Carl Cloos Schweisstechnik GmbH

QINEO Product Catalogue 2016

CLOOS

Weld your way.

www.cloos.de

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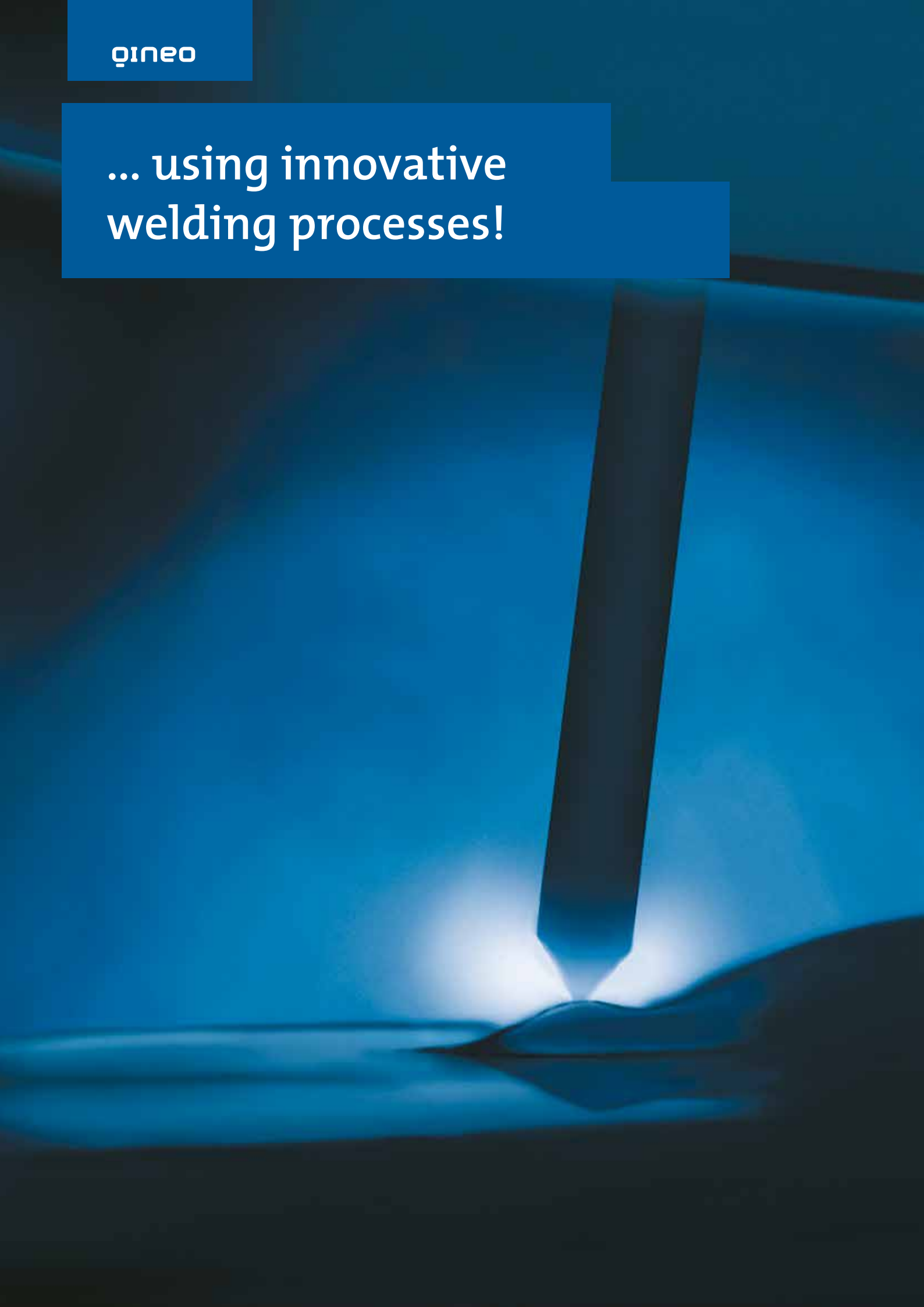
qineo

... using innovative welding processes!



The right welding technology for your materials

With a large range of proven and innovative welding processes, CLOOS can offer solutions for the future providing maximum efficiency and productivity with regard to automated welding. New processes such as Tandem Weld or Laser Hybrid Weld are developed and tested in our technology centre under practical conditions.
Even the proven MIG/MAG welding processes are continuously improved to meet the increasingly complex requirements. This decisive competence edge is offered only by CLOOS.
Excellent ignition behaviour, a quiet and stable arc and excellent weld seam qualities: Eight welding processes allow highly flexible application possibilities with a variety of materials. Clean Start, the ignition routine patented by CLOOS, ensures reliable and low spatter arc ignition with all processes.

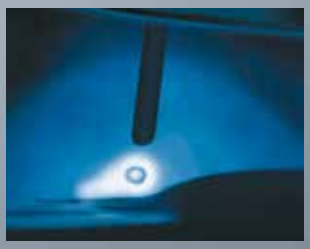
Control Weld

Controlled welding of thin plates

- For thin plates of steel, fine-graded steel, galvanised surfaces
- Root welding, repair welding
- Applicable in all welding positions

Vari Weld

For aluminium welding and MIG brazing



- For steel, CrNi, aluminium,-coated plates
- Stable and nearly spatter-free arc
- Smooth weld surface, thus only a minimum of rework

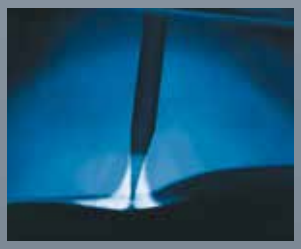
Speed Weld

Special process for rapid welding

- For steel, fine-graded steel, CrNi, aluminium
- High welding speeds
- Very good penetration depths
- Optimum side wall joints

Rapid Weld

Quick but clean



- For steel, fine-graded steel, CrNi
- Very powerful and stable arc
- Less preparation and rework
- Reduction of the opening angle and weld preparation

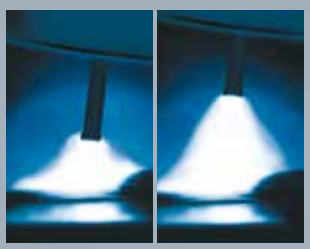
Tandem Weld

The process for more productivity

- High-performance process for automated welding
- High deposition rate
- High welding speed
- Low heat input

Cold Weld

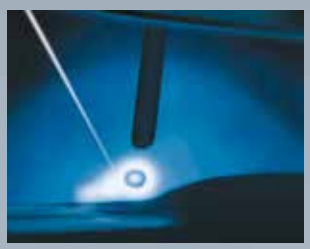
Welding with minimum heat input



- For steel, CrNi, aluminium,-coated plates
- Energy-reduced arc with good gap bridging ability for welding and brazing
- Low spatter and stable for perfect weld quality
- Low heat input

Laser Hybrid Weld

As efficient as never before



- High-capacity process for automated welding of steel, CrNi, aluminium, fine-graded steel
- High welding speed with a very deep penetration
- Low heat input and distortion
- Reduces weld preparation and rework

TIG Weld

Absolutely clean

- For steel, CrNi, aluminium, high-strength materials
- No spatter formation
- Safe root fusion
- Smooth weld surface - only a minimum of rework

Modularity / Configuration

It is up to you.

A brief example of the modular design of the QINEO® system.
All variations of the different machine types available are exemplified in the catalogue. Configure your own or let us advise you. We offer the best configuration for every application.

Gas shielded metal arc welding (MIG/MAG)

Since 1956 we have been the leader in the field of MIG/MAG welding. From power source to current tip - we develop and manufacture all components for MIG/MAG welding at our own.

Thus we are able to permanently advance and implement innovations.

QINEO MICRO 300

Processes

MIG/MAG Normal Welding
TIG DC Lift Start
Stick electrode welding

Applications

Workshops
Repair
Metalworking shop and forge
Pipeline construction

Standard equipment

EURO ZA
2 roller drive
2 cycle operation
4 cycle operation
Liftstart
Mains voltage compensation
Synergy mode
Mains connection cable
Earth cable
Wire coil support Ø 300 mm
Gas hose

Base materials

Structural steel
CrNi steel

Options

Carriage with bottle holder
MIG/MAG Welding torches
TIG torch
Stick electrode holder
Pressure reducer
Water cooling

Technical data	0831930000
Welding current	20 A - 300 A
Welding current 35% duty cycle	300 A
Welding current 100% duty cycle	200 A
Open circuit voltage	53 V
Mains voltage	3 x 400 V
Connection cable	4 x 2,5 mm²
Mains protection	16 A
Type of protection	IP 23 S
Insulation class	H
Type of cooling	Gas / water cooled
Dimensions LxWxH compact unit	560 x 280 x 390 mm
Weight compact unit	21 kg

QINEO MICRO Pulse 200

Processes

MIG/MAG Normal Welding
MIG/MAG Pulse Welding
TIG DC
Stick electrode welding

Applications

Workshops
Repair
Metalworking shop and forge
Pipeline construction

Standard equipment

EURO ZA
2 roller drive
2 cycle operation
4 cycle operation
Liftstart
Mains voltage compensation
Solenoid valve shielding gas (TIG)
Synergy operation
Mains connection cable
Earth cable
Wire coil support Ø 200 mm
Gas hose

Base materials

Structural steel
CrNi steel
Aluminium

Options

Carriage with bottle holder
MIG/MAG Welding torches
TIG torch with button
Stick electrode holder
Pressure reducer

Technical data	0831950000
Welding current	5 A - 200 A
Welding current 35% duty cycle	200 A
Welding current 100% duty cycle	140 A
Open circuit voltage	65 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm²
Mains protection/230V	25 A
Type of protection	IP 23 S
Insulation class	H
Type of cooling	gas cooled
Dimensions LxWxH compact unit	500 x 280 x 420 mm
Weight compact unit	17 kg

QINEO MICRO Pulse 300

Processes

MIG/MAG Normal Welding
MIG/MAG Pulse Welding
TIG DC
Stick electrode welding

Applications

Workshops
Repair
Metalworking shop and forge
Pipeline construction

Standard equipment

EURO ZA
2 roller drive
2 cycle operation
4 cycle operation
Liftstart
Mains voltage compensation
Solenoid valve shielding gas (TIG)
Synergy operation
Mains connection cable
Earth cable
Wire coil support Ø 300 mm
Gas hose

Base materials

Structural steel
CrNi steel
Aluminium

Options

Carriage with bottle holder
MIG/MAG Welding torches
Stick electrode holder
Pressure reducer
Water cooling

Technical data	0831960000
Welding current	20 A - 300 A
Welding current 35% duty cycle	300 A
Welding current 100% duty cycle	200 A
Open circuit voltage	60 V
Mains voltage	3 x 400 V
Connection cable	4 x 2,5 mm²
Mains protection/230V	16 A
Type of protection	IP 23 S
Insulation class	H
Type of cooling	Gas / water cooled
Dimensions LxWxH compact unit	560 x 280 x 390 mm
Weight compact unit	24 kg

Pressure reducer for QINEO MICRO / MICRO Pulse

Suitable for

QINEO MICRO / MICRO Pulse

Technical data	0831900400
Input thread	Union nut W21.8x1/14"
Output thread	Socket 6 mm

Carriage for QINEO MICRO Pulse 200

suitable for

QINEO MICRO Pulse 200

Technical data	0831900100
Standard equipment	Gas bottle holder
Dimension LxWxH	95 x 500 x 900 mm

Carriage for QINEO MICRO / MICRO Pulse 300

suitable for

QINEO MICRO / MICRO Pulse 300

Technical data	0831960100
Standard equipment	Gas bottle holder

Cooling module for QINEO MICRO /MICRO Pulse 300

Technical data	0831960500

Adapter cable CEE 32A / Schuko plug 230V

Technical data	0010050510
Mains connector plug	230 V Schuko
Machine connection socket	CEE 32 A
Length	5 m
Cable	3 x 2,5 mm²

QINEO Series: QINEO QinTron

Processes

MIG/MAG Normal Welding
TIG DC (with Liftstart)
Stick electrode welding
Gouging

Areas of application

Industrie
Workshops
Repair
Metal engineering and portal construction
Metalworking shop and forge
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

EURO central connection
Wire feed system WD 100
Digital display
2+2 roller drive
2 cycle operation
4 cycle operation
Spot welding

Options

Gas cooled, water cooled
Remote Control
MIG Pulse
MIG Duo Pulse
Welding tractor
Push-Pull socket
CO_2 Pre-heating socket 36V
Wheels Offroad
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torches
Holding plate for welding torch

Technical data	QinTron 400	QinTron 500	QinTron 600
Welding current	20 A / 15 V - 400 A / 36 V	20 A / 15 V - 500 A / 40 V	20 A / 15 V - 600 A / 44 V
Welding current 40% duty cycle	-	-	600 A
Welding current 60% duty cycle	400 A	500 A	500 A
Welding current 100% duty cycle	400 A	400 A	400 A
Open circuit voltage	64 V	64 V	64 V
Mains voltage	380 V - 460 V / 50 Hz / 3-ph	380 V - 460 V / 50 Hz / 3-ph	380 V - 460 V / 50 Hz / 3-ph
Connection cable	4 x 6 mm²	4 x 6 mm²	4 x 6 mm²
Mains protection/400V	35 A	35 A	35 A
Type of protection	IP 23	IP 23	IP 23
Insulation class	H	H	H
Type of cooling	F	F	F
Dimensions LxWxH (without wire drive)	740 x 350 x 430 mm	740 x 350 x 430 mm	740 x 350 x 430 mm
Weight (without wire drive)	50.7 kg	50.7 kg	50.7 kg

Cooling module FC 100 for QINEO QinTron

Technical data	083900500
Mains voltage	400 V / 50 Hz / 1 ph
Power consumption	2 A
Type of protection	IP 23
Dimensions LxWxH	658 x 360 x 260 mm
Weight	24.0 kg

Carriage with bottle holder for QINEO QinTron

Technical data	0839001010
Standard equipment	Gas bottle holder
Dimension LxWxH	1090 x 575 x 898 mm

Wheels (without bottle holder) for QINEO QinTron

■ only gas-cooled

Technical data	0839001000
Dimension LxWxH	770 x 340 x 622 mm

Wire drive WD 100-4 EZA for QINEO QinTron

Technical data	0839100000
Wire feed speed	max. 24 m/min
Dimensions LxWxH	661 x 212 x 395 mm
Weight	15 kg
Wire diameter	0.8- 1.6 mm (fluxed core wire max. 2.0 mm)

Wheels for WD 100-4

Technical data	0839101000

Holding plate for torch for QINEO QinTron

Technical data	0839001080

Housing FC 100 for QINEO QinTron

Technical data	0839005010
Condition	if no FC100 cooling module is used
Dimension LxWxH	658 x 360 x 260 mm

Remote control QT RC 101 / 102 H for QINEO QinTron

Additional equipment

839 701 000	Connection line for QN RC 10x H, 5 m
839 701 005	Extension for QN RC 10x H, 5 m
839 701 010	Extension for QN RC 10x H, 10 m

Technical data	839 70 00 00	839 70 00 10
Application	QinTron MMA	QinTron MIG/MAG
Special features	1 potentiometer	2 potentiometers

MMA welding cable

Suitable for

QINEO QinTron

Connection

SK 35 (Ø 13 mm)

Technical data	0875004112
Cable	50 mm²
Length cable assembly	4 m

QINEO Series: Earth cable 70 / 95 mm² with earth terminal

optional for

QINEO QinTron

Technical data	0554010110	0555010300
Cross section	70 mm²	95 mm²
Length	5 m	5 m
for capacity class	350 A / 450 A	600 A

QINEO Series: Adapter basket coil

optional for

QINEO QinTron

Technical data	0047060502
Design	for 15 kg wire coil

QINEO Series: Pressure reducer standard

Suitable for

QINEO QinTron

Technical data	0080040000
Flow capacity	0 - 32 l/min
Input thread	Union nut W21.8x1/14"
Output thread	G 3/8

QINEO BASIC 250 - 450

Processes

MIG/MAG Normal Welding

Areas of application

Workshops
Repair
Metal engineering and portal construction
Metalworking shop and forge

Base materials

Structural steel
CrNi steel

Standard equipment

EURO ZA
2 roller drive
4-roller drive (BASIC 250/300)
2 cycle operation
4 cycle operation
Spot welding
Wire fine adjustment
5 m VSP (BASIC 450W)
Mains connection cable
Pressure reducer
Earth cable

Options (Basic 450W)

10 m connection cable assembly
MIG/MAG Welding torches

Technical data	0834250000	0834300000	0834465000
Machine type	BASIC 250 C	BASIC 300 C	BASIC 450, water cooled
Welding current	30 A - 250 A	30 A - 300 A	30 A - 500 A
Welding current 40% duty cycle	250 A	300 A	450 A
Welding current 100% duty cycle	250 A	190 A	350 A
Open circuit voltage	17 V - 38 V	17 V - 38 V	16 V - 48 V
Mains voltage	400V / 50Hz / 3 phases	230 V - 400 V	400V / 50Hz / 3 phases
Steps	10	16	
Connection cable	4 x 2,5 mm²	4 x 4 mm²	4 x 6 mm²
Mains protection/230V	20 A - 230 V	25 A - 230 V	50 A - 230 V
Mains protection/400V	16 A - 400 V	20 A - 400 V	30 A - 400 V
Type of protection	IP 22	IP 22	IP 23
Insulation class	H	H	H
Type of cooling	gas cooled	gas cooled	watercooled
Dimensions LxWxH Compact unit	830 x 500 x 740mm	880 x 500 x 740mm	1000 x 550 x 820 mm (without wire drive)
Weight compact unit	65 kg	92 kg	178 kg

QINEO Series

QINEO®, are the high-quality welding machines by CLOOS which have been developed specifically for commercial and industrial welding purposes. They meet every demand of manual and automated welding. Moreover the modular QINEO® system allows individual solutions which can be adapted to your specific production requirements and objectives.

From capacity class to special equipment, each QINEO is customised and supplemented by a comprehensive accessories program and matching services. With highest availability, shortest delivery times and best quality QINEO® welding machines offer you considerable economical advantages.

QINEO Series: Step 300

Processes

MIG/MAG Normal Welding

Areas of application

Industrie
Workshops
Repair
Metal engineering and portal construction
Metalworking shop and forge

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

CLOOS SZ connection
4 roller drive
2 cycle operation
4 cycle operation
Spot welding
Characteristic curve preselection
Wire fine adjustment
Synergy operation

Options

EURO ZA, DINSE ZA
Pedestals
Bottle holder
Filter mat
MIG/MAG Welding torches
Earth cable with pliers

Technical data	8008303010
Machine type	Step 300
Welding current	40 A - 300 A
Welding current 40% duty cycle	300 A / 29 V
Welding current 100% duty cycle	190 A / 23,5 V
Open circuit voltage	17 V - 37 V
Mains voltage	400V / 50Hz / 3 phases
Special voltage	Optionally
Steps	12
Connection cable	4 x 2,5 mm²
Type of protection	IP 23
Type of cooling	F
Dimensions LxWxH compact unit	1011 x 517 x 703 mm
Weight compact unit	129 kg

QINEO Series: Step operating panel

Adjustment possibilities

Fine adjustment Wire
Gas pre-flow
Wire inching-in
Wire burnback
Gas post-flow
Spot and interval time
Operating mode

Displays

Medium welding voltage
Medium welding current
Wire feed speed
Preselected plate thickness
Welding current SET
Voltage set value
Hold function welding voltage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QINEO Series: Step 350-450-600

Processes

MIG/MAG Normal Welding

Areas of application

Industrie
Workshops
Repair
Metal engineering and portal construction
Metalworking shop and forge
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

CLOOS SZ connection
4 roller drive
2 cycle operation
4 cycle operation
Spot welding
Characteristic curve preselection
Wire fine adjustment
Synergy operation
Programming mode
Secondary parameter correction

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
Remote Control
Peripheral socket
Wheels Offroad
Pedestals
Bottle holder
Filter mat
Flow meter water
Cloos SZ/EURO/Dinse torch connection

Technical data	QINEO Step 350	QINEO Step 450	QINEO Step 600
Welding current	40 A - 350 A	40 A - 450 A	40 A - 600 A
Welding current 60% duty cycle	350 A / 31,5 V	450 A / 36,5 V	600 A / 44 V
Welding current 100% duty cycle	270 A / 27,5 V	350 A / 31,5 V	465 A / 37,5 V
Open circuit voltage	16 V - 40 V	19 V - 46 V	17 V - 54 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Special voltage	Optionally	Optionally	Optionally
Steps	2 x 10	3 x 10	4 x 10
Connection cable	4 x 4 mm²	4 x 6 mm²	4 x 10 mm²
Type of protection	IP 23	IP 23	IP 23
Type of cooling	F	F	F
Dimensions LxWxH (without wire drive	1226 x 630 x 741 mm	1226 x 630 x 741 mm	1226 x 630 x 741 mm
Weight (without wire drive)	189 kg	226 kg	280 kg
Dimensions LxWxH compact unit	1226 x 630 x 942 mm	1226 x 630 x 942 mm	1226 x 630 x 942 mm
Weight compact unit	201 kg	238 kg	292 kg
Maximum track width	approx. 552 mm	approx. 552 mm	approx. 552 mm


qineo TRONIC 450


CLOOS
5.4 304

QINEO Series: QINEO Tronic

Processes

MIG/MAG Normal Welding
TIG DC (Liftstart)
Stick electrode welding

Applications

Industrie
Pipeline construction
Automotive industry
Equipment manufacturing
Special purpose vehicles/construction machinery
Shipbuilding
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

CLOOS SZ connection
Digital display
4 roller drive
2 cycle operation
4 cycle operation
Job mode
Spot welding
Characteristic curve compensation
Synergy mode
Stand-by mode
Temperature-controlled fan
Burnback automatic
Wire threading

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
RPU (Remote Programming Unit)
Remote Control
Language menus (only PREMIUM)
Data backup (only PREMIUM)
Diagnostic function (only PREMIUM)
QDM (QINEO Data Manager)
User management
SD (Weld data monitoring)
Control voltage mode
Peripheral socket
OMI (Open Machine Interface)
Profibus/ProfiNet/DeviceNet
Ethernet
Wire drive units QWD-P, QWD-M, QWD-Twin
QWD splitter
Carriage with bottle holder
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torches

Technical data	QINEO Tronic 350	QINEO Tronic 450	QINEO Tronic 600
Welding current	40 A - 350 A	40 A - 450 A	40 A - 600 A
Welding current 60% duty cycle	350 A / 31,5 V	450 A / 36,5 V	600 A / 44 V
Welding current 100% duty cycle	270 A / 27,5 V	350 A / 31,5 V	465 A / 37,5 V
Open circuit voltage	65 V - 80 V	77 V - 98 V	77 V - 98 V
Mains voltage	380 V - 480 V / 50 Hz / 3-ph	380 V - 480 V / 50 Hz / 3-ph	380 V - 480 V / 50 Hz / 3-ph
Connection cable	4 x 4 mm²	4 x 6 mm²	4 x 10 mm²
Mains protection/400V	25 A	32 A	50 A
Type of protection	IP 23	IP 23	IP 23
Insulation class	F	F	F
Type of cooling	F	F	F
Dimensions LxWxH (without wire drive)	1011 x 517 x 703 mm	1011 x 517 x 703 mm	1011 x 517 x 703 mm
Weight (without wire drive)	82 kg	88 kg	90 kg


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QINEO Series: QINEO Tronic Pulse

Processes

MIG/MAG Normal Welding
I/I Pulsed arc welding - Vari Weld
U/I Pulsed arc welding - Speed Weld
MIG Brazing
TIG DC (Liftstart)
Stick electrode welding

Applications

Industrie
Pipeline construction
Automotive industry
Equipment manufacturing
Special purpose vehicles/construction machinery
Shipbuilding
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

CLOOS SZ connection
Digital display
4 roller drive
2 cycle operation
4 cycle operation
Super 4 cycle operation
Characteristic curve compensation
Job operation
Synergy mode
Manual operation
Stand-by mode
Temperature-controlled fan
Burnback automatic

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
RPU (Remote Programming Unit)
Remote Control
Language menus (only PREMIUM)
Data backup (only PREMIUM)
Diagnosis (only PREMIUM)
QDM (QINEO Data Manager)
User management
SD (Weld data monitoring)
Control voltage mode
Peripheral socket
OMI (Open Machine Interface)
Profibus/ProfiNet/DeviceNet
Ethernet
Wire drive units manual: QWD-P, QWD-M, QWD-Twin
Wire drive units automated: QWD-A, QWD-AR
QWD splitter
Carriage with bottle holder
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torches
Earth cable with pliers

Technical data	QINEO Tronic Pulse 350	QINEO Tronic Pulse 450	QINEO Tronic Pulse 600
Welding current	40 A - 350 A	40 A - 450 A	40 A - 600 A
Welding current 60% duty cycle	350 A / 31,5 V	450 A / 36,5 V	600 A / 44 V
Welding current 100% duty cycle	270 A / 27,5 V	350 A / 31,5 V	465 A / 37,5 V
Open circuit voltage	65 V - 80 V	77 V - 98 V	77 V - 98 V
Mains voltage	380 V - 480 V / 50 Hz / 3-ph	400V / 50Hz / 3 phases	380 V - 480 V / 50 Hz / 3-ph
Connection cable	4 x 4 mm²	4 x 6 mm²	4 x 10 mm²
Mains protection/400V	25 A	32 A	50 A
Type of protection	IP 23	IP 23	IP 23
Insulation class	F	F	F
Type of cooling	F	F	F
Dimensions LxWxH (without wire drive)	1011 x 517 x 942 mm	1011 x 517 x 942 mm	1011 x 517 x 942 mm
Weight	111 kg	115 kg	117 kg


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qineo PULSE 450
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qineo PULSE 600 C


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QINEO Series: QINEO Pulse

Processes

MIG/MAG Normal Welding
I/I Pulsed arc welding - Vari Weld
U/I Pulsed arc welding - Speed Weld
MIG Brazing
TIG DC (Liftstart)
Stick electrode welding

Applications

Industrie
Pipeline construction
Automotive industry
Equipment manufacturing
Special purpose vehicles/construction machinery
Shipbuilding
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

CLOOS SZ connection
Digital display
4 roller drive
2 cycle operation
4 cycle operation
Super 4 cycle operation
Job mode
Spot welding
Characteristic curve compensation
Synergy mode
Manual operation
Stand-by mode
Temperature-controlled fan
Burnback automatic
Wire threading

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
RPU (Remote Programming Unit)
Remote Control
Language menus (only PREMIUM)
Data backup (only PREMIUM)
Diagnosis (only PREMIUM)
QDM (QINEO Data Manager)
User management
SD (Weld data monitoring)
Control voltage mode
Gas nozzle sensor
Seam tracking
Peripheral socket
Profibus/ProfiNet/DeviceNet
Ethernet
Wire drive units manual: QWD-P, QWD-M, QWD-Twin
Wire drive units automated: QWD-A, QWD-AR
QWD splitter for the connection of several wire drive units
Wheels Offroad
Pedestals
Bottle holder
Filter mat
Flow meter water

Technical data	QINEO Pulse 350	QINEO Pulse 450	QINEO Pulse 600
Welding current	40 A - 350 A	40 A - 450 A	40 A - 600 A
Welding current 60% duty cycle	350 A / 31,5 V	450 A / 36,5 V	600 A / 44 V
Welding current 100% duty cycle	270 A / 27,5 V	350 A / 31,5 V	465 A / 37,5 V
Open circuit voltage	75 V	75 V	84 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Special voltage	Optionally	Optionally	Optionally
Connection cable	4 x 4 mm²	4 x 6 mm²	4 x 10 mm²
Mains protection/400V	25 A	32 A	50 A
Type of protection	IP 23	IP 23	IP 23
Insulation class	F	F	F
Type of cooling	F	F	F
Dimensions LxWxH (without wire drive))	1226 x 630 x 741 mm	1226 x 630 x 741 mm	1226 x 630 x 741 mm
Weight (without wire drive)	181 kg	194 kg	234 kg
Dimensions LxWxH compact unit	1226 x 630 x 942 mm	1226 x 630 x 942 mm	1226 x 630 x 942 mm
Weight compact unit	193 kg	206 kg	246 kg
Maximum track width	approx. 552 mm	approx. 552 mm	approx. 552 mm


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QINEO Series: QINEO Champ

Processes

MIG/MAG Normal Welding
I/I Pulsed arc welding - Vari Weld
U/I Pulsed arc welding - Speed Weld
Cold Weld AC
MIG Brazing
TIG DC
Stick electrode welding

Applications

Industrie
Automotive industry
Equipment manufacturing
Special purpose vehicles/construction machinery
Shipbuilding
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

CLOOS SZ connection
Digital display
Premium operating module
4 roller drive
2 cycle operation
4 cycle operation
Super 4 cycle operation
Spot welding
Clean Start
Liftstart
Characteristic curve preselection
Characteristic curve compensation
Job operation
Synergy mode
Control voltage mode
Stand-by mode
Temperature-controlled fan
Burnback automatic
Wire threading
Data backup
Language menus
Access management
QWD standard

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
RPU (Remote Programming Unit)
Remote control
Diagnosis (only PREMIUM)
QDM (QINEO Data Manager)
SD (Weld data monitoring)
Process monitoring
Gas nozzle sensor
Seam tracking
Peripheral socket
Profibus/ProfiNet/DeviceNet
Ethernet
Wire drive units manual: QWD-P, QWD-M, QWD-Twin
Wire drive units automated: QWD-A, QWD-AR
QWD splitter for the connection of several wire drive units
Wheels Offroad
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torches
Earth cable with pliers
User management

Technical data	QINEO Champ 450	QINEO Champ 600
Welding current	40 A - 450 A	40 A - 600 A
Welding current 60% duty cycle	450 A / 36,5 V	600 A / 44 V
Welding current 100% duty cycle	350 A / 31,5 V	465 A / 37,5 V
Open circuit voltage	75 V	88 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Special voltage	Optionally	Optionally
Connection cable	4 x 6 mm²	4 x 10 mm²
Mains protection/400V	32 A	50 A
Type of protection	IP 23	IP 23
Insulation class	F	F
Type of cooling	F	F
Dimensions LxWxH (without wire drive)	1226 x 630 x 741 mm	1226 x 630 x 741 mm
Weight (without wire drive)	204 kg	244 kg

QINEO Series: Options

The modular QINEO® system allows individual solutions which can be adapted to your specific production requirements and objectives. From capacity class to special equipment, each QINEO is customised and supplemented by a comprehensive accessories program and matching services.

QINEO Series: ECO, MASTER, PREMIUM operating panels

Depending on purpose and application you can select the suitable operating panel for your welding machine or the wire drive of the QINEO series.

Technical data	Step	ECO	MASTER	MASTER PLUS	PREMIUM
available for Step	Yes	No	No	No	No
available for Tronic / Tronic Pulse	No	Yes	Yes	Yes	Yes
available for Pulse	No	Yes	Yes	Yes	Yes
available for Champ	No	No	No	No	Yes

QINEO Series: ECO operating panel

Adjustment possibilities

- Fine adjustment Wire
- Fine adjustment Arc
- Fine adjustment Arc dynamics
- Gas pre-flow
- Wire inching-in
- Welding capacity Start
- Welding capacity end crater
- Welding capacity wire burnback.
- Gas post-flow
- Spot and interval time
-

Displays

- Medium welding voltage
- Medium welding current
- Wire feed speed
- Preselected plate thickness
- Welding current SET
- Voltage set value
- Hold function welding voltage

QINEO Series: MASTER operating panel

Adjustment possibilities

- Fine adjustment Wire
- Fine adjustment Arc
- Fine adjustment Arc dynamics
- Gas pre-flow
- Wire inching-inStart programUp Slope
- Welding capacity Start
- Welding capacity End craterDown Slope
- Wire burnback
- Gas post-flow
- Spot and interval time

Displays

- Medium welding voltage
- Medium welding current
- Wire feed speed
- Preselected plate thickness
- Welding current SET
- Voltage set value
- Hold function welding voltage

QINEO Series: MASTER PLUS operating panel

Functions:

- Job mode
- Start and end crater adjustments
- 5 rapid memories
- Easy access management
- Option: User management
- Option: Limits within jobs
- Option: Job continuation
- Diagnostics and system logbook
- Clean Start
- DuoPulse
- many languages available

Displays

- Medium welding voltage
- Medium welding current
- Wire feed speed
- Preselected plate thickness
- Welding current SET
- Voltage set value
- Hold function welding voltage

Adjustment possibilities

- Fine adjustment Wire
- Fine adjustment Arc
- Fine adjustment Arc dynamics

QINEO Series: PREMIUM operating panel

Equipped with the Premium operating module, your power source disposes of many functions and is designed for the highest level of automated welding tasks. The operation is easy and intuitive due to a coloured LCD display with lateral function buttons. Even very extensive welding tasks are ideally supported. With SD card interface.

Possibilities

- Individual characteristic curves
- User management
- Option Weld data monitoring
-

QINEO Series: Remote Program Unit (RPU)

External ECO, MASTER, PREMIUM operating unit in a robust housing for operation directly at the welding task. Fixed with pivot arm direvtly at the housing with 5 or 10 m connection cable and cable holder..

optional for

QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

QINEO Series: RPU ECO

Technical data	0831100000	0831100005	0831100010	0833100000	0833100005	0833100010
suitable for	QINEO Pulse	QINEO Pulse	QINEO Pulse	QINEO Tronic / Tronic Pulse	QINEO Tronic / Tronic Pulse	QINEO Tronic / Tronic Pulse
Cable length	without connection cable	5 m	10 m	without connection cable	5 m	10 m

QINEO Series: RPU MASTER

Technical data	0831100100	0831100105	0831100110	0833100100	0833100105	0833100110
suitable for	QINEO Pulse	QINEO Pulse	QINEO Pulse	QINEO Tronic / Tronic Pulse	QINEO Tronic / Tronic Pulse	QINEO Tronic / Tronic Pulse
Cable length	without connection cable	5 m	10 m	without connection cable	5 m	10 m

QINEO Series: RPU MASTER PLUS

Technical data	0831100400	0831100405	0831100410
suitable for	QINEO Tronic, Tronic Pulse, Pulse	QINEO Tronic, Tronic Pulse, Pulse	QINEO Tronic, Tronic Pulse, Pulse
Cable length	without connection cable	5 m	10 m

QINEO Series: RPU PREMIUM

Technical data	0831100200	0831100205	0831100210
suitable for	QINEO Tronic, Tronic Pulse, Pulse, Champ	QINEO Tronic, Tronic Pulse, Pulse, Champ	QINEO Tronic, Tronic Pulse, Pulse, Champ
Cable length	without connection cable	5 m	10 m

QINEO Series: Accessories RPU

optional for

QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0830101000	0830101010	0831101000	0830101011
Design	Pivot arm	Wall holder	Cable clamp	Protecting cover RPU

QINEO Series: Filter mat

Option number

0095022000	Filter mat for QINEO Step
0095022010	Filter mat for QINEO Tronic, Tronic Pulse, Pulse, Champ

Optimum protection against dust in the machine interior. Particularly suitable in rough industrial environment. Easily changeable by removing the front panel

QINEO Series: Wheels Offroad

Option number

0831001020

optional for

QINEO Step 350-600
QINEO Pulse
QINEO Champ

The big wheels are the best choice for environments with more bumps or obstacles. Mobility in workshops or on site even under difficult conditions.

QINEO Series: Carriage for QINEO Tronic / Tronic Pulse

Option number

0833000020

The carriage for the QINEO TRONIC with big wheels is designed for mobile use in workshops and factories. Complete with integrated bottle holder.

QINEO Series: Pedestals

Option number

0833000015

For stationary operation the housing can be equipped with pedestals. Due to the stack connectors 830001097 you can stack the housings and connect them safely.

QINEO Series: Remote Control RC

Additional equipment

Support 0830010100
For QINEO Champ, Pulse, Tronic, Tronic Pulse with display and 4 function buttons

Technical data	0830010000	0830010010	0831010000	0831010010
suitable for	QINEO Step	QINEO Step	QINEO Pulse Tronic Champ	QINEO Pulse Tronic Champ
Cable length	5 m	10 m	5 m	10 m

QINEO Series: Kit for remote control RC

optional for

QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ
QWD-P
QWD-M

Technical data	0830102010
Design	Standard

QINEO Series: Flow meter water

Design

only available as integrated version
in th power source or the wire drive unit

Technical data	0830502055	0831002000
optional for	QINEO Step compact	QINEO compact / QWD-P / QWD-A / QWD-M

QINEO Series: Protective shield for operating panel

Design

Clear view, hinged

Technical data	0830004010	0830501055	0830581055
optional for	QINEO compact	QWD-P	QWD-M

QINEO Series: Support for QWD

optional for

QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0830001630	0830001640	0830001650	0830001660
suitable for	QWD-P	QWD-M	QWD (small carriage)	QWD (big carriage)

QINEO Series: Gas bottle holder

Technical data	0830000200	0830001200	0830001210
optional for	QINEO Step 300	QINEO Champ / QINEO Pulse / QINEO Step 350-600	QINEO Champ / QINEO Pulse / QINEO Step 350-600
Design	Standard	Standard	Offroad

QINEO Series: Mains connection cable

optional for

QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0038080300	0038080400	0038080500	0038080310	0038080410	0038080510
Length	5 m	5 m	5 m	10 m	10 m	10 m
for capacity class	350 A	450 A	600 A	350 A	450 A	600 A

QINEO Series: Earth cable with earth terminal

optional for

QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0553010300	0553010310	0554010110	0554010310	0555010300	0555010310
Length	5 m	10 m	5 m	10 m	5 m	10 m
for capacity class	350 A	350 A	450 A	450 A	600 A	600 A
Cross section	50 mm^2	50 mm^2	70 mm^2	70 mm^2	95 mm^2	95 mm^2

QINEO Series: Adapter basket coil

optional for

QINEO Step 250-300
QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0047060502
Design	for 15 kg wire coil

QINEO Series: Pressure reducer standard

Suitable for

QINEO Step
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0080040000
Flow capacity	0 - 32 l/min
Input thread	Union nut W21.8x1/14"
Output thread	G 3/8

Point-of-use pressure reducer QN-RP-10

Technical features

- Closed circular pipelines

Technical data	0875005500
Operating pressure	0-10 bar
Flow capacity	20 Nl/min at 10 bar
Input thread	Union nut G3/8 RH
Output thread	G1/4 RH with socket 6 mm

Adapter Euro ZA on MMA

optional for

QINEO with EURO ZA

Technical data	0070596010
Adapted	Euro to SK 35 (MMA)

QINEO DATA MANAGER (QDM)

The modular QINEO PC software QDM offers functions such as backup, characteristic curve processing, external Premium operating panel, weld data monitoring and documentation. - For all PCs from Windows XP on. Pre-condition on the power source: Interface Ethernet

optional for

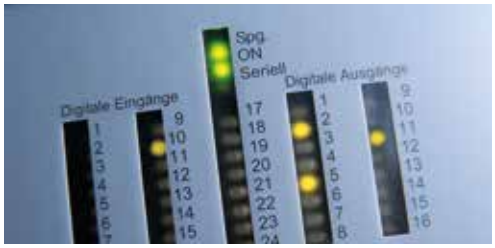
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0033554103	0033554101	0033554100	0033554102
Design	Demo	Light	Premium	Representative

QINEO Series: Interfaces

QINEO, kit PS/CAN (periphery/CAN)

The optimised connection between QINEO welding power sources and QIROX robot systems.



QINEO, kit Q-OMI

The analogue/digital interface which can be universally adapted to older CLOOS

robot systems. Also perfect for individual adaptation of all systems with analogue/digital interface.

QINEO, kit Q-VBC Profibus

Bus model for connection to a Profibus system. Integrated in the power source and to be configured via the operating panel.

QINEO, ES Q-VBC ProfiNet

Bus model for connection to a ProfiNet system. Integrated in the power source and to be configured via the operation module.

QINEO, kit Q-Ethernet

Bus model for connection to an Ethernet system. Integrated in the power source and to be configured via the operation module. Precondition for QDM.

QINEO, Q-Ethernet accessory with SD

QINEO, kit Q-VBC DeviceNet

Bus model for connection to a DeviceNet system. Integrated in the power source and to be configured via the operation module.

QINEO, VBC Gateway EthernetIP

(on demand)

The module integrates the power source into a total system. The power source - euqipped with a Profibus module - uses this gateway to communicate with robots of Fanuc, for example.

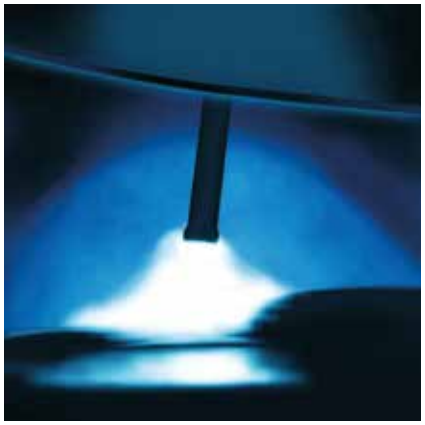
QINEO Step, kit PS (peripheral socket)

The kit peripheral socket makes it possible to connect the QINEO power sources to simple automation systems such as rotary tables or linear tracks. Suitable for QINEO Step

QINEO kit PS (peripheral socket)

The kit peripheral socket makes it possible to connect the QINEO power sources to simple automation systems such as rotary tables or linear tracks. Suitable for QINEO Tronic, Tronic Pulse, Pulse and Champ.

QINEO Series: Weld data monitoring (SD)
Power source part



optional for

QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Wire feed part see page 83.

Technical data	0831058300
Design	Standard

QINEO Series: Seam tracking
Power source part

Technical data	0831058400
optional for	QINEO Champ / QINEO Pulse / QINEO Tronic / QINEO Tronic Pulse

QINEO Series: Gas nozzle sensor

optional for

QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ

Technical data	0831058200	0832058200
optional for	QINEO Pulse / QINEO Tronic / QINEO Tronic 350-600	QINEO Champ

QINEO Series: QINEO WIRE DRIVE (QWD) wire feed unit

Optimum feed of the wire electrode in all areas. That's what the wire drive units QINEO Wire Drive do. During manual welding or in a fully-automated robot system. By means of the separate wire drive units the working range increases independently of the power source. The wire drive units are connected via connection cable assemblies (VSP).

QINEO Series: QWD-P wire feed unit

Portable 4 roller wire drive unit in robust plastic housing. Extremely light-weight for mobile use in workshops and during installation.
SZ connection as standard.

Options

- Flow meter
- EURO ZA, DINSE ZA
- Carriage
- Remote control connection
- Crane support
- Protective shield

Technical data	QWD-P
Wire feed speed	max. 24 m/min
Dimensions L/W/H	674/260/450 mm
Weight	12.8 kg
Wire diameter	0.8- 2.0 mm

QINEO Series: QWD TWIN DRIVE wire feed unit

One power source, two materials, no problem. The wire feed unit QWD TWIN DRIVE offers you more flexibility on the welding place without the need of tool change-over. SZ connection as standard.

Options

- Flow meter
- EURO ZA, DINSE ZA
- Carriage
- Remote control connection
- Crane support

Technical data	QWD TWIN
Wire feed speed	max. 24 m/min
Dimensions L/W/H	980/540/767 mm
Weight	54.6
Wire diameter	0.8- 2.0 mm

QINEO Series: QWD-M wire feed unit

Movable 4 roller wire drive unit in a very robust metal housing. For the hard working life in industry. SZ connection as standard.

Options

- Flow meter
- EURO ZA, DINSE ZA
- Carriage
- Remote control connection
- Crane support
- Protective shield

Technical data	QWD-M
Wire feed speed	max. 24 m/min
Dimensions L/W/H	700/390/335 mm
Weight	21.1 kg
Wire diameter	0.8- 2.0 mm

QINEO Series: QWD-A wire feed unit

For all requirements of automated welding. Perfectly matched to the power sources QINEO Pulse, Tronic, Tronic Pulse and Champ. Available as right and left design particularly for Tandem Weld. SZ connection as standard.

Options

- EURO ZA, DINSE ZA
- Weld Data Monitoring
- left design

Technical data	QWD-A
Wire feed speed	max. 24 m/min
Dimensions L/W/H	350/270/230 mm
Weight	12.8 kg
Wire diameter	0.8- 2.0 mm

QINEO Series: QWD-AR wire feed unit

The QWD-AR wire drive unit was particularly developped for mounting on the shoulder joint of industrial robots. This ensures an optimum wire feed especially in the field of hollow shaft robots. Despite the comprehensive equipment with different sensors for weld data monitoring it is characterised by a low weight and a small size. SZ connection as standard.

Options

- EURO ZA, DINSE ZA
- Weld Data Monitoring

Technical data	QWD-AR
Wire feed speed	max. 24 m/min
Dimensions L/W/H	320/200/200 mm
Weight	7.5 kg
Wire diameter	0.8- 2.0 mm

QINEO Series: QRH-I wire drive unit

The wire drive unit QRH-I is integrated in the QIROX wrist. In contrast to traditional models, the cable assembly with welding wire feed, the control and sensor cables as well as the power supply and the shielded gas supply do not run along the sixth axis as usual but right through it when using the QRH-I together with a QIROX Hollow shaft robot. The advantage: even where there are very complex movements, the cable assemblies are protected internally, they cannot get entangled around the front robot axis and are well protected from abrasion. Along with a greater freedom of movement, you will benefit above all from the significant reduction in wear and the increase in process safety due to the short wire feed distance.

Technical data	QRH-I
Wire feed speed	max. 24 m/min
Wire diameter	0.8- 2.0 mm

QINEO Series: QWD-Z3 additional wire drive

Features

With the new QINEO QWD-Z3 intermediate drive you can reach every corner of your component. Due to the small robust design with integrated remote control operation you are prepared for any task.
Robustness due to metal housing, protected cable anchorage and roll bars. User-friendly operation due to the usage of many identical parts of the wire feed distance. Very high extension of the working area by up to 40 m operating range

Standard equipment

- 4-roller drive
- RC Master operation
- Water cooling

Options

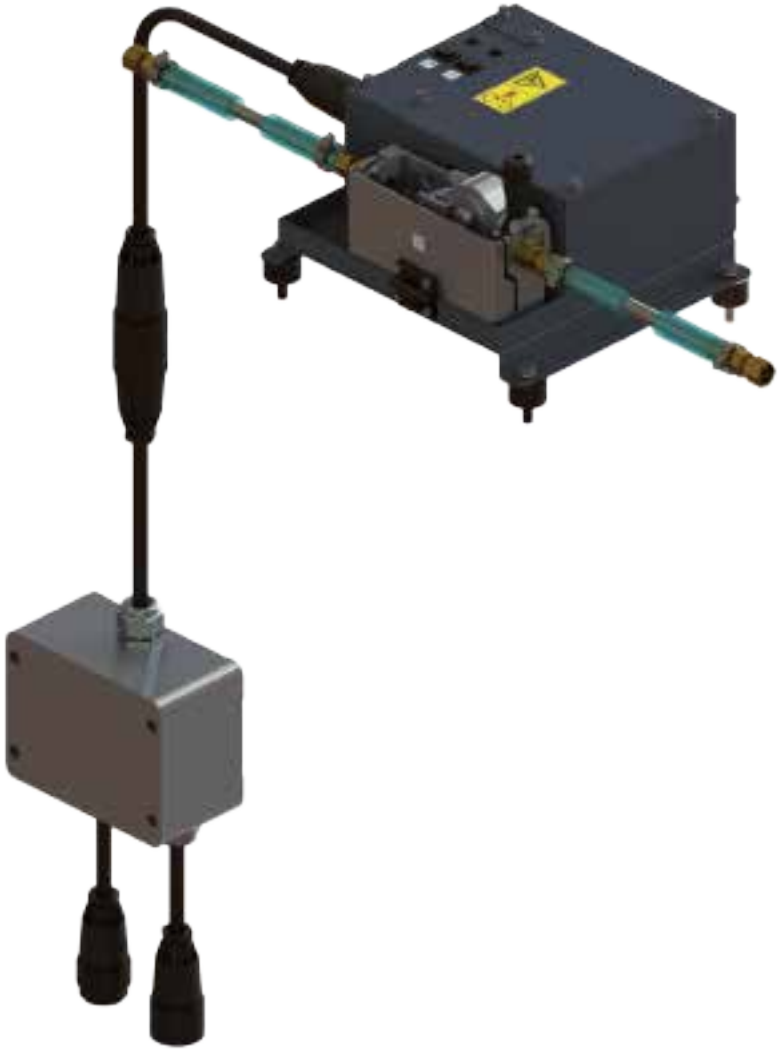
- To be used for QINEO Tronic, Tronic Pulse, Pulse, Champ
- Verbindungsschlauchpaket 10 m oder 15 m

Technical data	831540005	831540010
Connection	SZ	Euro
To be used for	QWD-P / QWD-M	QWD-P / QWD-M
Wire feed speed	max. 24 m/min	max. 24 m/min
Dimensions L/W/H	615 x 185 x 250 mm	615 x 185 x 250 mm
Weight	12 kg	12 kg
Wire diameter	0.8- 2.0 mm	0.8- 2.0 mm
Type of protection	IP 21	IP 21
Type of cooling	Water	Water
Earth cable	95 mm^2	95 mm^2

QINEO Series: QWD-B additional wire drive

Features

Das CLOOS-Drahtvorschubgerät Typ QWD-B ist Drahtförderunterstützung und gehört zu den Geräten der QINEO-Reihe.
The QWD-B serves to support the wire transport over a conveyance distance of up to 30 m, and to overcome the friction caused by several bends.
With only one drive roller the QWD-B pulls the welding wire out of the wire drum or from the wire coil and transports it with a defined force into the liner.



Technical data	0831700000
Dimensions L/W/H	300 x 180 x 260 mm
Weight	6.2 kg

QINEO Series: Options QWD wire feed unit

QINEO Series: Protective shield for operating panel QWD

optional for

QWD-M

Technical data	0830501055	0830581055
Design	QWD-P	QWD-M

QINEO Series: QWD-P transport carriage

optional for

QWD-P

Technical data	0830501020
Design	Standard

QINEO Series: Crane support QWD

optional for

QWD-P

Power source part see page 67.

Technical data	0830500015
Design	Standard

QINEO Series: Crane support with lifting belt QWD

optional for

QWD-P

Technical data	0830001700
Design	complete construction kit

QINEO Series: QWD-M crane suspension

optional for

QWD-M

Technical data	0049010298
Design	Standard

QINEO Series: QWD-M

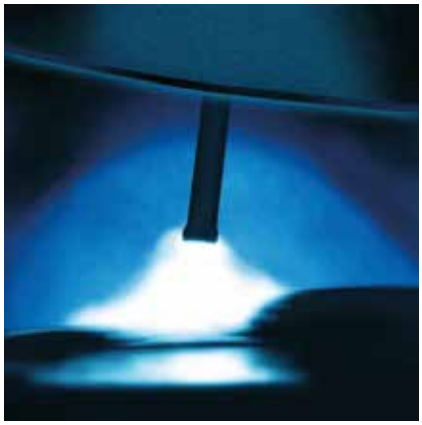
optional for

QWD-M

Technical data	0830591050	0833581051
Design	Handle lateral	Handle fender (in front)

QINEO Series: Weld data monitoring (SD)

QWD part



optional for

QWD-A

Technical data	0831002010
Design	QWD-A

QINEO Series: Flow meter water QWD

optional for

QWD-P
QWD-M
QINEO compact
QWD-A

Technical data	0831002000	0831002010
Design	Standard / only available as integrated version	QWD-A

QINEO Series: Kit for remote control RC

optional for

QINEO Step 350-600
QINEO Tronic
QINEO Tronic Pulse
QINEO Pulse
QINEO Champ
QWD-P
QWD-M
QWD-Twin

Technical data	0830102010
Design	Standard

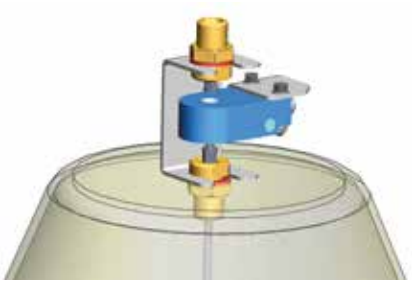
QINEO Series: Kit for Cloos Duo Drive (CDD II)

optional for

QWD-A

Technical data	0831058500
Design	QWD-A

QINEO Series: Kit for wire end control



optional for

QWD-A

Technical data	0831803030
Design	Standard

QINEO Series: Connection cable assemblies (VSP)

Cloos connection cable assemblies to connect the QINEO welding machines with the wire drive units of the QWD series. The connection cable assemblies are available with hose (H) or corrugated tube (T) thus ensuring the highest quality demands.

All necessary media are efficiently fed to the welding process with a minimum of loss. Either for manual and automated welding.

QINEO Series: Connection cable assemblies CM (manual)

Material	Short description	Type of cooling	Weld current (A)	Length (m)	Outer hose
0650 90 01 00	CMG350-1.0T	gas cooled	350	1.0	Corrugated tube
0650 91 01 00	CMG350-1.0H	gas cooled	350	1.0	Hose
0650 90 05 00	CMG350-5.0T	gas cooled	350	5.0	Corrugated tube
0650 91 05 00	CMG350-5.0H	gas cooled	350	5.0	Hose
0650 90 10 00	CMG350-10.0T	gas cooled	350	10.0	Corrugated tube
0650 91 10 00	CMG350-10.0H	gas cooled	350	10.0	Hose
0650 90 20 00	CMG350-20.0T	gas cooled	350	20.0	Corrugated tube
0650 91 20 00	CMG350-20.0H	gas cooled	350	20.0	Hose
0650 88 01 00	CMG600-1.0T	gas cooled	600	1.0	Corrugated tube
0650 89 01 00	CMG600-1.0H	gas cooled	600	1.0	Hose
0650 88 05 00	CMG600-5.0T	gas cooled	600	5.0	Corrugated tube
0650 89 05 00	CMG600-5.0H	gas cooled	600	5.0	Hose
0650 88 10 00	CMG600-10.0T	gas cooled	600	10.0	Corrugated tube
0650 89 10 00	CMG600-10.0H	gas cooled	600	10.0	Hose
0650 88 20 00	CMG600-20.0T	gas cooled	600	20.0	Corrugated tube
0650 89 20 00	CMG600-20.0H	gas cooled	600	20.0	Corrugated tube
0650 90 51 00	CMW350-1.0T	water cooled	350	1.0	Corrugated tube
0650 91 51 00	CMW350-1.0H	water cooled	350	1.0	Hose
0650 90 55 00	CMW350-5.0T	water cooled	350	5.0	Corrugated tube
0650 91 55 00	CMW350-5.0H	water cooled	350	5.0	Hose
0650 90 60 00	CMW350-10.0T	water cooled	350	10.0	Corrugated tube
0650 91 60 00	CMW350-10.0H	water cooled	350	10.0	Hose
0650 90 70 00	CMW350-20.0T	water cooled	350	20.0	Corrugated tube
0650 91 70 00	CMW350-20.0H	water cooled	350	20.0	Hose
0650 88 51 00	CMW600-1.0T	water cooled	600	1.0	Corrugated tube
0650 89 51 00	CMW600-1.0H	water cooled	600	1.0	Hose
0650 88 55 00	CMW600-5.0T	water cooled	600	5.0	Corrugated tube
0650 89 55 00	CMW600-5.0H	water cooled	600	5.0	Hose
0650 88 60 00	CMW600-10.0T	water cooled	600	10.0	Corrugated tube
0650 89 60 00	CMW600-10.0H	water cooled	600	10.0	Hose
0650 88 70 00	CMW600-20.0T	water cooled	600	20.0	Corrugated tube
0650 89 70 00	CMW600-20.0H	water cooled	600	20.0	Hose

QINEO Series: Connection cable assemblies CA (automation)

Material	Short description	Type of cooling	Weld current (A)	Length (m)	Outer hose
0650 92 05 00	CAG600-5.0T	gas cooled	600	5.0	Corrugated tube
0650 93 05 00	CAG600-5.0H	gas cooled	600	5.0	Hose
0650 94 05 00	CAG600-5.0D	gas cooled	600	5.0	Hose
0650 92 10 00	CAG600-10.0T	gas cooled	600	10.0	Corrugated tube
0650 93 10 00	CAG600-10.0H	gas cooled	600	10.0	Hose
0650 94 10 00	CAG600-10.0D	gas cooled	600	10.0	Hose
0650 92 55 00	CAW600-5.0T	water cooled	600	5.0	Corrugated tube
0650 93 55 00	CAW600-5.0H	water cooled	600	5.0	Hose
0650 94 55 00	CAW600-5.0D	water cooled	600	5.0	Hose
0650 92 60 00	CAW600-10.0T	water cooled	600	10.0	Corrugated tube
0650 93 60 00	CAW600-10.0H	water cooled	600	10.0	Hose
0650 94 60 00	CAW600-10.0D	water cooled	600	10.0	Hose
0650 93 65 00	CAW600-15.0H	water cooled	600	15.0	Hose
0650 94 65 00	CAW600-15.0D	water cooled	600	15.0	Hose
0650 93 70 00	CAW600-20.0H	water cooled	600	20.0	Hose
0650 94 70 00	CAW600-20.0D	water cooled	600	20.0	Hose
0650 93 75 00	CAW600-25.0H	water cooled	600	25.0	Hose
0650 94 75 00	CAW600-25.0D	water cooled	600	25.0	Hose
0650 94 80 00	CAW600-30.0D	water cooled	600	30.0	Hose

MIG/MAG Manual welding torches

MIG/MAG welding torches lead the energy to the welding point to melt the materials, the wire electrode and the shielded gas to shield the welding point. They are connected with the power and gas sources via cable assemblies and controllers.

Gas-cooled welding torches are sufficient for small welding capacities, water cooled torches are required for higher capacities. We supply standard welding torches as well as special welding torches.

MIG/MAG Manual welding torch MHG 150

Type of cooling	gas cooled
Capacity with mixed gas	150 A
Duty cycle (ED)	60%
Capacity with CO^2	180 A
Wire thicknesses	0.8-1.0 mm
Equipped for wire	Steel 1.0 mm
Torch trigger	can be converted

Technical data	0724500400	0724500500	0724500600	0724600400	0724600500	0724600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	Z connection	Z connection	Z connection	EURO connection	EURO connection	EURO connection

MHG 200 MIG/MAG Manual welding torch

Type of cooling	gas cooled
Capacity with mixed gas	200 A
Capacity with CO^2	260 A
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.0 mm
Torch trigger	can be converted

Technical data	0572500400	0572500500	0572500600
Length cable assembly	3 m	4 m	5 m
Connection	Z connection	Z connection	Z connection

MIG/MAG Manual welding torch MHG 230, trigger on top

Type of cooling	gas cooled
Capacity with mixed gas	230 A
Capacity with CO^2	260 A
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	on top

Technical data	0770500400	0770500500	0770500600	0770600400	0770600500	0770600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	Z connection	Z connection	Z connection	EURO connection	EURO connection	EURO connection

MHG 230 MIG/MAG Manual welding torch, trigger underneath

Type of cooling	gas cooled
Capacity with mixed gas	230 A
Capacity with CO^2	260 A
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0771500400	0771500500	0771500600	0771600400	0771600500	0771600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	Z connection	Z connection	Z connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHG 250

Type of cooling	gas cooled
Capacity with mixed gas	250 A
Duty cycle (ED)	60%
Capacity with CO^2	280 A
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	can be converted

Technical data	0723500400	0723500500	0723500600	0723600400	0723600500	0723600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	Z connection	Z connection	Z connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHG 301

Type of cooling	gas cooled
Capacity with mixed gas	300 A
Capacity with CO^2	330 A
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.0 mm
Torch trigger	on top

Technical data	0731500400	0731500500	0731500600	0731600400
Length cable assembly	3 m	4 m	5 m	3 m
Connection	Z connection	Z connection	Z connection	EURO connection

MIG/MAG Manual welding torch MHG 180 Euroline

Type of cooling	gas cooled
Capacity with mixed gas	180 A
Capacity with CO^2	200 A
Special feature	Ball joint
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.0 mm
Equipped for wire	Steel 0.8 mm
Torch trigger	underneath

Technical data	0792436400	0792436500	0792436600
Length cable assembly	3 m	4 m	5 m
Connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHG 250 Euroline

Type of cooling	gas cooled
Capacity with mixed gas	250 A
Capacity with CO^2	270 A
Special feature	Ball joint
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.0 mm
Torch trigger	underneath

Technical data	0792446400	0792446500	0792446600
Length cable assembly	3 m	4 m	5 m
Connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHG 320 Euroline

Type of cooling	gas cooled
Capacity with mixed gas	320 A
Capacity with CO^2	340 A
Special feature	Ball joint
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0792506400	0792506500
Length cable assembly	3 m	4 m
Connection	EURO connection	EURO connection

MIG/MAG Manual welding torch Arcette G251

Special feature	Push-Pull operation
Suitable for	QINEO Tronic, Tronic Pulse, Pulse, Champ
Torch neck	To be turned by 30° steps
Type of cooling	gas cooled
Capacity with mixed gas	270 A
Capacity with CO^2	300 A
Duty cycle (ED)	60%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Alu 1.2 mm

Technical data	0535650400	0535650800	0535650401	0535650801	0535650402	0535650802	0535650403	0535650803
Bending angle	0°	0°	30 °	30 °	0°	0°	30 °	30 °
Length cable assembly	4 m	8 m	4 m	8 m	4 m	8 m	4 m	8 m
Connection	Z connection	Z connection	Z connection	Z connection	EURO connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 300

Type of cooling	water cooled
Capacity with mixed gas	300 A
Capacity with CO^2	340 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.0 mm
Torch trigger	on top

Technical data	0721500400	0721500500	0721600400	0721600500	0721550400	0721550500	0721550600
Length cable assembly	3 m	4 m	3 m	4 m	3 m	4 m	5 m
Connection	Z connection	Z connection	EURO connection	EURO connection	SZ connection	SZ connection	SZ connection

MIG/MAG Manual welding torch MHW 350

Type of cooling	water cooled
Capacity with mixed gas	350 A
Capacity with CO^2	390 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	can be converted

Technical data	0558220400	0558220500	0558220600	0558250400	0558250500	0558250600	0726600400	0726600500
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m	3 m	4 m
Connection	Z connection	Z connection	Z connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 402, trigger on top

Type of cooling	water cooled
Capacity with mixed gas	400 A
Capacity with CO^2	440 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	on top

Technical data	0767550400	0767550500	0767550600	0767600400	0767600500	0767600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 402, trigger underneath

Type of cooling	water cooled
Capacity with mixed gas	400 A
Capacity with CO^2	440 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0768550400	0768550500	0768550600	0768600400	0768600500	0768600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 520, trigger on top

Type of cooling	water cooled
Capacity with mixed gas	520 A
Capacity with CO^2	570 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	on top

Technical data	0717550400	0717550500	0717550600	0717600400	0717600500	0717600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 520, trigger underneath

Type of cooling	water cooled
Capacity with mixed gas	520 A
Capacity with CO^2	570 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0792400400	0792400500	0792400600	0792405400	0792405500	0792405600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 522

Type of cooling	water cooled
Capacity with mixed gas	520 A
Capacity with CO^2	570 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	on top
Special feature	Extended torch neck

Technical data	0736550400	0736550500	0736550600	0736600400	0736600500	0736600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 610

Type of cooling	water cooled
Capacity with mixed gas	600 A
Capacity with CO^2	640 A
Special feature	double-walled, cooled gas nozzle
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	can be converted

Technical data	0749550400	0749550500	0749550600	0749600400	0749600500	0749600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 270 Euroline

Type of cooling	water cooled
Capacity with mixed gas	270 A
Capacity with CO^2	300 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0792516400	0792516500	0792516600
Length cable assembly	3 m	4 m	5 m
Connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 450 Euroline

Type of cooling	water cooled
Capacity with mixed gas	450 A
Capacity with CO^2	500 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0792526400	0792526500	0792526600
Length cable assembly	3 m	4 m	5 m
Connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 550 Euroline

Type of cooling	water cooled
Capacity with mixed gas	500 A
Capacity with CO^2	550 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm
Torch trigger	underneath

Technical data	0792536400	0792536500	0792536600
Length cable assembly	3 m	4 m	5 m
Connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 405 TQ

Special feature	Remote control TQ
Suitable for	QINEO Tronic, Tronic Pulse, Pulse, Champ
Type of cooling	water cooled
Capacity with mixed gas	400 A
Capacity with CO^2	440 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0775650400	0775650500	0775650600	0775700400	0775700500	0775700600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 405 T

Special feature	Remote control T
Suitable for	3
Type of cooling	water cooled
Capacity with mixed gas	400 A
Capacity with CO^2	440 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0775550400	0775550500	0775550600	0775600400	0775600500	0775600600
Length cable assembly	3 m	4 m	6 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 405 F

Special feature	Remote control F
Suitable for	MC 3
Type of cooling	water cooled
Capacity with mixed gas	400 A
Capacity with CO^2	440 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0766550400	0766550500	0766550600	0766600400	0766600500	0766600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	5 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch MHW 405 F1

Special feature	Remote control F1
Suitable for	MC 4
Type of cooling	water cooled
Capacity with mixed gas	400 A
Capacity with CO^2	440 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0780550400	0780550500	0780550600	0780600400	0780600500	0780600600
Length cable assembly	3 m	4 m	5 m	3 m	4 m	6 m
Connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection

MIG/MAG Manual welding torch Arcette W351

Special feature	Push-Pull operation
Suitable for	QINEO Tronic, Tronic Pulse, Pulse, Champ
Type of cooling	water cooled
Torch neck	To be turned by 30° steps
Capacity with mixed gas	350 A
Capacity with CO^2	400 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Alu 1.2 mm

Technical data	0535660400	0535660800	0535660401	0535660801	0535660402	0535660802	0535660403	0535660803
Bending angle	0°	0°	30 °	30 °	0°	0°	30 °	30 °
Length cable assembly	4 m	8 m	4 m	8 m	4 m	8 m	4 m	8 m
Connection	SZ connection	SZ connection	SZ connection	SZ connection	EURO connection	EURO connection	EURO connection	EURO connection

Z connection

Suitable for

MIG/MAG machines with Z connection

Power connection

Integrated

Gas connection

Integrated

SZ connection

Suitable for

MIG/MAG machines with SZ connection

Power connection

Integrated

Gas connection

Integrated

Cooling water

Plug nipple NW5

EURO connection (EURO ZA)

Suitable for

MIG/MAG machines with EURO connection

Power connection

Integrated

Gas connection

Integrated

Cooling water

Plug nipple NW5

MIG/MAG Robot welding torch

Original Cloos robot torches are the result of years of development and experience in the field of automated MIG/MAG welding. We supply special geometries and manufactures on demand, either for single wire or for Tandem.

Please contact us. We rely on high-quality materials and consequent quality assurance during the whole production process.

Robot welding torch MRW 300

Type of cooling	water cooled
Capacity with mixed gas	300 A
Capacity with CO^2	350 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm

Technical data	0718100000	0737001000
Bending angle	35 °	0°
TCP	X 78 Z 273	Z 231

Robot welding torch MRW 350

Type of cooling	water cooled
Capacity with mixed gas	350 A
Capacity with CO^2	390 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.2 mm
Equipped for wire	Steel 1.2 mm

Technical data	0704180000	0790410000
Bending angle	35 °	0°
TCP	X 78 Z 273	Z 265

Robot welding torch MRW 380

Type of cooling	water cooled
Capacity with mixed gas	380 A
Capacity with CO^2	420 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0758180000	0758190000	0758255000
Bending angle	35 °	35 °	0°
TCP	X 78 Z 273	X 78 Z 273	Z 294
Special feature		Alu design	

Robot welding torch MRW 500

Type of cooling	water cooled
Capacity with mixed gas	500 A
Capacity with CO^2	540 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0709100000	0790300000
Bending angle	35 °	0°
TCP	X 78 Z 273	Z 293
Special feature	gas nozzle water-cooled directly	gas nozzle water-cooled directly

Robot welding torch MRW 510 evo

Type of cooling	water cooled
Capacity with mixed gas	510 A
Capacity with CO^2	500 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0719300030
Bending angle	35 °
TCP	X 78 Z 273
Special feature	

Robot welding torch MRW 610

Type of cooling	water cooled
Capacity with mixed gas	600 A
Capacity with CO^2	630 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0727100000	0790280000
Bending angle	35 °	0°
TCP	X 78 Z 273	Z 294
Special feature		double-walled, cooled gas nozzle

Robot Tandem welding torch ZMW 640 A

Special feature	Tandem
Type of cooling	water cooled
Capacity with mixed gas	500 A
Capacity with CO^2	600 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0774500000	0774550000
Bending angle	0°	35 °
TCP	Z 380.7	X 94,1 Z 352,9

Robot Tandem welding torch ZMW 850 evo

Special feature	Tandem
Type of cooling	water cooled
Capacity with mixed gas	850 A
Capacity with CO^2	900 A
Duty cycle (ED)	100%
Wire thicknesses	0.8-1.6 mm
Equipped for wire	Steel 1.2 mm

Technical data	0774800000	0774840000	0774850000	0774860000
Bending angle	0°	0° short	35°	45°
TCP	X 6 Z 378	X 6 Z 294	X 91 Z 353	X 118 Z 336

MRW Torch bracket

Equipment

with cut-off

Options

Various angles of inclination
Sensors

Technical data	0850645760	0072010650
Equipment	with cut-off	Tracer pin / with cut-off
Angle	10°	10°

ZMW Torch bracket

Equipment

with cut-off
Tracer pin on both sides

Options

Various angles of inclination
Sensors

Technical data	0071025070	0072012150	0072012160
Equipment	with cut-off	Tracer pin / with cut-off	Tracer pin on both sides / with cut-off
Angle	10°	10°	10°

Cloos Duo Drive II (CDD II)

Equipment

with cut-off
Integrated wire drive unit

Angle

10°

Options

Tracer pin
Various angles of inclination
Sensors
Actual value determination of wire

Technical data	0535721050	0535721250	0535721650
Equipped for	Ø 1.0mm	Ø 1.2mm	Ø 1.6mm

Cloos Duo Drive II ZMW

Equipment

with cut-off
Integrated wire drive unit

Options

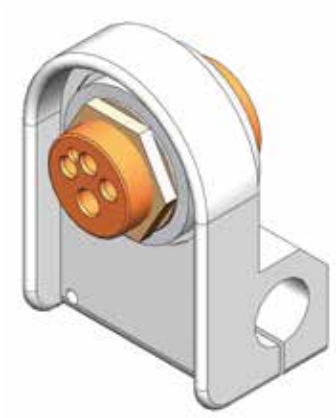
Tracer pin
Sensors
Actual value determination of wire

Angle

10°

Technical data	0535731000	0535731200	0535731600
Equipped for	Ø 1.0mm	Ø 1.2mm	Ø 1.6mm

Torch bracket for machines with bore hole

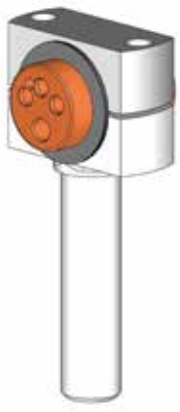


for torch type

MRW (robot torch)

Technical data	0850645500
Mounting plate	Bore hole Ø 24 mm

Torch bracket for machines with mandrel



for torch type

MRW (robot torch)

Technical data	0850645510
Mounting plate	Mandrel Ø 24 mm

Robot torch cleaning CMR-7C for MRW torch

Cleaning time	3-5 sec
Compressed air	6 bar, 87 psi
Program run	pneumatic
Supply voltage	24 V DC

Technical data	0850698500	0850698550
Extra	Tandem torch cleaning	Wire cutter

Tandem torch cleaning CMR-6 T-SR for ZMW torch

Cleaning time	3-5 sec
Program run	pneumatic
Supply voltage	24 V DC

Technical data	0850678000
	Tandem torch cleaning

Cloos Narrow gap blade *

The MIG/MAG narrow gap technology allows much lower joint cross-sections. Compared to the V joint, only a third of the welding deposit is required. Even in the case of wall thicknesses of 300 mm the gap width is only 20 mm. However this requires a special technology; the normal torch cannot be used. Instead a narrow gap blade with rectangular cross-section is used which guides the wire electrode, welding current, shielding gas and water coolant.

Technical features

- Reduction of energy consumption
- Reduction of total heat input
- Reduction of welding time
- Reduction of filler materials
- Reduction of internal stress
- No weld seam preparation

*** Sale only together with QIROX robot system.**

Technical data	0797530005	0797531005	0797530000
Blade length	331 mm	481 mm	331 mm
Blade cross section	16 mm x 30 mm	16 mm x 30 mm	16 mm x 30 mm
Bending angle	0°	0°	45 °

Components MIG/MAG welding

The use of original Cloos components guarantee perfect welding results and a long service life. Our current and gas nozzles are coated as standard. Several types can be supplied without or with a special coating. Thus you always dispose of the suitable combination, even in in the case of special requirements and demands.

MIG/MAG Manual welding torches: Current tips

Material	Short description	for wire Ø	Thread	Length	Material	Surface
0062 01 00 03	Current tip 0.8 mm M 6 zyl. 25 mm	0.8	M6	25	E-Cu 25	coated
0062 01 00 04	Current tip 1.0 mm M 6 zyl. 25 mm	1.0	M6	25	E-Cu 25	coated
0062 01 00 05	Current tip 1.2 mm M 6 zyl. 25 mm	1.2	M6	25	E-Cu 25	coated
0062 02 00 02	Current tip 0.8 mm M 8 zyl. 30 mm	0.8	M8	30	E-Cu 25	coated
0062 02 00 12	Current tip 0.9 mm M 8 zyl. 30 mm	0.9	M8	20	E-Cu 25	coated
0062 02 00 03	Current tip 1.0 mm M 8 zyl. 30 mm	1.0	M8	30	E-Cu 25	coated
0062 02 00 04	Current tip 1.2 mm M 8 zyl. 30 mm	1.2	M8	30	E-Cu 25	coated
0062 02 00 08	Current tip 1.4 mm M 8 zyl. 30 mm	1.4	M8	30	E-Cu 25	coated
0062 02 00 05	Current tip 1.6 mm M 8 zyl. 30 mm	1.6	M8	30	E-Cu 25	coated
0062 02 00 06	Current tip 2.0 mm M 8 zyl. 30 mm	2.0	M8	30	E-Cu 25	coated
0062 02 00 07	Current tip 2.4 mm M 8 zyl. 30 mm	2.4	M8	30	E-Cu 25	coated
0062 02 00 09	Current tip 3.2 mm M 8 zyl. 30 mm	3.2	M8	30	E-Cu 25	coated
0062 12 22 06	Current tip 0.8 mm M6 cyl. 32 mm	0.8	M6	32	CuCrZr 32	not coated
0062 12 22 07	Current tip 1.0 mm M6 cyl. 32 mm	1.0	M6	32	CuCrZr 32	not coated
0062 12 22 08	Current tip 1.2 mm M6 cyl. 32 mm	1.2	M6	32	CuCrZr 32	not coated

MIG/MAG Robot welding torch: Current tips M8x30

Material	Short description	for wire Ø	Material	Surface	Special feature
0062 12 00 03	Current tip 1.0 mm M 8 cyl.	1.0	CuCrZr 32	coated	-
0062 12 00 04	Current tip 1.2 mm M 8 cyl.	1.2	CuCrZr 32	coated	-
0062 12 00 08	Current tip 1.4 mm M 8 cyl.	1.4	CuCrZr 32	coated	-
0062 12 00 05	Current tip 1.6 mm M 8 cyl.	1.6	CuCrZr 32	coated	-
0062 12 31 10	Current tip 1.0 mm M 8 cyl. 30 mm	1.0	CuCrZr 32	coated	Tandem
0062 12 31 11	Current tip 1.14 mm M8 cyl. 30 mm	1.1	CuCrZr 32	coated	Tandem
0062 12 31 12	Current tip 1.2 mm M 8 cyl. 30 mm	1.2	CuCrZr 32	coated	Tandem
0062 12 31 13	Current tip 1.3 mm M 8 cyl. 30 mm	1.3	CuCrZr 32	coated	Tandem
0062 12 31 14	Current tip 1.4 mm M 8 cyl. 30 mm	1.4	CuCrZr 32	coated	Tandem
0062 12 31 16	Current tip 1.6 mm M 8 cyl. 30 mm	1.6	CuCrZr 32	coated	Tandem
0062 12 31 18	Current tip 1.8 mm M 8 cyl. 30 mm	1.8	CuCrZr 32	coated	Tandem
0062 42 31 10	Current tip 1.0 mm M8 cyl. 30 mm	1.0	CuCrZr 32	not coated	Tandem
0062 42 31 11	Current tip 1.14 mm M8 cyl. 30 mm	1.1	CuCrZr 32	not coated	Tandem
0062 42 31 12	Current tip 1.2 mm M8 cyl. 30 mm blank	1.2	CuCrZr 32	not coated	Tandem
0062 42 31 13	Current tip 1.3 mm M 8 cyl. 30 mm	1.3	CuCrZr 32	not coated	Tandem
0062 42 31 14	Current tip 1.4 mm M 8 cyl. 30 mm	1.4	CuCrZr 32	not coated	Tandem
0062 42 31 16	Current tip 1.6 mm M 8 cyl. 30 mm	1.6	CuCrZr 32	not coated	Tandem

MIG/MAG Manual welding torches: Gas nozzles

Material	Short description	Nominal width	Form	Outer diameter	Length	Fixation
0065 01 10 00	Gas nozzle conic SL 869	12.5	conic	18	53	Inner tension spring
0063 01 02 00	Gas nozzle complete NW 15 conic	15.0	conic	20	53	Inner tension spring
0063 05 51 00	Gas nozzle NW 13 conic for MHW 520	13.0	conic	21	70	Outer tension spring
0063 05 50 00	Gas nozzle NW 17 conic for MHW 520	17.0	conic	21	70	Outer tension spring
0063 05 68 00	Gas nozzle NW 17, 64 mm, MHW 520	17.0	conic	21	64	Outer tension spring
0063 05 58 00	Gas nozzle NW 20 conic for MHW 520	20.0	cylindrical	21	70	Outer tension spring
0065 01 04 00	Gas nozzle conic MHG 301 (SB 360 G)	17.0	conic	21	80	Outer tension spring
0065 00 80 00	Gas nozzle NW 11 con.	11.0	very conic	24	64	Clamping bush
0065 00 81 00	Gas nozzle NW 15 con.	15.0	conic	24	64	Clamping bush
0065 00 82 00	Gas nozzle NW 17 conic	17.0	conic	24	64	Clamping bush
0065 00 83 00	Gas nozzle NW 20 cyl.	20.0	cylindrical	24	64	Clamping bush
0749 00 02 00	Gas nozzle body cpl. for MHW 610	-	-	-	-	-
0708 00 00 02	Gas nozzle tip NW 19 cyl. 23 mm	19.0	-	-	23	Male thread
0708 00 00 12	Gas nozzle tip NW 19 cyl. 17 mm	19.0	-	-	17	Male thread
0708 00 00 05	Gas nozzle tip NW 19 cyl. 28 mm	19.0	-	-	28	-
0708 00 00 06	Gas nozzle tipNW 19 cyl. 33 mm	19.0	-	-	33	-
0535 65 60 06	Arcette G251 gas nozzle cyl. NW 19	19.0	cylindrical	24	84	Outer tension spring
0535 65 60 07	Arcette G251 gas nozzle conic NW 16	16.0	conic	24	84	Outer tension spring
0535 66 60 08	Arcette W251 gas nozzle cyl. NW 20	20.0	cylindrical	24	76	Outer tension spring
0535 66 60 09	Arcette W251 gas nozzle conic NW 16	16.0	conic	24	76	Outer tension spring
0535 66 60 10	Arcette W251 gas nozzle conic NW 14	14.0	very conic	24	76	Outer tension spring

MIG/MAG robot torch: Gas nozzles

Material	Short description	Nominal width	Form	Outer diam-eter	Length	Fixation	Special feature
0063 05 52 00	Gas nozzle NW 12.5 conic for MRW 300	12.5	conic	22	59	Female thread	
0063 05 39 00	Gas nozzle NW 17 cyl. for MRW 350 / 66 mm	17.0	Bottle neck	26	66	Male thread	
0063 05 10 00	Gas nozzle NW 17 con. 63 mm	17.0	conic	26	63	Male thread	
0063 05 11 00	Gas nozzle NW 11 conic SL 81 / MRW 350	11.0	very conic	26	64	Male thread	
0063 05 16 00	Gas nozzle NW 13 conic for MRW 350	13.0	Bottle neck	26	63	Male thread	
0063 05 17 00	Gas nozzle NW 15 cylin-drical for MRW 350	15.0	Bottle neck	26	63	Male thread	
0063 05 18 00	Gas nozzle NW 17 conic for MRW 350	17.0	Bottle neck	26	63	Male thread	
0063 05 19 00	Gas nozzle NW 17 con. 66 mm	17.0	conic	26	66	Male thread	
0063 05 20 00	Gas nozzle NW 11 conic SL / SW 81-SR	11.0	conic	26	66	Male thread	
0063 05 40 00	Gas nozzle NW 15 cylin-drical for MRW 350	15.0	Bottle neck	26	66	Male thread	
0063 05 44 00	Gas nozzle NW 13 cylin-drical for MRW 350	13.0	Bottle neck	26	66	Male thread	
0063 05 69 00	Gas nozzle NW 15 conic for MRW 350/380	15.0	conic	26	66	Male thread	
0063 05 61 13	Gas nozzle NW17 x 66 Q-MWW 500-600	17.0	conic	26	66	Female thread	
0065 10 50 05	Gas nozzle NW 16 cyl. for MRW 500	16.0	conic	26	63	Male thread	water cooled
0063 05 54 00	Gas nozzle NW 18 for MRW 500	18.0	conic	26	58	Male thread	water cooled
0709 00 04 00	Gas nozzle jacket cpl. MRW 500					Male thread	water cooled
0709 00 00 05	Gas nozzle tip NW 16 cyl. 20 mm	16.0	conic	26	20	Male thread	
0709 00 00 07	Gas nozzle tip NW 16 cyl. 14 mm	16.0	conic	26	14	Male thread	
0709 00 00 15	Gas nozzle tip NW 16 cyl. 25 mm	16.0	conic	26	25	Male thread	
0709 00 00 25	Gas nozzle tip NW 20 conic MRW 500	20.0	conic	26	21	Male thread	
0063 05 61 00	Gas nozzle NW 19 conic for MRW 610	19.0	conic	30	75	Clamping bush	
0749 00 02 00	Gas nozzle body cpl. for MHW 610						
0708 00 00 02	Gas nozzle tip NW 19 cyl. 23 mm	19.0			23	Male thread	
0708 00 00 12	Gas nozzle tip NW 19 cyl. 17 mm	19.0			17	Male thread	
0708 00 00 05	Gas nozzle tip NW 19 cyl. 28 mm	19.0			28		
0708 00 00 06	Gas nozzle tip NW 19 cyl. 33 mm	19.0			33		

Material	Short description	Nominal width	Form	Outer diam-eter	Length	Fixation	Special feature
0753 00 04 00	Gas nozzle ZMW NW 29x18 water cooled 81 mm	18.0	conic		81	Outer tension spring	Tandem water cooled
0753 00 03 00	Gas nozzle NW 29x18 water cooled 76 mm	18.0	conic		76	Outer tension spring	Tandem water cooled
0753 00 04 20	Gas nozzle NW 42*21 water cooled 81 mm	21.0	conic		81	Outer tension spring	Tandem water cooled

MIG/MAG Welding torches: Liners, blank

Material	Short description	for wire Ø	Ø i / a	Length	Connection
0041 02 06 00	Liner 0.8-1.0 (50 m)	0.8 - 1.0 mm	1.8 / 4.0 mm	50.0 m (coil)	-
0041 02 06 01	Liner 0.8-1.0 /1.2 m	0.8 - 1.0 mm	1.8 / 4.0 mm	1.2 m	Z - SZ connection
0041 02 06 02	Liner 0.8-1.0 /1.5 m	0.8 - 1.0 mm	1.8 / 4.0 mm	1.5 m	Z - SZ connection
0041 02 06 03	Liner 0.8-1.0 / 2.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	2.0 m	Z - SZ connection
0041 02 06 04	Liner 0.8-1.0 /3.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	3.0 m	Z - SZ connection
0041 02 06 05	Liner 0.8-1.0 /4.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	4.0 m	Z - SZ connection
0041 02 06 06	Liner 0.8-1.0 /5.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	5.0 m	Z - SZ connection
0041 02 06 07	Liner 0.8-1.0 /6.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	6.0 m	Z - SZ connection
0041 02 06 09	Liner 0.8-1.0 / 8.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	8.0 m	Z - SZ connection
0041 02 06 10	Liner 0.8-1.0 / 10.0 m	0.8 - 1.0 mm	1.8 / 4.0 mm	10.0 m	Z - SZ connection
0041 02 06 14	Liner 0.8-1.0 / 3.0 m EURO	0.8 - 1.0 mm	1.8 / 4.0 mm	3.0 m	EURO connection
0041 02 06 15	Liner 0.8-1.0 / 4.0 m EURO	0.8 - 1.0 mm	1.8 / 4.0 mm	4.0 m	EURO connection
0041 02 06 16	Liner 0.8-1.0 / 5.0 m EURO	0.8 - 1.0 mm	1.8 / 4.0 mm	5.0 m	EURO connection
0041 02 06 17	Liner 0.8-1.0 / 6.0 m EURO	0.8 - 1.0 mm	1.8 / 4.0 mm	6.0 m	EURO connection
0041 02 01 00	Liner 1.2 (50 m) 1.2x4.5 mm	1.2 mm	2.1 / 4.5 mm	50.0 m (coil)	-
0041 02 01 01	Liner 1.2 /1.2 m	1.2 mm	2.1 / 4.5 mm	1.2 m	Z - SZ connection
0041 02 01 02	Liner 1.2 /1.5 m	1.2 mm	2.1 / 4.5 mm	1.5 m	Z - SZ connection
0041 02 01 03	Liner 1.2 /2.0 m	1.2 mm	2.1 / 4.5 mm	2.0 m	Z - SZ connection
0041 02 01 04	Liner 1.2 /3.0 m	1.2 mm	2.1 / 4.5 mm	3.0 m	Z - SZ connection
0041 02 01 05	Liner 1.2 /4.0 m	1.2 mm	2.1 / 4.5 mm	4.0 m	Z - SZ connection
0041 02 01 06	Liner 1.2 /5.0 m	1.2 mm	2.1 / 4.5 mm	5.0 m	Z - SZ connection
0041 02 01 07	Liner 1.2 /6.0 m	1.2 mm	2.1 / 4.5 mm	6.0 m	Z - SZ connection
0041 02 01 08	Liner 1.2 / 7.0 m	1.2 mm	2.1 / 4.5 mm	7.0 m	Z - SZ connection
0041 02 01 09	Liner 1.2 / 8.0 m	1.2 mm	2.1 / 4.5 mm	8.0 m	Z - SZ connection
0041 02 01 10	Liner 1.2 /10.0 m	1.2 mm	2.1 / 4.5 mm	10.0 m	Z - SZ connection
0041 02 01 14	Liner 1.2 / 3.0 m EURO	1.2 mm	2.1 / 4.5 mm	3.0 m	EURO connection
0041 02 01 15	Liner 1.2 / 4.0 m EURO	1.2 mm	2.1 / 4.5 mm	4.0 m	EURO connection
0041 02 01 16	Liner 1.2 / 5.0 m EURO	0.8 mm	2.1 / 4.5 mm	5.0 m	EURO connection
0041 02 01 17	Liner 1.2 / 6.0 m EURO	1.2 mm	2.1 / 4.5 mm	6.0 m	EURO connection
0041 02 02 00	Liner 1.6 (50 m)	1.6 mm	2.5 / 4.5 mm	50.0 m (coil)	-
0041 02 02 01	Liner 1.6 / 1.2 m	1.6 mm	2.5 / 4.5 mm	1.2 m	Z - SZ connection
0041 02 02 02	Liner 1.6 /1.5 m	1.6 mm	2.5 / 4.5 mm	1.5 m	Z - SZ connection
0041 02 02 03	Liner 1.6 /2.0 m	1.6 mm	2.5 / 4.5 mm	2.0 m	Z - SZ connection
0041 02 02 04	Liner 1.6 /3.0 m	1.6 mm	2.5 / 4.5 mm	3.0 m	Z - SZ connection
0041 02 02 05	Liner 1.6 /4.0 m	1.6 mm	2.5 / 4.5 mm	4.0 m	Z - SZ connection
0041 02 02 06	Liner 1.6 /5.0 m	1.6 mm	2.5 / 4.5 mm	5.0 m	Z - SZ connection
0041 02 02 07	Liner 1.6 / 6.0 m	1.6 mm	2.5 / 4.5 mm	6.0 m	Z - SZ connection
0041 02 02 10	Liner 1.6 / 10.0 m	1.6 mm	2.5 / 4.5 mm	10.0 m	Z - SZ connection
0041 02 02 14	Liner 1.6 / 3.0 m EURO	1.6 mm	2.5 / 4.5 mm	3.0 m	EURO connection

Material	Short description	for wire Ø	Ø i / a	Length	Connection
0041 02 02 15	Liner 1.6 / 4.0 m EURO	1.6 mm	2.5 / 4.5 mm	4.0 m	EURO connection
0041 02 02 16	Liner 1.6 / 5.0 m EURO	1.6 mm	2.5 / 4.5 mm	5.0 m	EURO connection
0041 02 02 17	Liner 1.6 / 6.0 m EURO	1.6 mm	2.5 / 4.5 mm	6.0 m	EURO connection
0041 02 03 00	Liner 2.0 (50 m)	2.0 mm	3.0 / 5.0 mm	50.0 m (coil)	-
0041 02 03 04	Liner 2.0 /3.0 m	2.0 mm	3.0 / 5.0 mm	3.0 m	Z - SZ connection
0041 02 03 05	Liner 2.0 /4.0 m	2.0 mm	3.0 / 5.0 mm	4.0 m	Z - SZ connection
0041 02 03 10	Liner 2.0 / 10.0 m	2.0 mm	3.0 / 5.0 mm	10.0 m	Z - SZ connection
0041 02 18 14	Liner 2.0-2.4 / 3.0 m EURO	2.0 mm	3.0 / 5.0 mm	3.0 m	EURO connection
0041 02 18 15	Liner 2.0-2.4 / 4.0 m EURO	2.0 mm	3.0 / 5.0 mm	4.0 m	EURO connection
0041 02 18 16	Liner 2.0-2.4 / 5.0 m EURO	2.0 mm	3.0 / 5.0 mm	5.0 m	EURO connection

MIG/MAG Welding torches: Liners, jacketed and bronze

Material	Short description	for wire Ø	Ø i / a	Length	Connection
0041 02 26 00	Liner jacketed blue ø0.8+1.0 p/m	0.8 - 1.0 mm	1.5 / 4.5 mm	Material sold by meter	
0041 02 26 14	Liner jacketed blue ø0.8+1.0-3m Euro	0.8 - 1.0 mm	1.5 / 4.5 mm	3.0 m	EURO connection
0041 02 26 15	Liner jacketed blue ø0.8+1.0-4m Euro	0.8 - 1.0 mm	1.5 / 4.5 mm	4.0 m	EURO connection
0041 02 26 16	Liner jacketed blue ø0.8+1.0-5m Euro	0.8 - 1.0 mm	1.5 / 4.5 mm	5.0 m	EURO connection
0041 02 26 17	Liner jacketed blue ø0.8+1.0-6m Euro	0.8 - 1.0 mm	1.5 / 4.5 mm	6.0 m	EURO connection
0041 02 21 00	Liner jacketed red ø1.2 p/m	1.2 mm	2.0 / 4.5 mm	Material sold by meter	-
0041 02 21 14	Liner jacketed red ø1.2 - 3m Euro	1.2 mm	2.0 / 4.5 mm	3.0 m	EURO connection
0041 02 21 15	Liner jacketed red ø1.2 - 4m Euro	1.2 mm	2.0 / 4.5 mm	4.0 m	EURO connection
0041 02 21 16	Liner jacketed red ø1.2 - 5 m Euro	1.2 mm	2.5 / 4.5 mm	5.0 m	EURO connection
0041 02 21 17	Liner jacketed red ø1.2 - 6m Euro	1.2 mm	2.5 / 4.5 mm	6.0 m	EURO connection
0041 02 22 00	Liner jacketed yellow ø1.6 p/m	1.6 mm	2.5 / 4.5 mm	Material sold by meter	-
0041 02 22 14	Liner jacketed yellow ø1.6 - 3m Euro	1.6 mm	2.5 / 4.5 mm	3.0 m	EURO connection
0041 02 22 15	Liner jacketed yellow ø1.6 - 4m Euro	1.6 mm	2.5 / 4.5 mm	4.0 m	EURO connection
0041 02 22 16	Liner jacketed yellow ø1.6 - 5 m Euro	1.6 mm	2.0 / 4.5 mm	5.0 m	EURO connection
0041 02 22 17	Liner jacketed yellow ø1.6 - 6m Euro	1.6 mm	2.0 / 4.5 mm	6.0 m	EURO connection
0041 02 08 00	Liner ø2.5/ø4.5 bronze	0.8- 1.2 mm	2.0 / 4.0 mm	Material sold by meter	-
0041 02 04 00	Round wire spiral Ø2.0/ Ø4.0 Bronze	1.6 mm	2.5 / 4.5 mm	Material sold by meter	-

MIG/MAG Welding torches: Wire guide hoses

Material	Short description	for wire Ø	Ø i / a	Length	Type
0040 08 11 00	PTFE hose 20% carbon 1.5x4.0x1.25mm	0.8 mm	1.5 / 4.0 mm	Material sold by meter	PTFE core with graphite
0040 08 11 04	Wire guide hoses. 0.8-0.9/3.0 m	0.8 mm	1.5 / 4.0 mm	3.0 m	PTFE core with graphite
0040 08 11 05	Wire guide hoses. 0.8-0.9/4.0 m	0.8 mm	1.5 / 4.0 mm	4.0 m	PTFE core with graphite
0040 08 10 00	PTFE hose 20% carbon 2.0x4.0x1.00mm	1.0- 1.2 mm	2.0 / 4.0 mm	Material sold by meter	PTFE core with graphite
0040 08 10 13	Wire guide hose 1.0-1.2 / 2.0 m	1.0- 1.2 mm	2.0 / 4.0 mm	2.0 m	PTFE core with graphite
0040 08 10 14	Wire guide hoses. 1.0-1.2/3.0 m	1.0- 1.2 mm	2.0 / 4.0 mm	3.0 m	PTFE core with graphite
0040 08 10 15	Wire guide hoses. 1.0-1.2/4.0 m	1.0- 1.2 mm	2.0 / 4.0 mm	4.0 m	PTFE core with graphite
0040 08 12 00	PTFE hose 20% carbon 2.7x4.7 mm	1.6 mm	2.7 / 4.7 mm	Material sold by meter	PTFE core with graphite
0040 08 12 14	Wire guide hoses. 1.6-2.0/3.0 m	1.6 mm	2.7 / 4.7 mm	3.0 m	PTFE core with graphite
0040 08 12 15	Wire guide hose 1.6-2.0 / 4.0 m	1.6 mm	2.7 / 4.7 mm	4.0 m	PTFE core with graphite
0040 08 12 09	Wire guide hose 1.6-2.0 / 8.0 m	1.6 mm	2.7 / 4.7 mm	8.0 m	PTFE core with graphite
0040 08 15 00	PTFE hose Ceramer I Ø2.0 x A Ø4.0	0.8- 1.2 mm	2.0 / 4.0 mm	Material sold by meter	PTFE core with ceramics
0040 08 16 00	PTFE hose Ceramer I Ø2.7 x A Ø4.7	0.8- 1.2 mm	2.7 / 4.7 mm	Material sold by meter	PTFE core with ceramics
0040 08 17 00	PTFE hose Ceramer I Ø4.0 x A Ø6.0	2.4 mm	4.0 / 6.0 mm	Material sold by meter	PTFE core with ceramics
0040 08 01 00	Teflon hose I-D 2 mm wall 1 mm	0.8- 1.2 mm	2.0 / 4.0 mm	Material sold by meter	PTFE core
0040 08 01 04	Liner alu 1.2/2.0 m Teflon	0.8- 1.2 mm	2.0 / 4.0 mm	2.0 m	PTFE core
0040 08 01 05	Liner alu 1.2/3.0 m Teflon	0.8- 1.2 mm	2.0 / 4.0 mm	3.0 m	PTFE core
0040 08 01 06	Liner alu 1.2/4.0 m Teflon	0.8- 1.2 mm	2.0 / 4.0 mm	4.0 m	PTFE core
0040 08 02 00	Teflon hose I Ø3 x A Ø4.5 wall 0.75 mm	1.6 - 2.4 mm	3.0 / 4.5 mm	Material sold by meter	PTFE core
0040 08 02 04	Liner 2.alu 1.6/2.0 m teflon	1.6 - 2.4 mm	3.0 / 4.5 mm	2.0 m	PTFE core
0040 08 02 05	Liner alu 1.6/3.0 m Teflon	1.6 - 2.4 mm	3.0 / 4.5 mm	3.0 m	PTFE core
0040 08 02 06	Liner alu 1.6/4.0 m teflon	1.6 - 2.4 mm	3.0 / 4.5 mm	4.0 m	PTFE core
0040 08 02 03	Liner alu 1.6/10 m teflon	1.6 - 2.4 mm	3.0 / 4.5 mm	10.0 m	PTFE core

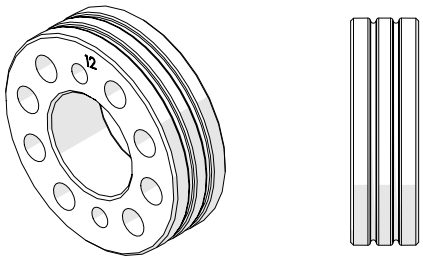
Wire feed rollers Ø 40 x 12 mm

Dimensions

- Ø 40 x 12 mm
- 2 equal grooves
- 2 different grooves at flux cored wire

To be used for drive variant

- QN-WF-12
- QN-WF-12 HD



To be used in

Welding machine

- QINEO Champ, QINEO Pulse, QINEO Tronic. QINEO Tronic Pulse, QINEO Step 350 - 600

Wire drive unit

- QWD-A, QWD-M, QWD-P, QWD-Twin, CK 78-98-118

for wire Ø	Steel, steel high-alloyed	Aluminium	Fluxed core wire
	V 40°	U	knurled
0.60			
0.80	0046033208		
0.90	0046033209		
1.00	0046033210	0046033310	0046033416
1.14	0046033211		
1.20	0046033212	0046033312	0046033416
1.32	0046033213		
1.40	0046033214		0046033416
1.60	0046033216	0046033316	0046033416
2.00			
2.40			

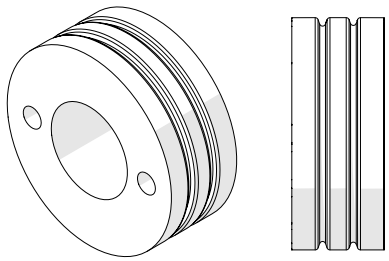
Wire feed rollers Ø 40 x 12 mm

Dimensions

- Ø 40 x 12 mm
- 2 equal grooves
- 2 different grooves at flux cored wire

To be used for drive variant

- QN-WF-22
- QN-WF-22 HD



To be used in

Welding machine

- QINEO Champ, QINEO Pulse, QINEO Tronic. QINEO Tronic Pulse

Wire drive unit

- QWD-A, QWD-M, QWD-P, QWD-Twin

for wire Ø	Steel, steel high-alloyed	Aluminium	Fluxed core wire
	V 40°	U	knurled
0.60	0046050106		
0.80	0046050108	0046050207	
0.90	0046050109	0046050209	
1.00	0046050110	0046050210	0046050310
1.14	0046050111		0046050310
1.20	0046050112	0046050212	0046050310
1.32	0046050113		0046050310
1.40	0046050114	0046050214	0046050310
1.60	0046050116	0046050216	0046050310
2.00	0046050120	0046050220	0046050320
2.40	0046050124		0046050320

Combination rollers Ø 40 x 17 mm

Dimensions

- Ø 40 x 17 mm
- 1 groove

Welding machine

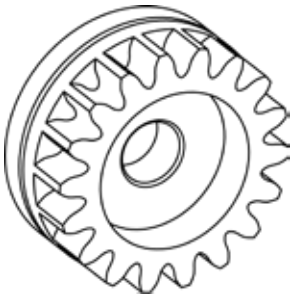
- QINEO Champ, QINEO Pulse, QINEO Tronic. QINEO Tronic Pulse, QINEO Step 350 - 600

Wire drive unit

- QWD-A, QWD-M, QWD-P, QWD-Twin, CK 78-98-118

To be used for drive variant

- QN-WF-12



for wire Ø	Steel, steel high-alloyed	Aluminium	Fluxed core wire
	Groove V 35°	Groove V 90°	knurled
0.60	0046043206	0046043306	
0.80	0046043208	0046043308	
0.90			
1.00	0046043210	0046043310	
1.14			
1.20	0046043212	0046043312	
1.32			
1.40			
1.60	0046043216	0046043316	0046043416
2.00			
2.40			

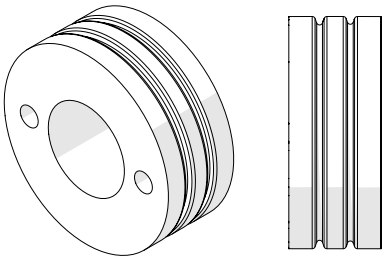
Wire feed rollers Ø 30 x 12 mm

Dimensions

- Ø 30 x 12 mm
- 2 equal grooves
- calibrated

To be used in

- CDD 2
- QWD-AR



for wire Ø	Steel, steel high-alloyed	Aluminium	Fluxed core wire
	Groove V 40°	Groove V 40°	knurled
0.80	0046032608	0046032608	
0.90	0046032609	0046032609	
1.00	0046032610	0046032610	0046032216
1.14			
1.20	0046032612	0046032612	0046032216
1.32	0046032613	0046032613	
1.40			0046032216 0046032224
1.60	0046032616	0046032616	0046032216 0046032224
2.00			0046032224
2.40			0046032224

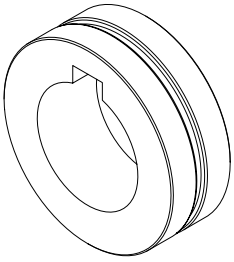
Wire feed rollers Ø 28 x 10 mm

Dimensions

- Ø 28 x 10 mm
- 1 groove

To be used in

- TIG Drive



for wire Ø	Steel, steel high-alloyed	Aluminium
	Groove V 40°	Groove V 40°
0.80	0046031608	0046031608
0.90		
1.00	0046031610	0046031610
1.14	0046031611	0046031611
1.20	0046031612	0046031612
1.32		
1.40	0046031614	0046031614
1.60	0046031616	0046031616
2.00		
2.40		

Rolliner NG

Technical data	0041021600
Connection	1/4" or 3/8" female thread
Length	Material sold by meter
for wire Ø	0.8 - 1.6 mm

Protection hose for Rolliner NG

Technical data	0041021630
Length	Material sold by meter

Armoured hose for Rolliner NG

Technical data	0041021640
Length	Material sold by meter

Connection kit Rolliner NG

Technical data	0041021620
Connection	1/4" female thread

Rolliner XL

Technical data	0041021650
Connection	1/4" or 3/8" plug nipple
Length	0- 25 m ready for use
for wire Ø	up to max. 4 mm

QINEO Powerglide

Ready-made

with quick coupling and antikink spring

Technical data	00410320xx
Connection	1/4"
Length	1.4 m - 5 m
for wire Ø	up to max. 4 mm

Hood for wire coil

Technical features

- complete with connection

Technical data	0601140016
Connection	3/8" male thread

Coil bracket (without wire guide hose)

Application

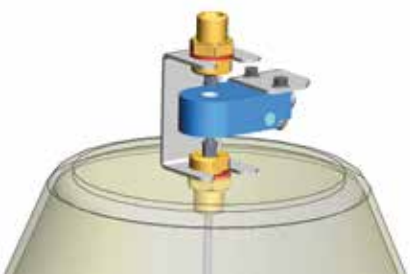
for wire coil support

Technical data	0047190000
Connection	3/8" male thread

Contact sensor wire end control

Technical data	0049010510
for wire Ø	0.8 - 1.6 mm

Ring sensor wire end control



Technical data	0043082700
for wire Ø	0.8 - 1.6 mm

Tungsten Inert Gas Welding (TIG)

Tungsten electrodes and inert gases such as argon and helium are used for TIG welding. The arc produces heat and burns between the non depositing Tungsten electrode and the workpiece. The weld pool shielding is made by the inert shielding gas which prevents a reaction of the electrode and the workpiece with oxygen or ambient air.

The TIG arc melts the workpiece edges, they merge and solidify to a weld seam. Weld grooves are surfaced and filled by means of filler materials which are fed either manually via weld rods or automated with spooled wire via cold wire transport.

QINEO GL 202 DC

Processes

TIG-DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

remote control
2 cycle operation
4 cycle operation
High-frequency ignition
Mains voltage compensation
50 storable programs
Gas hose
Carrying belt

Options

Hand remote control
Foot remote control
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.

Technical data	0835200000
Welding current	5 A - 200 A DC
Welding current	200A (30% ED*)
Welding current 60% duty cycle*	
Welding current 100% duty cycle*	130 A
Open circuit voltage	83 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm²
Mains protection/230V	16 A
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	400 x 160 x 260 mm
Weight compact unit	9,8 kg

*at an ambient temperature of 40°C

QINEO GL 222 DC

Processes

TIG-DC welding
Stick electrode welding

Applications

Industry
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

remote control
2 cycle operation
4 cycle operation
High-frequency ignition
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
Carriage with bottle holder
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.

Technical data	0835210000
Welding current	5 A - 220 A DC
Welding current	220A (35% duty cycle*)
Welding current 60% duty cycle*	190 A
Welding current 100% duty cycle*	160 A
Open circuit voltage	81 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm²
Mains protection/230V	20 A - 230 V
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	460 x 230 x 325 mm
Weight compact unit	18 kg

* at an ambient temperature of 40°C

QINEO GL 302 DC

Processes

TIG-DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

remote control
2 cycle operation
4 cycle operation
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.

Technical data	0835230000
Welding current	5 A - 300 A DC
Welding current	300 A (50% duty cycle*)
Welding current 60% duty cycle*	250 A
Welding current 100% duty cycle*	210 A
Open circuit voltage	76 V
Mains voltage	3 x 400 V
Connection cable	4 x 2,5 mm²
Mains protection/230V	20 A
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	460 x 230 x 325 mm
Weight compact unit	19.9 kg

* at an ambient temperature of 40°C

QINEO GL 502 DC

Processes

TIG-DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

remote control
2 cycle operation
4 cycle operation
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
Carriage with bottle holder
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.
-

Technical data	0835260000
Welding current	5 A - 500 A DC
Welding current	500 A (50% duty cycle*)
Welding current 60% duty cycle*	460 A
Welding current 100% duty cycle*	400 A
Open circuit voltage	85 V
Mains voltage	3 x 400 V
Connection cable	4 x 6 mm²
Mains protection/230V	32 A
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	690 x 290 x 450 mm
Weight compact unit	54 kg

* at an ambient temperature of 40°C

QINEO GLW 222 AC/DC

Processes

TIG AC/DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

remote control
2 cycle operation
4 cycle operation
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
Carriage with bottle holder
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.
- **Mix TIG AC/DC** Combination of DC and AC welding (with GLW).

Technical data	0835220000
Welding current	5 A - 220 A AC/DC
Welding current	220 A (35% duty cycle*)
Welding current 60% duty cycle*	190 A
Welding current 100% duty cycle*	160 A
Open circuit voltage	81 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm²
Mains fuse / 230V	20 A - 230 V
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	400 x 230 x 325 mm
Weight compact unit	18 kg

* at an ambient temperature of 40°C

QINEO GLW 302 AC/DC

Processes

TIG AC/DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

remote control
2 cycle operation
4 cycle operation
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
Carriage with bottle holder
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.
- **Mix TIG AC/DC** Combination of DC and AC welding (with GLW).

Technical data	0835290000
Welding current	5 A - 300 A AC/DC
Welding current	300 A (30% duty cycle*)
Welding current 60% duty cycle*	220 A
Welding current 100% duty cycle*	180 A
Open circuit voltage	59 V
Mains voltage	3 x 400 V
Connection cable	4 x 2,5 mm²
Mains protection	20 A
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	460 x 230 x 325 mm
Weight compact unit	19.9 kg

* at an ambient temperature of 40°C

QINEO GLW 322 AC/DC

Processes

TIG AC/DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

remote control
2 cycle operation
4 cycle operation
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
Carriage with bottle holder
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.
- **Mix TIG AC/DC** Combination of DC and AC welding (with GLW).

Technical data	0835300000
Welding current	5 A - 320 A AC/DC
Welding current	320 A (45% duty cycle*)
Welding current 60% duty cycle*	280 A
Welding current 100% duty cycle*	240 A
Open circuit voltage	66 V
Mains voltage	3 x 400 V
Connection cable	4 x 2,5 mm²
Mains protection	25 A
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	690 x 290 x 450 mm
Weight compact unit	54 kg

* at an ambient temperature of 40°C

QINEO GLW 502 AC/DC

Processes

TIG AC/DC welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

remote control
2 cycle operation
4 cycle operation
Power Factor Corrector (PFC)
Mains voltage compensation
50 storable programs
Gas hose

Options

Hand remote control
Foot remote control
Carriage with bottle holder
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
external cooling unit

TIG functions

- **Quick Start** Time for tack welding is reduced to a minimum.
- **Dynamic Arc** Active arc control, welding with a very short arc.
- **Quick Spot** Perfect tacking results thanks to the clever process run.
- **Multitack** Reduction of the heat input to a minimum.
- **Mix TIG AC/DC** Combination of DC and AC welding (with GLW).

Technical data	0835270000
Welding current	5 A - 500 A AC/DC
Welding current	500 A (30% duty cycle*)
Welding current 60% duty cycle*	380 A
Welding current 100% duty cycle*	340 A
Open circuit voltage	82 V
Mains voltage	3 x 400 V
Connection cable	4 x 6 mm²
Mains protection	32 A
Type of protection	IP 23 S
Insulation class	H
Dimensions LxWxH compact unit	690 x 290 x 450 mm
Weight compact unit	54 kg

* at an ambient temperature of 40°C

Cooling units FC 10 and FC 28

External cooling module, perfectly matched to our compact TIG systems. Easily to be mounted below the power source and to be connected.

FC 10 suitable for

QINEO GL/GLW 222 and GL/GLW 302

FC 28 suitable for

QINEO GL/GLW 322, 502

Technical data	0835200500	0835300500
Mains voltage	230 V	230 V
Power consumption	1.35 A	
Cooling capacity	1.18 kW	2.8 kW
Maximum pressure	0.44 MPa	0.44 MPa
Tank contents	2.2 l	2.2 l
Type of protection	IP 23	IP 23
Dimensions LxWxH	530 x 230 x 210	720 x 290 x 235
Weight	12.0 kg	15.0 kg

Carriage for GL/GLW 222 and GL/GLW 302

suitable for

QINEO GL/GLW 222 and GL/GLW 302

Standard equipment

Gas bottle holder

Technical data	0835200100
Dimension LxWxH	95 x 500 x 900 mm

Carriage for GL/GLW 322-502

suitable for

QINEO GL/GLW 222-502

Standard equipment

Gas bottle holder

Technical data	0835300100

Hand remote control RC 03 H

Type

Hand remote control

suitable for

QINEO GL/GLW 202-502

Technical data	0835200300	0835200305	0835200310	0835200320
Part	Hand remote control	Connection cable	Connection cable	Connection cable
Cable length	without connection cable	5 m	10 m	20m
Connection	Military plug			

Foot remote control RC 03 F

Type

Foot remote control

suitable for

QINEO GL/GLW 202-502

Technical data	0835200200	0835200205	0835200210	0835200220
Part	Foot remote control	Connection cable	Connection cable	Connection cable
Cable length	without connection cable	5 m	10 m	20m
Connection	Military plug			

TIG Manual welding torches

TIG welding torches lead the energy to the welding point to melt the materials and the shielded gas to shield the molten pool. They are connected with the power source and the gas source via cable assemblies and controllers.

Gas-cooled welding torches are sufficient for small welding capacities, water cooled torches are required for higher capacities. We supply standard welding torches as well as special welding torches.

TIG Manual welding torch QN-TT-HG-150

Type of cooling	gas cooled
Capacity DC	150 A
Power AC	120 A
Duty cycle (ED)	60%
Electrode gage	0.5-3.2 mm
Equipped for electrode	1.6 mm

Technical data	0875020400	0875020800	0875120400	0875120800
Torch trigger	Double push button	Double push button	Single push button	Single push button
Length cable assembly	4 m	8 m	4 m	8 m
Connection	S connection	S connection	K connection	K connection

TIG Manual welding torch QN-TT-HG-200

Type of cooling	gas cooled
Capacity DC	200 A
Power AC	160 A
Duty cycle (ED)	60%
Electrode gage	0.5-4.0 mm
Equipped for electrode	2.4 mm

Technical data	0875030400	0875030800	0875130400	0875130800
Torch trigger	Double push button	Double push button	Single push button	Single push button
Length cable assembly	4 m	8 m	4 m	8 m
Connection	S connection	S connection	K connection	K connection

TIG Manual welding torch QN-TT-HW-250

Type of cooling	water cooled
Duty cycle (ED)	100%
Capacity DC	250 A
Power AC	200 A
Electrode gage	0.5-3.2 mm
Equipped for electrode	2.4 mm

Technical data	0875040400	0875040800	0875140400	0875140800
Torch trigger	Double push button	Double push button	Single push button	Single push button
Length cable assembly	4 m	8 m	4 m	8 m
Connection	S connection	S connection	K connection	K connection

TIG Manual welding torch QN-TT-HW-350

Type of cooling	water cooled
Capacity DC	350 A
Power AC	280 A
Duty cycle (ED)	100%
Electrode gage	0.5-4.0 mm
Equipped for electrode	2.4 mm

Technical data	0875050400	0875050800	0875150400	0875150800
Torch trigger	Double push button	Double push button	Single push button	Single push button
Length cable assembly	4 m	8 m	4 m	8 m
Connection	S connection	S connection	K connection	K connection

TIG Manual welding torch QN-TT-HW-400

Type of cooling	water cooled
Capacity DC	400 A
Power AC	320 A
Duty cycle (ED)	100%
Electrode gage	0.5-4.8 mm
Equipped for electrode	3.2 mm

Technical data	0875060400	0875060800	0875160400	0875160800
Torch trigger	Double push button	Double push button	Single push button	Single push button
Length cable assembly	4 m	8 m	4 m	8 m
Connection	S connection	S connection	K connection	K connection

TIG Manual welding torch QN-TT-HG-200P

Special feature	Potentiometer
Type of cooling	gas cooled
Capacity DC	200 A
Power AC	160 A
Duty cycle (ED)	60%
Electrode gage	0.5-4.0 mm
Equipped for electrode	2.4 mm

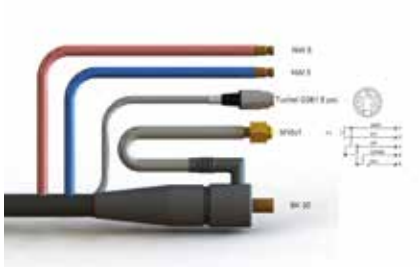
Technical data	0875330400	0875330800
Length cable assembly	4 m	8 m
Connection	K connection	K connection

TIG Manual welding torch QN-TT-HW-250P

Special feature	Potentiometer
Type of cooling	water cooled
Capacity DC	250 A
Power AC	200 A
Duty cycle (ED)	100%
Electrode gage	0.5-4.0 mm
Equipped for electrode	2.4 mm

Technical data	0875340400	0875340800
Length cable assembly	4 m	8 m
Connection	K connection	K connection

TIG Welding torch connection: K connection



Suitable for

QINEO GL/GLW 202-222

Power connection

SK 35 (Ø 13 mm)

Gas connection

M10x1 union nut

Cooling water

Plug nipple NW5

TIG Robot welding torch:

TIG Robot torches by CLOOS stand for easy handling during production and for very good capacity data. Other advantages are a long service-life and precision. For high demands and versatile applications.

TIG Robot welding torch: TMW 320 RO

Capacity DC	320 A
Type of cooling	water cooled
Duty cycle (ED)	100%
Special feature	Electrode change from the change
Equipped for electrode	3.2 mm

Technical data	0523100000	0523130450	0523130700	0523130900	0523131100
Length cable assembly	without cable assembly	3.5 m	5 m	8 m	10 m

TIG Robot welding torch: RB 60 D

Capacity DC	400 A
Type of cooling	water cooled
Special feature	Change accuracy max. 0.1 mm
Equipped for electrode	3.2 mm

Technical data	0875003313	0875003311	0875005056
Length cable assembly	without cable assembly	4 m	8 m

TIG Robot welding torch: TMW Torch bracket

Angle

45°

Technical data	0850642715	0072012660
Equipment	with cut-off	Tracer pin / with cut-off

TIG Robot welding torch: Cold wire feeder CWD

Options

Sensors

Angle

45°

Technical data	0535435000	0072021350
Equipment	integrated cold wire feed / with cut-off	Tracer pin / with cut-off

MMA Welding

Manual electrode welding (also called MMA welding) is one of the oldest welding processes which is still used today. It can be traced back to the experiments of Mr. Slawjanow in 1891 who first used a metal rod instead of the carbon electrodes which were common until then. The first stick electrodes were not coated and therefore difficult to weld. Later the stick electrodes were coated with different materials. Thus welding was improved and the weld seam was shielded.
The special features of MMA welding are a relatively low investment and universal application possibilities. This process can be used for many materials and ensures high-quality weld seams. For reasons of economy MMA welding recently was replaced by other welding processes which can also be used fo automated welding, such as for example the MIG/MAG welding.

Portable Inverter Welding Unit CLE 202

Processes

TIG DC
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

Liftstart
Power Factor Corrector (PFC)
Mains voltage compensation

Options

TIG torch
Stick electrode holder
Earth cable with pliers

Technical data	QINEO CLE 202 (DC)
Welding current	5 A - 200 A
Welding current 25% duty cycle	200A
Welding current 100% duty cycle	100 A
Open circuit voltage	71 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm²
Mains protection/230V	16 A - 230 V
Type of protection	IP 22 S
Insulation class	F
Dimensions LxWxH compact unit	500 x 195 x 365 mm
Weight compact unit	10 kg

Portable Inverter Welding Unit CLE 352

Processes

TIG DC
Stick electrode welding

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

remote control
Vertical-down welding
Liftstart
Hot Start
Anti Stick
Mains voltage compensation
Suitable for cellulose electrodes

Options

TIG torch
Stick electrode holder
Earth cable with pliers

Technical data	QINEO CLE 352 (DC)
Welding current	5 A - 350 A
Welding current 40% duty cycle	350 A
Welding current 100% duty cycle	220 A
Open circuit voltage	60 V- 80 V
Mains voltage	400 V
Connection cable	4 x 4 mm²
Mains protection/230V	35 A
Type of protection	IP 22 S
Insulation class	F
Dimensions LxWxH compact unit	680 x 310 x 520 mm
Weight compact unit	30.1 kg

Remote control RC 20H

Type

Hand remote control

suitable for

QINEO CLE 352

Technical data	0835190300
Cable length	5 m
Connection	Military plug

MMA welding cable

Suitable for

QINEO CLE, GL and GLW series

Connection

SK 35 (Ø 13 mm)

Technical data	0875004110	0875004111	0875004112
Cable	25 mm²	35 mm²	50 mm²
Length cable assembly	4 m	4 m	4 m

TIG Valve welding torch: QN-TT-HG-150V

Type of cooling	gas cooled
Capacity DC	150 A
Duty cycle (ED)	60%
Electrode gage	0.5-3.2 mm
Equipped for electrode	1.6 mm

Technical data	0875220400	0875220800
Torch trigger	Valve for shielding gas	Valve for shielding gas
Length cable assembly	4 m	8 m
Connection	SK 35, G1/4	SK 35, G1/4

Earth cable

Suitable for

QINEO CLE, GL and GLW series

Length cable assembly

4 m

Connection

SK 35 (Ø 13 mm)

Technical data	0875004113	0875004114	0875004115	0875004116
Cable	25 mm²	35 mm²	50 mm²	70 mm²

QINEO QinTron MMA

Processes

Stick electrode welding
TIG DC (with Liftstart)
Gouging

Areas of application

Industry
Workshops
Repair
Metal engineering and portal construction
Metalworking shop and forge
System/container construction
Mechanical engineering/steel construction

Base materials

Structural steel
CrNi steel

Standard equipment

Welding capacity 400 A
Digital display
Pedestals
remote control
Vertical-down welding
Liftstart
Hot Start
Anti Stick
Mains voltage compensation
Suitable for cellulose electrodes

Options

Remote Control
Peripheral socket
TIG torch
Stick electrode holder
Earth cable with pliers
Wheels Offroad
Pedestals
Bottle holder
Filter mat

Technical data	QinTron 400	QinTron 500	QinTron 600
Welding current	20 A / 15 V - 400 A / 36 V	20 A / 15 V - 500 A / 40 V	20 A / 15 V - 600 A / 44 V
Welding current 40% duty cycle	-	-	600 A
Welding current 60% duty cycle	400 A	500 A	500 A
Welding current 100% duty cycle	400 A	400 A	400 A
Open circuit voltage	64 V	64 V	64 V
Mains voltage	380 V - 460 V / 50 Hz / 3-ph	380 V - 460 V / 50 Hz / 3-ph	380 V - 460 V / 50 Hz / 3-ph
Connection cable	4 x 6 mm²	4 x 6 mm²	4 x 6 mm²
Mains protection/400V	35 A	35 A	35 A
Type of protection	IP 23	IP 23	IP 23
Insulation class	H	H	H
Type of cooling	F	F	F
Dimensions LxWxH (without wire drive)	740 x 350 x 430 mm	740 x 350 x 430 mm	740 x 350 x 430 mm
Weight (without wire drive)	50.7 kg	50.7 kg	50.7 kg

MMA welding cable

Suitable for

QINEO QinTron

Connection

SK 35 (Ø 13 mm)

Technical data	0875004112	
Cable	50 mm²	
Length cable assembly	4 m	

QINEO Series: Earth cable 70 / 95 mm² with earth terminal

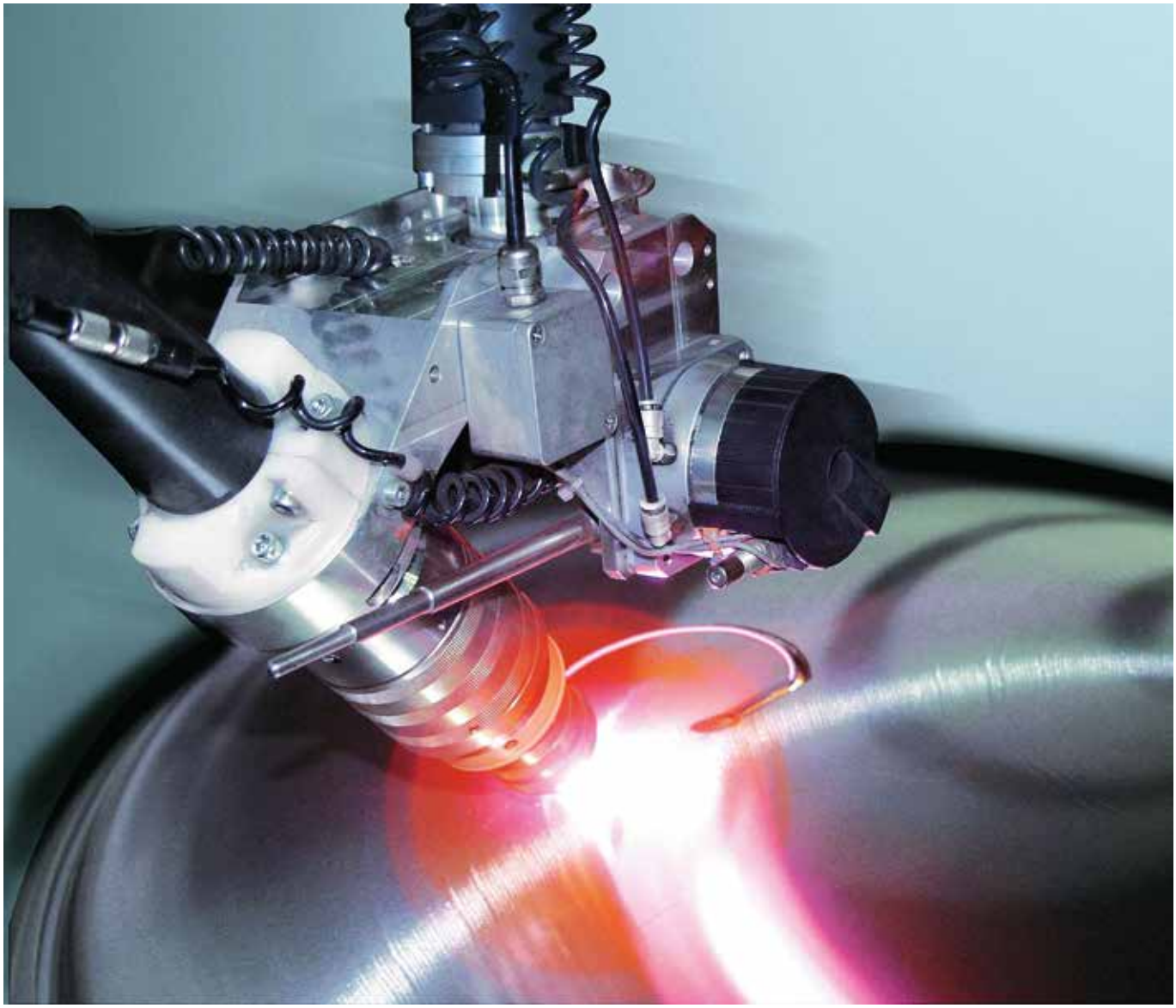
optional for

QINEO QinTron

Technical data	0554010110	0554010310	0555010300	0555010310
Length	5 m	10 m	5 m	10 m
for capacity class	450 A	450 A	600 A	600 A
Cross section	70 mm²	70 mm²	95 mm²	95 mm²

Plasma cutting

A power source, an earth cable, an compressed air supply and a plasma flame cutter is required for plasma cutting. A plasma cutting unit generates an arc between a plasma electrode and the workpiece. Plasma is an electroconductive gas with a temperature of approx. 30,000°C. The plasma arc is normally ignited with a contact ignition and restricted by a plasma nozzle. The contact ignition is similar to the Liftstart ignition which is used by TIG welding machines. When the plasma nozzle touches the workpiece, the plasma flame cutter is pushed away from the workpiece surface by the compressed air and the arc is ignited. After ignition, the electronics of the welding power source increases the cutting current to the amperage which is necessary for cutting. Due to the high arc energy density the metal melts and is blown off by the compressed air jet thus forming the cutting groove. Nearly every metal can be cut by the plasma cutting process with compressed air.



QINEO PLASMA CUT 30

Processes

Plasma cutting with compressed air

Applications

Industrie
Workshops
Repair
Metalworking shop and forge
Pipeline construction
Equipment manufacturing
System/container construction

Base materials

Structural steel
CrNi steel

Standard equipment

Power Factor Corrector (PFC)
Mains voltage compensation

Options

Circle cutting set

Technical data	QINEO Plasma Cut 30
Welding current	10 A - 30 A
Welding current 30% duty cycle	30 A
Open circuit voltage	310 V
Air pressure	4 - 5 bar
Air flow quantity	100 l/min
Mains voltage	230 V
Type of protection	IP 22
Insulation class	H
Plate thickness	up to 10 mm
Dimensions LxWxH compact unit	380 x 155 x 320 mm
Weight compact unit	8 kg

Plasma manual flame cutter QN PT 40

Processes
Suitable for
Power

Plasma cutting
QINEO PLASMA CUT 30
up to 8 mm quality cut

Technical data	0835171000
Length cable assembly	4 m
Connection	Fixed connection

Circle cutting set

suitable for

QINEO PLASMA CUT 30

Technical data	0835171006

Laser Hybrid Weld

Compared to traditional Tandem and MAG welding, considerable savings in production time and filler material are possible. Full-depth welds can be welded without preparation. Moreover a high weld speed can be reached when welding either thin plates or thick plates. Today, components for construction machinery, railway carriages and commercial vehicles as well as for the automotive industry are being produced on CLOOS Laser hybrid MIG/MAG welding systems.

Laser Hybrid MIG/MAG head: Standard

Processes

Laser Hybrid MIG/MAG

Guidance

automated

Laser capacity

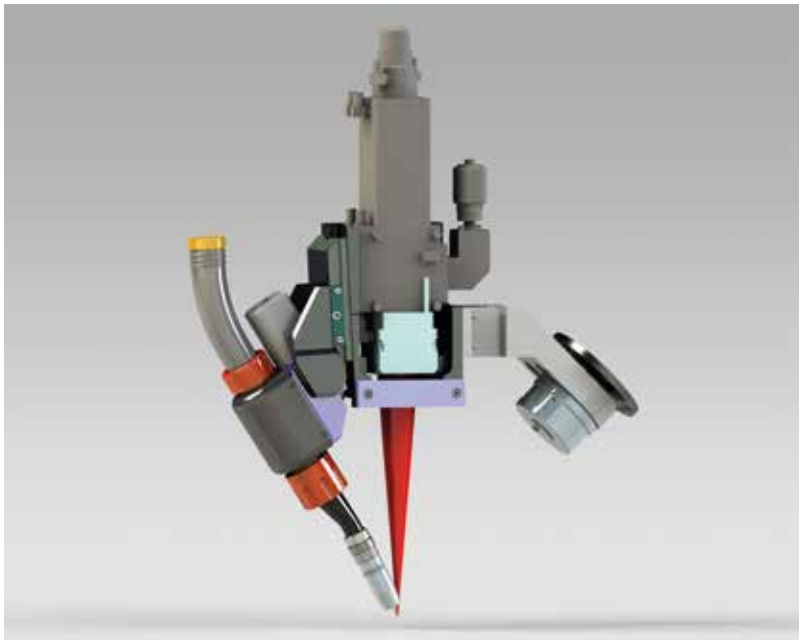
up to 20 kW

Options

Sensors
Integrated camera
Changing system

Focusing

300 mm



Technical data	Standard head
Adjustment in X	+ 15 mm
Adjustment in Y	+- 40 mm
Adjustment in Z	+- 5 mm

Laser Hybrid MIG/MAG head: 7th axis

Processes

Laser Hybrid MIG/MAG

Guidance

automated

Laser capacity

up to 20 kW

Options

Sensors
Integrated camera
Changing system

Focusing

300 mm

Technical data	Laser hybrid head LHH - 7th axis / F300
Adjustment in X	+ 15 mm
Adjustment in Y	+- 15 mm
Adjustment in Z	+- 5 mm

Laser Hybrid MIG/MAG head: Angular optics

Processes

Laser Hybrid MIG/MAG

Guidance

automated

Laser capacity

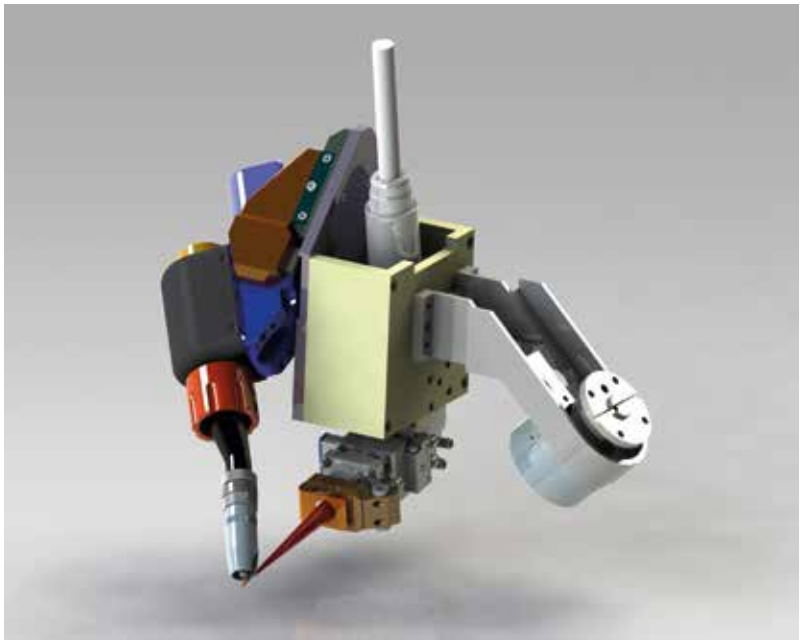
6 kW

Options

Sensors
Integrated camera
Changing system

Focusing

250 mm



Technical data	Laser hybrid head LHP - IMG
Adjustment in X	+ 15 mm
Adjustment in Y	+- 20 mm
Adjustment in Z	+- 5 mm

Accessories welding technology

The Cloos delivery program also comprises the welding accessories which are necessary for your work. We offer products for occupational health and safety, welding accessories as well as components for daily use (anti-spatter fluid).

Cutter for wire guide hoses

Application

Hose cutting to length

Technical data	0875100030
Diameter	Ø 0 - 14 mm

Sharpener for wire guide hoses

Application

Hose sharpening

Technical data	0875100031
Diameter	Ø 0 - 7 mm

Socket wrench for current tips

Application

Safe mounting of current tips

Technical data	0062040100	0062040300	0062040200
Wrench size	5 mm	6.5 mm	8mm

Spot welding attachment for gas nozzle

Application

for safe spot welding

Technical data	0065003010	0065004010
Diameter	Ø 24 mm	Ø 26 mm

MIG/MAG torch bracket with magnet

Technical data	0875100033
Magnet holding power	350 kg/N
Width between jaws	50mm

TIG torch bracket with magnet

Technical data	0875100034
Magnet holding power	350 kg/N
Width between jaws	50mm

Anti-spatter spray CS 30 (ceramic)

Application

Gas nozzles
Welding torch interiors
Tools

Technical data	0064000007
Design	Design

Silicon-free spray

Application

Gas nozzles
Welding torch interiors
Tools
Workpieces

Technical data	0064000005
Design	Design

Accessories automation

No matter which degree of automation you need for your welding tasks - Cloos offers you modular systems that can be adapted to your production requirements.

Bottom flange 60

Application

to clamp pipes Ø 60 mm

Technical data	0850641141
Diameter	Ø 60 mm

Flange terminal 60

Application

for component support

Technical data	0850641142
Diameter	Ø 60 mm

Clamping piece 60

Application

to connect pipes Ø 60 mm

Technical data	0850641143
Diameter	Ø 60 mm

Coil bracket (without wire guide hose)

Application

for wire coil support

Technical data	0047190000
suitable for	15 kg coils

Distance plate for wire coil bracket

Application

for component support

Technical data	0850009503
suitable for	Wire coil bracket

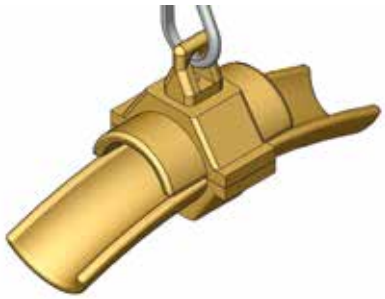
Plate for console

Application

for component support

Technical data	0850009502
suitable for	QWD-A

Cable holder



Application

to guide cable assemblies

Technical data	0850641000
Design	to be mounted double (Tandem)

Spring balancers for cable assemblies

Application

for component support

Technical data	0850640400	0850640410
Design	load 1.0 - 2.0 kg	load 3.0 - 5.5 kg

Balancer single wire complete

Application

to guide cable assemblies

Technical data	0864000600
Design	completely equipped

Balancer Tandem complete

Application

to guide cable assemblies

Technical data	0864001700
Design	completely equipped

Angle bracket for robot base

Application

Torch cleaning support

Technical data	0934156220

Weld your way!

Providing added value for our customers! This is the motivational force behind our 700 employees. We are constantly raising the bar by pushing ourselves to provide innovative welding processes and solutions that will contribute to the long-term commercial success of your company!
Our process competence is at the forefront in welding and cutting of various ferrous and non-ferrous metals. We offer our customers individual solutions which are optimised and adapted specifically to your product and production requirements. Leadership and competence equals process automation and welding at its best.

Whatever your needs are, we “Weld your way.”
CLOOS develops, manufactures and delivers innovative solutions in more than 40 countries worldwide.

With QINEO, the new generation of welding machines for manual and automated applications, and
QIROX, the system for automated welding and cutting, our product range covers the entire spectrum of arc welding technology. Our product portfolio includes intelligent software, sensor and safety technology solutions – all of which are customised to meet your specific needs and requirements! CLOOS provides full service solutions – all from a single source!

QINEO

Arc welding at the highest level:

- Power sources
- Wire drive units
- Welding torches
- Connection cable assemblie
- Accessories

QIROX

Everything for automated welding and cutting.

- Robot mechanics
- Robot controllers
- Robot positioners
- Workpiece positioners
- Sensors
- Software

Service Hotline

✆ +49 (0) 27 73/85-132

Service

Service - The "Power Plus" for your production success:

- Efficiency check
- Simulation
- Test installation
- Training
- Hotline
- Spare parts management

Note

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CLOOS

Weld your way.

QINEO 11/02/16