140,0								30 j6	33	8			M10	22							

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

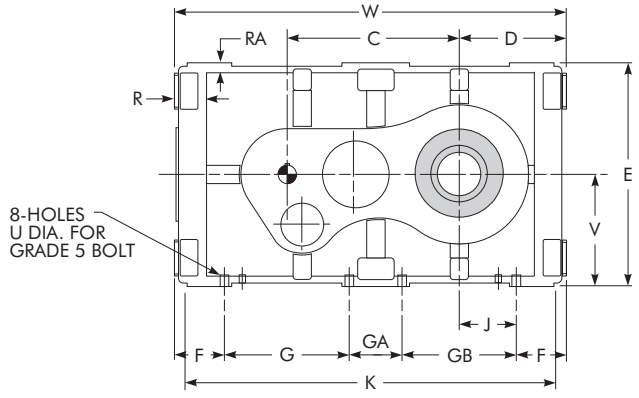
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

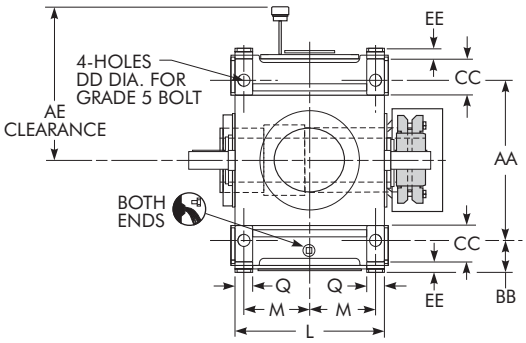
● J7 tolerance.

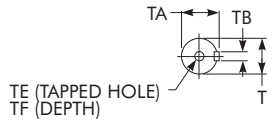
■ H7 tolerance.

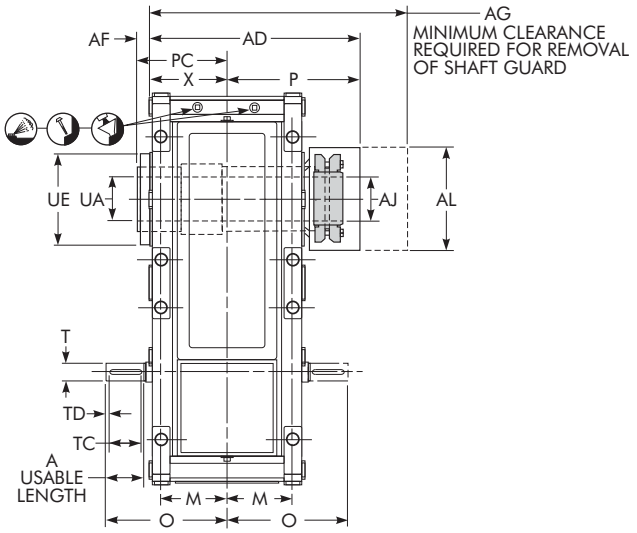
Type DHJ3 Triple Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1170 – M1210/Dimensions — Millimeters









Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.

DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	31,5 - 140,0	100	430	570	465	21	715	140	329	100	485	100	300	35	630	30	140	350	150	320	160	1040	410
M1180	31,5 - 140,0	100	470	660	507	20	835	165	400	100	560	100	335	35	670	30	140	410	180	360	195	1170	470
M1190	31,5 - 140,0	100	540	707	596	23	885	180	440	105	630	110	375	42	750	30	150	465	180	435	225	1320	510
M1200	25,0 - 112,0	130	640	787	751	22	972	200	475	130	700	150	475	42	900	40	160	545	200	560	315	1545	570
M1210	28,0 - 125,0	130	640	787	751	22	972	200	475	130	725	150	450	42	900	40	160	545	200	560	290	1545	570

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †							U	UA ■	UE	V	W	X	Approx Wt kg
									T	TA	TB	TC	TD	TE	TF							
M1170	31,5 - 140,0	180	334	353	236	50	90	30	40 k6	43	12	90	10	M16	36	24	145	290	315	1100	215	967
M1180	31,5 - 140,0	210	365	414	265	50	95	30	45 k6	48,5	14	90	10	M16	36	28	170	350	335	1230	245	1420
M1190	31,5 - 90,0	215	386,5	440	288	85	110	30	55 m6	59	16	90	10	M20	42	35	185	370	375	1380	265	1750
	100,0 - 140,0								42 k6	45	12			M16	36							
M1200	25,0 - 112,0	245	445	500	317	85	110	35	65 m6	69	18	110	10	M20	42	35	210	390	450	1625	295	2433
M1210	28,0 - 125,0	245	445	500	317	85	110	35	65 m6	69	18	110	10	M20	42	35	210	390	450	1625	295	2533

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

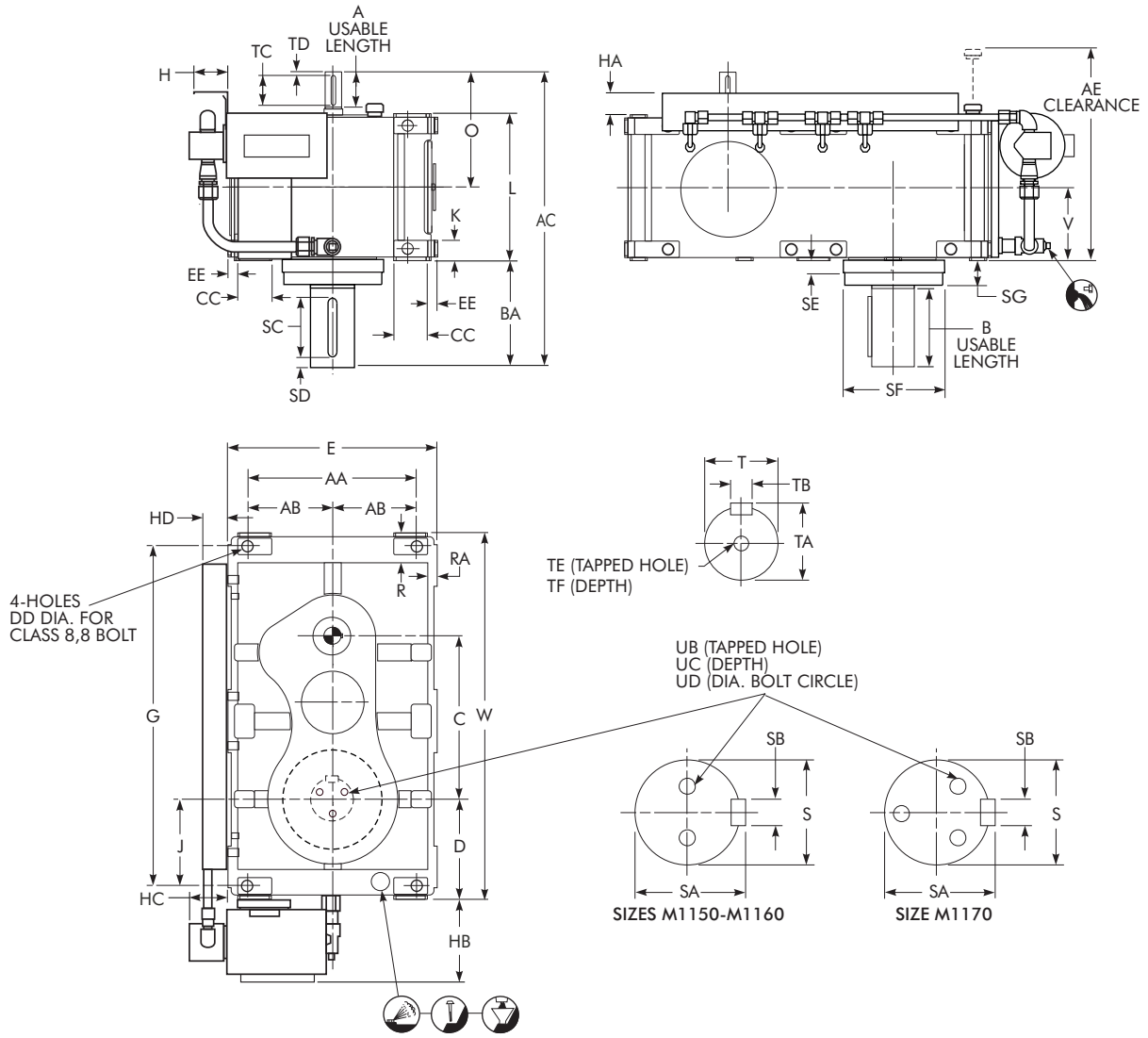
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● J7 tolerance.

■ H7 tolerance.

Type DVA2 Double Reduction with Lube Pump & Drywell

Size M1150 – M1170/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	6,30-16,0	100	410	205	858	655	240	345	385	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	318	86,5	30
	18,0-28,0	85			838																			298		
M1160	6,30-28,0	100	440	220	897,5	712	240	353	430	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	332	85	30
M1170	6,30-16,0	125	510	255	967	724	280	388	485	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	364	90	30
	18,0-28,0	95			937																			334		

DRIVE SIZE ★	Ratios	Low Speed Shaft †											High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF ±.05	SG	UB	UC	UD	T	TA	TB	TC	TD	TE	TF			
M1150	6,30-16,0	160 m6	169	40	200	20	46	330	100	M20	25	115	50 k6	53,5	14	90	10	M16	36	195	915	664
	18,0-28,0												35 k6	38	10	80	5	M12	28			
M1160	6,30-16,0	170 m6	179	40	200	20	46	360	110	M24	38	115	55 m6	59	16	90	10	M20	42	212,5	990	769
	18,0-28,0												42 k6	45	12			M16	36			
M1170	6,30-16,0	190 m6	200	45	220	20	47	390	101	M30	40	130	65 m6	69	18	110	10	M20	42	215	1100	1001
	18,0-28,0												50 k6	53,5	14	90		M16	36			

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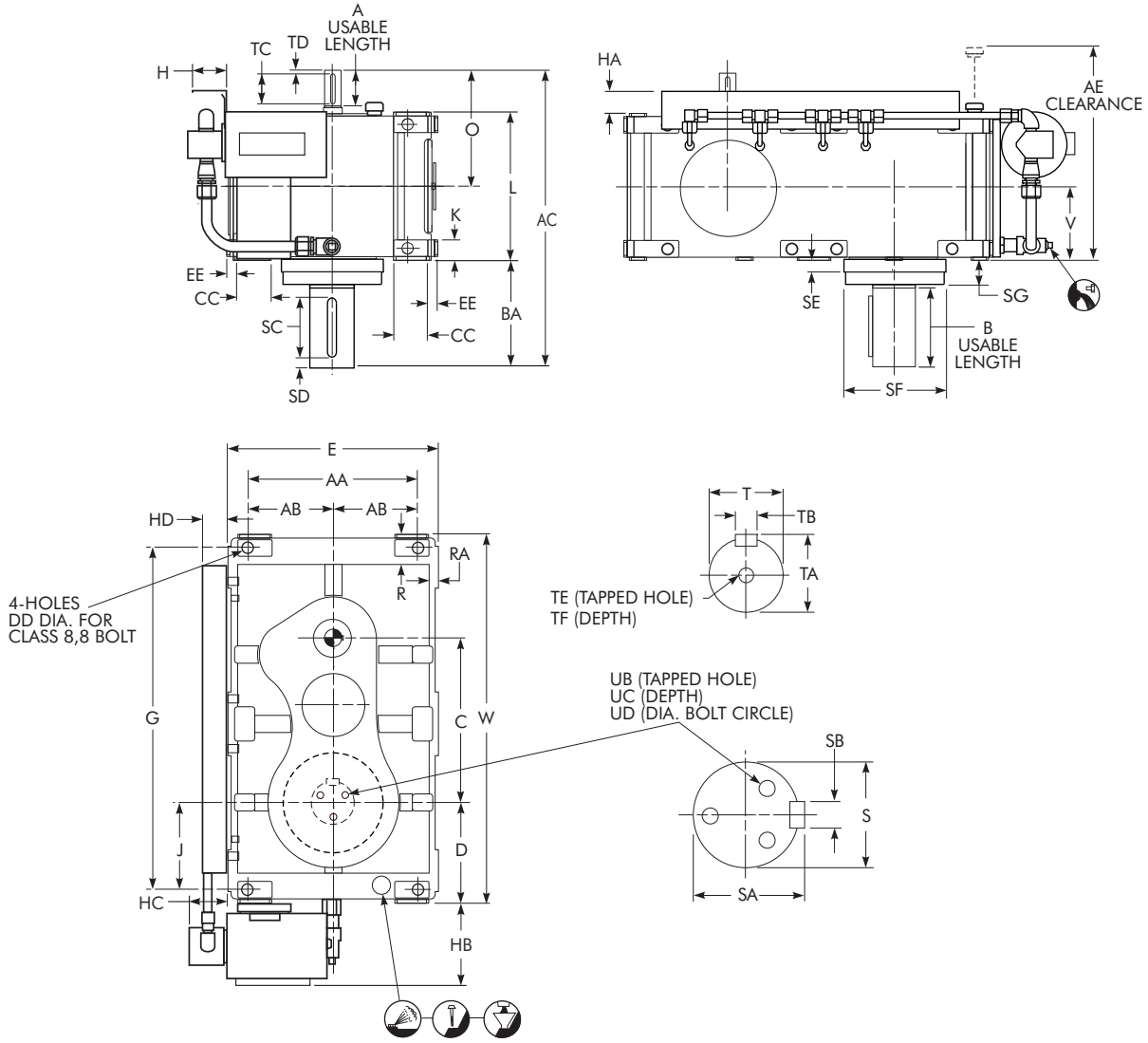
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVA2 Double Reduction with Lube Pump & Drywell

Size M1180 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	6,30-28,0	130	550	275	1069	827	280	429	560	100	335	35	670	30	1140	90	55	242	91,6	89	290	60	490	395	95	30
M1190	6,30-16,0	155	630	315	1141	894	280	431	630	110	375	42	750	30	1280	90	55	242	91,6	89	325	95	530	445	110	30
	18,0-28,0	120			1111																			415		
M1200	5,00-12,5	155	800	400	1244	993	330	474	700	150	475	42	900	40	1525	90	23	242	91,6	90	425	95	590	475	110	35
	14,0-22,4	160																								
M1210	5,60-14,0	155	800	400	1244	993	330	474	725	150	450	42	900	40	1525	90	23	242	91,6	90	400	95	590	475	110	35
	16,0-25,0	160																								

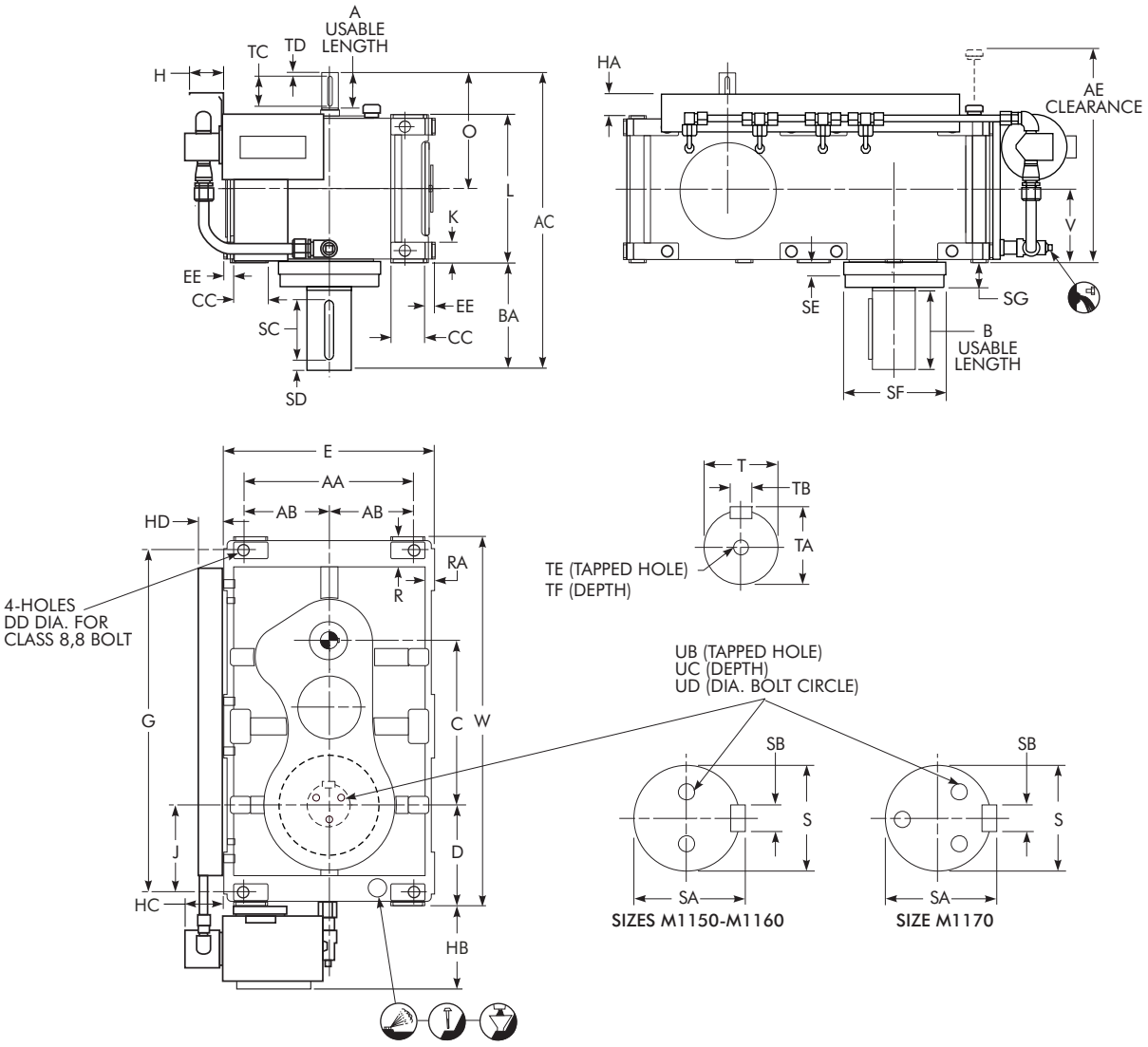
DRIVE SIZE ★	Ratios	Low Speed Shaft †											High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF ±.05	SG	UB	UC	UD	T	TA	TB	TC	TD	TE	TF			
M1180	6,30-16,0	200 m6	210	45	220	20	46	450	135	M30	40	140	70 m6	74,5	20	110	10	M20	42	245	1230	1434
	18,0-28,0												60 m6	64	18							
M1190	6,30-16,0	220 m6	231	50	220	20	49	500	138	M30	40	160	80 m6	85	22	140	15	M20	42	265	1380	1734
	18,0-28,0												70 m6	74,5	20	110	10					
M1200	5,00-12,5	260 m6	272	56	280	25	54	520	129	M36	50	170	85 m6	90	22	140	15	M20	42	295	1625	2890
	14,0-22,4												80 m6	85								
M1210	5,60-14,0	260 m6	272	56	280	25	54	520	129	M36	50	170	85 m6	90	22	140	15	M20	42	295	1625	2980
	16,0-25,0												80 m6	85								

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVA3 Triple Reduction with Lube Pump & Drywell

Size M1150 – M1170/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	31,5-90,0	75	410	205	827,5	655	240	345	385	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	287,5	86,5	30
	100,0-140,0	68			821																			281		
M1160	31,5-140,0	70	440	220	867,5	712	240	353	430	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	302	85	30
M1170	31,5-140,0	100	510	255	937	724	280	388	485	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	334	90	30

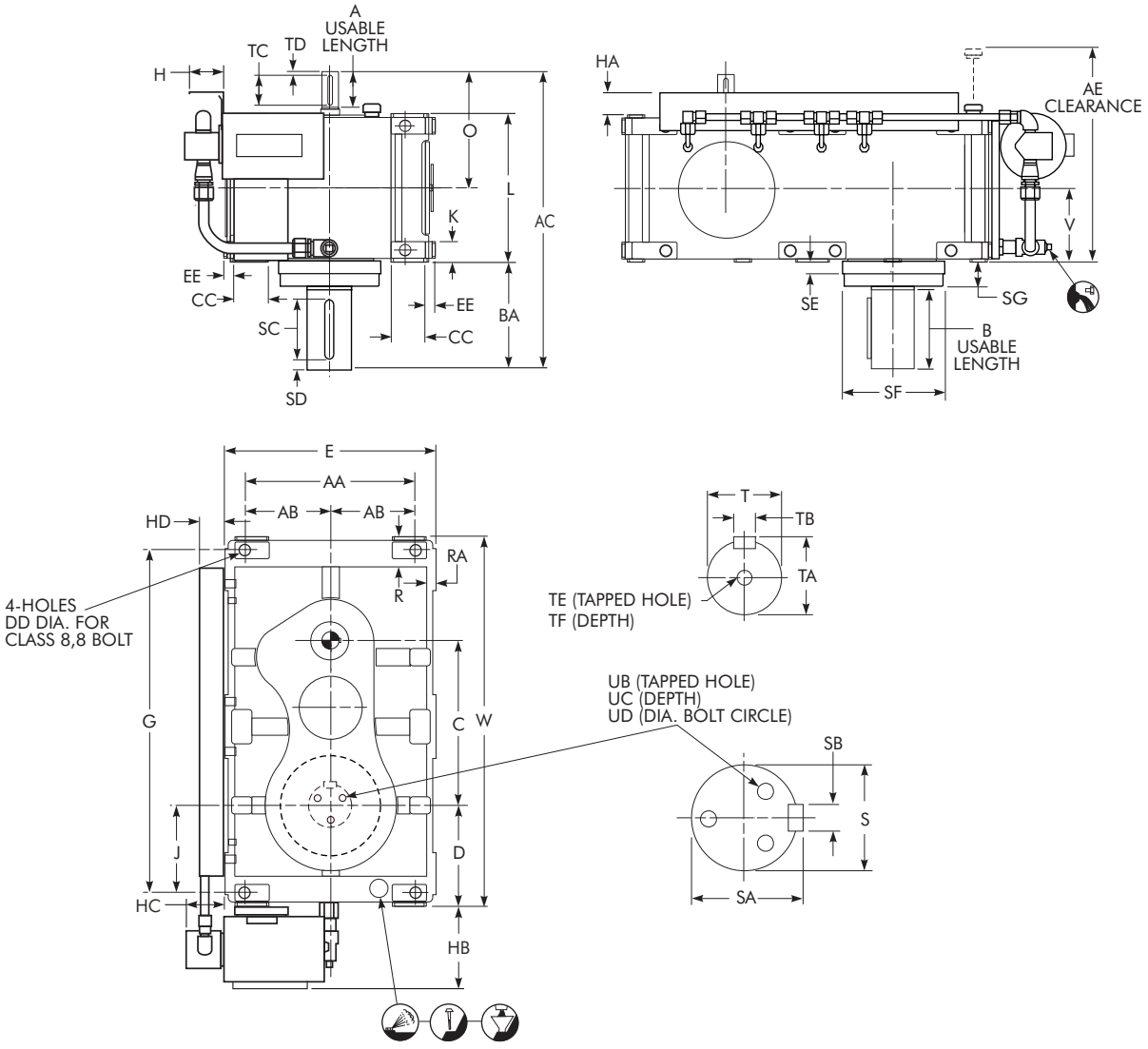
DRIVE SIZE ★	Ratios	Low Speed Shaft †											High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF ±.05	SG	UB	UC	UD	T	TA	TB	TC	TD	TE	TF			
M1150	31,5-90,0	160 m6	169	40	200	20	46	330	100	M20	25	115	30 j6	33	8	70	5	M10	22	195	915	669
	100,0-140,0												25 j6	28		63						
M1160	31,5-90,0	170 m6	179	40	200	20	46	360	110	M24	38	115	35 k6	38	10	70	5	M12	28	212,5	990	799
	100,0-140,0												30 j6	33	8			M10	22			
M1170	31,5-140,0	190 m6	200	45	220	20	47	390	101	M30	40	130	40 k6	43	12	90	10	M16	36	215	1100	1001

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVA3 Triple Reduction with Lube Pump & Drywell

Size M1180 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	31,5-140,0	100	550	275	1039	827	280	429	560	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	365	95	30
M1190	31,5-140,0	100	630	315	1082,5	894	280	431	630	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	386,5	110	30
M1200	25,0-112,0	130	800	400	1214	993	330	474	700	150	475	42	900	40	1525	90	23	242	91,6	90	425	95	590	445	110	35
M1210	28,0-125,0	130	800	400	1214	993	330	474	725	150	450	42	900	40	1525	90	23	242	91,6	90	400	95	590	445	110	35

DRIVE SIZE ★	Ratios	Low Speed Shaft †											High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF ±.05	SG	UB	UC	UD	T	TA	TB	TC	TD	TE	TF			
M1180	31,5-140,0	200 m6	210	45	220	20	46	450	135	M30	40	140	45 k6	48,5	14	90	10	M16	36	245	1230	1454
M1190	31,5-90,0	220 m6	231	50	220	20	49	500	138	M30	40	160	55 m6	59	16	90	10	M20	42	265	1380	1784
	100,0-140,0												42 k6	45	12			M16	36			
M1200	25,0-112,0	260 m6	272	56	280	25	54	520	129	M36	50	170	65 m6	69	18	110	10	M20	42	295	1625	2935
M1210	28,0-125,0	260 m6	272	56	280	25	54	520	129	M36	50	170	65 m6	69	18	110	10	M20	42	295	1625	3025

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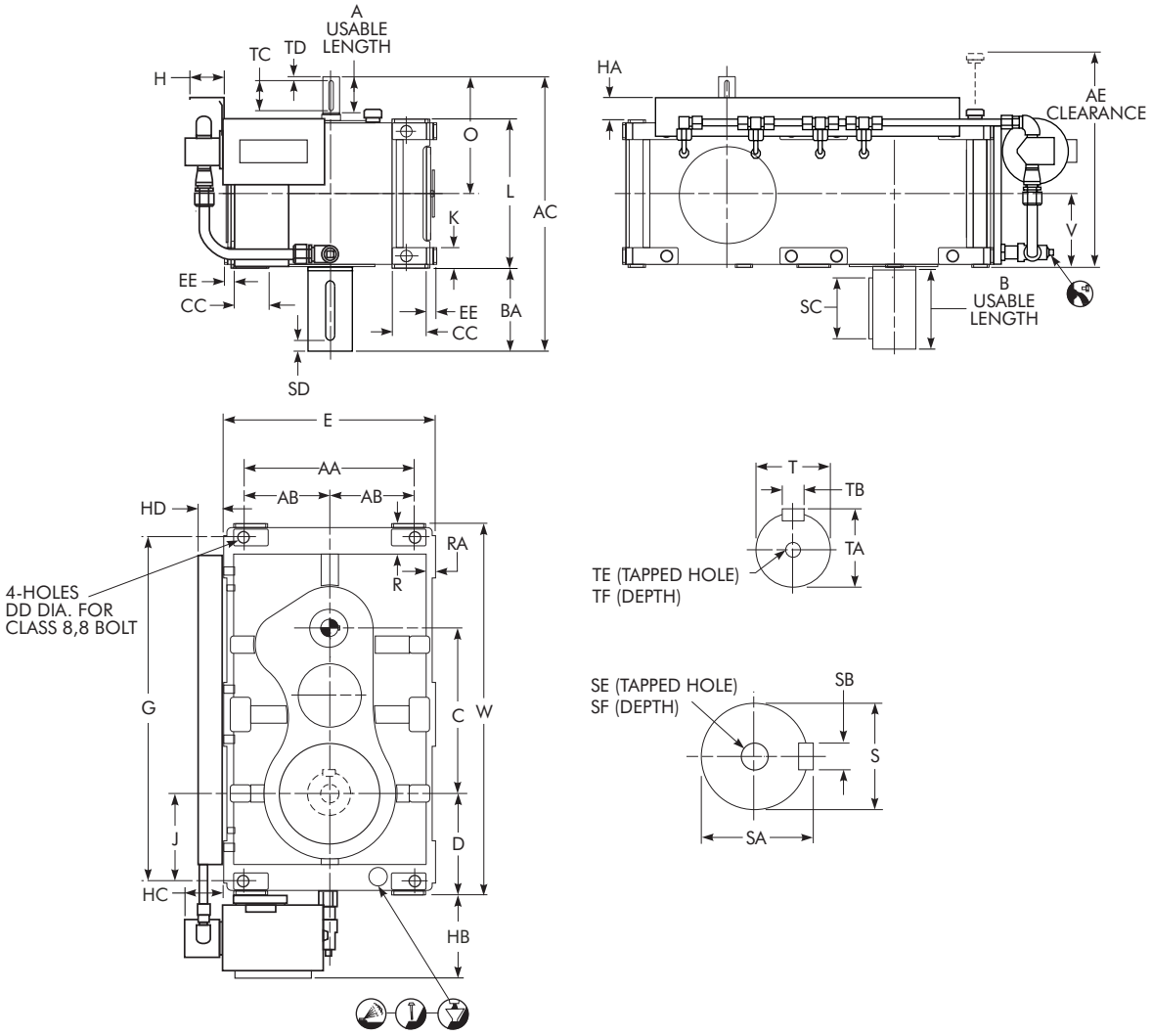
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVC2 Double Reduction with Lube Pump

Size M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1130	6,30-16,0	100	330	165	570	461	120	140	300	80	212	28	424	30	644	90	55	242	100	90	172	50	310	275	82	25
	18,0-28,0	50			520																			225		
M1140	6,30-16,0	100	382	191	654,5	586	155	175	340	90	236	28	472	30	726	90	55	242	100	90	193	60	360	299,5	87	30
	18,0-28,0	70			624,8																			269,8		
M1150	6,30-16,0	100	410	205	691	655	155	178	385	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	318	86,5	30
	18,0-28,0	85			671																			298		
M1160	6,30-28,0	100	440	220	754	712	190	209,5	430	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	332	85	30

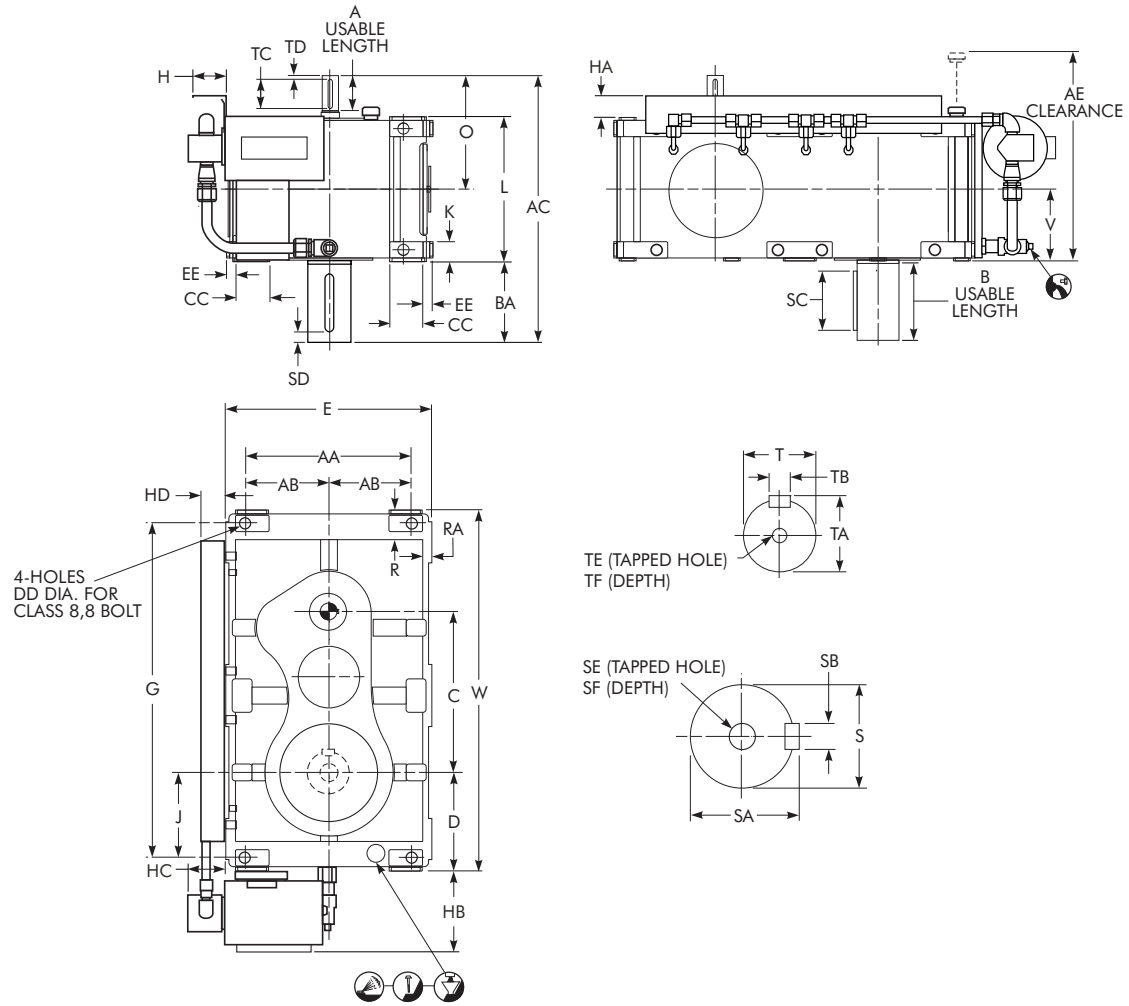
DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF			
M1130	6,30-16,0	90 m6	95	25	100	15	M24	50	40 k6	43	12	90	10	M16	36	155	724	382
	18,0-28,0								28 j6	31	8	50	5	M10	22			
M1140	6,30-16,0	110 m6	116	28	125	15	M24	50	42 k6	45	12	90	10	M16	36	180	812	537
	18,0-28,0								32 k6	35	10	70	5	M12	28			
M1150	6,30-16,0	120 m6	127	32	125	15	M24	50	50 k6	53,5	14	90	10	M16	36	195	915	664
	18,0-28,0								35 k6	38	10	80	5	M12	28			
M1160	6,30-16,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	90	10	M20	42	212,5	990	769
	18,0-28,0								42 k6	45	12			M16	36			

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVC2 Double Reduction with Lube Pump

Size M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1170	6,30-16,0	125	510	255	794	724	190	215	485	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	364	90	30
	18,0-28,0	95			764																			334		
M1180	6,30-28,0	130	550	275	850	827	190	210	560	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	395	95	30
M1190	6,30-16,0	155	630	315	960	894	225	250	630	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	445	110	30
	18,0-28,0	120			930																			415		
M1200	5,00-12,5	155	800	400	1060	993	270	290	700	110	475	42	900	40	1525	90	23	242	96,6	90	425	95	590	475	110	35
	14,0-22,4	160																								
M1210	5,60-14,0	155	800	400	1060	993	270	290	725	110	450	42	900	40	1525	90	23	242	96,6	90	400	95	590	475	110	35
	16,0-25,0	160																								

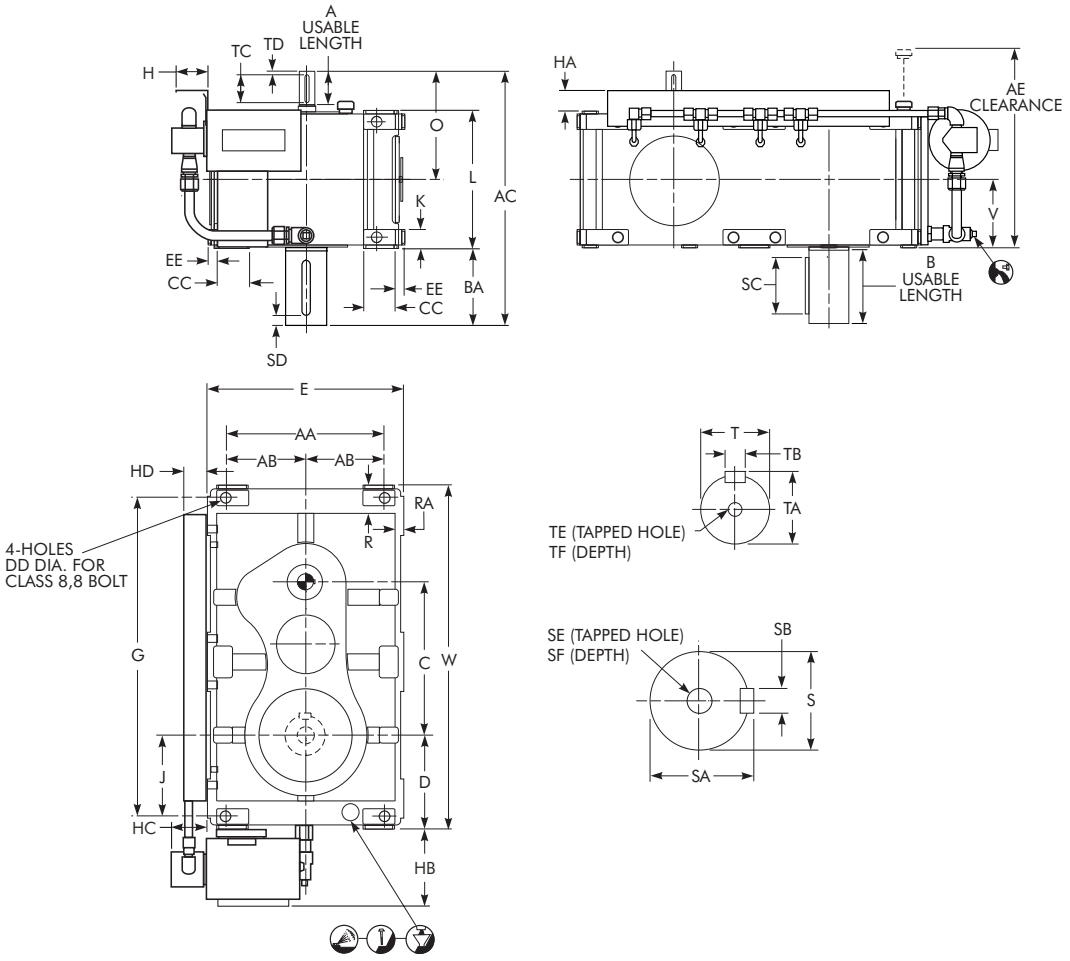
DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF			
M1170	6,30-16,0	130 m6	137	32	160	20	M24	50	65 m6	69	18	110	10	M20	42	215	1100	1001
	18,0-28,0								50 k6	53,5	14	90		M16	36			
M1180	6,30-16,0	150 m6	158	36	160	20	M24	50	70 m6	74,5	20	110	10	M20	42	245	1230	1434
	18,0-28,0								60 m6	64	18							
M1190	6,30-16,0	170 m6	179	40	200	20	M24	50	80 m6	85	22	140	15	M20	42	265	1380	1734
	18,0-28,0								70 m6	74,5	20	110	10					
M1200	5,00-12,5	190 m6	200	45	220	20	M24	50	85 m6	90	22	140	15	M20	42	295	1625	2890
	14,0-22,4								80 m6	85								
M1210	5,6-14,0	200 m6	210	45	220	20	M24	50	85 m6	90	22	140	15	M20	42	295	1625	2980
	16,0-25,0								80 m6	85								

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVC3 Triple Reduction with Lube Pump

Size M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1130	31,5-140,0	50	330	165	520	461	120	140	300	80	212	28	424	30	644	90	55	242	100	90	172	50	310	225	82	25
M1140	31,5-140,0	50	382	191	604,3	586	155	175	340	90	236	28	475	30	726	90	55	242	100	90	193	60	360	249,3	87	30
M1150	31,5-90,0	75	410	205	660,5	655	155	178	385	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	287,5	86,5	30
	100,0-140,0	68			654																			281		
M1160	31,5-140,0	70	440	220	724	712	190	209,5	430	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	302	85	30

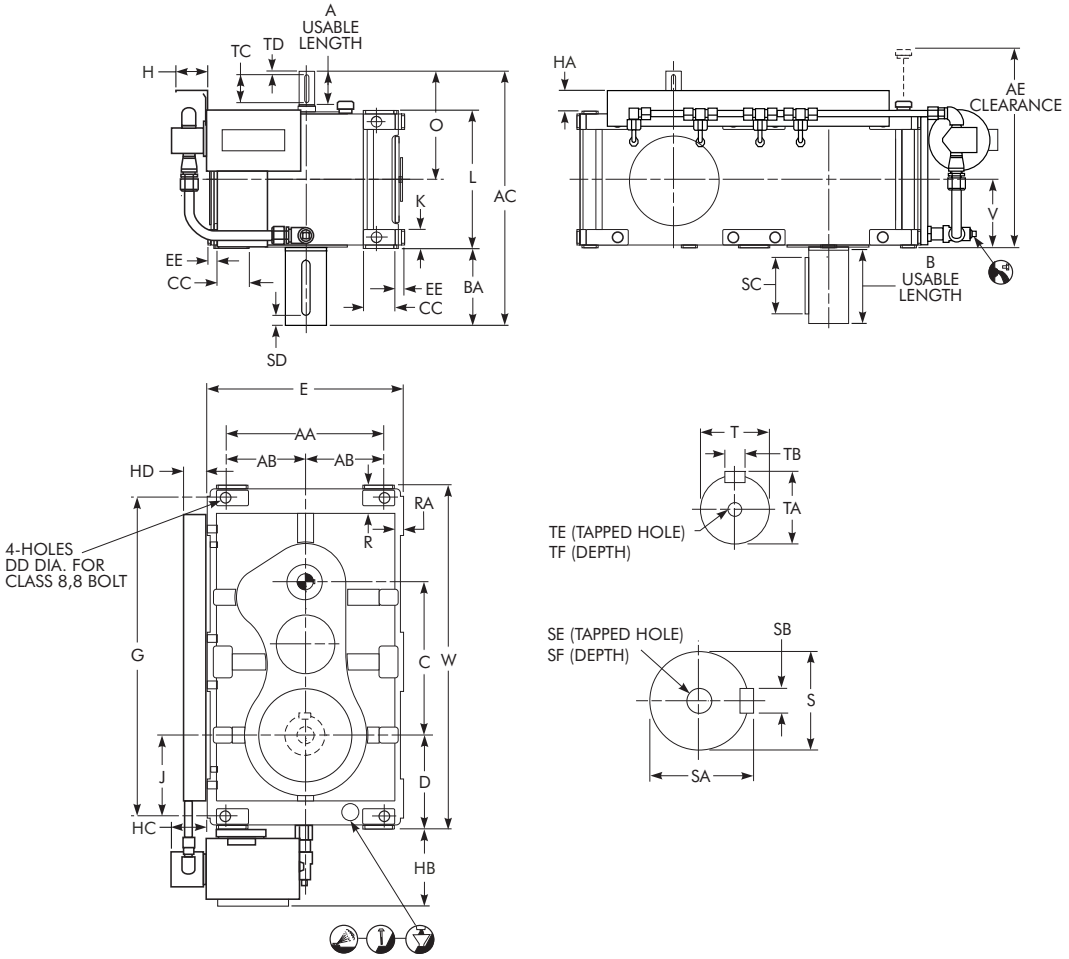
DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF			
M1130	31,5-140,0	90 m6	95	25	100	15	M24	50	24 j6	27	8	50	5	M8	19	155	724	384
M1140	31,5-140,0	110 m6	116	28	125	15	M24	50	25 j6	28	8	50	5	M10	22	180	812	543
M1150	31,5-90,0	120 m6	127	32	125	15	M24	50	30 j6	33	8	70	5	M10	22	195	915	669
	100,0-140,0								25 j6	28		63						
M1160	31,5-90,0	130 m6	137	32	160	20	M24	50	35 k6	38	10	70	5	M12	28	212,5	990	799
	100,0-140,0								30 j6	33	8			M10	22			

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVC3 Triple Reduction with Lube Pump

Size M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1170	31,5-140,0	100	510	255	764	724	190	215	485	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	334	90	30
M1180	31,5-140,0	100	550	275	820	827	190	210	560	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	365	95	30
M1190	31,5-140,0	100	630	315	901,5	894	225	250	630	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	386,5	110	30
M1200	25,0-112,0	130	800	400	1030	993	270	290	700	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	590	445	110	35
M1210	28,0-125,0	130	800	400	1030	993	270	290	725	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	590	445	110	35

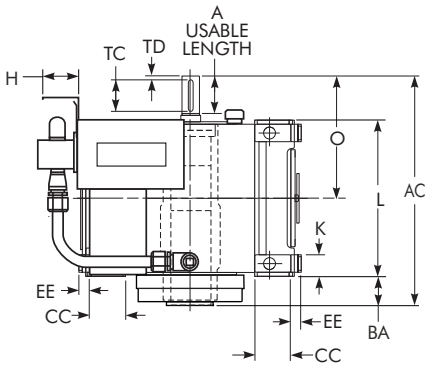
DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF			
M1170	31,5-140,0	130 m6	137	32	160	20	M24	50	40 k6	43	12	90	10	M16	36	215	1100	1001
M1180	31,5-140,0	150 m6	158	36	160	20	M24	50	45 k6	48,5	14	90	10	M16	36	245	1230	1454
M1190	31,5-90,0	170 m6	179	40	200	20	M24	50	55 m6	59	16	90	10	M20	42	265	1380	1784
	100,0-140,0								42 k6	45	12			M16	36			
M1200	25,0-112,0	190 m6	200	45	220	20	M24	50	65 m6	69	18	110	10	M20	42	295	1625	2654
M1210	28,0-125,0	200 m6	210	45	220	20	M24	50	65 m6	69	18	110	10	M20	42	295	1625	2753

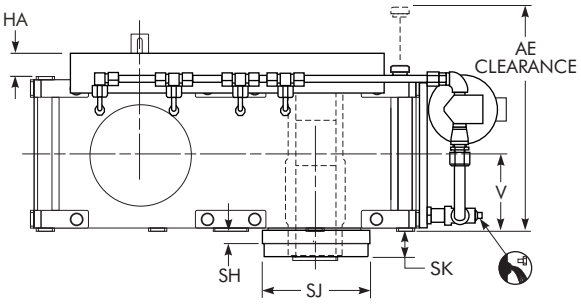
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

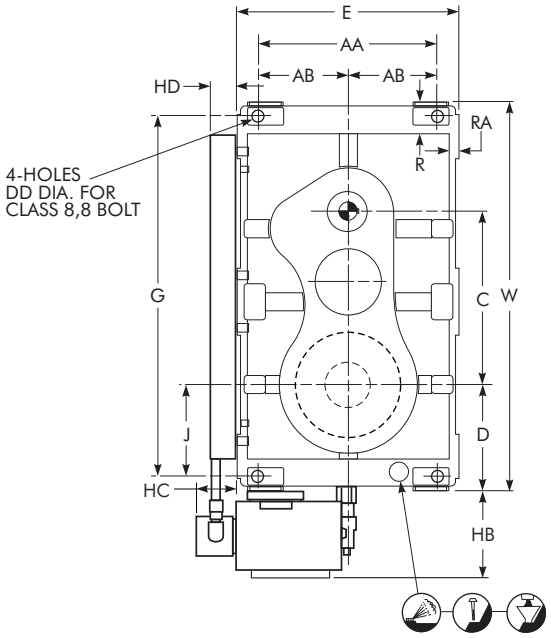
Type DVM2 Double Reduction with Lube Pump & Drywell

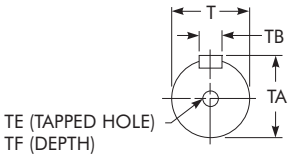
Size M1150 – M1170/Dimensions — Millimeters





Refer to Page 130 for hollow & driven shaft dimensions.





DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	6,30-16,0	100	410	205	620	655	107	385	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	318	86,5	30
	18,0-28,0	85			600																		298		
M1160	6,30-28,0	100	440	220	657,5	712	113	430	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	332	85	30
M1170	6,30-16,0	125	510	255	687	724	108	485	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	364	90	30
	18,0-28,0	95			657																		334		

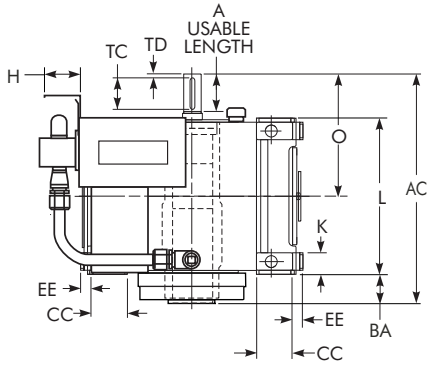
DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †							V	W	Approx Wt kg
		SH	SJ ±.05	SK	T	TA	TB	TC	TD	TE	TF			
M1150	6,30-16,0	46	330	100	50 k6	53,5	14	90	10	M16	36	195	915	665
	18,0-28,0				35 k6	38	10	80	5	M12	28			
M1160	6,30-16,0	46	360	110	55 m6	59	16	90	10	M20	42	212,5	990	769
	18,0-28,0				42 k6	45	12			M16	36			
M1170	6,30-16,0	47	402	101	65 m6	69	18	110	10	M20	42	215	1100	1001
	18,0-28,0				50 k6	53,5	14	90		M16	36			

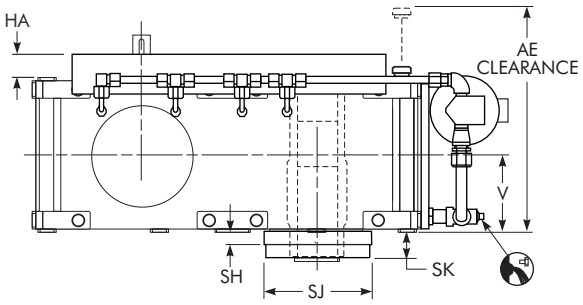
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

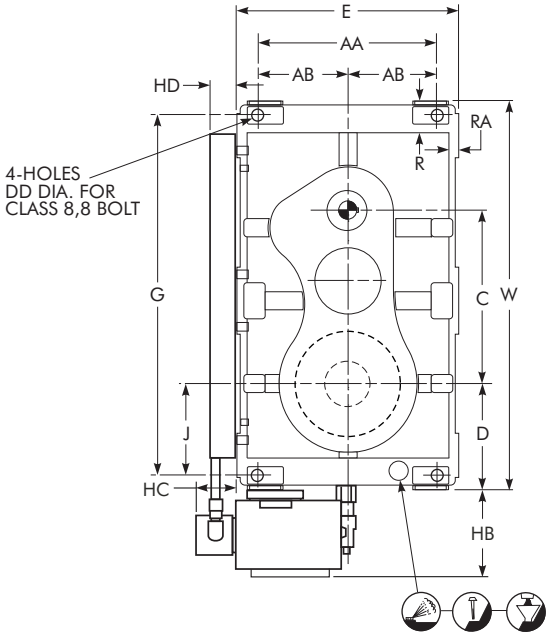
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DVM2 Double Reduction with Lube Pump & Drywell

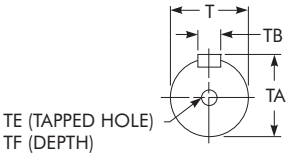
Size M1180 – M1210/Dimensions — Millimeters







Refer to Page 130 for hollow & driven shaft dimensions.



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	6,30-28,0	130	550	275	789	827	149	560	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	395	95	30
M1190	6,30-16,0	155	630	315	861	894	151	630	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	445	110	30
	18,0-28,0	120			831																		415		
M1200	5,00-12,5	155	800	400	914	993	144	700	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	590	475	110	35
	14,0-22,4	160																							
M1210	5,60-14,0	155	800	400	914	993	144	725	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	590	475	110	35
	16,0-25,0	160																							

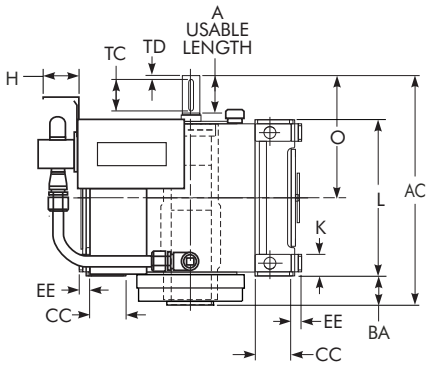
DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †							V	W	Approx Wt kg
		SH	SJ ±.05	SK	T	TA	TB	TC	TD	TE	TF			
M1180	6,30-16,0	46	450	135	70 m6	74,5	20	110	10	M20	42	245	1230	1434
	18,0-28,0				60 m6	64	18							
M1190	6,30-16,0	49	500	138	80 m6	85	22	140	15	M20	42	265	1380	1734
	18,0-28,0				70 m6	74,5	20	110	10					
M1200	5,00-12,5	54	520	129	85 m6	90	22	140	15	M20	42	295	1625	2889
	14,0-22,4				80 m6	85								
M1210	5,60-14,0	54	520	129	85 m6	90	22	140	15	M20	42	295	1625	2980
	16,0-25,0				80 m6	85								

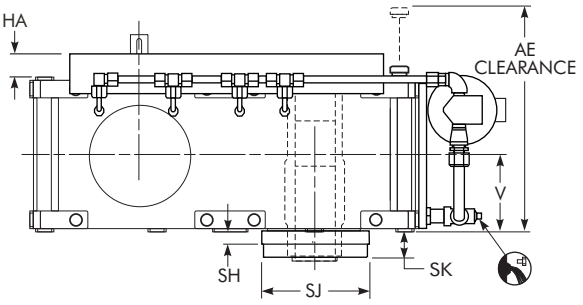
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

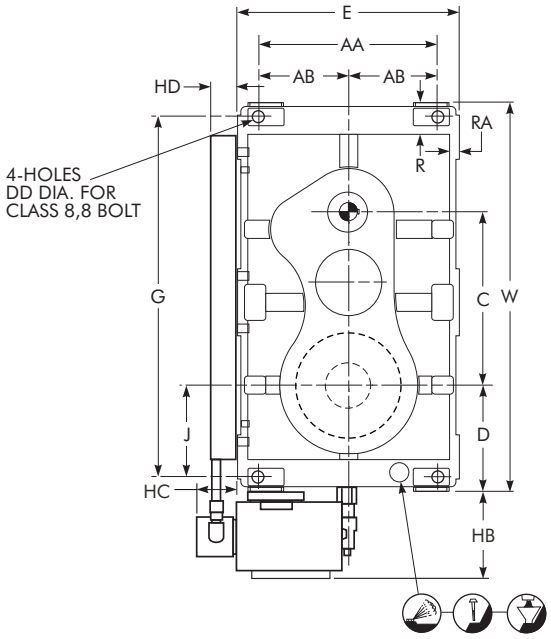
Type DVM3 Triple Reduction with Lube Pump & Drywell

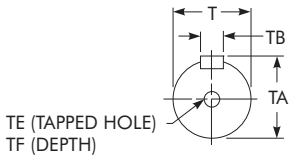
Size M1150 – M1170/Dimensions — Millimeters





Refer to Page 130 for hollow & driven shaft dimensions.





DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	31,5-90,0	75	410	205	589,5	655	107	385	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	287,5	86,5	30
	100,0-140,0	68			583																		281		
M1160	31,5-140,0	70	440	220	627,5	712	113	430	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	302	85	30
M1170	31,5-140,0	100	510	255	657	724	108	485	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	334	90	30

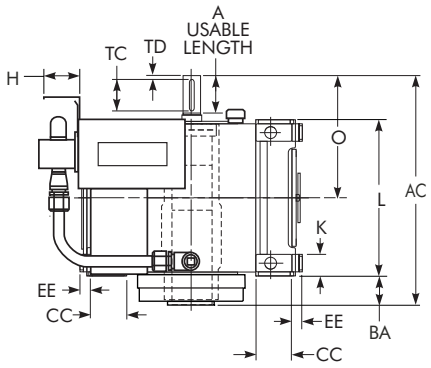
DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †							V	W	Approx Wt kg
		SH	SJ ±.05	SK	T	TA	TB	TC	TD	TE	TF			
M1150	31,5-90,0	46	330	100	30 j6	33	8	70	5	M10	22	195	915	669
	100,0-140,0				25 j6	28		63						
M1160	31,5-90,0	46	360	110	35 k6	38	10	70	5	M12	28	212,5	990	799
	100,0-140,0				30 j6	33	8			M10	22			
M1170	31,5-140,0	47	402	101	40 k6	43	12	90	10	M16	36	215	1100	1001

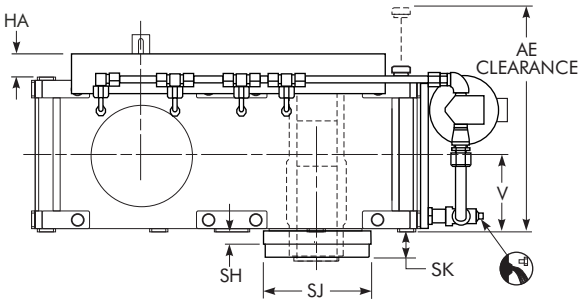
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

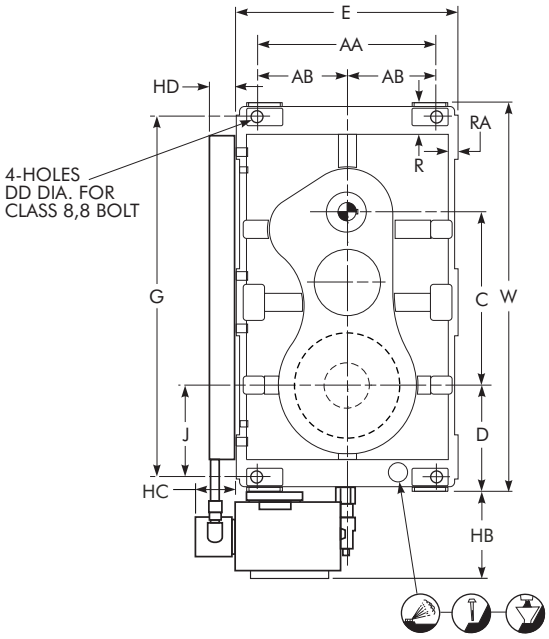
Type DVM3 Triple Reduction with Lube Pump & Drywell

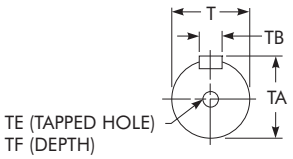
Size M1180 – M1210/Dimensions — Millimeters





Refer to Page 130 for hollow & driven shaft dimensions.





DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	31,5-140,0	100	550	275	759	827	149	560	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	365	95	30
M1190	31,5-140,0	100	630	315	802,5	894	151	630	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	386,5	110	30
M1200	25,0-112,0	130	800	400	884	993	144	700	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	590	445	110	35
M1210	28,0-125,0	130	800	400	884	993	144	725	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	590	445	110	35

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †							V	W	Approx Wt kg
		SH	SJ ±.05	SK	T	TA	TB	TC	TD	TE	TF			
M1180	31,5-140,0	46	450	135	45 k6	48,5	14	90	10	M16	36	245	1230	1454
M1190	31,5-90,0	49	500	138	55 m6	59	16	90	10	M20	42	265	1380	1784
	100,0-140,0				42 k6	45	12			M16	36			
M1200	25,0-112,0	54	520	129	65 m6	69	18	110	10	M20	42	295	1625	2934
M1210	28,0-125,0	54	520	129	65 m6	69	18	110	10	M20	42	295	1625	3025

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

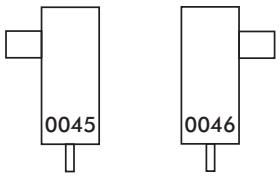
Types DBC Right Angle Shaft

Shaft Assemblies & Rotations

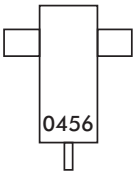
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DBC Assemblies

Standard Assemblies

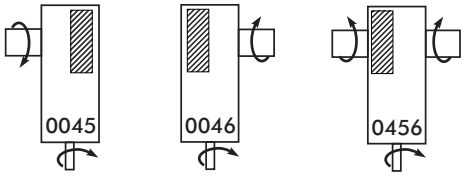


Other Available

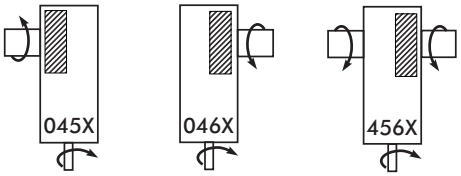


Type DBC Relative Shaft Rotations ‡

Standard Assemblies & Relative Shaft Rotations



Special Assemblies with Opposite Standard Relative Shaft Rotations



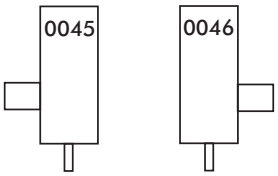
‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Types DBL Right Angle Shaft

Shaft Assemblies & Rotations

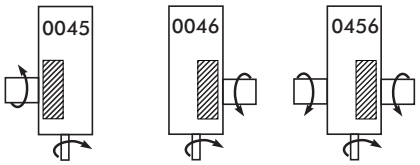
Type DBL Assemblies

Standard Assemblies

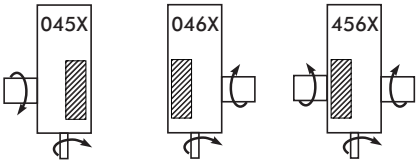


Type DBL Relative Shaft Rotations ‡

Standard Assemblies & Relative Shaft Rotations



Special Assemblies with Opposite Standard Relative Shaft Rotations



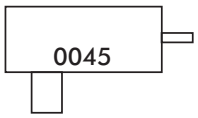
Types DBT, DBJ, DXA & DXC Right Angle Shaft

Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

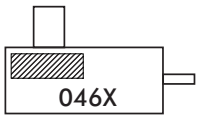
Type DXA & DXC Assembly

L.S. Shaft Down



Type DXC Assembly

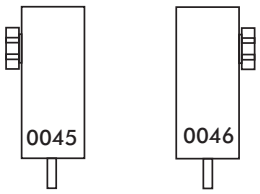
L.S. Shaft Up



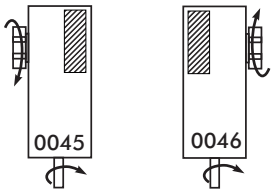
‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Type DBT Assemblies

Standard Assemblies

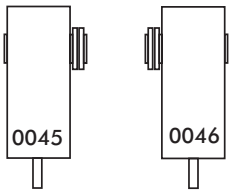


Type DBT Relative Shaft Rotations ‡

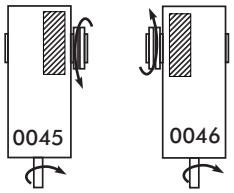


Type DBJ Assemblies

Standard Assemblies



Type DBJ Relative Shaft Rotations ‡



Type DBL Right Angle Shaft
Power Ratings – kW/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1800	2,8	643	80.0	123	191	237	327	523	618	998
	3,2	563	80.0	117	191	237	327	523	590	998
	3,6	500	76,3	112	191	237	327	523	595	998
	4,0	450	68,8	96,3	162	237	327	467	572	904
	4,5	400	60,8	92,9	157	237	327	456	545	880
	5,0	360	54,3	88,8	151	222	327	433	488	849
	5,6	321	35,5	64,9	95,7	132	185	269	342	625
	6,3	286	35,5	64,9	95,7	127	185	269	342	625
	7,1	254	35,5	60,4	95,7	137	185	269	342	607
	8,0	225	34,8	58,1	95,7	137	185	269	310	582
	9,0	200	31.0	55,4	88,7	128	185	269	316	532
	10,0	180	27,5	46,9	66,3	89,9	154	226	288	440
	11,2	161	24,7	39,6	59,8	86,1	143	207	272	402
	12,5	144	21,7	37,1	53,6	77.0	122	192	264	381
	14,0	129	19,7	34,9	51,1	74,8	122	177	248	359
	16,0	113	17,4	31,3	44,7	72,2	104	160	220	318
	18,0	100	15,4	27,1	41,1	52,6	90,9	113	148	277
	20,0	90	13,6	25,4	37,1	52,6	85,1	113	148	263
	22,4	80	12,3	23,9	35,4	49,5	79,3	113	148	249
	25,0	72	10,9	20,7	28,3	44,7	72,2	109	139	221
1500	2,8	536	70.0	109	168	204	288	460	544	879
	3,2	469	70.0	103	168	204	288	460	519	879
	3,6	417	63,6	98,7	168	198	288	460	524	879
	4,0	375	57,4	80,2	135	204	288	389	503	754
	4,5	333	50,7	77,4	131	204	288	380	479	733
	5,0	300	45,2	74.0	126	185	288	360	407	708
	5,6	268	29,9	54,6	80,5	110	156	230	294	550
	6,3	238	29,9	54,6	80,5	106	156	230	294	550
	7,1	211	29,9	50,3	80,5	118	156	230	294	534
	8,0	188	29,9	48,4	80,5	118	156	230	258	512
	9,0	167	25,9	46,2	74,3	107	156	230	272	468
	10,0	150	22,9	41,3	58,3	79,2	136	188	240	388
	11,2	134	20,6	34,9	52,6	75,8	126	181	227	354
	12,5	120	18,1	32,7	47,2	67,8	107	169	231	335
	14,0	107	16,4	30,7	45.0	65,8	103	156	207	316
	16,0	94	14,5	27,4	37,2	60,4	91,9	140	183	280
	18,0	83	12,9	23,8	36,2	45.0	77,9	97.0	127	242
	20,0	75	11,3	21,9	32,6	45.0	74,9	97.0	127	231
	22,4	67	10,3	19,9	29,9	42,4	66,3	97.0	127	219
	25,0	60	9,06	17,3	23,6	37,2	60,2	90,8	116	195
1200	2,8	429	56,6	93.0	136	165	246	379	463	752
	3,2	375	56,3	87,8	137	165	246	379	444	752
	3,6	333	50,9	84,4	137	158	238	379	448	752
	4,0	300	45,9	64,2	108	165	246	312	430	603
	4,5	267	40,6	61,9	105	165	246	304	410	587
	5,0	240	36,2	59,2	101	148	237	288	325	566
	5,6	214	24,1	44,1	65,1	88,3	126	191	238	470
	6,3	190	24,1	44,1	65,1	84,5	126	191	238	470
	7,1	169	24,1	40,2	65,1	95,1	126	191	238	444
	8,0	150	23,2	38,8	64,6	95,1	126	191	206	429
	9,0	133	20,7	36,9	59,8	85,4	126	191	218	400
	10,0	120	18,4	33,3	49,9	67,7	116	151	192	332
	11,2	107	16,5	29,8	45.0	64,9	108	145	181	303
	12,5	96	14,5	27,9	40,4	58.0	91,7	137	180	287
	14,0	86	13,2	25,4	37,6	54,3	83.0	128	165	271
	16,0	75	11,6	22	29,8	48,4	75,6	117	146	239
	18,0	67	10,3	19,5	30,7	37,2	64,4	80,3	105	197
	20,0	60	9,06	17,6	26,5	36,8	60,6	80,3	105	197
	22,4	54	8,22	15,9	24.0	33,9	53,2	80,3	105	183
	25,0	48	7,25	13,8	18,9	29,8	48,2	72,6	92,8	166

Torque Ratings – kNm/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1800	2,8	643	1,22	1,9	2,97	3,67	5,1	7,90	9,38	15,3
	3,2	563	1,38	1,97	3,31	4,10	5,59	9,06	9,92	16,6
	3,6	500	1,46	2,17	3,64	4,53	6,37	10,1	11,5	18,7
	4,0	450	1,46	2,07	3,50	5,09	7,16	10,0	12,2	19,2
	4,5	400	1,46	2,22	3,78	5,65	8,02	10,7	12,9	20,9
	5,0	360	1,46	2,40	4,10	5,94	8,85	11,8	13,3	22,6
	5,6	321	1,07	1,93	2,91	3,97	5,48	8,18	10,1	18,1
	6,3	286	1,19	2,21	3,20	4,20	6,24	9,15	11,6	20,3
	7,1	254	1,32	2,28	3,63	5,11	7,02	10,1	12,8	22,4
	8,0	225	1,46	2,44	4,05	5,67	7,86	11,1	12,8	24,0
	9,0	200	1,46	2,63	4,22	5,94	8,68	12,8	15,1	24,6
	10,0	180	1,46	2,49	3,47	4,76	8,22	12,1	15,2	22,7
	11,2	161	1,46	2,42	3,55	5,15	8,50	12,2	16,5	23,4
	12,5	144	1,46	2,51	3,64	5,18	8,20	12,9	17,5	24,8
	14,0	129	1,46	2,60	3,88	5,46	9,31	13,4	18,4	26,1
	16,0	113	1,43	2,66	3,77	5,90	8,84	13,2	18,4	25,8
	18,0	100	1,46	2,64	3,85	5,03	8,50	10,6	14,2	25,7
	20,0	90	1,46	2,75	3,97	5,65	9,01	12,0	15,5	27,3
	22,4	80	1,46	2,84	4,24	5,78	9,47	13,5	17,3	28,9
	25,0	72	1,43	2,81	3,76	5,84	9,60	14,2	18,4	28,6
1500	2,8	536	1,28	2.00	3,14	3,80	5,38	8,35	9,91	16,2
	3,2	469	1,45	2,09	3,50	4,24	5,91	9,57	10,5	17,6
	3,6	417	1,46	2,30	3,84	4,54	6,73	10,7	12,1	19,8
	4,0	375	1,46	2,07	3,50	5,26	7,56	10,0	12,9	19,2
	4,5	333	1,46	2,22	3,78	5,84	8,47	10,7	13,6	20,9
	5,0	300	1,46	2,40	4,10	5,94	9,35	11,8	13,3	22,6
	5,6	268	1,08	1,95	2,94	3,97	5,54	8,42	10,4	19,1
	6,3	238	1,20	2,23	3,23	4,20	6,31	9,42	11,9	21,5
	7,1	211	1,33	2,28	3,67	5,24	7,09	10,4	13,2	23,7
	8,0	188	1,46	2,44	4,08	5,82	7,94	11,4	12,8	25,4
	9,0	167	1,46	2,63	4,25	5,94	8,76	13,2	15,6	25,9
	10,0	150	1,46	2,63	3,67	5,03	8,68	12,1	15,2	24,0
	11,2	134	1,46	2,55	3,75	5,44	8,97	12,9	16,5	24,7
	12,5	120	1,46	2,65	3,84	5,47	8,66	13,6	18,0	26,1
	14,0	107	1,46	2,75	4,09	5,76	9,42	14,1	18,4	27,6
	16,0	94	1,43	2,80	3,77	5,93	9,34	14,0	18,4	27,2
	18,0	83	1,46	2,79	4,07	5,17	8,74	10,9	14,6	26,9
	20,0	75	1,46	2,84	4,19	5,81	9,51	12,4	16,0	28,9
	22,4	67	1,46	2,84	4,29	5,94	9,50	13,9	17,8	30,5
	25,0	60	1,43	2,81	3,76	5,84	9,62	14,2	18,4	30,2
1200	2,8	429	1,30	2,14	3,19	3,85	5,76	8,60	10,5	17,3
	3,2	375	1,46	2,23	3,55	4,29	6,32	9,87	11,2	18,8
	3,6	333	1,46	2,46	3,91	4,54	6,95	11,0	13,0	21,1
	4,0	300	1,46	2,07	3,50	5,32	8,08	10,0	13,8	19,2
	4,5	267	1,46	2,22	3,78	5,91	9,05	10,7	14,5	20,9
	5,0	240	1,46	2,40	4,09	5,94	9,62	11,8	13,3	22,6
	5,6	214	1,10	1,97	2,97	3,97	5,60	8,71	10,5	20,4
	6,3	190	1,21	2,26	3,27	4,20	6,36	9,75	12,1	23,0
	7,1	169	1,34	2,28	3,71	5,31	7,17	10,8	13,4	24,6
	8,0	150	1,46	2,44	4,09	5,89	8,03	11,8	12,8	26,6
	9,0	133	1,46	2,63	4,27	5,94	8,87	13,7	15,6	27,7
	10,0	120	1,46	2,66	3,92	5,38	9,29	12,1	15,2	25,7
	11,2	107	1,46	2,73	4,01	5,82	9,60	12,9	16,5	26,4
	12,5	96	1,46	2,83	4,11	5,85	9,26	13,8	18,0	28,0
	14,0	86	1,46	2,84	4,28	5,94	9,46	14,6	18,4	29,5
	16,0	75	1,43	2,80	3,77	5,94	9,60	14,6	18,4	29,1
	18,0	67	1,46	2,84	4,31	5,34	9,03	11,3	15,1	27,4
	20,0	60	1,46	2,84	4,26	5,94	9,62	12,8	16,5	30,7
	22,4	54	1,46	2,84	4,30	5,94	9,53	14,4	18,4	31,8
	25,0	48	1,43	2,82	3,76	5,84	9,62	14,2	18,4	32,3

Type DBL Right Angle Shaft
Power Ratings – kW/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1000	2,8	357	47,6	81,8	115	139	217	320	390	662
	3,2	313	46,9	77,3	115	138	210	320	390	662
	3,6	278	42,4	74,3	114	132	198	316	390	662
	4,0	250	38,2	53,5	89,9	139	217	260	379	502
	4,5	222	33,8	51,6	87,1	138	217	253	361	489
	5,0	200	30,1	49,4	83,8	123	198	240	271	472
	5,6	179	20,3	37,1	54,7	73,6	106	161	200	405
	6,3	159	20,3	37,1	54,7	70,5	105	161	200	405
	7,1	141	20,3	33,5	54,7	80.0	106	161	200	370
	8,0	125	19,3	32,3	53,8	79,5	106	161	172	358
	9,0	111	17,2	30,8	50.0	71,1	106	161	182	342
	10,0	100	15,3	27,8	43,9	59,3	100	126	160	292
	11,2	89	13,7	25,9	39,6	55,2	89,9	121	151	267
	12,5	80	12,1	23,4	34,8	49,1	79,4	114	150	252
	14,0	71	11.0	21,2	31,4	45,2	69,4	107	138	238
	16,0	63	9,67	18,4	24,8	40,4	63,1	98.0	122	211
	18,0	56	8,58	16,2	25,7	31,8	55,2	68,7	90.0	166
	20,0	50	7,55	14,6	22,1	30,7	50,5	68,7	90.0	166
	22,4	45	6,85	13,3	20.0	28,3	44,4	68,6	87,4	153
	25,0	40	6,04	11,5	15,7	24,8	40,1	60,5	77,4	139
900	2,8	321	43,1	76.0	104	126	196	289	353	610
	3,2	281	42,2	71,8	104	124	189	289	353	610
	3,6	250	38,2	69.0	103	119	179	284	353	610
	4,0	225	34,4	48,1	80,9	126	201	234	352	452
	4,5	200	30,4	46,4	78,4	125	196	228	335	440
	5,0	180	27,1	44,4	75,2	111	178	216	244	425
	5,6	161	18,3	33,5	49,5	66,2	96.0	145	181	366
	6,3	143	18,3	33,5	49,5	63,4	94,4	145	181	366
	7,1	127	18,3	30,2	49,5	72,3	96.0	145	181	333
	8,0	113	17,4	29,1	48,4	71,5	96.0	145	155	322
	9,0	100	15,5	27,7	45,1	64.0	96.0	145	163	308
	10,0	90	13,8	25.0	40,8	53,3	90,3	113	144	271
	11,2	80	12,4	23,3	36,6	49,7	80,9	109	136	248
	12,5	72	10,9	21.0	31,3	44,2	71,4	103	135	234
	14,0	64	9,87	19,1	28,3	40,7	62,6	96,7	124	218
	16,0	56	8,70	16,5	22,3	36,3	56,8	88,3	110	196
	18,0	50	7,72	14,6	23,1	29,1	50,4	62,6	82,3	150
	20,0	45.0	6,80	13,2	19,9	27,6	45,4	62,6	82,3	150
	22,4	40.2	6,17	11,9	18.0	25,4	40.0	61,8	78,6	138
	25,0	36.0	5,44	10,4	14,2	22,3	36,1	54,5	69,6	125
750	2,8	268	36,2	64,9	87,4	106	164	243	297	514
	3,2	234	35,2	63,2	87,5	104	158	243	297	514
	3,6	208	31,8	60,7	85,5	98,9	149	237	297	514
	4,0	188	28,7	40,1	67,4	106	170	195	297	377
	4,5	167	25,3	38,7	65,3	104	164	190	295	367
	5,0	150	22,6	37.0	62,9	92,4	148	180	203	354
	5,6	134	15,4	28,2	41,6	55,2	80,7	122	152	308
	6,3	119	15,4	28,2	41,6	52,8	78,7	122	152	308
	7,1	106	15,4	25,1	41,6	60,8	80,7	122	152	277
	8,0	94	14,5	24,2	40,3	59,6	80,7	122	129	268
	9,0	83	12,9	23,1	37,7	53,4	80,7	122	136	257
	10,0	75	11,5	20,8	34,4	44,4	75,3	94,2	120	239
	11,2	67	10,3	19,4	30,3	41,4	67,4	90,5	113	218
	12,5	60	9,06	17,5	26,2	36,8	59,5	85,5	113	206
	14,0	54	8,22	15,9	23,6	33,9	52,3	80,6	103	182
	16,0	47	7,25	13,8	18,6	30,3	47,3	73,8	91,5	166
	18,0	42	6,44	12,2	19,3	24,9	42,9	52,6	70,4	126
	20,0	38	5,66	11.0	16,6	23.0	37,9	52,6	70,4	126
	22,4	33	5,14	9,94	15.0	21,2	33,4	51,6	65,5	115
	25,0	30	4,53	8,66	11,8	18,6	30,1	45,4	58.0	105

Torque Ratings – kNm/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1000	2,8	357	1,31	2,26	3,22	3,89	6,08	8,70	10,6	18,3
	3,2	313	1,46	2,36	3,59	4,31	6,46	9,97	11,8	19,8
	3,6	278	1,46	2,59	3,91	4,54	6,95	11,0	13,5	22,3
	4,0	250	1,46	2,07	3,50	5,38	8,54	10,0	14,6	19,2
	4,5	222	1,46	2,22	3,78	5,94	9,56	10,7	15,3	20,9
	5,0	200	1,46	2,40	4,09	5,94	9,62	11,8	13,3	22,6
	5,6	179	1,10	1,99	3,00	3,97	5,65	8,8	10,6	21,1
	6,3	159	1,22	2,28	3,30	4,20	6,36	9,9	12,2	23,7
	7,1	141	1,35	2,28	3,74	5,35	7,23	10,9	13,5	24,6
	8,0	125	1,46	2,44	4,09	5,91	8,10	12,0	12,8	26,6
	9,0	111	1,46	2,63	4,28	5,94	8,95	13,8	15,6	28,5
	10,0	100	1,46	2,66	4,14	5,65	9,62	12,1	15,2	27,1
	11,2	89	1,46	2,84	4,23	5,94	9,62	12,9	16,5	27,9
	12,5	80	1,46	2,84	4,25	5,94	9,62	13,8	18,0	29,5
	14,0	71	1,46	2,84	4,29	5,94	9,49	14,6	18,4	31,1
	16,0	63	1,43	2,81	3,77	5,94	9,62	14,6	18,4	30,8
	18,0	56	1,46	2,84	4,32	5,48	9,28	11,6	15,5	27,7
	20,0	50	1,46	2,84	4,27	5,94	9,62	13,2	17,0	31,0
	22,4	45	1,46	2,84	4,31	5,94	9,55	14,8	18,4	31,9
	25,0	40	1,43	2,82	3,76	5,84	9,62	14,2	18,4	32,4
900	2,8	321	1,32	2,34	3,23	3,91	6,12	8,75	10,7	18,7
	3,2	281	1,46	2,43	3,61	4,31	6,46	10,0	11,9	20,3
	3,6	250	1,46	2,68	3,91	4,54	6,95	11,0	13,6	22,9
	4,0	225	1,46	2,07	3,50	5,41	8,81	10,0	15,0	19,2
	4,5	200	1,46	2,22	3,78	5,94	9,62	10,7	15,8	20,9
	5,0	180	1,46	2,40	4,09	5,94	9,62	11,8	13,3	22,6
	5,6	161	1,11	2.00	3,01	3,97	5,68	8,85	10,7	21,2
	6,3	143	1,23	2,29	3,31	4,20	6,36	9,91	12,3	23,8
	7,1	127	1,36	2,28	3,76	5,38	7,27	11,0	13,6	24,6
	8,0	113	1,46	2,44	4,09	5,91	8,14	12,0	12,8	26,6
	9,0	100	1,46	2,63	4,29	5,94	8,99	13,9	15,6	28,5
	10,0	90	1,46	2,66	4,28	5,65	9,62	12,1	15,2	28,0
	11,2	80	1,46	2,84	4,31	5,94	9,62	12,9	16,5	28,8
	12,5	72	1,46	2,84	4,25	5,94	9,62	13,8	18,0	30,5
	14,0	64	1,46	2,84	4,29	5,94	9,51	14,6	18,4	31,6
	16,0	56	1,43	2,81	3,77	5,94	9,62	14,6	18,4	31,7
	18,0	50	1,46	2,84	4,33	5,56	9,42	11,7	15,7	27,8
	20,0	45.0	1,46	2,84	4,27	5,94	9,62	13,3	17,2	31,1
	22,4	40.2	1,46	2,84	4,31	5,94	9,56	14,8	18,4	31,9
	25,0	36.0	1,43	2,82	3,76	5,84	9,62	14,2	18,4	32,4
750	2,8	268	1,33	2,39	3,26	3,94	6,12	8,83	10,8	18,9
	3,2	234	1,46	2,57	3,64	4,31	6,46	10,1	12,0	20,5
	3,6	208	1,46	2,83	3,91	4,54	6,95	11,0	13,7	23,1
	4,0	188	1,46	2,07	3,50	5,46	8,91	10,0	15,2	19,2
	4,5	167	1,46	2,22	3,78	5,94	9,62	10,7	16,7	20,9
	5,0	150	1,46	2,40	4,09	5,94	9,62	11,7	13,3	22,6
	5,6	134	1,12	2,01	3,04	3,97	5,73	8,93	10,8	21,4
	6,3	119	1,24	2,31	3,34	4,20	6,36	9,99	12,4	24,1
	7,1	106	1,37	2,28	3,79	5,42	7,33	11,1	13,7	24,6
	8,0	94	1,46	2,44	4,09	5,91	8,21	12,1	12,8	26,6
	9,0	83	1,46	2,63	4,30	5,94	9,07	14,0	15,6	28,5
	10,0	75	1,46	2,66	4,33	5,65	9,62	12,1	15,2	29,6
	11,2	67	1,46	2,84	4,32	5,94	9,62	12,9	16,5	30,4
	12,5	60	1,46	2,84	4,26	5,94	9,62	13,8	18,0	32,2
	14,0	54	1,46	2,84	4,30	5,94	9,53	14,6	18,4	31,8
	16,0	47	1,43	2,82	3,77	5,94	9,62	14,6	18,4	32,3
	18,0	42	1,46	2,84	4,33	5,71	9,62	11,8	16,1	28,0
	20,0	38	1,46	2,84	4,28	5,94	9,62	13,4	17,7	31,4
	22,4	33	1,46	2,84	4,32	5,94	9,57	14,8	18,4	32,0
	25,0	30	1,43	2,82	3,76	5,84	9,62	14,2	18,4	32,5

Type DBL Right Angle Shaft
Power Ratings – kW/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
	2,8	**214**	29,2	52,5	70,6	85,6	131	197	241	416
	3,2	**188**	28,2	52,5	70,7	82,9	126	197	241	416
	3,6	**167**	25,4	48,9	68,4	79,1	119	189	241	416
	4,0	**150**	22,9	32,1	53,9	84,9	137	156	241	301
	4,5	**133**	20,3	31.0	52,3	83.0	131	152	241	293
	5,0	**120**	18,1	29,6	50,3	73,9	119	144	163	283
	5,6	**107**	12,4	22,7	33,6	44,2	65,2	98,8	123	249
	6,3	**95**	12,4	22,7	33,6	42,3	62,9	98,8	123	249
	7,1	**85**	12,4	20,1	33,6	48,9	65,2	98,8	123	222
600	**8,0**	**75**	11,6	19,4	32,3	47,7	65,2	98,8	103	215
	9,0	**67**	10,3	18,5	30,2	42,7	65,2	98,8	109	205
	10,0	**60**	9,18	16,7	27,6	35,6	60,2	75,3	96.0	201
	11,2	**54**	8,24	15,5	24,3	33,1	53,9	72,4	90,7	186
	12,5	**48**	7,25	14.0	21.0	29,4	47,6	68,4	90,2	166
	14,0	**43**	6,58	12,7	18,9	27,1	41,9	64,5	82,7	146
	16,0	**38**	5,80	11,1	14,9	24,2	37,9	59.0	73,2	133
	18,0	**33**	5,15	9,73	15,4	20.0	34,3	42,4	58,2	102
	20,0	**30**	4,53	8,78	13,3	18,4	30,3	42,4	56,7	102
	22,4	**27**	4,11	7,96	12.0	17.0	26,7	41,3	54,2	92,1
	25,0	**24**	3,62	6,94	9,44	14,9	24,1	36,3	46,4	83,8

Torque Ratings – kNm/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
	2,8	**214**	1,34	2,42	3,3	3,99	6,12	8,94	11,1	19,2
	3,2	**188**	1,46	2,66	3,68	4,31	6,46	10,23	12,1	20,8
	3,6	**167**	1,46	2,84	3,91	4,54	6,95	11,0	13,9	23,4
	4,0	**150**	1,46	2,07	3,50	5,47	9,01	10,0	15,4	19,2
	4,5	**133**	1,46	2,22	3,78	5,94	9,62	10,7	17,0	20,9
	5,0	**120**	1,46	2,40	4,09	5,94	9,62	11,8	13,3	22,6
	5,6	**107**	1,13	2,03	3,07	3,97	5,79	9,02	10,9	21,6
	6,3	**95**	1,25	2,33	3,37	4,20	6,36	10,1	12,5	24,3
	7,1	**85**	1,38	2,28	3,79	5,46	7,40	11,2	13,8	24,6
600	**8,0**	**75**	1,46	2,44	4,09	5,91	8,29	12,3	12,8	26,6
	9,0	**67**	1,46	2,63	4,31	5,94	9,16	14,2	15,6	28,5
	10,0	**60**	1,46	2,66	4,34	5,65	9,62	12,1	15,2	31,2
	11,2	**54**	1,46	2,84	4,32	5,94	9,62	12,9	16,5	32,5
	12,5	**48**	1,46	2,84	4,27	5,94	9,62	13,8	18,0	32,4
	14,0	**43**	1,46	2,84	4,31	5,94	9,55	14,6	18,4	31,9
	16,0	**38**	1,43	2,82	3,77	5,94	9,62	14,6	18,4	32,4
	18,0	**33**	1,46	2,84	4,34	5,74	9,62	11,9	16,7	28,3
	20,0	**30**	1,46	2,84	4,28	5,94	9,62	13,5	17,8	31,7
	22,4	**27**	1,46	2,84	4,32	5,94	9,59	14,8	18,4	32,1
	25,0	**24**	1,43	2,83	3,76	5,84	9,62	14,2	18,4	32,6

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Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
Power Ratings – kW/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1800	8,0	225	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2557	. . .	4114	. . .
	9,0	200	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2342	2557	3700	4125
	10,0	180	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2097	2587	3238	4125
	11,2	161	. . .	. . .	. . .	. . .	. . .	. . .	. . .	998	. . .	1862	2375	2905	3694
	12,5	144	. . .	. . .	. . .	. . .	. . .	. . .	. . .	998	998	1680	2109	2613	3314
	14,0	129	80,0	105	184	236	327	523	618	942	998	1506	1903	2384	2981
	16,0	113	73,9	99,2	166	236	327	499	590	836	998	1373	1705	2140	2720
	18,0	100	69,2	93,9	151	233	326	448	595	752	901	1238	1555	1931	2441
	20,0	90	62,6	79,9	134	207	291	406	559	675	810	1106	1402	1731	2202
	22,4	80	55,5	81,1	121	188	261	372	507	623	728	993	1252	1540	1975
	25,0	72	49,6	71,7	107	168	237	322	442	556	625	890	1124	1370	1757
	28,0	64	35,5	53,9	95,7	139	185	269	342	492	599	785	1008	1251	1562
	31,5	57	35,5	51,2	87,3	132	185	259	341	441	530	714	889	1118	1395
	35,5	51	35,5	49,5	77,1	122	170	235	324	396	475	641	809	1005	1275
	40,0	45	32,0	46,5	69,3	110	152	215	293	355	426	571	726	897	1146
	45,0	40	28,6	41,1	61,6	98,0	138	186	255	316	382	512	647	796	1024
	50,0	36	25,4	36,8	56,0	84,2	122	166	232	283	340	458	579	706	908
	56,0	32	22,8	32,1	49,5	76,2	109	150	202	254	304	401	518	631	805
	63,0	29	20,1	29,0	43,3	67,9	96,5	132	184	228	273	360	454	577	720
	71,0	25	17,9	26,3	38,8	62,6	85,6	118	165	199	245	. . .	408	. . .	658
	80,0	23	15,5	23,1	35,0	55,9	76,9	108	147	178	214	. . .	. . .	. . .	. . .
	90,0	20	14,3	20,1	31,5	45,7	69,7	95,8	129	160	192	. . .	. . .	. . .	. . .
	100,0	18	12,6	18,2	27,5	42,6	61,6	84,3	117	143	172	. . .	. . .	. . .	. . .
	112,0	16	11,3	16,5	24,7	39,2	54,6	75,1	105	. . .	154	. . .	. . .	. . .	. . .
	125,0	14	9,74	14,5	22,2	35,1	49,1	68,7	93,3	. . .	. . .	. . .	. . .	. . .	. . .
1500	8,0	188	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2205	. . .	3429	. . .
	9,0	167	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1981	2232	3084	3486
	10,0	150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1777	2232	2730	3486
	11,2	134	. . .	. . .	. . .	. . .	. . .	. . .	. . .	879	. . .	1574	2012	2464	3115
	12,5	120	. . .	. . .	. . .	. . .	. . .	. . .	. . .	879	879	1418	1783	2212	2811
	14,0	107	64,3	87,5	154	204	288	460	544	792	879	1269	1607	2014	2523
	16,0	94	64,1	82,7	139	204	288	419	519	702	854	1156	1437	1805	2298
	18,0	83	58,0	78,2	127	195	273	376	517	631	757	1041	1309	1626	2059
	20,0	75	52,4	75,2	112	173	244	340	469	566	680	929	1179	1456	1855
	22,4	67	46,4	67,8	101	158	218	311	425	523	610	833	1052	1294	1661
	25,0	60	41,4	59,9	89,7	141	198	270	371	466	550	746	944	1150	1476
	28,0	54	29,9	44,9	80,1	116	156	230	294	412	502	658	845	1050	1312
	31,5	48	29,9	42,7	72,9	110	156	217	284	369	444	598	745	937	1198
	35,5	42	29,9	41,2	64,4	102	142	196	271	331	398	537	677	842	1069
	40,0	38	26,7	38,8	57,9	91,8	127	179	245	297	356	478	608	751	960
	45,0	33	23,8	34,3	51,4	81,8	115	155	213	264	319	428	541	666	857
	50,0	30	21,2	30,7	46,8	70,2	102	139	193	236	284	382	484	590	759
	56,0	27	19,0	26,8	41,3	63,6	91,2	126	169	212	254	335	433	528	673
	63,0	24	16,7	24,2	36,2	56,6	80,6	111	154	190	228	301	379	482	602
	71,0	21	15,0	21,9	32,4	52,2	71,4	98,5	138	166	205	. . .	341	. . .	550
	80,0	19	12,9	19,2	29,2	46,7	64,2	90,2	122	149	179	. . .	. . .	. . .	. . .
	90,0	17	11,9	16,8	26,3	38,1	58,2	80,0	107	133	160	. . .	. . .	. . .	. . .
	100,0	15	10,5	15,2	23,0	35,5	51,4	70,3	98,0	119	144	. . .	. . .	. . .	. . .
	112,0	13	9,40	13,7	20,6	32,7	45,6	62,6	87,9	. . .	129	. . .	. . .	. . .	. . .
	125,0	12	8,13	12,1	18,5	29,2	40,9	57,3	77,8	. . .	. . .	. . .	. . .	. . .	. . .
1200	8,0	150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1802	. . .	2771	. . .
	9,0	133	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1615	1814	2517	2834
	10,0	120	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1445	1814	2227	2834
	11,2	107	. . .	. . .	. . .	. . .	. . .	. . .	. . .	752	. . .	1277	1637	2005	2541
	12,5	96	. . .	. . .	. . .	. . .	. . .	. . .	. . .	717	752	1149	1447	1796	2287
	14,0	86	52,0	70,0	124	165	246	379	463	640	752	1027	1302	1634	2049
	16,0	75	51,5	66,1	112	165	246	337	444	567	690	934	1163	1462	1863
	18,0	67	46,5	62,6	102	157	220	302	417	509	611	840	1058	1315	1667
	20,0	60	42,0	60,3	90,0	138	196	274	378	456	548	749	952	1176	1500
	22,4	54	37,2	54,4	80,9	127	175	250	342	421	491	671	848	1044	1342
	25,0	48	33,2	48,1	72,0	113	159	217	298	375	453	601	760	927	1191
	28,0	43	24,1	36,0	64,2	92,4	126	191	238	331	404	529	680	845	1057
	31,5	38	24,1	34,1	58,5	88,3	126	174	227	297	357	481	600	754	964
	35,5	34	24,1	33,0	51,6	81,7	114	158	217	266	319	431	544	677	860
	40,0	30	21,4	31,1	46,4	73,6	102	144	197	238	286	384	489	604	772
	45,0	27	19,1	27,5	41,2	65,6	92,6	125	171	212	256	343	435	535	689
	50,0	24	16,9	24,6	37,5	56,1	81,5	111	155	189	228	307	389	474	610
	56,0	21	15,2	21,4	33,1	51,0	73,1	101	135	170	204	269	348	423	541
	63,0	19	13,4	19,4	29,0	45,4	64,6	88,6	123	152	183	241	304	387	483
	71,0	17	12,0	17,5	26,0	41,8	57,2	78,9	111	133	164	. . .	273	. . .	441
	80,0	15	10,4	15,4	23,4	37,4	51,4	72,3	98,1	119	143	. . .	. . .	. . .	. . .
	90,0	13	9,53	13,4	21,0	30,5	46,6	64,0	86,1	107	128	. . .	. . .	. . .	. . .
	100,0	12	8,39	12,1	18,4	28,4	41,2	56,3	78,5	95,7	115	. . .	. . .	. . .	. . .
	112,0	11	7,53	11,0	16,5	26,2	36,5	50,2	70,4	. . .	103	. . .	. . .	. . .	. . .
	125,0	10	6,51	9,66	14,8	23,4	32,8	45,9	62,3	. . .	. . .	. . .	. . .	. . .	. . .

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
Torque Ratings – kNm/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1800	8,0	225	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	109	. . .	175	. . .
	9,0	200	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	112	121	175	195
	10,0	180	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	113	137	175	217
	11,2	161	. . .	. . .	. . .	. . .	. . .	. . .	. . .	65,0	. . .	114	142	176	222
	12,5	144	. . .	. . .	. . .	. . .	. . .	. . .	. . .	70,4	73,0	116	144	178	223
	14,0	129	6,00	8,15	14,5	18,1	25,2	40,0	46,1	74,8	79,2	117	145	179	225
	16,0	113	6,27	8,48	14,5	20,2	27,7	43,7	48,8	75,3	89,1	117	146	181	227
	18,0	100	6,50	9,20	14,6	22,1	31,4	43,9	56,4	75,7	91,3	118	147	182	230
	20,0	90	6,52	9,75	14,6	22,0	31,5	44,1	58,6	76,1	91,8	119	148	184	231
	22,4	80	6,53	9,77	14,7	22,2	31,6	44,2	58,9	76,4	92,2	119	149	185	233
	25,0	72	6,55	9,79	14,7	22,3	31,7	44,4	59,1	76,7	86,0	120	150	186	235
	28,0	64	5,26	8,11	14,7	20,6	27,1	41,3	49,7	77,0	92,8	120	151	187	236
	31,5	57	5,89	8,82	14,8	21,7	30,9	44,7	56,7	77,2	93,2	121	151	188	232
	35,5	51	6,46	9,44	14,8	22,4	31,9	44,8	59,6	77,4	93,4	121	152	188	238
	40,0	45	6,58	9,85	14,8	22,5	32,0	44,9	59,8	77,6	93,7	122	152	189	239
	45,0	40	6,59	9,87	14,8	22,5	32,0	44,9	60,0	77,8	93,9	122	153	190	240
	50,0	36	6,60	9,88	14,8	22,1	32,1	45,0	60,0	77,9	94,1	122	153	190	240
	56,0	32	6,60	9,89	14,9	22,5	32,1	45,1	60,1	78,0	94,3	122	154	190	241
	63,0	29	6,61	9,89	14,9	22,6	32,2	45,1	60,2	78,2	94,4	123	154	191	242
	71,0	25	6,50	9,90	14,9	22,6	32,2	45,2	60,3	78,3	94,6	. . .	154	. . .	242
	80,0	23	6,24	9,91	14,9	22,6	32,2	45,2	60,4	78,4	94,7	. . .	. . .	. . .	. . .
	90,0	20	6,62	9,91	14,9	21,6	32,2	45,3	60,4	78,5	94,8	. . .	. . .	. . .	. . .
	100,0	18	6,62	9,92	14,9	22,6	32,3	45,3	60,5	78,5	94,9	. . .	. . .	. . .	. . .
	112,0	16	6,54	9,92	14,9	22,7	32,3	45,3	60,5	. . .	95,0	. . .	. . .	. . .	. . .
	125,0	14	6,27	9,93	14,9	22,7	32,3	45,4	60,6	. . .	. . .	. . .	. . .	. . .	. . .
1500	8,0	188	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	112	. . .	175	. . .
	9,0	167	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	114	126	175	198
	10,0	150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	115	142	177	220
	11,2	134	. . .	. . .	. . .	. . .	. . .	. . .	. . .	68,7	. . .	116	144	179	224
	12,5	120	. . .	. . .	. . .	. . .	. . .	. . .	. . .	74,4	77,1	117	146	180	227
	14,0	107	5,78	8,15	14,6	18,8	26,6	42,2	48,7	75,5	83,6	118	147	182	229
	16,0	94	6,52	8,48	14,6	20,9	29,2	44,0	51,5	76,0	91,5	118	148	183	231
	18,0	83	6,53	9,20	14,6	22,2	31,6	44,2	58,8	76,3	92,0	119	149	184	232
	20,0	75	6,54	9,78	14,7	22,0	31,7	44,3	59,0	76,6	92,4	120	150	185	234
	22,4	67	6,55	9,80	14,7	22,3	31,8	44,5	59,2	76,8	92,8	120	150	186	235
	25,0	60	6,56	9,82	14,7	22,4	31,8	44,6	59,4	77,1	90,8	121	151	187	236
	28,0	54	5,31	8,11	14,8	20,6	27,4	42,6	51,1	77,3	93,3	121	152	188	238
	31,5	48	5,88	8,82	14,8	21,7	31,2	44,8	56,6	77,5	93,6	121	152	189	238
	35,5	42	6,52	9,44	14,8	22,5	32,0	44,9	59,9	77,7	93,8	122	153	189	239
	40,0	38	6,60	9,87	14,8	22,5	32,1	45,0	60,0	77,9	94,0	122	153	190	240
	45,0	33	6,60	9,88	14,8	22,5	32,1	45,1	60,1	78,0	94,2	122	153	190	241
	50,0	30	6,61	9,89	14,9	22,1	32,1	45,1	60,2	78,1	94,4	123	154	191	241
	56,0	27	6,61	9,90	14,9	22,6	32,2	45,2	60,3	78,2	94,5	123	154	191	242
	63,0	24	6,62	9,91	14,9	22,6	32,2	45,2	60,3	78,3	94,7	123	154	191	242
	71,0	21	6,51	9,91	14,9	22,6	32,2	45,3	60,4	78,4	94,8	. . .	155	. . .	243
	80,0	19	6,25	9,92	14,9	22,6	32,3	45,3	60,5	78,5	94,9	. . .	. . .	. . .	. . .
	90,0	17	6,63	9,92	14,9	21,6	32,3	45,3	60,5	78,6	95,0	. . .	. . .	. . .	. . .
	100,0	15	6,63	9,93	14,9	22,7	32,3	45,4	60,6	78,6	95,1	. . .	. . .	. . .	. . .
	112,0	13	6,55	9,93	14,9	22,7	32,3	45,4	60,6	. . .	95,1	. . .	. . .	. . .	. . .
	125,0	12	6,28	9,93	14,9	22,7	32,3	45,4	60,6	. . .	. . .	. . .	. . .	. . .	. . .
1200	8,0	150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	115	. . .	177	. . .
	9,0	133	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	116	128	178	201
	10,0	120	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	117	144	180	223
	11,2	107	. . .	. . .	. . .	. . .	. . .	. . .	. . .	73,4	. . .	118	147	182	229
	12,5	96	. . .	. . .	. . .	. . .	. . .	. . .	. . .	75,9	82,5	118	148	183	231
	14,0	86	5,84	8,15	14,7	19,0	28,5	43,5	51,8	76,3	89,4	119	149	184	232
	16,0	75	6,54	8,48	14,7	21,1	31,3	44,4	55,1	76,6	92,4	120	150	185	234
	18,0	67	6,55	9,20	14,7	22,2	31,7	44,5	59,2	76,9	92,8	120	150	186	235
	20,0	60	6,56	9,82	14,7	22,0	31,8	44,6	59,4	77,1	93,1	121	151	187	236
	22,4	54	6,57	9,83	14,8	22,4	31,9	44,7	59,6	77,3	93,4	121	152	188	237
	25,0	48	6,58	9,85	14,8	22,4	31,9	44,8	59,7	77,5	93,6	121	152	189	238
	28,0	43	5,36	8,11	14,8	20,6	27,7	44,1	51,8	77,7	93,8	122	153	189	239
	31,5	38	5,94	8,82	14,8	21,7	31,6	45,0	56,7	77,9	94,0	122	153	190	240
	35,5	34	6,58	9,44	14,8	22,5	32,1	45,0	60,0	78,0	94,2	122	153	190	241
	40,0	30	6,61	9,89	14,9	22,6	32,1	45,1	60,2	78,1	94,4	123	154	191	241
	45,0	27	6,62	9,90	14,9	22,6	32,2	45,2	60,3	78,2	94,5	123	154	191	242
	50,0	24	6,62	9,90	14,9	22,1	32,2	45,2	60,3	78,3	94,7	123	154	191	242
	56,0	21	6,62	9,91	14,9	22,6	32,2	45,3	60,4	78,4	94,8	123	155	192	243
	63,0	19	6,53	9,92	14,9	22,6	32,3	45,3	60,5	78,5	94,9	123	155	192	243
	71,0	17	6,27	9,92	14,9	22,6	32,3	45,3	60,5	78,6	95,0	. . .	155	. . .	244
	80,0	15	6,63	9,93	14,9	22,7	32,3	45,4	60,6	78,6	95,1	. . .	. . .	. . .	. . .
	90,0	13	6,63	9,93	14,9	21,6	32,3	45,4	60,6	78,7	95,1	. . .	. . .	. . .	. . .
	100,0	12	6,63	9,93	14,9	22,7	32,3	45,4	60,7	78,7	95,2	. . .	. . .	. . .	. . .
	112,0	11	6,56	9,94	14,9	22,7	32,3	45,4	60,7	. . .	95,3	. . .	. . .	. . .	. . .
	125,0	10	6,29	9,94	14,9	22,7	32,4	45,4	60,7	. . .	. . .	. . .	. . .	. . .	. . .

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
Power Ratings – kW/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
	8,0	125	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1523	. . .	2347	. . .
	9,0	111	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1362	1531	2129	2392
	10,0	100	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1217	1531	1880	2392
	11,2	89	. . .	. . .	. . .	. . .	. . .	. . .	. . .	650	. . .	1075	1379	1690	2144
	12,5	80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	602	662	966	1217	1512	1928
	14,0	71	43,6	58,3	104	139	217	320	387	537	649	862	1094	1374	1720
	16,0	63	43,0	55,1	93,5	137	209	283	376	475	578	784	976	1228	1567
	18,0	56	38,9	52,2	85,1	131	184	253	349	426	512	704	888	1104	1401
	20,0	50	35,1	50,4	75,2	115	164	229	316	382	459	627	798	986	1259
	22,4	45	31,1	45,4	67,6	106	147	209	286	352	411	562	710	875	1125
	25,0	40	27,7	40,1	60,1	94,3	133	181	249	313	379	503	637	776	998
	28,0	36	20,3	30,0	53,6	77,0	106	161	198	277	337	443	569	708	885
1000	31,5	32	20,3	28,4	48,8	73,6	106	146	189	248	298	402	501	631	807
	35,5	28	20,2	27,5	43,1	68,2	95,4	132	181	222	267	361	455	566	720
	40,0	25	17,9	26,0	38,7	61,5	85,2	120	164	199	239	321	408	505	646
	45,0	22	15,9	22,9	34,4	54,8	77,2	104	143	177	217	287	363	447	576
	50,0	20	14,1	20,5	31,3	46,8	68,0	92,7	130	158	191	256	325	396	510
	56,0	18	12,7	17,9	27,6	42,5	61,0	84,1	113	142	170	224	290	354	452
	63,0	16	11,2	16,1	24,2	37,8	53,9	73,9	103	127	153	201	254	323	403
	71,0	14	10,0	14,6	21,6	34,9	47,7	65,9	92,4	111	137	. . .	228	. . .	368
	80,0	13	8,67	12,8	19,5	31,2	42,9	60,3	81,9	99,3	120	. . .	. . .	. . .	. . .
	90,0	11	7,95	11,2	17,5	25,4	38,9	53,4	71,8	89,1	107	. . .	. . .	. . .	. . .
	100,0	10	7,00	10,1	15,3	23,7	34,3	47,0	65,5	79,8	95,9	. . .	. . .	. . .	. . .
	112,0	8,9	6,28	9,17	13,7	21,9	30,4	41,8	58,7	. . .	85,9	. . .	. . .	. . .	. . .
	125,0	8,0	5,43	8,05	12,4	19,5	27,3	38,3	52,0	. . .	. . .	. . .	. . .	. . .	. . .
	8,0	113	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1380	. . .	2130	. . .
	9,0	100	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1234	1387	1930	2168
	10,0	90	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1101	1387	1703	2168
	11,2	80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	588	. . .	972	1247	1530	1942
	12,5	72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	544	610	873	1100	1368	1745
	14,0	64	39,4	52,5	93,7	126	196	289	348	485	586	779	988	1242	1548
	16,0	56	38,8	49,6	84,3	123	188	255	339	429	522	708	882	1109	1417
	18,0	50	35,0	46,9	76,7	118	166	228	315	384	462	636	801	997	1266
	20,0	45	31,6	45,4	67,8	104	148	207	285	344	414	566	720	891	1137
	22,4	40	28,0	40,9	60,9	95,4	132	189	258	317	371	507	641	789	1016
	25,0	36	25,0	36,1	54,1	85,0	120	163	225	282	342	453	574	700	901
	28,0	32	18,3	27,0	48,3	69,3	96,0	145	178	249	304	399	514	638	799
900	31,5	29	18,3	25,6	44,0	66,2	95,6	131	170	223	269	362	452	569	728
	35,5	25	18,2	24,7	38,8	61,4	85,9	119	163	200	241	325	410	510	649
	40,0	23	16,1	23,4	34,9	55,4	76,8	108	148	179	215	289	368	455	582
	45,0	20	14,3	20,6	31,0	49,3	69,6	93,7	129	159	193	258	327	403	519
	50,0	18	12,7	18,5	28,1	42,1	61,3	83,5	117	142	172	231	293	357	459
	56,0	16	11,4	16,1	24,9	38,3	54,9	75,7	102	128	153	202	261	319	407
	63,0	14	10,1	14,5	21,8	34,1	48,5	66,6	92,8	114	138	181	229	291	363
	71,0	13	9,03	13,2	19,5	31,4	43,0	59,3	83,2	100	123	. . .	206	. . .	332
	80,0	11	7,81	11,6	17,5	28,1	38,6	54,3	73,7	89,4	108	. . .	. . .	. . .	. . .
	90,0	10	7,16	10,1	15,8	22,9	35,0	48,1	64,7	80,2	96,3	. . .	. . .	. . .	. . .
	100,0	9,0	6,30	9,11	13,8	21,3	30,9	42,3	58,9	71,8	86,4	. . .	. . .	. . .	. . .
	112,0	8,0	5,66	8,26	12,4	19,7	27,4	37,7	52,8	. . .	79,9	. . .	. . .	. . .	. . .
	125,0	7,2	4,89	7,25	11,1	17,6	24,6	34,5	46,8	. . .	. . .	. . .	. . .	. . .	. . .
	8,0	94	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1162	. . .	1797	. . .
	9,0	83	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1037	1169	1626	1829
	10,0	75	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	925	1169	1432	1829
	11,2	67	. . .	. . .	. . .	. . .	. . .	. . .	. . .	493	. . .	815	1048	1285	1634
	12,5	60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	455	514	732	923	1148	1466
	14,0	54	33,0	43,8	78,3	106	164	243	290	406	491	652	829	1042	1299
	16,0	47	32,4	41,3	70,4	103	157	312	282	359	437	593	739	930	1188
	18,0	42	29,3	39,1	64,1	98,2	139	191	263	321	386	532	671	835	1061
	20,0	38	26,4	37,9	56,6	86,4	124	173	238	288	346	474	603	746	953
	22,4	33	23,4	34,2	50,9	79,6	110	158	216	265	310	424	536	661	851
	25,0	30	20,9	30,2	45,2	71,0	100	136	188	236	286	379	480	586	754
	28,0	27	15,4	22,5	40,3	57,8	80,7	133	149	208	254	334	429	534	668
750	31,5	24	15,4	21,3	36,7	55,2	79,7	109	142	187	224	303	378	476	609
	35,5	21	15,2	20,6	32,4	51,2	71,7	99,0	136	167	201	271	343	426	542
	40,0	19	13,4	19,5	29,1	46,2	64,1	90,3	124	150	180	241	307	380	486
	45,0	17	12,0	17,2	25,8	41,1	58,0	78,1	108	133	161	216	273	336	434
	50,0	15	10,6	15,4	23,5	35,1	51,1	69,7	97,4	119	143	193	244	298	384
	56,0	13	9,53	13,4	20,7	31,9	45,8	63,2	84,9	107	128	169	218	266	340
	63,0	12	8,39	12,1	18,1	28,4	40,5	55,5	77,4	95,5	115	151	191	243	303
	71,0	11	7,53	11,0	16,2	26,2	35,8	49,5	69,4	83,5	103	. . .	171	. . .	277
	80,0	9,4	6,51	9,64	14,6	23,4	32,2	45,3	61,5	74,6	89,9	. . .	. . .	. . .	. . .
	90,0	8,3	5,97	8,42	13,2	19,0	29,2	40,1	53,9	66,9	80,3	. . .	. . .	. . .	. . .
	100,0	7,5	5,25	7,59	11,5	17,8	25,8	35,3	49,1	59,9	72,0	. . .	. . .	. . .	. . .
	112,0	6,7	4,72	6,88	10,3	16,4	22,8	31,4	44,1	. . .	64,5	. . .	. . .	. . .	. . .
	125,0	6,0	4,08	6,04	9,28	14,6	20,5	28,7	39,0	. . .	. . .	. . .	. . .	. . .	. . .

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
Torque Ratings – kNm/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1000	8,0	125	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	116	. . .	180	. . .
	9,0	111	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	117	130	181	203
	10,0	100	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	118	146	183	226
	11,2	89	. . .	. . .	. . .	. . .	. . .	. . .	. . .	76,2	. . .	119	148	184	232
	12,5	80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	76,4	87,1	119	149	185	233
	14,0	71	5,88	8,15	14,7	19,2	30,1	44,0	51,9	76,8	92,6	120	150	186	234
	16,0	63	6,56	8,48	14,7	21,1	31,8	44,6	56,0	77,0	92,9	120	151	187	236
	18,0	56	6,57	9,20	14,8	22,3	31,9	44,7	59,5	77,3	93,3	121	151	188	237
	20,0	50	6,58	9,84	14,8	22,0	31,9	44,8	59,7	77,5	93,5	121	152	188	238
	22,4	45	6,59	9,86	14,8	22,5	32,0	44,9	59,8	77,6	93,8	122	152	189	239
	25,0	40	6,59	9,87	14,8	22,5	32,0	45,0	60,0	77,8	93,9	122	153	190	240
	28,0	36	5,41	8,11	14,8	20,6	28,0	44,5	51,8	77,9	94,1	122	153	190	241
	31,5	32	5,99	8,82	14,9	21,7	31,8	45,1	56,7	78,1	94,3	122	154	190	241
	35,5	28	6,61	9,44	14,9	22,6	32,2	45,1	60,0	78,2	94,5	123	154	191	242
	40,0	25	6,61	9,90	14,9	22,6	32,2	45,2	60,3	78,3	94,6	123	154	191	242
	45,0	22	6,62	9,91	14,9	22,6	32,2	45,2	60,4	78,4	94,7	123	154	192	243
	50,0	20	6,62	9,91	14,9	22,1	32,2	45,3	60,4	78,5	94,8	123	155	192	243
	56,0	18	6,62	9,92	14,9	22,6	32,3	45,3	60,5	78,5	94,9	123	155	192	243
	63,0	16	6,63	9,92	14,9	22,7	32,3	45,4	60,6	78,6	95,0	123	155	192	244
	71,0	14	6,54	9,93	14,9	22,7	32,3	45,4	60,6	78,7	95,1	. . .	155	. . .	244
	80,0	13	6,28	9,93	14,9	22,7	32,3	45,4	60,6	78,7	95,2	. . .	. . .	. . .	. . .
	90,0	11	6,63	9,94	14,9	21,6	32,3	45,4	60,7	78,8	95,2	. . .	. . .	. . .	. . .
	100,0	10	6,64	9,94	14,9	22,7	32,4	45,5	60,7	78,8	95,3	. . .	. . .	. . .	. . .
	112,0	8,9	6,57	9,94	14,9	22,7	32,4	45,5	60,7	. . .	95,3	. . .	. . .	. . .	. . .
	125,0	8,0	6,30	9,94	14,9	22,7	32,4	45,5	60,8	. . .	. . .	. . .	. . .	. . .	. . .
900	8,0	113	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	117	. . .	181	. . .
	9,0	100	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	118	131	182	205
	10,0	90	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	119	147	184	228
	11,2	80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	76,5	. . .	119	149	185	233
	12,5	72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	76,7	89,3	120	150	186	235
	14,0	64	5,90	8,15	14,7	19,3	30,3	44,2	51,9	77,0	92,9	120	151	187	234
	16,0	56	6,57	8,48	14,8	21,1	31,9	44,7	56,0	77,3	93,2	121	151	188	237
	18,0	50	6,58	9,20	14,8	22,3	31,9	44,7	59,7	77,5	93,5	121	152	188	238
	20,0	45	6,58	9,86	14,8	22,0	32,0	44,9	59,8	77,6	93,8	122	152	189	239
	22,4	40	6,59	9,87	14,8	22,5	32,0	44,9	59,9	77,8	94,0	122	153	190	240
	25,0	36	6,60	9,88	14,8	22,5	32,1	45,0	60,1	77,9	94,1	122	153	190	240
	28,0	32	5,43	8,11	14,9	20,6	28,1	44,8	51,8	78,1	94,3	122	154	190	241
	31,5	29	6,01	8,82	14,9	21,7	31,9	45,1	56,7	78,2	94,5	123	154	191	242
	35,5	25	6,61	9,44	14,9	22,6	32,2	45,2	59,9	78,3	94,6	123	154	191	242
	40,0	23	6,62	9,91	14,9	22,6	32,2	45,2	60,4	78,4	94,7	123	154	192	243
	45,0	20	6,62	9,91	14,9	22,6	32,2	45,3	60,4	78,5	94,8	123	155	192	243
	50,0	18	6,62	9,92	14,9	22,1	32,3	45,3	60,5	78,5	94,9	123	155	192	243
	56,0	16	6,63	9,92	14,9	22,7	32,3	45,3	60,6	78,6	95,0	123	155	192	244
	63,0	14	6,63	9,93	14,9	22,7	32,3	45,4	60,6	78,7	95,1	124	155	193	244
	71,0	13	6,55	9,93	14,9	22,7	32,3	45,4	60,6	78,7	95,2	. . .	155	. . .	244
	80,0	11	6,29	9,93	14,9	22,7	32,3	45,4	60,7	78,8	95,2	. . .	. . .	. . .	. . .
	90,0	10	6,64	9,94	14,9	21,6	32,4	45,5	60,7	78,8	95,3	. . .	. . .	. . .	. . .
	100,0	9,0	6,63	9,94	14,9	22,7	32,4	45,5	60,7	78,9	95,3	. . .	. . .	. . .	. . .
	112,0	8,0	6,57	9,94	14,9	22,7	32,4	45,5	60,8	. . .	95,4	. . .	. . .	. . .	. . .
	125,0	7,2	6,30	9,94	15,0	22,7	32,4	45,5	60,8	. . .	. . .	. . .	. . .	. . .	. . .
750	8,0	94	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	118	. . .	183	. . .
	9,0	83	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	119	132	184	207
	10,0	75	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	120	149	186	231
	11,2	67	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,0	. . .	120	150	186	235
	12,5	60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,1	90,2	121	151	187	237
	14,0	54	5,93	8,15	14,8	19,5	30,3	44,7	51,9	77,4	93,4	121	152	188	236
	16,0	47	6,58	8,48	14,8	21,1	32,0	44,8	56,0	77,6	93,5	121	152	189	238
	18,0	42	6,59	9,20	14,8	22,3	32,0	44,9	59,9	77,7	93,9	122	153	189	239
	20,0	38	6,60	9,87	14,8	22,0	32,1	45,0	60,0	77,9	94,1	122	153	190	240
	22,4	33	6,60	9,88	14,8	22,5	32,1	45,0	60,1	78,0	94,3	122	153	190	241
	25,0	30	6,61	9,89	14,9	22,6	32,1	45,1	60,2	78,1	94,4	123	154	191	241
	28,0	27	5,47	8,11	14,9	20,6	28,4	45,1	51,8	78,2	94,5	123	154	191	242
	31,5	24	6,06	8,82	14,9	21,7	31,9	45,2	56,7	78,3	94,7	123	154	191	242
	35,5	21	6,62	9,44	14,9	22,6	32,2	45,3	59,9	78,4	94,8	123	155	192	243
	40,0	19	6,62	9,92	14,9	22,6	32,3	45,3	60,5	78,5	94,9	123	155	192	243
	45,0	17	6,63	9,92	14,9	22,7	32,3	45,3	60,5	78,6	95,0	123	155	192	244
	50,0	15	6,63	9,93	14,9	22,1	32,3	45,4	60,6	78,6	95,1	124	155	192	244
	56,0	13	6,63	9,93	14,9	22,7	32,3	45,4	60,6	78,7	95,1	124	155	193	244
	63,0	12	6,63	9,93	14,9	22,7	32,3	45,4	60,7	78,7	95,2	124	155	193	244
	71,0	11	6,56	9,94	14,9	22,7	32,3	45,4	60,7	78,8	95,3	. . .	155	. . .	245
	80,0	9,4	6,29	9,94	14,9	22,7	32,4	45,5	60,7	78,8	95,3	. . .	. . .	. . .	. . .
	90,0	8,3	6,64	9,94	14,9	21,6	32,4	45,5	60,8	78,9	95,4	. . .	. . .	. . .	. . .
	100,0	7,5	6,64	9,94	15,0	22,7	32,4	45,5	60,8	78,9	95,4	. . .	. . .	. . .	. . .
	112,0	6,7	6,58	9,95	15,0	22,7	32,4	45,5	60,8	. . .	95,4	. . .	. . .	. . .	. . .
	125,0	6,0	6,31	9,95	15,0	22,7	32,4	45,5	60,8	. . .	. . .	. . .	. . .	. . .	. . .

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
Power Ratings – kW/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
	8,0	75	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	939	. . .	1455	. . .
	9,0	67	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	837	948	1315	1469
	10,0	60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	746	948	1156	1469
	11,2	54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	396	. . .	657	845	1037	1318
	12,5	48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	366	416	589	744	925	1183
	14,0	43	26,5	35,0	62,8	85,5	131	196	232	326	395	525	667	839	1055
	16,0	38	25,9	33,1	56,5	82,3	126	171	226	288	351	476	594	748	957
	18,0	33	23,4	31,3	51,4	78,5	111	153	211	258	310	428	540	672	854
	20,0	30	21,2	30,4	45,4	69,1	99,1	139	191	231	278	380	484	599	766
	22,4	27	18,7	27,4	40,8	63,8	88,5	126	173	213	249	340	431	531	684
	25,0	24	16,7	24,2	36,2	56,9	80,2	109	151	189	229	304	385	470	605
	28,0	21	12,4	18,0	32,3	46,2	65,2	98,1	119	167	204	268	344	428	536
600	31,5	19	12,4	17,1	29,4	44,1	63,8	87,7	114	150	180	243	303	382	489
	35,5	17	12,1	16,5	25,9	41,0	57,4	79,3	108	134	161	218	275	342	435
	40,0	15	10,7	15,6	23,3	37,0	51,3	72,4	99,1	120	144	193	246	305	390
	45,0	13	9,58	13,8	20,7	32,9	46,5	62,6	86,1	107	129	173	219	270	348
	50,0	12	8,50	12,3	18,8	28,1	40,9	55,8	78,0	95,2	115	154	196	239	308
	56,0	11	7,63	10,7	16,6	25,6	36,7	50,6	68,0	85,4	103	135	175	213	272
	63,0	9,5	6,72	9,70	14,5	22,7	32,4	44,5	62,0	76,5	91,9	121	153	194	243
	71,0	8,5	6,03	8,79	13,0	21,0	28,7	39,6	55,6	66,9	82,4	. . .	137	. . .	222
	80,0	7,5	5,22	7,71	11,7	18,7	25,8	36,2	49,2	59,7	72,0	. . .	. . .	. . .	. . .
	90,0	6,7	4,77	6,74	10,5	15,2	23,3	32,1	43,2	53,6	64,3	. . .	. . .	. . .	. . .
	100,0	6,0	4,20	6,08	9,21	14,2	20,6	28,2	39,3	48,0	57,7	. . .	. . .	. . .	. . .
	112,0	5,4	3,78	5,51	8,25	13,1	18,3	25,1	35,3	. . .	51,6	. . .	. . .	. . .	. . .
	125,0	4,8	3,27	4,83	7,43	11,7	16,4	23,0	31,2	. . .	. . .	. . .	. . .	. . .	. . .

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
Torque Ratings – kNm/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	(kNm AT LOW SPEED SHAFT) DRIVE SIZE											
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
	8,0	75	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	120	. . .	185	. . .
	9,0	67	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	120	134	186	208
	10,0	60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	121	151	187	232
	11,2	54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,4	. . .	121	152	188	237
	12,5	48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	77,5	91,4	121	152	189	239
	14,0	43	5,96	8,15	14,8	19,7	30,3	44,9	51,9	77,7	93,8	122	153	189	239
	16,0	38	6,60	8,48	14,8	21,1	32,0	45,0	56,0	77,9	94,1	122	153	190	240
	18,0	33	6,60	9,20	14,8	22,3	32,1	45,0	60,1	78,0	94,3	122	153	190	241
	20,0	30	6,61	9,89	14,9	22,0	32,1	45,1	60,2	78,1	94,4	123	154	191	241
	22,4	27	6,61	9,90	14,9	22,6	32,2	45,2	60,3	78,2	94,6	123	154	191	242
	25,0	24	6,62	9,91	14,9	22,6	32,2	45,2	60,4	78,3	94,7	123	154	191	242
	28,0	21	5,52	8,11	14,9	20,6	28,6	45,3	51,8	78,4	94,8	123	155	192	243
600	31,5	19	6,11	8,82	14,9	21,7	31,9	45,3	56,7	78,5	94,9	123	155	192	243
	35,5	17	6,63	9,44	14,9	22,6	32,3	45,3	59,9	78,6	95,0	123	155	192	244
	40,0	15	6,63	9,92	14,9	22,7	32,3	45,4	60,6	78,6	95,1	124	155	192	244
	45,0	13	6,63	9,93	14,9	22,7	32,3	45,4	60,6	78,7	95,1	124	155	193	244
	50,0	12	6,63	9,93	14,9	21,1	32,3	45,4	60,7	78,7	95,2	124	155	193	244
	56,0	11	6,64	9,94	14,9	22,7	32,3	45,4	60,7	78,8	95,3	124	155	193	245
	63,0	9,5	6,64	9,94	14,9	22,7	32,4	45,5	60,7	78,8	95,3	124	156	193	245
	71,0	8,5	6,57	9,94	14,9	22,7	32,4	45,5	60,7	78,9	95,4	. . .	156	. . .	245
	80,0	7,5	6,30	9,94	15,0	22,7	32,4	45,5	60,8	78,9	95,4	. . .	. . .	. . .	. . .
	90,0	6,7	6,64	9,95	15,0	21,6	32,4	45,5	60,8	78,9	95,4	. . .	. . .	. . .	. . .
	100,0	6,0	6,64	9,95	15,0	22,7	32,4	45,5	60,8	79,0	95,5	. . .	. . .	. . .	. . .
	112,0	5,4	6,58	9,95	15,0	22,7	32,4	45,5	60,8	. . .	95,5	. . .	. . .	. . .	. . .
	125,0	4,8	6,31	9,95	15,0	22,7	32,4	45,5	60,8	. . .	. . .	. . .	. . .	. . .	. . .

Type DBL Right Angle Shaft

Basic Thermal Ratings ★ – kW/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1800	2,88	None	70	109	148	164	185	216	242	308
	Thru	Shaft Fan	109	172	234	259	293	342	382	487
	4,48	Electric Fan	199	312	426	470	532	620	694	883
	5,04	None	57	92	127	143	165	195	221	287
	Thru	Shaft Fan	91	146	202	225	260	308	350	454
	11,2	Electric Fan	165	265	365	410	473	560	636	825
	12,5	None	35	60	87	102	123	154	181	246
	Thru	Shaft Fan	55	94	137	161	196	244	286	389
	25,0	Electric Fan	98	171	249	294	356	444	518	707
1500	2,88	None	69	108	147	162	185	216	241	307
	Thru	Shaft Fan	102	160	218	241	273	318	357	454
	4,48	Electric Fan	189	295	403	447	505	591	662	841
	5,04	None	55	87	122	137	158	189	216	281
	Thru	Shaft Fan	80	129	179	203	235	280	318	416
	11,2	Electric Fan	148	239	332	375	435	518	591	770
	12,5	None	31	56	81	97	119	150	175	241
	Thru	Shaft Fan	46	83	120	144	176	221	259	357
	25,0	Electric Fan	85	151	223	266	326	367	480	661
1200	2,88	None	67	105	143	158	181	211	237	302
	Thru	Shaft Fan	92	146	199	221	251	293	329	421
	4,48	Electric Fan	176	277	379	420	479	559	627	802
	5,04	None	50	83	116	132	154	183	210	276
	Thru	Shaft Fan	71	115	161	183	213	255	291	384
	11,2	Electric Fan	136	220	307	349	406	487	556	731
	12,5	None	29	52	77	92	115	146	171	237
	Thru	Shaft Fan	41	73	108	129	160	202	238	329
	25,0	Electric Fan	77	139	204	246	305	385	454	629
1000	2,88	None	64	101	139	154	176	207	232	298
	Thru	Shaft Fan	85	134	185	206	234	260	309	398
	4,48	Electric Fan	164	259	354	393	449	528	594	762
	5,04	None	49	80	112	127	150	179	206	272
	Thru	Shaft Fan	64	106	148	169	199	239	273	361
	11,2	Electric Fan	125	203	284	325	381	458	525	692
	12,5	None	27	49	74	90	112	141	168	234
	Thru	Shaft Fan	36	66	98	119	148	189	224	311
	25,0	Electric Fan	69	126	189	230	286	363	428	596
900	2,88	None	63	99	136	151	174	203	230	295
	Thru	Shaft Fan	81	130	178	199	227	266	301	386
	4,48	Electric Fan	157	248	340	379	435	510	575	742
	5,04	None	48	78	109	125	147	178	203	269
	Thru	Shaft Fan	62	102	144	164	193	232	266	353
	11,2	Electric Fan	119	196	176	314	370	445	510	676
	12,5	None	27	49	73	88	111	141	167	232
	Thru	Shaft Fan	35	64	95	116	144	185	218	305
	25,0	Electric Fan	67	122	183	223	277	354	419	584
750	2,88	None	60	95	132	147	169	199	225	291
	Thru	Shaft Fan	76	120	165	185	213	251	284	367
	4,48	Electric Fan	146	232	321	360	413	487	550	711
	5,04	None	46	76	106	122	144	175	200	266
	Thru	Shaft Fan	57	95	134	154	182	220	252	336
	11,2	Electric Fan	112	185	260	298	351	426	490	650
	12,5	None	25	48	71	87	108	139	165	231
	Thru	Shaft Fan	32	59	90	109	136	175	207	291
	25,0	Electric Fan	62	115	174	211	263	339	402	563
600	2,88	None	57	91	126	141	164	195	220	286
	Thru	Shaft Fan	69	111	153	172	199	235	266	346
	4,48	Electric Fan	134	216	298	336	388	459	521	675
	5,04	None	43	73	104	119	141	171	197	263
	Thru	Shaft Fan	53	88	125	144	171	207	239	318
	11,2	Electric Fan	104	172	244	281	333	405	466	620
	12,5	None	24	45	67	84	106	136	162	228
	Thru	Shaft Fan	28	55	83	101	127	164	196	276
	25,0	Electric Fan	56	105	160	197	249	321	382	538

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DB & DX ▲ Right Angle Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – kW/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE								
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210
1800	14,0 Thru 22,4	None	50	78	106	117	132	154	173	220	220
		Shaft Fan	78	123	167	185	209	244	273	348	348
		Electric Fan	142	223	304	336	380	443	496	631	631
	25,0 Thru 56,0	None	41	66	91	102	118	139	158	205	205
		Shaft Fan	65	104	144	161	186	220	250	324	324
		Electric Fan	118	189	261	293	338	400	454	589	589
	63,0 Thru 125	None	25	43	62	73	88	110	129	176	176
		Shaft Fan	39	67	98	115	140	174	204	278	278
		Electric Fan	70	122	178	210	254	317	370	505	505
1500	14,0 Thru 22,4	None	49	77	105	116	132	154	172	219	219
		Shaft Fan	73	114	156	172	195	227	255	324	324
		Electric Fan	135	211	288	319	361	422	473	601	601
	25,0 Thru 56,0	None	39	62	87	98	113	135	154	201	201
		Shaft Fan	57	92	128	145	168	200	227	297	297
		Electric Fan	106	171	237	268	311	370	422	550	550
	63,0 Thru 125	None	22	40	58	69	85	107	125	172	172
		Shaft Fan	33	59	86	103	126	158	185	255	255
		Electric Fan	61	108	159	190	233	292	343	472	472
1200	14,0 Thru 22,4	None	48	75	102	113	129	151	169	216	216
		Shaft Fan	66	104	142	158	179	209	235	301	301
		Electric Fan	126	198	271	300	342	399	448	573	573
	25,0 Thru 56,0	None	36	59	83	94	110	131	150	197	197
		Shaft Fan	51	82	115	131	152	182	208	274	274
		Electric Fan	97	157	219	249	290	348	397	522	522
	63,0 Thru 125	None	21	37	55	66	82	104	122	169	169
		Shaft Fan	29	52	77	92	114	144	170	234	235
		Electric Fan	55	99	146	176	218	275	324	449	449
1000	14,0 Thru 22,4	None	46	72	99	110	126	148	166	213	213
		Shaft Fan	61	96	132	147	167	196	221	284	284
		Electric Fan	117	185	253	281	321	377	424	544	544
	25,0 Thru 56,0	None	35	57	80	91	107	128	147	194	194
		Shaft Fan	46	76	106	121	142	171	195	258	258
		Electric Fan	89	145	203	232	272	327	375	494	494
	63,0 Thru 125	None	19	35	53	64	80	101	120	167	167
		Shaft Fan	26	47	70	85	106	135	160	222	222
		Electric Fan	49	90	135	164	204	259	306	426	426
900	14,0 Thru 22,4	None	45	71	97	108	124	145	164	211	211
		Shaft Fan	58	93	127	142	162	190	215	276	276
		Electric Fan	112	177	243	271	311	364	411	530	530
	25,0 Thru 56,0	None	34	56	78	89	105	127	145	192	192
		Shaft Fan	44	73	103	117	138	166	190	252	252
		Electric Fan	85	140	197	224	264	318	364	483	483
	63,0 Thru 125	None	19	35	52	63	79	101	119	166	166
		Shaft Fan	25	46	68	83	103	132	156	218	218
		Electric Fan	48	87	131	159	198	253	299	417	417
750	14,0 Thru 22,4	None	43	68	94	105	121	142	161	208	208
		Shaft Fan	54	86	118	132	152	179	203	262	262
		Electric Fan	104	166	229	257	295	348	393	508	508
	25,0 Thru 56,0	None	33	54	76	87	103	125	143	190	190
		Shaft Fan	41	68	96	110	130	157	180	240	240
		Electric Fan	80	132	186	213	251	304	350	464	464
	63,0 Thru 125	None	18	34	51	62	77	99	118	165	165
		Shaft Fan	23	42	64	78	97	125	148	208	208
		Electric Fan	44	82	124	151	188	242	287	402	402
600	14,0 Thru 22,4	None	41	65	90	101	117	139	157	204	204
		Shaft Fan	49	79	109	123	142	168	190	247	247
		Electric Fan	96	154	213	240	277	328	372	482	482
	25,0 Thru 56,0	None	31	52	74	85	101	122	141	188	188
		Shaft Fan	38	63	89	103	122	148	171	227	227
		Electric Fan	74	123	174	201	238	289	333	443	443
	63,0 Thru 125	None	17	32	48	60	76	97	116	163	163
		Shaft Fan	20	39	59	72	91	117	140	197	197
		Electric Fan	40	75	114	141	178	229	273	384	384

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F)) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DX, apply a multiplier of 0.8 to the thermal ratings.

Type DB Right Angle Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – kW/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1800	8.0 Thru 35.5	None	239	239	333	333
		Shaft Fan	919	919	1084	1084
		Electric Fan	1682	1682	2346	2346
	40.0 Thru 71.0	None	212	212	303	303
		Shaft Fan	767	767	1001	1001
		Electric Fan	1248	1248	1786	1786
1500	8.0 Thru 35.5	None	251	251	352	352
		Shaft Fan	845	845	1078	1078
		Electric Fan	1561	1561	2195	2195
	40.0 Thru 71.0	None	207	207	303	303
		Shaft Fan	664	664	893	893
		Electric Fan	1122	1122	1648	1648
1200	8.0 Thru 35.5	None	254	254	359	359
		Shaft Fan	793	793	1045	1045
		Electric Fan	1450	1450	2045	2045
	40.0 Thru 71.0	None	195	195	280	280
		Shaft Fan	638	638	869	869
		Electric Fan	1080	1080	1550	1550
1000	8.0 Thru 35.5	None	251	251	357	357
		Shaft Fan	714	714	964	964
		Electric Fan	1355	1355	1932	1932
	40.0 Thru 71.0	None	190	190	276	276
		Shaft Fan	567	567	784	784
		Electric Fan	1002	1002	1456	1456
900	8.0 Thru 35.5	None	248	248	356	356
		Shaft Fan	676	676	923	923
		Electric Fan	1307	1307	1875	1875
	40.0 Thru 71.0	None	188	188	274	274
		Shaft Fan	532	532	741	741
		Electric Fan	963	963	1408	1408
750	8.0 Thru 35.5	None	242	242	348	348
		Shaft Fan	638	638	880	880
		Electric Fan	1258	1258	1807	1807
	40.0 Thru 71.0	None	183	183	267	267
		Shaft Fan	495	495	691	691
		Electric Fan	928	928	1356	1356
600	8.0 Thru 35.5	None	231	231	330	330
		Shaft Fan	587	587	813	813
		Electric Fan	1167	1167	1665	1665
	40.0 Thru 71.0	None	173	173	249	249
		Shaft Fan	456	456	637	637
		Electric Fan	865	865	1245	1245

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F)) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 10 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Exact Ratios/Right Angle Shaft Drives

Double Reduction - Type DBL

Nominal Ratio	DRIVE SIZE							
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
2,80	2,879	2,895	2,934	2,925	2,936	2,850	2,860	2,896
3,15	3,258	3,190	3,268	3,262	3,222	3,268	3,170	3,138
3,55	3,607	3,656	3,593	3,606	3,668	3,656	3,633	3,534
4,00	3,999	4,048	4,075	4,048	4,121	4,048	4,022	4,009
4,50	4,524	4,497	4,539	4,493	4,617	4,438	4,451	4,483
5,00	5,074	5,097	5,113	5,048	5,098	5,135	5,124	5,014
5,60	5,695	5,609	5,735	5,649	5,578	5,735	5,564	5,448
6,30	6,307	6,427	6,306	6,244	6,351	6,417	6,376	6,134
7,10	6,991	7,115	7,153	7,009	7,136	7,104	7,059	6,959
8,00	7,910	7,906	7,966	7,781	7,994	7,789	7,812	7,782
9,00	8,870	8,960	6,975	8,741	8,827	9,014	8,993	8,704
10,0	10,000	10,018	9,882	9,982	10,035	10,118	9,939	9,732
11,2	11,138	11,498	11,186	11,269	11,205	11,166	11,407	10,948
12,5	12,656	12,746	12,800	12,675	12,688	12,706	12,522	12,261
14,0	13,945	14,063	14,294	13,754	14,324	14,275	13,969	13,678
16,0	15,469	16,028	15,882	15,403	15,956	15,604	15,779	15,279
18,0	17,820	18,364	17,647	18,021	17,616	17,616	17,996	17,490
20,0	20,250	20,356	20,194	20,268	19,949	20,045	19,755	19,587
22,4	22,313	22,460	22,551	21,994	22,520	22,520	22,038	21,851
25,0	24,750	25,598	25,057	24,631	25,086	24,617	24,893	24,408

Triple Reduction - Type DB(All Sizes) & DX(Sizes M1130-M1210)

Nominal Ratio	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
8,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	8,005	. . .	8,009	. . .
9,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	9,017	8,884	8,905	8,907
10,0	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	10,16	10,01	10,18	9,903
11,2	. . .	. . .	. . .	. . .	. . .	. . .	. . .	12,27	. . .	11,59	11,28	11,39	11,32
12,5	. . .	. . .	. . .	. . .	. . .	. . .	. . .	13,30	13,79	12,96	12,86	12,82	12,67
14,0	14,12	14,63	14,82	14,47	14,52	14,41	14,06	14,98	14,94	14,59	14,38	14,17	14,25
16,0	15,98	16,12	16,51	16,14	15,94	16,52	15,59	16,99	16,83	16,10	16,19	15,94	15,76
18,0	17,69	18,47	18,15	17,84	18,15	18,48	17,86	19,00	19,09	17,97	17,86	17,80	17,72
20,0	19,61	20,45	20,59	20,03	20,39	20,46	19,77	21,25	21,35	20,24	19,95	19,99	19,80
22,4	22,19	22,72	22,93	22,23	22,84	22,44	21,88	23,09	23,87	22,66	22,47	22,63	22,24
25,0	24,89	25,75	25,84	24,97	25,22	25,96	25,19	26,00	25,94	25,39	25,15	25,59	25,17
28,0	27,93	28,34	28,98	27,95	27,60	29,00	27,36	29,49	29,21	28,91	28,18	28,12	28,46
31,5	30,93	32,47	31,86	30,89	31,42	32,44	31,35	32,98	33,14	31,90	32,09	31,62	31,28
35,5	34,29	35,95	36,14	34,68	35,30	35,92	34,71	36,89	37,06	35,62	35,41	35,32	35,16
40,0	38,80	39,95	40,25	38,49	39,55	39,38	38,41	41,24	41,45	40,12	39,53	39,67	39,28
45,0	43,51	45,27	45,35	43,25	43,67	45,57	44,22	46,40	46,34	44,91	44,53	44,90	44,12
50,0	49,05	50,62	49,93	49,39	49,65	51,15	48,87	51,96	52,13	50,33	49,85	50,77	49,93
56,0	54,63	58,10	56,52	55,75	55,43	56,45	56,08	57,97	58,39	57,60	55,86	56,90	56,47
63,0	62,08	64,40	64,67	62,71	62,77	64,24	61,57	64,75	65,13	64,17	63,93	62,39	63,28
71,0	68,40	71,06	72,22	68,05	70,87	72,17	68,68	74,12	72,76	. . .	71,22	. . .	69,39
80,0	75,87	80,99	80,25	76,21	78,94	78,89	77,58	83,01	83,29	. . .	. . .	. . .	. . .
90,0	87,40	92,79	89,16	89,15	87,15	89,06	88,48	92,61	93,27	. . .	. . .	. . .	. . .
100	99,32	102,9	102,0	100,3	98,69	101,3	97,13	103,4	104,1	. . .	. . .	. . .	. . .
112	109,4	113,5	113,9	108,8	111,4	113,9	108,4	. . .	116,2	. . .	. . .	. . .	. . .
125	121,4	129,3	126,6	121,9	124,1	124,5	122,4	. . .	. . .	. . .	. . .	. . .	. . .

WR^2/Right Angle Shaft Drives - Type DBL

Approximate WR^2 (kg-m^2) Referred to Drive High Speed Shaft ★

Nominal Ratios	DRIVE SIZE							
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
2,80	0,00899	0,02580	0,04882	0,06932	0,14384	0,27228	0,27490	1,04243
3,15	0,00861	0,02512	0,04706	0,06642	0,13901	0,25686	0,25172	1,01104
3,55	0,00829	0,02429	0,04575	0,06409	0,13308	0,24585	0,22728	0,97004
4,00	0,00802	0,02382	0,04429	0,06212	0,12924	0,23724	0,21101	0,93909
4,50	0,00774	0,02331	0,04316	0,05986	0,12461	0,22997	0,19654	0,90470
5,00	0,00756	0,02278	0,04214	0,05848	0,12261	0,22001	0,18476	0,87557
5,60	0,00394	0,01157	0,02121	0,03739	0,06284	0,12152	0,20293	0,47773
6,30	0,00384	0,01130	0,02078	0,03661	0,06086	0,11794	0,19499	0,46413
7,10	0,00375	0,01115	0,02031	0,03596	0,05958	0,11515	0,18971	0,45386
8,00	0,00366	0,01098	0,01994	0,03521	0,05804	0,11279	0,18502	0,44244
9,00	0,00360	0,01081	0,01961	0,03474	0,05737	0,10956	0,18119	0,43278
10,0	0,00345	0,01068	0,01858	0,03297	0,05428	0,10549	0,17840	0,42222
11,2	0,00339	0,01050	0,01823	0,03240	0,05324	0,10386	0,17336	0,41512
12,5	0,00333	0,01040	0,01791	0,03194	0,05231	0,10208	0,17067	0,40972
14,0	0,00329	0,01031	0,01774	0,03167	0,05151	0,10052	0,16774	0,40426
16,0	0,00326	0,01021	0,01756	0,03131	0,05089	0,09947	0,16501	0,39944
18,0	0,00134	0,00333	0,00597	0,00927	0,01989	0,03922	0,06284	0,16821
20,0	0,00132	0,00329	0,00584	0,00909	0,01952	0,03850	0,06176	0,16609
22,4	0,00130	0,00325	0,00577	0,00898	0,01919	0,03787	0,06058	0,16395
25,0	0,00129	0,00322	0,00570	0,00884	0,01894	0,03745	0,05948	0,16206

★ Values in these tables are approximate. Where accurate figures are required, or for ratios not shown, consult the Factory. WR^2 referred to drive low speed shaft equals (exact total ratio)^2 times WR^2 referred to high speed shaft.

WR^2/Right Angle Shaft Drives
Type DB(All Sizes) & DX(Sizes M1130-M1210)

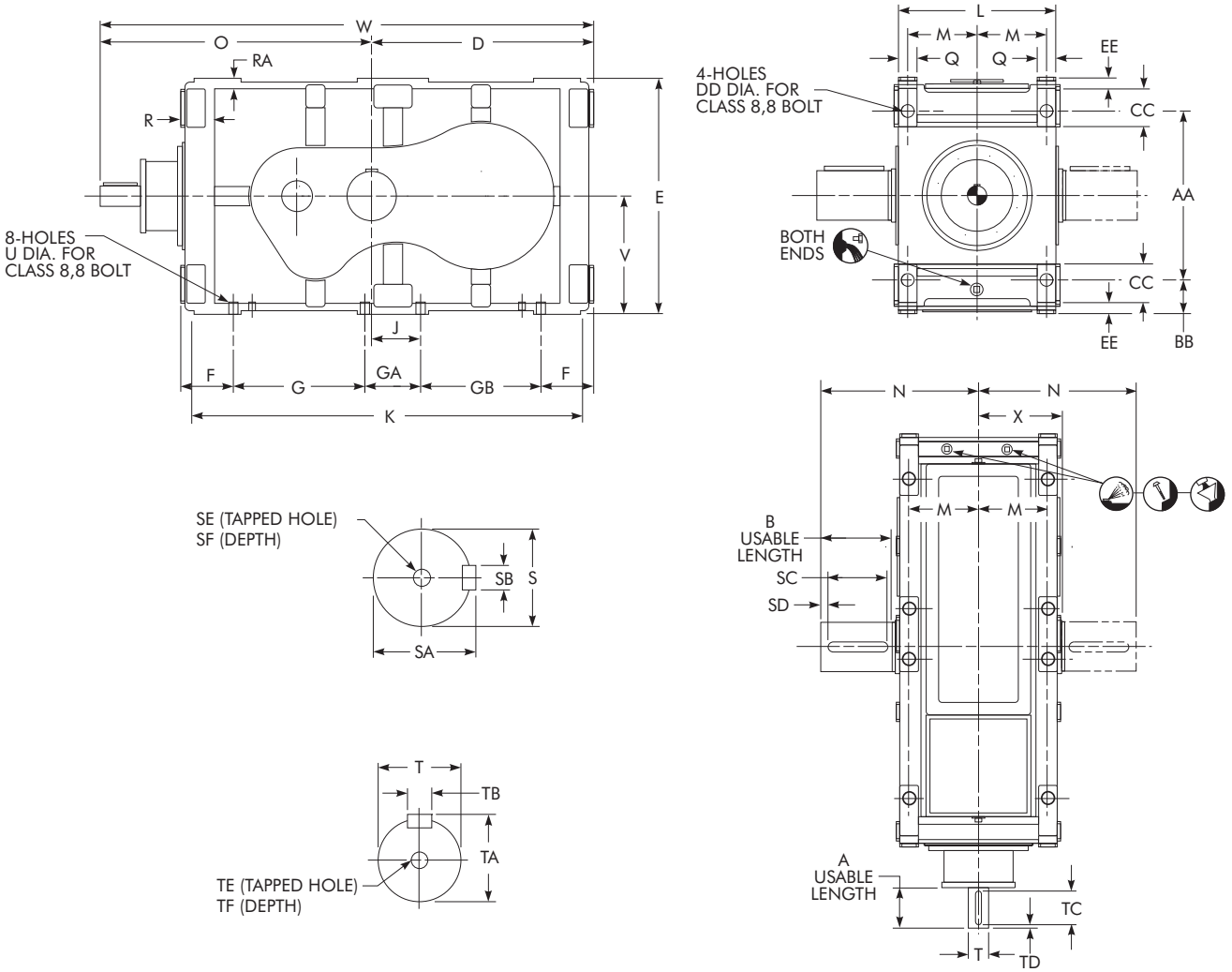
Approximate WR^2 (kg-m^2) Referred to Drive High Speed Shaft ★

Nominal Ratios	DRIVE SIZE								
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210
11,2	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1,1841	. . .
12,5	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1,1317	1,2021
14,0	0,0114	0,0301	0,0554	0,0822	0,1663	0,3128	0,3550	1,0652	1,1469
16,0	0,0105	0,0287	0,0524	0,0768	0,1577	0,2876	0,3169	1,0130	1,0772
18,0	0,0098	0,0270	0,0501	0,0726	0,1471	0,2704	0,2769	0,9638	1,0224
20,0	0,0093	0,0260	0,0477	0,0689	0,1406	0,2573	0,2515	0,9228	0,9713
22,4	0,0087	0,0251	0,0459	0,0653	0,1337	0,2467	0,2296	0,5178	0,9288
25,0	0,0083	0,0242	0,0443	0,0628	0,1301	0,2325	0,2097	0,4957	0,5228
28,0	0,0046	0,0127	0,0229	0,0349	0,0691	0,1315	0,2241	0,4784	0,4997
31,5	0,0043	0,0122	0,0222	0,0335	0,0655	0,1259	0,2111	0,4621	0,4815
35,5	0,0042	0,0119	0,0214	0,0322	0,0634	0,1217	0,2029	0,4485	0,4645
40,0	0,0040	0,0116	0,0208	0,0311	0,0611	0,1182	0,1958	0,4348	0,4504
45,0	0,0039	0,0113	0,0203	0,0302	0,0599	0,1136	0,1893	0,4250	0,4363
50,0	0,0036	0,0110	0,0192	0,0281	0,0562	0,1087	0,1850	0,4176	0,4263
56,0	0,0035	0,0108	0,0187	0,0273	0,0548	0,1065	0,1784	0,4106	0,4186
63,0	0,0035	0,0106	0,0183	0,0267	0,0535	0,1041	0,1748	0,4045	0,4114
71,0	0,0034	0,0105	0,0180	0,0263	0,0525	0,1021	0,1711	0,1721	0,4052
80,0	0,0033	0,0104	0,0178	0,0258	0,0516	0,1008	0,1676	0,1692	0,1726
90,0	0,0014	0,0034	0,0062	0,0096	0,0205	0,0403	0,0649	0,1664	0,1696
100	0,0014	0,0034	0,0060	0,0094	0,0200	0,0393	0,0634	0,1641	0,1668
112	0,0013	0,0033	0,0059	0,0092	0,0196	0,0385	0,0619	. . .	0,1643
125	0,0013	0,0033	0,0058	0,0090	0,0192	0,0380	0,0605	. . .	. . .

★ Values in these tables are approximate. Where accurate figures are required, or for ratios not shown, consult the Factory. WR^2 referred to drive low speed shaft equals (exact total ratio)^2 times WR^2 referred to high speed shaft.

Type DBL2 Double Reduction

Sizes M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	2,80-16,0	100	250	67	87	80	402	24	424	30	112	200	100	200	90	664	290	125	247	575	40	82	25
	18,0-25,0	70																		545			
M1140	2,80-16,0	110	316	67	78	90	446	28	472	30	116	230	120	230	100	752	340	150	272	629,5	50	87	30
	18,0-25,0	90																		608,2			
M1150	2,80-16,0	150	330	90	100	100	500	28	530	30	121	270	150	253	126	855	370	165	310	690	50	86,5	30
	18,0-25,0	100																		644			
M1160	2,80-16,0	150	370	90	95	100	540	28	560	30	125	297,5	165	277,5	138	930	405	177,5	327,5	769	50	85	30
	18,0-25,0	140																		759			

DRIVE SIZE	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1130	2,80-16,0	42 k6	45	12	56	10	M16	36	40 k6	43	12	90	10	M16	36	4,5	212	977	155	315
	18,0-25,0								25 j6	28	8	70	5	M10	22			947		
M1140	2,80-16,0	55 m6	59	16	56	10	M20	42	45 k6	48,5	14	110	10	M16	36	18,5	236	1075,5	180	452
	18,0-25,0								30 j6	33	8	90		M10	22			1054,2		
M1150	2,80-16,0	70 m6	74,5	20	80	10	M20	42	50 k6	53,5	14	140	10	M16	36	18,5	265	1190	195	560
	18,0-25,0								35 k6	38	10	100	5	M12	28			1144		
M1160	2,80-16,0	75 m6	80	20	80	10	M20	42	55 m6	59	16	145	10	M20	42	24	280	1309	212,5	643
	18,0-25,0								40 k6	43	12	135		M16	36			1299		

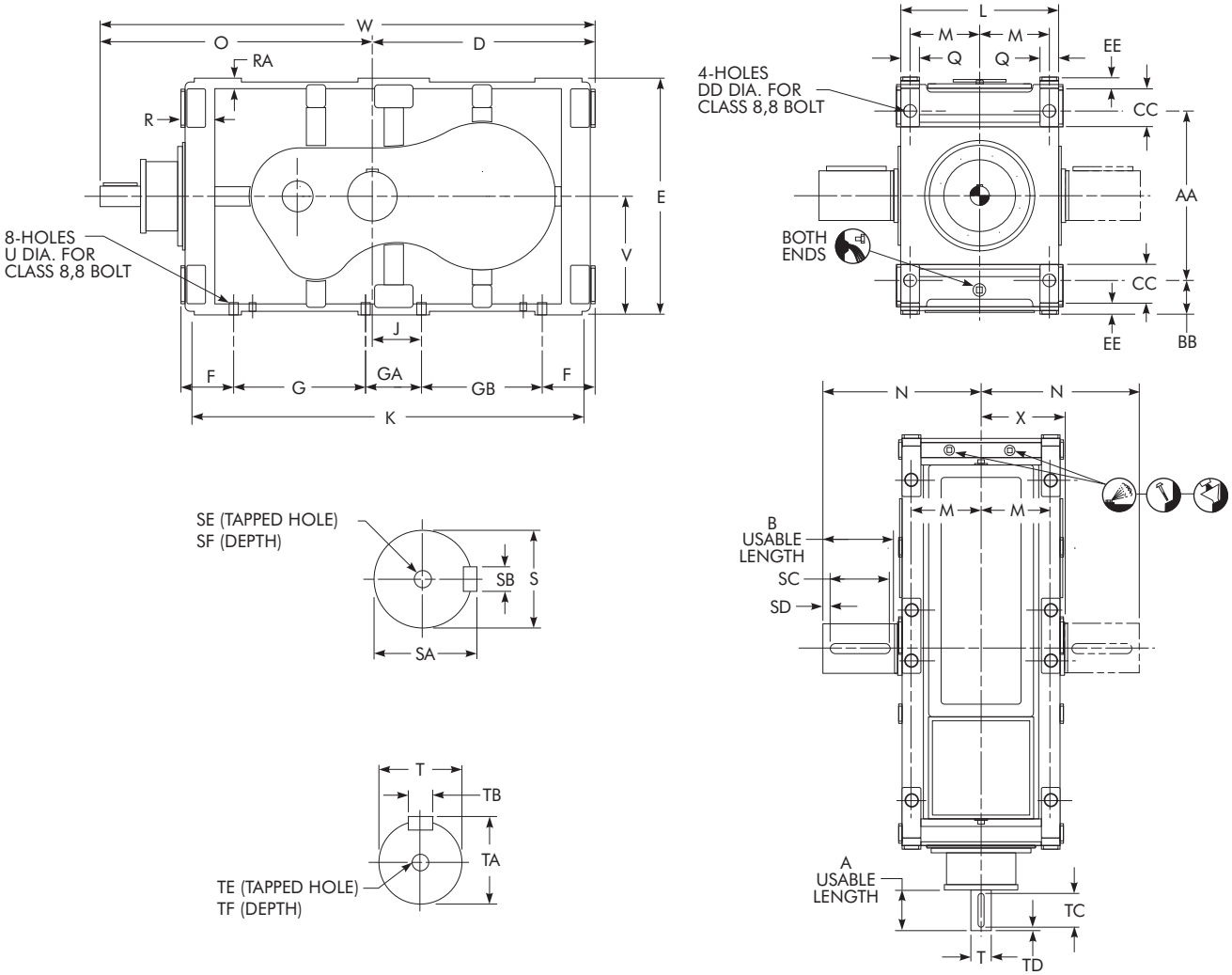
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DBL2 Double Reduction

Sizes M1170 – M1200/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	2,80-16,0	155	430	115	100	100	590	35	630	30	140	350	150	320	130	1040	410	180	355	797	50	90	30
	18,0-25,0	150																		791			
M1180	2,80-16,0	180	470	110	100	100	670	35	670	30	140	410	180	360	170	1170	470	210	385	880	50	95	30
	18,0-25,0	160																		860			
M1190	2,80-16,0	195	540	150	105	110	745	42	750	30	150	465	180	435	160	1320	510	215	442,5	955	85	110	30
	18,0-25,0	175																		935			
M1200	2,80-16,0	240	640	185	130	150	885	42	900	40	160	545	200	560	165	1545	570	245	505	1115	85	110	35
	18,0-25,0	240																		1115			

DRIVE SIZE	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
1170	2,80-16,0	80 m6	85	22	100	15	M20	42	55 m6	59	16	160	10	M20	42	24	315	1387	215	857
	18,0-25,0								50 k6	53,5	14	140		M16	36			1381		
1180	2,80-16,0	95 m6	100	25	100	15	M24	50	70 m6	74,5	20	180	10	M20	42	28	335	1550	245	1243
	18,0-25,0								55 m6	59	16	160						1530		
1190	2,80-16,0	100 m6	106	28	125	15	M24	50	80 m6	85	22	180	15	M20	42	35	375	1700	265	1512
	18,0-25,0								65 m6	69	18	160	10					1680		
1200	2,80-16,0	140 m6	148	36	160	20	M24	50	110 m6	116	28	200	20	M24	50	35	450	2000	295	2308
	18,0-25,0								75 m6	80	20			M20	42			2000		

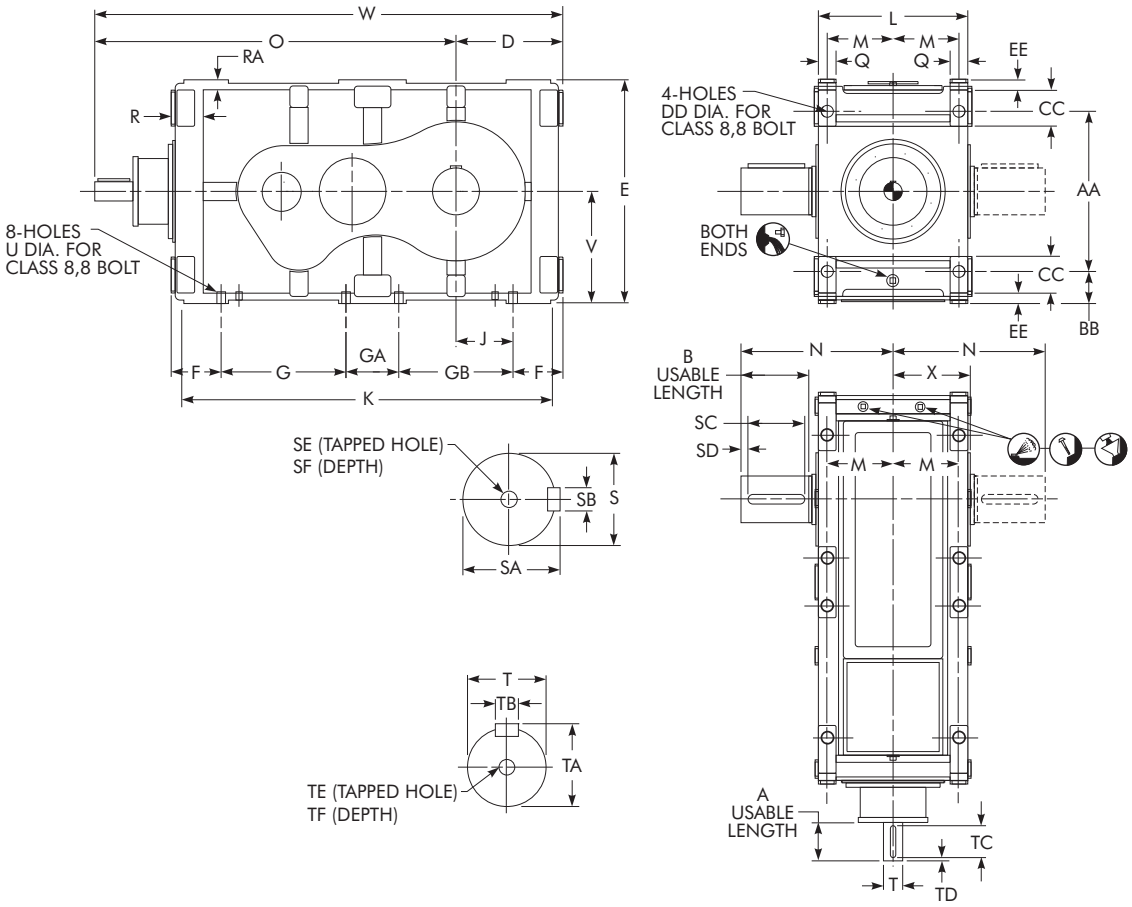
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DBC3 Triple Reduction

Sizes M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	14,0-80,0	100	250	120	87	80	212	24	424	30	112	200	100	200	100	664	290	125	295	765	40	82	25
	90,0-125	70																		735			
M1140	14,0-80,0	110	316	155	78	90	236	28	472	30	116	230	120	230	120	752	340	150	355	839,5	50	87	30
	90,0-125	90																		818,2			
M1150	14,0-80,0	150	330	155	100	100	265	28	530	30	121	270	150	253	144	855	370	165	373	925	50	86,5	30
	90,0-125	100																		879			
M1160	14,0-80,0	150	370	190	95	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	422	1029	50	85	30
	90,0-125	140																		1019			

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1130	14,0-80,0	90 m6	95	25	100	15	M24	50	40 k6	43	12	90	10	M16	36	14,5	212	977	155	375
	90,0-125								25 j6	28	8	70	5	M10	22			947		
M1140	14,0-80,0	110 m6	116	28	125	15	M24	50	45 k6	48,5	14	110	10	M16	36	18,5	236	1075,5	180	538
	90,0-125								30 j6	33	8	90		M10	22			1054,2		
M1150	14,0-80,0	120 m6	127	32	125	15	M24	50	50 k6	53,5	14	140	10	M16	36	18,5	265	1190	195	667
	90,0-125								35 k6	38	10	100	5	M12	28			1144		
M1160	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	145	10	M20	42	24	280	1309	212,5	765
	90,0-125								40 k6	43	12	135		M16	36			1299		

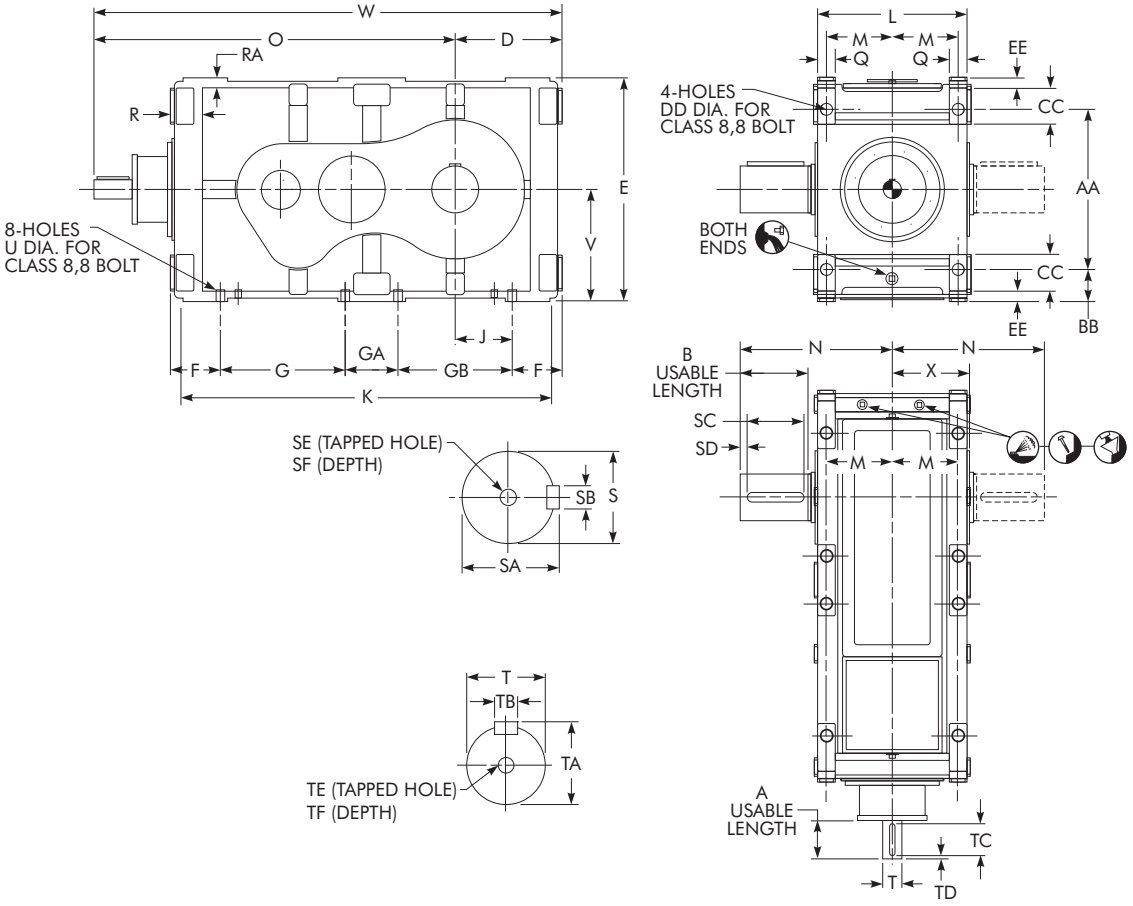
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DBC3 Triple Reduction

Sizes M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	14,0-80,0	155	430	190	100	100	300	35	630	30	140	350	150	320	160	1040	410	180	430	1087	50	90	30
	90,0-125	150																		1081			
M1180	14,0-80,0	180	470	190	100	100	335	35	670	30	140	410	180	360	195	1170	470	210	455	1215	50	95	30
	90,0-125	160																		1195			
M1190	14,0-80,0	195	540	225	105	110	375	42	750	30	150	465	180	435	225	1320	510	215	515	1325	85	110	30
	90,0-125	175																		1305			
M1200	11,2-100,0	240	640	270	130	150	475	42	900	40	160	545	200	560	315	1545	570	245	585	1525	85	110	35
M1210	12,5-112,0	240	640	270	130	150	450	42	900	40	160	545	200	560	290	1545	570	245	585	1550	85	110	35

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF					
M1170	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	160	10	M20	42	24	315	1387	215	1020
	90,0-125								50 k6	53,5	14	140		M16	36			1381		
M1180	14,0-80,0	150 m6	158	36	160	20	M24	50	70 m6	74,5	20	180	10	M20	42	28	335	1550	245	1480
	90,0-125								55 m6	59	16	160						1530		
M1190	14,0-80,0	170 m6	179	40	200	20	M24	50	80 m6	85	22	180	15	M20	42	35	375	1700	265	1800
	90,0-125								65 m6	69	18	160	10					1680		
M1200	11,2-63,0	190 m6	200	45	220	20	M24	50	110 m6	116	28	200	20	M24	50	35	450	2000	295	2747
	71,0-100,0								75 m6	80	20	200	20	M20	42					
M1210	12,5-71,0	200 m6	210	45	220	20	M24	50	110 m6	116	28	200	20	M24	50	35	450	2000	295	2852
	80,0-112,0								75 m6	80	20	200	20	M20	42					

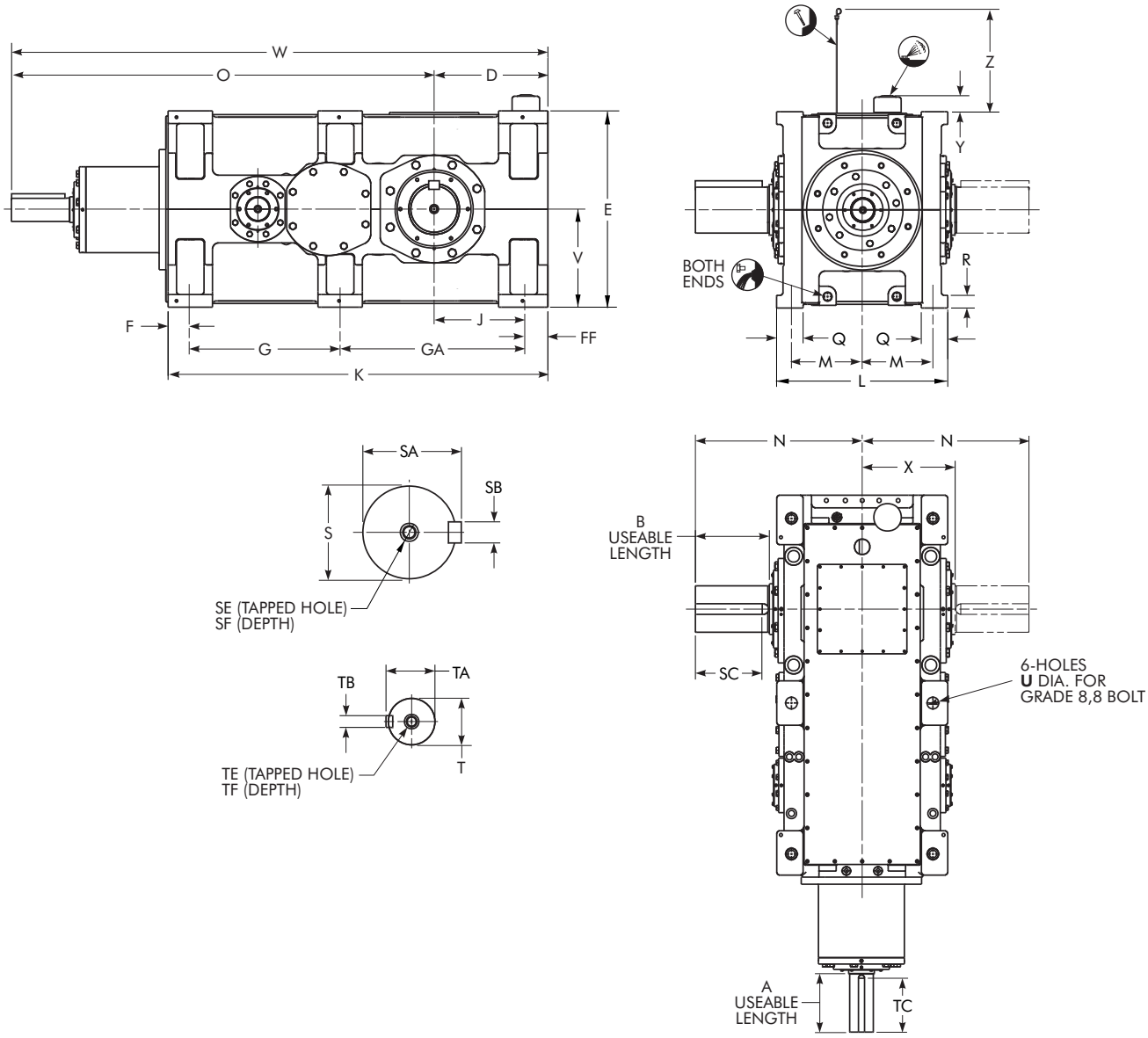
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DBC3 Triple Reduction

Sizes M1220 – M1250/Dimensions — Millimeters



DRIVE SIZE ★	A	B	D	E	F	FF	G	GA	J	K	L	M	N ●	O	Q	R
M1220	270	350	580	930	100	110	715	875	470	1800	810	335	790	1950	125	60
M1230	270	350	540	930	100	110	715	875	430	1800	810	335	790	1990	125	60
M1240	270	410	670	1100	120	140	830	1005	530	2095	900	375	895	2085	140	65
M1250	270	410	620	1100	120	140	830	1005	480	2095	900	375	895	2135	140	65

DRIVE SIZE ★	Low Speed Shaft						High Speed Shaft						U	V	W	X	Y	Z	Approx Wt kg
	S	SA	SB	SC	SE	SF	T	TA	TB	TC	TE	TF							
M1220	220 m6	231	50	320	M30	60	110 m6	116	28	250	M24	50	48	465	2530	440	84	663	4956
M1230	220 m6	231	50	320	M30	60	110 m6	116	28	250	M24	50	48	465	2530	440	84	663	5186
M1240	250 m6	262	56	360	M30	60	110 m6	116	28	250	M24	50	55	550	2755	485	82	758	7068
M1250	250 m6	262	56	360	M30	60	110 m6	116	28	250	M24	50	55	550	2755	485	82	758	7467

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

● Single low speed shaft extension is standard; double extension is special.

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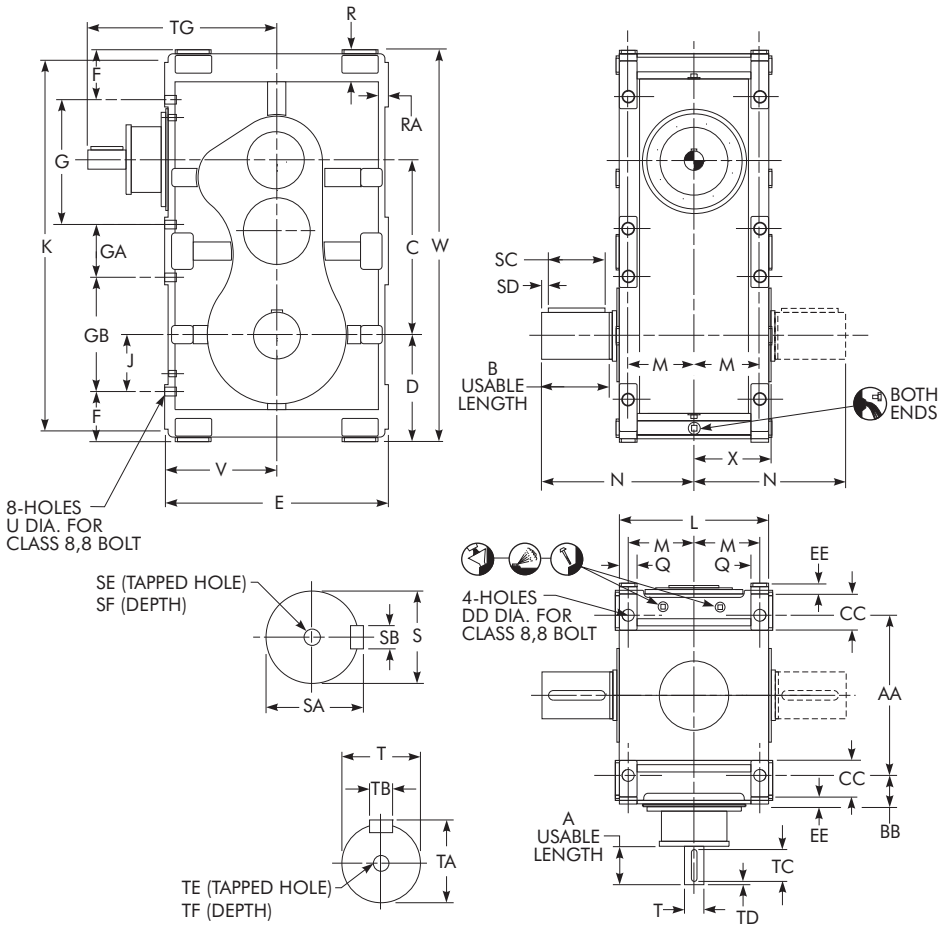
Type DZC3 Triple Reduction

Sizes M1130 – M1150/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	Q	R	RA
M1130	14,0-80,0	100	250	120	87	300	80	212	24	424	30	112	200	100	200	100	664	290	125	295	40	82	25
	90,0-125	70																					
M1140	14,0-80,0	110	316	155	78	340	90	236	28	472	30	116	230	120	230	120	752	340	150	355	50	87	30
	90,0-125	90																					
M1150	14,0-80,0	150	330	155	100	385	100	265	28	530	30	121	270	150	253	144	855	370	165	373	50	86,5	30
	90,0-125	100																					

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †								U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF	TG					
M1130	14,0-80,0	90 m6	95	25	100	15	M24	50	40 k6	43	12	90	10	M16	36	465	14,5	212	724	155	375
	90,0-125								25 j6	28	8	70	5	M10	22	435					
M1140	14,0-80,0	110 m6	116	28	125	15	M24	50	45 k6	48,5	14	110	10	M16	36	499,5	18,5	236	812	180	538
	90,0-125								30 j6	33	8	90		M10	22	478,2					
M1150	14,0-80,0	120 m6	127	32	125	15	M24	50	50 k6	53,5	14	140	10	M16	36	540	18,5	265	915	195	667
	90,0-125								35 k6	38	10	100	5	M12	28	494					

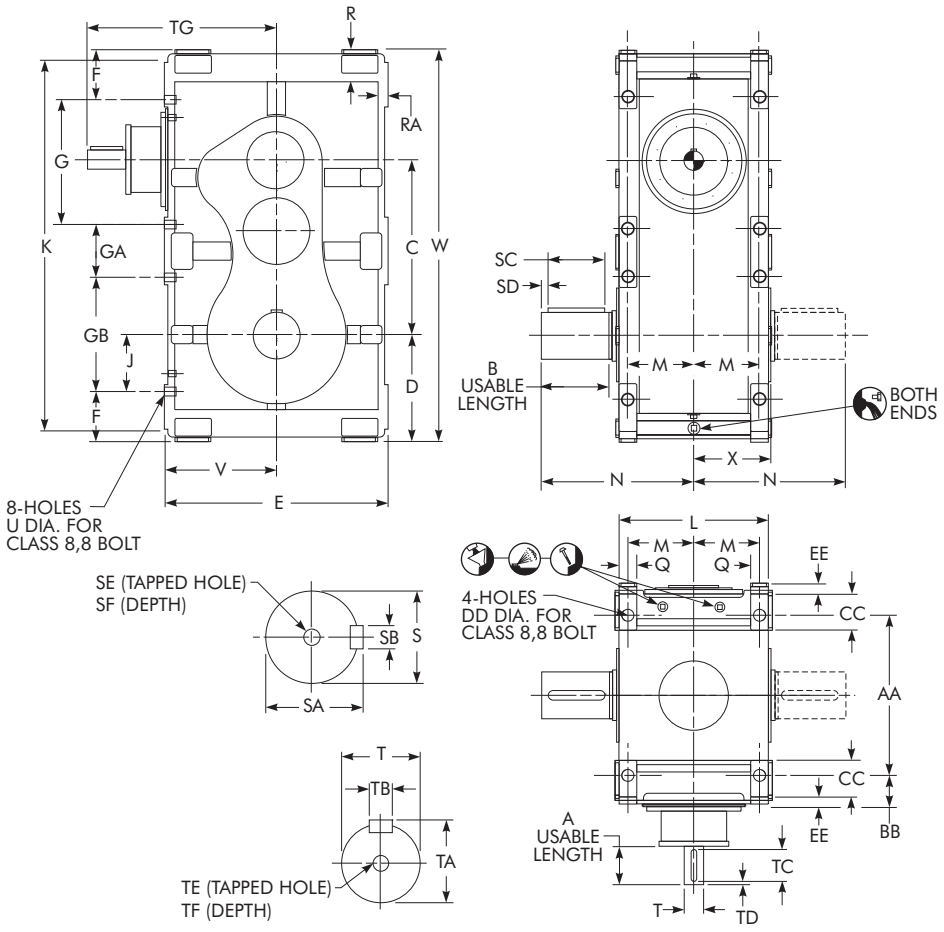
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DZC3 Triple Reduction

Sizes M1160 – M1190/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	Q	R	RA
M1160	14,0-80,0	150	370	190	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	422	50	85	30
	90,0-125	140																					
M1170	14,0-80,0	155	430	190	100	485	100	300	35	630	30	140	350	150	320	160	1040	410	180	430	50	90	30
	90,0-125	150																					
M1180	14,0-80,0	180	470	190	100	560	100	335	35	670	30	140	410	180	360	195	1170	470	210	455	50	95	30
	90,0-125	160																					
M1190	14,0-80,0	195	540	225	105	630	110	375	42	750	30	150	465	180	435	225	1320	510	215	515	85	110	30
	90,0-125	175																					

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †								U	V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF	TG					
M1160	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	145	10	M20	42	599	24	280	990	12,5	765
	90,0-125								40 k6	43	12	135		M16	36	589					
M1170	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	160	10	M20	42	602	24	315	1100	215	1020
	90,0-125								50 k6	53,5	14	140		M16	36	596					
M1180	14,0-80,0	150 m6	158	36	160	20	M24	50	70 m6	74,5	20	180	10	M20	42	655	28	335	1230	245	1480
	90,0-125								55 m6	59	16	160				635					
M1190	14,0-80,0	170 m6	179	40	200	20	M24	50	80 m6	85	22	180	15	M20	42	695	35	375	1380	265	1800
	90,0-125								65 m6	69	18	160	10			675					

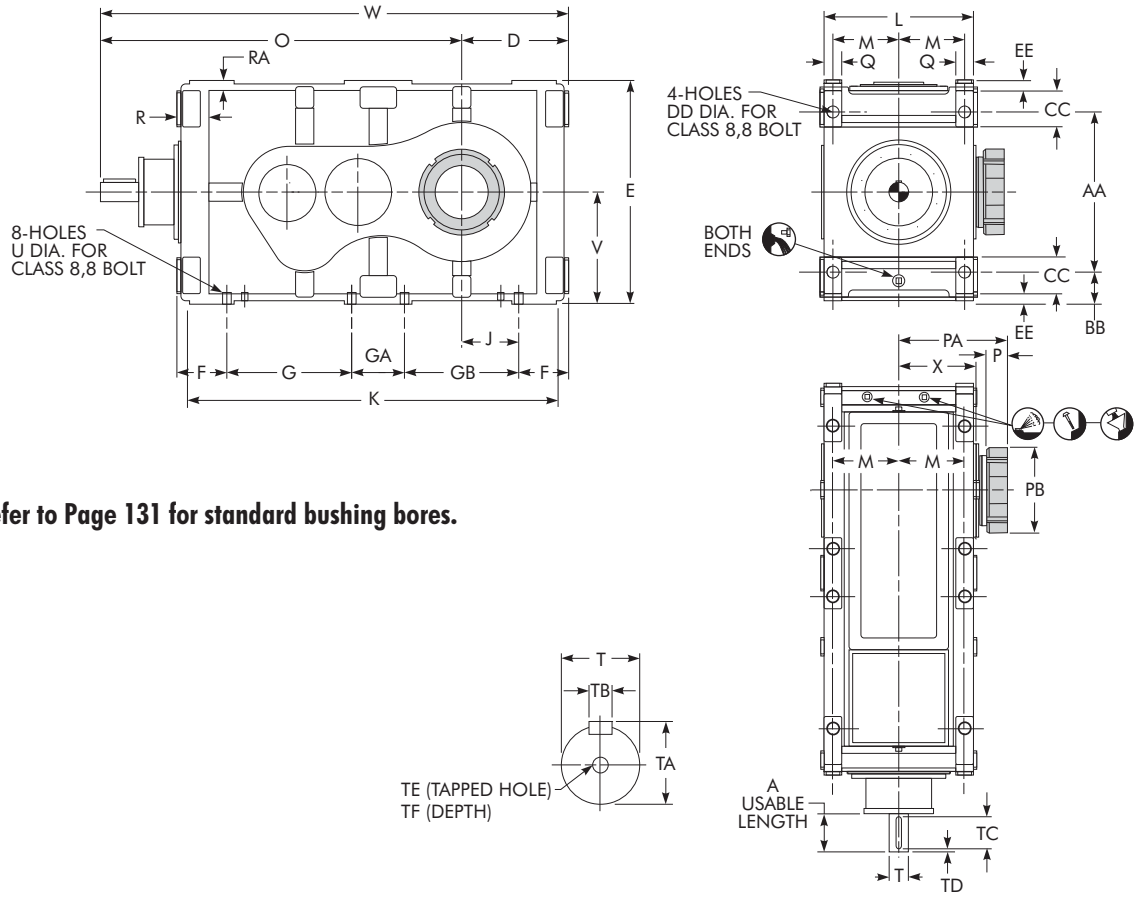
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

Type DBT3 Triple Reduction with TA Taper Bushing

Sizes M1130 – M1160/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1130	14,0-80,0	100	250	87	80	212	24	424	30	112	200	100	200	100	664	290	125	765	56	242	185	40	82	25
	90,0-125	70																735						
M1140	14,0-80,0	110	316	78	90	236	28	472	30	116	230	120	230	120	752	340	150	839,5	56	267	205	50	87	30
	90,0-125	90																818,2						
M1150	14,0-80,0	150	330	100	100	265	28	530	30	121	270	150	253	144	855	370	165	925	56	278	225	50	86,5	30
	90,0-125	100																879						
M1160	14,0-80,0	150	370	95	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	1029	60	303	240	50	85	30
	90,0-125	140																1019						

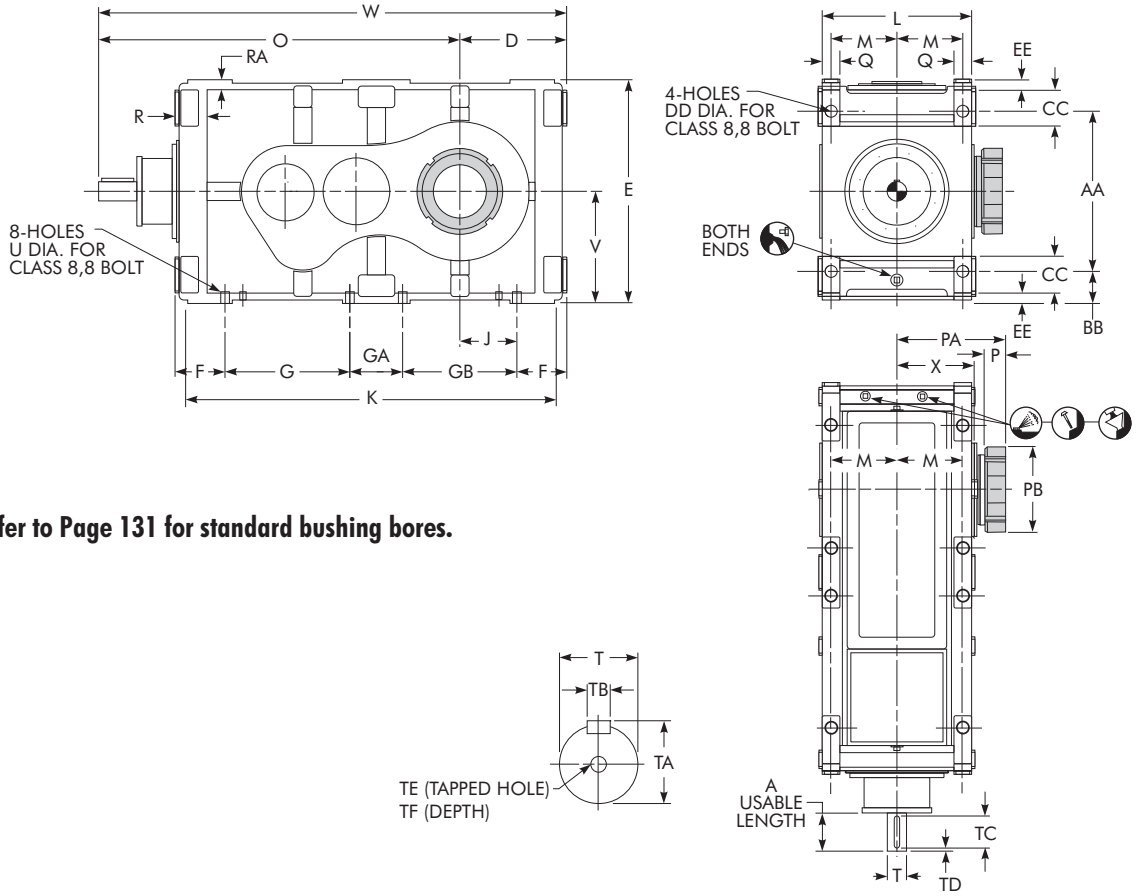
DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF					
M1130	14,0-80,0	40 k6	43	12	90	10	M16	36	14,5	212	977	155	351
	90,0-125	25 j6	28	8	70	5	M10	22			947		
M1140	14,0-80,0	45 k6	48,5	14	110	10	M16	36	18,5	236	1075,5	180	499
	90,0-125	30 j6	33	8	90		M10	22			1054,2		
M1150	14,0-80,0	50 k6	53,5	14	140	10	M16	36	18,5	265	1190	195	603
	90,0-125	35 k6	38	10	100	5	M12	28			1144		
M1160	14,0-80,0	55 m6	59	16	145	10	M20	42	24	280	1309	212,5	685
	90,0-125	40 k6	43	12	135		M16	36			1299		

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DBT3 Triple Reduction with TA Taper Bushing

Sizes M1170 – M1210/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1170	14,0-80,0	155	430	100	100	300	35	630	30	140	350	150	320	160	1040	410	180	1087	60	300	260	50	90	30
	90,0-125	150																1081						
M1180	14,0-80,0	180	470	100	100	335	35	670	30	140	410	180	360	195	1170	470	210	1215	60	335	280	50	95	30
	90,0-125	160																1195						
M1190	14,0-80,0	195	540	105	110	375	42	750	30	150	465	180	435	225	1320	510	215	1325	65	355	295	85	110	30
	90,0-125	175																1305						
M1200	11,2-100,0	240	640	130	150	475	42	900	40	160	545	200	560	315	1545	570	245	1525	. . .	331	279	85	110	35
M1210	12,5-112,0	240	640	130	150	450	42	900	40	160	545	200	560	290	1545	570	245	1550	. . .	331	279	85	110	35

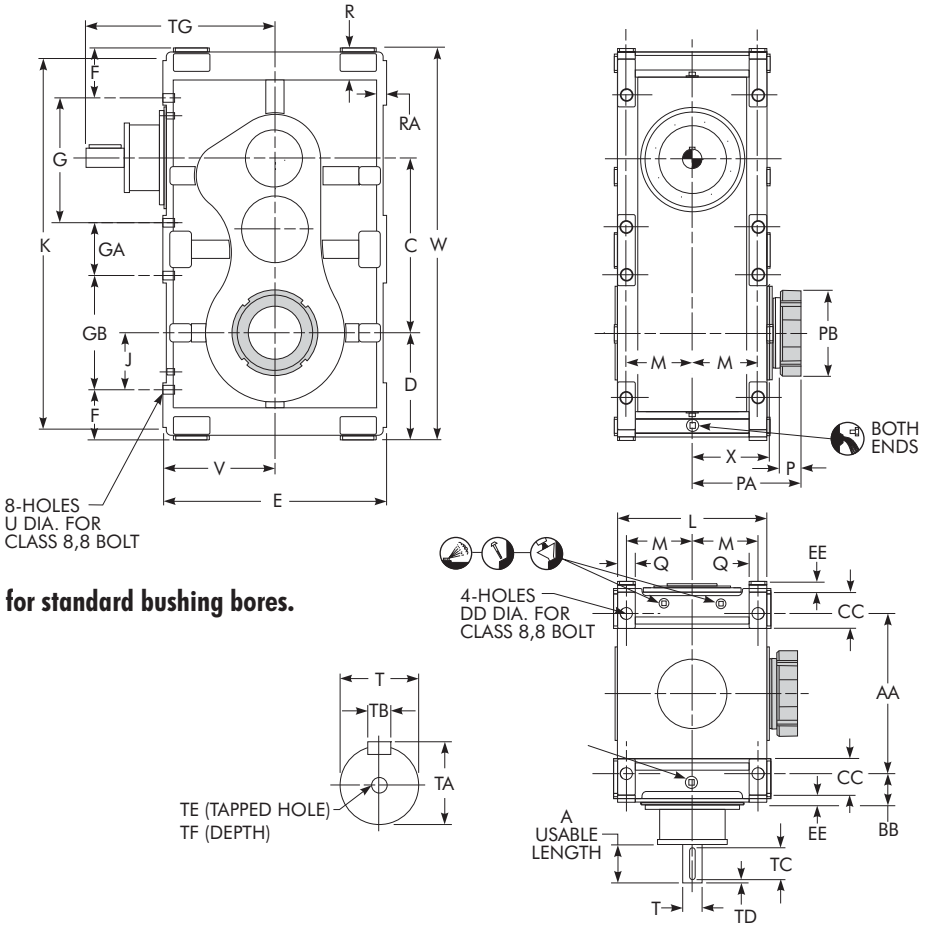
DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF					
M1170	14,0-80,0	55 m6	59	16	160	10	M20	42	24	315	1387	215	1020
	90,0-125	50 k6	53,5	14	140		M16	36			1381		
M1180	14,0-80,0	70 m6	74,5	20	180	10	M20	42	28	335	1550	245	1480
	90,0-125	55 m6	59	16	160						1530		
M1190	14,0-80,0	80 m6	85	22	180	15	M20	42	35	375	1700	265	1800
	90,0-125	65 m6	69	18	160	10					1680		
M1200	11,2-63,0	110 m6	116	28	200	20	M24	50	35	450	2000	295	2563
	71,0-100,0	75 m6	80	20	200		M20	42					
M1210	12,5-71,0	110 m6	116	28	200	20	M24	50	35	450	2000	295	2653
	80,0-112,0	75 m6	80	20	200		M20	42					

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DZT3 Triple Reduction with TA Taper Bushing

Sizes M1130 – M1150/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	P	PA	PB	Q	R	RA
M1130	14,0-80,0	100	250	87	300	80	212	24	424	30	112	200	100	200	100	664	290	125	56	242	185	40	82	25
	90,0-125	70																						
M1140	14,0-80,0	110	316	78	340	90	236	28	472	30	116	230	120	230	120	752	340	150	56	267	205	50	87	30
	90,0-125	90																						
M1150	14,0-80,0	150	330	100	385	100	265	28	530	30	121	270	150	253	144	855	370	165	56	278	225	50	86,5	30
	90,0-125	100																						

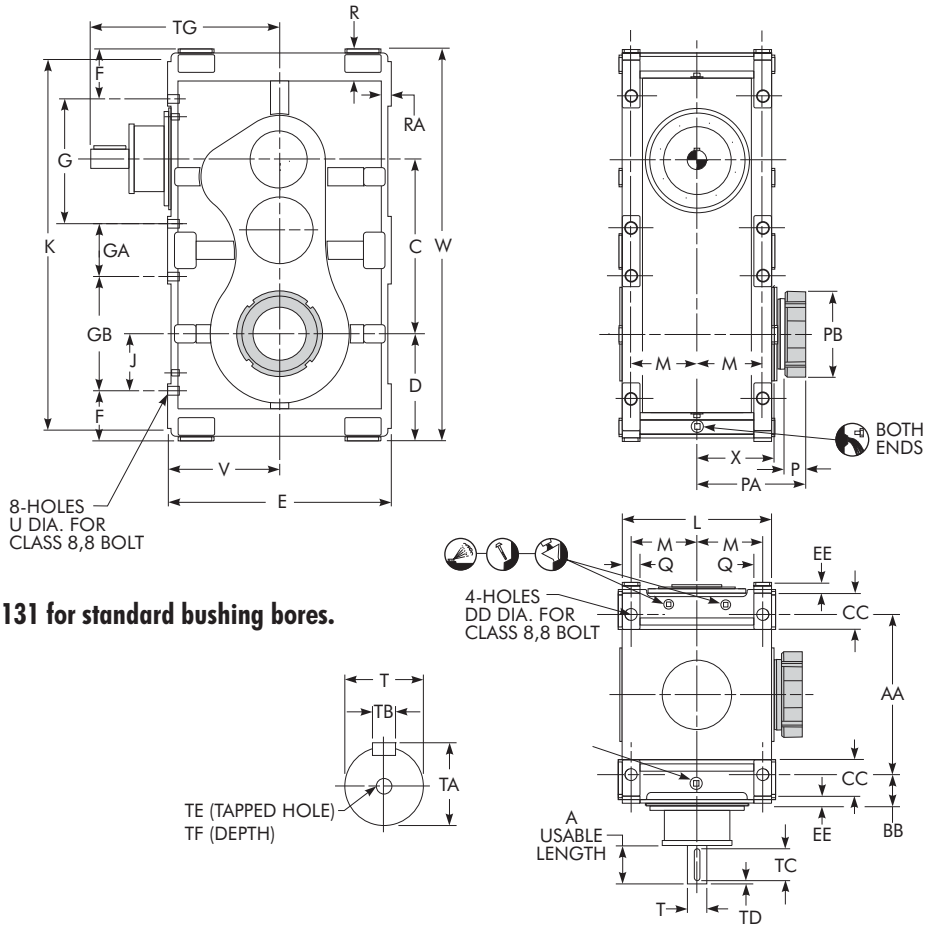
DRIVE SIZE ★	Ratios	High Speed Shaft †								U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF	TG					
M1130	14,0-80,0	40 k6	43	12	90	10	M16	36	465	14,5	212	724	155	351
	90,0-125	25 j6	28	8	70	5	M10	22	435					
M1140	14,0-80,0	45 k6	48,5	14	110	10	M16	36	499,5	18,5	236	812	180	499
	90,0-125	30 j6	33	8	90		M10	22	478,2					
M1150	14,0-80,0	50 k6	53,5	14	140	10	M16	36	540	18,5	265	915	195	603
	90,0-125	35 k6	38	10	100	5	M12	28	494					

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DZT3 Triple Reduction with TA Taper Bushing

Sizes M1160 – M1190/Dimensions — Millimeters



Refer to Page 131 for standard bushing bores.

DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	P	PA	PB	Q	R	RA
M1160	14,0-80,0	150	370	95	430	100	280	28	560	30	125	297,5	165	277,5	155	930	405	177,5	60	303	240	50	85	30
	90,0-125	140																						
M1170	14,0-80,0	155	430	100	485	100	300	35	630	30	140	350	150	320	160	1040	410	180	60	300	260	50	90	30
	90,0-125	150																						
M1180	14,0-80,0	180	470	100	560	100	335	35	670	30	140	410	180	360	195	1170	470	210	60	335	280	50	95	30
	90,0-125	160																						
M1190	14,0-80,0	195	540	105	630	110	375	42	750	30	150	465	180	435	225	1320	510	215	65	355	295	85	110	30
	90,0-125	175																						

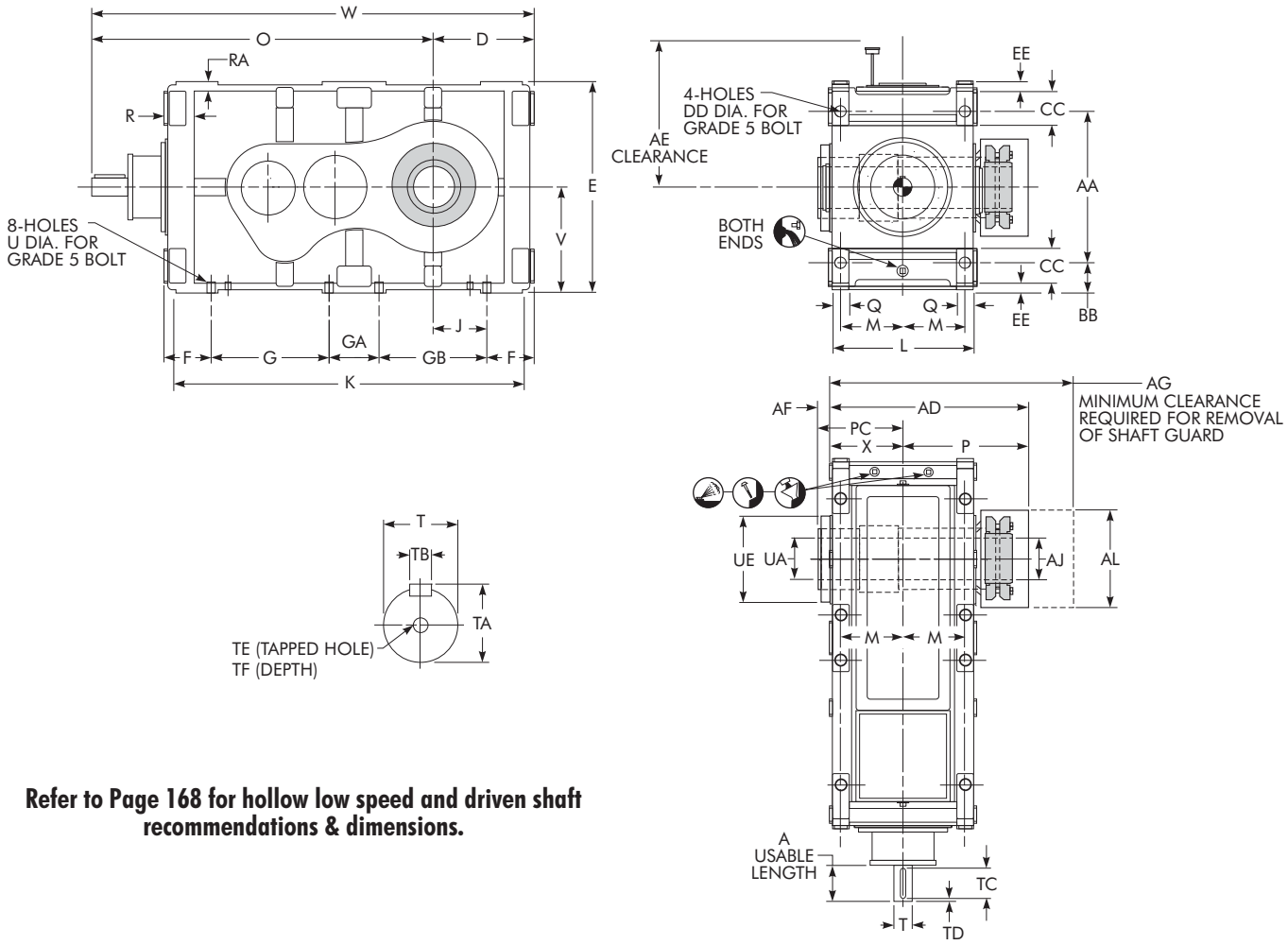
DRIVE SIZE ★	Ratios	High Speed Shaft †								U	V	W	X	Approx Wt kg
		T	TA	TB	TC	TD	TE	TF	TG					
M1160	14,0-80,0	55 m6	59	16	145	10	M20	42	599	24	280	990	212,5	685
	90,0-125	40 k6	43	12	135		M16	36	589					
M1170	14,0-80,0	55 m6	59	16	160	10	M20	42	602	24	315	1100	215	1020
	90,0-125	50 k6	53,5	14	140		M16	36	596					
M1180	14,0-80,0	70 m6	74,5	20	180	10	M20	42	655	28	335	1230	245	1480
	90,0-125	55 m6	59	16	160				635					
M1190	14,0-80,0	80 m6	85	22	180	15	M20	42	695	35	375	1380	265	1800
	90,0-125	65 m6	69	18	160	10			675					

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DBJ3 Triple Reduction w/Hollow LS Shaft - Shrink Disc Mounted

Sizes M1130 – M1160/Dimensions — Millimeters



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.

DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ •	AL	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	14,0 - 80,0	100	250	421	307	20	537	85	215	87	80	212	24	424	30	112	200	100	200	100	664	290
	90,0 - 125,0	70																				
M1140	14,0 - 80,0	110	316	478	344	19	601	100	260	78	90	236	28	472	30	116	230	120	230	120	752	340
	90,0 - 125,0	90																				
M1150	14,0 - 80,0	150	330	518	381	21	651	110	279	100	100	265	28	530	30	121	270	150	253	144	855	370
	90,0 - 125,0	100																				
M1160	14,0 - 80,0	150	370	564	398	19	707	130	350	95	100	280	28	560	30	125	297,5	165	277,5	155	930	405
	90,0 - 125,0	140																				

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †							U	UA ■	UE	V	W	X	Approx Wt kg
									T	TA	TB	TC	TD	TE	TF							
M1130	14,0 - 80,0	125	765	264	175	40	82	25	40 k6	43	12	90	10	M16	36	14,5	90	190	212	977	155	351
	90,0 - 125,0		735						25 j6	28	8	70	5	M10	22					947		
M1140	14,0 - 80,0	150	839,5	297	199	50	87	30	45 k6	48,5	14	110	10	M16	36	18,5	105	235	236	1075,5	180	499
	90,0 - 125,0		818,2						30 j6	33	8	90		M10	22					1054,2		
M1150	14,0 - 80,0	165	925	330	216	50	86,5	30	50 k6	53,5	14	140	10	M16	36	18,5	115	238	265	1190	195	603
	90,0 - 125,0		879						35 k6	38	10	100	5	M12	28					1144		
M1160	14,0 - 80,0	177,5	1029	350	232	50	85	30	55 m6	59	16	145	10	M20	42	24	135	260	280	1309	212,5	685
	90,0 - 125,0		1019						40 k6	43	12	135		M16	36					1299		

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

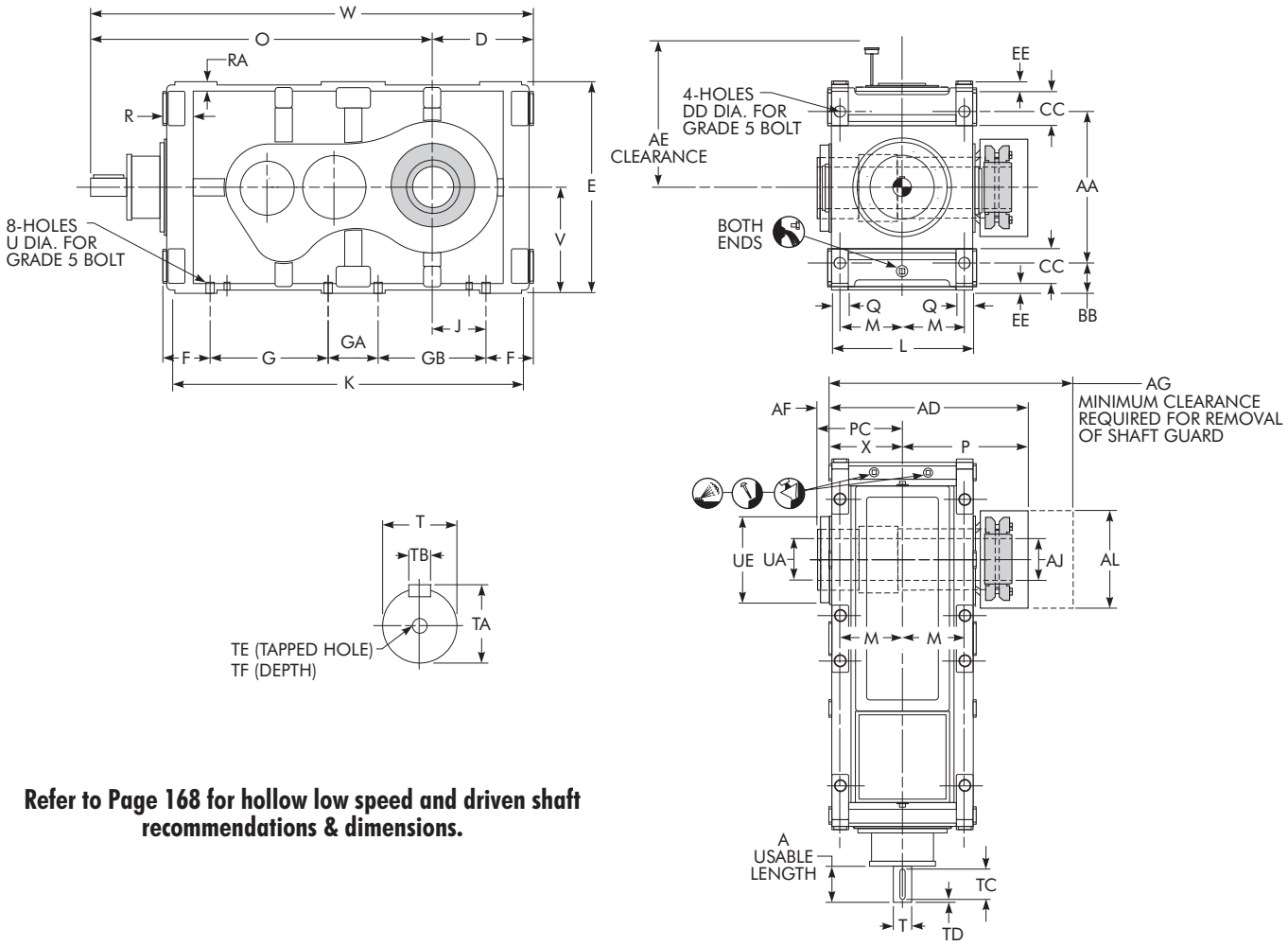
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

• J7 tolerance.

■ H7 tolerance.

Type DBJ3 Triple Reduction w/Hollow LS Shaft - Shrink Disc Mounted

Sizes M1170 – M1210/Dimensions — Millimeters



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.

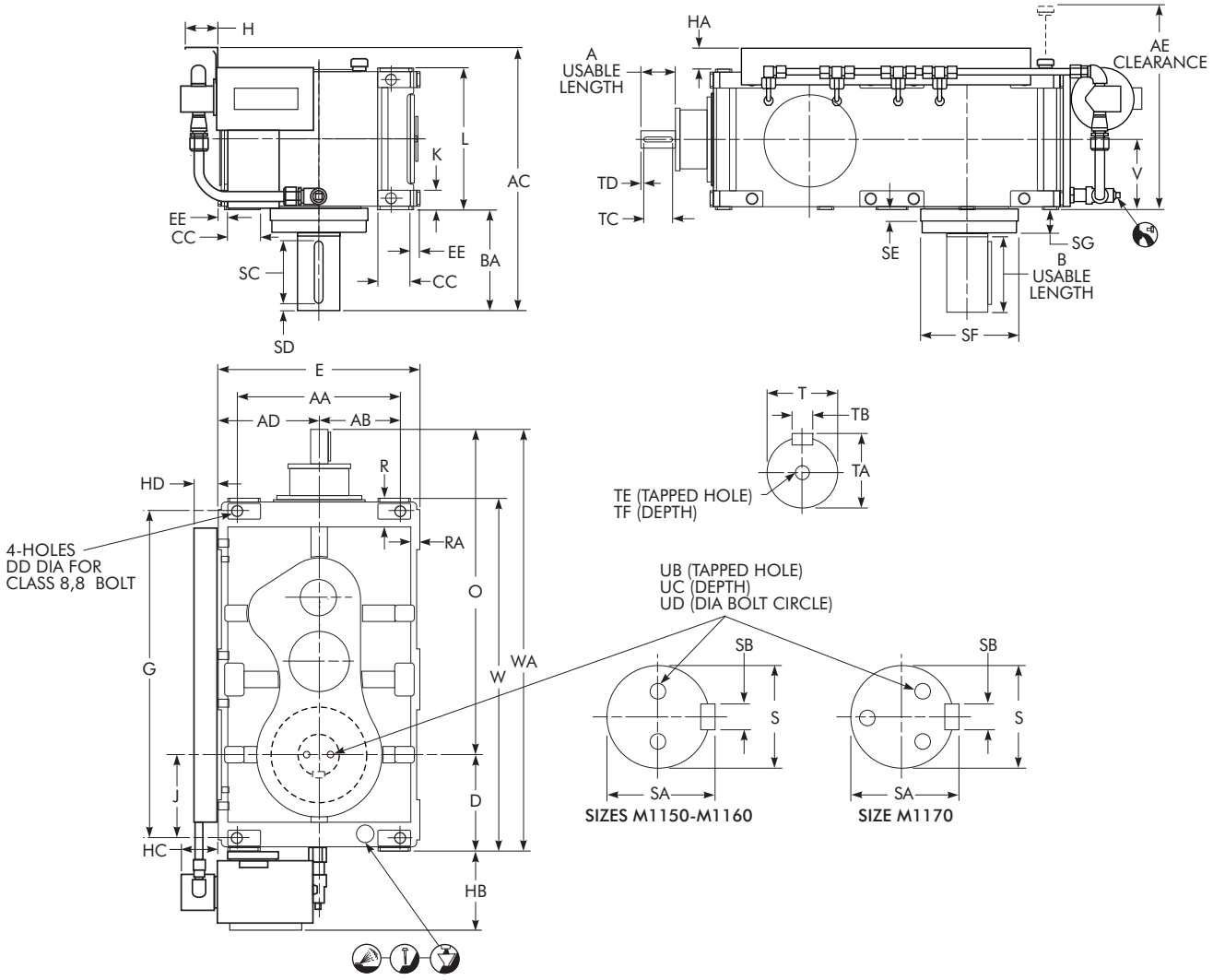
DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ •	AL	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	14,0 - 80,0	155	430	570	465	21	715	140	329	100	100	300	35	630	30	140	350	150	320	160	1040	410
	90,0 - 125,0	150																				
M1180	14,0 - 80,0	180	470	660	507	20	835	165	400	100	100	335	35	670	30	140	410	180	360	195	1170	470
	90,0 - 125,0	160																				
M1190	14,0 - 80,0	195	540	707	596	23	885	180	440	105	110	375	42	750	30	150	465	180	435	225	1320	510
	90,0 - 125,0	175																				
M1200	11,2 - 100,0	240	640	787	751	22	972	200	475	130	150	475	42	900	40	160	545	200	560	315	1545	570
M1210	12,5 - 112,0	240	640	787	751	22	972	200	475	130	150	450	42	900	40	160	545	200	560	290	1545	570

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †							U	UA ■	UE	V	W	X	Approx Wt kg
									T	TA	TB	TC	TD	TE	TF							
M1170	14,0 - 80,0	180	1087	353	236	50	90	30	55 m6	59	16	160	10	M20	42	24	145	290	315	1387	215	1020
	90,0 - 125,0		1081						50 k6	53,5	14	140		M16	36					1381		
M1180	14,0 - 80,0	210	1215	414	265	50	95	30	70 m6	74,5	20	180	10	M20	42	28	170	350	335	1550	245	1480
	90,0 - 125,0		1195						55 m6	59	16	160								1530		
M1190	14,0 - 80,0	215	1325	440	288	85	110	30	80 m6	85	22	180	15	M20	42	35	185	370	375	1700	265	1800
	90,0 - 125,0		1305						65 m6	69	18	160	10							1680		
M1200	11,2 - 63,0	245	1525	500	317	85	110	35	110 m6	116	28	200	20	M24	50	35	210	390	450	2000	295	2563
	71,0 - 100,0								75 m6	80	20			M20	42							
M1210	12,5 - 71,0	245	1550	500	317	85	110	35	110 m6	116	28	200	20	M24	50	35	210	390	450	2000	295	2653
	80,0 - 112,0								75 m6	80	20			M20	42							

★ See footnotes on Page 108

Type DXA3 Triple Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	14,0-80,0	150	410	205	790	265	655	240	345	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	925	86,5	30
	90,0-125,0	100																						879		
M1160	14,0-80,0	150	440	220	833	280	712	240	353	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	1029	85	30
	90,0-125,0	140																						1019		
M1170	14,0-80,0	155	510	255	873	315	724	280	388	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	1087	90	30
	90,0-125,0	150																						1081		

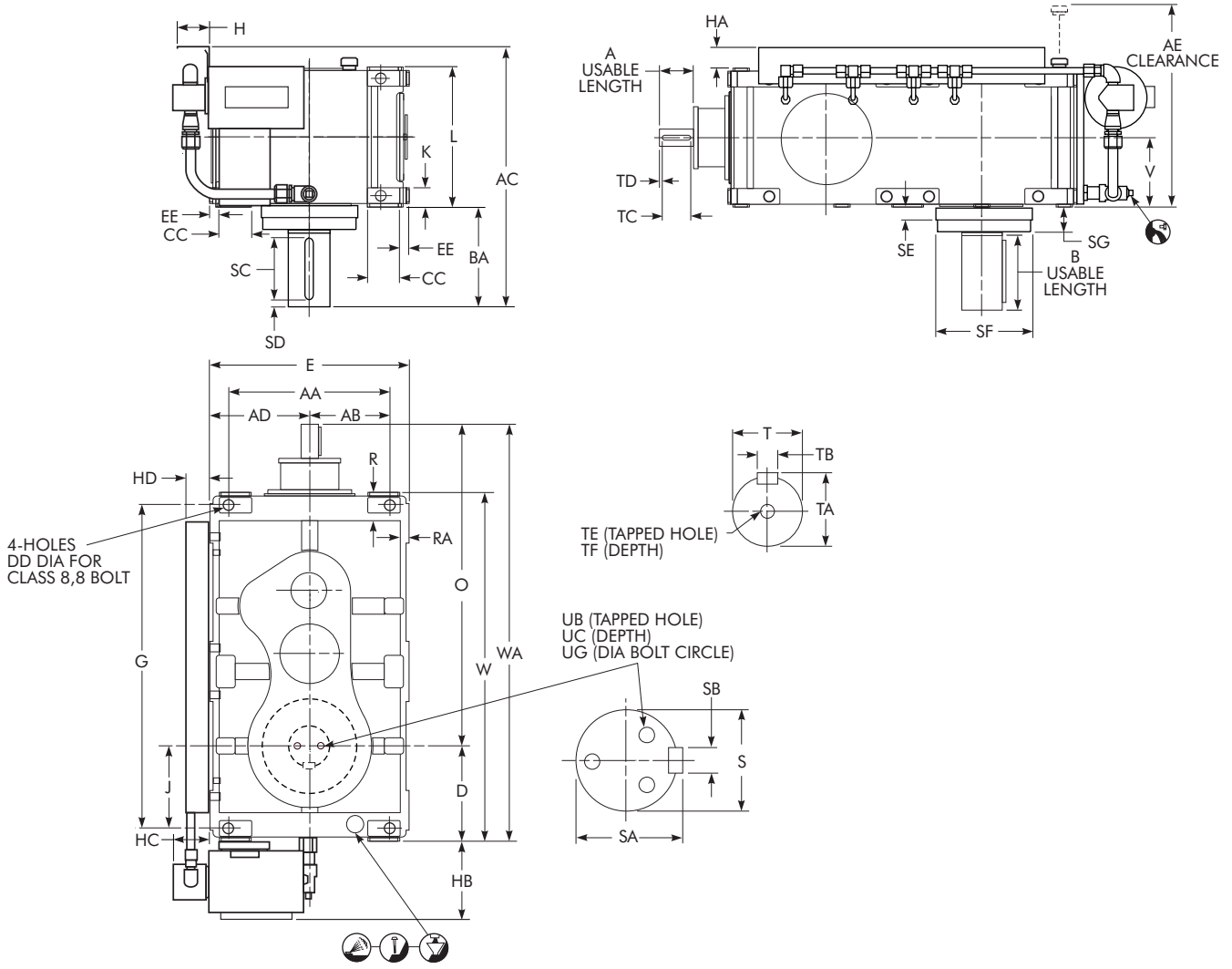
DRIVE SIZE ★	Ratios	Low Speed Shaft †											High Speed Shaft †							V	W	WA	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF ±.05	SG	UB	UC	UD	T	TA	TB	TC	TD	TE	TF				
M1150	14,0-80,0	160 m6	169	40	200	20	46	330	100	M20	25	115	50 k6	53,5	14	140	10	M16	36	195	915	1190	701
	90,0-125,0												35 k6	38	10	100	5	M12	28			1144	
M1160	14,0-80,0	170 m6	179	40	200	20	46	360	110	M24	38	115	55 m6	59	16	145	10	M20	42	212,5	990	1309	799
	90,0-125,0												40 k6	43	12	135		M16	36			1299	
M1170	14,0-80,0	190 m6	200	45	220	20	47	390	101	M30	40	130	55 m6	59	16	160	10	M20	42	215	1100	1387	1054
	90,0-125,0												50 k6	53,5	14	140		M16	36			1381	

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXA3 Triple Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	14,0-80,0	180	550	275	974	335	827	280	429	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	1215	95	30
	90,0-125,0	160																						1195		
M1190	14,0-80,0	195	630	315	1016	375	894	280	431	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	1325	110	30
	90,0-125,0	175																						1305		
M1200	11,2-100,0	240	800	400	1087	450	993	330	474	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	590	1525	110	35
M1210	12,5-112,0	240	800	400	1087	450	993	330	474	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	590	1550	110	35

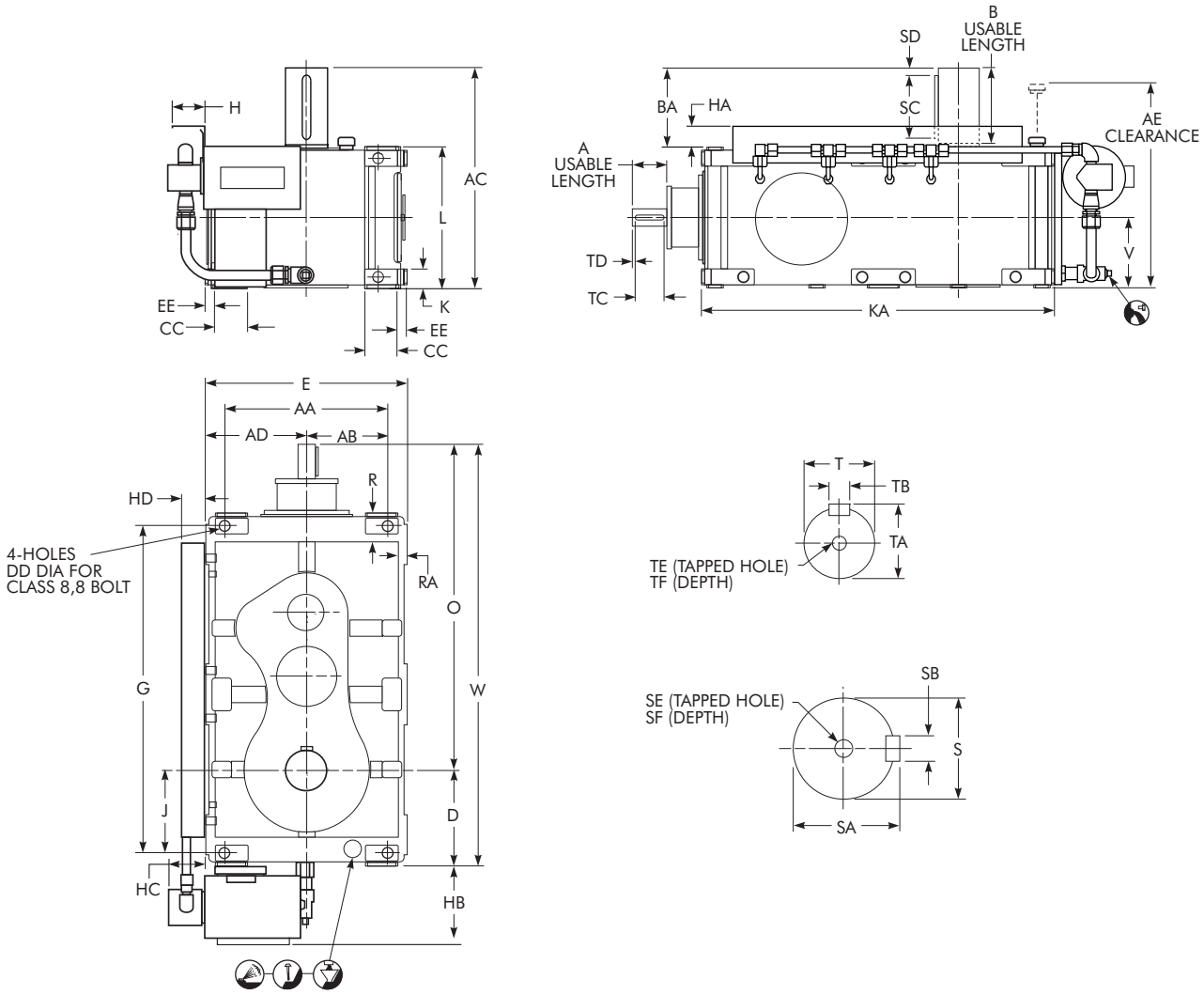
DRIVE SIZE ★	Ratios	Low Speed Shaft †											High Speed Shaft †							V	W	WA	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF ±.002	SG	UB	UC	UD	T	TA	TB	TC	TD	TE	TF				
M1180	14,0-80,0	200 m6	210	45	220	20	46	450	135	M30	40	140	70 m6	74,5	20	180	10	M20	42	245	1230	1550	1514
	90,0-125,0												55 m6	59	16	160						1530	
M1190	14,0-80,0	220 m6	231	50	220	20	49	500	138	M30	40	160	80 m6	85	22	180	15	M20	42	265	1380	1700	1834
	90,0-125,0												65 m6	69	18	160	10					1680	
M1200	11,2-63,0	260 m6	272	56	280	25	54	520	129	M36	50	170	110 m6	116	28	200	20	M24	50	295	1625	2000	3075
	71,0-100,0												75 m6	80	20	200	20	M20	42				
M1210	12,5-71,0	260 m6	272	56	280	25	54	520	129	M36	50	170	110 m6	116	28	200	20	M24	50	295	1625	2000	3166
	80,0-112,0												75 m6	80	20	200	20	M20	42				

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Up

Sizes M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1130	14,0-80,0	100	330	165	450	212	461	120	140	80	212	28	424	30	644	90	55	242	100	90	172	50	724	310	765	82	25
	90,0-125,0	70																							735		
M1140	14,0-80,0	110	382	191	535	236	586	155	175	90	236	28	472	30	726	90	55	242	100	90	193	60	812	360	839,5	87	30
	90,0-125,0	90																							818,2		
M1150	14,0-80,0	150	410	205	568	265	655	155	178	100	265	35	530	30	825	90	55	242	91,6	90	220	60	915	390	925	86,5	30
	90,0-125,0	100																							879		
M1160	14,0-80,0	150	440	220	634,5	280	712	190	209,5	100	280	35	560	30	900	90	55	242	91,6	90	235	60	990	425	1029	85	30
	90.0-125.0	140																							1019		

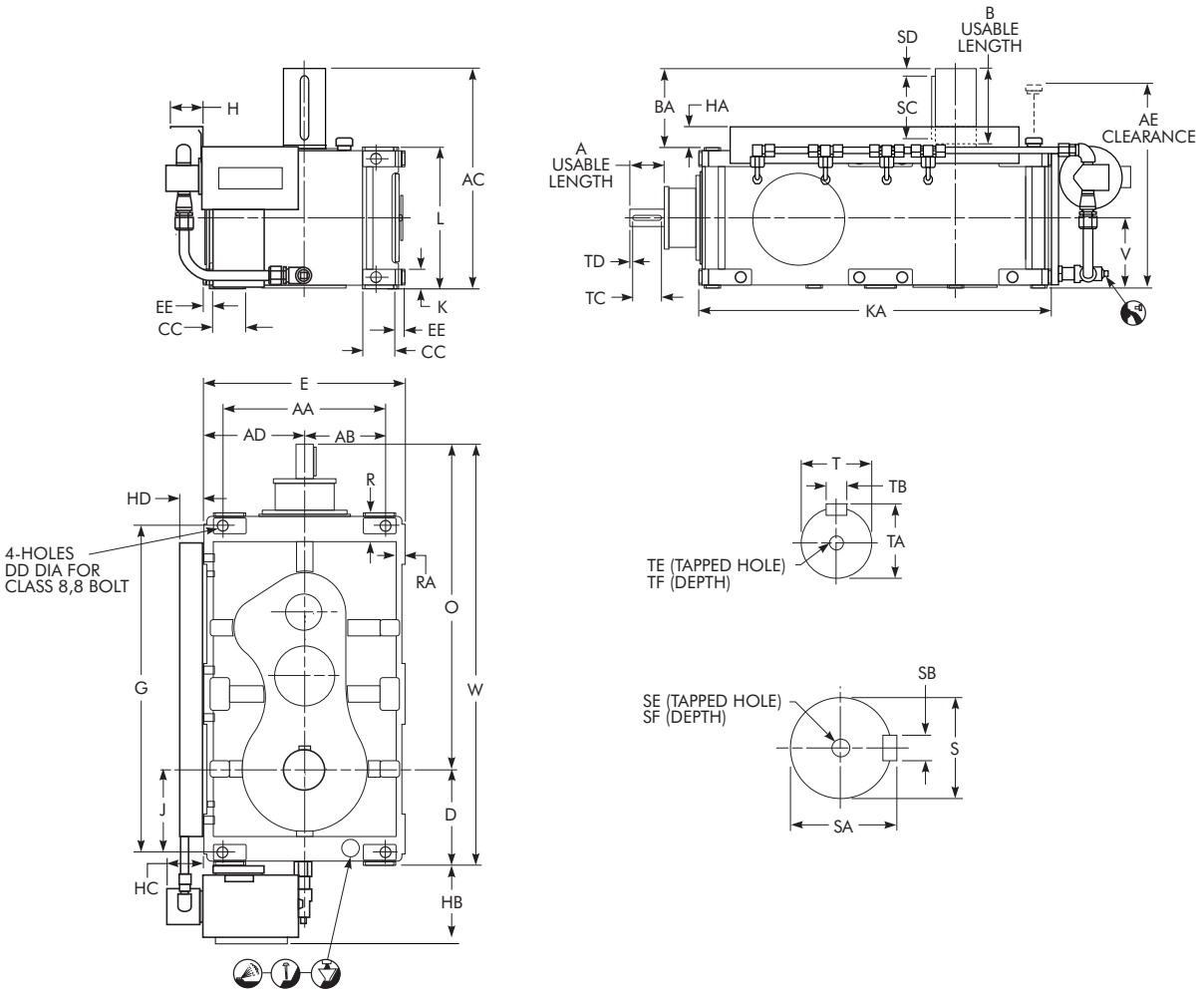
DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF			
M1130	14,0-80,0	90 m6	95	25	100	15	M24	50	40 k6	43	12	90	10	M16	36	155	977	409
	90,0-125,0								25 j6	28	8	70	5	M10	22		947	
M1140	14,0-80,0	110 m6	116	28	125	15	M24	50	45 k6	48,5	14	110	10	M16	36	180	1075,5	572
	90,0-125,0								30 j6	33	8	90		M10	22		1054,2	
M1150	14,0-80,0	120 m6	127	32	125	15	M24	50	50 k6	53,5	14	140	10	M16	36	195	1190	701
	90,0-125,0								35 k6	38	10	100	5	M12	28		1144	
M1160	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	145	10	M20	42	212,5	1309	799
	90,0-125,0								40 k6	43	12	135		M16	36		1299	

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Up

Sizes M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1170	14,0-80,0	155	510	255	645	315	724	190	215	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	1100	430	1087	90	30
	90,0-125,0	150																							1081		
M1180	14,0-80,0	180	550	275	700	335	827	190	210	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	1230	490	1215	95	30
	90,0-125,0	160																							1195		
M1190	14,0-80,0	195	630	315	780	375	894	225	250	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	1380	530	1325	110	30
	90,0-125,0	175																							1305		
M1200	11,2-100,0	240	800	400	880	450	993	270	290	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	1625	590	1525	110	35
M1210	12,5-112,0	240	800	400	880	450	993	270	290	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	1625	590	1550	110	35

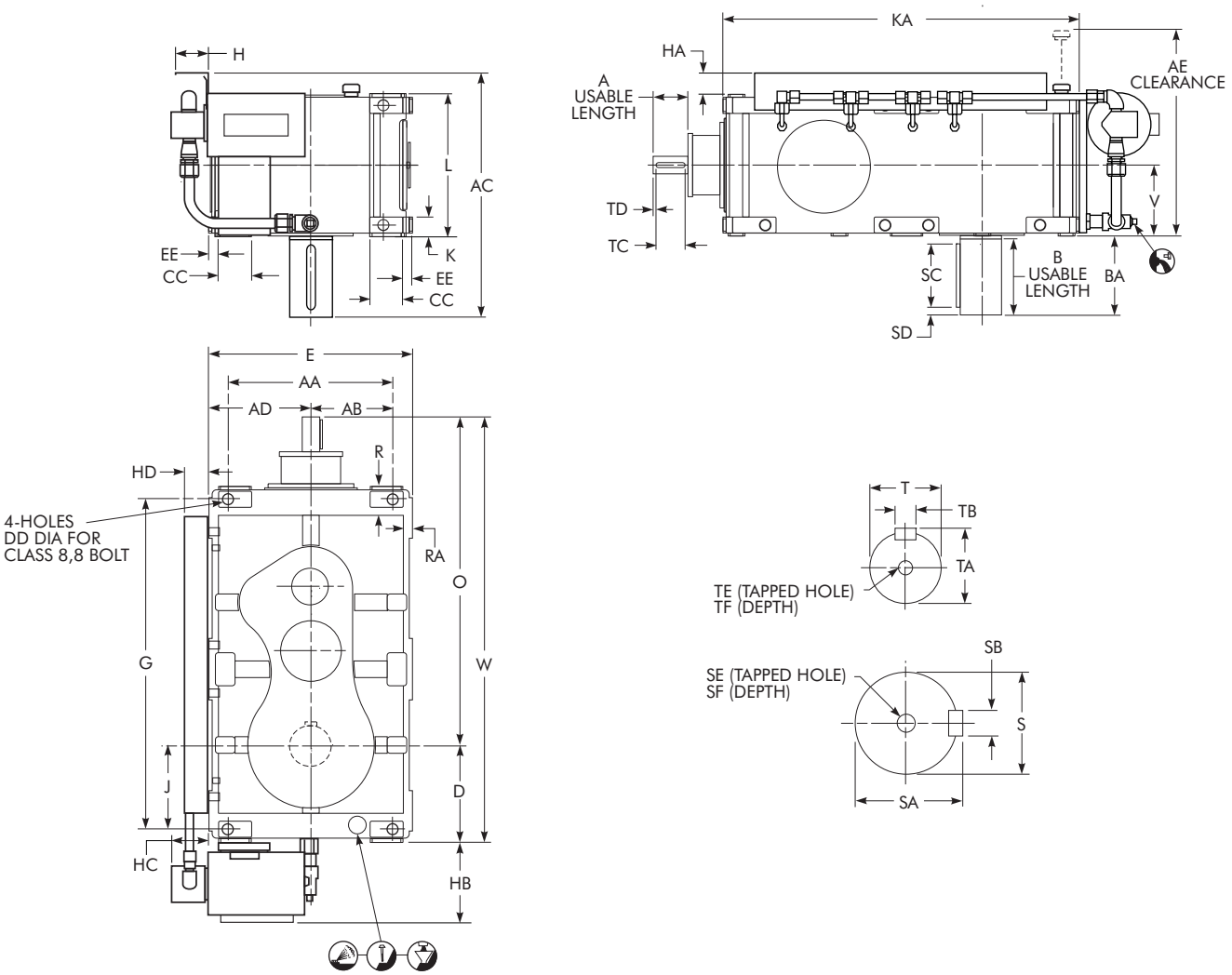
DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							V	W	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF			
M1170	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	160	10	M20	42	215	1387	1054
	90,0-125,0								50 k6	53,5	14	140		M16	36		1381	
M1180	14,0-80,0	150 m6	158	36	160	20	M24	50	70 m6	74,5	20	180	10	M20	42	245	1550	1514
	90,0-125,0								55 m6	59	16	160					1530	
M1190	14,0-80,0	170 m6	179	40	200	20	M24	50	80 m6	85	22	180	15	M20	42	265	1700	1834
	90,0-125,0								65 m6	69	18	160	10				1680	
M1200	11,2-63,0	190 m6	200	45	220	20	M24	50	110 m6	116	28	200	20	M24	50	295	2000	2790
	71,0-100,0								75 m6	80	20	200	20	M20	42			
M1210	12,5-71,0	200 m6	210	45	220	20	M24	50	110 m6	116	28	200	20	M24	50	295	2000	2889
	80,0-112,0								75 m6	80	20	200	20	M20	42			

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Down

Sizes M1130 – M1160/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1130	14,0-80,0	100	330	165	505	212	461	120	140	80	212	28	424	30	644	90	55	242	100	90	172	50	724	310	765	82	25
	90,0-125,0	70																							735		
M1140	14,0-80,0	110	382	191	590	236	586	155	175	90	236	28	472	30	726	90	55	242	100	90	193	60	812	360	839,5	87	30
	90,0-125,0	90																							818,2		
M1150	14,0-80,0	150	410	205	623	265	655	155	178	100	265	35	530	30	825	90	55	242	91,6	90	220	60	915	390	925	86,5	30
	90,0-125,0	100																							879		
M1160	14,0-80,0	150	440	220	689,5	280	712	190	209,5	100	280	35	560	30	900	90	55	242	91,6	90	235	60	990	425	1029	85	30
	90,0-125,0	140																							1019		

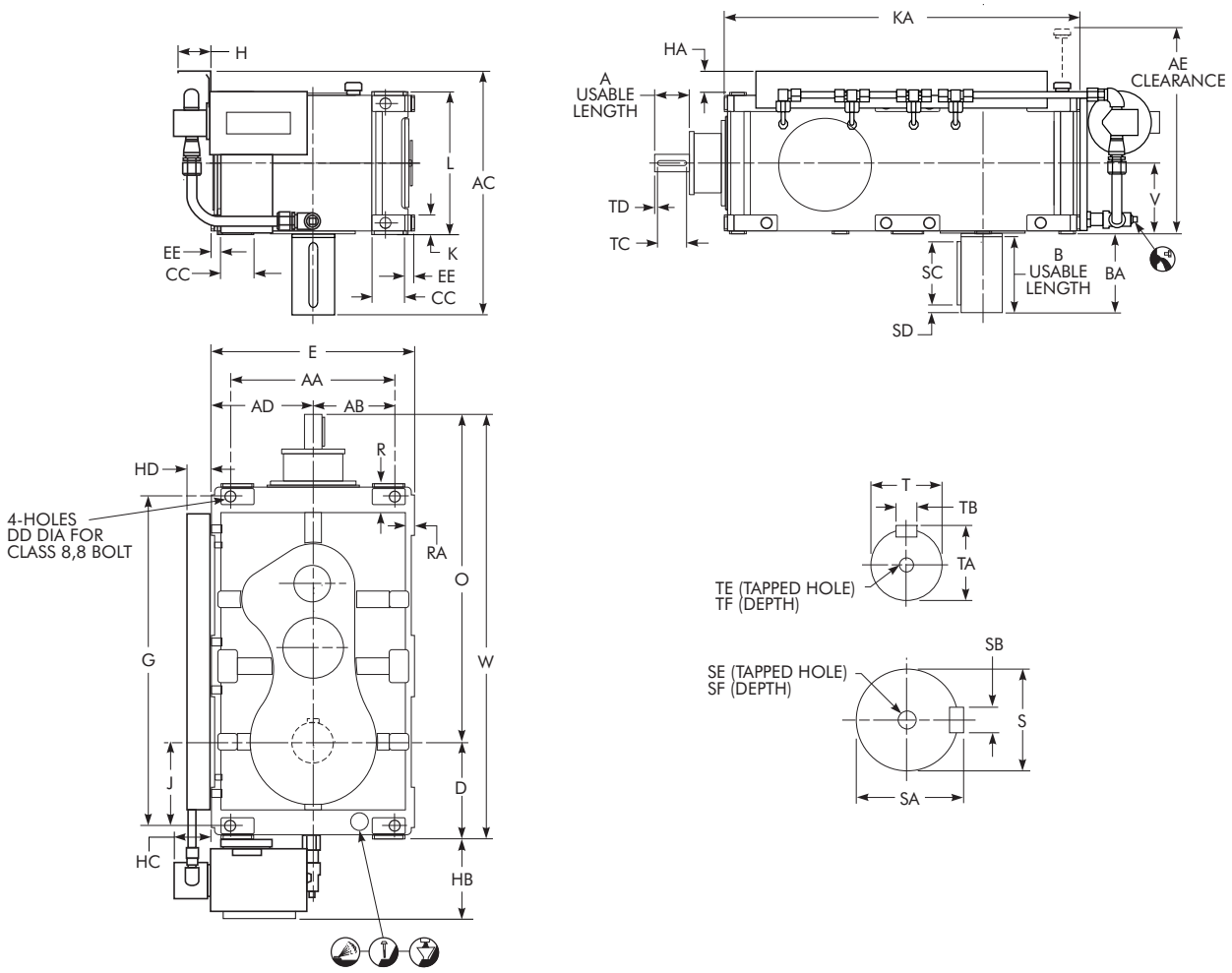
DRIVE SIZE ★	Ratios	S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF	V	W	Approx Wt kg
M1130	14,0-80,0	90 m6	95	25	100	15	M24	50	40 k6	43	12	90	10	M16	36	155	977	409
	90,0-125,0								25 j6	28	8	70	5	M10	22		947	
M1140	14,0-80,0	110 m6	116	28	125	15	M24	50	45 k6	48,5	14	110	10	M16	36	180	1075,5	572
	90,0-125,0								30 j6	33	8	90		M10	22		1054,2	
M1150	14,0-80,0	120 m6	127	32	125	15	M24	50	50 k6	53,5	14	140	10	M16	36	195	1190	701
	90,0-125,0								35 k6	38	10	100	5	M12	28		1144	
M1160	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	145	10	M20	42	212,5	1309	799
	90,0-125,0								40 k6	43	12	135		M16	36		1299	

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Down

Sizes M1170 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1170	14,0-80,0	155	510	255	700	315	724	190	215	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	1100	430	1087	90	30
	90,0-125,0	150																							1081		
M1180	14,0-80,0	180	550	275	755	335	827	190	210	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	1230	490	1215	95	30
	90,0-125,0	160																							1195		
M1190	14,0-80,0	195	630	315	835	375	894	225	250	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	1380	530	1325	110	30
	90,0-125,0	175																							1305		
M1200	11,2-100,0	240	800	400	903	450	993	270	290	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	1625	590	1525	110	35
M1210	12,5-112,0	240	800	400	903	450	993	270	290	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	1625	590	1550	110	35

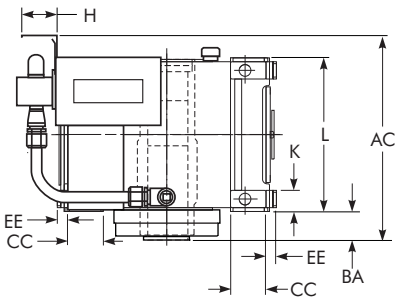
DRIVE SIZE ★	Ratios	S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF	V	W	Approx Wt kg
M1170	14,0-80,0	130 m6	137	32	160	20	M24	50	55 m6	59	16	160	10	M20	42	215	1387	1054
	90,0-125,0								50 k6	53,5	14	140		M16	36		1381	
M1180	14,0-80,0	150 m6	158	36	160	20	M24	50	70 m6	74,5	20	180	10	M20	42	245	1550	1514
	90,0-125,0								55 m6	59	16	160					1530	
M1190	14,0-80,0	170 m6	179	40	200	20	M24	50	80 m6	85	22	180	15	M20	42	265	1700	1834
	90,0-125,0								65 m6	69	18	160	10				1680	
M1200	11,2-63,0	190 m6	200	45	220	20	M24	50	110 m6	116	28	200	20	M24	50	295	2000	2790
	71,0-100,0								75 m6	80	20	200	20	M20	42			
M1210	12,5-71,0	200 m6	210	45	220	20	M24	50	110 m6	116	28	200	20	M24	50	295	2000	2889
	80,0-112,0								75 m6	80	20	200	20	M20	42			

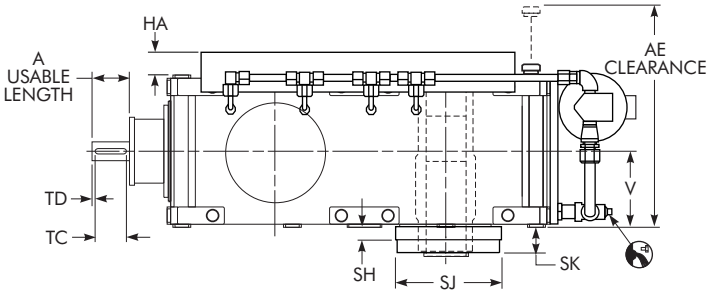
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

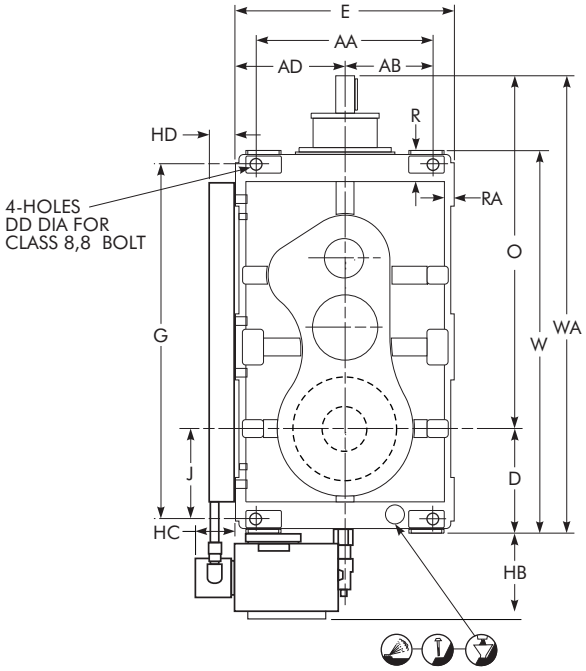
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXM3 Triple Reduction with Lube Pump & Drywell

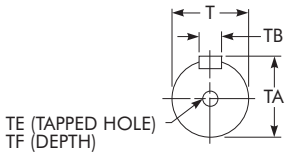
Sizes M1150 – M1170/Dimensions — Millimeters







Refer to Page 130 for hollow & driven shaft dimensions.



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	14,0-80,0	150	410	205	552	265	655	107	100	265	35	530	30	825	90	55	242	91,6	90	220	60	390	925	86,5	30
	90,0-125,0	100																					879		
M1160	14,0-80,0	150	440	220	593	280	712	113	100	280	35	560	30	900	90	55	242	91,6	90	235	60	425	1029	85	30
	90,0-125,0	140																					1019		
M1170	14,0-80,0	155	510	255	593	315	724	108	100	300	35	630	30	1010	90	55	242	91,6	90	255	60	430	1087	90	30
	90,0-125,0	150																					1081		

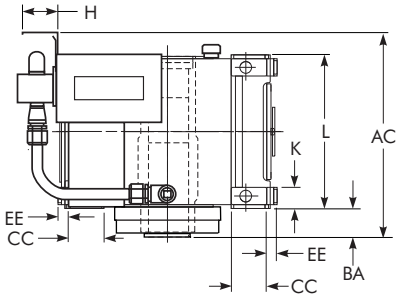
DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †							V	W	WA	Approx Wt kg
		SH	SJ ±.05	SK	T	TA	TB	TC	TD	TE	TF				
M1150	14,0-80,0	46	330	100	50 k6	53,5	14	140	10	M16	36	195	915	1190	701
	90,0-125,0				35 k6	38	10	100	5	M12	28			1144	
M1160	14,0-80,0	46	360	110	55 m6	59	16	145	10	M20	42	212,5	990	1309	799
	90,0-125,0				40 k6	43	12	135		M16	36			1299	
M1170	14,0-80,0	47	402	101	55 m6	59	16	160	10	M20	42	215	1100	1387	1054
	90,0-125,0				50 k6	53,5	14	140		M16	36			1381	

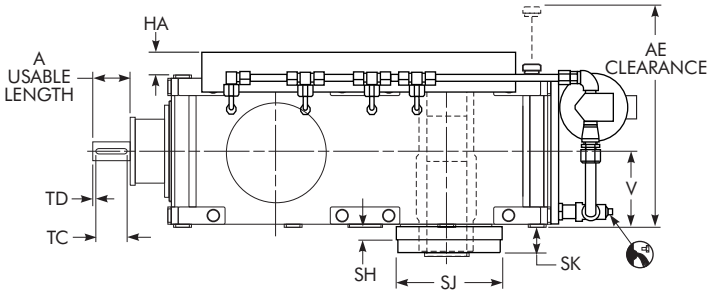
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

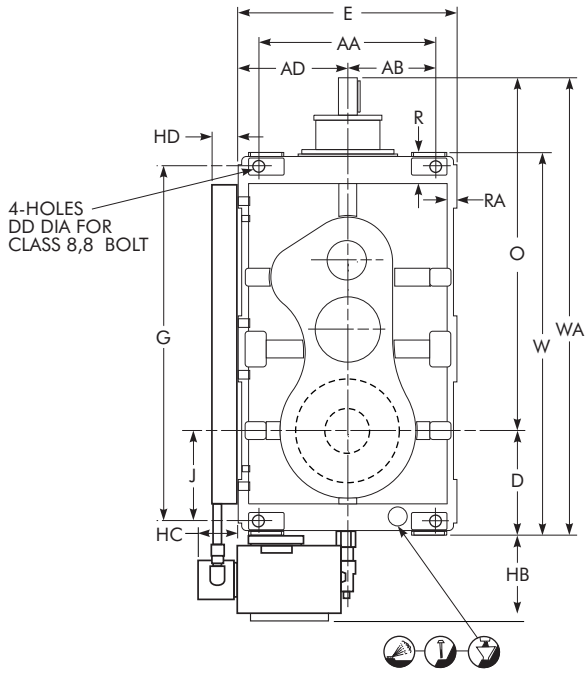
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DXM3 Triple Reduction with Lube Pump & Drywell

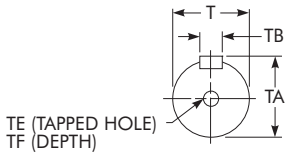
Sizes M1180 – M1210/Dimensions — Millimeters







Refer to Page 130 for hollow & driven shaft dimensions.



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	14,0-80,0	180	550	275	694	335	827	149	100	335	35	670	30	1140	90	55	242	91,6	90	290	60	490	1215	95	30
	90,0-125,0	160																					1195		
M1190	14,0-80,0	195	630	315	736	375	894	151	110	375	42	750	30	1280	90	55	242	91,6	90	325	95	530	1325	110	30
	90,0-125,0	175																					1305		
M1200	11,2-100,0	240	800	400	757	450	993	144	150	475	42	900	40	1525	90	23	242	96,6	90	425	95	590	1525	110	35
M1210	12,5-112,0	240	800	400	757	450	993	144	150	450	42	900	40	1525	90	23	242	96,6	90	400	95	590	1550	110	35

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †							V	W	WA	Approx Wt kg
		SH	SJ ±.05	SK	T	TA	TB	TC	TD	TE	TF				
M1180	14,0-80,0	46	450	135	70 m6	74,5	20	180	10	M20	42	245	1230	1550	1514
	90,0-125,0				55 m6	59	16	160						1530	
M1190	14,0-80,0	49	500	138	80 m6	85	22	180	15	M20	42	265	1380	1700	1834
	90,0-125,0				65 m6	69	18	160	10					1680	
M1200	11,2-63,0	54	520	129	110 m6	116	28	200	20	M24	50	295	1625	2000	2790
	71,0-100,0				75 m6	80	20	200	20	M20	42				
M1210	12,5-71,0	54	520	129	110 m6	116	28	200	20	M24	50	295	1625	2000	2889
	80,0-112,0				75 m6	80	20	200	20	M20	42				

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Selection Procedure for High Torque Drives

Before making a selection, refer to Basic Information and Conditions Affecting Selection on Pages 5 and 6.

Information Required

The following basic information is required to select a Drive One High Torque gear drive for your application.

Prime Mover Data

- Type – electric or hydraulic motor or engine
- Power rating in kW or hp
- Speed – constant or variable
- Dimensions – if Falk will furnish motor mounting accessory or coupling

Driven Machine Data

- Type – conveyor, kiln, etc.
- Power demand in kW, or hp, or equivalent torque.
- Speed and direction of rotation
- Service – Hours per day; reversals per minute if reversing; minutes per hour (duty cycle) if not continuous

Gear Drive Data

- Type – parallel shaft or right angle
- Solid or Hollow output shaft
- Base or shaft mounted
- Ambient temperature at drive location
- Altitude above sea level
- Ambient air velocity at drive location
- Mounting position – if inclined or non-standard orientation

Shaft Connections

- Shaft diameters and key sizes
- Overhung loads – provide full description of sheave, sprocket, or pinion
- Thrust load and direction

Torque Selection Method

The torque selection method is based on the power rating of the prime mover.

1. Determine the mechanical service factor.
   For engine driven or intermittent applications, refer to Factory.
2. Calculate the required output torque (Nm) using the motor power rating (kW) and the required output speed (rpm).

$$T\ (Nm) = \frac{9550 \times \text{Input Power (kW)}}{\text{Output Speed (rpm)}}$$

   NOTE: Output speed must not exceed 10 rpm. If output speed exceeds 10 rpm, contact the Factory for selection.
3. Calculate the equivalent torque rating by multiplying the required output torque by the mechanical service factor determined in Step 1.
4. Select the gear drive size from the torque rating table.
   Torque Rating Table:
   Parallel shaft drives, see Page 114.
   Right angle shaft drives, see Page 119.
5. Select the gear drive type and assembly. Parallel shaft, see Page 113 and right angle shaft, see Page 118. Note that for shaft mounted assemblies, the required output shaft direction of rotation determines the torque arm location. For assemblies other than those shown, contact the Factory.
6. Determine the gear drive nominal ratio.
   Divide the high speed shaft rpm by the low speed shaft rpm to determine your ideal ratio. Choose a nominal ratio that most closely approximates your ideal ratio from the Exact Ratio table. Parallel shaft, see Page 114 and right angle shaft, see Page 119.
7. Check thermal rating using procedures outlined on Page 10. The application adjusted thermal rating must equal or exceed the actual power transmitted.
8. Overhung load (radial load) is imposed by sheaves, sprockets, and open pinions that are mounted directly on the shaft extensions of the gear drive. Gear drive shaft extensions that are flexible coupling connected need not be checked for overhung load, flexible couplings do not impose significant overhung load.Overhung load need not be checked for shaft mounted drives that use a standard torque arm location since the radial and moment loading imposed on these drives are within the capacity of the gear drive. Refer all foot or flange mounted gear drive output shaft overhung loading to the Factory.

   Refer all input shaft overhung load applications to the Factory.

   Thrust load (axial load) applied to the gear drive is unusual. In these applications, the magnitude of the thrust load, and the direction of thrust load, is supplied by the system designer. Thrust loads must be within the capacity of the gear drive.

   Refer all thrust load applications to the Factory.

   Complex shaft loadings involving simultaneous application of overhung load, thrust load, or bending moment (as in mixers and agitators) should be referred directly to the Factory.

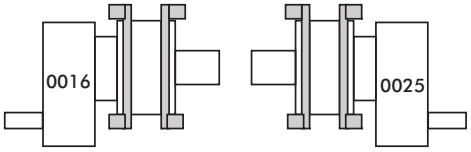
Types DHB, DHF, DHP & DHR Parallel Shaft

Shaft Assemblies

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

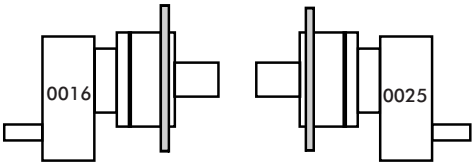
Type DHB Assemblies

Foot Mounted
Solid LS Shaft



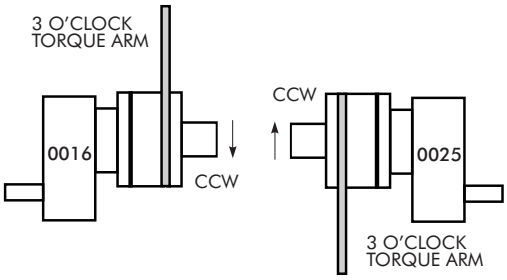
Type DHR Assemblies

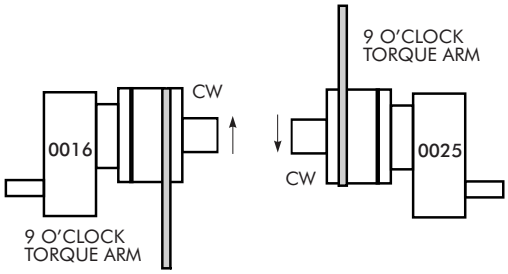
Flange Mounted
Solid LS Shaft



Type DHF Assemblies

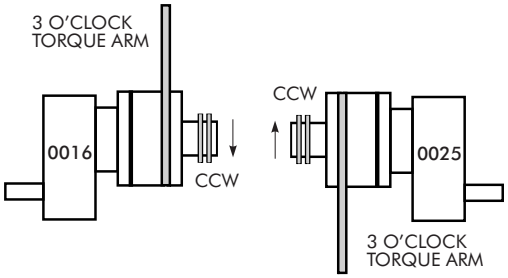
Shaft Mounted with Torque Arm
Solid LS Shaft

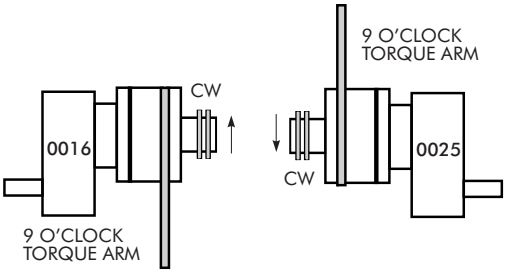




Type DHP Assemblies

Shaft Mounted with Torque Arm
Hollow LS Shaft with Shrink Disc





Type DHB, DHF, DHP & DHR Parallel Shaft

Torque Ratings – Nm/Quadruple Reduction

DRIVE SIZE	Output Torque Rating (Output Speed 10 rpm or Less)
M1160	103 000
M1170	149 000
M1180	208 000
M1190	282 000
M1200	366 000
M1210	458 000

Type DHB, DHF, DHP & DHR Parallel Shaft

Basic Thermal Ratings ★ – kW/Quadruple Reduction

High Speed Shaft rpm	Nominal Ratio Range	DRIVE SIZE					
		M1160	**M1170**	**M1180**	**M1190**	**M1200**	**M1210**
1800	160 - 315	107	125	151	171	227	227
	355 - 710	76	90	118	133	185	185
1500	160 - 315	101	116	143	161	215	215
	355 - 710	72	86	110	125	173	173
1200	160 - 315	95	110	136	153	205	205
	355 - 710	69	82	105	119	164	164
1000	160 - 315	91	105	131	147	197	197
	355 - 710	67	80	101	114	157	157

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) and an elevation from sea level to 750 meters. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 9 before comparing to the required load. For auxiliary cooling, contact the Factory.

Type DHB, DHF, DHP & DHR Parallel Shaft

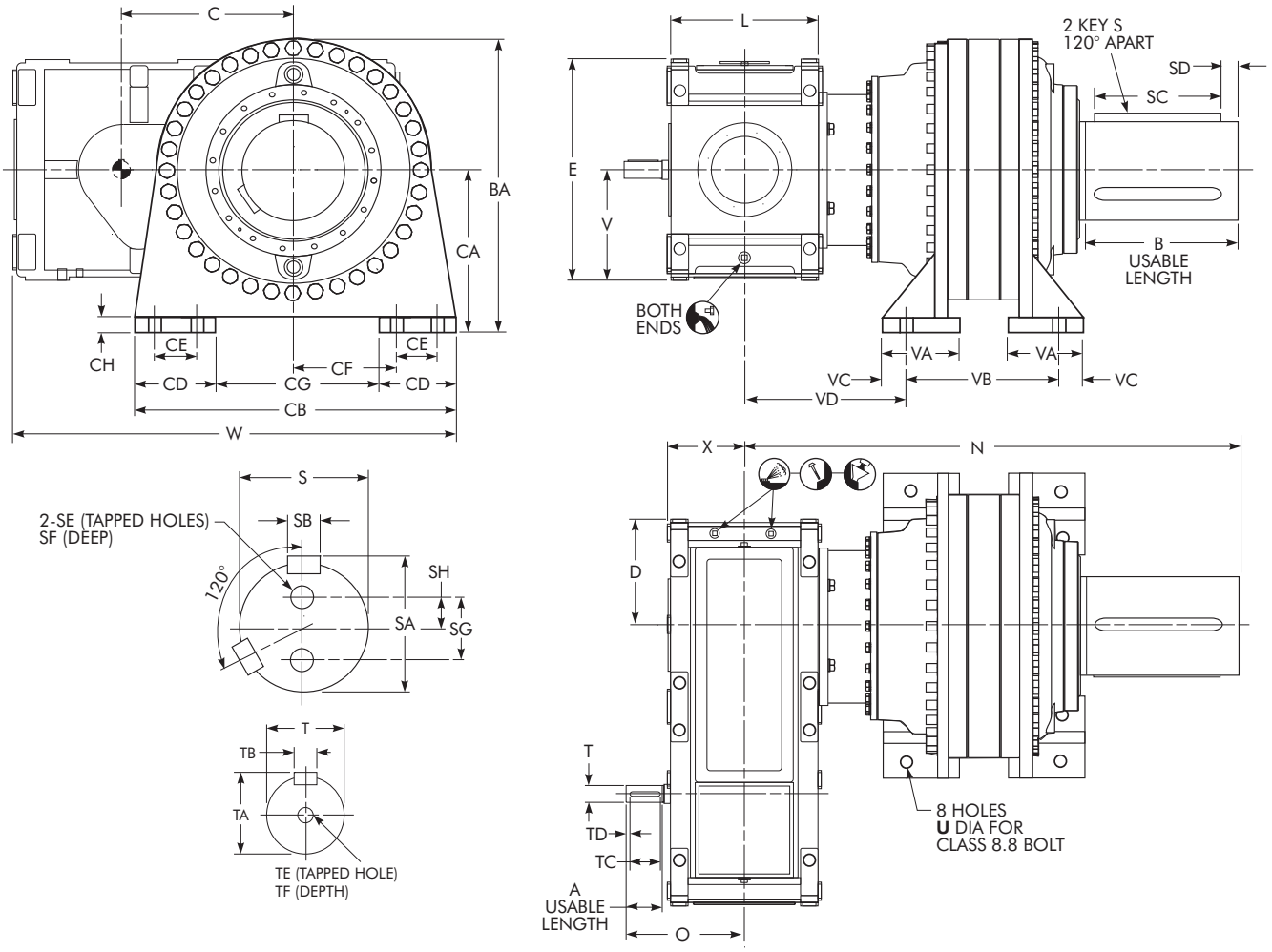
Exact Ratios – Quadruple Reduction

Nominal Ratio ‡	DRIVE SIZE					
	M1160	**M1170**	**M1180**	**M1190**	**M1200**	**M1210**
160	156,7	154,8	173,4	165,2	163,8	163,6
180	177,0	172,8	191,4	189,6	183,4	184,0
200	199,0	195,7	217,8	208,1	204,7	206,1
224	215,9	220,9	244,7	232,2	228,6	229,9
250	241,8	246,1	267,5	262,3	252,9	256,8
280	276,2	272,5	302,3	285,1	284,5	284,1
315	311,8	304,3	333,6	327,2	318,5	319,6
355	350,7	344,6	379,6	359,2	355,3	357,9
400	380,6	389,0	426,5	400,7	397,0	399,3
450	426,2	433,3	466,2	452,7	461,6	446,0
500	490,2	477,5	531,3	514,9	516,9	518,6
560	551,3	540,9	604,8	565,4	576,6	581,0
630	598,2	610,6	679,4	630,5	644,1	647,9
710	669,9	680,2	742,4	712,4	. . .	723,5

‡ Lower ratios are available. For 10 rpm or less output speed with a total ratio requirement of less than 160:1, contact the Factory. Higher ratios are also available. Contact the Factory for selection.

Type DHB4 Quadruple Reduction

Size M1160 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	B	BA	C	CA	CB	CD	CE	CF	CG	CH	D	E	L	N	O
M1160	160,0-710,0	70	300	780	430	425	850	230	120	250	390	40	280	560	405	1283	302
M1170	160,0-710,0	100	300	780	485	425	850	230	120	250	390	40	300	630	410	1306	334
M1180	160,0-710,0	100	425	965	560	530	1020	270	150	300	480	50	335	670	470	1574	365
M1190	160,0-710,0	100	425	965	630	530	1020	270	150	300	480	50	375	750	510	1636	386,5
M1200	160,0-630,0	130	550	1185	700	640	1250	350	200	350	550	60	475	900	570	1939	445
M1210	160,0-710,0	130	550	1185	725	640	1250	350	200	350	550	60	450	900	570	1987	445

DRIVE SIZE ★	Ratios	Low Speed Shaft									High Speed Shaft †							U	V	VA	VB	VC	VD	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	SG	SH	T	TA	TB	TC	TD	TE	TF									
M1160	160,0-450,0	230 h7	241	50	280	10	M24	50	150	75	35 k6	38	10	70	5	M12	28	M30	280	200	432	50	472	1135	212,5	2286
	500,0-710,0										30 j6	33	8			M10	22									
M1170	160,0-710,0	230 h7	241	50	280	10	M24	50	150	75	40 k6	43	12	90	10	M16	36	M30	315	200	452	50	475	1225	215	2550
M1180	160,0-710,0	290 h7	302	63	400	12,5	M24	50	200	100	45 k6	48,5	14	90	10	M16	36	M42	335	260	550	75	524	1405	245	4043
M1190	160,0-450,0	290 h7	302	63	400	12,5	M24	50	200	100	55 m6	59	16	90	10	M20	42	M42	375	260	590	75	546	1515	265	4468
	500,0-710,0										42 k6	45	12			M16	36									
M1200	160,0-630,0	360 h7	375	80	520	15	M24‡	50‡	220‡	110	65 m6	69	18	110	10	M20	42	M48	450	280	645	80	663	1775	295	6997
M1210	160,0-710,0	360 h7	375	80	520	15	M24‡	50‡	220‡	110	65 m6	69	18	110	10	M20	42	M48	450	280	693	80	663	1800	295	7265

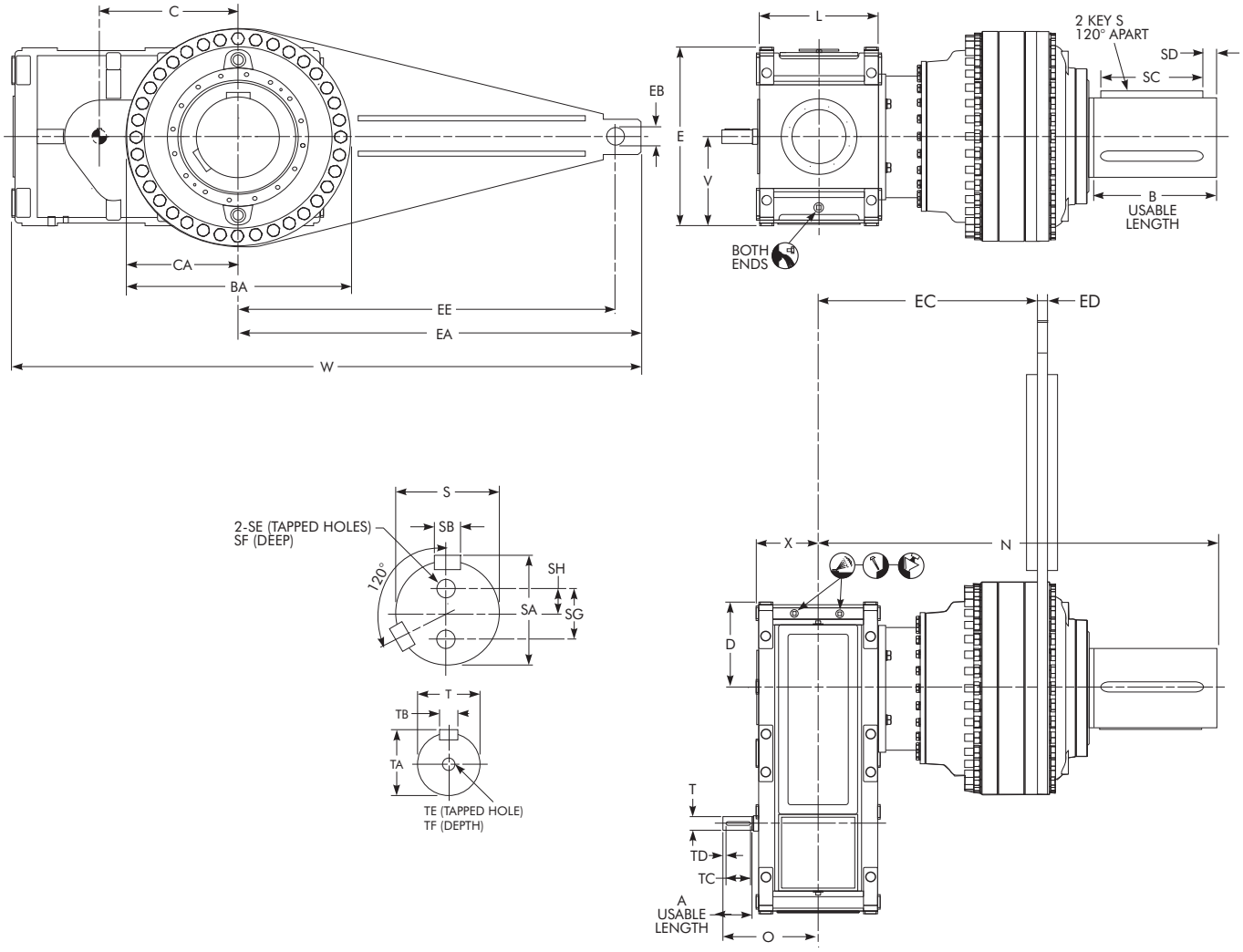
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

‡ 8 - SE (Tapped Holes), SF (Deep) on SG (Bolt Circle).

Type DHF4 Quadruple Reduction

Size M1160 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	B	BA	C	CA	D	E	EA	EB	EC	ED	EE	L	N	O
M1160	160,0-710,0	70	300	710	430	355	280	560	1390	65 H9	783	35	1300	405	1283	302
M1170	160,0-710,0	100	300	710	485	355	300	630	1390	65 H9	806	35	1300	410	1306	334
M1180	160,0-710,0	100	425	870	560	435	335	670	1700	70 H9	921	40	1600	470	1574	365
M1190	160,0-710,0	100	425	870	630	435	375	750	1700	70 H9	983	40	1600	510	1636	386,5
M1200	160,0-630,0	130	550	1090	700	545	475	900	1910	75 H9	1135	60	1800	570	1939	445
M1210	160,0-710,0	130	550	1090	725	545	450	900	1910	75 H9	1183	60	1800	570	1987	445

DRIVE SIZE ★	Ratios	Low Speed Shaft									High Speed Shaft †							V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	SG	SH	T	TA	TB	TC	TD	TE	TF				
M1160	160,0-450,0	230 h7	241	50	280	10	M24	50	150	75	35 k6	38	10	70	5	M12	28	280	2100	212,5	2315
	500,0-710,0										30 j6	33	8			M10	22				
M1170	160,0-710,0	230 h7	241	50	280	10	M24	50	150	75	40 k6	43	12	90	10	M16	36	315	2190	215	2580
M1180	160,0-710,0	290 h7	302	63	400	12,5	M24	50	200	100	45 k6	48,5	14	90	10	M16	36	335	2595	245	4009
M1190	160,0-450,0	290 h7	302	63	400	12,5	M24	50	200	100	55 m6	59	16	90	10	M20	42	375	2705	265	4434
	500,0-710,0										42 k6	45	12			M16	36				
M1200	160,0-630,0	360 h7	375	80	520	15	M24 ‡	50 ‡	220 ‡	110	65 m6	69	18	110	10	M20	42	450	3060	295	6956
M1210	160,0-710,0	360 h7	375	80	520	15	M24 ‡	50 ‡	220 ‡	110	65 m6	69	18	110	10	M20	42	450	3085	295	7224

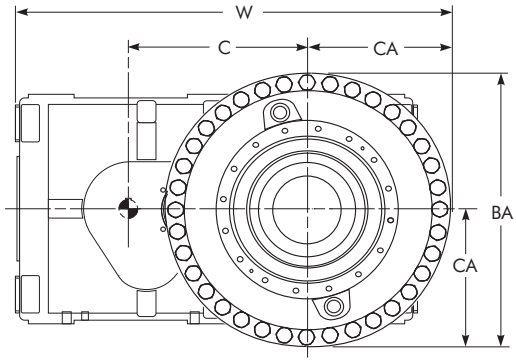
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

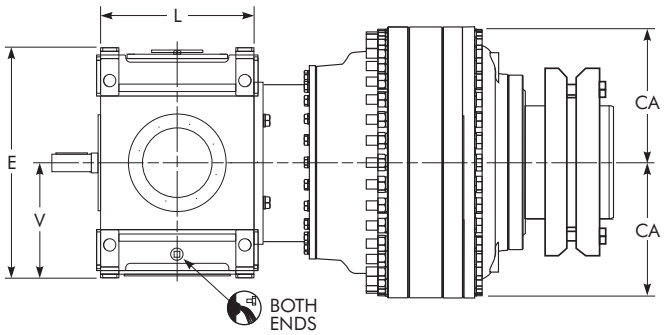
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

‡ 8 - SE (Tapped Holes), SF (Deep) on SG (Bolt Circle).

Type DHP4 Quadruple Reduction

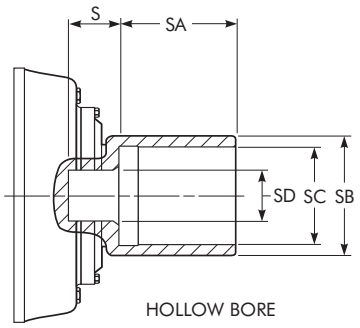
Size M1170 – M1210/Dimensions — Millimeters

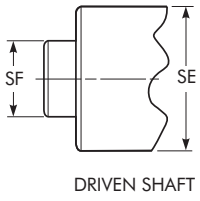


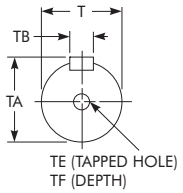


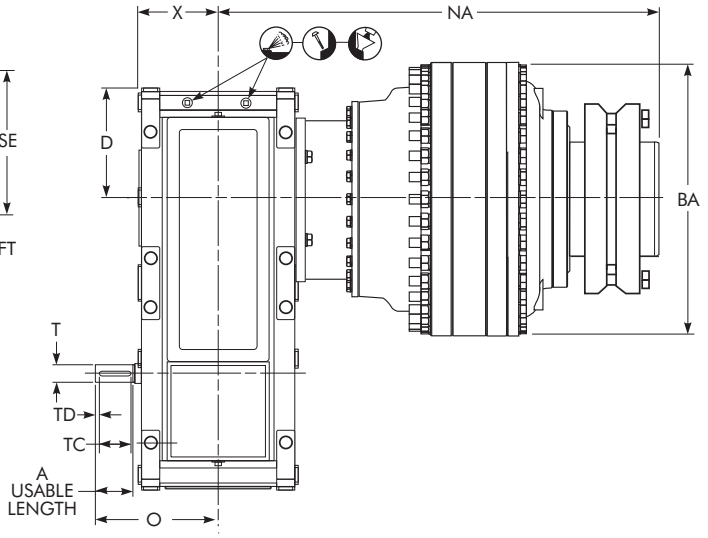
HOLLOW BORE AND DRIVEN SHAFT DETAIL

Refer to Page 129 for torque arm dimensions.









DRIVE SIZE ★	Ratios	A	BA	C	CA	D	E	L	NA	O
M1160	160,0-710,0	70	710	430	355	280	560	405	1226	302
M1170	160,0-710,0	100	710	485	355	300	630	410	1249	334
M1180	160,0-710,0	100	870	560	435	335	670	470	1414	365
M1190	160,0-710,0	100	870	630	435	375	750	510	1476	386,5
M1200	160,0-630,0	130	1090	700	545	475	900	570	1688	445
M1210	160,0-710,0	130	1090	725	545	450	900	570	1736	445

DRIVE SIZE ★	Ratios	Low Speed Hollow Bore					Driven Shaft		High Speed Shaft †							V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF				
M1160	160,0-450,0	101	230	280 f7	230 H7	120 H7	230 g6	120 f6	35 k6	38	10	70	5	M12	28	280	1065	212,5	2422
	500,0-710,0								30 j6	33	8			M10	22				
M1170	160,0-710,0	101	230	280 f7	230 H7	120 H7	230 g6	120 f6	40 k6	43	12	90	10	M16	36	315	1155	215	2687
M1180	160,0-710,0	155	300	360 f7	295 H7	210 H7	295 g6	210 f6	45 k6	48,5	14	90	10	M16	36	335	1330	245	4223
M1190	160,0-450,0	155	300	360 f7	295 H7	210 H7	295 g6	210 f6	55 m6	59	16	90	10	M20	42	375	1440	265	4648
	500,0-710,0								42 k6	45	12			M16	36				
M1200	160,0-630,0	175	335	390 f7	320 H7	190 H7	320 g6	190 f6	65 m6	69	18	110	10	M20	42	450	1695	295	7229
M1210	160,0-710,0	175	335	390 f7	320 H7	190 H7	320 g6	190 f6	65 m6	69	18	110	10	M20	42	450	1720	295	7497

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

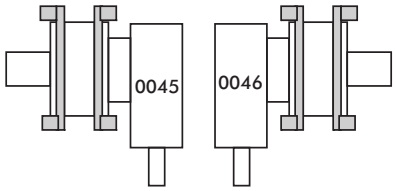
Types DBB, DBF, DBP & DBR Right Angle Shaft

Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

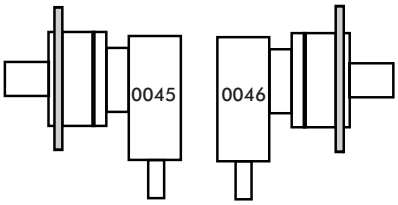
Type DBB Assemblies

Foot Mounted
Solid LS Shaft



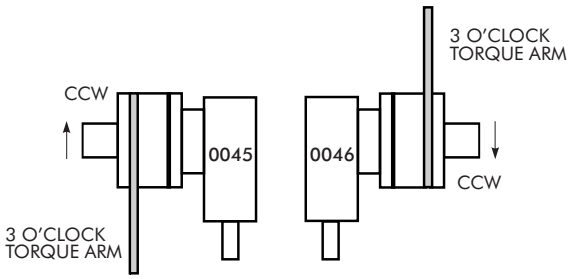
Type DBR Assemblies

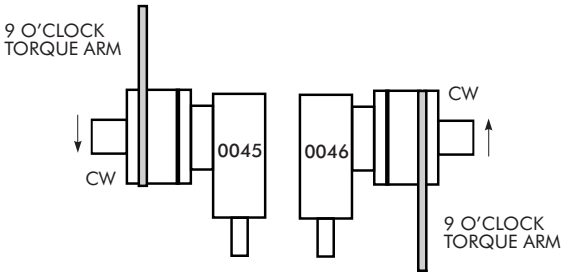
Flange Mounted
Solid LS Shaft



Type DBF Assemblies

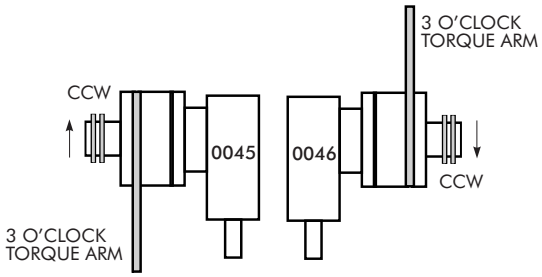
Shaft Mounted with Torque Arm
Solid LS Shaft

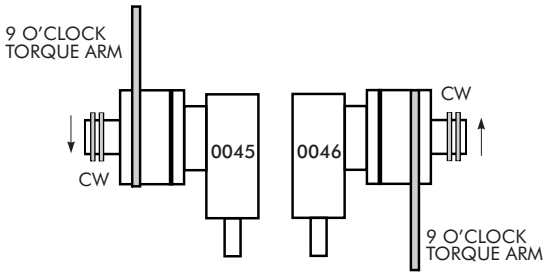




Type DBP Assemblies

Shaft Mounted with Torque Arm
Hollow LS Shaft with Shrink Disc





Type DBB, DBF, DBP & DBR Right Angle Shaft

Torque Ratings – Nm/Quadruple Reduction

DRIVE SIZE	Output Torque Rating (Output Speed 10 rpm or Less)
M1160	103 000
M1170	149 000
M1180	208 000
M1190	282 000
M1200	366 000
M1210	458 000

Type DBB, DBF, DBP & DBR Right Angle Shaft

Basic Thermal Ratings ★ – kW/Quadruple Reduction

High Speed Shaft rpm	Nominal Ratio Range	DRIVE SIZE					
		M1160	**M1170**	**M1180**	**M1190**	**M1200**	**M1210**
1800	160 - 280	102	118	139	158	205	205
	315 - 630	73	89	110	129	176	176
1500	160 - 280	98	113	135	154	201	201
	315 - 630	69	85	107	125	172	172
1200	160 - 280	94	110	131	150	197	197
	315 - 630	66	82	104	122	169	169
1000	160 - 280	91	107	128	147	194	194
	315 - 630	64	80	101	120	167	167

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) and an elevation from sea level to 750 meters. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 9 before comparing to the required load. For auxiliary cooling, contact the Factory.

Type DBB, DBF, DBP & DBR Right Angle Shaft

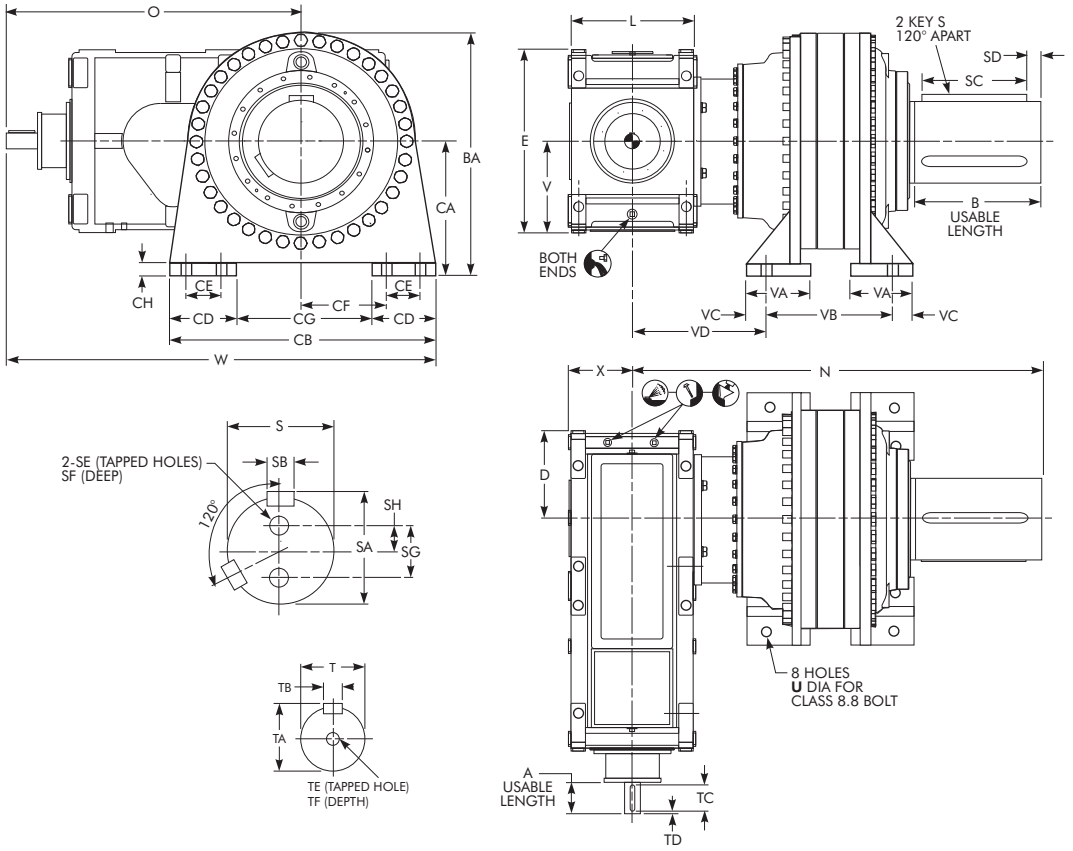
Exact Ratios – Quadruple Reduction

Nominal Ratio ‡	DRIVE SIZE					
	M1160	**M1170**	**M1180**	**M1190**	**M1200**	**M1210**
160	152,6	155,2	170,3	164,6	160,4	158,9
180	171,3	174,4	188,6	182,2	179,4	180,3
200	190,1	195,4	206,7	201,7	200,7	201,6
224	213,7	215,7	239,2	232,2	224,3	225,5
250	244,0	245,3	268,5	256,6	252,4	252,1
280	275,4	273,8	296,4	294,4	282,7	283,6
315	309,8	310,1	337,3	323,2	315,4	317,6
355	336,2	350,1	378,9	360,6	352,2	354,3
400	376,5	390,0	414,2	407,3	403,2	395,8
450	440,4	430,5	467,6	464,5	451,6	453,1
500	495,5	487,5	531,8	509,9	503,8	507,4
560	537,5	550,3	598,0	569,1	562,5	566,3
630	602,2	613,1	653,6	642,6	. . .	632,1
710	. . .	. . .	. . .	. . .	. . .	. . .

‡ Lower ratios are available. For 10 rpm or less output speed with a total ratio requirement of less than 160:1, contact the Factory. Higher ratios are also available. Contact the Factory for selection.

Type DBB4 Quadruple Reduction

Size M1160 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	B	BA	CA	CB	CD	CE	CF	CG	CH	D	E	L	N	O
M1160	160,0-400,0	150	300	780	425	850	230	120	250	390	40	280	560	405	1283	1029
	450,0-630,0	140														1019
M1170	160,0-400,0	155	300	780	425	850	230	120	250	390	40	300	630	410	1306	1087
	450,0-630,0	150														1081
M1180	160,0-400,0	180	425	965	530	1020	270	150	300	480	50	335	670	470	1574	1215
	450,0-630,0	160														1195
M1190	160,0-400,0	195	425	965	530	1020	270	150	300	480	50	375	750	510	1636	1325
	450,0-630,0	175														1305
M1200	160,0-560,0	240	550	1185	640	1250	350	200	350	550	60	475	900	570	1939	1525
M1210	160,0-630,0	240	550	1185	640	1250	350	200	350	550	60	450	900	570	1987	1550

DRIVE SIZE ★	Ratios	Low Speed Shaft									High Speed Shaft †							U	V	VA	VB	VC	VD	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	SG	SH	T	TA	TB	TC	TD	TE	TF									
M1160	160,0-400,0	230 h7	241	50	280	10	M24	50	150	75	55 m6	59	16	145	10	M20	42	M30	280	200	432	50	472	1454	212,5	2296
	450,0-630,0										40 k6	43	12	135		M16	36							1444		
M1170	160,0-400,0	230 h7	241	50	280	10	M24	50	150	75	55 m6	59	16	160	10	M20	42	M30	315	200	452	50	475	1512	215	2606
	450,0-630,0										50 k6	53,5	14	140		M16	36							1506		
M1180	160,0-400,0	290 h7	302	63	400	12,5	M24	50	200	100	70 m6	74,5	20	180	10	M20	42	M42	335	260	550	75	524	1725	245	4106
	450,0-630,0										55 m6	59	16	160										1705		
M1190	160,0-400,0	290 h7	302	63	400	12,5	M24	50	200	100	80 m6	85	22	180	15	M20	42	M42	375	260	590	75	546	1835	265	4520
	450,0-630,0										65 m6	69	18	160	10									1815		
M1200	160,0-355,0	360 h7	375	80	520	15	M24 ‡	50 ‡	220 ‡	110	110 m6	116	28	200	20	M24	50	M48	450	280	645	80	663	2150	295	7122
	400,0-560,0										75 m6	80	20			M20	42									
M1210	160,0-400,0	360 h7	375	80	520	15	M24 ‡	50 ‡	220 ‡	110	110 m6	116	28	200	20	M24	50	M48	450	280	693	80	663	2175	295	7390
	450,0-630,0										75 m6	80	20			M20	42									

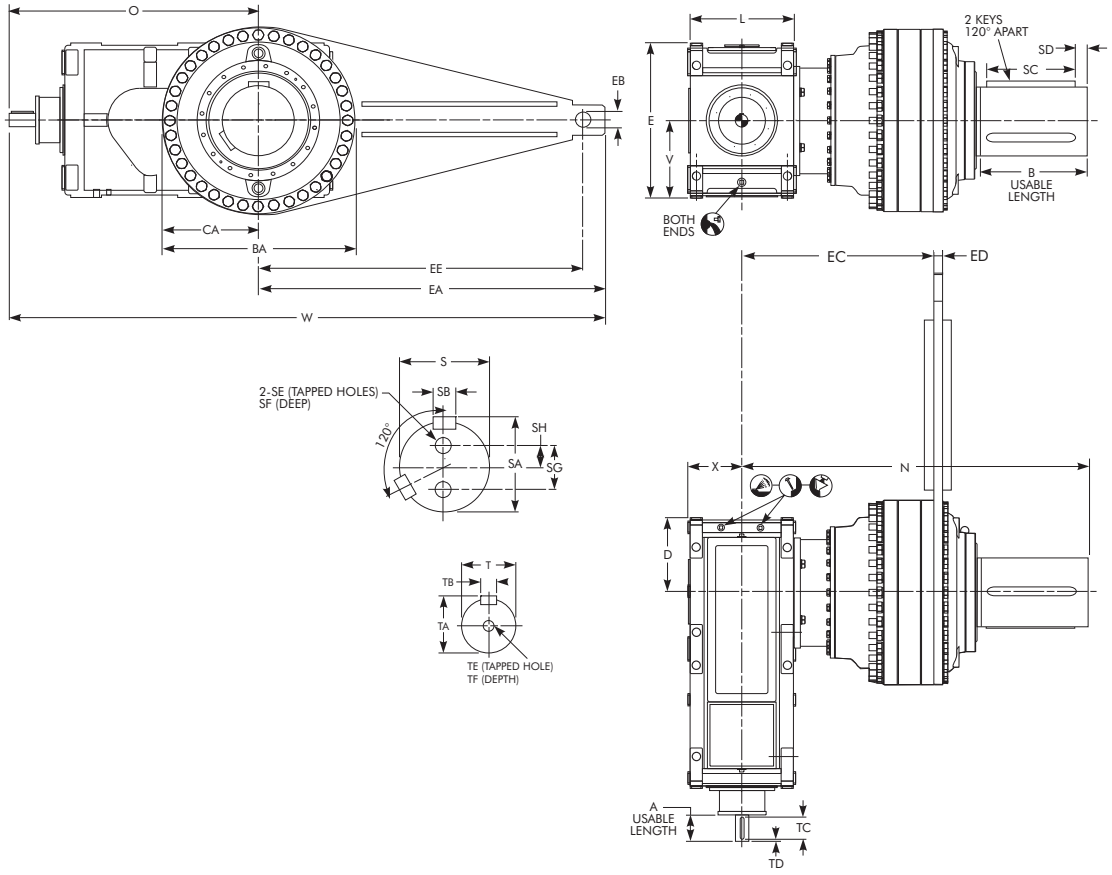
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

‡ 8 - SE (Tapped Holes), SF (Deep) on SG (Bolt Circle).

Type DBF4 Quadruple Reduction

Size M1160 – M1210/Dimensions — Millimeters



DRIVE SIZE ★	Ratios	A	B	BA	CA	D	E	EA	EB	EC	ED	EE	L	N	O
M1160	160,0-400,0	150	300	710	355	280	560	1390	65 H9	783	35	1300	405	1283	1029
	450,0-630,0	140													1019
M1170	160,0-400,0	155	300	710	355	300	630	1390	65 H9	806	35	1300	410	1306	1087
	450,0-630,0	150													1081
M1180	160,0-400,0	180	425	870	435	335	670	1700	70 H9	921	40	1600	470	1574	1215
	450,0-630,0	160													1195
M1190	160,0-400,0	195	425	870	435	375	750	1700	70 H9	983	40	1600	510	1636	1325
	450,0-630,0	175													1305
M1200	160,0-560,0	240	550	1090	545	475	900	1910	75 H9	1135	60	1800	570	1939	1525
M1210	160,0-630,0	240	550	1090	545	450	900	1910	75 H9	1183	60	1800	570	1987	1550

DRIVE SIZE ★	Ratios	Low Speed Shaft									High Speed Shaft †							V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	SG	SH	T	TA	TB	TC	TD	TE	TF				
M1160	160,0-400,0	230 h7	241	50	280	10	M24	50	150	75	55 m6	59	16	145	10	M20	42	280	2419	212,5	2315
	450,0-630,0										40 k6	43	12	135		M16	36		2409		
M1170	160,0-400,0	230 h7	241	50	280	10	M24	50	150	75	55 m6	59	16	160	10	M20	42	315	2477	215	2636
	450,0-630,0										50 k6	53,5	14	140		M16	36		2471		
M1180	160,0-400,0	290 h7	302	63	400	12,5	M24	50	200	100	70 m6	74,5	20	180	10	M20	42	335	2915	245	4072
	450,0-630,0										55 m6	59	16	160					2895		
M1190	160,0-400,0	290 h7	302	63	400	12,5	M24	50	200	100	80 m6	85	22	180	15	M20	42	375	3025	265	4487
	450,0-630,0										65 m6	69	18	160	10				3005		
M1200	160,0-355,0	360 h7	375	80	520	15	M24 ‡	50 ‡	220 ‡	110	110 m6	116	28	200	20	M24	50	450	3435	295	7081
	400,0-560,0										75 m6	80	20			M20	42				
M1210	160,0-400,0	360 h7	375	80	520	15	M24 ‡	50 ‡	220 ‡	110	110 m6	116	28	200	20	M24	50	450	3460	295	7349
	450,0-630,0										75 m6	80	20			M20	42				

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

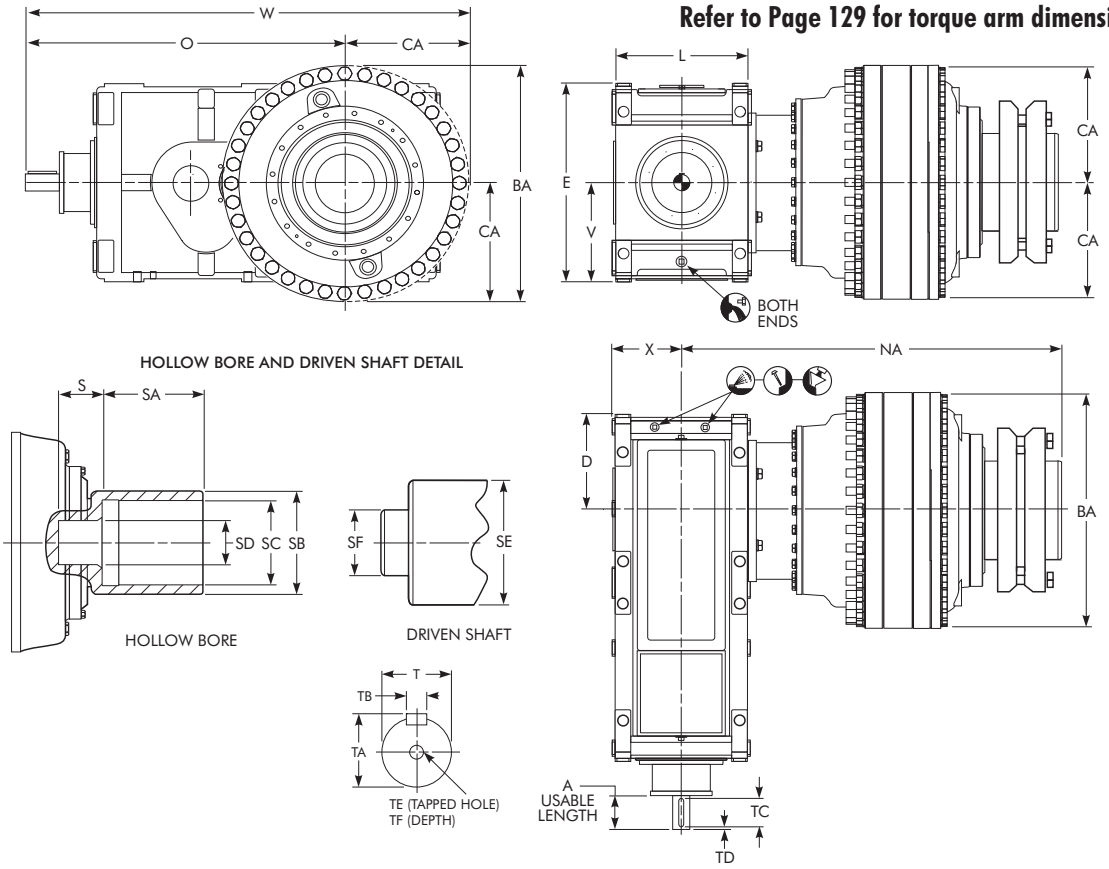
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

‡ 8 - SE (Tapped Holes), SF (Deep) on SG (Bolt Circle).

Type DBP4 Quadruple Reduction

Size M1160 – M1210/Dimensions — Millimeters

Refer to Page 129 for torque arm dimensions.



DRIVE SIZE ★	Ratios	A	BA	CA	D	E	L	NA	O
M1160	160,0-400,0	150	710	355	280	560	405	1226	1029
	450,0-630,0	140							1019
M1170	160,0-400,0	155	710	355	300	630	410	1249	1087
	450,0-630,0	150							1081
M1180	160,0-400,0	180	870	435	335	670	470	1414	1215
	450,0-630,0	160							1195
M1190	160,0-400,0	195	870	435	375	750	510	1476	1325
	450,0-630,0	175							1305
M1200	160,0-560,0	240	1090	545	475	900	570	1688	1525
M1210	160,0-630,0	240	1090	545	450	900	570	1736	1550

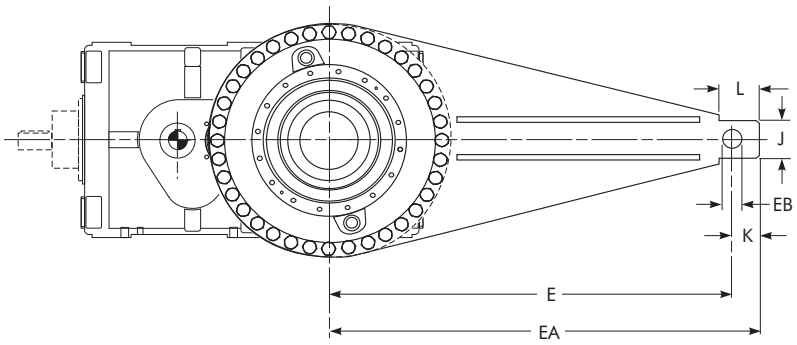
DRIVE SIZE ★	Ratios	Low Speed Hollow Bore					Driven Shaft		High Speed Shaft †							V	W	X	Approx Wt kg
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TD	TE	TF				
M1160	160,0-400,0	101	230	280 f7	230 H7	120 H7	230 g6	120 f6	55 m6	59	16	145	10	M20	42	280	1384	212,5	2422
	450,0-630,0								40 k6	43	12	135		M16	36		1374		
M1170	160,0-400,0	101	230	280 f7	230 H7	120 H7	230 g6	120 f6	55 m6	59	16	160	10	M20	42	315	1442	215	2743
	450,0-630,0								50 k6	53,5	14	140		M16	36		1436		
M1180	160,0-400,0	155	300	360 f7	295 H7	210 H7	295 g6	210 f6	70 m6	74,5	20	180	10	M20	42	335	1650	245	4286
	450,0-630,0								55 m6	59	16	160					1630		
M1190	160,0-400,0	155	300	360 f7	295 H7	210 H7	295 g6	210 f6	80 m6	85	22	180	15	M20	42	375	1760	265	4701
	450,0-630,0								65 m6	69	18	160	10				1740		
M1200	160,0-355,0	175	335	390 f7	320 H7	190 H7	320 g6	190 f6	110 m6	116	28	200	20	M24	50	450	2070	295	7354
	400,0-560,0								75 m6	80	20			M20	42				
M1210	160,0-400,0	175	335	390 f7	320 H7	190 H7	320 g6	190 f6	110 m6	116	28	200	20	M24	50	450	2095	295	7622
	450,0-630,0								75 m6	80	20			M20	42				

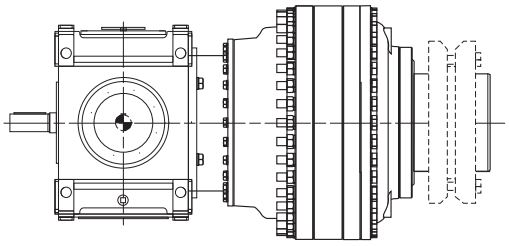
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

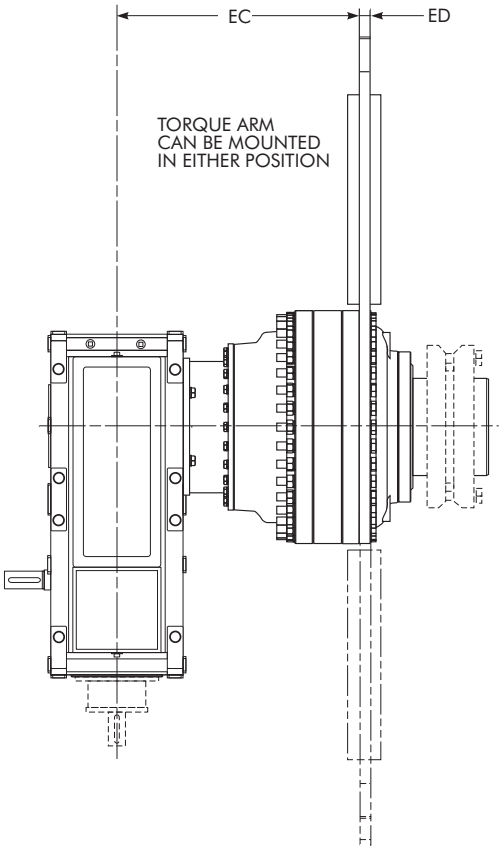
† Key Sizes per ISO/R773-1969, Form A. Tapped center hole to DIN 332, threads 6H.

Type DH & DB Quadruple Reduction

Torque Arm/Dimensions — Millimeters





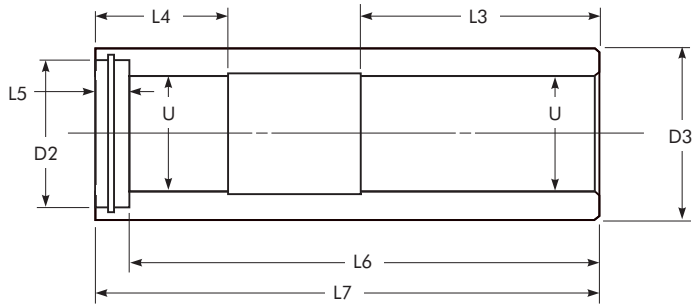


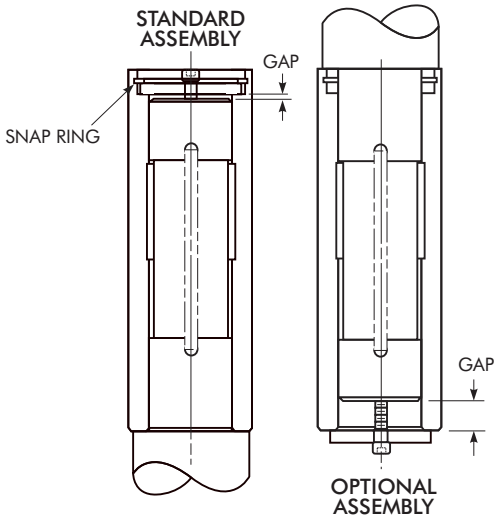
DRIVE SIZE ★	E	EA	EB	EC	ED	J	K	L	Approx Wt kg
M1160	1300	1390	65 H9	783	35	130	90	145	183
M1170	1300	1390	65 H9	803	35	130	90	145	183
M1180	1600	1700	70 H9	921	40	140	100	130	268
M1190	1600	1700	70 H9	983	40	140	100	130	268
M1200	1800	1910	75 H9	1135	60	150	110	145	525
M1210	1800	1910	75 H9	1183	60	150	110	145	525

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DVM & DXM

Hollow Low Speed Shaft With Keeper Plate/Dimensions — Millimeters



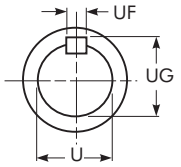


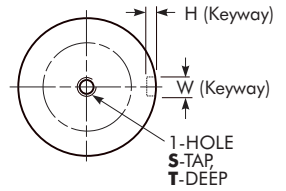
Hollow Low Speed Shaft Dimensions — Millimeters

DRIVE SIZE ★	Shaft-Diameters					L3	L4	L5	L6	L7	Gap Between Shaft & Plate	
	U (H7)	UF (D10)	UG	D2 +.010, –.000	D3						Std Assy	Opt Assy
M1150	120	32	127,4	150	170	271	104	45	465	500	5	40
M1160	135	36	143,4	167	180	291	112	45	504	548,5	5	48
M1170	150	36	158,4	185	200	289	107	57	489	546	5	63
M1180	170	40	179,4	205	220	291	182	57	591	648	5	62
M1190	185	45	195,4	227	240	375	192	57	635	692,5	5	63
M1200	220	50	231,4	240	280	404	170	68	676	744	5	73
M1210	220	50	231,4	240	280	404	170	68	676	744	5	73

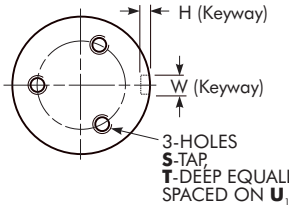
★ Dimensions are for reference only and are subject to change without notice unless certified.

KEYED HOLLOW L.S. SHAFT DETAIL

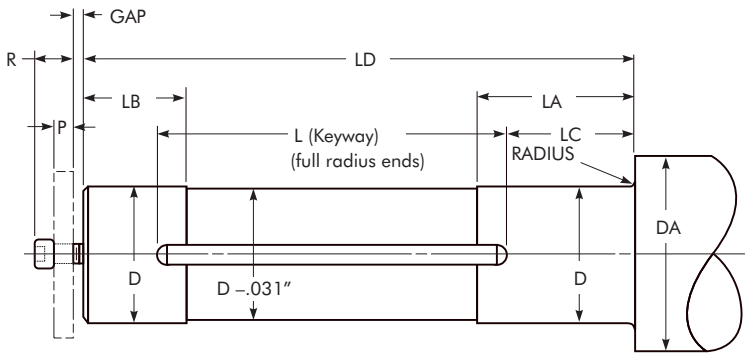


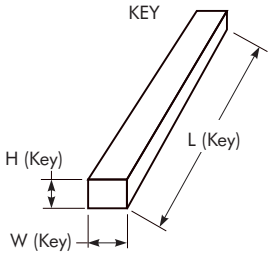


SIZES M1150-M1190



SIZES M1200-M1210





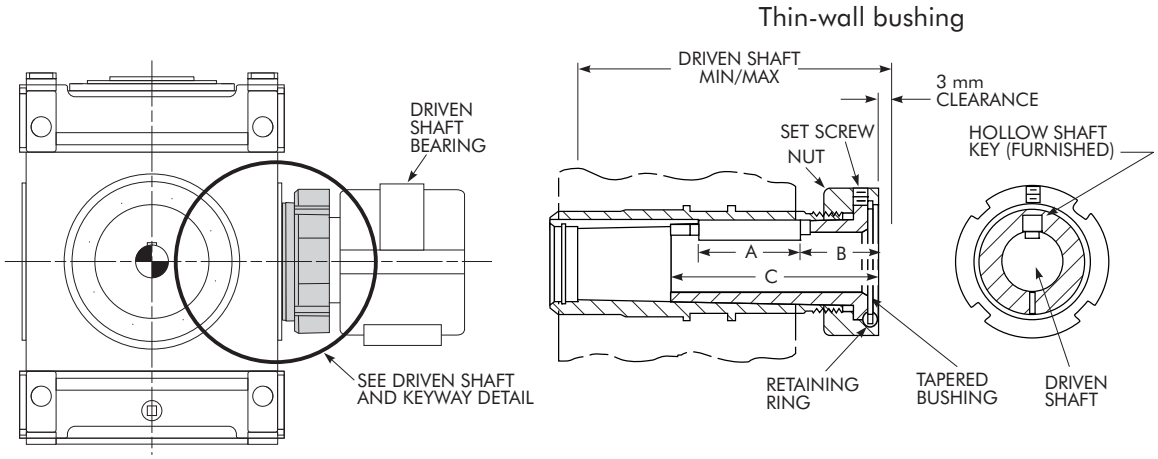
Driven Shaft Recommended Dimensions – Millimeters

DRIVE SIZE ★	Shaft		Radius Max	LD	LA	LB	LC	P +.000 –.120	R	Thrust Plate (Keeper Plate)						Keyway			Key		
	D (g6)	DA Min								Snap Ring ● (L. S. Shaft Down Only)	S	T	U_1	Fastener Length		W (N9)	H +.300 –.000	L	W	H	L
														Shaft Down	Shaft Up						
M1150	120	150	3	460	100	52	74	23,5	47,5	150	M24	48	. . .	65	110	32	11	352	32	18	320
M1160	135	165	3	499	107	59	76	23,5	47,5	167	M24	48	. . .	65	110	36	12	396	36	20	360
M1170	150	190	3	483	102	40	75	23,5	53,5	185	M30	60	. . .	70	130	36	12	396	36	20	360
M1180	170	210	3	586	178	115	125	22,5	52,5	205	M30	60	. . .	70	130	40	13	400	40	22	360
M1190	185	230	3	630	188	125	124	22,5	52,5	227	M30	60	. . .	70	130	45	15	445	45	25	400
M1200	220	265	3	671	220	100	170	37,5	67,5	240	M30	60	85	90	110	50	17	450	50	28	400
M1210	220	265	3	671	220	100	170	37,5	67,5	240	M30	60	85	90	110	50	17	450	50	28	400

★ Dimensions are for reference only and are subject to change without notice unless certified.
● Rotor clip DHO series or equivalent.

Type DHT, DBT & DZT Double or Triple Reduction Gear Drive

TA Taper Bushing & Driven Shaft/Dimensions — Millimeters
Sizes M1130 – M1190



DRIVE SIZE	Bushing				Driven Shaft						Wt kg
	Bushing Size	A	B	C Min Shaft Engagement	Dia	Tolerance	Length Min	Length Max	Keyway ●	Keyway Length (Min)	
M1130	75 80 85 90	180	65	277	75 80 85 90	h10	282	340	20 x 7,5 22 x 9 22 x 9 25 x 9	200 202 202 205	12 11 10 9
M1140	95 100	180	76	302	95 100	h10	310	390	25 x 9 28 x 10	205 208	16 14
M1150	110 115 120	180	81	307	110 115 120	h10	310	410	28 x 10 32 x 11 32 x 11	208 212 212	18 16 14
M1160	120 125 130 135	200	59,3	326	120 125 130 135	h10	331	450	32 x 11 32 x 11 32 x 11 36 x 12	232 232 232 236	22 19 17 14
M1170	130 140 150	250	59,3	336	130 140 150	h10	341	435	32 x 11 36 x 12 36 x 12	282 286 286	31 27 22
M1180	150 160 170	250	68,3	373	150 160 170	h10	378	515	36 x 12 40 x 13 40 x 13	286 290 290	37 31 25
M1190	160 170 175 185	280	65,8	388	160 170 175 185	h10	393	545	40 x 13 40 x 13 45 x 15 45 x 15	320 320 325 325	48 42 40 34

● Check strength of driven shaft.

Type DHT & DBT Double or Triple Reduction Gear Drive

Driven Shaft Recommendations Using TA Taper Bushing With Keeper Plate
Sizes M1130 – M1210 — Millimeters

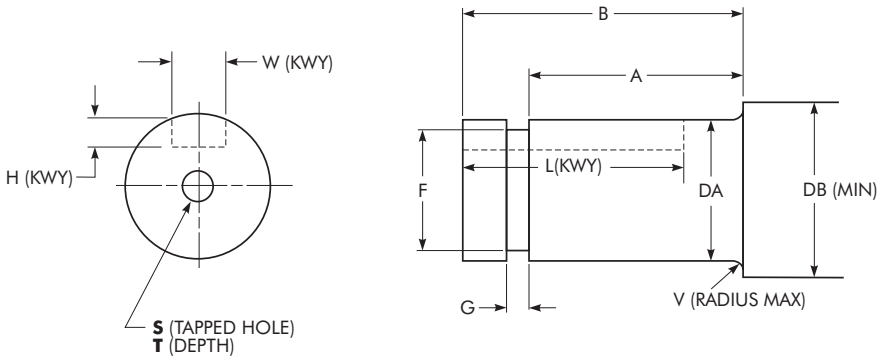


FIGURE 1 (SIZES M1130-M1190)

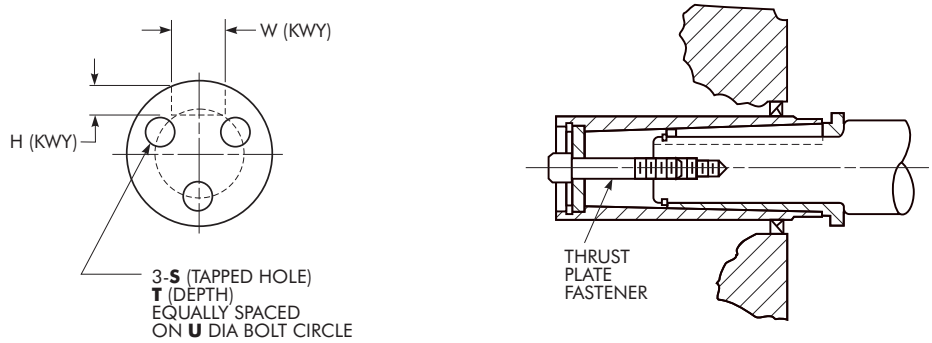


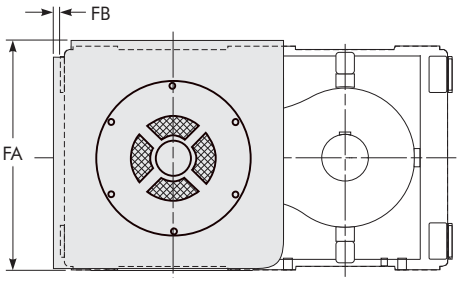
FIGURE 2 (SIZES M1200-M1210)

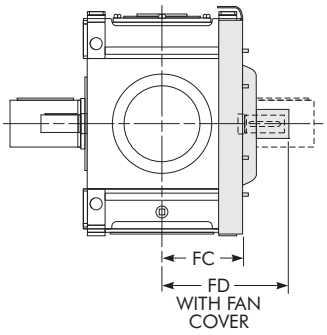
DRIVE SIZE ★	TCB Kit	A	B	DA †	DB (Min)	Retaining Ring				Keyway ‡			Shaft End				Radius
						Groove		Mfg No.	Max OD	W	H	L (Min)	Figure No.	S	T (Min)	U	V (Max)
						F	G										
M1130	D006426	261,5	281,5	80	95	76,5	2,65	Smalley DNS-80	89	22	9	245	1	M20 X 2,5	40	. . .	4
M1140	D006427	286,5	305,5	95	110	91,5	3,15	Smalley DNS-95	104	25	9	259	1	M24 X 3	45	. . .	4
M1150	D006428	291,5	305,5	115	130	111	4,15	Smalley DNS-115	125	32	11	256	1	M24 X 3	45	. . .	4
M1160	D006429	311,5	324,5	125	140	121	4,15	Smalley DNS-125	135	32	11	282	1	M24 X 3	45	. . .	4
M1170	D006430	321,5	338,5	140	155	136	4,15	Smalley DNS-140	150	36	12	312	1	M30 X 3,5	60	. . .	4
M1180	D006431	356,5	369,5	160	175	155	4,15	Smalley DNS-160	171	40	13	338	1	M30 X 3,5	60	. . .	4
M1190	D006432	371,5	394,5	175	190	170	4,15	Smalley DNS-175	186	45	15	368	1	M30 X 3,5	60	. . .	4
M1200/M1210	. . .	397	424	190	205	185	4,15	Smalley DNS-190	201	45	15	373	2	M24 X 3	45	120	4
M1200/M1210	. . .	397	424	200	215	195	4,15	Smalley DNS-200	211	51	15	373	2	M24 X 3	45	120	4

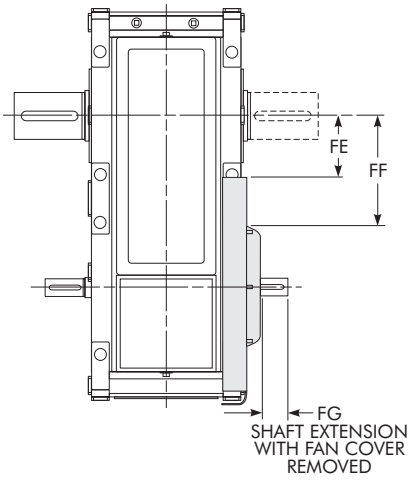
★ Dimensions are for reference only and are subject to change without notice unless certified.
† Shaft diameter tolerance is h10.
‡ Key sizes per ISO/R773 - 1969.

Type DHC2 & 3 Sizes M1130-M1210

Shaft Driven Fan Clearance/Dimensions — Millimeters







Double Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FG ‡
M1130	6,3-16,0	434	15	160	294	93	145	74
	18,0-28,0				243		174	31
M1140	6,3-16,0	482	15	184	310	109	158	64
	18,0-28,0							34
M1150	6,3-16,0	547	17	199	324	123	181	67
	18,0-28,0							47
M1160	6,3-28,0	577	17	217	342	153	203	52
M1170	6,3-16,0	648	17	222	373	173	228	79
	18,0-28,0							49
M1180	6,3-28,0	688	17	248	414	227	304	80
M1190	6,3-16,0	767	17	285	453	258	350	98
	18,0-28,0							68
M1200	5,00-22,4	917	17	314	483	228	420	84
M1210	5,60-25,0	917	17	314	483	278	445	84

★ Dimensions are for reference only and are subject to change without notice unless certified.
‡ Shroud clearance.

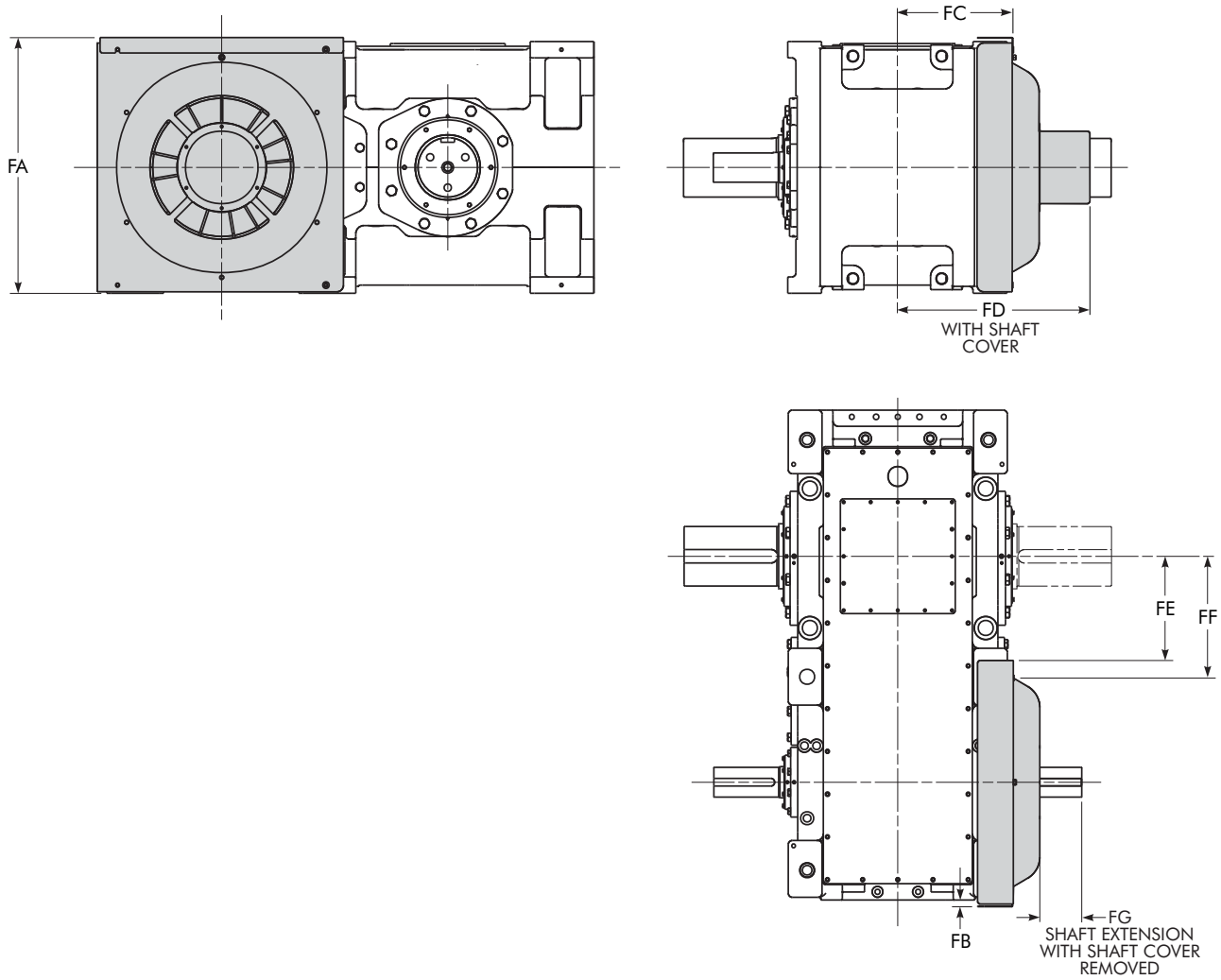
Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FG ‡
M1130	31,5-140,0	434	15	160	243	93	174	31
M1140	31,5-140,0	482	15	184	279	109	185	23
M1150	31,5-90,0	547	17	199	294	123	207	47
	100,0-140,0							40
M1160	31,5-140,0	577	17	217	342	153	203	34
M1170	31,5-140,0	648	17	222	373	173	228	49
M1180	31,5-140,0	688	17	248	391	227	324	52
M1190	31,5-140,0	767	17	270	453	258	403	54
M1200	25,0-112,0	917	17	314	487	228	310	54
M1210	28,0-125,0	917	17	314	487	278	360	54

★ Dimensions are for reference only and are subject to change without notice unless certified.
‡ Shroud clearance.

Type DHC2 Sizes M1220-M1250

Shaft Driven Fan Clearance/Dimensions — Millimeters

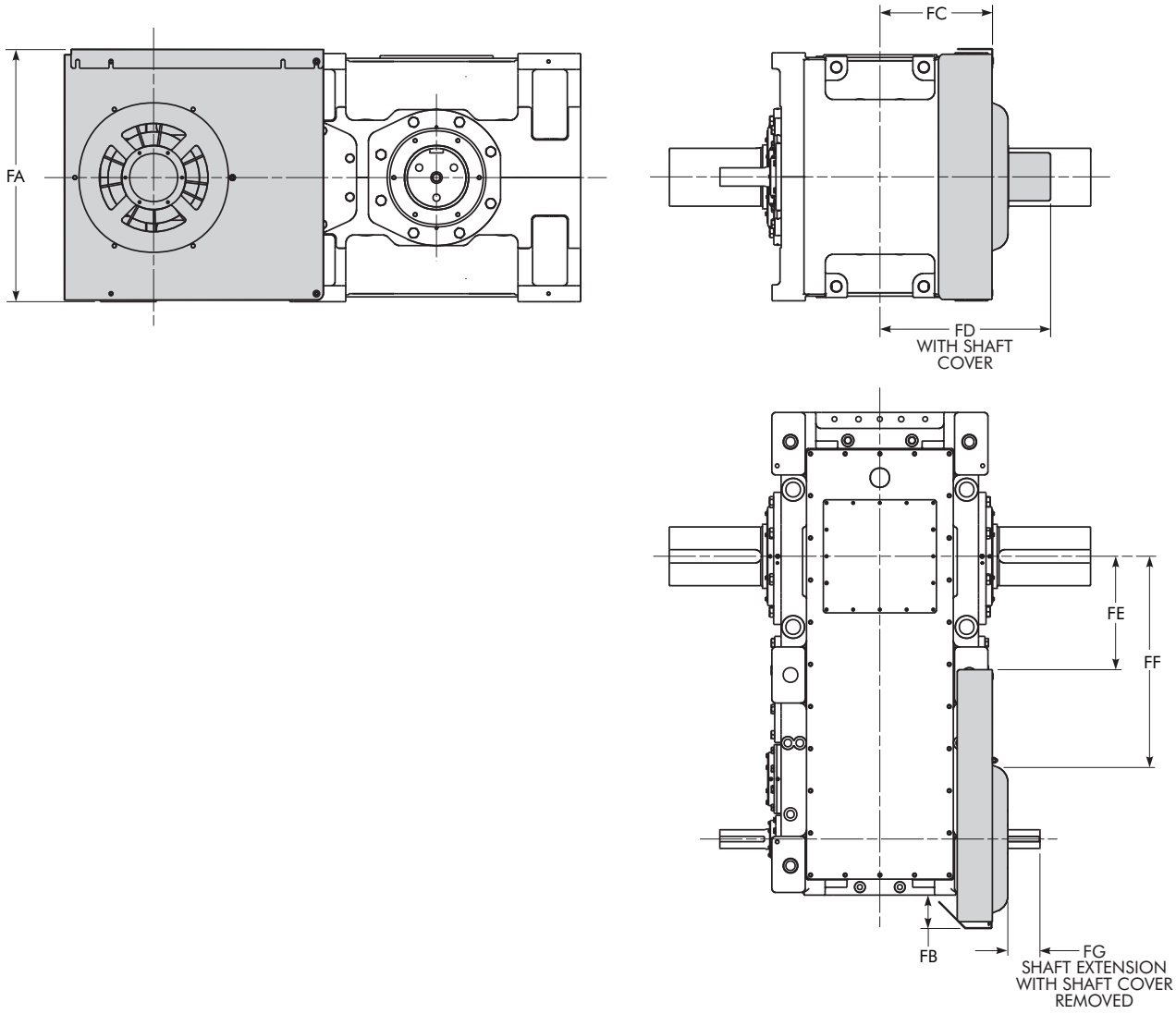


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF	FG
M1220	5,6 - 22,4	945	20	427	713	345	407	152
M1230	6,3 - 25,0	945	20	427	713	385	447	152
M1240	5,6 - 22,4	1115	15	489	774	415	542	178
M1250	6,3 - 25,0	1115	15	489	774	465	592	178

★ Dimensions are for reference only and are subject to change without notice unless certified.
For applications requiring a backstop and two shaft fans, consult the Factory.

Type DHC3 Sizes M1220-M1250

Shaft Driven Fan Clearance/Dimensions — Millimeters

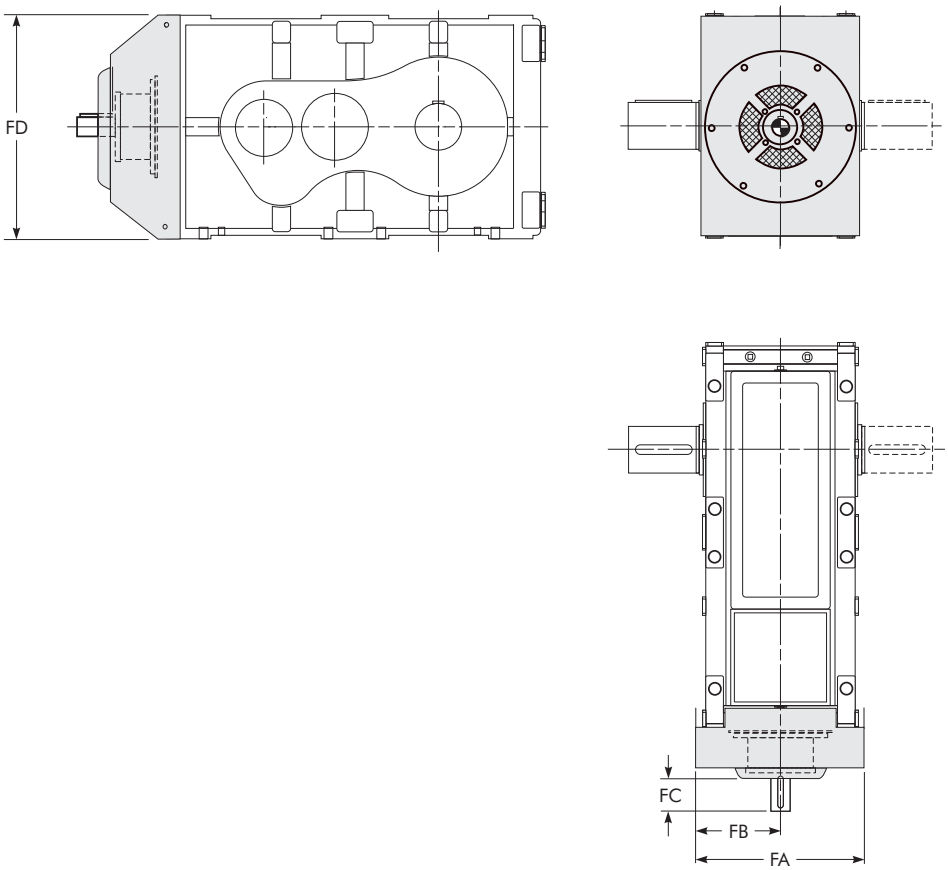


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF	FG
M1220	25,0 - 63,0	945	120	422	637	385	741	123
M1230	28,0 - 71,0	945	120	422	637	425	781	123
M1240	25,0 - 63,0	1115	85	467	682	455	911	159
M1250	28,0 - 71,0	1115	85	467	682	505	961	159

★ Dimensions are for reference only and are subject to change without notice unless certified.
For applications requiring a backstop and two shaft fans, consult the Factory.

Type DBC3 Sizes M1130-M1210

Shaft Driven Fan Clearance/Dimensions — Millimeters

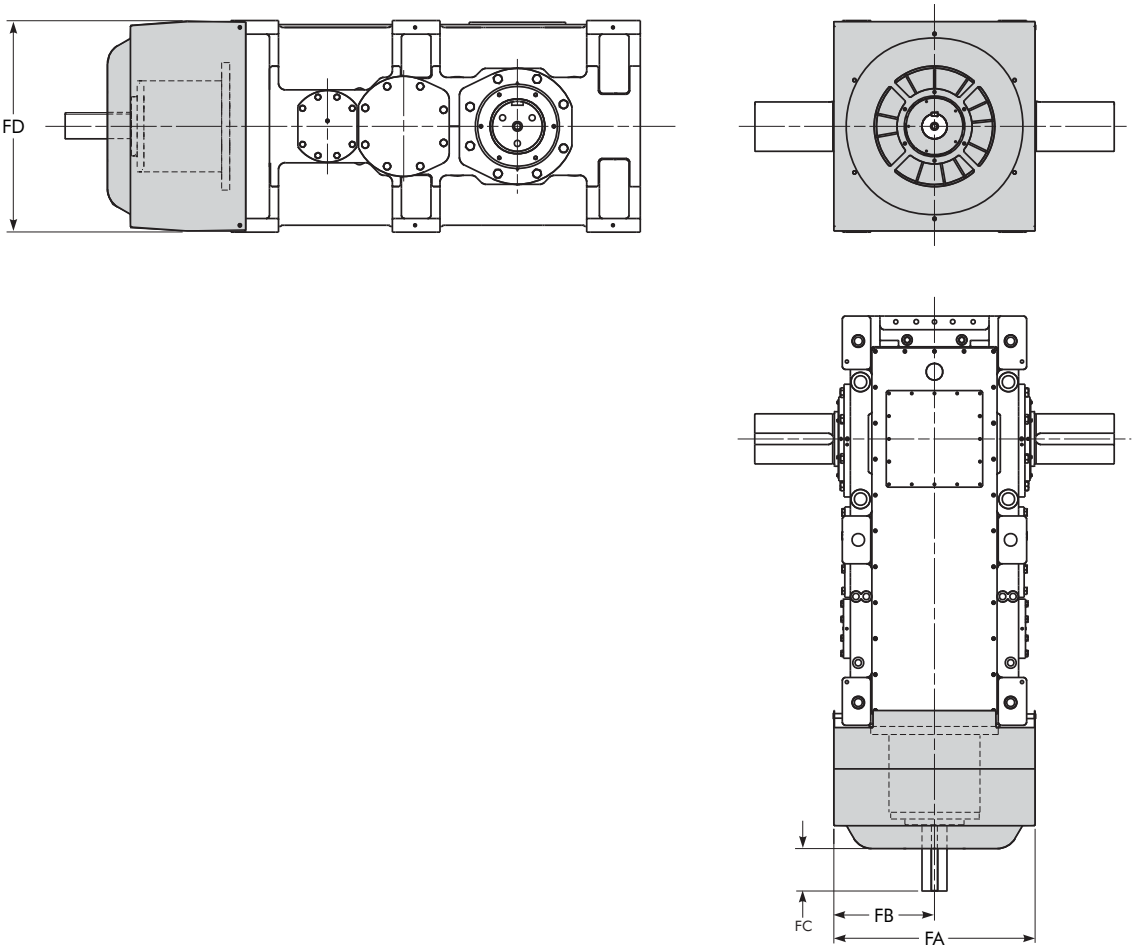


DRIVE SIZE ★	Ratios	FA	FB	FC	FD
M1130	14,0-80,0	358	179	75	420
	90,0-125			45	
M1140	14,0-80,0	434	217	79	468
	90,0-125			58	
M1150	14,0-80,0	428	214	111	530
	90,0-125			65	
M1160	14,0-80,0	462	231	118	556
	90,0-125			108	
M1170	14,0-80,0	467	233.5	115	630
	90,0-125			105	
M1180	14,0-80,0	564	282	116	668
	90,0-125			96	
M1190	14,0-80,0	567	283.5	147	748
	90,0-125			127	
M1200	11,2-100,0	666	333	190	896
M1210	12,5-112,0	666	333	190	896

★ Dimensions are for reference only and are subject ot change without notice unless certified.

Type DBC3 Sizes M1220-M1250

Shaft Driven Fan Clearance/Dimensions — Millimeters

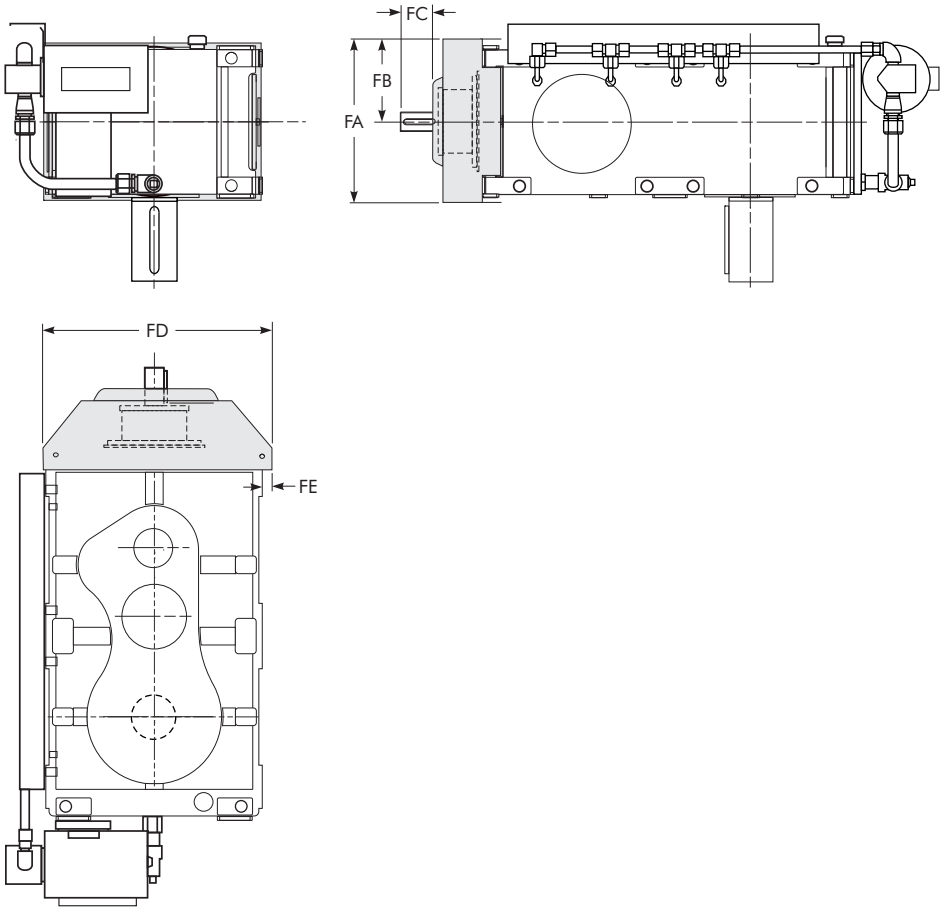


DRIVE SIZE ★	Ratios	FA	FB	FC	FD
M1220	8,0 - 63,0	885	442,5	188	920
M1230	9,0 - 71,0	885	442,5	188	920
M1240	8,0 - 63,0	975	487,5	188	1090
M1250	9,0 - 71,0	975	487,5	188	1090

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DXC Triple Reduction

Shaft Driven Fan Clearance/Dimensions — Millimeters

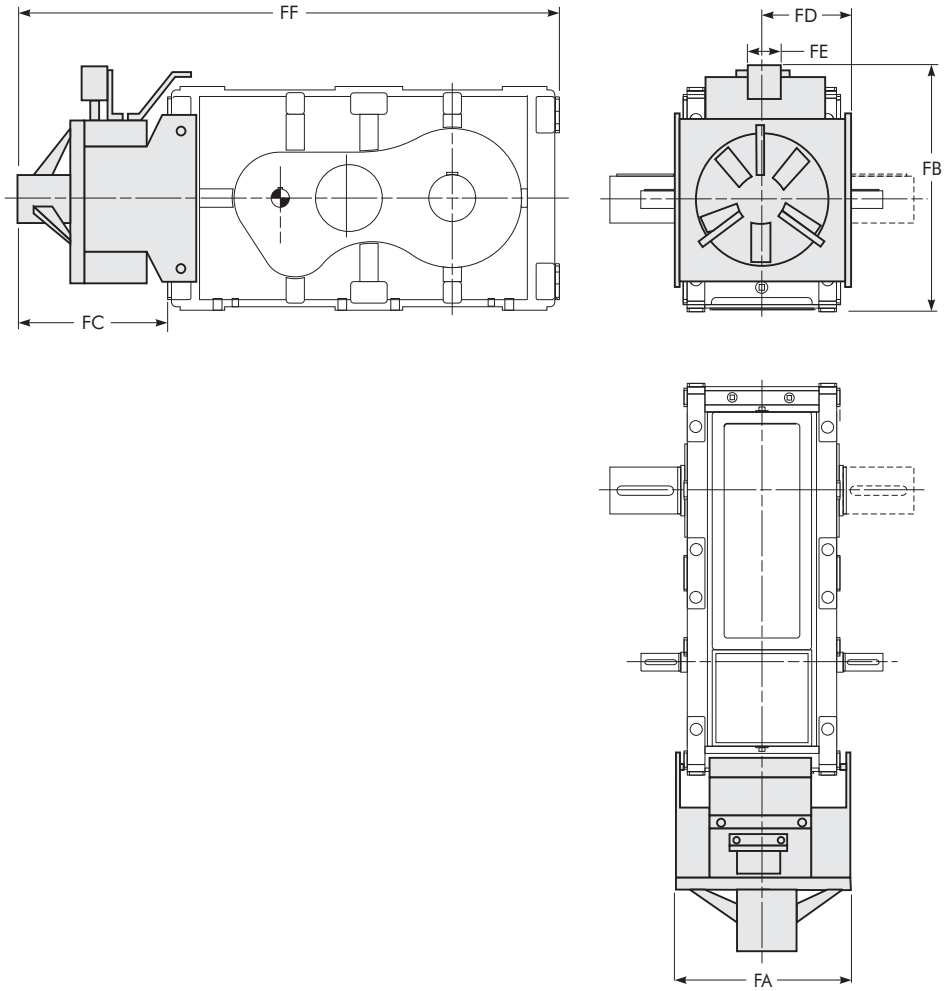


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE
M1130	14,0-80,0	329	179	82	488	32
	90,0-125,0			52		
M1140	14,0-80,0	379	204	88	536	32
	90,0-125,0			67		
M1150	14,0-80,0	409	219	112	594	32
	90,0-125,0			66		
M1160	14,0-80,0	443	236	118	624	32
	90,0-125,0			108		
M1170	14,0-80,0	449	239	117	694	32
	90,0-125,0			111		
M1180	14,0-80,0	522	282	132	758	44
	90,0-125,0			110		
M1190	14,0-80,0	562	302	148	840	44
	90,0-125,0			128		
M1200	11,2-100,0	623	333	183	1070	85
M1210	12,5-112,0	623	333	183	1070	85

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC2 & 3 Sizes M1130-M1210

Electric Fan Clearance/Dimensions — Millimeters



Double Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF
M1130	6,3-16,0 18,0-28,0	446	624	426	223	127	1150
M1140	6,3-16,0 18,0-28,0	496	671	441	248	127	1253
M1150	6,3-16,0 18,0-28,0	496	685	466	248	127	1381
M1160	6,3-28,0	545	724	466	273	127	1456
M1170	6,3-16,0 18,0-28,0	546	756	465	273	127	1565
M1180	6,3-28,0	596	803	520	298	127	1750
M1190	6,3-16,0 18,0-28,0	651	869	523	326	127	1903
M1200	5,00-22,4	726	1015	622	363	127	2248
M1210	5,60-25,0	726	1015	622	363	127	2248

★ Dimensions are for reference only and are subject to change without notice unless certified.

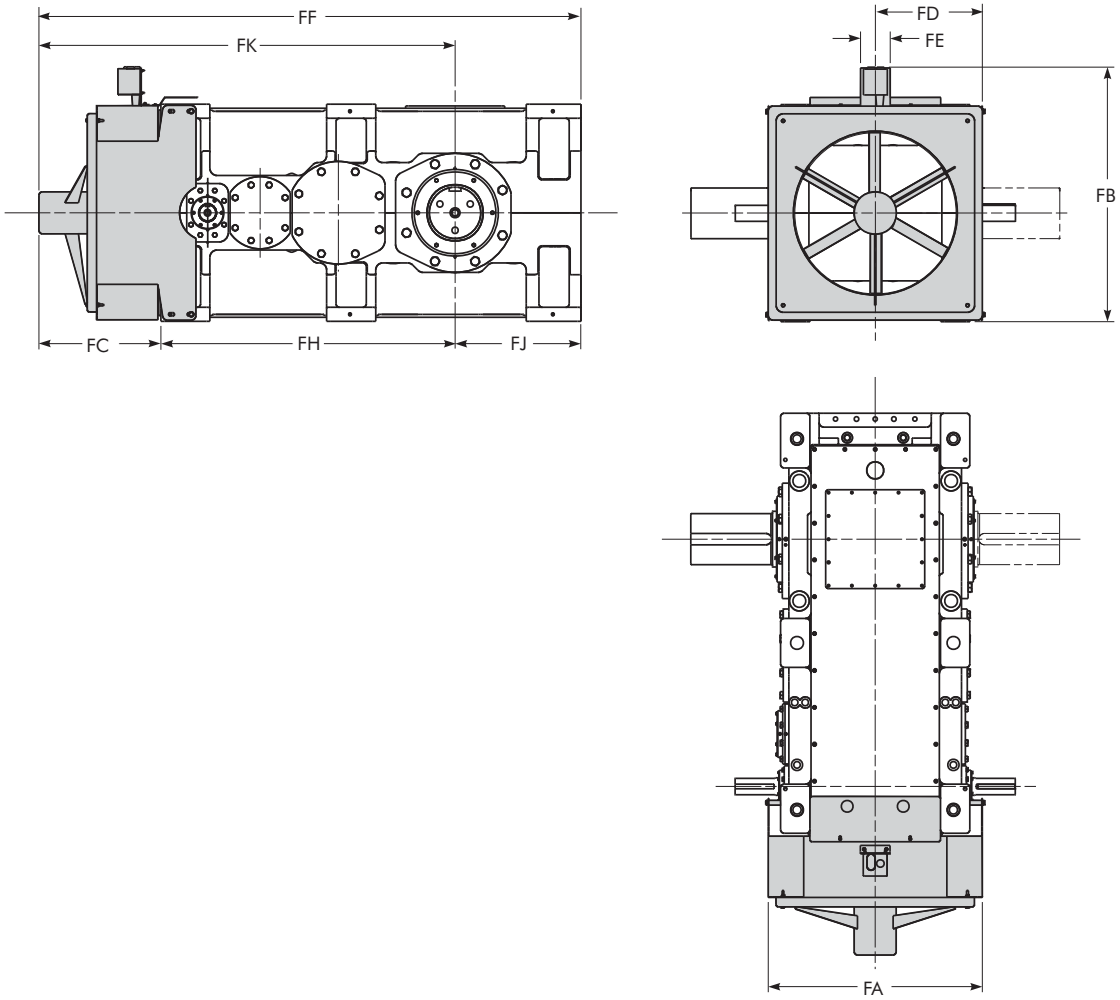
Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF
M1130	31,5-140,0	446	624	426	223	127	1150
M1140	31,5-140,0	496	671	441	248	127	1253
M1150	31,5-90,0 100,0-140,0	496	685	466	248	127	1381
M1160	31,5-140,0	545	724	466	273	127	1456
M1170	31,5-140,0	546	756	465	273	127	1565
M1180	31,5-140,0	596	803	520	298	127	1750
M1190	31,5-140,0	651	869	523	326	127	1903
M1200	25,0-112,0	726	1015	622	363	127	2247
M1210	28,0-125,0	726	1015	622	363	127	2247

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC2 & 3 Sizes M1220-M1250

Electric Fan Clearance/Dimensions — Millimeters



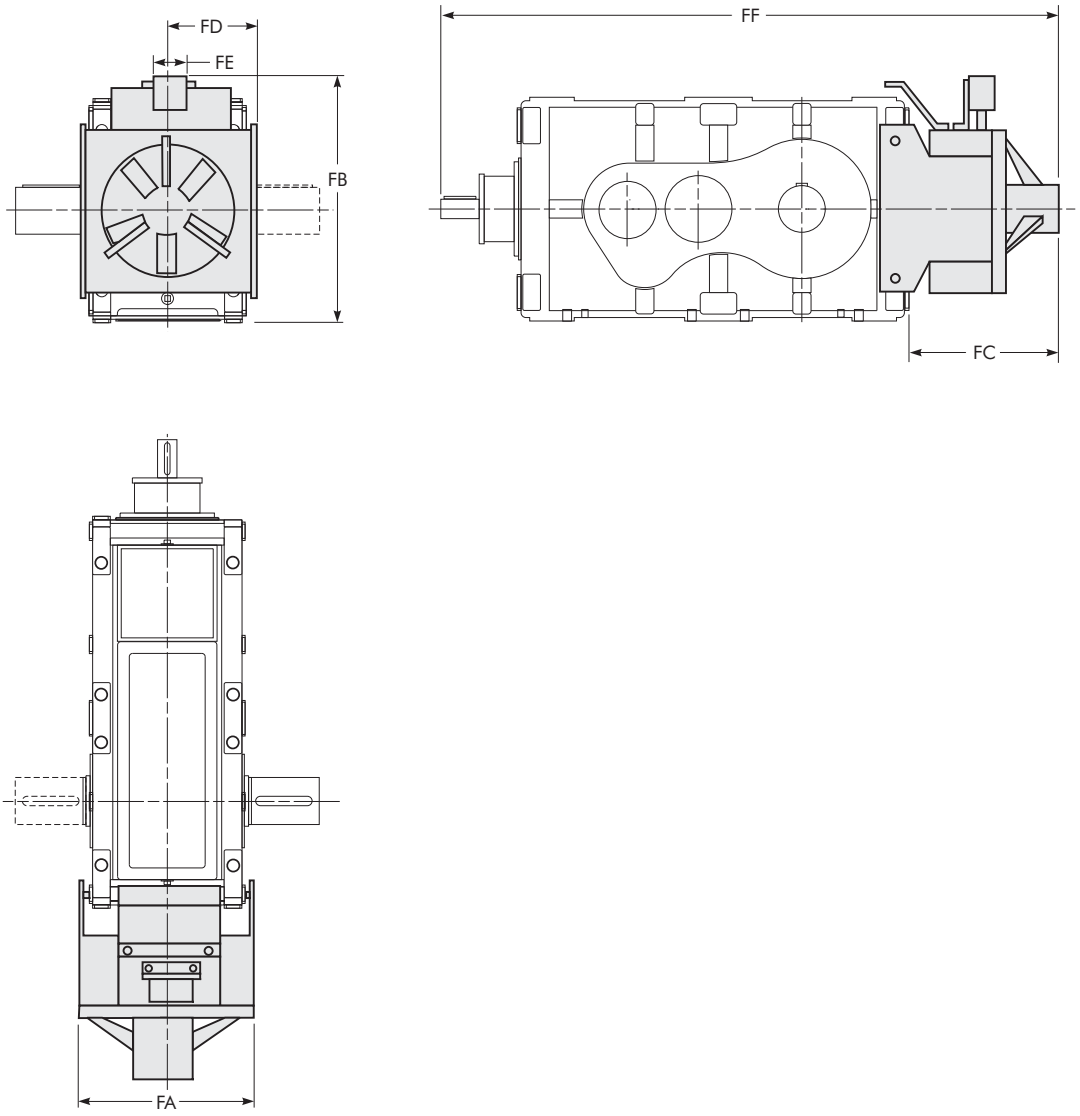
Double & Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FH	FJ	FK
M1220	5,6 - 63,0	917	1090	528	458,5	127	2328	1220	580	1748
M1230	6,3 - 71,0	917	1090	528	458,5	127	2328	1260	540	1788
M1240	5,6 - 63,0	1007	1260	533	503,5	127	2628	1425	670	1958
M1250	6,3 - 71,0	1007	1260	533	503,5	127	2628	1475	620	2008

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DBC3 Sizes M1130-M1210

Electric Fan Clearance/Dimensions — Millimeters

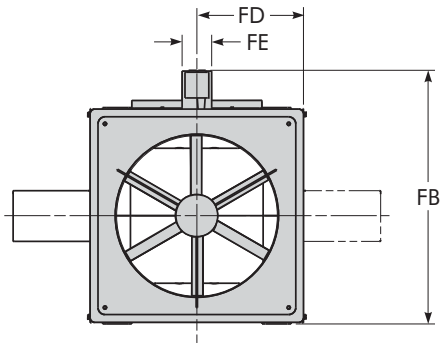


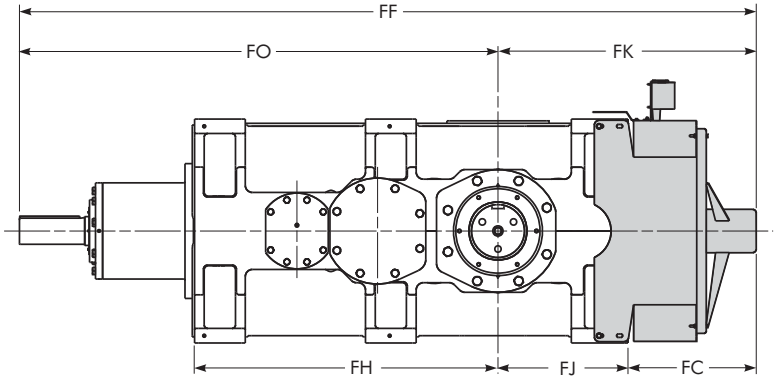
DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF
M1130	14,0-80,0	446	624	426	223	127	1403
	90,0-125						1373
M1140	14,0-80,0	496	671	441	248	127	1516
	90,0-125						1495
M1150	14,0-80,0	496	672	466	248	127	1656
	90,0-125						1610
M1160	14,0-80,0	545	724	466	273	127	1775
	90,0-125						1765
M1170	14,0-80,0	546	756	465	273	127	1852
	90,0-125						1846
M1180	14,0-80,0	596	803	520	298	127	2070
	90,0-125						2050
M1190	14,0-80,0	651	869	523	326	127	2223
	90,0-125						2203
M1200	11,2-100,0	726	1015	622	363	127	2622
M1210	12,5-112,0	726	1015	622	363	127	2622

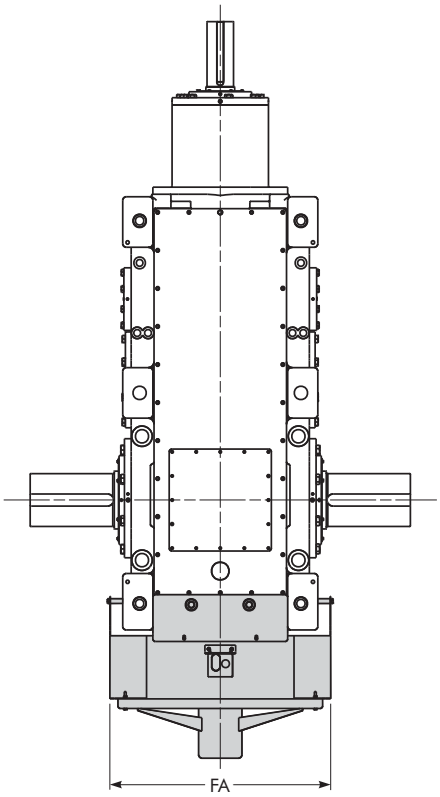
★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DBC3 Sizes M1220-M1250

Electric Fan Clearance/Dimensions — Millimeters





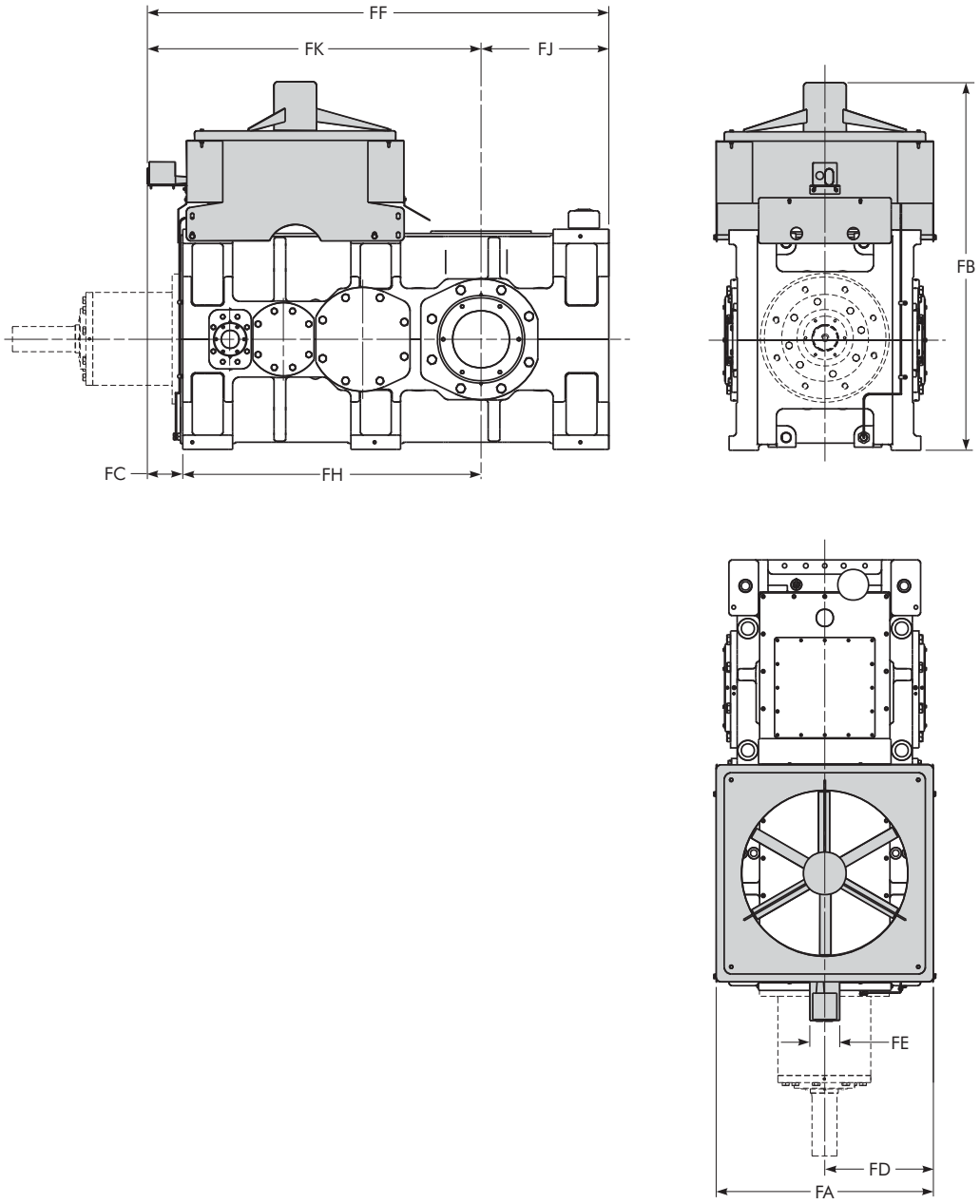


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF	FH	FJ	FK	FO
M1220	8,0 - 63,0	917	1090	528	458,5	127	3058	1220	580	1108	1950
M1230	9,0 - 71,0	917	1090	528	458,5	127	3058	1260	540	1608	1990
M1240	8,0 - 63,0	1007	1260	533	503,5	127	3288	1425	670	1203	2085
M1250	9,0 - 71,0	1007	1260	533	503,5	127	3288	1475	620	1153	2135

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC & DBC Sizes M1220-M1250

Electric Fan Clearance (Top Mounting)/Dimensions — Millimeters



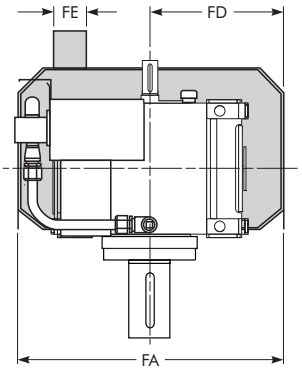
Double & Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FH	FJ	FK
M1220	5,6 - 63,0	917	1553	150	458,5	127	1950	1220	580	1370
M1230	6,3 - 71,0	917	1553	150	458,5	127	1950	1260	540	1410
M1240	5,6 - 63,0	1007	1718	145	503,5	127	2240	1425	670	1570
M1250	6,3 - 71,0	1007	1718	145	503,5	127	2240	1475	620	1620

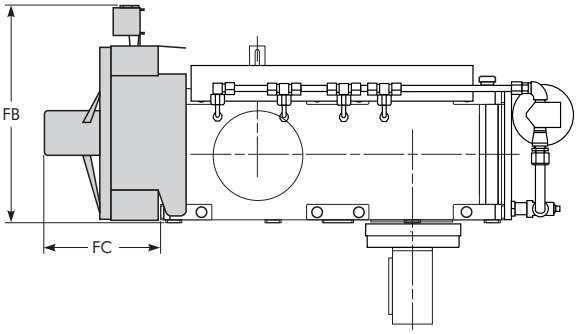
★ Dimensions are for reference only and are subject to change without notice unless certified.

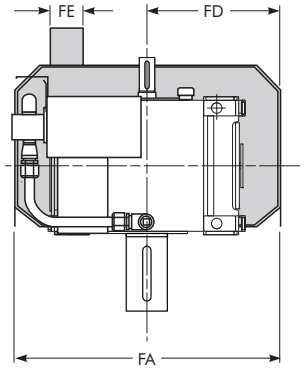
Type DVA & DVC

Electric Fan Clearance/Dimensions — Millimeters

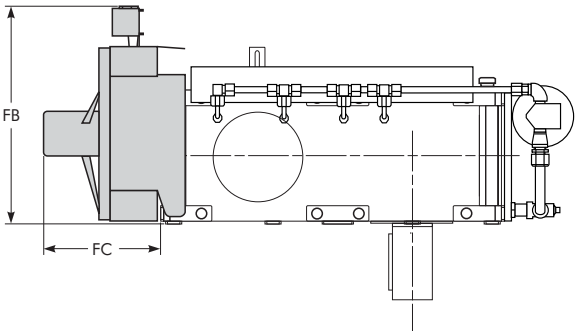


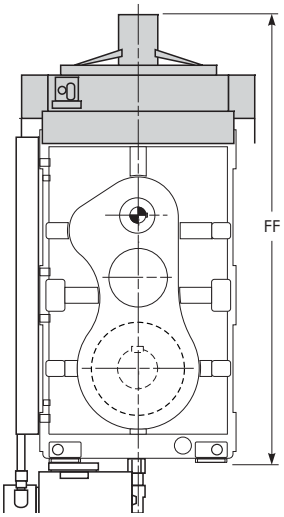
DVA





DVC





Double & Triple Reduction ★

DRIVE SIZE	FA	FB	FC	FD	FE	FF
M1130	532	618	351	266	127	1075
M1140	620	618	365	310	127	1176
M1150	678	618	365	339	127	1280
M1160	708	669	390	354	127	1380
M1170	778	669	390	389	127	1490
M1180	818	756	413	409	127	1643
M1190	898	806	431	449	127	1811
M1200	1050	882	434	525	127	2059
M1210	1050	882	434	525	127	2059

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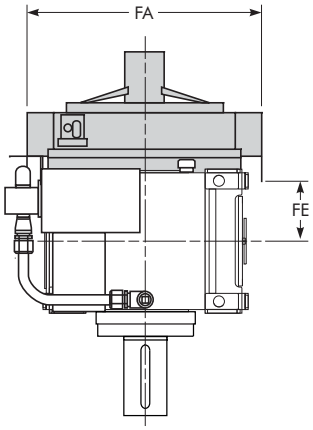
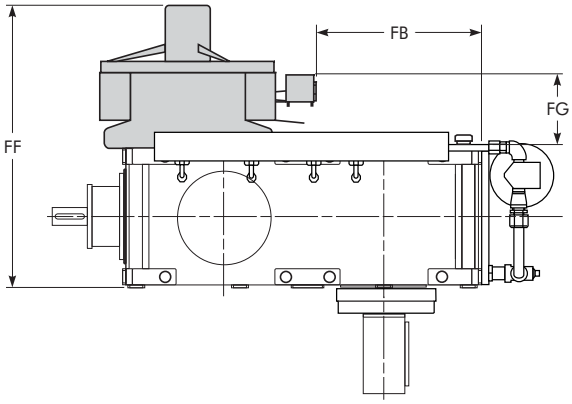
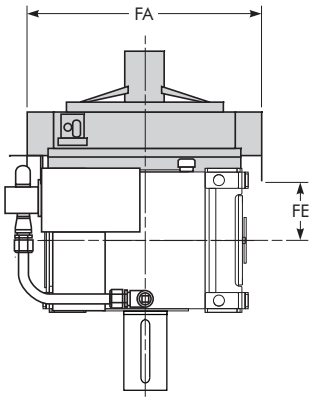
Type DXA & DXC

Electric Fan Clearance/Dimensions — Millimeters

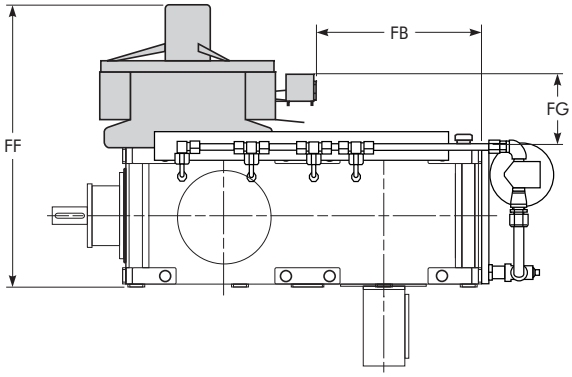


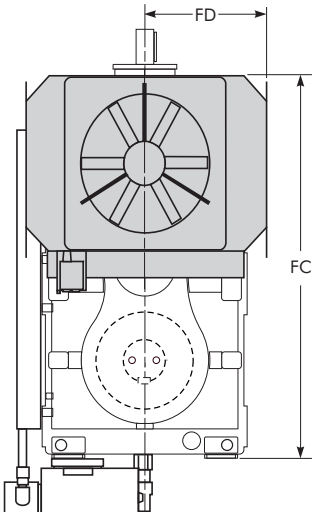
DXA





DXC





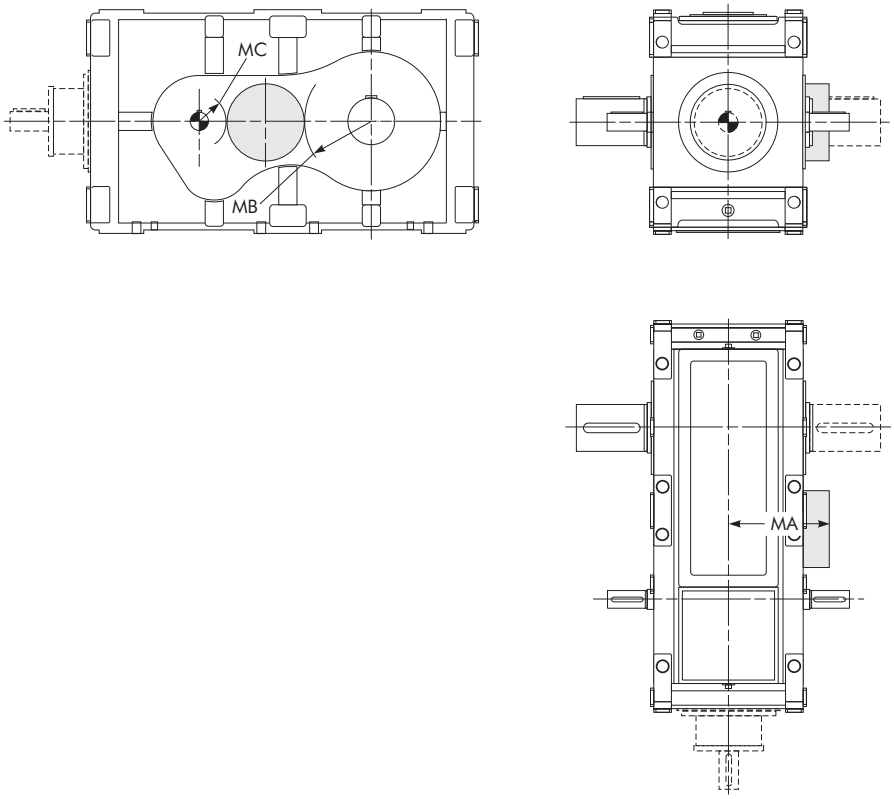
Triple Reduction ★

DRIVE SIZE	FA	FB	FC	FD	FE	FF	FG
M1130	532	142	755	266	71	681	219
M1140	620	243	856	310	130	745	203
M1150	678	346	959	339	130	775	203
M1160	708	382	1045	354	157	830	198
M1170	778	484	1147	389	150	835	198
M1180	818	535	1286	409	177	918	198
M1190	898	616	1417	449	178	989	222
M1200	1050	803	1680	525	245	1069	222
M1210	1050	803	1680	525	245	1069	222

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH, DB & DZ Sizes M1130-M1210

Backstop Clearance/Dimensions — Millimeters



NOTE: Check for backstop interference with couplings, sprockets, and sheaves.

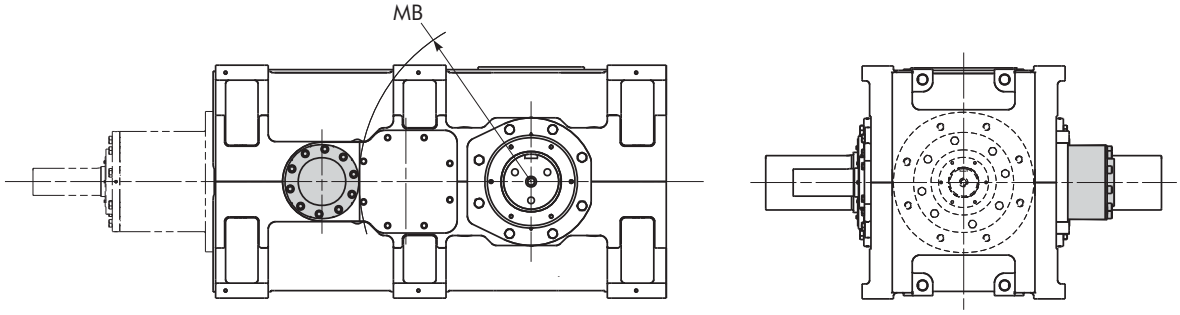
Double & Triple Reduction

DRIVE SIZE ★	MA	MB	MC
M1130	231	130	50
M1140	267	132,5	52,5
M1150	266	152,5	67,5
M1160	300	165	75
M1170	293	180	85
M1180	336	205	95
M1190	375	220	110
M1200	495	225	105
M1210	495	250	105

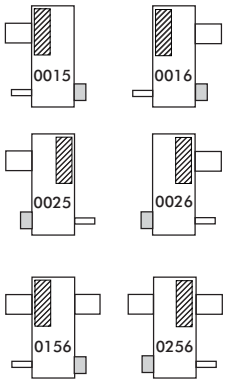
★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC & DBC Sizes M1220-M1250

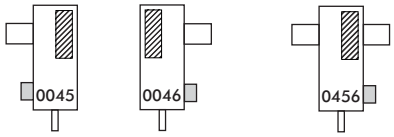
Backstop Clearance/Dimensions — Metric

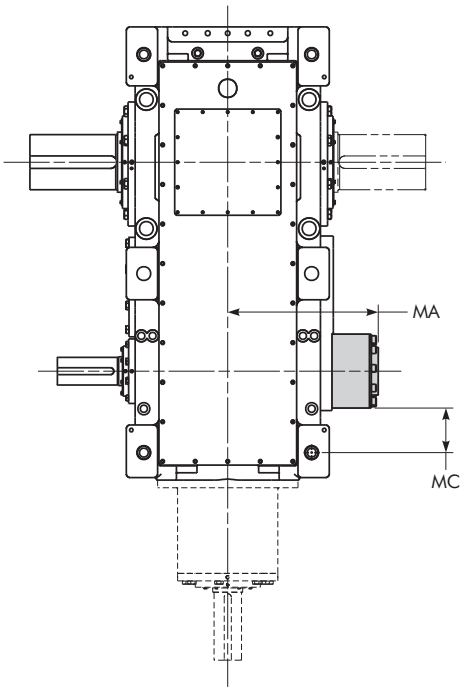


DHC Backstop Position



DBC Backstop Position





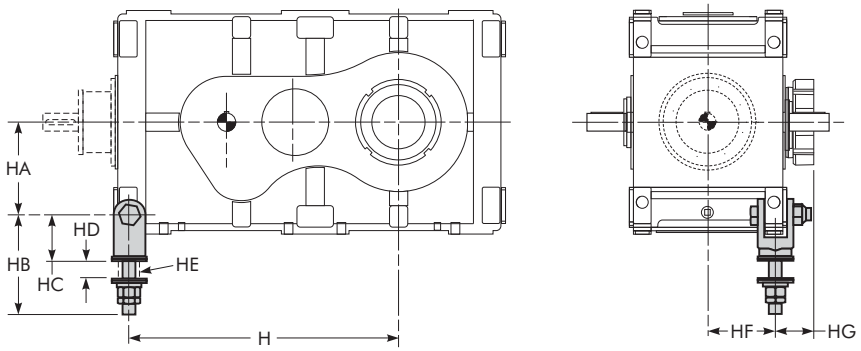
Double & Triple Reduction

DRIVE SIZE ★	Ratios	MA	MB	MC
M1220	5,6 - 63,0	601	647	177,5
M1230	6,3 - 71,0	601	687	177,5
M1240	5,6 - 63,0	665	680	175
M1250	6,3 - 71,0	665	730	175

★ Dimensions are for reference only and are subject to change without notice unless certified.
For applications requiring a backstop and two shaft fans, consult the Factory.

Type DHT/DBT Double & Triple Reduction

Torque Arm – Disc Spring Type (Non-Adjustable)/Dimensions — Millimeters

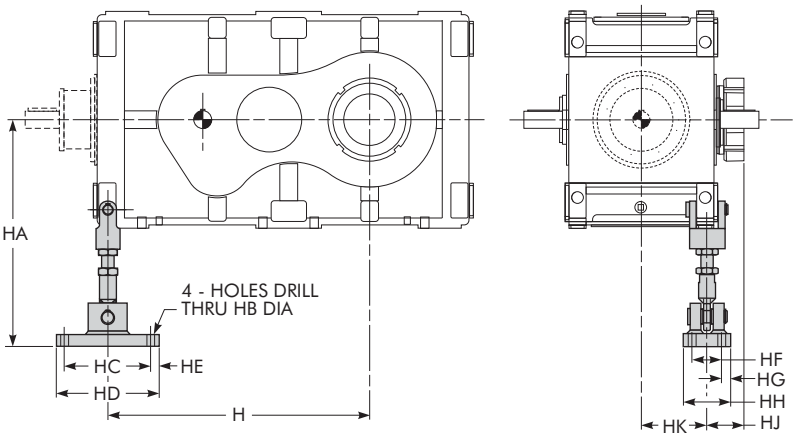


DRIVE SIZE ★	H	HA	HB	HC	HD	HE ‡	HF	HG
M1130	472	165	255	110	19-76	44	130	112
M1140	533	191	255	110	19-76	44	150	117
M1150	605	205	255	135	50-95	54	165	113
M1160	665	220	255	135	50-95	54	182.5	120.5
M1170	755	255	255	135	50-95	54	185	115
M1180	850	275	255	135	50-95	54	215	120
M1190	955	315	347	149	60-105	76	217.5	137.5
M1200	1100	400	347	149	60-105	76	247.5	83.5
M1210	1125	400	347	149	60-105	76	247.5	83.5

★ Dimensions are for reference only and are subject to change without notice unless certified.
‡ Hole diameter in foundation for mounting torque arm.

Type DHT/DBT Double & Triple Reduction

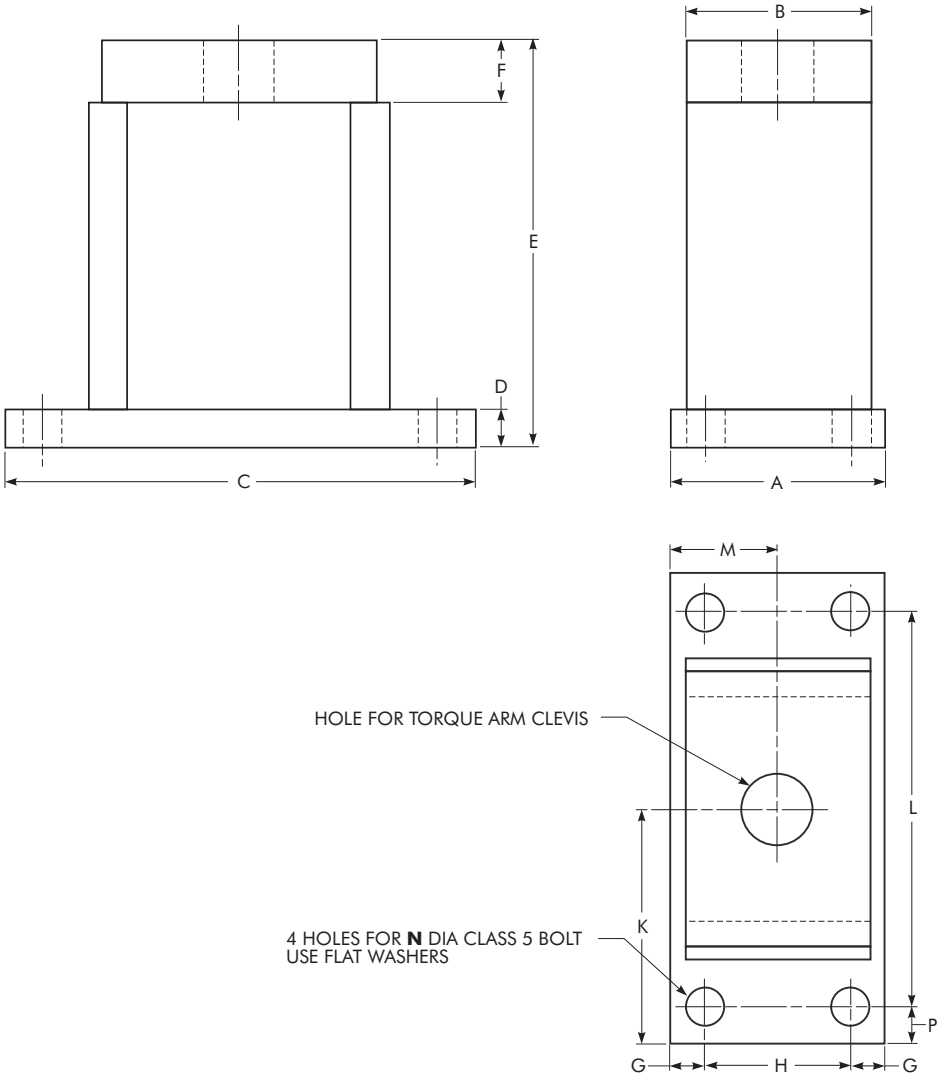
Torque Arm – Rod End Type (Adjustable)/Dimensions — Millimeters



DRIVE SIZE ★	H	HA		HB	HC	HD	HE	HF	HG	HH	HJ	HK
		Min	Max									
1130	472	555	583	24	244	300	28	44	28	100	112	130
1140	533	579	607	24	244	300	28	44	28	100	117	150
1150	605	692	716	24	244	300	28	44	38	120	113	165
1160	665	707	731	24	244	300	28	44	38	120	120.5	182,5
1170	755	742	766	24	244	300	28	44	38	120	115	185
1180	850	894	912	24	244	300	28	44	48	140	120	215
1190	955	934	952	24	260	320	30	70	35	140	137.5	217,5
1200	1100	1019	1037	24	260	320	30	70	55	180	83.5	247.5
1210	**REFER TO THE FACTORY**											

Type DH & DB Double & Triple Reduction

Torque Arm Pedestal/Dimensions — Millimeters

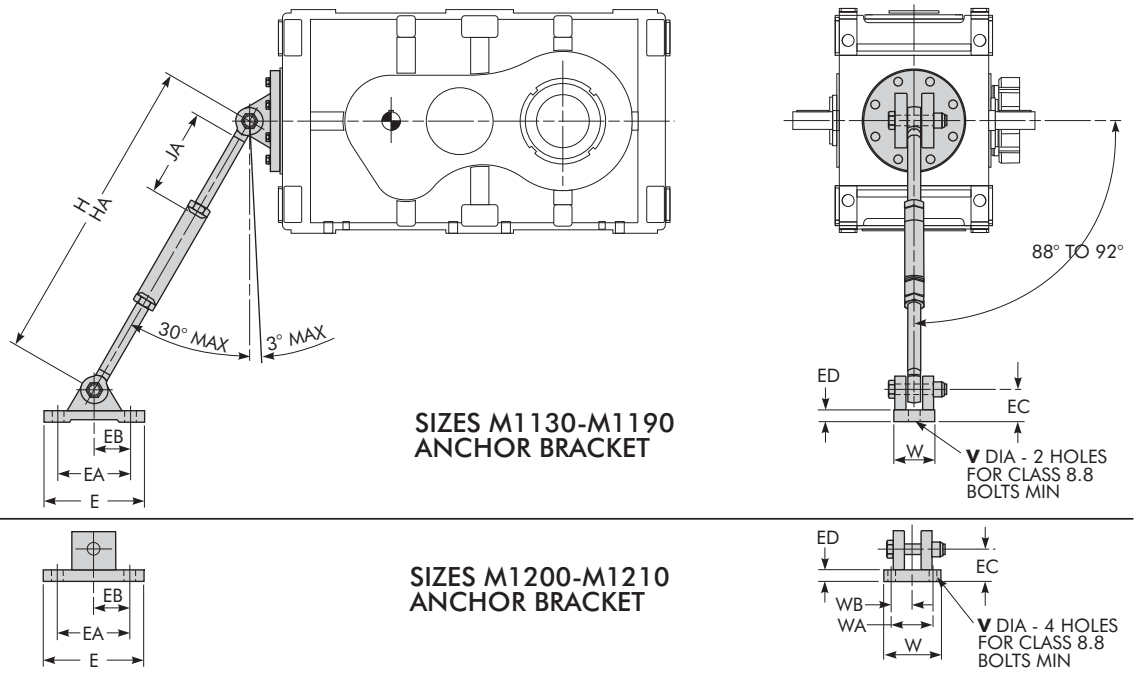


DRIVE SIZE ★	A	B	C	D	E	F	G	H	K	L	M	N	P
M1130-M1140	150	130	305	25	220	40	25	100	152	255	75	19	25
M1150-M1210	178	152	394	32	337	51	29	121	197	330	89	25	32

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH Double & Triple Reduction

Tie Rod – Adjustable/Dimensions — Millimeters

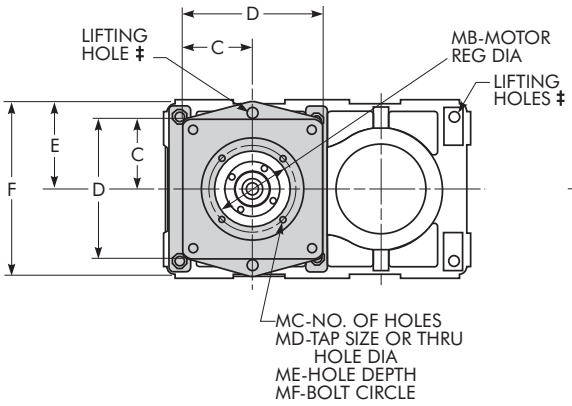


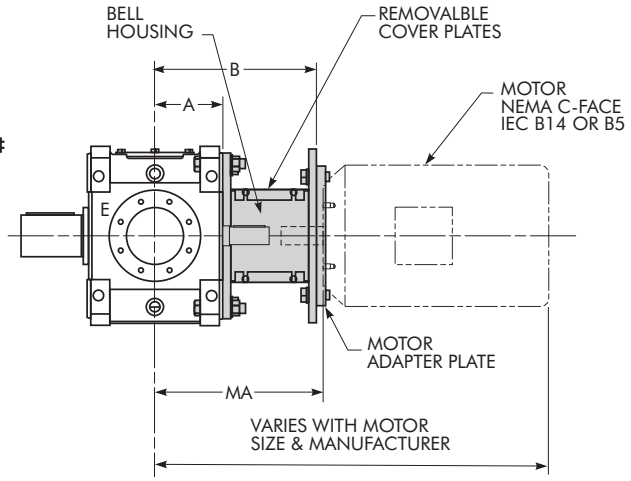
DRIVE SIZE ★	E	EA	EB	EC	ED	H		HA ‡		JA ‡		V	W	WA	WB	Wt-kg
						MIN	MAX	MIN	MAX	STD	MIN					
M1130	221	165	83	67	25	762	870	394	514	324	140	22	84	. . .	. . .	18
M1140	221	165	83	67	25	762	870	394	514	324	140	22	84	. . .	. . .	18
M1150	246	178	89	79	28	762	895	394	527	324	140	29	100	. . .	. . .	27
M1160	246	178	89	79	28	762	895	394	527	324	140	29	100	. . .	. . .	27
M1170	297	219	110	89	32	756	895	502	641	279	152	35	113	. . .	. . .	40
M1180	297	219	110	89	32	756	895	502	641	279	152	35	113	. . .	. . .	44
M1190	297	219	110	89	32	756	895	502	641	279	152	35	113	. . .	. . .	45
M1200	292	216	108	108	32	546	609	. . .	. . .	114	. . .	33	216	140	70	104
M1210	292	216	108	108	32	546	609	. . .	. . .	114	. . .	33	216	140	70	104

★ Dimensions are for reference only and are subject to change without notice unless certified.
‡ Each rod end may be cut off to minimum JA length. HA is total length with cut off rod ends.

Type DH Double & Triple Reduction

Motor Adapters/Dimensions — Millimeters





‡ TO LIFT ENTIRE ASSEMBLY-USE TWO HOLES AT LOW SPEED END OF DRIVE
ONE HOLE AT H.S. END OF DRIVE
AND ONE HOLE IN BELL HOUSING

B5 Flanges

DRIVE SIZE	Motor Frame	Motor Coupling: Drive Reduction & Nominal Ratio DH2 6,30-16,0	DH2 18,0-28,0	DH3 31,5-90,0	DH3 100 -140	Dimensions - Millimeters † A	B	C	D	E	F	MA	MB	MC	MD	ME	MF
M1130	112	...	...	10R35		155	364,5	167,5	335	207	414	388	180 H7	4	M12	Thru	215
	132	...	...	10R35								388	230 H7	4	M12		265
	160	...	20R35	20R35								422	250 H7	4	M16		300
	180	20R10	20R35	20R35								422	250 H7	4	M16		300
	200	30R10	30R35	...				230	460			426	300 H7	4	M16		350
	225	40R10	40R10	...								433	350 H7	8	M16		400
M1140	132	...	...	10R35		180	426,5	185	370	231	462	445	230 H7	4	M12	Thru	265
	160	...	...	20R35								466	250 H7	4	M16		300
	180	...	20R35	20R35								466	250 H7	4	M16		300
	200	...	30R35	30R35								470	300 H7	4	M16		350
	225	40R10	40R10	...				205	410			477	350 H7	8	M16		400
	250	40R10	40R10	...				272	544			477	450 H7	8	M16		500
M1150	132	...	...	...	10R35	195	421	200	400	260	520	440	230 H7	4	M12	Thru	265
	160	...	...	20R35								461	250 H7	4	M16		300
	180	...	...	20R35								461	250 H7	4	M16		300
	200	...	30R35	30R35	...							465	300 H7	4	M16		350
	225	40R10		40R10	...			205	410			471	350 H7	8	M16		400
	250	40R10		...				272	544			471	450 H7	8	M16		500
M1160	160	...	...	20R35		212,5	444,5	212,5	425	275	550	474	250 H7	4	M16	Thru	300
	180	...	...	20R35								474	250 H7	4	M16		300
	200	...	...	30R35								474	300 H7	4	M16		350
	225	...	40R10	40R10								508	350 H7	8	M16		400
	250	...	40R10	40R10				289	578			495	450 H7	8	M16		500

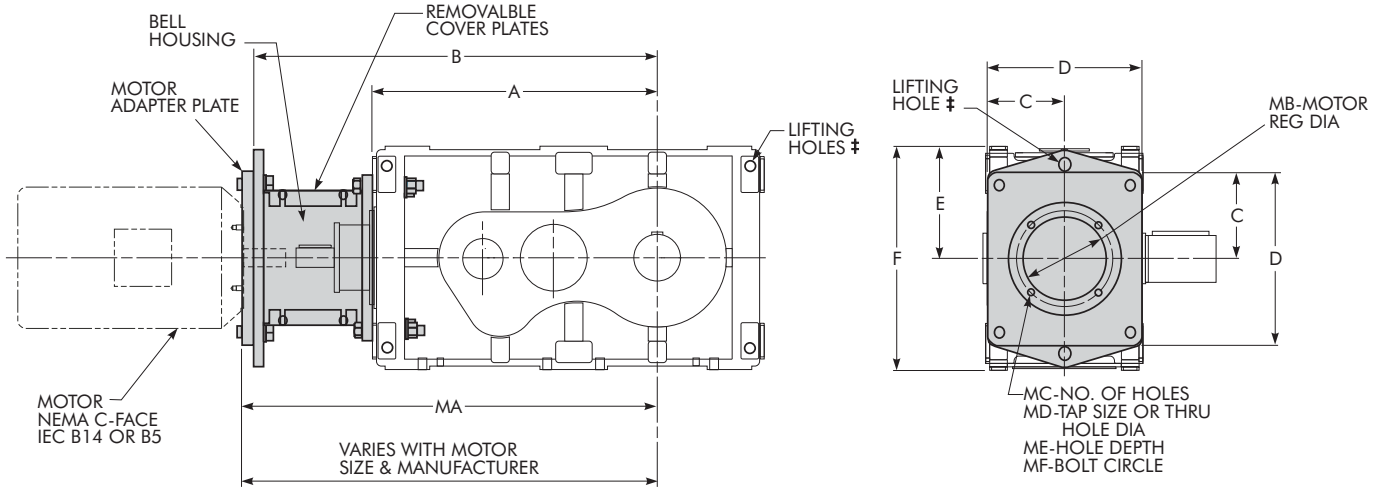
★ Dimensions are for reference only and are subject to change without notice unless certified.
† Due to interference, motor flanges cannot be used on the same side of the housing as a backstop or shaft fan.
Shaft fan only - Mount shaft fan opposite motor flange side.
Backstop only - Mount backstop opposite motor flange side.
Backstop and fan - Mount backstop opposite motor flange side, use electric fan.

B14 Flanges

DRIVE SIZE ★	Motor Frame	Motor Coupling: Drive Reduction & Nominal Ratio DH2 6,30-16,0	DH2 18,0-28,0	DH3 31,5-90,0	DH3 100-140	Dimensions - Millimeters † A	B	C	D	E	F	MA	MB	MC	MD	ME	MF
M1130	112	...		10R35		155	364,5	167,5	335	207	414	384	110 H7	4	10 Dia.	Thru	130
	132	...		10R35								384	130 H7	4	12 Dia.		165
	160	...	20R35	20R35								422	180 H7	4	14,5 Dia.		215
M1140	132	...		10R35		180	426,5	185	370	231	462	445	130 H7	4	12 Dia.	Thru	165
	160	...		20R35								466	180 H7	4	14,5 Dia.		215
M1150	132	...		...	10R35	195	421	200	400	260	520	440	130 H7	4	12 Dia.	Thru	165
	160	...		20R35								461	180 H7	4	14,5 Dia.		215
M1160	160	...		20R35		212,5	444,5	212,5	425	275	550	474	180 H7	4	14,5 Dia.	Thru	215

Type DB Triple Reduction

Motor Adapters/Dimensions — Millimeters



‡ TO LIFT ENTIRE ASSEMBLY-USE TWO HOLES AT LOW SPEED END OF DRIVE AND ONE HOLE IN BELL HOUSING

B5 Flanges

DRIVE SIZE ★	Motor Frame	Motor Coupling Drive Nominal Ratio 14,0-80,0	Motor Coupling Drive Nominal Ratio 90,0-125	Dimensions - Millimeters † A	B	C	D	E	F	MA	MB	MC	MD	ME	MF
M1130	132	10R10	10R35	512	849,5	167,5	335	207	414	873	230 H7	4	M12 Tap	Thru	265
	160	20R10	20R35							907	250 H7	4	M16 Tap		300
	180	20R10	20R35							907	250 H7	4	M16 Tap		300
	200	30R10				230	460			911	300 H7	4	M16 Tap		350
	225	30R10								917,4	350 H7	8	M16 Tap		400
M1140	132	20R10	20R35	576	942	185	370	231	462	960,4	230 H7	4	M12 Tap	Thru	265
	160	20R10								981,5	250 H7	4	M16 Tap		300
	180	20R10								981,5	250 H7	4	M16 Tap		300
	200	30R10								985,5	300 H7	4	M16 Tap		350
	225	30R10				205	410			992	350 H7	8	M16 Tap		400
	250	40R10				272	544			992	450 H7	8	M16 Tap		500
M1150	132	20R10	20R35	650	1027,5	200	400	260	520	1046	230 H7	4	M12 Tap	Thru	265
	160	20R10	20R35							1067	250 H7	4	M16 Tap		300
	180	20R10	20R35							1067	250 H7	4	M16 Tap		300
	200	30R10	30R35							1071	300 H7	4	M16 Tap		350
	225	30R10				205	410			1077,5	350 H7	8	M16 Tap		400
	250	40R10				272	544			1077,5	450 H7	8	M16 Tap		500
M1160	160	20R10		710	1141	212,5	425	275	550	1170,4	250 H7	4	M16 Tap	Thru	300
	180	20R10								1170,4	250 H7	4	M16 Tap		300
	200	30R10								1170,4	300 H7	4	M16 Tap		350
	225	30R10								1204,5	350 H7	8	M16 Tap		400
	250	40R10				289	578			1191	450 H7	8	M16 Tap		500

★ Dimensions are for reference only and are subject to change without notice unless certified.
† Due to interference, motor flange cannot be used with a shaft fan. If cooling is required, use electric fan.

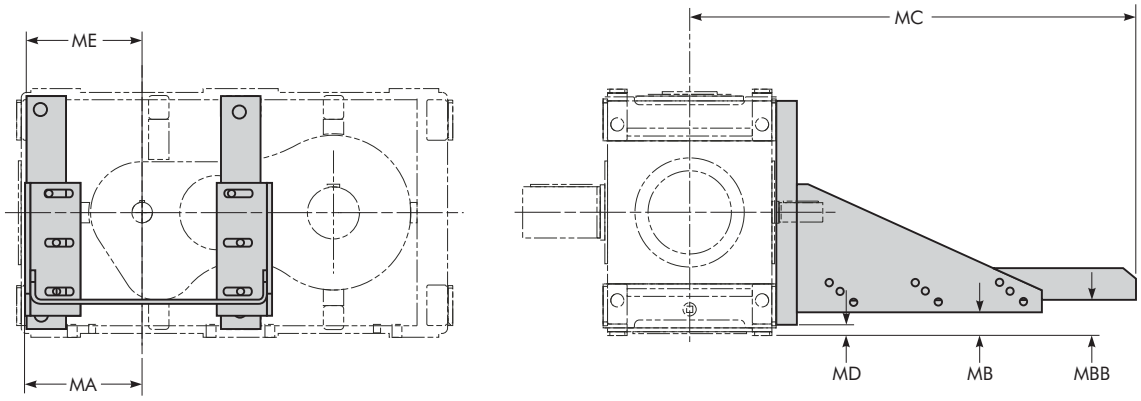
B14 Flanges

DRIVE SIZE ★	Motor Frame	Motor Coupling Drive Nominal Ratio 14,0-80,0	Motor Coupling Drive Nominal Ratio 90,0-125	Dimensions - Millimeters † A	B	C	D	E	F	MA	MB	MC	MD	ME	MF
M1130	132	10R10	10R35	512	849,5	167,5	335	207	414	869	130 H7	4	12 Dia.	Thru	165
	160	20R10	20R35							907	180 H7	4	14,5 Dia.		215
M1140	132	20R10	20R35	576	942	185	370	231	462	960,4	130 H7	4	12 Dia.	Thru	165
	160	20R10								981,5	180 H7	4	14,5 Dia.		215
M1150	132	20R10	20R35	650	1027,5	200	400	260	520	1046	130 H7	4	12 Dia.	Thru	165
	160	20R10	20R35							1067	180 H7	4	14,5 Dia.		215
M1160	160	20R10		710	1141	212,5	425	275	550	1165	180 H7	4	14,5 Dia.	Thru	215

★ Dimensions are for reference only and are subject to change without notice unless certified.
† Due to interference, motor flange cannot be used with a shaft fan. If cooling is required, use electric fan.

Type DHC Double & Triple Reduction

Motor Brackets/Dimensions — Millimeters



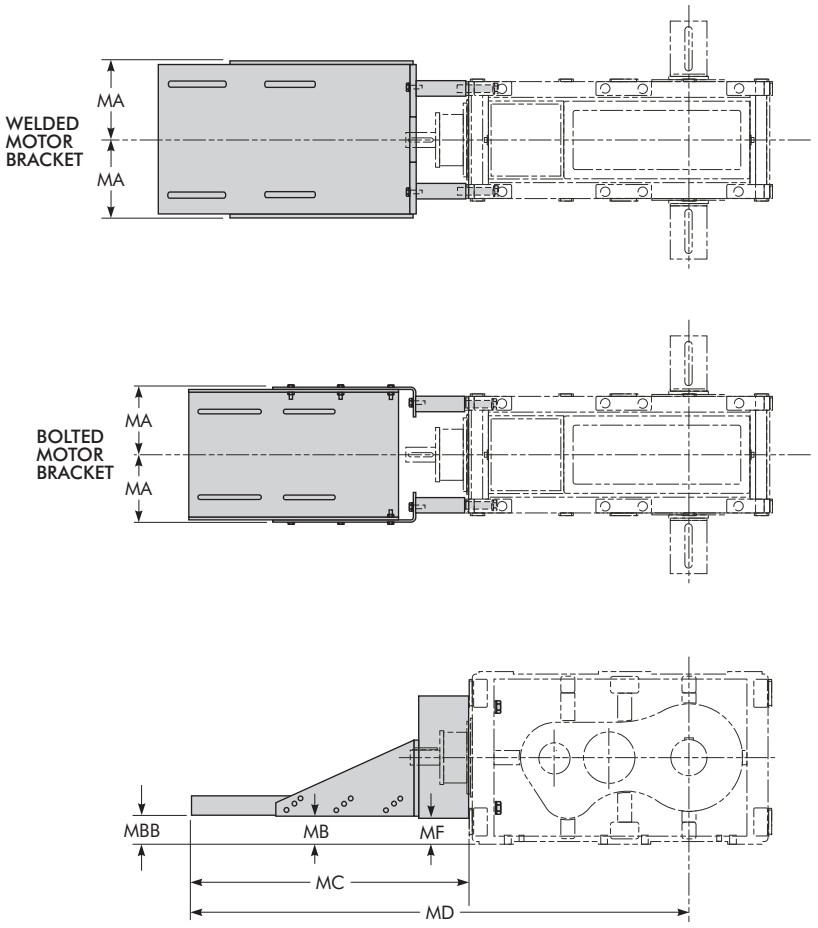
DRIVE SIZE ★	Motor Frame	High Speed Coupling		MA	MB †	MC	MD	ME	MBB †
		Wrapflex	Steelflex						
M1130	132	10R10	1040T10	220,3	19,9	962	21	197	67,5
	160	10R10	1040T10	220,3	19,9	916	21	197	38,6
	180	20R10	1050T10	220,3	19,9	937	21	197	21,5
	200	20R10	1050T10	219,2	19,9	1007	21	197	-3,9
M1140	132	20R10	1050T10	220,3	43,7	987	20	217,9	91,5
	160	20R10	1050T10	220,3	43,7	941	20	217,9	62,5
	180	20R10	1050T10	220,3	43,7	962	20	217,9	45,5
	200	20R10	1060T10	219,2	43,7	1033	20	217,9	20,1
	225	30R10	1060T10	252,5	-15,5	1047	20	217,9	-8,5
M1150	132	20R10	1060T10	220,3	72,8	1002	25	249,9	120,5
	160	20R10	1060T10	220,3	72,8	956	25	249,9	91,7
	180	20R10	1060T10	220,3	72,8	977	25	249,9	74,5
	200	20R10	1060T10	219,2	72,8	1048	25	249,9	49,1
	225	30R10	1070T10	252,5	13,7	1062	25	249,9	20,5
	250	40R10	1080T10	289,3	-27,0	1189	25	249,9	-7,8
M1160	160	20R10	1060T10	220,3	87,8	974	30	264,9	106,6
	180	20R10	1060T10	220,3	87,8	994	30	264,9	89,5
	200	20R10	1060T10	219,2	87,8	1065	30	264,9	64,1
	225	30R10	1070T10	252,5	28,6	1079	30	264,9	35,5
	250	40R10	1080T10	289,3	-12,0	1206	30	264,9	7

★ Dimensions are for reference only and are subject to change without notice unless certified. Available only for use with base-mounted drives; cannot be used with shaft-mounted drives.
Due to interference, motor brackets cannot be used on the same side of the housing as a backstop or shaft fan.
Shaft fan only - Mount shaft fan opposite bracket side.
Backstop only - Mount backstop opposite bracket side.
Backstop and fan - Mount backstop opposite bracket side, use electric fan.
Brackets for IEC motors are furnished blank/undrilled.

† Negative MB and MBB dimensions indicate bracket extends below drive feet. Customer must provide clearance for bracket and for motor mounting hardware.

Type DBC Triple Reduction

Motor Brackets/Dimensions — Millimeters



DRIVE SIZE ★	Motor Frame	High Speed Coupling		MA	MB †	MC	MD	MF	MBB †
		Wrapflex	Steelflex						
M1130	132M, 132L	10R10	1040T10	212,3	19,9	745	1257	32,8	69,0
	160M, 160L	10R10	1040T10	220,3	19,9	801	1313	32,8	41,1
	180M, 180L	20R10	1050T10	220,3	19,9	872	1384	32,8	21,6
	200M, 200L	20R10	1060T10	219,2	19,9	943	1455	32,8	–0,34
M1140	132M, 132L	20R10	1050T10	212,3	43,7	765	1341	43	93,1
	160M, 160L	20R10	1050T10	220,3	43,7	821	1397	43	65,1
	180M, 180L	20R10	1050T10	220,3	43,7	892	1468	43	45,6
	200M, 200L	20R10	1060T10	219,2	43,7	963	1539	43	23,7
	225S, 225M	30R10	1070T10	252,5	-15,5	977	1553	43	–4,7
M1150	132M, 132L	20R10	1060T10	212,3	72,8	776	1426	65	122,1
	160M, 160L	20R10	1060T10	220,3	72,8	832	1482	65	94,1
	180M, 180L	20R10	1060T10	220,3	72,8	903	1553	65	74,6
	200M, 200L	20R10	1060T10	219,2	72,8	974	1624	65	52,7
	225S, 225M	30R10	1070T10	252,,5	13,7	988	1638	65	24,3
	250S, 250M	40R10	1080T10	289,3	-27,0	1115	1765	65	–4,0
M1160	160M, 160L	20R10	1060T10	220,3	87,8	871	1581	60	109,1
	180M, 180L	20R10	1060T10	220,3	87,8	942	1652	60	89,6
	200M, 200L	20R10	1060T10	219,2	87,8	1013	1723	60	67,7
	225S, 225M	30R10	1070T10	252,5	28,6	1027	1737	60	39,3
	250S, 250M	40R10	1080T10	289,3	-12,0	1154	1864	60	11,0

★ Dimensions are for reference only and are subject to change without notice unless certified. Available only for use with base-mounted drives; cannot be used with shaft-mounted drives.
IEC 132-200 frame brackets are bolted. IEC 225-250 frame brackets are welded.
All brackets are slotted.
Shaft driven fans are not available with scoop brackets. Use electric fan if cooling is required.
If a fluid coupling is required, use a swing base or bedplate.

† Dimensions "MB" & "MBB" are to the bottom of the bracket base. Allow extra for motor hardware.
Negative values for "MB" & "MBB" indicates motor bracket extends below drive feet.

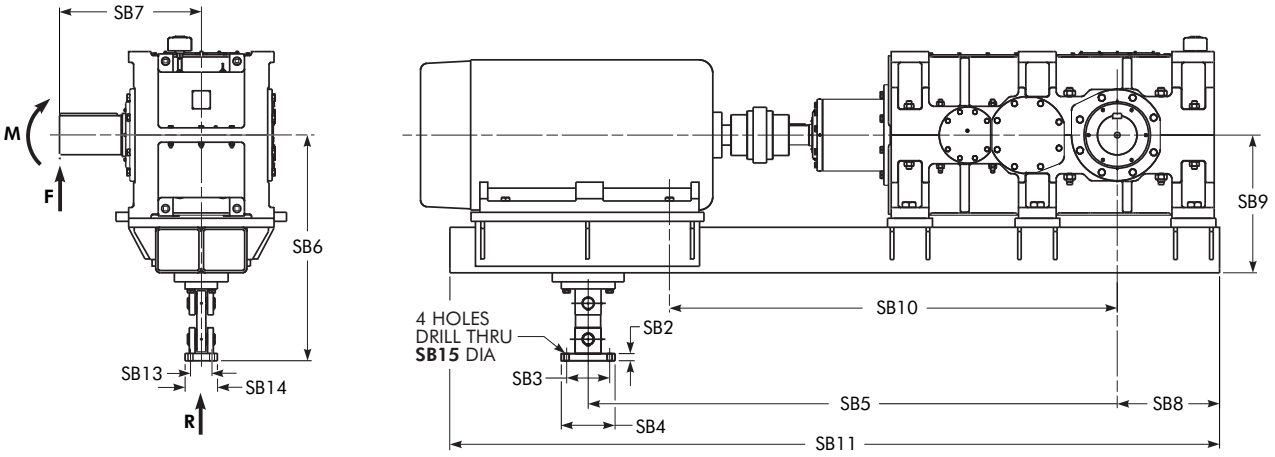
Type DBC Triple Reduction

Swing Base w/ Fixed Length Torque Arm/Dimensions — Metric

DRIVE DIMENSIONS - REFER TO PAGE 100

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:
DBC Drives (Solid LS Shaft)
NEMA or IEC Motors to Limits Shown Below
Falk Steelflex (T10), Falk Wrapflex (R10), or Falk Fluid Couplings

Consult the Factory for Non-Standard Arrangements



DRIVE SIZE ★	SB2	SB3	SB4	SB5	SB6	SB7	SB8	SB9	SB10	SB11	SB13	SB14	SB15
M1220	40	240	300	†	1254	790	610	764	†	†	120	180	28
M1230	40	240	300	†	1254	790	570	764	†	†	120	180	28
M1240	40	240	300	†	1395	895	700	905	†	†	120	180	28
M1250	40	240	300	†	1395	895	650	905	†	†	120	180	28

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
† Dimension varies with motor frame and coupling type..

Loads Generated ★/Torque Arm Forces, Shaft Forces & Motor Limits

DRIVE SIZE	Maximum Torque Arm Force †	Maximum Loads at End of Shaft †		Motor Limits at 1500 rpm ‡	
		Radial Force	Bending Force	Maximum Power	Maximum Weight
	R (N)	F (N)	M (Nm)	kW	kg
M1220	131 000	112 000	87 700	1 000	6 250
M1230	144 000	126 000	99 500	1 000	6 250
M1240	194 000	150 000	134 000	1 300	9 000
M1250	221 000	175 000	157 000	1 300	9 000

★ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection horsepower, motor weight, and a 200% start factor.
† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.
‡ Refer to the Factory for larger motors or other input speeds.

Type DBT Triple Reduction

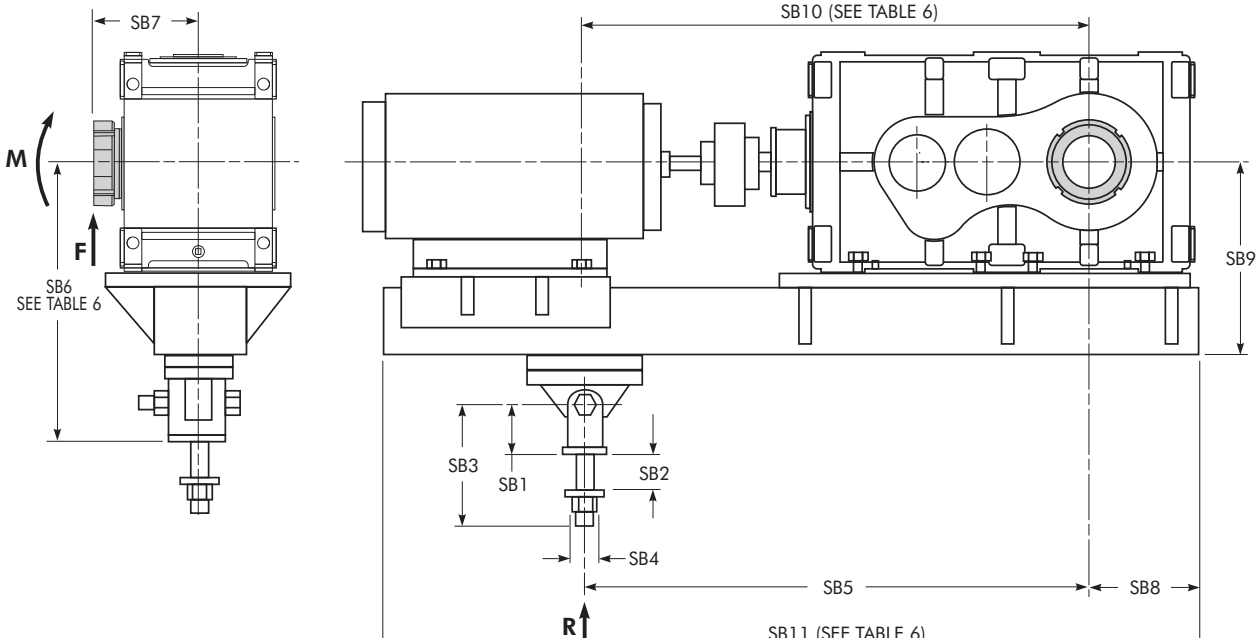
Swing Base w/ Disc Spring Type (Non-Adjustable) Torque Arm/Dimensions — Millimeters

DRIVE DIMENSIONS - REFER TO PAGES 104 & 105

Refer to Page 131 for standard bushing bores.

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:
DBT Drives (with TA Bushing)
NEMA T or IEC Motors as Shown Below
Falk Steelflex (T10), Falk Wrapflex (R10), or Falk Fluid Couplings

Consult the Factory for Non-Standard Arrangements



DRIVE SIZE ★	SB1	SB2 †	SB3	SB4 ‡	SB5	SB6	SB7	SB8	SB9
M1130	110	20-75	255	45	1540	✱	242	237	✱
M1140	110	20-75	255	45	1592	✱	267	261	✱
M1150	135	25-95	315	54	1566	✱	278	290	✱
M1160	135	25-95	315	55	1701	804	303	305	564
M1170	135	25-95	315	55	1681	839	300	325	599
M1180	135	25-95	315	55	1646	859	335	360	619
M1190	149	38-105	347	75	1962	908	355	400	659
M1200 M1210	**REFER TO THE FACTORY**								

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
† Foundation thickness.
‡ Hole diameter in foundation.
✱ Dimensions varies with motor frame.

Loads Generated ▲/Torque Arm Forces, Hollow Shaft Forces & Loads at the Bushing Nut Face

DRIVE SIZE	Maximum Torque Arm Force †	Maximum Loads at Face of Bushing Nut †		IEC Motors ‡		NEMA Motors ‡	
		Radial Force	Bending Force				
	R (N)	F (N)	M (Nm)	Frame	Weight (kg)	Frame	Weight (kg)
M1130	12 500	11 600	4 250	200L-225M	240-330	324T-365T	256-397
M1140	20 000	16 500	5 500	200L-280S	240-610	324T-444T	256-748
M1150	30 200	21 800	8 900	200L-280M	240-660	324T-447T	256-907
M1160	47 595	35 140	13 700	160M-280M	108-660	254T-449T	113-1134
M1170	60 495	49 820	18 700	160L-315L	130-1200	284T-449T	152-1134
M1180	81 400	70 280	26 100	180M-315L	165-1200	286T-449T	186-1134
M1190	96 080	80 510	33 700	200M-355L	240-1900	324T-449T	256-1134
M1200 M1210	**REFER TO FACTORY**						

▲ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection kilowatt, motor weight, and a 200% start factor.
† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.
‡ Refer to the Factory for larger motors.

Type DBT Triple Reduction

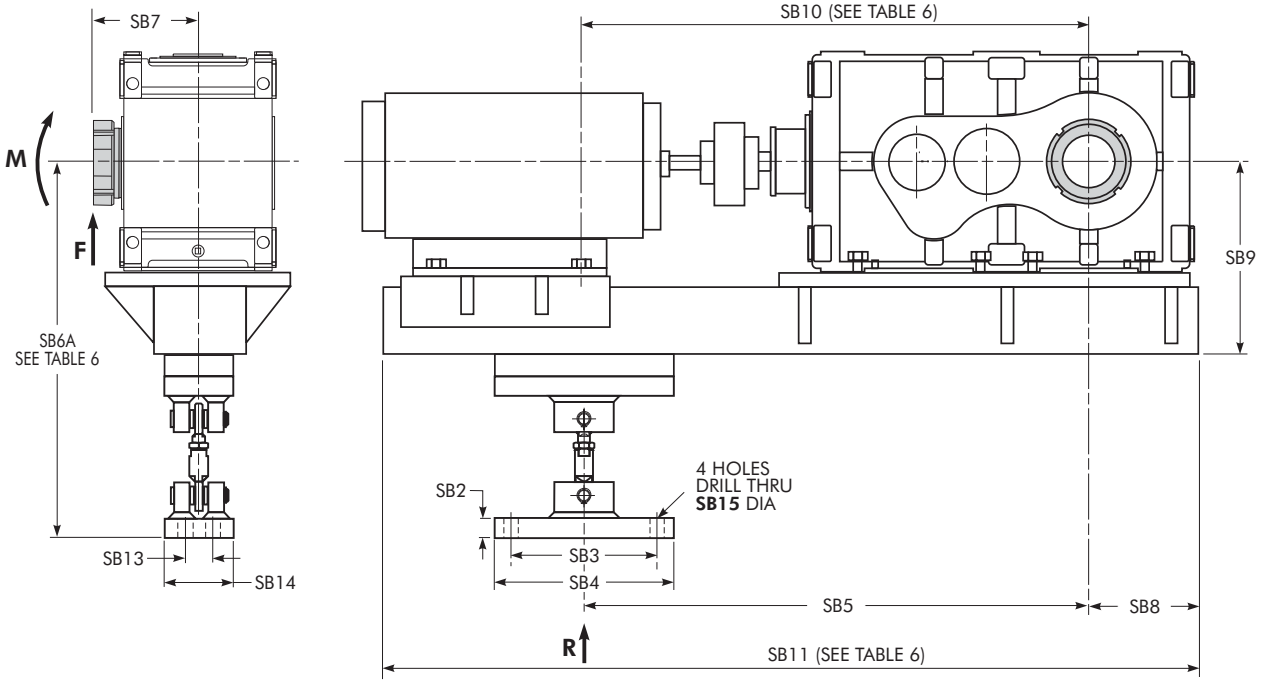
Swing Base w/Rod End Type (Adjustable) Torque Arm/Dimensions — Millimeters

DRIVE DIMENSIONS - REFER TO PAGES 104 & 105

Refer to Page 131 for standard bushing bores.

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:
DBT Drives (with TA Bushing)
NEMA T or IEC Motors as Shown Below
Falk Steelflex (T10), Falk Wrapflex (R10), or Falk Fluid Couplings

Consult the Factory for Non-Standard Arrangements



DRIVE SIZE ★	SB2	SB3	SB4	SB5	SB6A Min	SB6A Max	SB7	SB8	SB9	SB13	SB14	SB15 Dia
M1130	25	244	300	1540	✱	✱	242	237	✱	44	100	24
M1140	25	244	300	1592	✱	✱	267	261	✱	44	100	24
M1150	32	244	300	1566	✱	✱	278	290	✱	44	120	24
M1160	32	244	300	1701	984	1000	303	305	564	44	120	24
M1170	32	244	300	1681	1019	1035	300	325	599	44	120	24
M1180	40	244	300	1646	1129	1139	335	360	619	44	140	24
M1190	40	260	320	1962	1154	1164	355	400	659	70	140	24
M1200 M1210	**REFER TO FALK**											

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
✱ Dimensions varies with motor frame.

Loads Generated ▲/Torque Arm Forces, Hollow Shaft Forces & Loads at the Bushing Nut Face

DRIVE SIZE	Maximum Torque Arm Force †	Maximum Loads at Face of Bushing Nut †		IEC Motors ‡		NEMA Motors ‡	
		Radial Force	Bending Force				
	R (N)	F (N)	M (Nm)	Frame	Weight (kg)	Frame	Weight (kg)
M1130	12 500	11 600	4 250	200L-225M	240-330	324T-365T	256-397
M1140	20 000	16 500	5 500	200L-280S	240-610	324T-444T	256-748
M1150	30 200	21 800	8 900	200L-280M	240-660	324T-447T	256-907
M1160	47 595	35 140	13 700	160M-280M	108-660	254T-449T	113-1134
M1170	60 495	49 820	18 700	160L-315L	130-1200	284T-449T	152-1134
M1180	81 400	70 280	26 100	180M-315L	165-1200	286T-449T	186-1134
M1190	96 080	80 510	33 700	200M-355L	240-1900	324T-449T	256-1134
M1200 M1210	**REFER TO FALK**						

▲ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection kilowatt, motor weight, and a 200% start factor.
† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.
‡ Refer to the Factory for larger motors.

TABLE 6 — Swing Base Pre-Engineered Accessories

DRIVE SIZE	Nom Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
M1130 DBT3	14:1-80:1	200L	1060T	CCG 30	589	676	1011	2032	213
			20R			684	1040		
		225S	1070T		609	696 Min 704 Max	1057		
			30R				1090		
		225M	1070T				1057		
			30R				1090		
			1420HFD	CFCG 60			1419		235
M1140 DBT3	14:1-80:1	200L	1060T	CCG 30	613	700 Min 708 Max	1086	2032	257
			20R				1114		
		225M	1070T				1132		
			30R				1164		
			1420HFD	CFCG 60			1494		277
		225S	1070T	CCG 30			1132		257
			30R				1164		
		250M	1070T		663	750 Min 758 Max	1151		
			40R				1194		
			1420HFD	CFCG 60			1513	2235	277
		250S	1070T	CCG 30			1151	2032	257
			40R				1194		
			1420HFD	CFCG 60			1513	2235	277
		280S	1080T	CCG 40			1173	2032	257
			40R	CCG 30			1216		
			1420HFD	CFCG 60			1535	2591	296
			1480HFD				1580		
M1150 DBT3	14:1-80:1	200L	1060T	CCG 30	667	847 Min 863 Max	1171	2032	243
			20R				1200		
		225M	1070T				1217		
			30R				1250		
			1420HFD	CFCG 60			1579	2591	313
		225S	1070T	CCG 30			1217	2032	243
			30R				1250		
		250M	1070T				1236	2235	286
			40R				1280		
			1420HFD	CFCG 60			1598	2591	313
		250S	1070T	CCG 30			1236	2235	286
			40R				1280		
			1420HFD	CFCG 60			1598	2591	313
		280M	1080T	CCG 30	687	867 Min 883 Max	1258	2235	286
			50R	CCG 40			1316		
			1420HFD	CFCG 60			1620	2591	313
			1480HFD				1665		
		280S	1080T	CCG 30			1258	2235	286
			40R				1302		
			1420HFD	CFCG 60			1620	2591	313
			1480HFD				1665		
M1160 DBT3	14:1-80:1	180L	1070T	CCG 30	804	984 Min 1000 Max	1263,1	2235	448
			30R				1295,9		
		180M	1070T				1263,1		
			30R				1295,9		
		200L	1070T				1275,3		
			30R				1308,1		
			370HFD	CFCG 50			1594,4	2591	470
		200M	1070T	CCG 30			1275,3	2235	448
			30R				1308,1		
			370HFD	CFCG 50			1594,4	2591	470
		225M	1070T	CCG 30			1321,3	2235	448
			30R				1354,1		
			370HFD	CFCG 50			1640,3	2591	470
			1420HFD				1683,3		488
			1420HFDD				1762,3		
		225S	1070T	CCG 30			1321,3	2235	
			30R				1354,1		
			370HFD	CFCG 50			1640,3	2591	470
			1420HFD	CFCG 60			1683,3		488
			1420HFDD				1762,3		
		250M	1080T	CCG 40			1340,1	2235	
			40R				1383,8		
			1420HFD	CFCG 60			1702,1	2591	488
			1420HFDD				1781,0		
		250S	1080T	CCG 40			1340,1	2235	
			40R				1383,8		
			1420HFD	CFCG 60			1702,1	2591	
			1420HFDD				1781,0		

TABLE 6 — Swing Base Pre-Engineered Accessories (Continued)

DRIVE SIZE	Nom Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
M1160 DBT3	14:1-80:1	280M	1080T	CCG 40	804	984 Min 1000 Max	1362,2	2591	541
			40R				1405,9		
			1420HFD	CFCG 60			1724,2	3048	604
			1480HFD				1769,4		
			1420HFDD				1803,1		
			1480HFDD				1856,2		
		280S	1080T	CCG 40			1362,2	2235	509
			40R				1405,9	2591	541
			1420HFD	CFCG 60			1724,2	3048	604
			1480HFD				1769,4		
			1420HFDD				1803,1		
			1480HFDD				1856,2		
	90:1-125:1	160L	1050T	CCG 30			1240,3	2235	448
			20R				1269,0		
		160M	1050T				1240,3		
			20R				1269,0		
		180L	1060T				1253,2		
			20R				1281,9		
		200L	1070T				1265,4		
			30R				1298,2		
			370HFD	CFCG 50			1584,5	2591	470
		200M	1070T	CCG 30			1265,4	2235	448
			30R				1298,2		
			370HFD	CFCG 50			1584,5	2591	470
		225M	1070T	CCG 30			1311,4	2235	448
			30R				1344,2		
			370HFD	CFCG 50			1630,4	2591	470
			1420HFD	CFCG 60			1673,4		488
			1420HFDD				1752,3		
		225S	1070T	CCG 30			1311,4	2235	
			30R				1344,2		
			370HFD	CFCG 50			1630,4	2591	470
			1420HFD	CFCG 60			1673,4		488
			1420HFDD				1752,3		
		250M	1420HFD				1692,1		
			1420HFDD				1771,1		
		250S	1420HFD				1692,1		
			1420HFDD				1771,1		
		280M	1420HFD				1714,2	3048	604
			1480HFD				1759,5		
			1420HFDD				1793,2		
			1480HFDD				1846,3		
		280S	1420HFD				1714,2		
			1480HFD				1759,5		
			1420HFDD				1793,2		
			1480HFDD				1846,3		
M1170 DBT3	14:1 - 80:1	180L	1070T	CCG 30	839	1019 Min 1035 Max	1321,3	2235	446
			20R				1350,0		
		200L	1070T				1333,5		
			20R				1362,2		
		200M	1070T				1333,5		
			20R				1362,2		
		225M	1070T				1379,5		
			30R				1412,2		
			370HFD	CFCG 50			1698,5	2591	484
			1420HFD	CFCG 60			1741,4		499
			1420HFDD				1820,4		
		225S	1070T	CCG 30			1379,5	2235	446
			30R				1412,2		
			370HFD	CFCG 50			1698,5	2591	484
			1420HFD	CFCG 60			1741,4		499
			1420HFDD				1820,4		
		250M	1080T	CCG 40			1398,3	2235	446
			40R				1442,0		
			1420HFD	CFCG 60			1760,2	2591	499
			1420HFDD				1839,2		
		250S	1080T	CCG 40			1398,3	2235	446
			40R				1442,0		
			1420HFD	CFCG 60			1760,2	2591	499
			1420HFDD				1839,2		

TABLE 6 — Swing Base Pre-Engineered Accessories (Continued)

DRIVE SIZE	Nom Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
M1170 DBT3	14:1-80:1	280M	1080T	CCG 40	839	1019 Min 1035 Max	1420,4	2591	552
			40R				1464,1		
			1420HFD	CFCG 60			1782,3	3048	615
			1420HFDD				1861,3		
			1480HFD				1827,5		
			1480HFDD				1914,4		
		280S	1080T	CCG 40			1420,4	2591	552
			40R				1464,1		
			1420HFD	CFCG 60			1782,3	3048	615
			1420HFDD				1861,3		
			1480HFD				1827,5		
			1480HFDD				1914,4		
		315L	1090T	CCG 40			1476,2	2591	552
			50R				1533,9		
			1480HFD	CFCG 60			1883,4	3048	615
			1480HFDD				1970,3		
			1584HFD	CFCG 70			1930,1		
			1584HFDD				2027,2		
		315M	1090T	CCG 40			1476,2	2591	552
			50R				1533,9		
			1480HFD	CFCG 60			1883,4	3048	615
			1480HFDD				1970,3		
			1584HFD	CFCG 70			1930,1		
			1584HFDD				2027,2		
		315S	1090T	CCG 40			1476,2	2591	552
			50R				1533,9		
			1480HFDD	CFCG 60			1970,3	3048	615
			1480HFD				1883,4		
			1584HFD	CFCG 70			1930,1		
			1584HFDD				2027,2		
	90:1-125:1	160L	1060T	CCG 30			1302,3	2235	446
			20R				1331,0		
		180L	1060T				1315,2		
			20R				1343,9		
		180M	1060T				1315,2		
			20R				1343,9		
		200L	1070T				1327,4		
			20R				1356,1		
		200M	1070T				1327,4		
			20R				1356,1		
		225M	1070T				1373,4		
			30R				1406,1		
			370HFD	CFCG 50			1692,4	2591	484
			1420HFD	CFCG 60			1735,3		499
			1420HFDD				1814,3		
		225S	1070T	CCG 30			1373,4	2235	446
			30R				1406,1		
			370HFD	CFCG 50			1692,4	2591	484
			1420HFD	CFCG 60			1735,3		499
			1420HFDD				1814,3		
		250M	1080T	CCG 40			1392,2	2235	446
			40R				1435,9		
			1420HFD	CFCG 60			1754,1	2591	499
			1420HFDD				1833,1		
		250S	1080T	CCG 40			1392,2	2235	446
			40R				1435,9		
			1420HFD	CFCG 60			1754,1	2591	499
			1420HFDD				1833,1		
		280M	1420HFD	CFCG 60			1776,2	3048	615
			1420HFDD				1855,2		
			1480HFD				1821,4		
			1480HFDD				1908,3		
		280S	1420HFD				1776,2		
			1420HFDD				1855,2		
			1480HFD				1821,4		
			1480HFDD				1908,3		
		315L	1480HFD				1877,3		
			1480HFDD				1964,2		
			1584HFD	CFCG 70			1924,1		
			1584HFDD				2021,1		

TABLE 6 — Swing Base Pre-Engineered Accessories (Continued)

Drive Size	Nominal Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
M1170 DBT3	90:1-125:1	315M	1480HFD	CFCG 60	839	1019 Min 1035 Max	1877,3	3048	615
			1480HFDD				1964,2		
			1584HFD	CFCG 70			1924,1		
			1584HFDD				2021,1		
		315S	1480HFD	CFCG 60			1877,3		
			1480HFDD				1964,2		
			1584HFD	CFCG 70			1924,1		
			1584HFDD				2021,1		
M1180 DBT3	14:1 - 80:1	200L	40R	CCG 40	859	1129 Min 1139 Max	1505,0	2235	477
			1080T				1461,3	2591	510
		200M	1080T				1461,3	2235	477
			40R				1505,0		
		225M	1080T				1507,2	2591	510
			40R				1550,9		
			370HFD	CFCG 50			1826,3		513
			1420HFD	CFCG 60			1869,2	3048	572
			1420HFDD				1948,2		
		225S	1080T	CCG 40			1507,2	2235	477
			40R				1550,9	2591	510
			370HFD	CFCG 50			1826,3		513
			1420HFD	CFCG 60			1869,2	3048	572
			1420HFDD				1948,2		
		250M	1080T	CCG 40			1526,0	2591	510
			40R				1569,7		
			1420HFD	CFCG 60			1888,0	3048	572
			1420HFDD				1967,0		
		250S	1080T	CCG 40			1526,0	2591	510
			40R				1569,7		
			1420HFD	CFCG 60			1888,0	3048	572
			1420HFDD				1967,0		
		280M	1080T	CCG 40			1548,1	2591	584
			40R				1591,8		
			1420HFD	CFCG 60			1910,1	3048	647
			1420HFDD				1989,1		
			1480HFD				1955,3		
			1480HFDD				2042,2		
		280S	1080T	CCG 40			1548,1	2591	584
			40R				1591,8		
			1420HFD	CFCG 60			1910,1	3048	647
			1420HFDD				1989,1		
			1480HFD				1955,3		
			1480HFDD				2042,2		
		315L	1090T	CCG 40			1604,0	2591	584
			50R				1661,7	3048	626
			1480HFD	CFCG 60			2011,2	3505	689
			1480HFDD				2098,0		
			1584HFD	CFCG 70			2057,9		
			1584HFDD				2154,9		
		315M	1090T	CCG 40			1604,0	2591	584
			50R				1661,7	3048	626
			1480HFD	CFCG 60			2011,2	3505	689
			1480HFDD				2098,0		
			1584HFD	CFCG 70			2057,9		
			1584HFDD				2154,9		
		315S	1090T	CCG 40			1604,0	2591	584
			50R				1661,7		
			1480HFD	CFCG 60			2011,2	3048	647
			1480HFDD				2098,0		
			1584HFD	CFCG 70			2057,9	3505	689
			1584HFDD				2154,9		

TABLE 6 — Swing Base Pre-Engineered Accessories (Continued)

DRIVE SIZE	Nom Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
1180 DBT3	90:1-125:1	180L	1070T	CCG 30	859	1129 Min 1139 Max	1429,3	2235	477
			20R				1458,0		
		180M	1070T				1429,3		
			30R				1462,0		
		200L	1070T				1441,5		
			20R				1470,2		
		200M	1070T				1441,5		
			20R				1470,2		
		225M	1070T	CCG 40			1487,4	2591	510
			30R				1520,2		
			370HFD	CFCG 50			1806,4		513
			1420HFD	CFCG 60			1849,4	3048	572
			1420HFDD				1928,4		
		225S	1070T	CCG 40			1487,4	2235	477
			30R				1520,2	2591	510
			370HFD	CFCG 50			1806,4		513
			1420HFD	CFCG 60			1849,4	3048	572
			1420HFDD				1928,4		
		250M	1080T	CCG 40			1506,2	2591	510
			40R				1549,9		
			1420HFD	CFCG 60			1868,2	3048	572
			1420HFDD				1947,2		
		250S	1080T	CCG 40			1506,2	2591	510
			40R				1549,9		
			1420HFD	CFCG 60			1868,2	3048	572
			1420HFDD				1947,2		
		280M	1080T	CCG 40			1528,3	2591	584
			40R				1572,0		
			1420HFD	CFCG 60			1890,3	3048	647
			1420HFDD				1969,3		
			1480HFD				1935,5		
			1480HFDD				2022,3		
		280S	1080T	CCG 40			1528,3	2591	584
			40R				1572,0		
			1420HFD	CFCG 60			1890,3	3048	647
			1420HFDD				1969,3		
			1480HFD				1935,5		
			1480HFDD				2022,3		
		315L	1480HFD	CFCG 60			1991,4	3505	689
			1480HFDD				2078,2		
			1584HFD	CFCG 70			2038,1		
			1584HFDD				2135,1		
		315M	1480HFD	CFCG 60			1991,4	3048	647
			1480HFDD				2078,2		
			1584HFD	CFCG 70			2038,1	3505	689
			1584HFDD				2135,1		
		315S	1480HFD	CFCG 60			1991,4	3048	647
			1480HFDD				2078,2		
			1584HFD	CFCG 70			2038,1	3505	689
			1584HFDD				2135,1		

TABLE 6 — Swing Base Pre-Engineered Accessories (Continued)

Drive Size	Nominal Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
1190 DBT3	14:1-80:1	225M	1090T	CCG 40	908	1154 Min 1164 Max	1617,5	2591	561
			50R				1675,1		
		225S	1090T				1617,5		
			50R				1675,1		
		250M	1090T				1636,3		
			50R				1693,9		
		250S	1090T				1636,3		
			50R				1693,9		
		280M	1090T				1658,4	3048	677
			50R				1716,0		
			1420HFD	CFCG 60			2020,3	3505	740
			1420HFDD				2099,3		
			1480HFD				2065,5		
			1480HFDD				2152,4		
		280S	1090T	CCG 40			1658,4	3048	677
			50R				1716,0		
			1420HFD	CFCG 60			2020,3	3505	740
			1420HFDD				2099,3		
			1480HFD				2065,5		
			1480HFDD				2152,4		
		315L	1090T	CCG 40			1714,2	3048	677
			50R				1771,9		
			1480HFD	CFCG 60			2121,4	3505	740
			1480HFDD				2208,3		
			1584HFD	CFCG 70			2168,1		
			1584HFDD				2265,2		
		315M	1090T	CCG 40			1714,2	3048	677
			50R				1771,9		
			1480HFD	CFCG 60			2121,4	3505	740
			1480HFDD				2208,3		
			1584HFD	CFCG 70			2168,1		
			1584HFDD				2265,2		
		315S	1090T	CCG 40			1714,2	3048	677
			50R				1771,9		
			1480HFD	CFCG 60			2121,4	3505	740
			1480HFDD				2208,3		
			1584HFD	CFCG 70			2168,1		
			1584HFDD				2265,2		
		355L	50R	CCG 40			1850,1	3048	677
			1100T				1793,9		681
			60R	CCG 50			1864,3		
			1584HFD	CFCG 70			2246,3	3505	740
			1584HFDD				2343,3		
			1660HFD				2313,4		
			1660HFDD				2423,4		
		355M	50R	CCG 40			1850,1	3048	677
			1100T	CCG 50			1793,9		681
			60R				1864,3		
			1584HFD	CFCG 70			2246,3	3505	740
			1584HFDD				2343,3		
			1660HFD				2313,4		
			1660HFDD				2423,4		
		355S	50R	CCG 40			1850,1	3048	677
			1100T	CCG 50			1793,9		681
			60R				1864,3		
			1584HFD	CFCG 70			2246,3	3505	740
			1584HFDD				2343,3		
			1660HFD				2313,4		
			1660HFDD				2423,4		

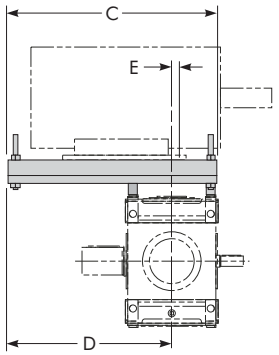
TABLE 6 — Swing Base Pre-Engineered Accessories (Continued)

DRIVE SIZE	Nom Ratio	IEC Motor Frame	High Speed Coupling	Orange Peel Guard	SB6 (mm)	SB6A (mm)	SB10 (mm)	SB11 (mm)	Wt (kg)
1190 DBT3	90:1-125:1	200L	1080T	CCG 40	908	1154 Min 1164 Max	1551,4	2591	561
			40R				1595,1		
		200M	1080T				1551,4		
			40R				1595,1		
		225M	1080T				1597,4		
			40R				1641,1		
		225S	1080T				1597,4		
			40R				1641,1		
		280M	1080T				1638,3	3048	677
			40R				1682,0		
			1420HFD	CFCG 60			2000,3	3505	740
			1420HFDD				2079,2		
			1480HFD				2045,5		
			1480HFDD				2132,3		
		280S	1080T	CCG 40			1638,3	2591	635
			40R				1682,0	3048	677
			1420HFD	CFCG 60			2000,3		698
			1420HFDD				2079,2		
			1480HFD				2045,5	3505	740
			1480HFDD				2132,3		
		315L	1480HFD				2101,3		
			1480HFDD				2188,2		
			1584HFD	CFCG 70			2148,1		
			1584HFDD				2245,1		
		315M	1480HFD	CFCG 60			2101,3		
			1480HFDD				2188,2		
			1584HFD	CFCG 70			2148,1		
			1584HFDD				2245,1		
		315S	1480HFD	CFCG 60			2101,3		
			1480HFDD				2188,2		
			1584HFD	CFCG 70			2148,1		
			1584HFDD				2245,1		
		355L	1584HFD				2226,3		
			1584HFDD				2323,3		
			1660HFD				2293,3		
			1660HFDD				2403,3		
		355M	1584HFD				2226,3		
			1584HFDD				2323,3		
			1660HFD				2293,3		
			1660HFDD				2403,3		
		355S	1584HFD				2226,3		
			1584HFDD				2323,3		
			1660HFD				2293,3		
			1660HFDD				2403,3		

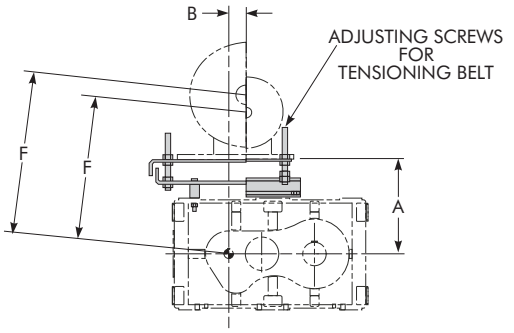
Type DH Double & Triple Reduction

Motor Mounts - Top Mount/Dimensions — Millimeters

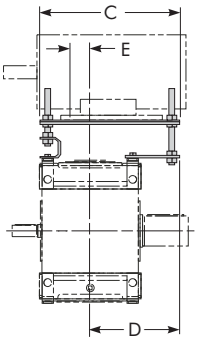
225-315FRAME MOTORS



ALL MOTOR FRAME SIZES



112-200FRAME MOTORS



DRIVE SIZE ★	90-160						180-250					
	A		B	C	D	Motor Mt Wt-kg	A		B	C	D	Motor Mt Wt-kg
	Min	Max					Min	Max				
M1130	373	462	50	441	286	112	369	458	50	650	495	112
M1140	397	486	5	441	261	112	383	472	5	650	470	112
	112-200						225-315					
M1150	426	515	66	539	344	29	422	511	66	878	683	148
M1160	441	530	77	544	331	31	437	526	77	878	666	148
M1170	476	565	75	550	335	35	472	561	75	877	662	166
M1180	406	495	100	580	335	28	492	581	100	878	633	172
M1190	475	564	98	530	265	28	532	621	98	876	611	185

‡ Dimensions are for reference only and are subject to change without notice unless certified.
Due to interferences, Falk cannot offer a drive with both shaft fan and backstop.
Shaft Fan Only - Mount shaft fan on bushing side.
Backstop Only - Mount backstop on bushing side.
Backstop and Fan - Mount backstop on bushing side, use electric fan.

DRIVE SIZE ★	90L			100L			112M			132S & M			160M & L		
	E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †	
		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max
M1130	109	466	555	102	476	565	95	488	577	76	507	596	57	535	624
M1140	134	487	576	126	497	586	120	509	598	101	529	618	82	557	646
M1150	...	...	...	...	...	...	135	542	631	116	561	650	97	589	678
M1160	...	...	...	...	...	...	...	...	...	133,5	578	667	114,5	605	694
M1170	...	...	...	...	...	...	...	...	...	...	...	...	118	640	729
M1180	...	...	...	...	...	...	...	...	...	...	...	...	147	575	664
M1190	...	...	...	...	...	...	...	...	...	...	...	...	170	643	732

★ Dimensions are for reference only and are subject to change without notice unless certified.
Due to interferences, Falk cannot offer a drive with both shaft fan and backstop.
Shaft Fan Only - Mount shaft fan on bushing side.
Backstop Only - Mount backstop on bushing side.
Backstop and Fan - Mount backstop on bushing side, use electric fan.

† Minimum center distance does not include belt installation allowance. When determining belt length for minimum shaft centers, follow manufacturer's installation allowance recommendations and also provide for future belt tensioning.

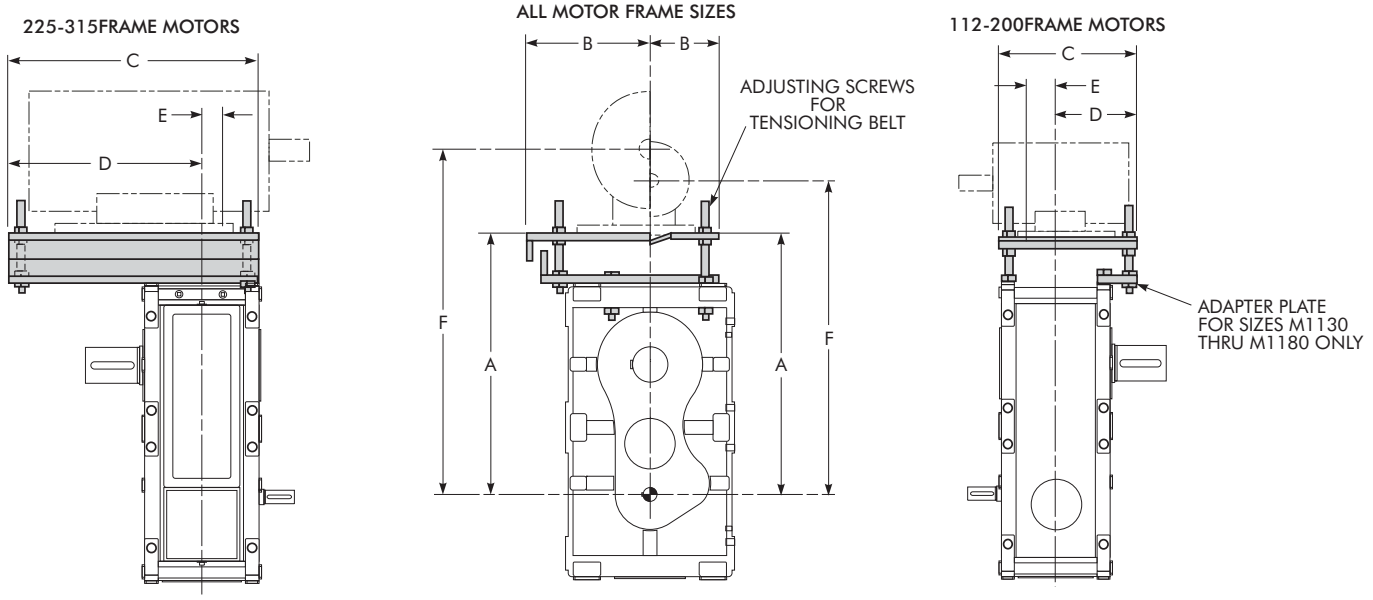
‡ "E" is the distance from the centerline of the housing to the motor front mounting hole.

DRIVE SIZE ★	180M & L			200L			225S & M			250M			280S & M			315S, M & L		
	E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †	
		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max
M1130	44	551	640	32	571	660	16	596	685	3	621	710	...	...	...	...	...	...
M1140	69	563	652	57	583	672	43	608	697	28	633	722	...	...	...	...	...	...
M1150	84	609	698	72	629	718	56	650	739	37	675	764	15	705	794	-11	740	829
M1160	101,5	625	714	89,5	645	734	73,5	666	755	54,5	691	780	32,5	721	810	6,5	756	845
M1170	105	660	749	93	680	769	77	701	790	58	726	815	36	755	844	10	790	879
M1180	134	595	684	122	614	703	106	724	813	87	749	838	65	778	867	39	813	902
M1190	157	662	751	144	682	771	128	763	852	109	788	877	88	818	907	61	853	942

See footnotes above.

Type DH Double & Triple Reduction

Motor Mounts - End Mount/Dimensions — Millimeters



DRIVE SIZE ★	90-160						180-250					
	A		B	C	D	Motor Mt Wt-kg	A		B	C	D	Motor Mt Wt-kg
	Min	Max					Min	Max				
M1130	595	684	210	441	286	25	619	708	373	650	495	110
M1140	659	748	210	441	261	25	683	772	373	650	470	110
	112-200						225-315					
M1150	734	823	195	539	344	21	757	846	392	878	683	146
M1160	794	883	220	544	331	22	817	906	392	878	666	146
M1170	879	968	250	550	335	26	892	981	443	877	662	164
M1180	989	1078	270	580	335	35	1002	1091	463	878	633	170
M1190	1100	1189	320	530	265	28	1112	1201	503	876	611	183

★ See footnote below.

DRIVE SIZE ★	90L			100L			112M			132S & M			160M & L		
	E ‡	F †		E ‡	F †		E ‡	F †F		E ‡	F †F		E ‡	F †F	
		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max
M1130	109	685	774	102	695	784	95	707	796	76	727	816	57	755	844
M1140	134	749	838	126	759	848	120	771	860	101	791	880	82	819	908
M1150	...	...	...	...	...	...	135	846	935	116	866	955	97	894	983
M1160	...	...	...	...	...	...	...	...	...	133,5	926	1015	114,5	954	1043
M1170	...	...	...	...	...	...	...	...	...	...	...	...	118	1039	1128
M1180	...	...	...	...	...	...	...	...	...	...	...	...	147	1145	1234
M1190	...	...	...	...	...	...	...	...	...	...	...	...	170	1257	1346

★ Dimensions are for reference only and are subject to change without notice unless certified.
Due to interferences, Falk cannot offer a drive with both shaft fan and backstop.
Shaft Fan Only - Mount shaft fan on bushing side.
Backstop Only - Mount backstop on bushing side.
Backstop and Fan - Mount backstop on bushing side, use electric fan.

† Minimum center distance does not include belt installation allowance. When determining belt length for minimum shaft centers, follow manufacturer's installation allowance recommendations and also provide for future belt tensioning.

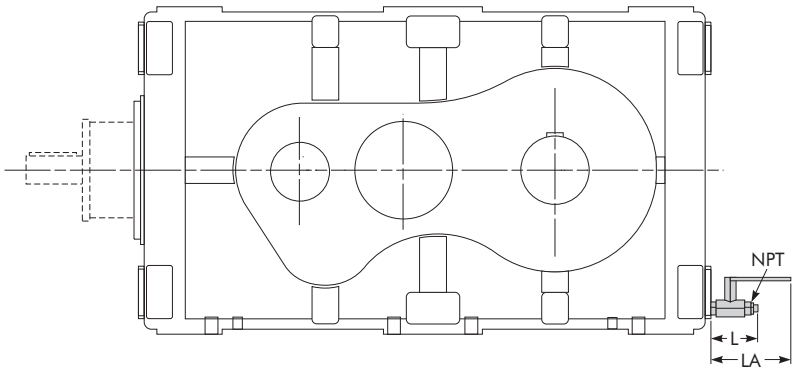
‡ "E" is the distance from the centerline of the housing to the motor front mounting hole.

DRIVE SIZE ★	180M & L			200L			225S & M			250M			280S & M			315S, M & L		
	E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †	
		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max
M1130	44	799	888	32	819	908	16	844	933	3	869	958	...	...	...	...	...	...
M1140	69	863	952	57	883	972	43	908	997	28	933	1022	...	...	...	...	...	...
M1150	84	914	1003	72	934	1023	56	982	1071	37	1007	1096	15	1037	1126	-11	1072	1161
M1160	101,5	974	1063	89,5	994	1083	73,5	1042	1131	54,5	1067	1156	32,5	1097	1186	6,5	1132	1221
M1170	105	1059	1148	93	1079	1168	77	1117	1206	58	1142	1231	36	1172	1261	10	1207	1296
M1180	134	1169	1258	122	1189	1278	106	1227	1316	87	1252	1341	65	1282	1371	39	1317	1406
M1190	157	1281	1370	144	1300	1389	128	1337	1426	109	1362	1451	88	1392	1481	61	1427	1516

See footnotes above.

Type DH & DB Double & Triple Reduction

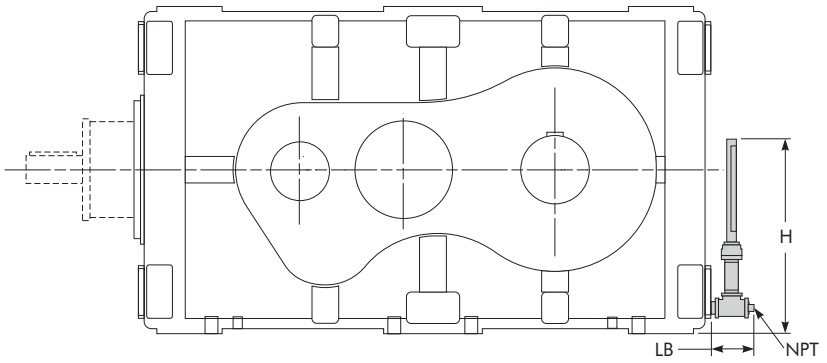
Optional Oil Drain Valve/Dimensions — Millimeters



DRIVE SIZE	L	LA	NPT
M1130	95	166	3/4
M1140	95	166	3/4
M1150	95	165	3/4
M1160	95	165	3/4
M1170	105	175	3/4
M1180	105	175	3/4
M1190	86	155	3/4
M1200	71	141	3/4
M1210	71	141	3/4
M1220	92	165	1 1/4
M1230	92	165	1 1/4
M1240	95	168	1 1/4
M1250	95	168	1 1/4

Type DH & DB Double & Triple Reduction

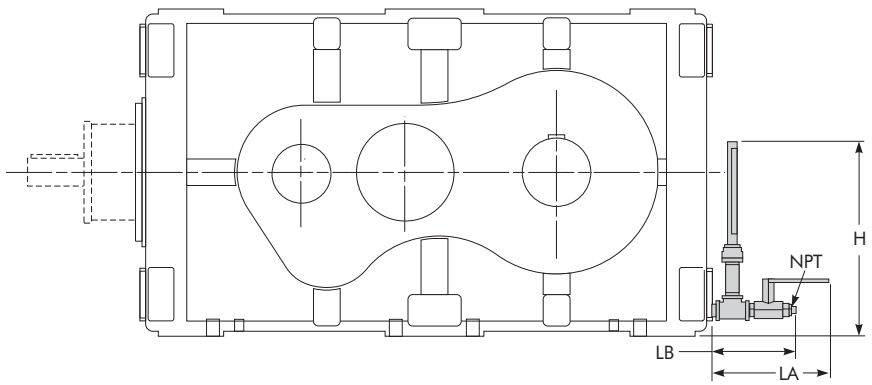
Optional Oil Sight Gauge/Dimensions — Millimeters



DRIVE SIZE	LB	H Max	NPT
M1130	91	291	3/4
M1140	85	301	3/4
M1150	102	377	3/4
M1160	102	377	3/4
M1170	112	379	1
M1180	97	401	1
M1190	103	427	1
M1200	100	502	1
M1210	100	502	1
M1220	78	505	1 1/4
M1230	78	505	1 1/4
M1240	88	585	1 1/4
M1250	88	585	1 1/4

Type DH & DB Double & Triple Reduction

Optional Oil Drain Valve & Oil Sight Gauge/Dimensions — Millimeters



Drive Size	LA	LB	H MAX	NPT
M1130	256	185	291	3/4
M1140	256	180	301	3/4
M1150	266	196	377	3/4
M1160	266	196	377	3/4
M1170	286	216	379	3/4
M1180	272	202	401	3/4
M1190	257	188	427	3/4
M1200	242	171	502	3/4
M1210	242	171	502	3/4
M1220	258	186	505	1 1/4
M1230	258	186	505	1 1/4
M1240	266	196	585	1 1/4
M1250	266	196	585	1 1/4

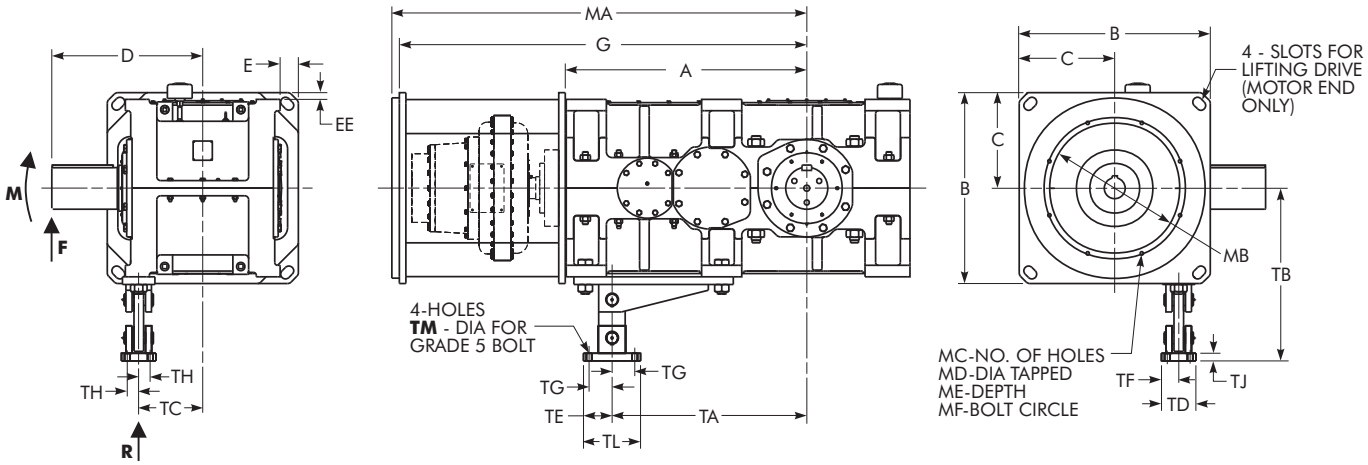
Type DBC Triple Reduction

Alignment Free Drive/Dimensions — Metric

DRIVE DIMENSIONS - REFER TO PAGE 100

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:
DBC Drives
Nominal Ratios 8.0:1 through 71:1
NEMA TD Flange or IEC B5 Flange Motors as Shown Below
Falk Fluid (HFDD-132) Couplings
Also Falk Steelflex (T31 or T35), or Falk Wrapflex (R31 or R35) Couplings

Consult the Factory for Non-Standard Arrangements



DRIVE SIZE	A	B	C	D	E	EE	G	Motor Adapter						Torque Arm										
								MA	MB	MC	MD	ME	MF	TA	TB	TC	TD	TE	TF	TG	TH	TJ	TL	TM
1220	1225	1100	550	790	145	85	2395	‡	†	8	†	thru	†	980	905	335	180	150	90	120	60	40	300	28
1230	1265	1100	550	790	145	85	2435	‡	†	8	†	thru	†	1020	905	335	180	150	90	120	60	40	300	28

† Dimensions vary with motor selections. Certified prints will be provided after receipt of order.
‡ "MA" dimension typically varies from 195% to 200% of "A" dimension.

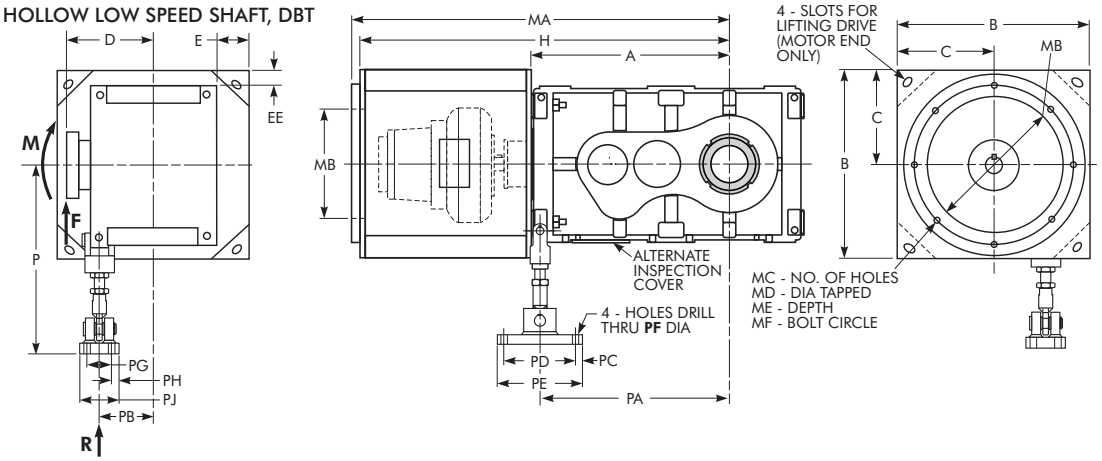
Loads Generated ★/Torque Arm Forces and Shaft Forces

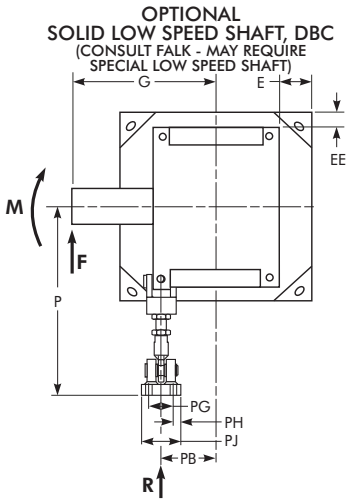
DRIVE SIZE	Max Torque Arm Force R (N)	Max Loads at End of Shaft †		Available Motors to Suit Adapter			
		Radial Force F (N)	Bending Moment M (N-m)	NEMA	IEC	Siemens	Brook & Crompton
1220	340 900	250 700	105 900	447TD-449TD	315M-400L	509, 5011, 588, 5810	585, 586, 587DZ/SDZ
1230	378 700	287 400	121 800	447TD-449TD	315M-400L	509, 5011, 588, 5810	585, 586, 587DZ/SDZ

★ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection horsepower, motor weight and a 200% start factor.
† Values for R, F and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.

Type DBT Triple Reduction

Alignment Free Drive with TA Taper Bushing/Dimensions — Millimeters





DRIVE DIMENSIONS - REFER TO PAGE 104 & 105

Refer to Page 131 for standard bushing bores.

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:
DBC or DBT Drives
Nominal Ratios 14:1 through 35.5:1
NEMA TD Flange or IEC B5 Flange Motors as Shown Below
Falk Fluid (HFDD-132) Couplings
Also Falk Steelflex (T31 or T35), or Falk Wrapflex (R31 or R35) Couplings

Consult the Factory for Non-Standard Arrangements

DRIVE SIZE ★	A	B	C	D	E	EE	G	H	Motor Adapter						Torque Arm									
									MA	MB	MC	MD	ME	MF	P		PA	PB	PC	PD	PE	PF	PG	PH	PJ
															Min	Max									
M1150	650	658	329	278	134	64	373	1250	‡	†	†	†	Thru	†	692	716	605	165	30	260	320	24	70	35	140
M1160	710	738	369	303	156,5	89	422	1370	‡	†	†	†	Thru	†	707	731	665	182,5	30	260	320	24	70	35	140
M1170	800	850	425	300	210	110	430	1475	‡	†	8	†	Thru	†	742	766	755	185	30	260	320	24	70	35	140
M1180	895	850	425	335	180	90	475	1570	‡	†	8	†	Thru	†	894	912	850	215	30	260	320	24	100	50	200
M1190	1005	960	480	355	215	105	515	1705	‡	†	8	†	Thru	†	934	952	955	217,5	30	260	320	24	100	50	200
M1200	1150	960	480	331	185	30	585	1970	‡	†	8	†	Thru	†	1019	1037	1100	248	30	260	320	24	100	50	200
M1210	1175	960	480	331	185	30	585	1995	‡	†	8	†	Thru	†	**REFER TO THE FACTORY**										

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult Falk for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
† Dimensions vary with motor selections. Certified prints will be provided after receipt of order.
‡ "MA" dimension typically varies from 175% to 200% of "A" dimension.

Loads Generated ▲/Torque Arm Forces, Hollow Shaft Forces & Loads at the Bushing Nut Face

DRIVE SIZE	Max Torque Arm Force R (N)	Max Loads at Face of Bushing Nut, DBT †		Max Loads at End of Shaft, DBC †		Available Motors			
		Radial Force F (N)	Bending Moment M (N-m)	Radial Force F (N)	Bending Moment M (N-m)	NEMA	IEC	Siemens	Brook & Crompton
M1150	66 900	48 900	6 400	48 900	9 300	326TD - 445TD	225S - 280M	. . .	. . .
M1160	85 600	64 700	9 100	64 700	13 800	365TD - 447TD	250M - 315M	. . .	. . .
M1170	106 000	79 100	11 900	79 100	19 100	405TD - 449TD	280S - 315L	. . .	. . .
M1180	156 200	111 900	16 900	111 900	25 700	445TD - 449TD	315S - 355M	509, 5011	585, 586, 587DZ/SDZ
M1190	186 900	129 900	22 100	129 900	35 700	447TD - 449TD	315S - 355M	509, 5011, 588, 5810	585, 586, 587DZ/SDZ
M1200	206 400	141 900	24 300	140 600	48 800	447TD - 449TD	315M-400L	509, 5011, 588, 5810	585, 586, 587DZ/SDZ
M1210	225 100	155 700	26 400	160 700	57 000	447TD - 449TD	315M-400L	509, 5011, 588, 5810	585, 586, 587DZ/SDZ

▲ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection kilowatt, motor weight, and a 200% start factor.
† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.

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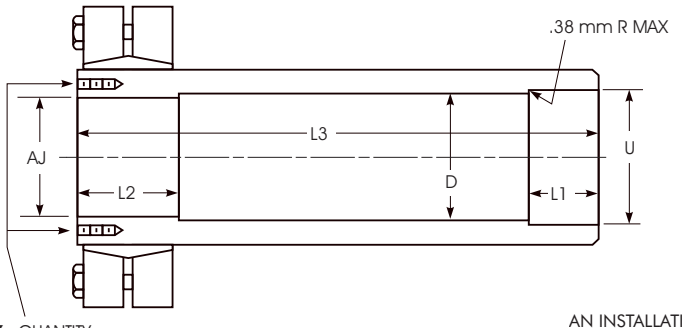
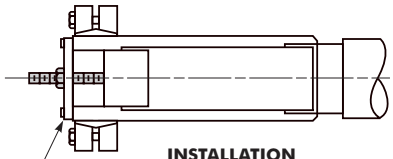
Type DHJ, DBJ, DVJ & DXJ

Hollow Low Speed Shaft - Shrink Disc Mounted/Dimensions — Millimeters

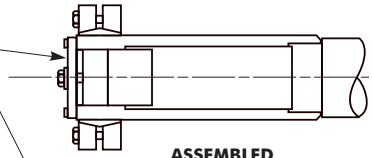


Z - QUANTITY
ZA - DIA. UNC TAPPED HOLES IN HOLLOW SHAFT
ZB - DEEP
Y - DIA. BOLT CIRCLE - EQUALLY SPACED HOLES FOR USE IN DRIVEN SHAFT REMOVAL

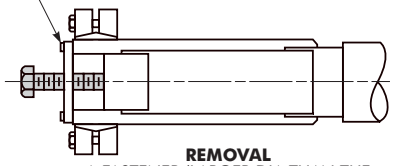
AN INSTALLATION AND REMOVAL TOOL KIT, CONSISTING OF COMBINATION KEEPER PLATE, IS AVAILABLE FROM FACTORY AS AN OPTIONAL ACCESSORY. HARDWARE ITEMS SHOWN SCREENED ARE NOT PART OF THE KIT (CUSTOMER SUPPLIED).



INSTALLATION
A THREADED ROD IS INSERTED THROUGH THE KEEPER PLATE CENTER HOLE AND INTO THE TAPPED HOLE IN THE END OF THE DRIVEN SHAFT. THE THREADED ROD, WITH NUT AS SHOWN, ARE USED TO AID ASSEMBLY.



ASSEMBLED

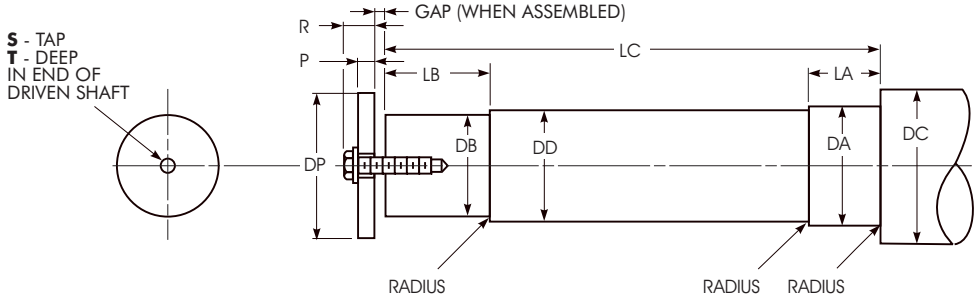


REMOVAL
A FASTENER (LARGER DIA THAN THE THREADED ROD) IS THREADED INTO THE TAPPED CENTER HOLE OF THE KEEPER PLATE AND IS USED TO SEPARATE THE DRIVEN SHAFT FROM THE HOLLOW LOW SPEED SHAFT OF THE GEAR DRIVE.

Hollow Low Speed Shaft Dimensions — Millimeters

DRIVE SIZE ★	AJ †	D	L1	L2	L3	U ‡	Z	ZA	ZB	Y
1130	85	88	60	60	394	90	8	M6 x 1-6H	12	96
1140	100	103	65	65	449	105	8	M6 x 1-6H	12	110
1150	110	113	70	70	487	115	8	M8 x 1,25-6H	16	122
1160	130	133	90	90	524	135	8	M10 x 1,5-6H	20	147
1170	140	143	90	90	538	145	8	M10 x 1,5-6H	20	157
1180	165	168	110	110	628	170	6	M12 x 1,75-6H	28	191
1190	180	183	120	120	678	185	6	M12 x 1,75-6H	28	210
1200	200	205	130	145	760	210	6	M12 x 1,75-6H	24	230
1210	200	205	130	145	760	210	6	M12 x 1,75-6H	24	230

★ Dimensions are for reference only and are subject to change without notice unless certified.
† J7 tolerance.
‡ H7 tolerance.



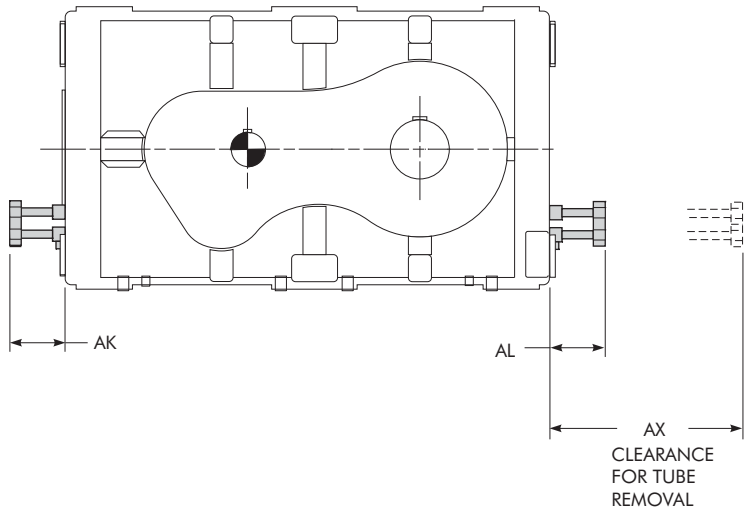
Driven Shaft Recommended Dimensions — Millimeters

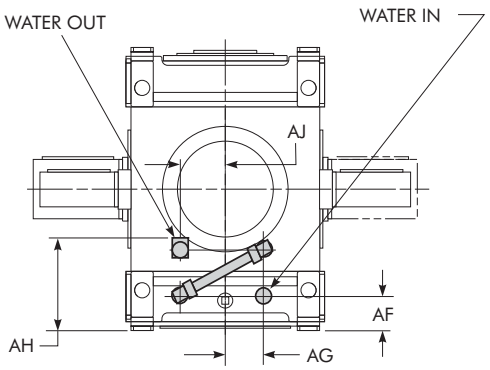
DRIVE SIZE ★	DA †	DB ‡	DC Min	DD •	Radius Max	LA	LB	LC	DP	P	R	S	T	Fastener Length	Tapped Hole in Center of Keeper Plate	Gap
M1130	90	85	105	88	3	54	66	390	110	15	31	M20 x 2.5-6H	40	55	M24 x 3-6H	4
M1140	105	100	120	105	3	59	71	445	123	15	34	M24 x 3-6H	48	65	M30 x 3,5-6H	4
M1150	115	110	130	113	3	64	76	483	139	20	39	M24 x 3-6H	48	70	M30 x 3,5-6H	4
M1160	135	130	150	133	3	84	96	520	164	20	39	M24 x 3-6H	48	70	M36 x 4-6H	4
M1170	145	140	160	143	3	84	96	534	174	20	43	M30 x 3,5-6H	60	80	M42 x 4,5-6H	4
M1180	170	165	185	168	3	104	116	624	219	20	48	M36 x 4-6H	72	90	M48 x 5-6H	4
M1190	185	180	200	183	3	114	126	674	235	19	47	M36 x 4-6H	72	90	M48 x 5-6H	4
M1200	210	200	230	205	3	124	139	756	258	25	53	M36 x 4-6H	72	100	M48 x 5-6H	4
M1210	210	200	230	205	3	124	139	756	258	25	53	M36 x 4-6H	72	100	M48 x 5-6H	4

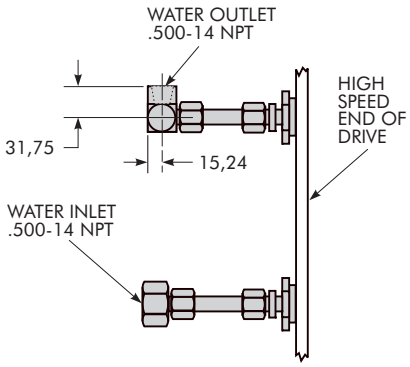
★ Dimensions are for reference only and are subject to change without notice unless certified.
† h6 tolerance.
‡ g6 tolerance.
• c11 tolerance.

Type DHC1

Cooling Tube Clearance/Dimensions — Millimeters







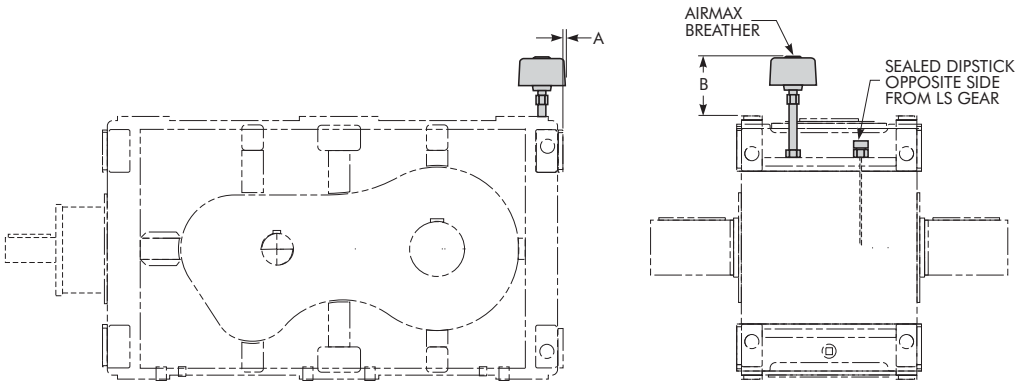
A minimum flow rate of 2 gallons per minute of clean water is required to prevent tube fouling. The maximum flow rate to prevent tube erosion is 5 gallons per minute. Thermal horsepower ratings are based on a maximum water inlet temperature of 32°C (90°F) with 2 gallons per minute.

DRIVE SIZE ★	Reduction	AF	AG	AH	AJ	AK	AL	AX	Std No. of Tubes
M1150	1	74	77	181	77	140	140	1140	4
M1160	1	80	82	192	82	140	140	1217	4
M1170	1	80	90	178	90	140	140	1326	4
M1180	1	80	100	207	110	160	160	1501	4
M1190	1	80	110	267	110	120	120	1567	6

★ Drawings are representative of this series of drives and do not agree in exact detail for all drive sizes. Dimensions are for reference only and are subject to change without notice unless certified.

Type DH & DB

AirMax Breather/Dimensions — Millimeters



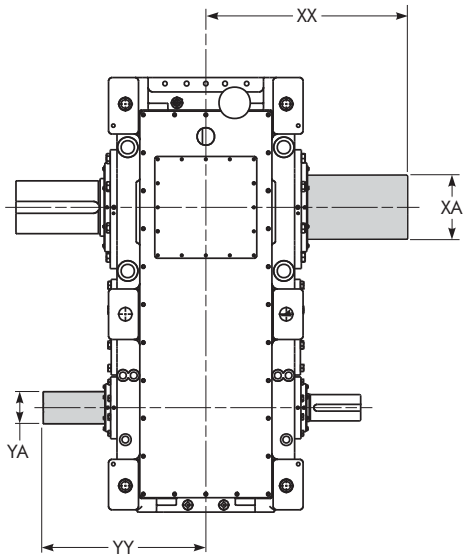
Single, Double & Triple Reduction

DRIVE SIZE ★	A	B
M1130	20	155
M1140	15	150
M1150	15	135
M1160	15	124
M1170	15	165
M1180	15	165
M1190	0	165
M1200	15	155
M1210	15	155

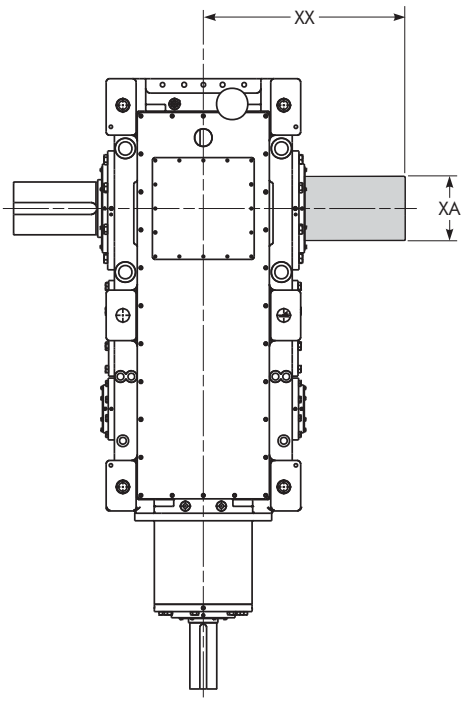
★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH & DB Double & Triple Reduction

Shaft Cover/Dimensions — Metric



DHC2 & DHC3



DBC3

Shaft Cover Dimensions for DHC2

DRIVE SIZE ★	Ratios	YA	YY	XA	XX
1220	5,6 - 22,4	139	695	284	802
1230	6,3 - 25,0	139	695	284	802
1240	5,6 - 22,4	152	777,5	294	907
1250	6,3 - 25,0	152	777,5	294	907

★ Dimensions are for reference only and are subject to change without notice unless certified.

Shaft Cover Dimensions for DBC3

DRIVE SIZE ★	Ratios	XA	XX
1220	8,0 - 63,0	284	802
1230	9,0 - 71,0	284	802
1240	8,0 - 63,0	294	907
1250	9,0 - 71,0	294	907

★ Dimensions are for reference only and are subject to change without notice unless certified.

Shaft Cover Dimensions for DHC3

DRIVE SIZE ★	Ratios	YA	YY	XA	XX
1220	25,0 - 63,0	93	612	284	802
1230	28,0 - 71,0	93	612	284	802
1240	25,0 - 63,0	115	687	294	907
1250	28,0 - 71,0	115	687	294	907

★ Dimensions are for reference only and are subject to change without notice unless certified.

Conversion Factors/SI Metric Units to U.S. Units

(Conversion values listed are for reference only. DO NOT use these values to convert or compare inch and metric selection guides.)

DESCRIPTION	SI Metric Units	Multiply by to Obtain	U.S. Units
Force	newton (N)	0.2248	pound force (lbf)
Length	millimeter (mm)	0.03937	inch (in)
	meter (m)	3.2808	foot (ft)
Mass	kilogram (kg)	2.2046	pound mass (lbm)
Power	kilowatt (kW)	1.341	horsepower (hp)
Rotational Inertia	kilogram-meter^2 (kg-m^2)	3417.6	pound-inch^2 (lb-in^2)
Rotational Speed	1/min	1	revolutions per minute (rpm)
Temperature	°C	°F = 1.8(°C) + 32	°F
Torque	newton-meter (Nm)	8.850	pound-inch (lb-in)
	newton-meter (Nm)	0.7376	pound-foot (lb-ft)
Velocity	meters per second(m/s)	196.85	feet per minute (ft/min)
	kilometers per hour (km/h)	0.6124	miles per hour (mph)
Volume	liter (L)	0.2642	gallon (gal)
Volumetric Flow	liters per second (L/s)	15.85	gallons per minute (gal/min)

Conversion Factors/U.S. Units to SI Metric Units

(Conversion values listed are for reference only. DO NOT use these values to convert or compare inch and metric selection guides.)

DESCRIPTION	U.S. Units	Multiply by to Obtain	SI Metric Units
Force	pound force (lbf)	4.448	newton (N)
Length	inch (in)	25.4	millimeter (mm)
	foot (ft)	0.3048	meter (m)
Mass	pound mass (lbm)	0.4536	kilogram (kg)
Power	horsepower (hp)	0.7457	kilowatt (kW)
Rotational Inertia	pound-inch^2 (lb-in^2)	0.0002926	kilogram-meter^2 (kg-m^2)
Rotational Speed	revolutions per minute (rpm)	1	1/min
Temperature	°F	°C = (°F-32)/1.8	°C
Torque	pound-inch (lb-in)	0.113	newton-meter (Nm)
	pound-foot (lb-ft)	1.356	newton-meter (Nm)
Velocity	feet per minute (ft/min)	0.00508	meters per second (m/s)
	miles per hour (mph)	1.609	kilometers per hour (km/h)
Volume	gallon (gal)	3.785	liter (L)
Volumetric Flow	gallons per minute (gal/min)	0.06308	liters per second (L/s)

Equation:

$$\text{Torque (Nm)} = \frac{9550 \times P}{n} \qquad \text{Torque (lb - in)} = \frac{63{,}000 \times hp}{n}$$

Where: P = Power (kW); n = shaft speed (rpm)

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Rexnord Australia Pty. Ltd.
Picton, New South Wales
Phone: 61-2-4677-3811
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BRAZIL
Rexnord Correntes Ltda.
Sao Leopoldo - RS
Phone: 55-51-579-8022
Fax: 55-51-579-8029

CANADA
Rexnord Canada Ltd.
Scarborough, Ontario
Phone: 1-416-297-6868
Fax: 1-416-297-6873

CHINA
Rexnord China
Shanghai, China
Phone: 86-21-62701942
Fax: 86-21-62701943

EUROPE
Rexnord NV/SA
Mechelen, Belgium
Phone: 32-15-.443811
Fax: 32-15-443860

Rexnord Kette GmbH
Betzdorf, Germany
Phone: 49-2741-2840
Fax: 49-2741-284-385

LATIN AMERICA
Rexnord International, Inc.
Milwaukee, Wisconsin
Phone: 1-414-643-2366
Fax: 1-414-643-3222
E-mail: international2@rexnord.com

MEXICO
Mecanica Falk S.A. de C.V.
Mexico, D.F. 02300
Phone: 52-55-9140-3500
Fax: 52-55-9140-3550

SINGAPORE
Rexnord International, Inc.
Singapore City, Singapore
Phone: 65-6338-5622
Fax: 65-6338-5422

UNITED STATES
Customer Service
Phone: 1-866-REXNORD
(1-866-739-6673)
Fax: 1-614-675-1898
E-mail: rexnordcs(state)@rexnord.com
Example: rexnordcsohio@rexnord.com

ALL COUNTRIES NOT LISTED
Rexnord International
Milwaukee, Wisconsin
Phone: 1-414-643-2366
Fax: 1-414-643-3222
E-mail: international1@rexnord.com

REXNORD

Rexnord Industries, LLC, 3001 West Canal Street, Milwaukee, WI 53208-4200 USA
Phone: 414-342-3131 Fax: 414-937-4359

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