

CLOOS

Weld your way.

Weld your way.

Product catalogue 2013



Weld your way.

CLOOS: Your brand for innovative welding technology!

Providing added value for our customers! This is the motivational force behind our 700 employees. We are constantly raising our 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 optimized 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 to more than 40 countries worldwide. With our **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!

Benefits of choosing CLOOS:

- Unique and customised process and product solutions:
→ Delivering you more commercial success!
- High level of industrial and engineering competence:
→ We know what matters to you!
- Professional advice and a high level of global service quality:
→ From start to finish, we are with you all the way!
- Superior quality and technological know-how:
→ “Made in Germany” can be relied on.

We offer optimised solutions with maximum efficiency and a high degree of welding and cutting products that are customised to your application: And we have been doing this for over 90 years!

Cloos
Weld your way.



Additional information regarding QIROX® the system for automatic welding and cutting can be obtained at www.qirox.de

qirox®



Additional information regarding QINEO® the new range of welding machines can be obtained at www.qineo.de

qineo®



„Our aim is to make our customers' production processes more efficient.
We want to give our customers considerable advantages with innovative products
such as QINEO® and QIROX®.“



Content

QINEO®: The new generation of welding power sources.....	12	
Modularity / Configuration.....	14	
Gas shielded metal arc welding.....		1
Gas shielded metal arc welding (MIG/MAG)	15	
QINEO MICRO 180.....	16	
QINEO MICRO PULSE 200.....	17	
Pressure reducer for QINEO MICRO / MICRO PULSE.....	18	
Carriage for QINEO MICRO / MICRO PULSE	18	
Adapter cable CEE 32A / Schuko plug 230V	19	
QINEO BASIC 180 - 300	20	
QINEO BASIC 350 - 450	21	
QINEO series.....		2
QINEO Series: STEP 250 - 300	24	
QINEO Series: STEP 350-450-600.....	25	
QINEO Series: STEP CO2 Edition.....	26	
QINEO Series: Operating panel STEP	27	
QINEO Series: QINEO TRONIC	29	
QINEO Series: QINEO TRONIC PULSE.....	31	
QINEO Series: QINEO PULSE	33	
QINEO Series: QINEO CHAMP	35	
Options and Accessories for QINEO-series.....		2.1
Options	37	
QINEO Series: Operating panels ECO, MASTER, PREMIUM.....	38-41	
QINEO Series: Remote Program Unit (RPU) ECO, MASTER, PREMIUM.....	42-44	
QINEO Series: Accessories RPU.....	44	
QINEO Series: Filter mat.....	45	
QINEO Series: Wheels Offroad.....	45	
QINEO Series: Carriage for QINEO TRONIC	46	
QINEO Series: Pedestals.....	46	
QINEO Series: Remote Control RC	47	
QINEO Series: Kit remote control RC.....	47	
QINEO Series: Flow meter water	48	
QINEO Series: Protective shield for operating panel	48	
QINEO Series: Support for QWD.....	49	
QINEO Series: Gas bottle holder.....	49	
QINEO Series: Mains connection cable	50	
QINEO Series: Earth cable with earth terminal	50	
QINEO Series: Adapter basket coil	51	
QINEO Series: Pressure reducer standard	51	
Point-of-use pressure reducer QN-PR-10	52	
Adapter Euro ZA on MMA.....	52	
QINEO DATA MANAGER	53	
QINEO Series: Interfaces	54	
QINEO Series: Weld data monitoring (SD) power source part.....	56	
QINEO Series: Seam tracking power source part.....	56	
QINEO Series: Gas nozzle sensor	57	
Wire drive units QINEO-series.....		2.2
QINEO Series: Wire drive unit QINEO WIRE DRIVE (QWD)	59	
QINEO Series: Wire drive unit QWD STANDARD.....	60	
QINEO Series: Wire drive unit QWD TWIN DRIVE	61	
QINEO Series: Wire drive unit QWD-M2	62	
QINEO Series: Wire drive unit QWD-A	63	

QINEO Series: Wire drive unit QWD-AR.....	64
QINEO Series: Wire drive unit QRH-I.....	65
QINEO Series: Wire drive unit QWD options.....	67
QINEO Series: Protective shield for operating panel QWD.....	68
QINEO Series: Transport carriage QWD STANDARD	68
QINEO Series: Crane support QWD.....	69
QINEO Series: Crane support with lifting belt QWD.....	69
QINEO Series: Crane support QWD-M2	70
QINEO Series: Handles QWD-M2	70
QINEO Series: Weld data monitoring (SD) QWD part.....	71
QINEO Series: Flow meter water QWD.....	71
QINEO Series: Kit remote control RC.....	72
QINEO Series: Assembly kit Cloos Duo Drive (CDD II).....	72
QINEO Series: Kit Wire End Control.....	73
QINEO Series: Connection cable assemblies (VSP).....	75
QINEO Series: Connection cable assemblies CM (manual).....	76
QINEO Series: Connection cable assemblies CA (automation).....	77

MC3 series - QUINTO II series

3

MC3 series	80
Quinto II series	81
MC3 series: Wire drive unit CK 98 A	82
QUINTO II series: Wire drive unit CK 118.....	83
QUINTO II series: Wire drive unit CK 118 R/K	84
MC3 and QUINTO II series Connection cable assemblies	85

MIG/MAG Manual welding torch

4.1

MIG/MAG Manual torch MHG 150	88
MIG/MAG Manual torch MHG 200	88
MIG/MAG Manual torch MHG 230 trigger on top.....	89
MIG/MAG Manual torch MHG 230 trigger underneath	89
MIG/MAG Manual torch MHG 250	90
MIG/MAG Manual torch MHG 301	90
MIG/MAG Manual torch QN-TM-HG-180 EUROLINE.....	91
MIG/MAG Manual torch QN-TM-HG-250 EUROLINE.....	91
MIG/MAG Manual torch QN-TM-HG-320 EUROLINE.....	92
MIG/MAG Manual torch Arcette G251.....	92
MIG/MAG Manual torch MHW 300	93
MIG/MAG Manual torch MHW 350	93
MIG/MAG Manual torch MHW 402 trigger on top.....	94
MIG/MAG Manual torch MHW 402 trigger underneath	94
MIG/MAG Manual torch MHW 520 trigger on top.....	95
MIG/MAG Manual torch MHW 520 trigger underneath	95
MIG/MAG Manual torch MHW 522	96
MIG/MAG Manual torch MHW 610	96
MIG/MAG Manual torch QN-TM-HW-270 EUROLINE	97
MIG/MAG Manual torch QN-TM-HW-450 EUROLINE	97
MIG/MAG Manual torch MHW 405 TQ	98
MIG/MAG Manual torch MHW 405 T.....	98
MIG/MAG Manual torch MHW 405 F.....	99
MIG/MAG Manual torch MHW 405 F1.....	99
MIG/MAG Manual torch Arcette W351.....	100
Types of connection Z, SZ, EURO.....	100-101

MIG/MAG Robot welding torch**4.2**

Robot welding torch MRW 300	104
Robot welding torch MRW 350	104
Robot welding torch MRW 380	105
Robot welding torch MRW 450	105
Robot welding torch MRW 500	106
Robot welding torch MRW 610	106
Robot Tandem welding torch ZMW 640 A	107
Torch bracket MRW.....	107
Torch bracket ZMW.....	108

MIG/MAG: other accessories**5**

Cloos Duo Drive II (CDD II)	108
Cloos Duo Drive II ZMW	109
Torch bracket for machines with bore hole	109
Torch bracket for machines with mandrel.....	110
Robot torch cleaning CMR-7C for MRW torch	110
Tandem torch cleaning CMR-6 T-SR for ZMW torch.....	111
Cloos Narrow gap blade *	112
Components MIG/MAG welding	113
MIG/MAG Manual welding torch: Current tips	114
MIG/MAG Robot welding torch: Current tips M8x30.....	115
MIG/MAG Manual welding torch: Gas nozzles	116
MIG/MAG robot torch: Gas nozzles.....	118
MIG/MAG Welding torch: Wire guide liners, blank.....	120
MIG/MAG Welding torch: Liners, jacketed and bronze	122
MIG/MAG Welding torch: Wire guide hoses	123
Wire guide rollers Ø40x12 (steel-, aluminium, fluxed core wire)	124-125
Combination rollers Ø40x17 (steel-, aluminium, fluxed core wire)	125-126
Wire guide rollers Ø30x12 (normal, calibrated, for aluminium and fluxed core wires)..	127-128
Wire guide rollers Ø40x18	129
Wire guide rollers Ø30x18	129
Wire guide rollers Ø28x17	130
Wire guide rollers Ø28x10	130
Rolliner NG and accessories	131-132
Rolliner XL	133
Hood for wire coil	134
Coil bracket (without wire guide hose)	134
Contact sensor wire end control	135
Ring sensor wire end control	135

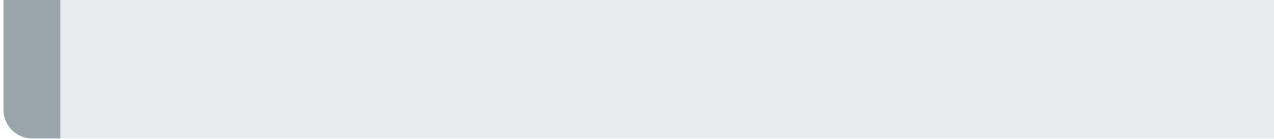
TIG-Welding**6**

Tungsten Inert Gas Welding (TIG).....	137
QINEO GL 202 DC	138
QINEO GL 222 DC	139
QINEO GLW 222 AC/DC	140
Cooling unit FC 10	141
Carriage for GL GLW 222.....	142
Hand remote control RC 03 H.....	142
Foot remote control RC 03 F	143
GL 270 350 500 DC.....	144
GL 270 350 500 DC with CWS 100	145
GLW 270 / 350 / 500 AC/DC	146
GLW 270 350 500 AC/DC with CWS 100	147

TIG Manual welding torch	7.1
TIG Manual welding torch QN-TT-HG-250.....	150
TIG Manual welding torch QN-TT-HG-200.....	150
TIG Manual welding torch QN-TT-HW-250.....	151
TIG Manual welding torch QN-TT-HW-350.....	151
TIG Manual welding torch QN-TT-HW-400.....	152
TIG Manual welding torch QN-TT-HG-200P.....	152
TIG Manual welding torch QN-TT-HW-250P.....	153
TIG Welding torch connection: K and S connection	154
TIG Robot welding torch	7.2
TIG Robot welding torch: TMW 320 RO	156
TIG Robot welding torch: RB 60 D	156
TIG Robot welding torch: TMW torch bracket.....	157
TIG Robot welding torch: Cold wire feeder CWD	157
Electrode Hand Welding	8
Portable Inverter Welding Unit CLE 202	160
Portable Inverter Welding Unit CLE 352	161
Remote control RC 20H.....	162
Electrode hand cable	162
TIG Torch: QN-TT-HG-150V	163
Earth cable.....	163
Plasma-, Plasma Powder Arc Welding	9
Plasma welding.....	165
Plasma welding machine QINEO TIG TRONIC 350 DC	166
Plasma module	167
Robot Plasma Welding Torch CPB 151/351R.....	167
Torch bracket CPB.....	168
Cold wire feeder Cloos Plasma Drive CPB.....	168
Plasma Powder Arc Welding (PPAW).....	169
Plasma welding machine QINEO TIG TRONIC 350 DC	170
Plasma module Plasma Powder	171
Powder conveyor CPF 1-6.....	171
Plasma Powder Welding Torch QN PP MW 30°	172
Torch bracket QN PP MW	172
Plasma cutting	10
QINEO PLASMA CUT 30.....	174
Plasma manual flame cutter QN PT 40	175
Circle cutting set	175
Laser Hybrid Weld	11
Laser Hybrid MIG/MAG head: Standard.....	178
Laser Hybrid MIG/MAG head: 7th axis	179
Laser Hybrid MIG/MAG head: Angular optics	180
Accessories welding technology	12.1
Accter for wire guide hoses	182
Sharpeners for wire guide hoses.....	182
Socket wrench for current tips.....	183
Spot welding attachment for gas nozzle	183
Welding safety helmet CLOOS-Arc Flash	184
MIG/MAG torch bracket with magnet	185
TIG torch bracket with magnet.....	185
Anti-spatter spray CS 30 (ceramic).....	186
Silicon-free spray.....	186

Accessories automation	12.2
Bottom flange 60	188
Flange terminal 60	188
Clamping piece 60	189
Coil bracket (without wire guide hose)	189
Distance plate for wire coil bracket	190
Plate for console	190
Cable holder	191
Spring balancers for cable assemblies	191
Balancer single wire complete	192
Balancer Tandem complete	192
Angle bracket for robot base	193
Welding processes	13
Short arc	196
Pulsed Arc	197
Cold Weld	198
Speed Weld	199
Rapid Weld	200
Tandem Weld	201
Laser MIG/MAG Hybrid Welding process	202
Overview	203
QIROX® Robots and System-solutions	205
QIROX® Robots	1
Robot mechanics	213
Robot mechanics Classic wrist	215
Robot mechanics wrist with hollow shaft	217
Robot mechanics Classic wrist with enlarged operating range by 7th axis	219
Robot mechanics hollow shaft with enlarged operating range by 7th axis	221
Robot mechanics Classic wrist, high robot base	223
Robot mechanics wrist with hollow shaft, high robot base	225
Robot Positioner	2
Robot Positioner	227
Base	228
C-frame	229
Rotating C-frame	230
C-frame with vertical stroke	231
Rotating C-frame with vertical stroke	232
Vertical stroke for upright robot	233
Rotating vertical stroke for upright robot	234
Vertical stroke for overhead robot mounting	235
Rotating vertical stroke for overhead robot mounting	236
Floor-mounted linear track	237
Overhead-mounted linear track	238
Horizontal stroke for mounting on C-frame/overhead-mounted linear track	239
Vertical stroke for mounting on an overhead-mounted linear track	240
Transverse slide for overhead robot mounting	241

Workpiece Positioner	3
Workpiece Positioner	243
Workpiece Positioner with vertical rotation	245
Workpiece Positioner with vertical rotation and vertical stroke	247
Workpiece Positioner with horizontal rotation	249
Workpiece Positioner with vertical rotation with counter bearing	251
Counter bearing.....	253
Workpiece Positioner with vertical rotation with roller support.....	255
Counter bearing with roller support.....	257
Workpiece Positioner with swivelling and horizontal rotation	259
Workpiece Positioner with turning and tilting movement	261
Workpiece Positioner with turning and swivelling movement.....	263
Workpiece Positioner with turning and swivelling movement and vertical stroke	265
Workpiece Positioner with turning and swivelling movement and counter bearing.....	267
Workpiece Positioner with turning/swivelling movement and fixed counter bearing.....	269
Horizontal rotary positioner with vertical rotation and counter bearing.....	271
Vertical rotary positioner with vertical rotation and counter bearing.....	273
Horizontal rotary positioner with turning/swivelling movement	275
Horizontal rotary positioner with turning/swivelling movement and counter bearing.....	277
Two-station positioner with horizontal station change	279
Compact systems	4
Compact cells	4.1
Compact cells.....	281
Compact cell CC-1	282
Compact cell CC-2	283
Compact cell CC-3	284
Compact cell CC-4	285
Compact cell CC-5	286
Compact cell CC-6	287
Compact systems	4.2
Compact systems.....	289
Compact system CS-10.....	290
Compact system CS-20.....	291
Compact system CS-30.....	292
Compact system CS-40.....	293
Compact system CS-50.....	294
Compact system CS-60.....	295
Sensors	5
QIROX Sensor systems QR-SN	297
Tactile offline sensors QR-SN-TS.....	299
Tactile online sensors QR-SN-TT	301
Arc sensor QR-SN-ST	303
Laser offline sensors QR-SN-LS	305
Laser online sensors QR-SN-LT	307
Laser tool measurement system QR-SN-LTM.....	309
PC-Software	6
Offline- Programming	6.1
RoboPlan professional.....	311



QINEO®



qineo®

QINEO®: The new generation of welding power sources for manual and automated applications.

QINEO® high-quality CLOOS power sources have been specially developed for industrial welding applications. They meet all manual and automated welding requirements. 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 power sources offer you considerable economical advantages.

- **QINEO STEP**
Makes manual welding easier
- **QINEO TRONIC**
Infinitely adjustable welding for

highest precision

- **QINEO PULSE**
The versatile welding machine for industrial applications

- **QINEO CHAMP**
The new dimension in welding technology

www.qineo.de



QINEO TRONIC

QINEO STEP

QINEO PULSE

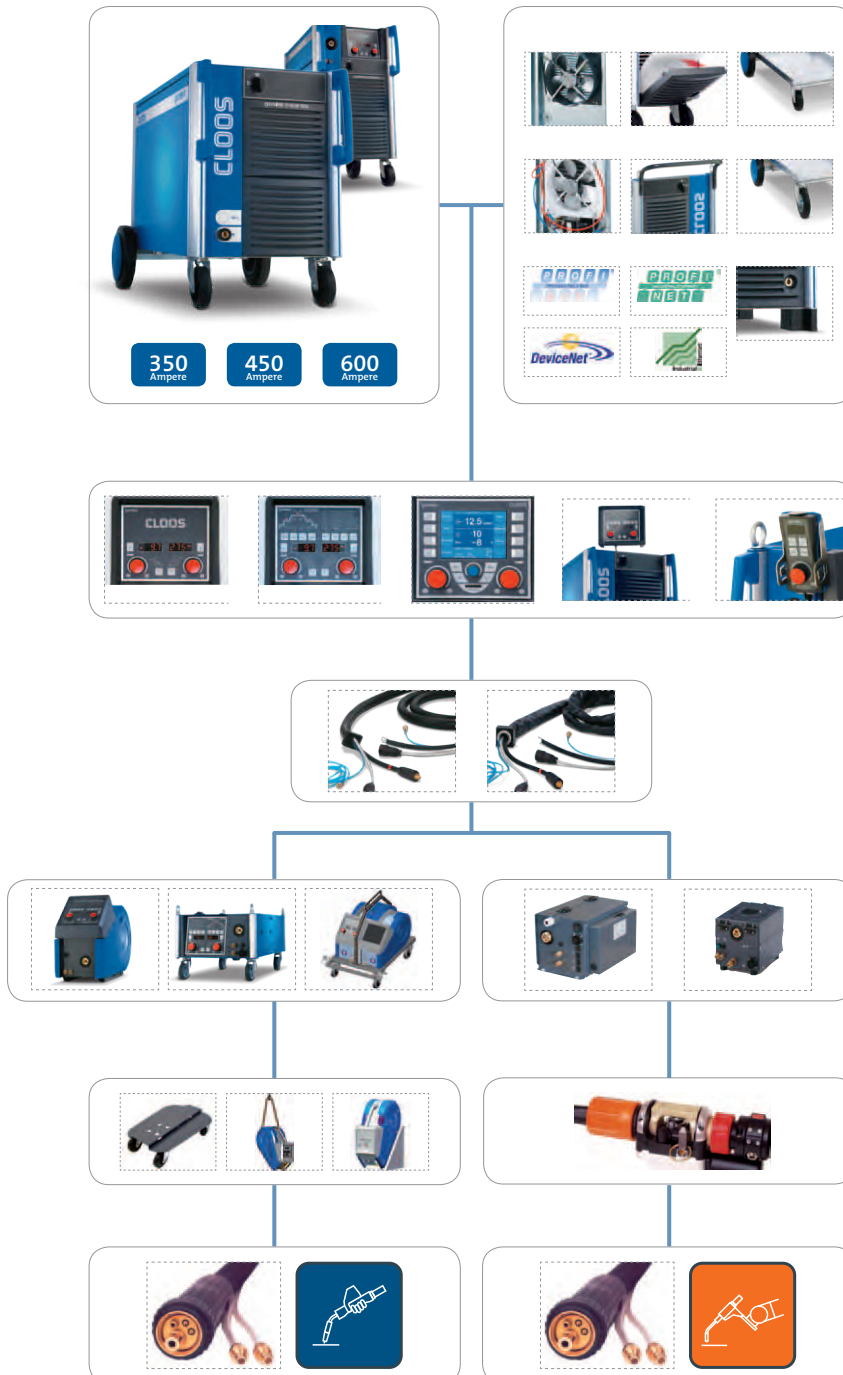
QINEO TRONIC

QINEO® CHAMP



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)

1

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 180

Processes

MIG/MAG Normal 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
Synergic operation
Mains connection cable
Earth cable
Wire coil support Ø 200 mm
Gas hose

Base materials

Structural steel
CrNi steel

Options

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



Technical data	0831900000
Welding current	5 A - 180 A
Welding current 35% duty cycle	180 A
Welding current 100% duty cycle	110 A
Open circuit voltage	65 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm ²
Mains protection/230V	25 A - 230 V
Type of protection	IP 23 S
Insulation class	H
Type of cooling	F
Dimensions (L/W/H) compact unit	500 x 280 x 420 mm
Weight compact unit	16.2 kg

QINEO MICRO PULSE 200

1

Processes

MIG/MAG Normal Welding
MIG/MAG Pulsed arc 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)
Synergic operation
Mains connection cable
Earth cable
Wire coil support Ø 200 mm
Gas hose

Base materials

Structural steel
CrNi steel

Options

Carriage with bottle holder
MIG/MAG Welding torch
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	120 A
Open circuit voltage	65 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm ²
Mains protection/230V	25 A - 230 V
Type of protection	IP 23 S
Insulation class	H
Type of cooling	F
Dimensions (L/W/H) compact unit	500 x 280 x 420 mm
Weight compact unit	17 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 / MICRO PULSE

suitable for
QINEO MICRO / MICRO PULSE

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

Adapter cable CEE 32A / Schuko plug 230V

1



Abbildung ähnlich

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

QINEO BASIC 180 - 300

Processes

MIG/MAG Normal Welding

Applications

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
Mains connection cable
Pressure reducer
Earth cable



Technical data	0834180000	0834182300	0834200000	0834250000	0834300000
Machine type	BASIC 180 C, 400V	BASIC 180 C, 230V	BASIC 200 C	BASIC 250 C	BASIC 300 C
Welding current	30 A - 190 A	30 A - 190 A	30 A - 215 A	30 A - 250 A	30 A - 300 A
Welding current 40% duty cycle	165 A	165 A	200 A	250 A	300 A
Welding current 100% duty cycle	105 A	105 A	125 A	250 A	190 A
Open circuit voltage	16.5 V - 32.5 V	16.5 V - 32.5 V	17 V - 38 V	17 V - 38 V	17 V - 38 V
Mains voltage	400V / 50Hz / 3 phases	230 V - 400 V	230 V - 400 V	400V / 50Hz / 3 phases	230 V - 400 V
Steps	8	8	8	10	16
Connection cable	4 x 2,5 mm ²	4 x 2,5 mm ²	4 x 2,5 mm ²	4 x 2,5 mm ²	4 x 4 mm ²
Mains protection/230V	10 A - 230 V	10 A - 230 V	20 A - 230 V	20 A - 230 V	25 A - 230 V
Mains protection/400V	6 A - 400 V	6 A - 400 V	16 A	16 A - 400 V	20 A - 400 V
Type of protection	IP 22	IP 22	IP 22	IP 22	IP 22
Insulation class	H	H	H	H	H
Type of cooling	F	F	F	F	Air
Dimensions (L/W/H) compact unit	770 x 460 x 660 mm	770 x 460 x 660 mm	830 x 500 x 740mm	830 x 500 x 740mm	880 x 500 x 740mm
Weight compact unit	52.6 kg	52.6 kg	60 kg	65 kg	

QINEO BASIC 350 - 450

1

Processes

MIG/MAG Normal Welding

Applications

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

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

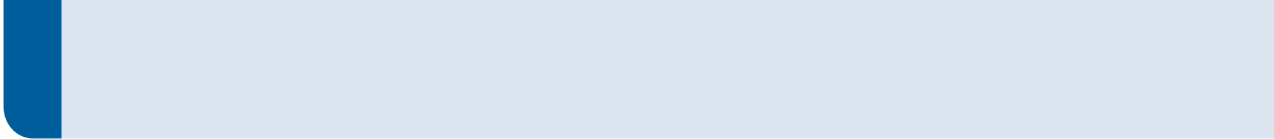
EURO-ZA
4 roller drive
2 cycle operation
4 cycle operation
Spot welding
Wire fine adjustment
Manual operation
5 m VSP (BASIC 350/350W/450W)
Mains connection cable
Pressure reducer
Earth cable

Options

10 m connection cable assembly
MIG/MAG Welding torch



Technical data	0834350000	0834360000	0834365000	0834465000
Machine type	BASIC 350 C	BASIC 350	BASIC 350, water cooled	BASIC 450, water cooled
Welding current	30 A - 400 A	30 A - 400 A	30 A - 400 A	30 A - 500 A
Welding current 40% duty cycle	350 A	350 A	350 A	450 A
Welding current 100% duty cycle	270 A	270 A	270 A	350 A
Open circuit voltage	18 V - 45 V	18 V - 45 V	18 V - 45 V	16 V - 48 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Steps	4 x 6	4 x 6	4 x 6	
Connection cable	4 x 6 mm ²	4 x 6 mm ²	4 x 6 mm ²	4 x 6 mm ²
Mains protection/230V	25 A - 230 V	25 A - 230 V	40 A - 230 V	50 A - 230 V
Mains protection/400V	25 A - 400 V	25 A - 400 V	25 A - 400 V	30 A - 400 V
Type of protection	IP 23	IP 23	IP 23	IP 23
Insulation class	H	H	H	H
Type of cooling	Air	Air	Water	Water
Dimensions L/W/H (without wire drive)	1000 x 550 x 820 mm	1000 x 550 x 820 mm	1000 x 550 x 820 mm	1000 x 550 x 820 mm
Dimensions L/W/H (without wire drive)	1000 x 550 x 820 mm	1000 x 550 x 820 mm	1000 x 550 x 820 mm	1000 x 550 x 820 mm



QINEO Series (QN)

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.

2



QINEO Series: STEP 250 - 300

Processes

MIG/MAG Normal Welding

Applications

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
Synergic operation
Secondary parameter correction

Options

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



Technical data	8008302510	8008303010
Machine type	STEP 250	STEP 300
Welding current	40 A - 250 A	40 A - 300 A
Welding current 40% duty cycle	250 A / 26,5 V	300 A / 29 V
Welding current 100% duty cycle	155 A / 22 V	190 A / 23,5 V
Open circuit voltage	16 V - 34 V	17 V - 37 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Special voltage	Optionally	Optionally
Steps	12	12
Connection cable	4 x 2,5 mm ²	4 x 2,5 mm ²
Type of protection	IP 23	IP 23
Type of cooling	F	F
Dimensions (L/W/H) compact unit	1011 x 517 x 703 mm	1011 x 517 x 703 mm
Weight compact unit	112 kg	129 kg

QINEO Series: STEP 350-450-600

2

Processes

MIG/MAG Normal Welding

Applications

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
Synergic operation
Programming mode
Secondary parameter correction

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
Remote control
Peripheral socket
QWD Standard, M2
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 L/W/H (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 (L/W/H) 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 Series: STEP CO2 Edition

Processes

MIG/MAG Normal Welding

Applications

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
Synergic operation
Programming mode
Secondary parameter correction

Options

EURO ZA, DINSE ZA
Gas cooled, water cooled
Remote control
Peripheral socket
QWD Standard, M2
Wheels offroad
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torch
Earth cable with pliers

Technical data	QINEO STEP 350 CO2 Edition	QINEO STEP 550 CO2 Edition
Welding current	40 A - 350 A	40 A - 550 A
Welding current 60% duty cycle	350 A / 31,5 V	500 A / 39 V
Welding current 100% duty cycle	270 A / 27,5 V	-
Open circuit voltage	17 V - 50 V	22 V - 70 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Special voltage	Optionally	Optionally
Steps	2 x 10	4 x 10
Connection cable	4 x 4 mm ²	4 x 10 mm ²
Type of protection	IP 23	IP 23
Type of cooling	F	F
Dimensions L/W/H (without wire drive)	1226 x 630 x 741 mm	1226 x 630 x 741 mm
Weight (without wire drive)	194 kg	245 kg
Maximum track width	approx. 552 mm	approx. 552 mm

QINEO Series: Operating panel STEP

2

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





QINEO Series: QINEO TRONIC

Processes

MIG/MAG Normal Welding
MIG/MAG Pulsed arc welding
MIG Brazing
TIG DC
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
Spot welding
Characteristic curve compensation
Synergic operation

Stand-by operation
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)
Job operation
Control voltage mode
Peripheral socket
OMI (Open Machine Interface)
Profibus/ProfiNet/DeviceNet
Ethernet
QWD Standard, M2, Twin-Drive
QWD-A, QWD-AR
QWD splitter
Carriage with bottle holder
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torch

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 mm ²	4 x 6 mm ²	4 x 10 mm ²
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 L/W/H (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	



QINEO Series: QINEO TRONIC PULSE

2

Processes

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

Synergic operation
Manual operation
Stand-by operation
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
QWD Standard, M2, Twin-Drive
QWD-A, QWD-AR
QWD splitter
Carriage with bottle holder
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torch
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 mm ²	4 x 6 mm ²	4 x 10 mm ²
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 L/W/H (without wire drive)	1011 x 517 x 942 mm	1011 x 517 x 942 mm	1011 x 517 x 942 mm



QINEO Series: QINEO PULSE

2

Processes

MIG/MAG Normal Welding
I/I Pulsed arc welding - Vari Weld
U/I Pulsed arc welding - Speed Weld
MIG Brazing
TIG DC
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
Spot welding
Characteristic curve compensation
Synergic operation

Manual operation
Stand-by operation
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)
Job operation
Control voltage mode
Gas nozzle sensor
Seam tracking
Peripheral socket
Profibus/ProfiNet/DeviceNet
Ethernet
QWD Standard, M2, Twin-Drive
QWD-A, QWD-AR
QWD splitter
Wheels offroad
Pedestals
Bottle holder
Filter mat
Flow meter water
Cloos SZ/EURO/Dinse torch connection

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 L/W/H (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 (L/W/H) 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



QINEO Series: QINEO CHAMP

2

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

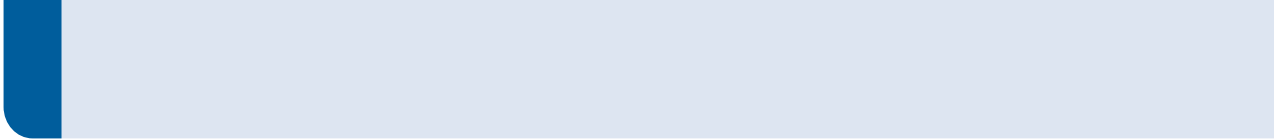
CLOOS SZ connection
Digital display
Operating module Premium
4 roller drive
2 cycle operation
4 cycle operation
Super 4 cycle operation
Spot welding
Clean Start
Liftstart
Characteristic curve preselection
Characteristic curve compensation

Job operation
Synergic operation
Control voltage mode
Stand-by operation
Temperature-controlled fan
Burnback automatic
Wire threading
Data backup
Language menus
User 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
QWD Standard, M2, Twin-Drive
QWD-A, QWD-AR
QWD splitter
Wheels offroad
Pedestals
Bottle holder
Filter mat
Flow meter water
MIG/MAG Welding torch
Earth cable with pliers

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 mm ²	4 x 10 mm ²
Mains protection/400V	32 A	50 A
Type of protection	IP 23	IP 23
Insulation class	F	F
Type of cooling	F	F
Dimensions L/W/H (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.

2

2.1



QINEO Series: Operating panels ECO, MASTER, PREMIUM

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	ECO	MASTER	PREMIUM
available for Step	No	No	No
available for Tronic	Yes	Yes	Yes
available for Pulse	Yes	Yes	Yes
available for Champ	No	No	Yes

QINEO Series: Operating panel ECO

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

2
2.1



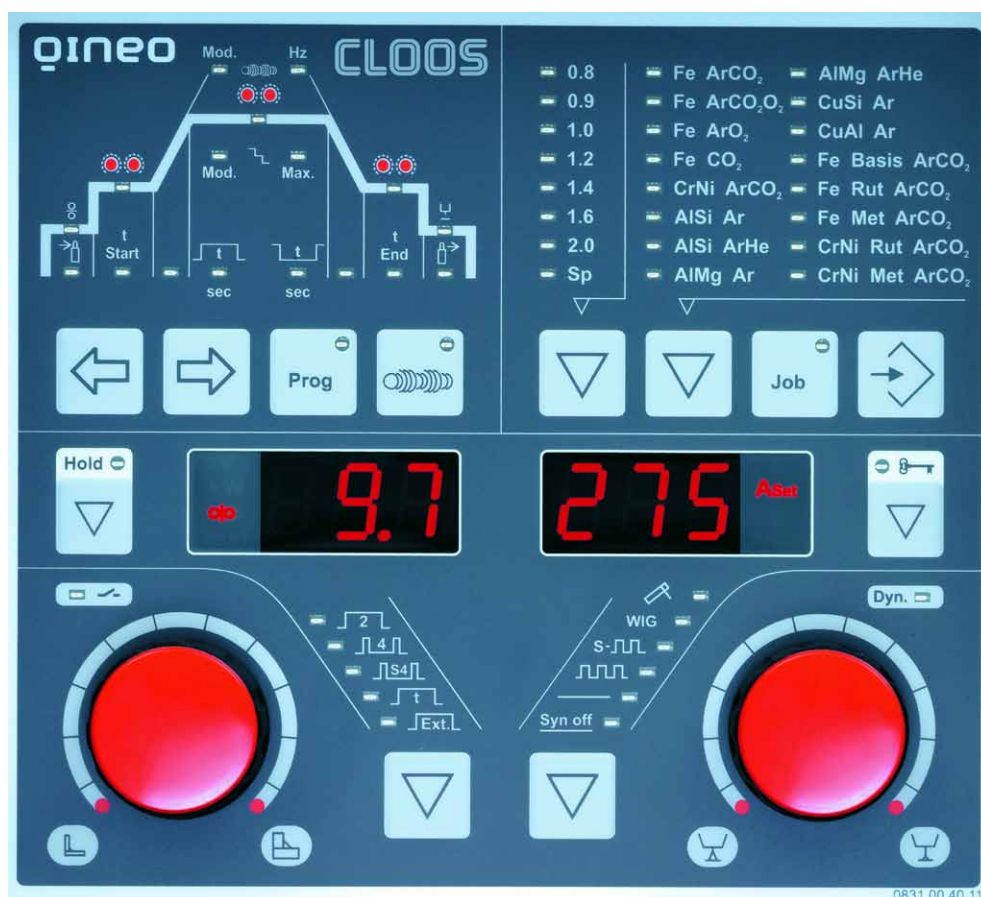
QINEO Series: Operating panel MASTER

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: Operating panel PREMIUM

Equipped with the Premium operating module, the 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 task are perfectly supported. With SD card interface.

Possibilities

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

2
2.1



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 directly at the housing with 5 or 10m connection cable and cable holder..

optional for

QINEO TRONIC
QINEO TRONIC PULSE
QINEO PULSE
QINEO CHAMP



QINEO Series: RPU ECO

2

2.1



Technical data	0831100000	0831100005	0831100010	0833100000	0833100005	0833100010
suitable for	QINEO PULSE	QINEO PULSE	QINEO PULSE	QINEO TRONIC	QINEO TRONIC	QINEO TRONIC
Cable length	without connection cable	5m	10m	without connection cable	5m	10m

QINEO Series: RPU MASTER



Technical data	0831100100	0831100105	0831100110	0833100100	0833100105	0833100110
suitable for	QINEO PULSE	QINEO PULSE	QINEO PULSE	QINEO TRONIC	QINEO TRONIC	QINEO TRONIC
Cable length	without connection cable	5m	10m	without connection cable	5m	10m

QINEO Series: RPU PREMIUM



Technical data	0831100200	0831100205	0831100210
suitable for	QINEO PULSE TRONIC CHAMP	QINEO PULSE TRONIC CHAMP	QINEO PULSE TRONIC CHAMP
Cable length	without connection cable	5m	10m

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

2
2.1

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



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

2
2.1

Technical data	0830010000	0830010010	0831010000	0831010010
suitable for	QINEO STEP	QINEO STEP	QINEO PULSE TRONIC CHAMP	QINEO PULSE TRONIC CHAMP
Cable length	5m	10m	5m	10m

QINEO Series: Kit remote control RC



optional for
QINEO STEP 350-600
QINEO TRONIC
QINEO TRONIC PULSE
QINEO PULSE
QINEO CHAMP
QWD STANDARD
QWD-M2

Technical data	0830102010
Design	Standard

QINEO Series: Flow meter water

Design
only available as integrated version
in the power source

Technical data	0830502055	0831002000
optional for	QINEO STEP compact	QINEO compact / QWD STANDARD / QWD-A / QWD-M2

QINEO Series: Protective shield for operating panel



Design
Clear view, hinged

Technical data	0830004010	0830501055	0830581055
optional for	QINEO compact	QWD STANDARD / QWD-M2	QWD-M2

QINEO Series: Support for QWD



optional for

QINEO STEP 350-600
QINEO TRONIC
QINEO TRONIC PULSE
QINEO PULSE
QINEO CHAMP

2
2.1

Technical data	0830001630	0830001640	0830001650	0830001660
suitable for	QWD Standard	QWD-M2	QWD Standard (small carriage)	QWD Standard (big carriage)

QINEO Series: Gas bottle holder



Technical data	0830000200	0830001200	0830001210
optional for	QINEO STEP 250-300	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	0554010110	0555010300
Length	5 m	5 m	5 m
for capacity class	350 A	450 A	600 A

QINEO Series: Adapter basket coil



optional for

QINEO STEP 250-300
QINEO STEP 350-600
QINEO TRONIC
QINEO TRONIC PULSE
QINEO PULSE
QINEO CHAMP

2
2.1

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-PR-10



Technical features

- Closed circular pipelines

Technical data	Point-of-use pressure reducer QN-PR-10
Operating pressure	0-10 bar
Flow capacity	20 NI/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

The modular QINEO® PC software QDM offers functions such as backup, characteristic curve processing, external Premium operating panel, weld data monitoring and documentation as well as RSM and CCM.
- For all PCs from Windows XP® on, incl. Windows 7®.
Pre-condition on the power source: Interface Ethernet

optional for

- QINEO TRONIC
- QINEO TRONIC PULSE
- QINEO PULSE
- QINEO CHAMP

2
2.1



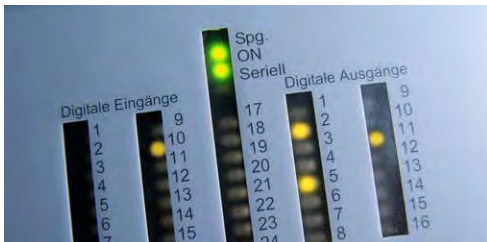
Technical data	0033554103	0033554101	0033554100	0033554102
Design	Demo	Light	Premium	Representative

QINEO Series: Interfaces



QINEO ES PS/CAN (Periphery/CAN)

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



QINEO, ES 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.



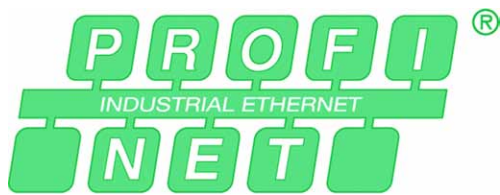
QINEO ES Q-VBC Profibus

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



QINEO, ES Q-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, 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, ES 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 STEP, ES PS (peripheral socket)

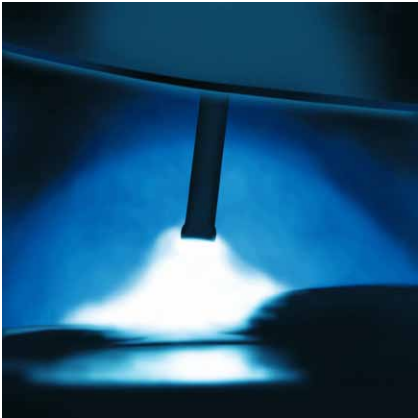
The kit peripheral socket makes it possible to connect the QINEO power sources to simple automation systems such as rotary tables or linear tracks. Suitable for QINEO STEP.

QINEO, ES 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, Q-Ethernet accessory for SD

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



optional for
 QINEO TRONIC
 QINEO TRONIC PULSE
 QINEO PULSE
 QINEO CHAMP

Technical data	0831058300	
Design		Standard

QINEO Series: Seam tracking power source part



Technical data	0831058400	0831058450
optional for	QINEO PULSE / QINEO TRONIC / QINEO TRONIC PULSE	QINEO CHAMP

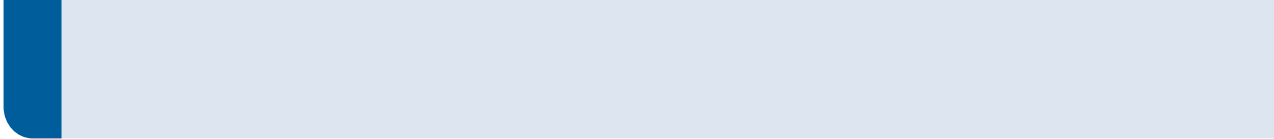
QINEO Series: Gas nozzle sensor



optional for
QINEO TRONIC
QINEO TRONIC PULSE
QINEO PULSE

2
2.1

Technical data	0831058200	0832058200
optional for	QINEO PULSE / QINEO TRONIC / QINEO TRONIC PULSE	QINEO CHAMP



QINEO Series: Wire drive unit QINEO WIRE DRIVE (QWD)

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).

2
2.2



QINEO Series: Wire drive unit QWD STANDARD

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 STANDARD
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: Wire drive unit QWD TWIN DRIVE

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 changeover. SZ connection as standard.

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

2

2.2



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: Wire drive unit QWD-M2

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-M2
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: Wire drive unit QWD-A

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

2
2.2



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: Wire drive unit QWD-AR

The QWD-AR wire drive unit was particularly developed 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

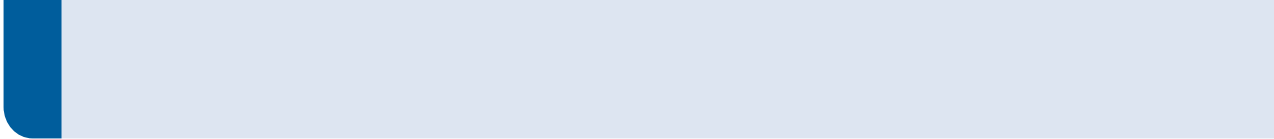
QINEO Series: Wire drive unit QRH-I

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.

2
2.2



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



QINEO Series: Wire drive unit QWD options

2
2.2



QINEO Series: Protective shield for operating panel QWD



optional for
QWD-M2

Technical data	0830501055	0830581055
Design	QWD STANDARD	QWD-M2

QINEO Series: Transport carriage QWD STANDARD



optional for
QWD STANDARD

Technical data	0830501020
Design	Standard

QINEO Series: Crane support QWD



optional for
QWD STANDARD

2
2.2

Technical data		0830500015
Design		Standard

QINEO Series: Crane support with lifting belt QWD



optional for
QWD STANDARD

Technical data		0830001700
Design		complete construction kit

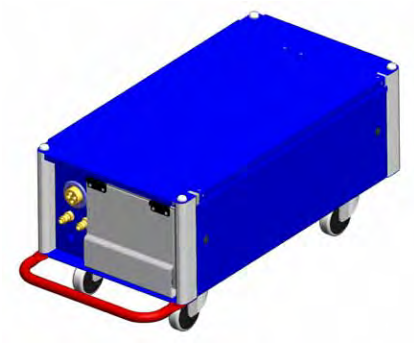
QINEO Series: Crane support QWD-M2



optional for
QWD-M2

Technical data	0049010298
Design	Standard

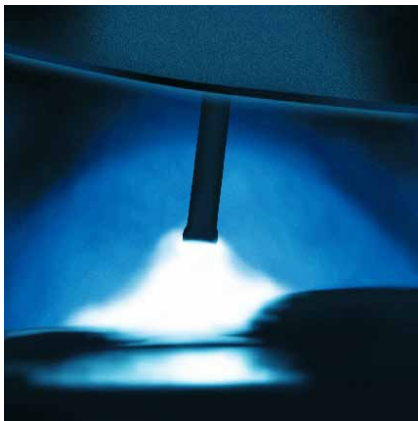
QINEO Series: Handles QWD-M2



optional for
QWD-M2

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

QINEO Series: Weld data monitoring (SD) QWD part



optional for
QWD-A

2
2.2

Technical data	0831002010
Design	QWD-A

QINEO Series: Flow meter water QWD

optional for
QWD STANDARD
QWD-M2
QINEO compact
QWD-A

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

QINEO Series: Kit remote control RC



optional for

- QINEO STEP 350-600
- QINEO TRONIC
- QINEO TRONIC PULSE
- QINEO PULSE
- QINEO CHAMP
- QWD STANDARD
- QWD-M2

Technical data	0830102010
Design	Standard

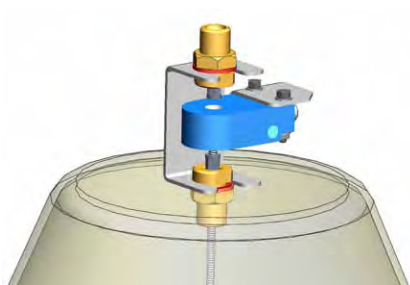
QINEO Series: Assembly kit Cloos Duo Drive (CDD II)

optional for

- QWD-A

Technical data	0831058500
Design	QWD-A

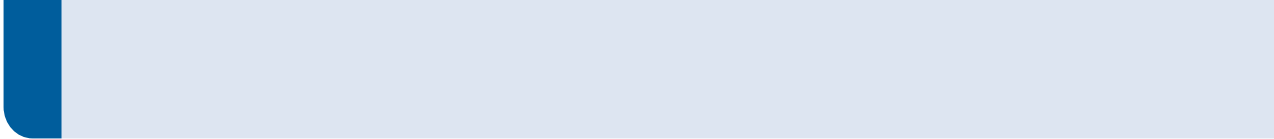
QINEO Series: Kit Wire End Control



optional for
QWD-A

2
2.2

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.

2
2.2



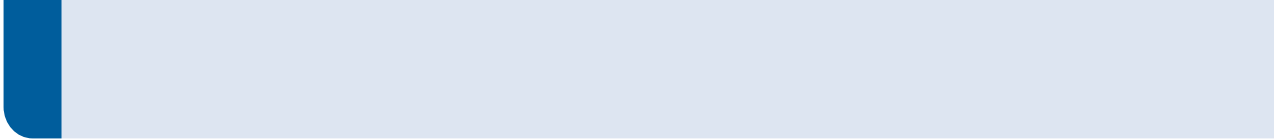
QINEO Series: Connection cable assemblies CM (manual)

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

2
2.2



MC3 series - QUINTO II series

3



MC3 series

Processes

MIG/MAG Normal Welding
MIG/MAG Pulsed arc welding
TIG DC
Stick electrode welding

Applications

Industrie
Repair
Metal engineering and portal 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
remote control
2 cycle operation
4 cycle operation
Super 4 cycle operation
Spot welding
50 job memory

Options

EURO ZA, DINSE ZA
Remote control (FB1)
WDM (Welding Data Manager)
Peripheral socket
Flow meter water



Technical data	GLC 353 MC3	GLC 553 MC3
Welding current	40 A - 350 A	40 A - 550 A
Welding current 100% duty cycle	300 A / 29 V	500 A / 39 V
Open circuit voltage	56 V	70 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Connection cable	4 x 4 mm ²	4 x 10 mm ²
Mains protection/400V	25 A	50 A
Type of protection	IP 23	IP 23
Insulation class	F	F
Type of cooling	F	F
Dimensions L/W/H (without wire drive)	960 x 460 x 930 mm	1190 x 530 x 930 mm
Weight (without wire drive)	153 kg	220 kg

Quinto II series

Processes

MIG/MAG Normal Welding
MIG/MAG Pulsed arc welding
MIG Brazing
Tandem Weld
TIG DC

Applications

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

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

Digital display
2 cycle operation
4 cycle operation
Super 4 cycle operation
Spot welding
Clean Start
Expert Mode
Synergic operation

Options

BBM Operation
WDM (Welding Data Manager)
SD (Weld data monitoring)
Pulse synchronisation
Gas nozzle sensor / Seam tracking
PAK / CCM
Ethernet
Operation with several wire drive units



3

Technical data	GLC 403 Quinto II	GLC 603 Quinto II
Welding current	40 A - 400 A	40 A - 600 A
Welding current 60% duty cycle	400 A / 34 V	600 A / 44 V
Open circuit voltage	84 V	87 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Special voltage	Optionally	Optionally
Connection cable	4 x 6 mm ²	4 x 10 mm ²
Mains protection/400V	32 A	50 A
Type of protection	IP 23	IP 23
Type of protection	IP 23	IP 23
Insulation class	F	F
Type of cooling	F	F
Dimensions L/W/H (without wire drive)	1200 x 500 x 1040 mm	1200 x 500 x 1240 mm
Weight (without wire drive)	182 kg	267 kg

MC3 series: Wire drive unit CK 98 A

Movable 4 roller wire drive unit in a very robust metal housing. Suitable for the MC3 GLC 353 and 553 series. SZ connection as standard.

Options

- EURO ZA, DINSE ZA
- Remote control connection
- Crane support



Technical data	CK 98 A
Wire feed speed	max. 30 m/min
Dimensions L/W/H	610/380/355 mm
Weight	22 kg
Wire diameter	0.8 - 2.0 mm

QUINTO II series: Wire drive unit CK 118

Movable 4 roller wire drive unit in a very robust metal housing. Coolant monitoring as standard Suitable for the GLC 403/603 Quinto series. SZ connection as standard.

Options

- EURO ZA, DINSE ZA
- Remote control connection
- Crane support
- Weld Data Monitoring



3

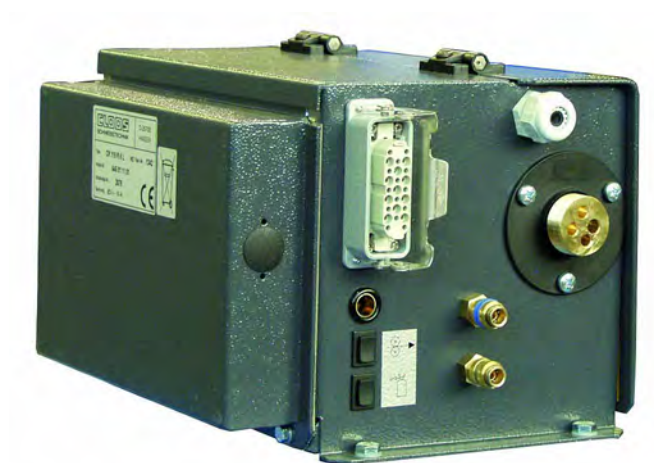
Technical data	CK 118
Wire feed speed	max. 30 m/min
Dimensions L/W/H	620/410/240 mm
Weight	23 kg
Wire diameter	0.8 - 2.0 mm

QUINTO II series: Wire drive unit CK 118 R/K

Wire drive unit for automated application in connection with the Quinto II power source. Available with many additional options and in right and left design. Particularly for Tandem Weld. SZ connection as standard.

Options

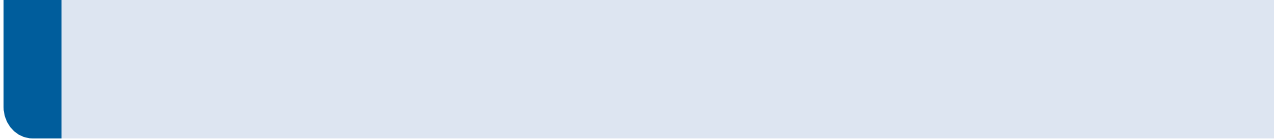
- EURO ZA, DINSE ZA
- Weld Data Monitoring
- left design



Technical data	CK 118 R/K
Wire feed speed	max. 30 m/min
Dimensions L/W/H	340/272/220 mm
Weight	12 kg
Wire diameter	0.8 - 2.0 mm

MC3 and QUINTO II series Connection cable assemblies

Material	Short description	Type of cooling	Weld current (A)	Length (m)	Outer hose
0650 73 01 40	VSP 2.5 m for MC3	water cooled	600	2.5	Hose
0650 73 02 00	VSP 5 m for MC3	water cooled	600	5.0	Hose
0650 73 03 00	VSP 10 m for MC3	water cooled	600	10.0	Hose
0650 73 04 00	VSP 15 m for MC3	water cooled	600	15.0	Hose
0650 73 05 00	VSP 20 m for MC3	water cooled	600	20.0	Hose
0650 83 01 00	VSP 1.0 m; CK 100/118 - MC2/Quinto	water cooled	600	1.0	Hose
0650 83 01 50	VSP 1.5 m; CK 118 - Quinto	water cooled	600	1.5	Hose
0650 83 02 00	VSP 5.0 m; CK 118 - Quinto	water cooled	600	5.0	Hose
0650 83 02 70	VSP 7.0 m; CK 118 - Quinto	water cooled	600	7.0	Hose
0650 83 03 00	VSP 10.0 m; CK 118 - Quinto	water cooled	600	10.0	Hose
0650 83 04 00	VSP 15.0 m; CK 118 - Quinto	water cooled	600	15.0	Hose
0650 83 05 00	VSP 20.0 m; CK 118 - Quinto	water cooled	600	20.0	Hose
0650 83 06 00	VSP 25.0 m; CK 118 - Quinto	water cooled	600	25.0	Hose
0650 83 07 00	VSP 30.0 m; CK 118 - Quinto	water cooled	600	30.0	Hose
0650 83 02 50	VSP 5,0 m; CK 118 - Quinto highly flexible	water cooled	600	5.0	Hose
0650 83 02 85	VSP 8,0 m; CK 118 - Quinto highly flexible	water cooled	600	8.0	Hose
0650 83 03 50	VSP 10,0 m; CK 118 - Quinto highly flexible	water cooled	600	10.0	Hose
0650 83 03 25	VSP 12,0 m; CK 118 - Quinto highly flexible	water cooled	600	12.0	Hose
0650 83 04 50	VSP 15,0 m; CK 118 - Quinto highly flexible	gas cooled	600	15.0	Hose
0650 83 05 50	VSP 20,0 m; CK 118 - Quinto highly flexible	water cooled	600	20.0	Hose
0650 83 05 35	VSP 23,0 m; CK 118 - Quinto highly flexible	water cooled	600	23.0	Hose
0650 83 07 50	VSP 30,0 m; CK 118 - Quinto highly flexible	water cooled	600	30.0	Hose



MIG/MAG Manual welding torch

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.



4
4.1

MIG/MAG Manual 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 button	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

MIG/MAG Manual torch MHG 200



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 button	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 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 button	on top

4
4.1

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

MIG/MAG Manual torch MHG 230 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 button	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 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 button	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 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 button	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 torch QN-TM-HG-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 button	underneath

4
4.1

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

MIG/MAG Manual torch QN-TM-HG-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 button	underneath

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

MIG/MAG Manual torch QN-TM-HG-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 button	underneath

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

MIG/MAG Manual torch Arcette G251



Special feature	Push-Pull operation
Suitable for	QINEO PULSE
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 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 button	on top

4
4.1

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 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 button	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 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 button	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 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 button	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 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 button	on top

4
4.1

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 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 button	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 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 button	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 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 button	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 torch QN-TM-HW-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 button	underneath

4
4.1

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

MIG/MAG Manual torch QN-TM-HW-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 button	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 torch MHW 405 TQ



Special feature
Suitable for
Type of cooling
Capacity with mixed gas
Capacity with CO²
Duty cycle (ED)
Wire thicknesses
Equipped for wire

Remote control TQ
QINEO PULSE
water cooled
400 A
440 A
100%
0.8-1.6 mm
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 torch MHW 405 T



Special feature
Suitable for
Type of cooling
Capacity with mixed gas
Capacity with CO²
Duty cycle (ED)
Wire thicknesses
Equipped for wire

Remote control T
MC 3:
water cooled
400 A
440 A
100%
0.8-1.6 mm
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 torch MHW 405 F



Special feature
Suitable for
Type of cooling
Capacity with mixed gas
Capacity with CO²
Duty cycle (ED)
Wire thicknesses
Equipped for wire

Remote control F
MC 3:
water cooled
400 A
440 A
100%
0.8-1.6 mm
Steel 1.2 mm

4
4.1

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 torch MHW 405 F1



Special feature
Suitable for
Type of cooling
Capacity with mixed gas
Capacity with CO²
Duty cycle (ED)
Wire thicknesses
Equipped for wire

Remote control F1
MC 4:
water cooled
400 A
440 A
100%
0.8-1.6 mm
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 torch Arcette W351



Special feature

Suitable for

Torch neck

Capacity with mixed gas

Capacity with CO₂

Duty cycle (ED)

Wire thicknesses

Equipped for wire

Push-Pull operation

QINEO PULSE

To be turned by 30° steps

350 A

400 A

100%

0.8-1.6 mm

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

4
4.1

EURO Connection (EURO ZA)



Suitable for

MIG/MAG machines with EURO connection

Power connection

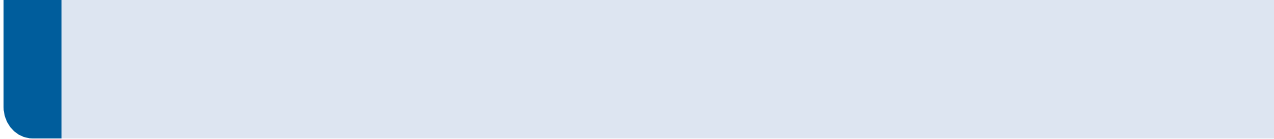
Integrated

Gas connection

Integrated

Cooling water

Plug nipple NW5

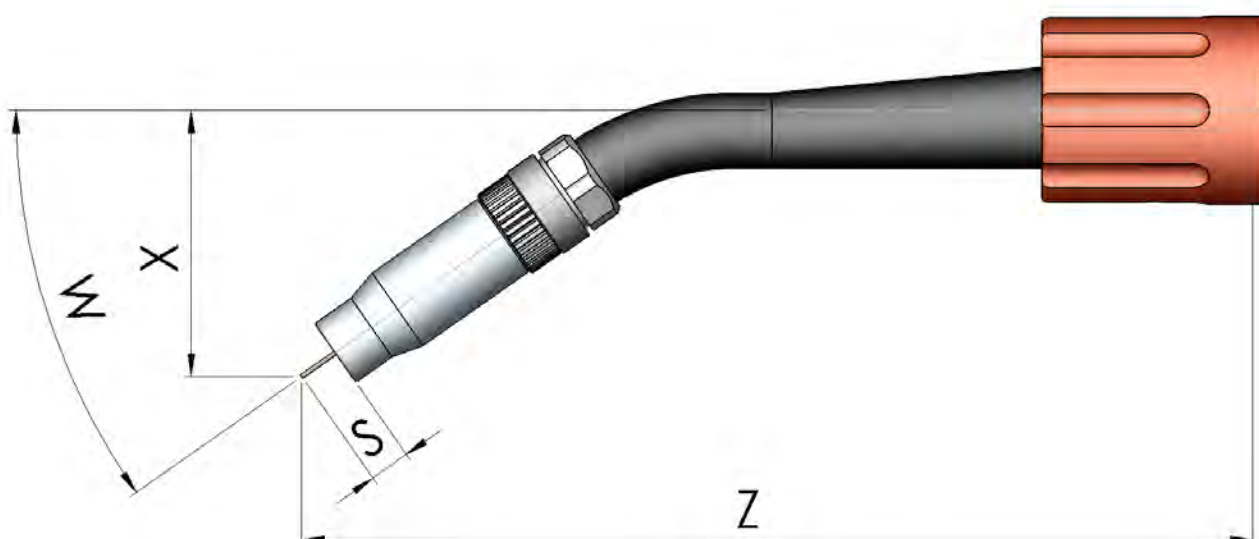


MIG/MAG Robot welding torch

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.

4
4.2



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	-

4

4.2

Robot welding torch MRW 450



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

Technical data	0719100000
Bending angle	35 °
TCP	X 78 Z 273
Special feature	-

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 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

4

4.2

Torch bracket MRW



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°

Torch bracket ZMW



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

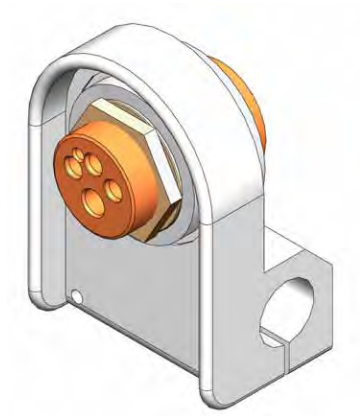
Options
Tracer pin
Sensors
Actual value determination of wire

Angle
10°

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

4
4.2

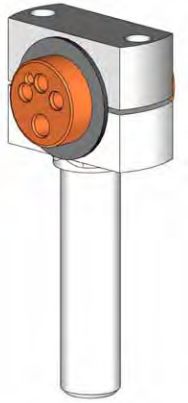
Torch bracket for machines with bore hole



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
Compressed air
Program run
Supply voltage

3-5 sec
6 bar, 87 psi
pneumatic
• 24 V DC

Technical data	0850698500	0850698550
Extra	Torch cleaning	Wire cutter

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



Cleaning time
Program run
Supply voltage

3-5 sec
pneumatic
• 24 V DC

Technical data

0850678000

Tandem torch cleaning

4
4.2

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 the case of special requirements and demands.



MIG/MAG Manual welding torch: 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 torch: 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 conic	11.0	very conic	24	64	Clamping bush
0065 00 81 00	Gas nozzle NW 15 conic	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 tip NW 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 diameter	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 conic 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 cyl. for MRW 350	13.0	Bottle neck	26	63	Male thread	-
0063 05 17 00	Gas nozzle NW 15 cyl. for MRW 350	15.0	Bottle neck	26	63	Male thread	-
0063 05 18 00	Gas nozzle NW 17 cyl. for MRW 350	17.0	Bottle neck	26	63	Male thread	-
0063 05 19 00	Gas nozzle NW 17 conic 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 cyl. for MRW 350	15.0	Bottle neck	26	66	Male thread	-
0063 05 44 00	Gas nozzle NW 13 cyl. 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	-

Material	Short description	Nominal width	Form	Outer diameter	Length	Fixation	Special feature
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	-	-
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 torch: Wire guide 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
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

Material	Short description	for wire Ø	Ø i / a	Length	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

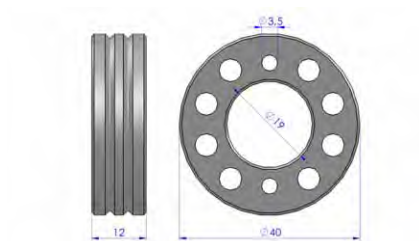
MIG/MAG Welding torch: Liners, jacketed and bronze

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- 5m 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 Ø1.6-5m 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 torch: 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 0.75mm	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 guide rollers Ø40x12 steel wire

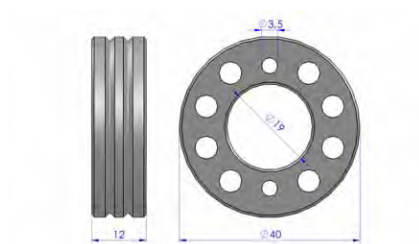


Technical features

- V 35°
- QINEO Pulse, QINEO Tronic
- QINEO Step 350 - 600
- QWD-A, QWD-M2, CK 78-98-118
- 2 equal grooves

Technical data	0046033208	0046033209	0046033210	0046033211	0046033212	0046033213	0046033214	0046033216	0046033220	0046033224
Wire thickness Ø mm	0.8	0.9	1.0	1.14	1.2	1.14/1.32	1.4	1.6	2.0	2.4

Wire guide rollers Ø40x12 aluminium wire

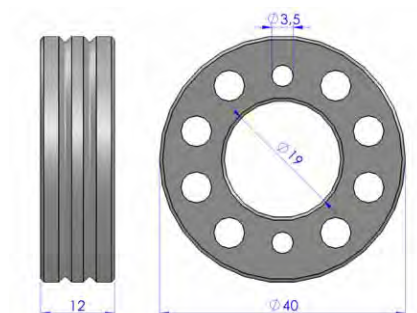


Technical features

- V 90°
- QINEO Pulse, QINEO Tronic
- QINEO Step 350 - 600
- QWD-A, QWD-M2, CK 78-98-118
- 2 equal grooves

Technical data	0046033310	0046033312	0046033316	0046033324
Wire thickness Ø mm	1.0	1.2	1.6	2.4

Wire guide rollers Ø40x12 fluxed core wire



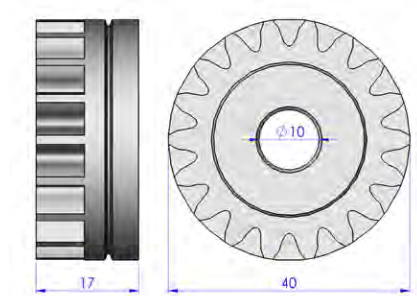
Technical features

- QINEO Pulse, QINEO Tronic
- QINEO Step 350 - 600
- QWD-A, QWD-M2, CK 78-98-118
- 2 different grooves

Technical data	0046033416	0046033424
Wire thickness Ø mm	1.6 / 1.4 / 1.2 / 1.0	2.4 / 2.0

5

Combination rollers Ø40x17 steel wire

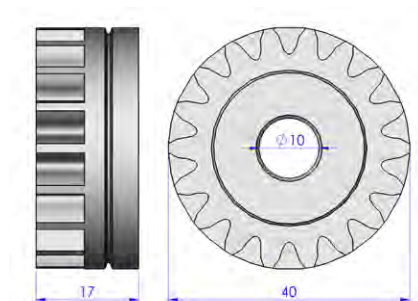


Technical features

- V 35°
- QINEO Pulse, QINEO Tronic
- QINEO Step 350 - 600
- QWD-A, QWD-M2, CK 78-98-118
- 1 groove

Technical data	0046043206	0046043208	0046043210	0046043212	0046043216	0046043218	0046043220
Wire thickness Ø mm	0.6	0.8	1.0	1.2	1.6	1.8	2.4

Combination rollers Ø40x17 aluminium wire

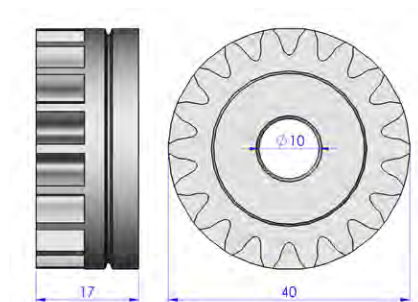


Technical features

- V 90°
- QINEO Pulse, QINEO Tronic
- QINEO Step 350 - 600
- QWD-A, QWD-M2, CK 78-98-118
- 1 groove

Technical data	0046043306	0046043308	0046043310	0046043312	0046043316	0046043324
Wire thickness Ø mm	0.6	0.8	1.0	1.2	1.6	2.4

Combination rollers Ø40x17 fluxed core wire

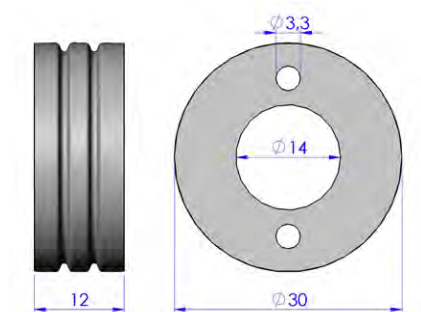


Technical features

- V 90°
- QINEO Pulse, QINEO Tronic
- QINEO Step 350 - 600
- QWD-A, QWD-M2, CK 78-98-118
- 1 groove

Technical data	0046043416	0046043424	0046043432	0046043440
Wire thickness Ø mm	1.6	2.4	3.2	4.0

Wire guide rollers Ø30x12



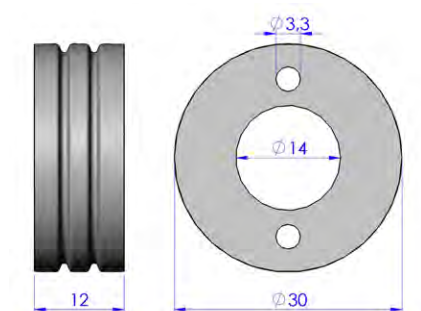
Technical features

- V 40°
- CDD II, QWD-AR
- 2 different grooves

Technical data	0046032010	0046032012	0046032014	0046032016
Wire thickness Ø mm	1,0 / 0,8	1,2 / 1,0	1,6 / 1,4	1,6 / 1,2

5

Wire guide rollers Ø30x12, calibrated

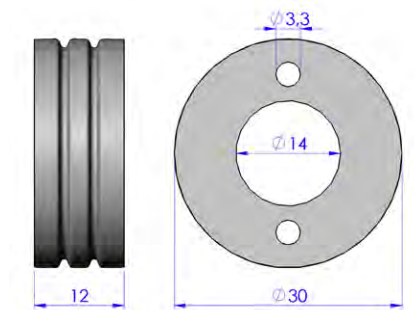


Technical features

- calibrated
- V 40°
- CDD II, QWD-AR
- 2 equal grooves

Technical data	0046032609	0046032610	0046032612	0046032613	0046032616
Wire thickness Ø mm	0.9	1.0	1.2	1.32	1.6

Wire guide rollers Ø30x12 aluminium wire

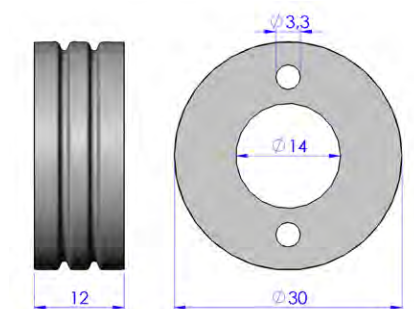


Technical features

- V 110°
- CDD II, QWD-AR
- 2 different grooves

Technical data	0046032412	0046032416	0046032712	0046032716
Wire thickness Ø mm	1.2 / 1.0 / 0.9 / 0.8	1.6 / 1.4 / 1.2 / 1.0	1.2 / 1.0	1.4 / 1.6

Wire guide rollers Ø40x12 fluxed core wire

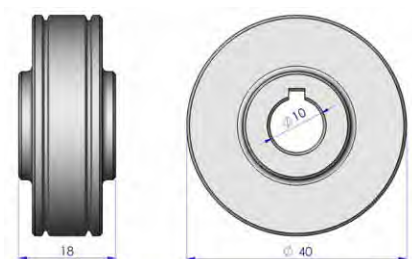


Technical features

-
- CDD II, QWD-AR
- 2 different grooves

Technical data	0046032216	0046032224	0046032232
Wire thickness Ø mm	1.4 / 1.2 / 1.0	2.4 / 2.0 / 1.8 / 1.6	2.8 / 3.2

Wire guide rollers Ø40x18



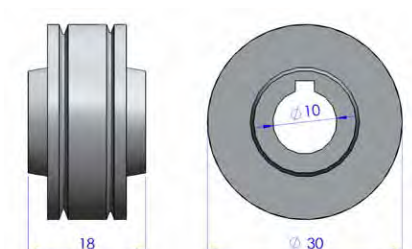
Technical features

- CK 68 B, CK 68 C

Technical data	0046032308	0046032310	0046032314	0046032320	0046032810	0046032812
Wire thickness Ø mm	0,8 / 0,9	1,2 / 1,0	1,4 / 1,6	2,0 / 2,4	1.0	1.2
Design	2 different grooves	2 different grooves	2 different grooves	2 different grooves	2 equal grooves	2 equal grooves
Special feature					calibrated	calibrated
Wire material	Universal	Universal	Universal	Universal	Steel	Steel

5

Wire guide rollers Ø30x18

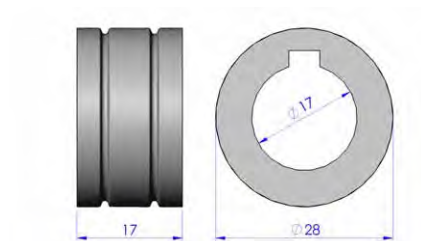


Technical features

- QINEO Step 250-300, CK 67
- 2 different grooves

Technical data	0046031708	0046031710	0046031712	0046031912	0046031810
Wire thickness Ø mm	0,6 / 0,8	0,8 / 1,0	1,0 / 1,2	1,0 / 1,2	1,0 / 1,6
Wire material	Steel	Steel	Steel	Aluminium	Fluxed core wire

Wire guide rollers Ø28x17

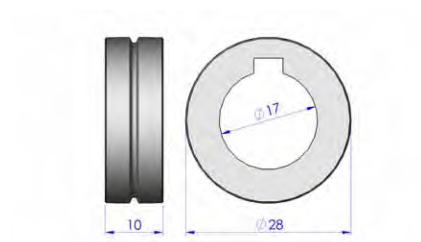


Technical features

- V 40°
- 2 equal grooves
- CDD I, CK 68 Z

Technical data	0046031508	0046031509	0046031510	0046031511	0046031512	0046031514	0046031516	0046031520	0046031524
Wire thickness Ø mm	0.8	0.9	1.0	1.14	1.2	1.4	1.6	2.0	2.4

Wire guide rollers Ø28x10



Technical features

- V 40°
- Cloos TIG Drive

Technical data	0046031608	0046031610	0046031611	0046031612	0046031614	0046031616
Wire thickness Ø mm	0.8	1.0	1.14	1.2	1.4	1.6

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

5

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



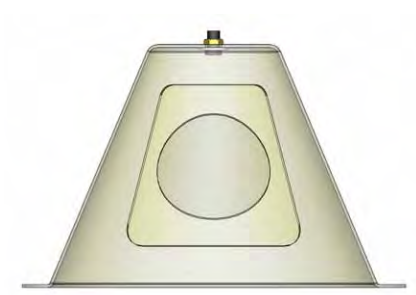
Technical data	0041021620
Connection	1/4" female thread

Rolliner XL



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

Hood for wire coil



Technical features

- complete with connection

Technical data	0601140016
Connection	3/8" male thread

Coil bracket (without wire guide hose)

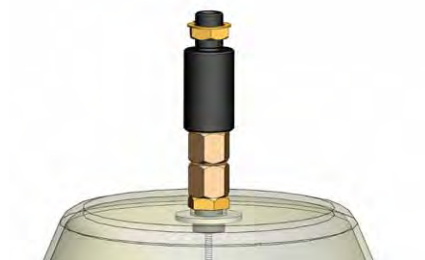


Application

for wire coil support

Technical data	0047190000
Connection	3/8" male thread

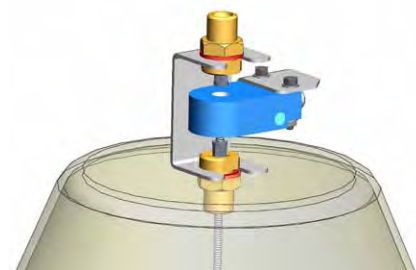
Contact sensor wire end control



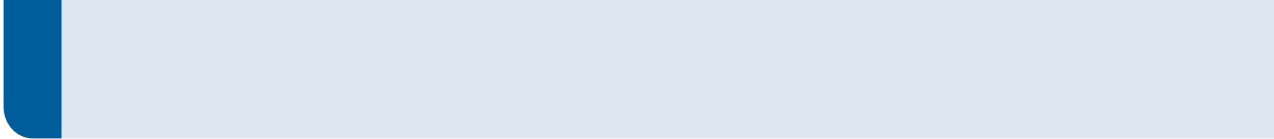
Technical data	0049010510
for wire Ø	0.8 - 1.6 mm

5

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 (Liftstart)
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
Liftstart
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



Technical data	0835200000
Welding current	5 A - 200 A
Welding current 30% duty cycle	200 A
Welding current 100% duty cycle	130 A
Open circuit voltage	83 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm ²
Mains protection/230V	16 A - 230 V
Type of protection	IP 23 S
Dimensions (L/W/H) compact unit	400 x 160 x 260 mm
Weight compact unit	9.8 kg

QINEO GL 222 DC

Processes

TIG DC welding (Liftstart)
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
ActiveArc for TIG
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



6

Technical data	0835210000
Welding current	5 A - 220 A
Welding current 60% duty cycle	190 A
Welding current 100% duty cycle	160 A
Open circuit voltage	76 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm ²
Mains protection/230V	20 A - 230 V
Type of protection	IP 23 S
Insulation class	H
Dimensions (L/W/H) compact unit	460 x 230 x 325 mm
Weight compact unit	18 kg

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
MIX AC/DC (MIX-TIG)
ActiveArc for TIG
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



Technical data	0835220000
Welding current	5 A - 220 A
Welding current 60% duty cycle	190 A
Welding current 100% duty cycle	160 A
Open circuit voltage	80 V
Mains voltage	230 V
Connection cable	3 x 2,5 mm ²
Mains protection/230V	25 A - 230 V
Type of protection	IP 23 S
Dimensions (L/W/H) compact unit	460 x 230 x 325 mm
Weight compact unit	18 kg

Cooling unit FC 10

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

Suitable for
QINEO GL/GLW 222



6

Technical data	0835200500
Mains voltage	230 V
Power consumption	1.35 A
Cooling capacity	1.18 kW
Maximum pressure	0.44 MPa
Tank contents	2.2 l
Type of protection	IP 23
Dimensions L/W/H	530 x 230 x 210
Weight	12.0 kg

Carriage for GL GLW 222



suitable for
QINEO GL/GLW 222

Standard equipment
Gas bottle holder

Technical data	0835200100
Dimension LxWxH	95 x 500 x 900 mm

Hand remote control RC 03 H



Type
Hand remote control

suitable for
QINEO GL/GLW 202-222

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

Foot remote control RC 03 F



Type

Foot remote control

suitable for

QINEO GL/GLW 202-222

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

GL 270 350 500 DC

Processes

TIG DC welding (Liftstart)
TIG pulsed arc welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Pipeline construction
Automotive industry
Equipment manufacturing
System/container construction

Base materials

Structural steel
CrNi steel

Standard equipment

Cloos S connection
2 cycle operation
4 cycle operation
HF ignition
TIG Two-Value Operation

Options

Foot remote control
Analogue control



Technical data	0875000009	0875000010	0875000011
Machine type	GL 270	GL 350	GL 500
Current type	DC	DC	DC
Welding current	5 A - 270 A	5 A - 350 A	5 A - 500 A
Welding current 55 ED MMA	270 A	350 A	500 A
Welding current 60% duty cycle	270 A	350 A	500 A
Welding current 100% duty cycle	220 A	270 A	430 A
Open circuit voltage	100 V	100 V	100 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Connection cable	4 x 2,5 mm ²	4 x 4 mm ²	4 x 4 mm ²
Mains protection/400V	16 A	25 A	35 A
Type of protection	IP 23	IP 23	IP 23
Type of cooling	AF	AF	AF
Dimensions (L/W/H) compact unit	950 x 435 x 980 mm	950 x 435 x 980 mm	950 x 435 x 980 mm
Weight compact unit	110 kg	110 kg	120 kg
Primary max. current	17 A	26 A	33 A
Power factor	0.8	0.8	0.8

GL 270 350 500 DC with CWS 100

Processes

TIG DC welding (Liftstart)
TIG pulsed arc welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Pipeline construction
Automotive industry
Equipment manufacturing
System/container construction

Base materials

Structural steel
CrNi steel

Standard equipment

Cloos S connection
Digital display CWS 100
2 cycle operation
4 cycle operation
HF ignition
TIG Two-Value Operation

Options

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



6

Technical data	0875000019	0875000020	0875000021
Machine type	GL 270 CWS	GL 350 CWS	GL 500 CWS
Current type	DC	DC	DC
Welding current	5 A - 270 A	5 A - 350 A	5 A - 500 A
Welding current 55 ED MMA	270 A	350 A	500 A
Welding current 60% duty cycle	270 A	350 A	500 A
Welding current 100% duty cycle	220 A	270 A	430 A
Open circuit voltage	100 V	100 V	100 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Connection cable	4 x 2,5 mm ²	4 x 4 mm ²	4 x 4 mm ²
Mains protection/400V	16 A	25 A	35 A
Type of protection	IP 23	IP 23	IP 23
Type of cooling	AF	AF	AF
Dimensions (L/W/H) compact unit	950 x 435 x 980 mm	950 x 435 x 980 mm	950 x 435 x 980 mm
Weight compact unit	110 kg	110 kg	120 kg
Primary max. current	17 A	26 A	33 A
Power factor	0.8	0.8	0.8

GLW 270 / 350 / 500 AC/DC

Processes

TIG AC/DC welding
TIG pulsed arc welding
Stick electrode welding

Applications

Industrie
Workshops
Pipeline construction
Automotive industry
System/container construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

Cloos S connection
2 cycle operation
4 cycle operation
HF ignition
TIG Two-Value Operation
Liftstart

Options

Digital display CWS 100
Foot remote control
TIG torch with button
Stick electrode holder
Pressure reducer
Earth cable with pliers
Analogue control



Technical data	0875000012	0875000013	0875000014
Machine type	GLW 270	GLW 350	GLW 500
Current type	AC/DC	AC/DC	AC/DC
Welding current	5 A - 270 A	5 A - 350 A	5 A - 500 A
Welding current 55 ED MMA	270 A	350 A	500 A
Welding current 60% duty cycle	270 A	350 A	500 A
Welding current 100% duty cycle	220 A	270 A	430 A
Open circuit voltage	100 V	100 V	100 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Connection cable	4 x 2,5 mm ²	4 x 4 mm ²	4 x 4 mm ²
Mains protection/400V	16 A	25 A	35 A
Type of protection	IP 23	IP 23	IP 23
Type of cooling	AF	AF	AF
Dimensions (L/W/H) compact unit	950 x 435 x 980 mm	950 x 435 x 980 mm	950 x 435 x 980 mm
Weight compact unit	120 kg	120 kg	130 kg
Primary max. current	17 A	26 A	33 A
Power factor	0.8	0.8	0.8

GLW 270 350 500 AC/DC with CWS 100

Processes

TIG AC/DC welding
TIG pulsed arc welding
Stick electrode welding

Applications

Industrie
Workshops
Repair
Pipeline construction
Automotive industry
Equipment manufacturing
System/container construction

Base materials

Structural steel
CrNi steel
Aluminium

Standard equipment

Cloos S connection
Digital display CWS 100
2 cycle operation
4 cycle operation
HF ignition
TIG Two-Value Operation

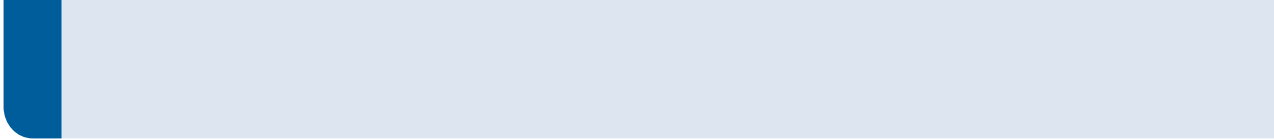
Options

Foot remote control
TIG torch with button
Pressure reducer
Earth cable with pliers



6

Technical data	0875000022	0875000023	0875000024
Machine type	GLW 270 CWS	GLW 350 CWS	GLW 500 CWS
Current type	AC/DC	AC/DC	AC/DC
Welding current	5 A - 270 A	5 A - 350 A	5 A - 500 A
Welding current 55 ED MMA	270 A	350 A	500 A
Welding current 60% duty cycle	270 A	350 A	500 A
Welding current 100% duty cycle	220 A	270 A	430 A
Open circuit voltage	100 V	100 V	100 V
Mains voltage	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases	400V / 50Hz / 3 phases
Connection cable	4 x 2,5 mm ²	4 x 4 mm ²	4 x 4 mm ²
Mains protection/400V	16 A	25 A	35 A
Type of protection	IP 23	IP 23	IP 23
Type of cooling	AF	AF	AF
Dimensions (L/W/H) compact unit	950 x 435 x 980 mm	950 x 435 x 980 mm	950 x 435 x 980 mm
Weight compact unit	120 kg	120 kg	130 kg
Primary max. current	17 A	26 A	33 A
Power factor	0.8	0.8	0.8



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 welding point. 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-250



Type of cooling	gas cooled
Capacity DC	150 A
Capacity 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 button	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
Capacity 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 button	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
Capacity AC	200 A
Electrode gage	0.5-3.2 mm
Equipped for electrode	2.4 mm

Technical data	0875040400	0875040800	0875140400	0875140800
Torch button	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

7
7.1



Type of cooling	water cooled
Capacity DC	350 A
Capacity 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 button	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
Capacity 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 button	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
Capacity 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

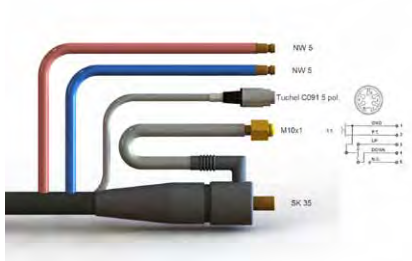
TIG Manual welding torch QN-TT-HW-250P



Special feature	Potentiometer
Type of cooling	water cooled
Capacity DC	250 A
Capacity 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)

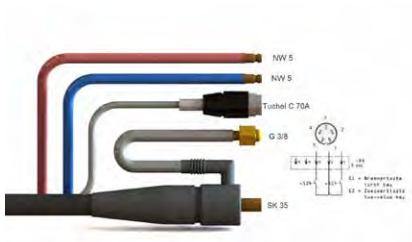
Gas connection

M10x1 union nut

Cooling water

Plug nipple NW5

TIG Welding torch connection: S connection



Suitable for

GL/GLW 270-300-500

Power connection

SK 35 (Ø 13 mm)

Gas connection

G 3/8 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.
Equipped for electrode	0.1 mm
	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°

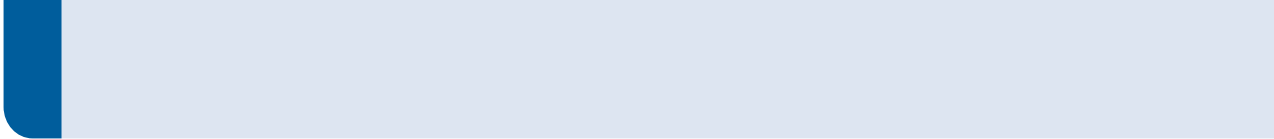
Technical data	0850642715	0072012660
Equipment	with cut-off	Tracer pin / with cut-off

TIG Robot welding torch: Cold wire feeder CWD



Options
Sensors
Angle
45°

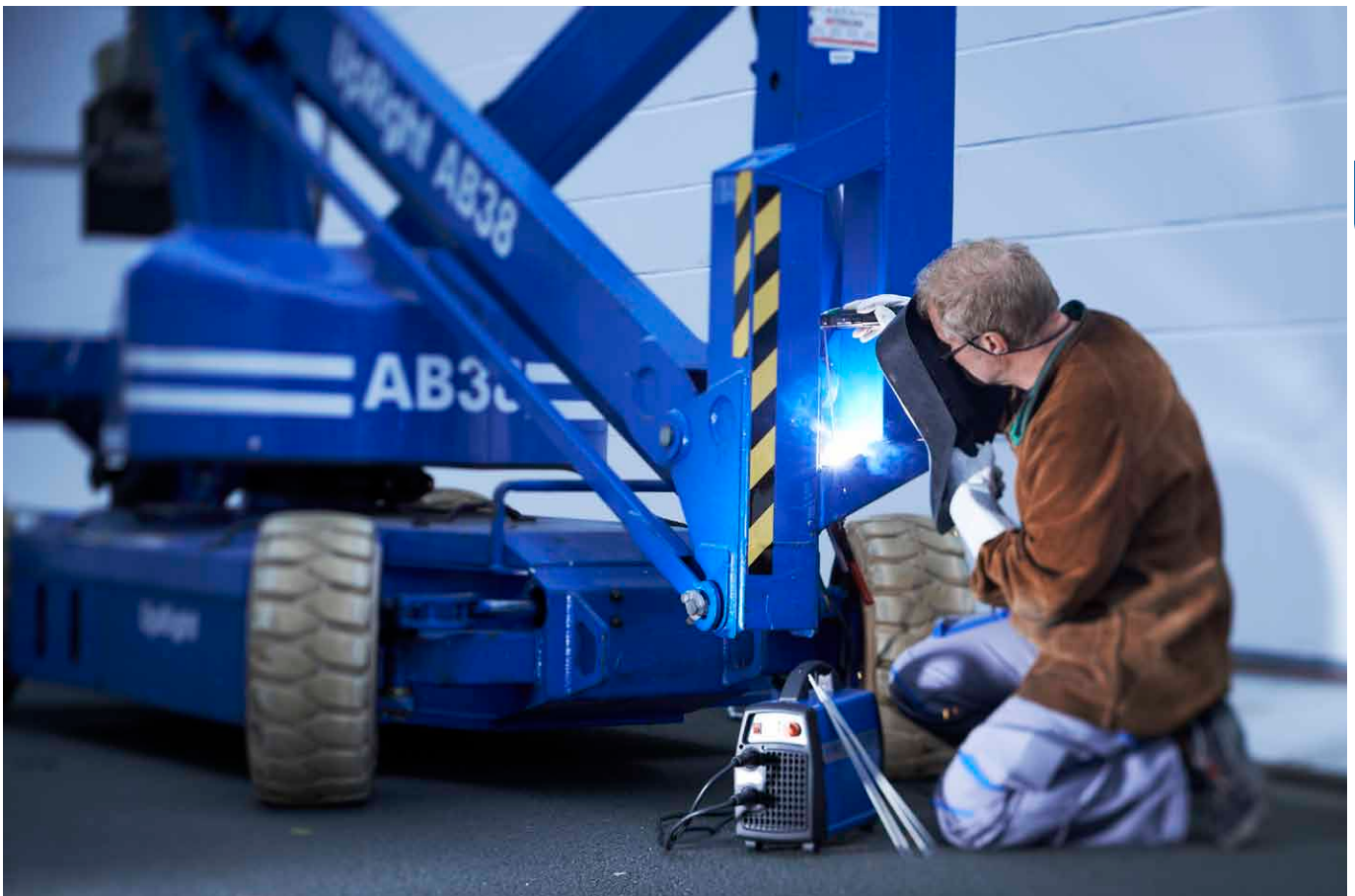
Technical data	0535435000	0072021350
Equipment	integrated cold wire feed / with cut-off	Tracer pin / with cut-off



Electrode Hand 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 for 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 mm ²
Mains protection/230V	16 A - 230 V
Type of protection	IP 22 S
Insulation class	F
Dimensions (L/W/H) 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 mm ²
Mains protection/230V	
Type of protection	IP 22 S
Insulation class	F
Dimensions (L/W/H) 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	5m
Connection	Military plug

Electrode hand 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 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

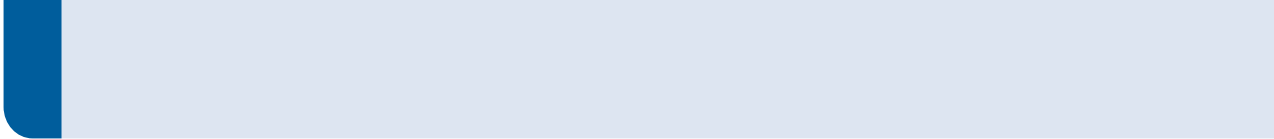
Technical data	0875220400	0875220800
Torch button	Valve for shielding gas	Valve for shielding gas
Length cable assembly	4 m	8 m
Connection	SK 35, G1/4	SK 35, G1/4

Earth cable



Suitable for	QINEO CLE, GL and GLW series
Length cable assembly	4 m
Connection	SK 35 (Ø 13 mm)

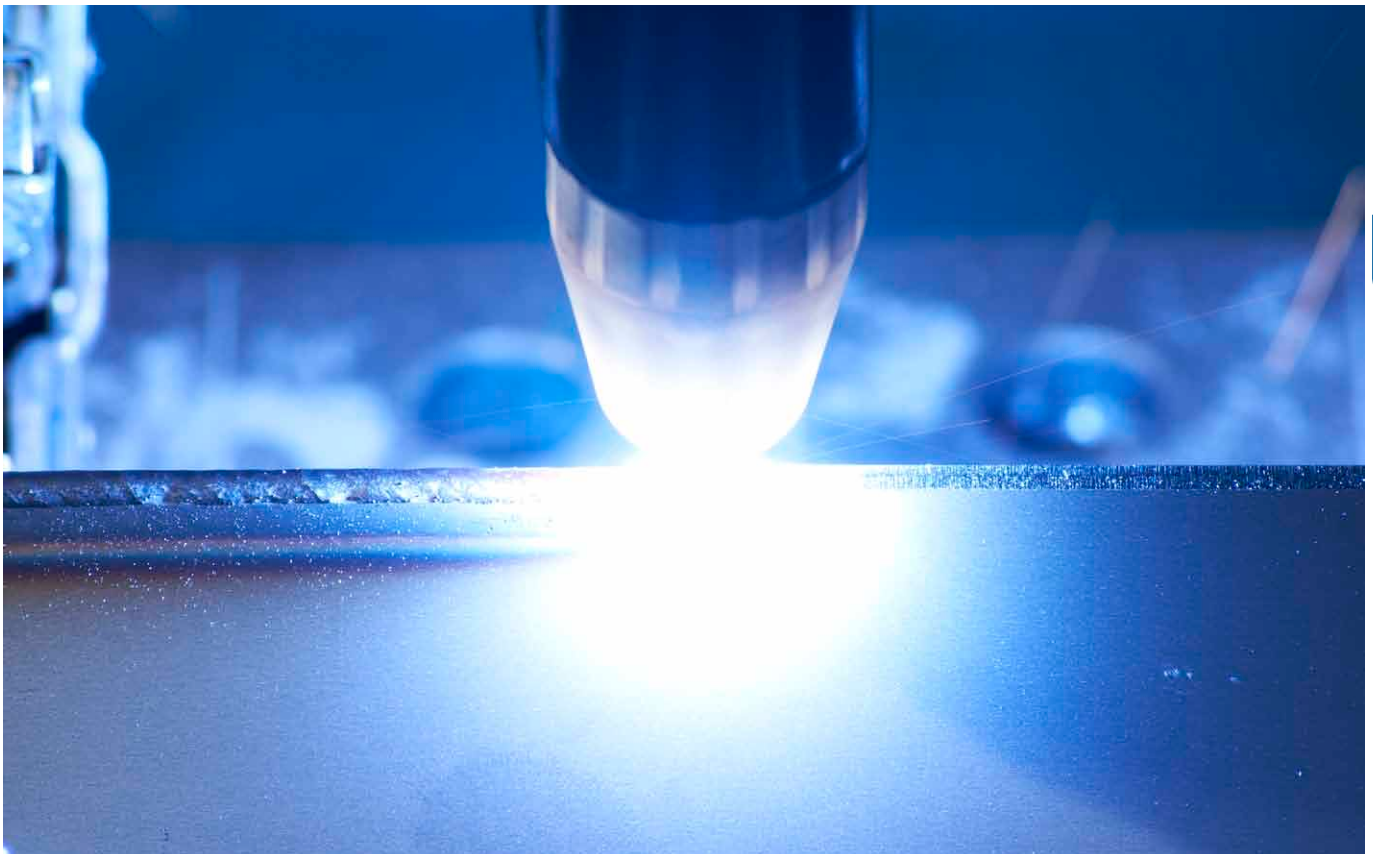
Technical data	0875004113	0875004114	0875004115	0875004116
Cable	25 mm²	35 mm²	50 mm²	70 mm²



Plasma welding

Plasma welding is one of the latest fusion welding process. It belongs to the TIG welding process (Tungsten Inert Gas Welding), abbreviation "WP", and was only introduced in Germany in the 1960s. The first experiments to increase the power density in the TIG started very early. It succeeded in constricting the arc mechanically by a copper nozzle (plasma nozzle). As with the TIG process the addition of the filler material when plasma welding is no longer coupled to the

amperage, i.e. the welding parameters can be adjusted to the requirements of the welding process. In welding technology thermal plasma is used for welding. Usually direct current (DC) is used for plasma welding of steel. The minus pole of the welding machine is at the tungsten electrode. Pulsed arc welding is also used besides welding with DC.



Plasma welding machine QINEO TIG TRONIC 350 DC

Processes

Plasma welding
Plasma cold wire
Plasma Powder

Applications

Industrie
Workshops
Repair
Pipeline construction
Automotive industry
Equipment manufacturing
System/container construction

Base materials

Structural steel
CrNi steel

Standard equipment

Cloos S connection
Digital display
HF ignition

Options

Foot remote control



Technical data	QINEO TIG TRONIC 350 DC
Current type	DC
Welding current	5 A - 350 A
Welding current 55 ED MMA	350 A
Welding current 60% duty cycle	350 A
Welding current 100% duty cycle	270 A
Open circuit voltage	100 V
Mains voltage	400V / 50Hz / 3 phases
Connection cable	4 x 4 mm ²
Mains protection/400V	25 A
Type of protection	IP 23
Type of cooling	AF
Dimensions (L/W/H) compact unit	1226 x 630 x 942 mm
Weight compact unit	
Primary max. current	26 A
Power factor	0.8

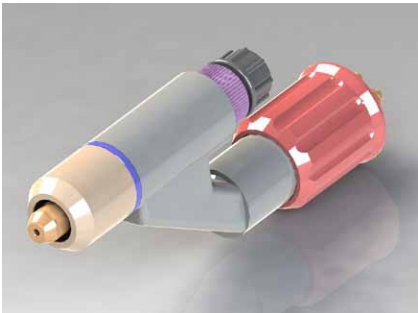
Plasma module



suitable for
QINEO TIC TRONIC

Technical data	0412913500	0412913000
Processes	Plasma welding	Plasma cold wire
Dimensions (L/W/H) compact unit	710 x 366 x 310 mm	710 x 366 x 310 mm

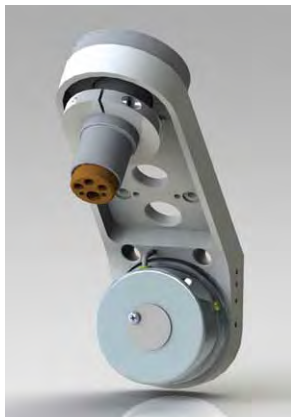
Robot Plasma Welding Torch CPB 151/351R



Processes	Plasma and plasma cold wire
Guidance	Automated
Type of cooling	water cooled
Duty cycle (ED)	60%
Bending angle	0°

Technical data	0806860000	0806890000
Power	350 A	150 A

Torch bracket CPB



Equipment

with cut-off

Angle

45°

Options

Tracer pin

Sensors

Cold wire feeder Cloos Plasma Drive CPB



Equipment

with cut-off

Integrated cold wire feed

Adjustable wire feed

Angle

45°

Options

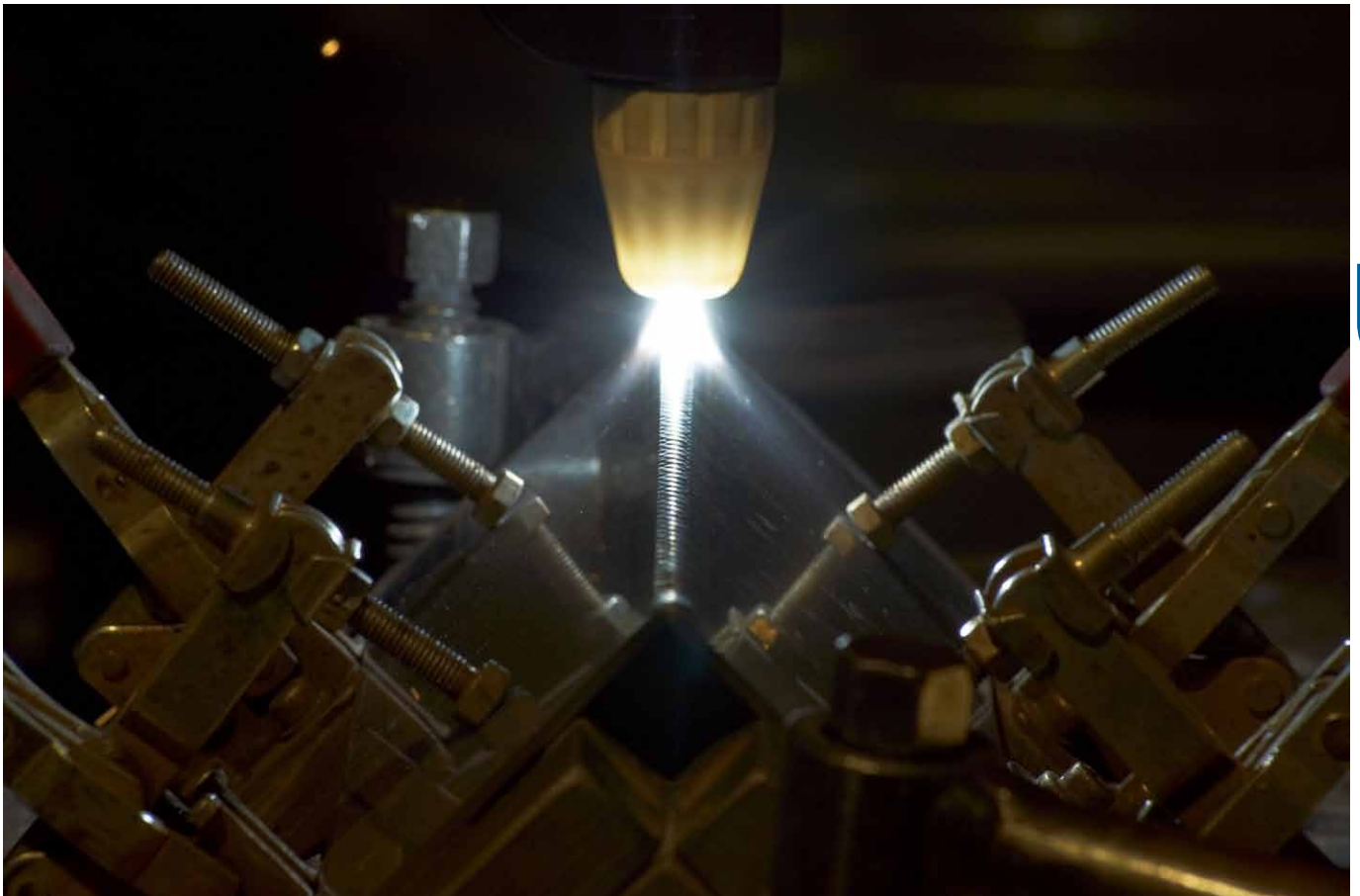
Tracer pin

Sensors

Plasma Powder Arc Welding (PPAW)

The plasma powder arc welding (PPAW) process realises fusions similar to TIG welding with cold wire feed but with a considerably higher welding speed. The powder filler material is fed to the melt pool by means of the concentrically designed PPAW welding torch.

Thus there is no need for a cold wire feed. The PPAW weld seams are spatter-free. Besides, narrow and small component contours are accessible which means that the accessibility of the welding torch to the workpiece is considerably improved.



Plasma welding machine QINEO TIG TRONIC 350 DC

Processes

Plasma welding
Plasma cold wire
Plasma Powder

Applications

Industrie
Workshops
Repair
Pipeline construction
Automotive industry
Equipment manufacturing
System/container construction

Base materials

Structural steel
CrNi steel

Standard equipment

Cloos S connection
Digital display
HF ignition

Options

Foot remote control



Technical data	QINEO TIG TRONIC 350
Current type	DC
Welding current	5 A - 350 A
Welding current 55 ED MMA	350 A
Welding current 60% duty cycle	350 A
Welding current 100% duty cycle	270 A
Open circuit voltage	100 V
Mains voltage	400V / 50Hz / 3 phases
Connection cable	4 x 4 mm ²
Mains protection/400V	25 A
Type of protection	IP 23
Type of cooling	AF
Dimensions (L/W/H) compact unit	1226 x 630 x 942 mm
Primary max. current	26 A
Power factor	0.8

Plasma module Plasma Powder



suitable for
QINEO TIC TRONIC

Technical data	0412914000
Processes	Plasma Powder
Dimensions (L/W/H) compact unit	710 x 366 x 310 mm

Powder conveyor CPF 1-6



Processes
Plasma Powder

suitable for
QINEO TIC TRONIC

Powder conveyor in a robust aluminium housing with storage and sealing suitable for powder. It is driven by an infinitely adjustable DC motor with worm gear. Powder transport to the torch with carrier gas (shielding gas). The unit is completely gas-shielded and equipped with integrated safety valves. Additional quick emptying device for a quick change of the filler material.

Plasma Powder Welding Torch QN PP MW 30°



Processes	Plasma Powder
Guidance	Automated
Power	150 A
Duty cycle (ED)	60%
Bending angle	30 °

Technical data	0806873035	0806878035
Bending angle	30 °	30 ° / 80 °

Torch bracket QN PP MW



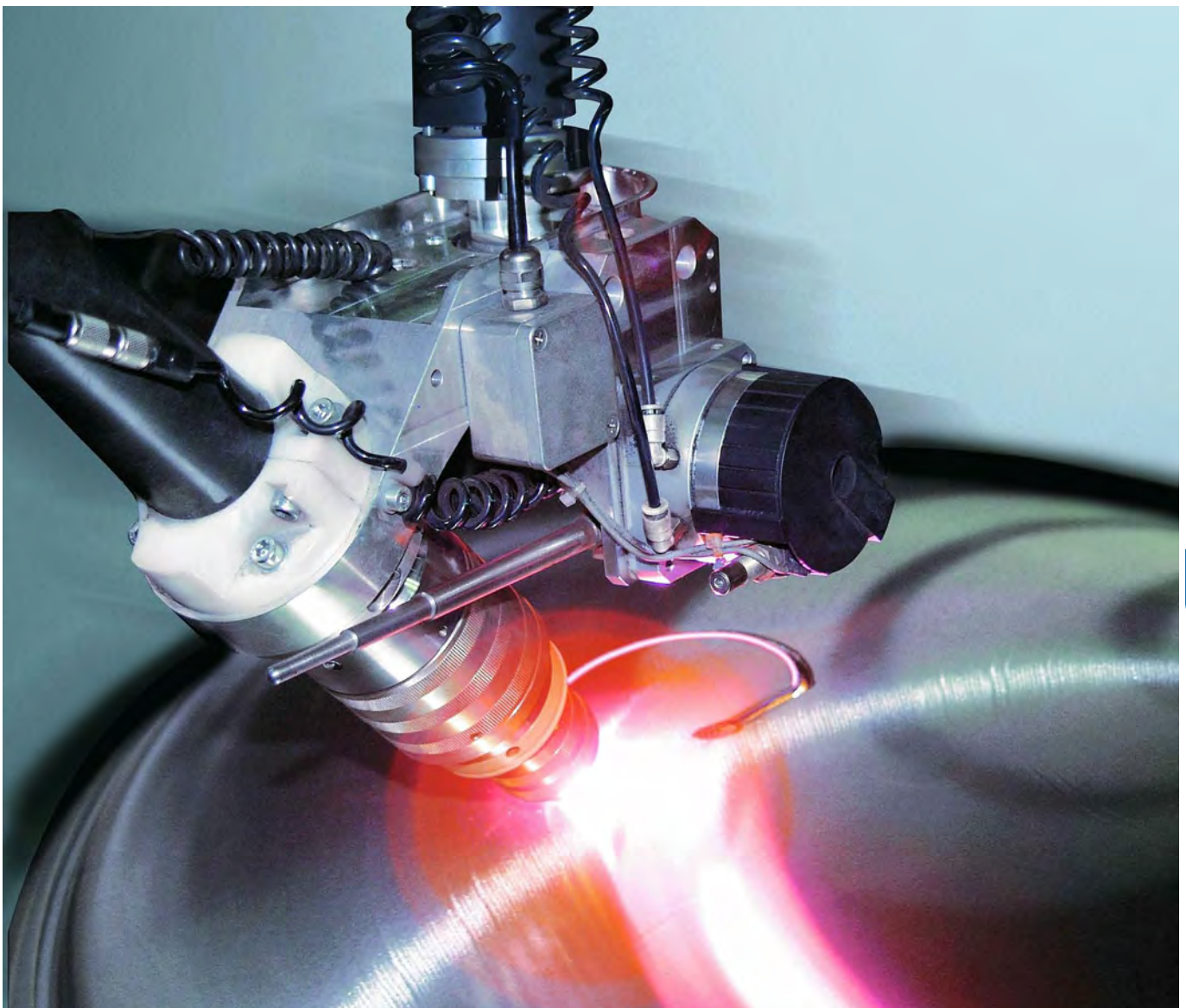
Equipment
with cut-off
Angle
30°

Technical data	0072010150
	30°

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 (L/W/H) compact unit	380 x 155 x 320 mm
Weight compact unit	8 kg

Plasma manual flame cutter QN PT 40



Processes
Suitable for
Power

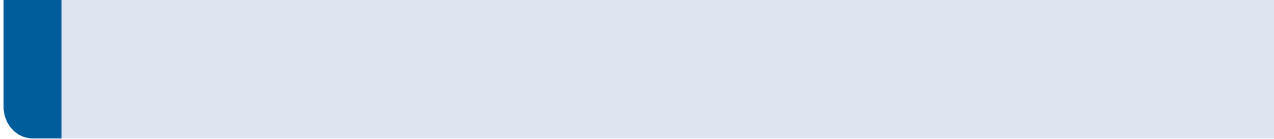
Plasma cutting
QINEO PLASMA CUT 30
up to 8 mm quality cut

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

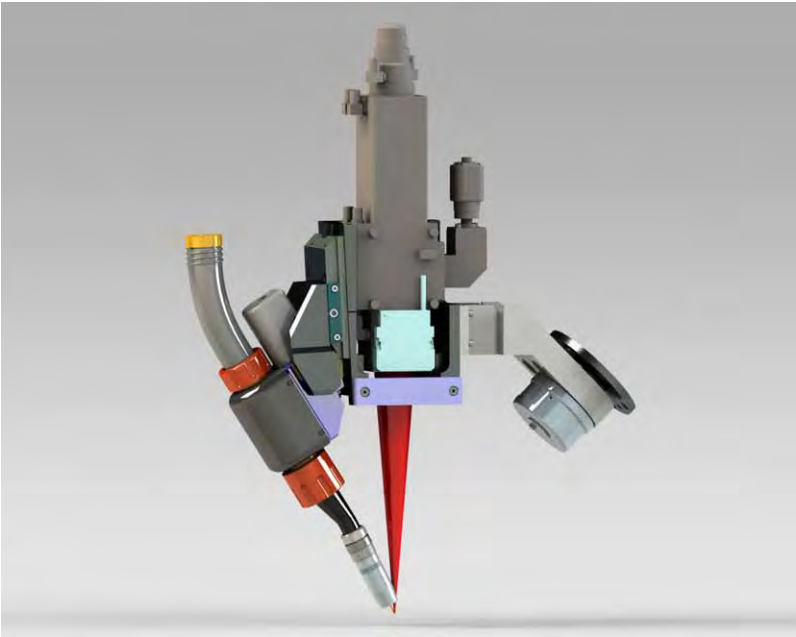
Processes
Laser Hybrid MIG/MAG

Guidance
Automated

Laser capacity
up to 20 kW

Options
Sensors
Integrated camera
Changing system

Focusing
300 mm



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

Laser Hybrid MIG/MAG head: Angular optics

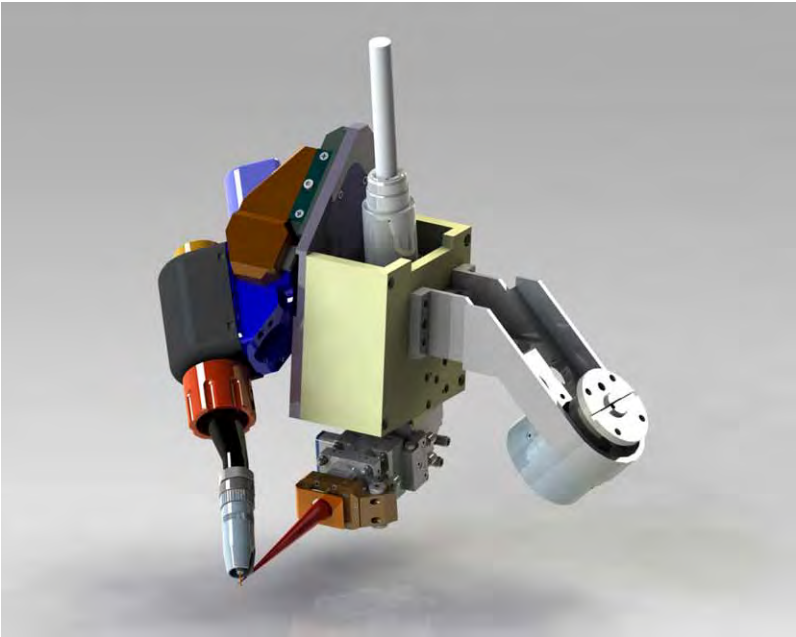
Processes
Laser Hybrid MIG/MAG

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	+ 15mm
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).



12
12.1

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

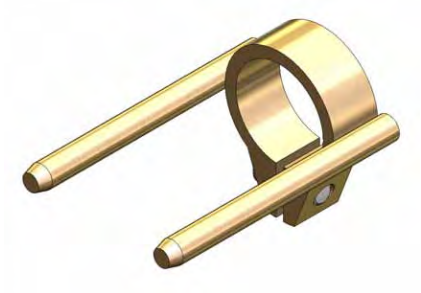
Socket wrench for current tips



Application
Safe mounting of current tips

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

Spot welding attachment for gas nozzle



Application
for safe spot welding

Technical data	0065003010	0065004010
Diameter	Ø 24 mm	Ø 26 mm

Welding safety helmet CLOOS-Arc Flash

The CLOOS welding safety helmet protects from UV and heat radiation. The three capacity classes meet every requirements for manual and automated welding.

Standard equipment

Solar power
No battery change
Field of view 95 x 47 mm
UV protection permanent DIN 15
IR protection permanent DIN 14
incl. optics and headgear



Technical data	0875004401	0875004402
Type	ARC FLASH II	Cloos Arc Flash III
Switching time at 23°C	0.0001 seconds	0.0001 seconds
Light shade	DIN 4	DIN 4
Dark shade	DIN 9 - 13	DIN 9 - 13
Lightening time	0.2 - 0.8 seconds	0.2 - 0.8 seconds
Weight	548 g	549 g
Special functions	-	Delay and sensitivity

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

12
12.1

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

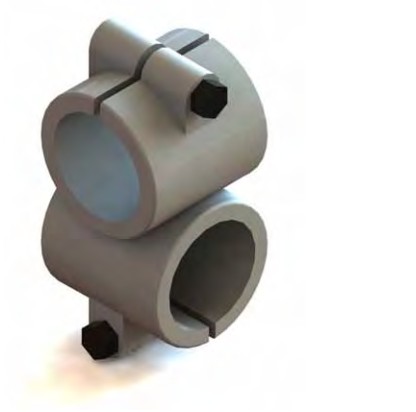
Flange terminal 60



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

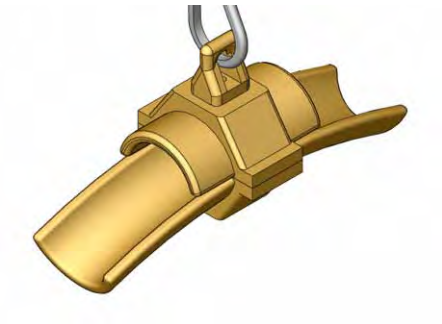
Plate for console



Application
for component support

Technical data	0850009502
suitable for	QWD-A

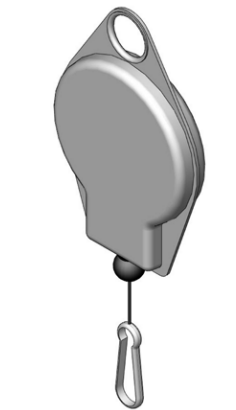
Cable holder



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

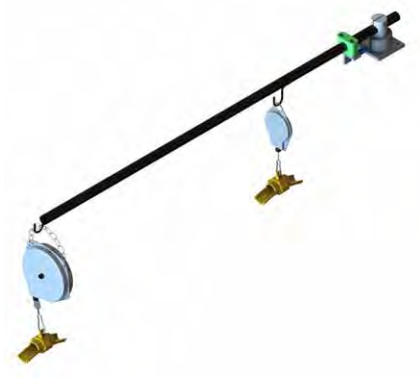
Balancer single wire complete



Application
to guide cable assemblies

Technical data	0864000600
Design	completely equipped

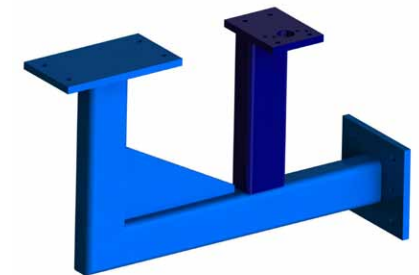
Balancer Tandem complete



Application
to guide cable assemblies

Technical data	0864001700
Design	completely equipped

Angle bracket for robot base

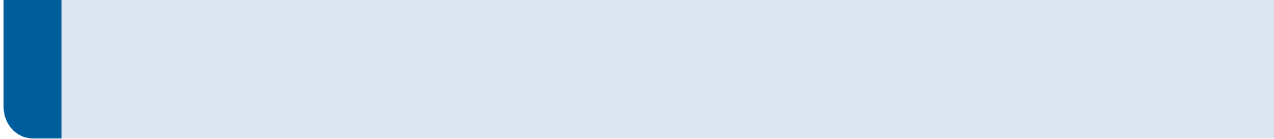


Application

Torch cleaning support

Technical data

0934156220



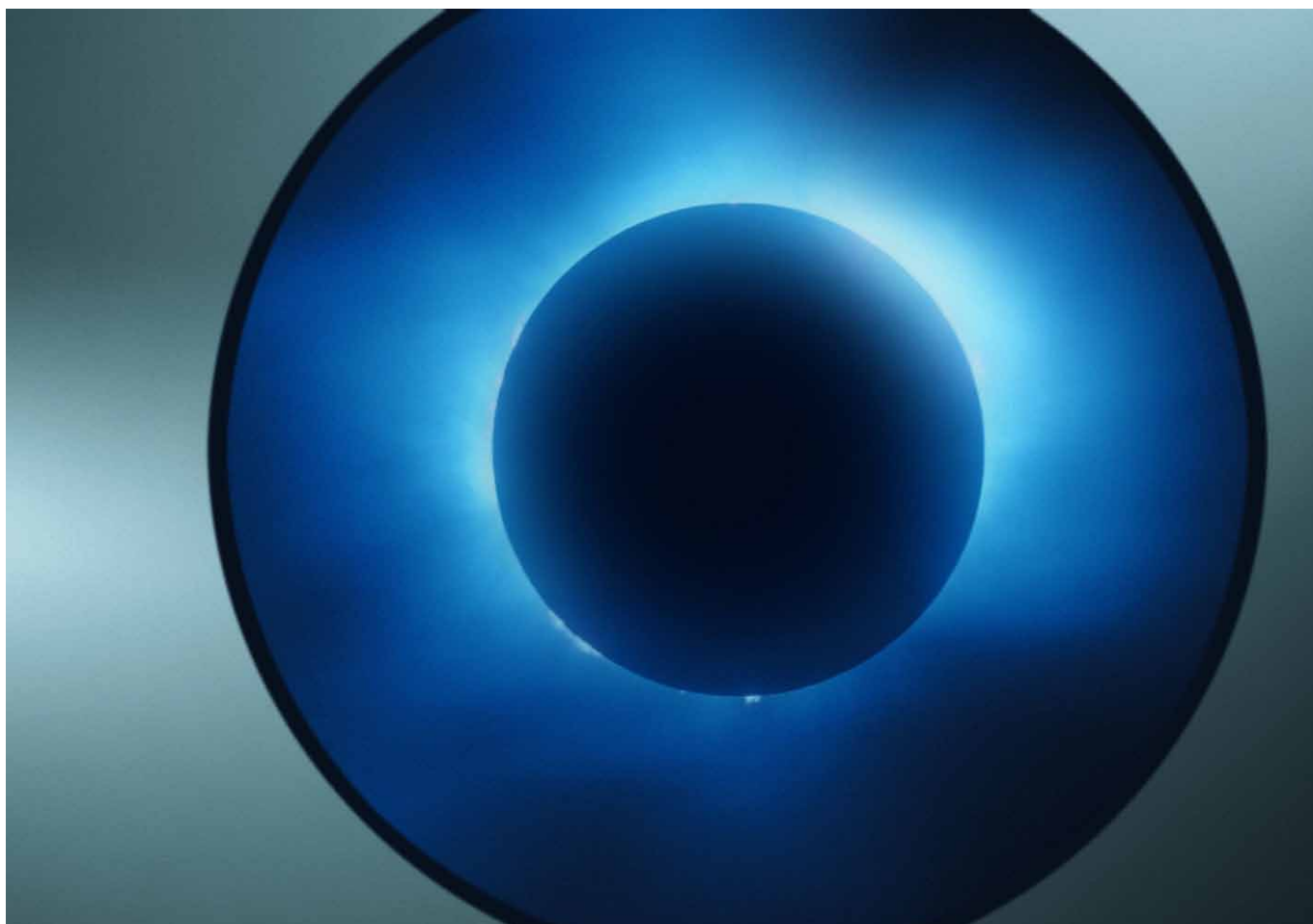
Welding processes

With a large range of proven and innovative welding processes, we at 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.

Process diversity in perfection

Excellent ignition behaviour, a quiet and stable arc and excellent weld seam qualities: 7 welding processes allow highly flexible application possibilities with a variety of materials. Clean Start, the ignition routine developed by CLOOS, ensures reliable and low spatter arc ignition with all processes.



Short arc

Standard arc for thin plates

The Short Arc Process supplies an arc which is particularly advantageous when welding thin steel. This process can also be used for reliable repair welding throughout all industry sectors and allows for welding under pure CO₂.

Applications

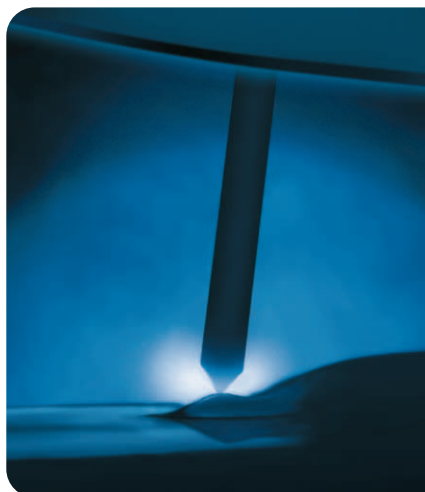
- Thin plates
- Welding under pure CO₂
- MIG brazing

Properties

- Low heat input
- Good gap bridging ability

Material

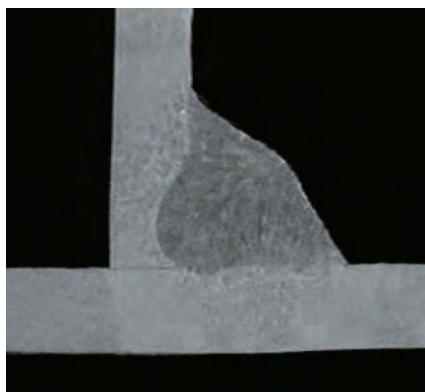
- Steel
- High-strength steel
- Aluminium
- Chrome-nickel materials
- Coated plates



Suitable power sources

- QINEO® Micro
- QINEO® Basic
- QINEO® STEP
- QINEO® TRONIC
- QINEO® TRONIC PULSE
- QINEO® PULSE
- QINEO® CHAMP

Fillet weld



Overlap weld



Technical data

Material	S235	S235
Wire thickness Ø mm	1.0	1.0
Wire feed V _D , m/min	4.2	5.0
Weld speed V _G , cm/min	55	70
Voltage U, V	17.3	17.4
Current I, A	128	126
Plate thickness, mm	1,5 / 1,5	1,5 / 1,5

Pulsed Arc

For aluminium and CrNi welding and for MIG brazing

The Pulse process creates an extremely low spatter pulsed arc. Its special strengths are the welding of aluminium and MIG brazing, where due to the low temperature the base material remains metallurgically unaffected and the corrosion protection is maintained. This process offers completely stable arc conditions and an outstanding controllable weld pool even under varying external influences.

Applications

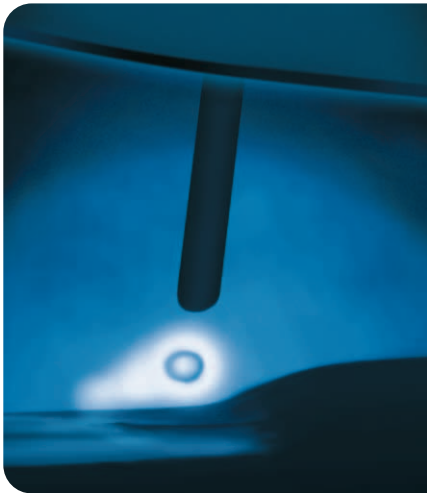
- Thin to medium materials
- Surface coated materials
- High-strength materials

Properties

- Optimum weld pool control
- Very low spatter drop transfer
- Completely stable arc conditions even under varying external influences

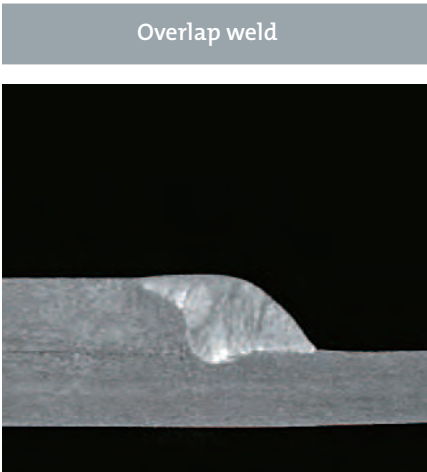
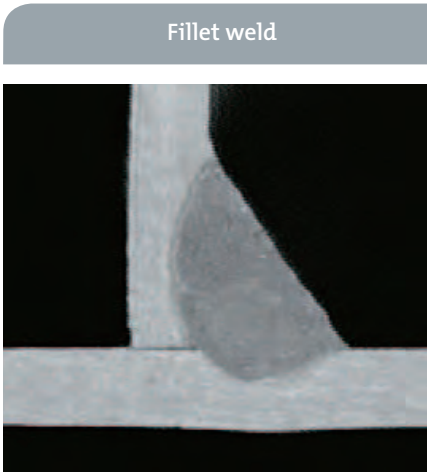
Material

- Steel
- High-strength steel
- Aluminium
- Chrome-nickel materials
- Coated plates



Suitable power sources

- QINEO® TRONIC PULSE
- QINEO® PULSE
- QINEO® CHAMP



Technical data

Material	AlSi5	AlSi5
Wire thickness Ø mm	1.2	1.2
Wire feed V _w m/min	4.0	4.0
Weld speed V _s cm/min	80	100
Voltage U, V	17.5	19.0
Current I, A	80	90
Plate thickness, mm	1,5 / 1,5	1,5 / 1,5

Cold Weld

Welding with minimum heat input

With the Cold Weld process an alternating current produces a very special pulse form, which brings about an extremely low heat input. Due to this type of 'cold' arc welding the welding process can be optimally controlled. The material is only subjected to minimum heat and the original material properties remain to a large extent unchanged. This enables an excellent weld quality to be achieved with good gap bridging and increased weld speed. Cold Weld is mainly used with thin to medium plate thicknesses.

Applications

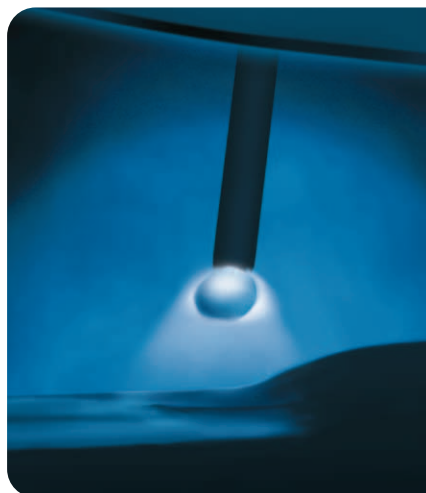
- Thin to medium materials
- Surface-coated materials
- High-strength materials

Properties

- Very stable arc
- Extremely low spatter pulsed arc
- High weld speed
- Good gap bridging ability
- Optimum weld seam quality
- Excellent control of heat input

Material

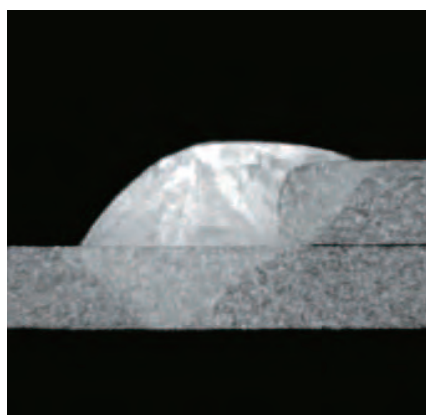
- Steel
- High-strength steel
- Aluminium
- Chrome-nickel materials
- Coated plates



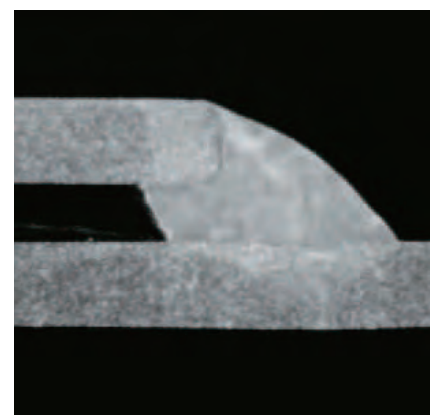
Suitable power sources

- QINEO® CHAMP

Overlap weld



Overlap weld with gap



Technical data

Material	CuSi3	CuSi3
Wire thickness Ø mm	1.2	1.2
Wire feed V _D , m/min	4.5	4.5
Weld speed V _S , cm/min	80	80
Voltage U, V	16.5	16.0
Current I, A	132	135
Plate thickness, mm	1,0 / 1,0	1,0 / 1,0

Speed Weld

Special process for rapid welding

The Speed Weld process is most suitable for joining components with thin to thick plate thicknesses. Good penetration depths and perfect side wall joints at high weld speeds are achieved by means of a focused pulsed arc. The Speed Weld process is used in all areas of industrial production.

Applications

- Medium to thick materials
- Surface-coated materials

Properties

- High weld speed
- Very good penetration depths
- Optimum side wall joints
- Low spatter arc

Material

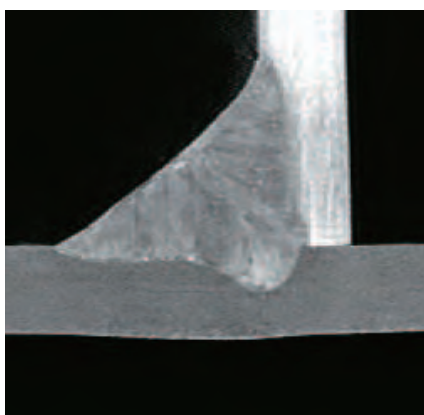
- Steel
- High-strength steel
- Aluminium
- Chrome-nickel materials
- Coated plates



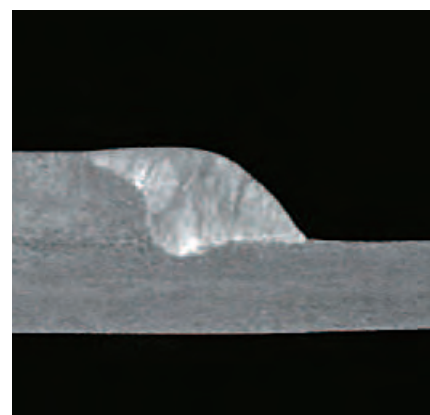
Suitable power sources

- QINEO® TRONIC PULSE
- QINEO® PULSE
- QINEO® CHAMP

Fillet weld



Overlap weld



Technical data

Material	1.4316	1.4316
Wire thickness Ø mm	1.0	1.0
Wire feed V_w m/min	5.8	5.0
Weld speed V_s cm/min	80	70
Voltage U, V	21.0	21.0
Current I, A	130	130
Plate thickness, mm	1,5 / 1,5	1,5 / 1,5

Rapid Weld

Special process for deep penetration

The Rapid Weld process provides advantages wherever high deposition rates and optimum penetration depths at high process speed are required. In some applications the high arc pressure makes it possible to achieve full penetration through joints with wall thicknesses of up to approx. 6-8 mm so that it is not necessary to weld the back side. The geometry of the penetration profile can be adjusted.

Applications

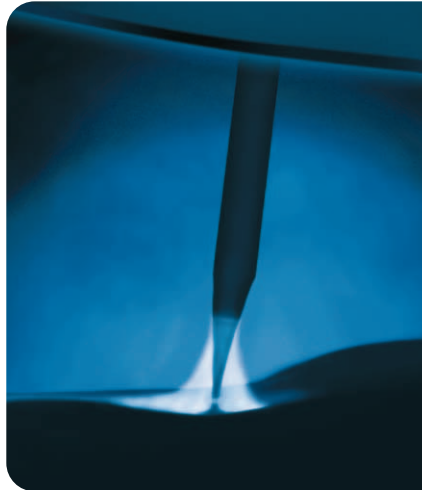
- Medium to thick materials

Properties

- Very good penetration depths
- High weld speed
- Adjustable penetration profile

Material

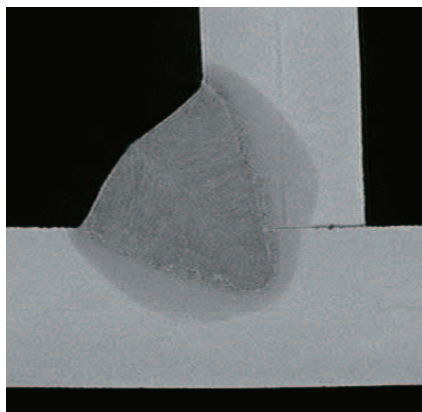
- Steel



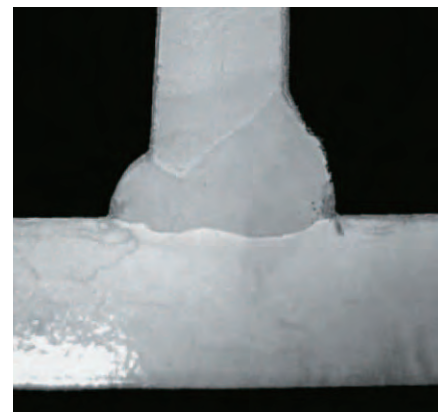
Suitable power sources

- QINEO® TRONIC
- QINEO® TRONIC PULSE
- QINEO® PULSE
- QINEO® CHAMP

Fillet weld



Fillet weld



Technical data

Material	S235	S235
Wire thickness $\varnothing$ mm	1.2	1.2
Wire feed V_w m/min	12.5	11.5
Weld speed V_s cm/min	52	30
Voltage U, V	33.0	28.5
Current I, A	360	315
Plate thickness, mm	10,0 / 10,0	8,0 / 10,0

Tandem Weld

Efficient welding times two

For Tandem welding two separately fed welding wires with separated potentials are fed together in a melt pool. Thanks to the consequent separation of the two power circuits, the welding arc can be fully controlled. The major advantages of the Tandem Weld process are an extraordinarily high deposition rate, extremely high process speed and thus vastly reduced low heat input. This results in an excellent weld seam quality and a shorter welding time. The Tandem Weld process is used for

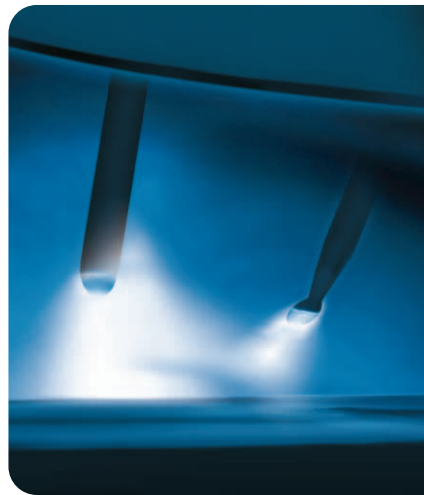
automated applications in all industries.

Applications

- Thin to thick materials

Properties

- Very high deposition rate
- High weld speed
- Low heat input



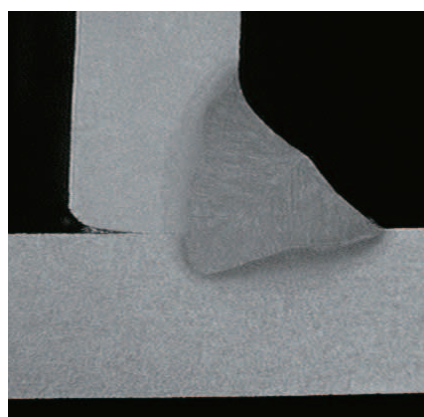
Suitable power sources

- QUINTO II

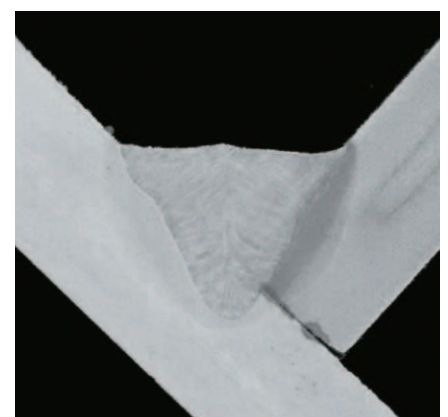
Material

- Steel
- High-strength steel
- Aluminium
- Chrome-nickel materials
- Coated plates

Fillet weld



V weld



Technical data

Material	S235	S235
Wire thickness $\varnothing$ mm	1.2	1.2
Wire feed V_w , m/min (1st wire / 2nd wire)	19.1 / 9.0	22.0 / 13.0
Weld speed V_s , cm/min	140	120
Voltage U, V (1st wire / 2nd wire)	35.5 / 29	31.8 / 32.8
Current I, A (1st wire / 2nd wire)	445 / 240	445 / 335
Plate thickness, mm	8,0 / 8,0	8,0 / 8,0

Laser MIG/MAG Hybrid Welding process

Stability due to synergy

The Laser MIG/MAG technology combines the advantages of two proven welding processes. The preceding laser beam melts the material at a small focussed spot and is pushed by the high energy density deep into the material. The following MIG/MAG process creates a wide focal spot and feeds filler material to the melting pool. The filler material fills the funnel formed by the laser beam and ensures a safe side wall fusion. The result: very deep penetration, higher weld speed, a very stable arc and a considerable reduction of the heat input into the workpiece. Due to these characteristics, higher plate thicknesses can be welded without preparation and multilayer welding can be replaced by one single laser MIG/MAG weld seam.

Applications

- Thin to thick materials

Properties

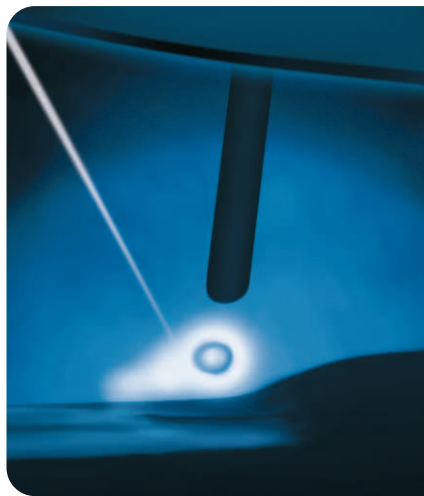
- Very deep penetration
- High weld speed
- Low heat input
- Very stable process

Advantages in comparison to MIG/MAG welding

- More productivity due to higher weld speed
- Less seam preparations when welding thicker plates
- Less workpiece distortion due to lower heat input
- Stable process due to the interaction of the processes

Material

- Steel
- High-strength steel
- Aluminium
- Chrome-nickel materials
- Coated plates



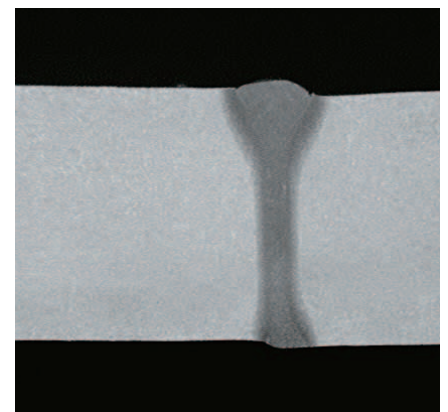
Suitable power sources

- QINEO® CHAMP
- QINEO® TRONIC
- QINEO® TRONIC PULSE
- QINEO® PULSE
- QUINTO II

Fillet weld



Butt weld



Technical data

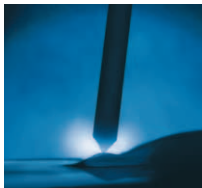
Material	S235	S235
Wire thickness Ø mm	1.2	1.2
Wire feed V_w , m/min	10.0	11.0
Weld speed V_s , cm/min	85	150
Voltage U, V	27.0	27.5
Current I, A	260	280
Plate thickness, mm	12.0	12.0
Laser capacity P, kW	8,0 / 12,0	8.0

* Comparison Tandem welding with Laser MIG/MAG Hybrid welding. Low-alloyed steel, plate thickness 10 mm

Overview

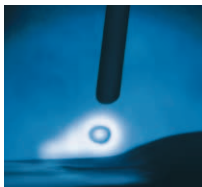
Market lead due to expertise

CLOOS expertise in numerous welding processes can give you a decisive lead among your competitors. Use our proven know how in welding technology for the efficient processing of the most varied materials. CLOOS can provide the right QINEO® welding power source for all welding processes and requirements. You will benefit from the best quality, reliability and flexibility.



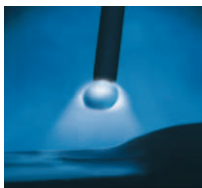
Short Arc

- Thin plate, steel and high-strength steel
- Manual and automated welding, repair welding, welding under pure CO₂



Pulsed Arc

- high-strength steel and coated plates, aluminium, CrNi materials
- Manual and automated welding, MIG brazing



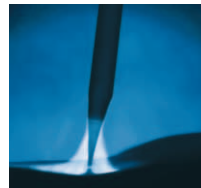
Cold Weld

- Thin plate, steel, aluminium, CrNi materials
- Manual and automated welding



Speed Weld

- Thin to thick materials, steel, aluminium, CrNi materials
- Particularly automated, but also manual welding



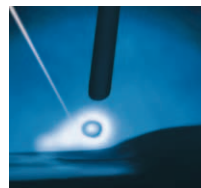
Rapid Weld

- Thick steel and high-strength steel
- Manual and automated welding



Tandem Weld

- Thin to thick materials, steel, aluminium, CrNi materials
- Automated welding



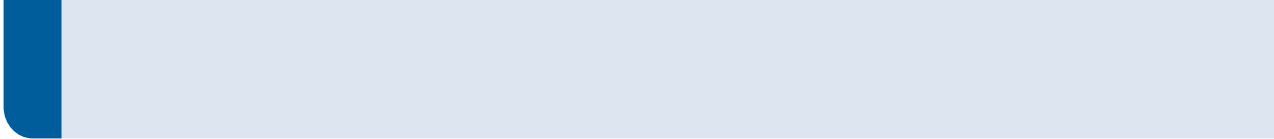
Laser MIG/MAG Hybrid Welding process

- Thin to thick plate, steel, aluminium, CrNi materials
- Automated welding

Overview

	Short Arc	Pulsed Arc	Cold Weld	Speed Weld	Rapid Weld	Tandem Weld	Laser MIG/MAG Hybrid
Material							
Thickness	1* + 2*	1* + 2* + 3*	1* + 2*	3* + 4*	3* + 4*	3* + 4*	2* + 3* + 4*
Steel	■	■	■	■	■	■	■
High-strength steel	■	■	■	■	■	■	■
Alu	■	■	■	■	■	■	■
CrNi materials	■	■	■	■	■	■	■
Coated plates		■	■	■	■	■	■
Unit							
Micro	■						
Micro Pulse	■	■					
Basic	■						
STEP	■						
TRONIC	■				■		
TRONIC PULSE	■	■		■	■		■
PULSE	■	■		■	■		■
CHAMP	■	■	■	■	■		■
QUINTO II	■	■		■	■	■	■

1* very thin, 2* thin, 3* thin to medium, 4* medium to thick



QIROX®



QIROX®

QIROX®: The system for automated welding and cutting.

QIROX® is the new CLOOS product brand comprising all solutions for automated welding and cutting. Due to its modular design, the QIROX® system allows scalable solutions which can perfectly match your production requirements. The QIROX® system includes the robot technology, software, sensors, safety technology, positioners and the interface to the process technology. It is completed by an extensive range of options and complementary services. As a result of this comprehensive service from just one supplier, our customers can gain considerable economic and quality benefits.

- **QIROX Robots**
More dynamic, quicker, more flexible – thanks to a new design and an additional 7th axis
- **QIROX Positioners**
Solutions for every component
- **QIROX Sensors**
Safe detection with each weld seam
- **QIROX Software**
Management for professionals
- **QIROX Compact systems**
Efficient units for welding and cutting
- **QIROX Special solutions**
Customised systems for complex requirements

www.qirox.de





Welding robots in the international top class

As one of the leading specialists in the development and manufacture of high-value welding robots for demanding industrial applications, CLOOS uses its decades old know-how for continuous development. Thanks to the integration of innovative technologies, the new generation of QIROX® welding robots offers additional customer value and production advantages. Among the particular highlights are the complete reworking of the product design and the introduction of an optional seventh axis. Both innovations contribute to a considerable increase in the flexibility and dynamics of the QIROX® welding robots. As a result, the automated welding processes can be configured in a significantly more efficient manner.

Advantages for increased productivity

- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Optional seventh axis for increasing the working envelope and optimal positioning of the welding torches
- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Best processing quality due to a high repeatability
- High offset speeds reduce the cycle times
- The proven CLOOS quality ensures a particularly long service life and extended maintenance intervals
- Systems matched to production requirements, including suitable hardware and software



Perfectly matched

CLOOS can supply you with all you need for optimised welding processes in your production. All components have been proven a thousandfold in practice and are perfectly matched to each other. This improves reliability, increases process speed and minimises both the maintenance and the setup work. You will get just those components which correspond to your production process requirements.

■ QIROX® Welding robot Classic (QRC)

- Greatest flexibility due to an optional seventh axis
- For floor or overhead mounting

■ Process technology

- QINEO® welding power sources of the newest generation
- Interface for data exchange with the robot controller
- Gas and water cooled welding equipment for long duty cycle

■ QIROX® Welding robot Hollow shaft (QRH)

- Cable assemblies integrated in 6th axis
- Wire drive unit integrated in the robot arm
- For floor or overhead mounting

■ Positioners

- The most comprehensive program worldwide for robots and workpieces
- Dynamic positioner for fast offset movements
- Synchronous movement of all axes
- Copying of programs on manipulators with identical structure

■ QIROX® Controller

- Simple and fast touch-screen programming
- All welding parameters can be programmed at the controller
- All welding processes are integrated

■ Special solution

- Extra components for realisation of individual customer requests

Ergonomic

Protected

Integrative

Flexible

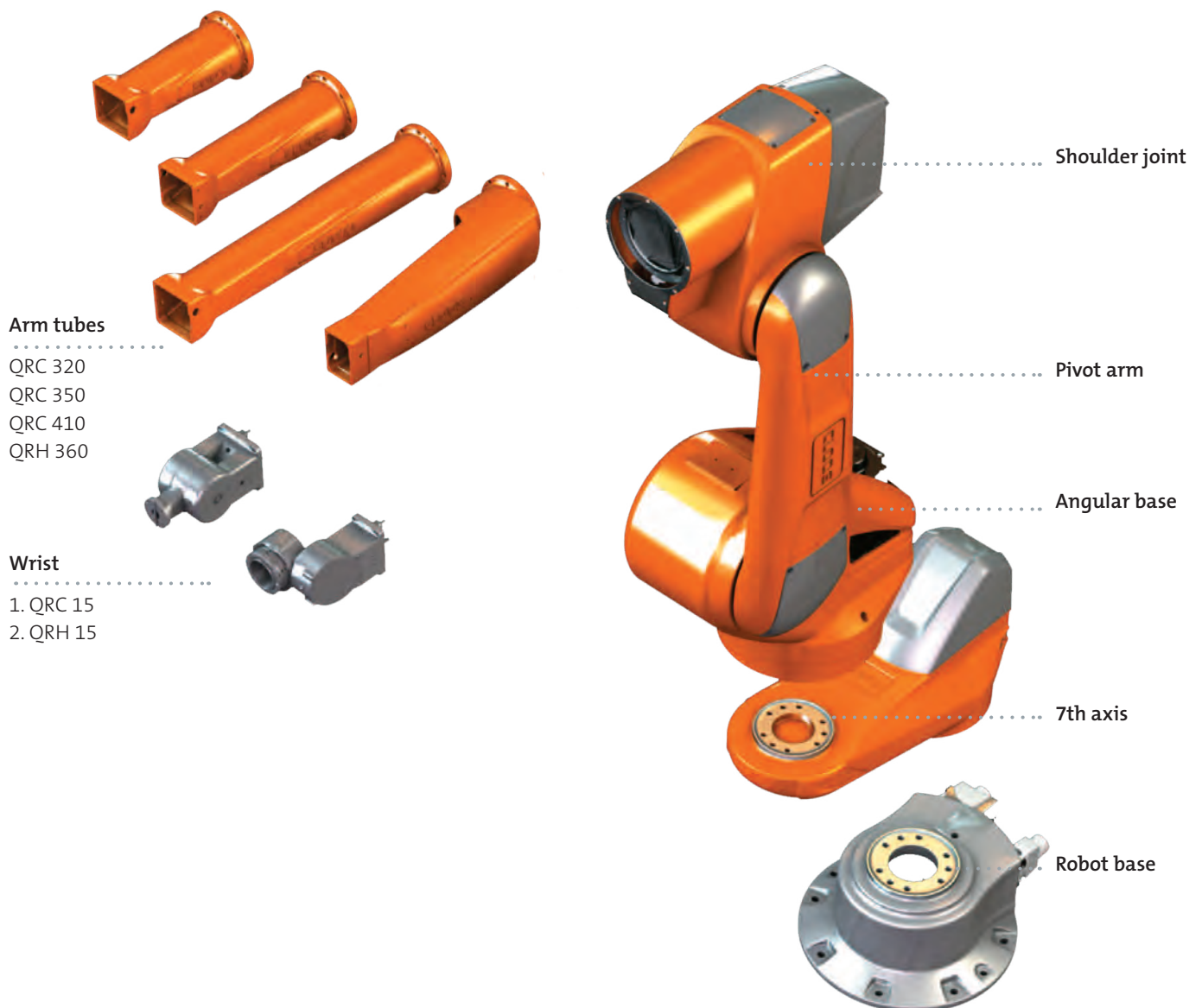


Many variants from one construction kit

The most dynamic feature of the QIROX® Robot is the modular design of all the mechanics. All components of the welding robot – from the robot base to the axis tube – are perfectly matched to each other. By using different components, a customised welding robot can be generated for every production requirement.

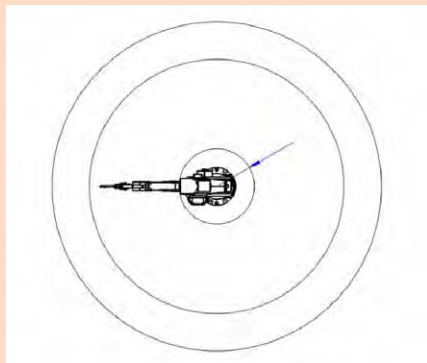
3 capacity classes, 2 products lines, 2 installation options

QIROX® welding robots are available in three capacity classes: QIROX® 320, 350 and 410. Depending on your requirements, you can choose between either the classic line QIROX® Classic (QRC) or the hollow shaft (QRH) model. The two product lines are designed both for floor and for overhead mounting and can be combined with different CLOOS sensors or changing systems. Thus optimum solutions for the most diverse welding processes and production environments can be realised.

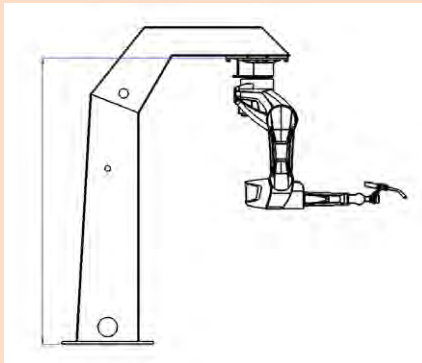


Terminology QIROX®

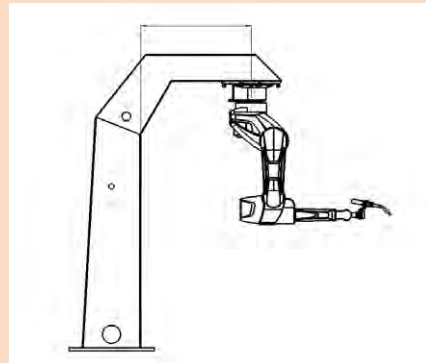
Collision radius



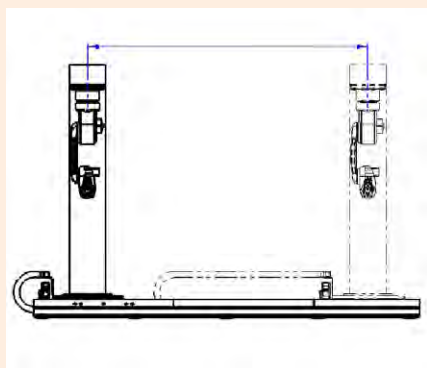
Robot height



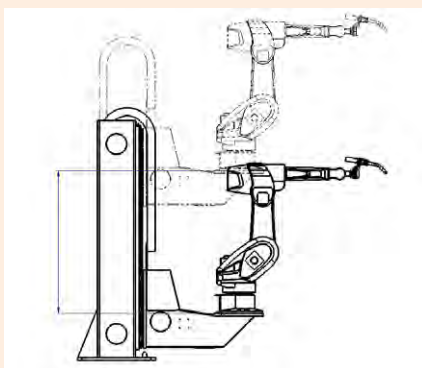
Reach



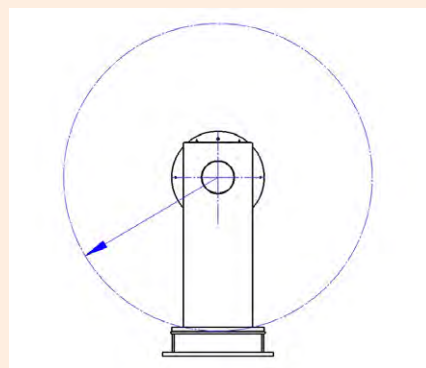
Travelling length



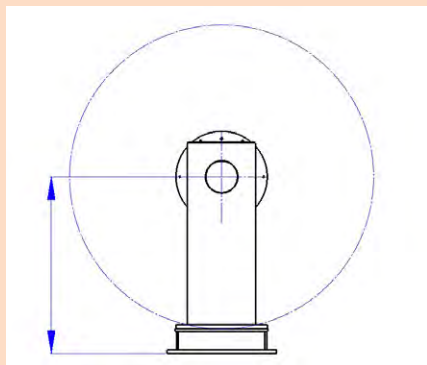
Vertical stroke



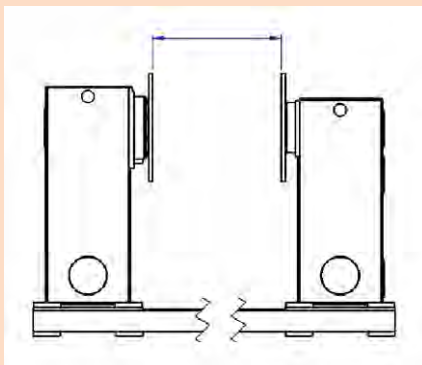
Free-turning radius



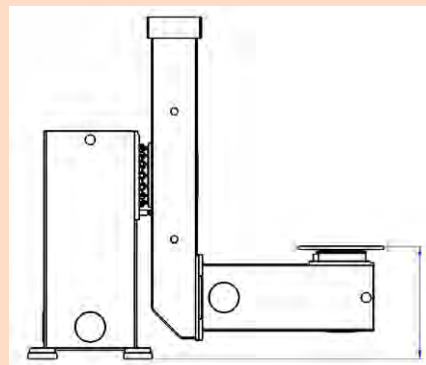
Centre height



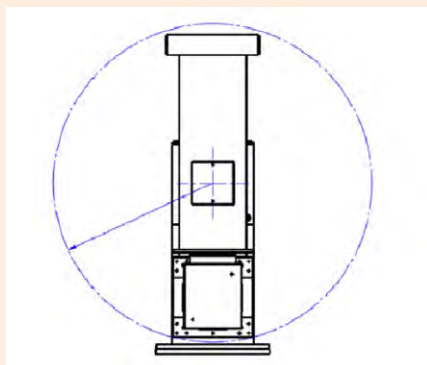
Clamping length



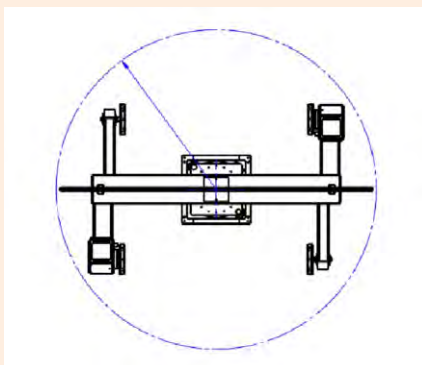
Faceplate height



Swivelling radius



Turning radius



All illustrations are symbols!

Robot and workpiece positioners



Legend:

RP = Robot Positioner
 C = C-frame
 CT = Turnable C-frame
 FL = Floor-mounted linear track
 GL = Overhead-mounted linear track
 HL = Horizontal stroke
 VL = Vertical stroke for mounting to overhead-mounted linear track
 VO = Vertical stroke for overhead mounting of a robot
 VS = Vertical stroke for upright robot

WP = Workpiece positioner
 DH = Two-station positioner with horizontal station changeover
 DV = Two-station positioner with vertical station changeover
 TC = Workpiece positioner with vertical rotation with counter bearing
 TH = Workpiece positioner with horizontal rotation
 TR = Workpiece positioner with vertical rotation with roller support
 TS = Workpiece positioner with turning and swivelling movement
 TSC = Workpiece positioner with turning and swivelling movement with counter bearing
 TSF = Workpiece positioner with turning and swivelling movement with fixed counter bearing
 TSH = Workpiece positioner with swivelling and horizontal rotation
 TT = Workpiece positioner with turning and tilting movement
 TV = Workpiece positioner with vertical rotation
 TVV = Workpiece positioner with vertical rotation and vertical stroke

Robot mechanics

1

Welding robots in the international top class

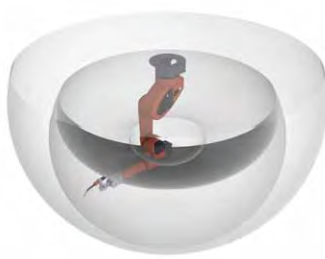
As one of the leading specialists in the development and manufacture of high-value

welding robots for demanding industrial applications, CLOOS uses its decadesold

know-how for continuous development. Thanks to the integration of innovative technologies, the new generation of QIROX® welding robots offers

additional customer value and production advantages. Among the particular highlights are the complete reworking of the product design and the introduction of an optional seventh axis. Both innovations contribute to a considerable increase in the flexibility and dynamics of the QIROX® welding robots. As a result, the automated welding processes can be configured in a significantly more efficient manner.





Robot mechanics Classic wrist

The robot mechanics QRH320/350/410 is a six-axis articulated arm robot. The robot is usually positioned upright or overhead. The QRC320/350/410 is mounted on a base or directly at a robot positioner. The QRC robot has a standard wrist where welding torches, flame cutters and other working tools with a weight of up to 15/10 kg can be mounted. The integration of a changing tool on the wrist allows to use more processes with a robot. Applications:

- MIG/MAG welding
- Plasma and oxygen cutting
- Plasma and plasma-powder welding
- Stud welding
- Easy handling tasks

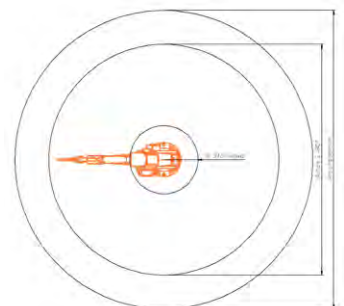
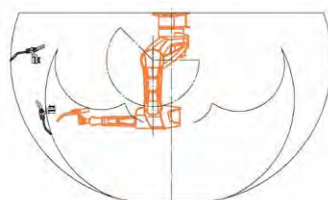
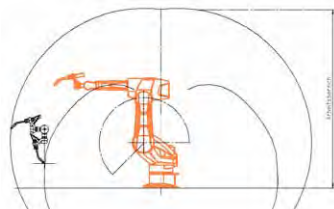
Technical features

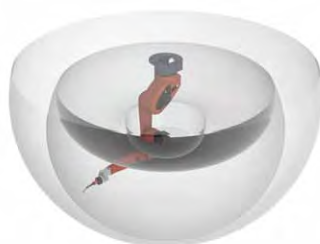
- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Best processing quality due to a high repeatability
- High offset speeds reduce the cycle times
- Digital AC drives
- Absolute path measuring system

Options

- Colour can be freely selected
- Accessories

Technical data	Robot QRC-320	Robot QRC-350	Robot QRC-410
Swivelling range axis 1	+170 / -170°	+170 / -170°	+170 / -170°
Swivelling range axis 2	+125 / -90°	+125 / -90°	+125 / -90°
Swivelling range axis 3	+80 / -210°	+80 / -210°	+80 / -210°
Swivelling range axis 4	+179 / -179°	+179 / -179°	+179 / -179°
Swivelling range axis 5	+135 / -135°	+135 / -135°	+135 / -135°
Swivelling range axis 6	+300 / -300°	+300 / -300°	+300 / -300°
Swivelling speed axis 1	184 °/sec	184 °/sec	184 °/sec
Swivelling speed axis 2	184 °/sec	184 °/sec	184 °/sec
Swivelling speed axis 3	177 °/sec	177 °/sec	177 °/sec
Swivelling speed axis 4	497 °/sec	497 °/sec	497 °/sec
Swivelling speed axis 5	542 °/sec	542 °/sec	542 °/sec
Swivelling speed axis 6	528 °/sec	528 °/sec	528 °/sec
Operating range	Ø 4200 mm	Ø 4470 mm	Ø 5000 mm
Operating range Axis 5 +90°	Ø 3200 mm	Ø 3440 mm	Ø 4620 mm
Operating range height	2470 mm	2580 mm	2880 mm
Pay load	15.00 kg	15.00 kg	10.00 kg
Repeatability	$\Delta \leq \pm 0,1 \text{ mm}$	$\Delta \leq \pm 0,1 \text{ mm}$	$\Delta \leq \pm 0,1 \text{ mm}$
Collision radius	500 mm	500 mm	500 mm
Floor space	Ø 500 mm	Ø 500 mm	Ø 500 mm
Weight	235 kg	235 kg	240 kg





Robot mechanics wrist with hollow shaft

The robot mechanics QRH360/390 is a six-axis articulated arm robot. The robot is usually positioned upright or overhead. The QRH360/390 is mounted on a base or directly at a robot positioner. The QRH robot has hollow-shaft wrist where the welding torch and the torch cable assembly are integrated in the centre point of axis 6. Applications:

- MIG/MAG welding

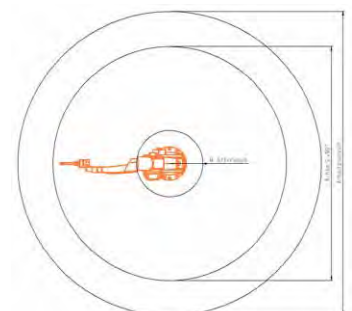
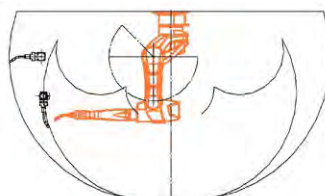
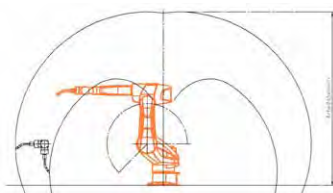
Technical features

- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Best processing quality due to a high repeatability
- Digital AC drives
- Absolute path measuring system

Options

- Cable assemblies integrated in 6th axis
- Colour can be freely selected
- Wire drive unit integrated in the robot arm
- Accessories

Technical data	Robot QRH-360	Robot QRH-390
Swivelling range axis 1	+170 / -170°	+170 / -170°
Swivelling range axis 2	+135 / -90°	+135 / -90°
Swivelling range axis 3	+80 / -210°	+80 / -210°
Swivelling range axis 4	+179 / -179°	+179 / -179°
Swivelling range axis 5	+125 / -125°	+125 / -125°
Swivelling range axis 6	+300 / -300°	+270 / -270°
Swivelling speed axis 1	184 °/sec	184 °/sec
Swivelling speed axis 2	184 °/sec	184 °/sec
Swivelling speed axis 3	177 °/sec	177 °/sec
Swivelling speed axis 4	497 °/sec	497 °/sec
Swivelling speed axis 5	542 °/sec	542 °/sec
Swivelling speed axis 6	528 °/sec	528 °/sec
Operating range	Ø 4570 mm	Ø 4900 mm
Operating range Axis 5 +90°	Ø 3570 mm	Ø 3900 mm
Operating range height	2680 mm	2860 mm
Pay load	15.00 kg	10.00 kg
Repeatability	$\Delta \leq \pm 0,1 \text{ mm}$	$\Delta \leq \pm 0,1 \text{ mm}$
Collision radius	500 mm	500 mm
Floor space	Ø 500 mm	Ø 500 mm
Weight	235 kg	240 kg





Robot mechanics Classic wrist with enlarged operating range by 7th axis

The robot mechanics QRC320/350/410-E is a six-axis articulated arm robot with an excenter axis 7 which is integrated between robot base and centre point axis 1. The movements of all seven robot axes are synchronised by 100 %. The robot is usually positioned upright or overhead. The QRC320/350/410-E is mounted on a base or directly at a robot positioner. The QRC robot has a standard wrist where welding torches, flame cutters and other working tools with a weight of up to 15/10 kg can be mounted. The integration of a changing tool on the wrist allows to use more processes with a robot. Applications:

- MIG/MAG welding
- Plasma and oxygen cutting
- Plasma and plasma-powder welding
- Easy handling tasks

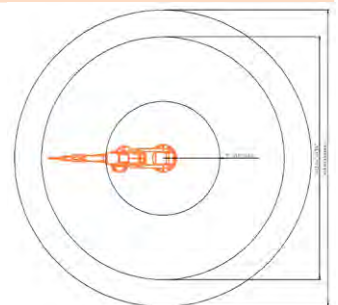
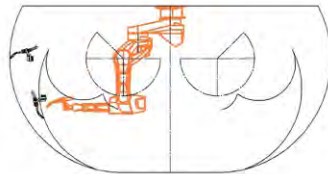
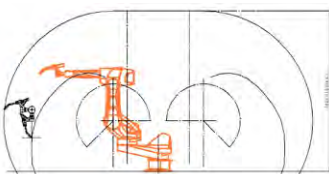
Technical features

- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Best processing quality due to a high repeatability
- Digital AC drives
- Working space extension by 7th axis

Options

- Colour can be freely selected
- Accessories

Technical data	Robot 7th axis QRC-350	Robot 7th axis QRC-350
Swivelling range axis 1	+170 / -170°	+170 / -170°
Swivelling range axis 2	+125 / -90°	+125 / -90°
Swivelling range axis 3	+80 / -210°	+80 / -210°
Swivelling range axis 4	+179 / -179°	+179 / -179°
Swivelling range axis 5	+135 / -135°	+135 / -135°
Swivelling range axis 6	+300 / -300°	+300 / -300°
Swivelling range axis 7	+120 / -120°	+120 / -120°
Swivelling speed axis 1	184 °/sec	184 °/sec
Swivelling speed axis 2	184 °/sec	184 °/sec
Swivelling speed axis 3	177 °/sec	177 °/sec
Swivelling speed axis 4	497 °/sec	497 °/sec
Swivelling speed axis 5	542 °/sec	542 °/sec
Swivelling speed axis 6	528 °/sec	528 °/sec
Swivelling speed axis 7	90 °/sec	90 °/sec
Operating range	Ø 5470 mm	Ø 6100 mm
Operating range Axis 5 +90°	Ø 4470 mm	Ø 5050 mm
Operating range height	2830 mm	3120 mm
Pay load	15.00 kg	10.00 kg
Repeatability	$\Delta \leq s \pm 0,1 \text{ mm}$	$\Delta \leq s \pm 0,1 \text{ mm}$
Collision radius	1050 mm	1050 mm
Floor space	Ø 500 mm	Ø 500 mm
Weight	345 kg	350 kg





Robot mechanics hollow shaft with enlarged operating range by 7th axis

The robot mechanics QRC360/390-E is a six-axis articulated arm robot with an excenter axis 7 which is integrated between robot base and centre point axis 1. The movements of all seven robot axes are synchronised by 100 %. The QRH robot has hollow-shaft wrist where the welding torch and the torch cable assembly are integrated in the centre point of axis 6. Applications:

- MIG/MAG welding

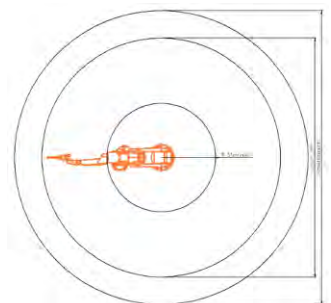
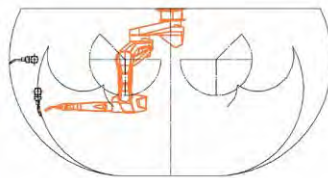
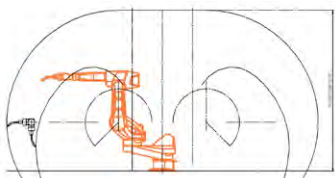
Technical features

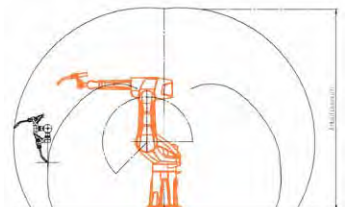
- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Best processing quality due to a high repeatability
- Digital AC drives
- Working space extension by 7th axis

Options

- Cable assemblies integrated in 6th axis
- Colour can be freely selected
- Wire drive unit integrated in the robot arm

Technical data	Robot 7th axis QRC-360	Robot 7th axis QRC-390
Swivelling range axis 1	+170 / -170°	+170 / -170°
Swivelling range axis 2	+125 / -90°	+125 / -90°
Swivelling range axis 3	+80 / -210°	+80 / -210°
Swivelling range axis 4	+179 / -179°	+179 / -179°
Swivelling range axis 5	+125 / -125°	+125 / -125°
Swivelling range axis 6	+270 / -270°	+270 / -270°
Swivelling range axis 7	+120 / -120°	+120 / -120°
Swivelling speed axis 1	184 °/sec	184 °/sec
Swivelling speed axis 2	184 °/sec	184 °/sec
Swivelling speed axis 3	177 °/sec	177 °/sec
Swivelling speed axis 4	497 °/sec	497 °/sec
Swivelling speed axis 5	542 °/sec	542 °/sec
Swivelling speed axis 6	528 °/sec	528 °/sec
Swivelling speed axis 7	90 °/sec	90 °/sec
Operating range	Ø5680 mm	Ø6030 mm
Operating range Axis 5 +90°	Ø4620 mm	Ø4960 mm
Operating range height	2930 mm	3110 mm
Pay load	15.00 kg	10.00 kg
Repeatability	$\Delta \leq s \pm 0,1 \text{ mm}$	$\Delta \leq s \pm 0,1 \text{ mm}$
Collision radius	1050 mm	1050 mm
Floor space	Ø 500 mm	Ø 500 mm
Weight	345 kg	350 kg





Robot mechanics Classic wrist, high robot base

The robot mechanics QRH320/350/410-H is a six-axis articulated arm robot. The robot has a high base which was particularly developed for floor mounting and is used in upright position. The QRC320/350/410-H is mounted on the shop floor or a base frame and in upright position at a robot positioner. The QRC robot has a standard wrist where welding torches, flame cutters and other working tools with a weight of up to 15/10 kg can be mounted. The integration of a changing tool on the wrist allows to use more processes with a robot. Applications:

- MIG/MAG welding
- Plasma and oxygen cutting
- Plasma and plasma-powder welding
- Easy handling tasks

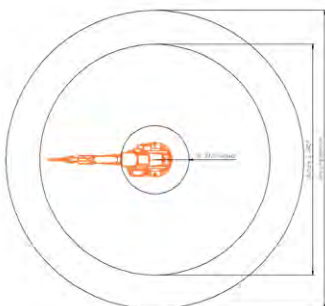
Technical features

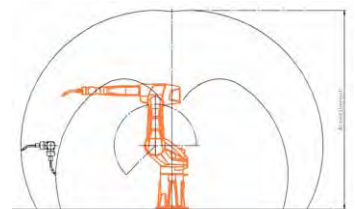
- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Best processing quality due to a high repeatability
- Digital AC drives
- Absolute path measuring system

Options

- Colour can be freely selected
- Accessories

Technical data	Robot high base QRC-320	Robot high base QRC-350	Robot high base QRC-410
Swivelling range axis 1	+170 / -170°	+170 / -170°	+170 / -170°
Swivelling range axis 2	+125 / -90°	+125 / -90°	+125 / -90°
Swivelling range axis 3	+80 / -210°	+80 / -210°	+80 / -210°
Swivelling range axis 4	+179 / -179°	+179 / -179°	+179 / -179°
Swivelling range axis 5	+135 / -135°	+135 / -135°	+135 / -135°
Swivelling range axis 6	+300 / -300°	+300 / -300°	+300 / -300°
Swivelling speed axis 1	184 °/sec	184 °/sec	184 °/sec
Swivelling speed axis 2	184 °/sec	184 °/sec	184 °/sec
Swivelling speed axis 3	177 °/sec	177 °/sec	177 °/sec
Swivelling speed axis 4	497 °/sec	497 °/sec	497 °/sec
Swivelling speed axis 5	542 °/sec	542 °/sec	542 °/sec
Swivelling speed axis 6	528 °/sec	528 °/sec	528 °/sec
Operating range	Ø 4200 mm	Ø 4470 mm	Ø 5000 mm
Operating range Axis 5 +90°	Ø 3200 mm	Ø 3440 mm	Ø 4620 mm
Operating range height	2790 mm	2900 mm	3200 mm
Pay load	15.00 kg	15.00 kg	10.00 kg
Repeatability	$\Delta \leq \pm 0,1 \text{ mm}$	$\Delta \leq \pm 0,1 \text{ mm}$	$\Delta \leq \pm 0,1 \text{ mm}$
Collision radius	500 mm	500 mm	500 mm
Floor space	Ø 500 mm	Ø 500 mm	Ø 500 mm
Weight	255 kg	255 kg	260 kg





Robot mechanics wrist with hollow shaft, high robot base

1

The robot mechanics QRH360/390-H is a six-axis articulated arm robot. The robot has a high base which was particularly developed for floor mounting and is used in upright position. The QRC360/390-H is mounted on the shop floor or a base frame and in upright position at a robot positioner. The QRH robot has hollow-shaft wrist where the welding torch and the torch cable assembly are integrated in the centre point of axis 6. Applications:

- MIG/MAG welding

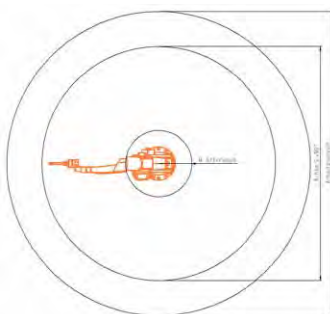
Technical features

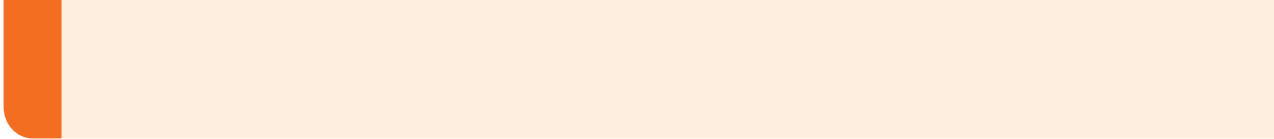
- Less wear and improved, more user-friendly operation via optimised cables, plugs and motor protection
- Higher dynamics and weight reduction due to a leaner product design with rounded ergonomic forms
- Highest flexibility in the equipment by modular design of the robot mechanics
- Best processing quality due to a high repeatability
- Digital AC drives
- Absolute path measuring system

Options

- Cable assemblies integrated in 6th axis
- Colour can be freely selected
- Wire drive unit integrated in the robot arm
- Accessories

Technical data	Robot high base QRH-360	Robot high base QRH-390
Swivelling range axis 1	+170 / -170°	+170 / -170°
Swivelling range axis 2	+125 / -90°	+125 / -90°
Swivelling range axis 3	+80 / -210°	+80 / -210°
Swivelling range axis 4	+179 / -179°	+179 / -179°
Swivelling range axis 5	+125 / -125°	+125 / -125°
Swivelling range axis 6	+270 / -270°	+270 / -270°
Swivelling speed axis 1	184 °/sec	184 °/sec
Swivelling speed axis 2	184 °/sec	184 °/sec
Swivelling speed axis 3	177 °/sec	177 °/sec
Swivelling speed axis 4	497 °/sec	497 °/sec
Swivelling speed axis 5	542 °/sec	542 °/sec
Swivelling speed axis 6	528 °/sec	528 °/sec
Operating range	Ø 4570 mm	Ø 4900 mm
Operating range Axis 5 +90°	Ø 3570 mm	Ø 3900 mm
Operating range height	3000 mm	3180 mm
Pay load	15.00 kg	10.00 kg
Repeatability	$\Delta \leq \pm 0,1 \text{ mm}$	$\Delta \leq \pm 0,1 \text{ mm}$
Collision radius	500 mm	500 mm
Floor space	Ø 500 mm	Ø 500 mm
Weight	255 kg	260 kg





Robot Positioner

2

Advantages robot positioner:

More flexibility due to increase of the robot working envelope

- Welding of high-volume workpieces

Versatile utilisation ratio due to increase of the robot working envelope

- Welding of complex workpieces

Change between several working stations

- No down-times because of workpiece change



Base

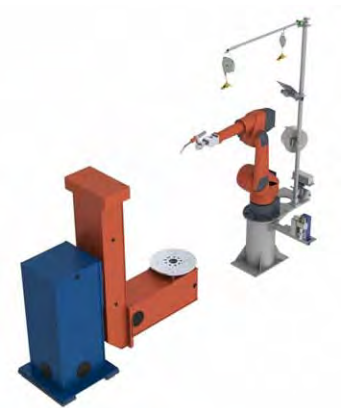
The base places the robot in upright position. This robot position enables a better accessibility to the workpiece and allows welding of bigger workpieces. The base is directly mounted on the floor or a floor-mounted linear track.

Technical features

- Adjusting screws for a precise alignment during mounting

Options

- Adaptation of the robot mounting height



Technical data	RP-S-5
Load	5.0 kN
Robot height	0.4-1.8 m
Grid robot height	0.10 m

C-frame

The C-shaped frame positions the robot overhead on a fixed extension arm. This robot position enables a better accessibility to the workpiece and allows welding of bigger workpieces. The C-frame is directly mounted on the floor or a floor-mounted linear track.

Technical features

- Adjusting screws for a precise alignment during mounting
- Opening in steel construction for a good accessibility during service works

Options

- Reach adaptation
- Adaptation of the robot mounting height



Technical data	RP-C-4	RP-C-6
Load	4.0 kN	6.0 kN
Robot height	2.6-3.6 m	2.6-3.6 m
Reach	1.2-2.2 m	1.2-2.2 m
Grid robot height	0.20 m	0.20 m
Grid reach	0.10 m	0.10 m

Rotating C-frame

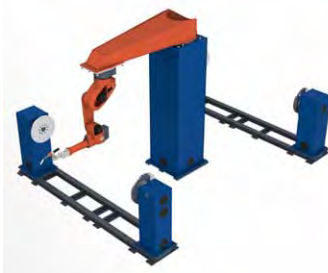
The C-shaped frame with rotating extension arm positions the robot overhead. The rotating extension arm increased the working range of the robot thus enabling to weld high-volume workpieces and/or serves for the change between two working stations. The rotating C-frame is directly mounted on the floor or a floor-mounted linear track.

Technical features

- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Indexing of the 0 position for motor change
- A fully synchronised robot axis

Options

- Reach adaptation
- Adaptation of the robot mounting height



Technical data	RP-CT-200	RP-CT-250
Load	5.0 kN	5.0 kN
Robot height	2.8-4.8 m	2.8-4.8 m
Grid robot height	0.20 m	0.20 m
Reach	1.2-2.0 m	2.0-3.0 m
Grid reach	0.40 m	0.25 m
Swivelling speed	70.0 °/sec	40.0 °/sec
Swivelling range	+/- 160°	+/- 160°

C-frame with vertical stroke

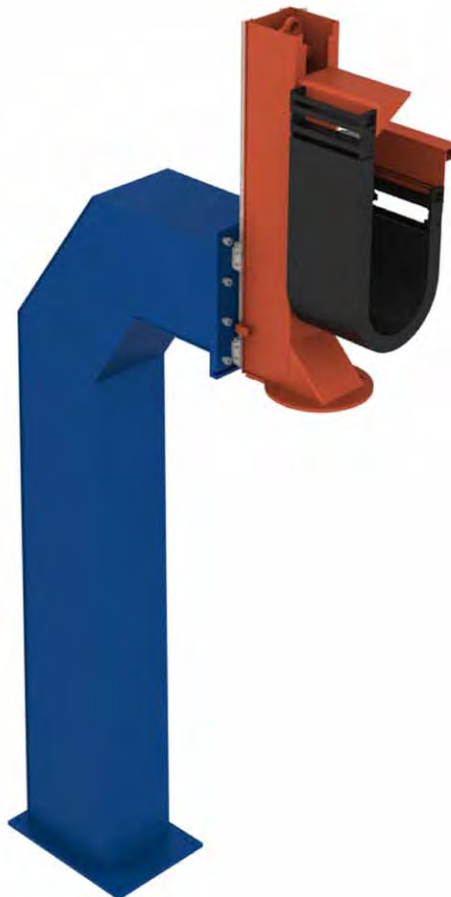
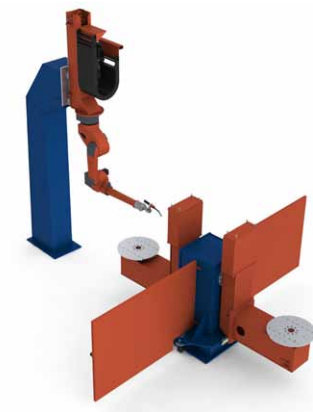
The C-shaped frame with mounted vertical stroke positions the robot overhead over the workpiece. The vertical stroke increases the robot working range in height thus allowing a deep entry into bigger workpieces. The C-frame with vertical stroke is directly mounted on the floor or a floor-mounted linear track.

Technical features

- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- A fully synchronised robot axis

Options

- Adaptation of the robot mounting height
- Increase of travelling length due to extension of the linear track



Technical data	RP-CV-5
Load	5.0 kN
Robot height	2.8-4.8 m
Grid robot height	0.20 m
Reach	0.4-1.2 m
Grid reach	0.10 m
Vertical stroke	0.70 m / 1.00 m / 1.50 m
Stroke speed	12.0 m/min

Rotating C-frame with vertical stroke

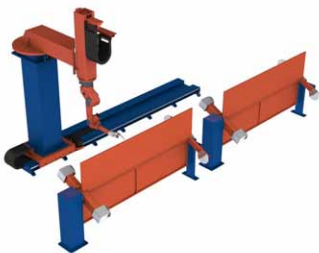
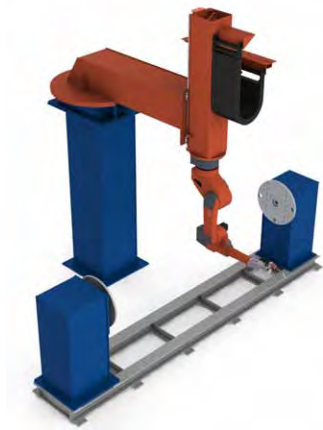
The C-shaped frame with rotating extension arm and mounted vertical stroke positions the robot overhead. The vertical stroke increases the robot working range in height thus allowing a deep entry into high-volume workpieces. The rotating extension arm additionally increases the working range and/or serves for the station change. The rotating C-frame with vertical stroke is directly mounted on the floor or a floor-mounted linear track.

Technical features

- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Two fully synchronised robot axes

Options

- Reach adaptation
- Adaptation of the robot mounting height



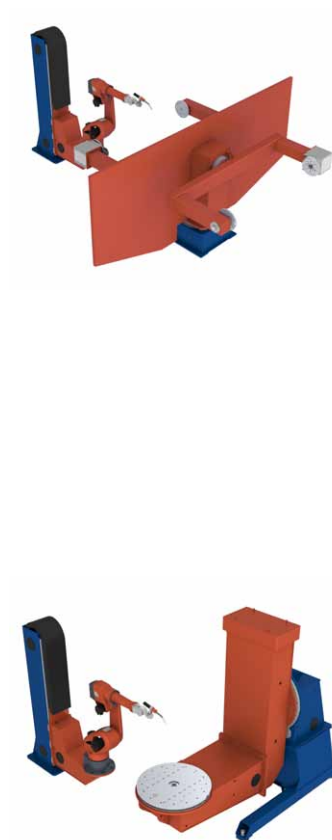
Technical data	RP-CTV-5
Load	5.0 kN
Robot height	2.8-4.8 m
Grid robot height	0.20 m
Reach	1.8-2.6 m
Grid reach	0.10 m
Vertical stroke	0.70 m / 1.00 m / 1.50 m
Swivelling speed	40.0 °/sec
Stroke speed	12.0 m/min
Swivelling range	+/- 185°

Vertical stroke for upright robot

The vertical stroke which is mounted on the floor or a floor-mounted linear track extends the working range of an upright mounted robot by one degree of freedom in order to weld big, complex workpieces.

Technical features

- A fully synchronised robot axis
- Indexing of the 0 position for motor change
- Adjusting screws for a precise alignment during mounting
- Opening in steel construction for a good accessibility during service works
- Grease cartridge for guiding systems
- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections



Technical data	RP-VS-5
Load	5.0 kN
Robot height	0.5-2.0 m
Vertical stroke	1.50 m
Stroke speed	12.0 m/min

Rotating vertical stroke for upright robot

The vertical stroke which is mounted on the floor or a floor-mounted linear track extends the working range of an upright mounted robot by two degrees of freedom in order to weld big, complex workpieces.

Technical features

- Two fully synchronised robot axes
- Indexing of the 0 position for motor change
- Adjusting screws for a precise alignment during mounting
- Opening in steel construction for a good accessibility during service works
- Grease cartridge for guiding systems
- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections



Technical data	RP-TVS-5
Load	5.0 kN
Robot height	1.0-2.5 m
Vertical stroke	1.50 m
Stroke speed	20.0 m/min
Swivelling speed	50.0 °/sec
Swivelling range	+/- 185°

Vertical stroke for overhead robot mounting

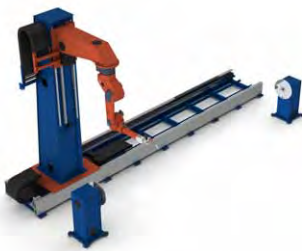
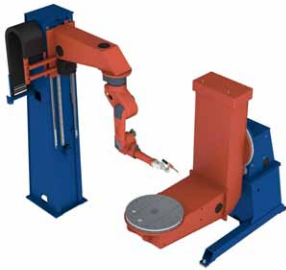
At the vertical stroke a robot is mounted in overhead position on an extension arm. Due to the vertical stroke the robot gets an additional degree of freedom for welding big workpieces. The vertical stroke is directly mounted on the floor or a floor-mounted linear track.

Technical features

- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- A fully synchronised robot axis

Options

- Increase of travelling length due to extension of the linear track



Technical data	RP-VO-10	RP-VO-20
Load	10.0 kN	20.0 kN
Robot height	3.25-4.9 m	3.0-6.5 m
Grid robot height	0.25 m	0.50 m
Vertical stroke	1.50 m / 2.00 m	1.50-5.00 m
Grid vertical stroke	-	0.50 m
Stroke speed	12.0 m/min	11.0 m/min

Rotating vertical stroke for overhead robot mounting

At the rotating vertical stroke a robot is mounted in overhead position on an extension arm. Due to the rotating vertical stroke the robot gets two additional degrees of freedom for welding big workpieces. The rotating vertical stroke is directly mounted on the floor or a floor-mounted linear track.

Technical features

- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Mounting components freely selectable and adaptable/to be integrated
- Two fully synchronised robot axes

Options

- Increase of travelling length due to extension of the linear track



Technical data	RP-TVO-10	RP-TVO-20
Load	10.0 kN	20.0 kN
Robot height	3.5-4.75 m	3.0-6.5 m
Grid robot height	0.25 m	0.50 m
Vertical stroke	1.50 m / 2.0 m	1.50-5.00 m
Grid vertical stroke	-	0.50 m
Stroke speed	20.0 m/min	15.0 m/min
Swivelling speed	40.0 °/sec	40.0 °/sec
Swivelling range	+/- 185°	+/- 185°

Floor-mounted linear track

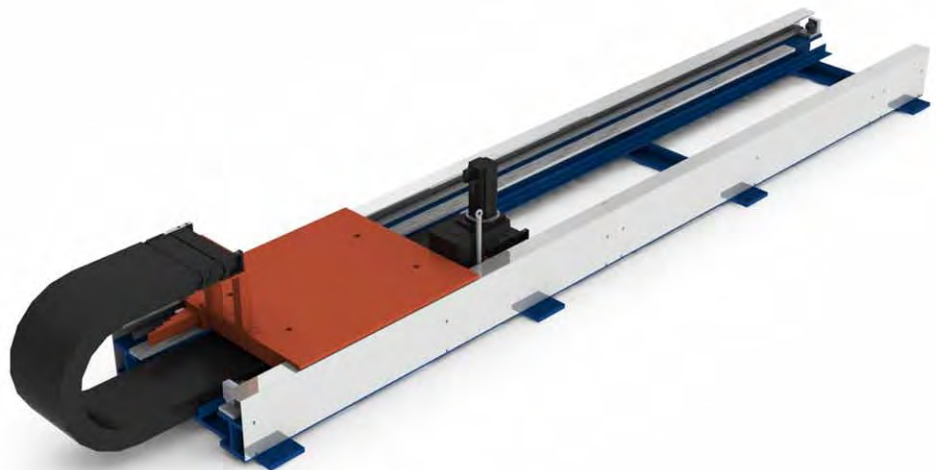
The floor-mounted linear track allows to mount the robot in upright position on a base or in overhead position on a frame. A carriage moves the robot in horizontal direction. The floor-mounted linear track allows to weld long workpieces, can be used for systems with several stations and can be equipped with a second carriage with robot. This makes it possible to weld pairwise on one workpiece.

Technical features

- A fully synchronised robot axis
- Mounting components freely selectable and adaptable/to be integrated
- Adjusting screws for a precise alignment during mounting
- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections

Options

- Increase of travelling length due to extension of the linear track
- Additional carriage for second robot



Technical data	RP-FL-10	RP-FL-20	RP-FL-35	RP-FL-50	RP-FL-120
Load	10.0 kN	20.0 kN	35.0 kN	50.0 kN	120.0 kN
Travelling length	2-25 m	2-25 m	3-25 m	3-30 m	3-30 m
Grid travelling length	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m
Travelling speed	1.80 m/s	1.20 m/s	0.65 m/s	0.65 m/s	0.65 m/s

Overhead-mounted linear track

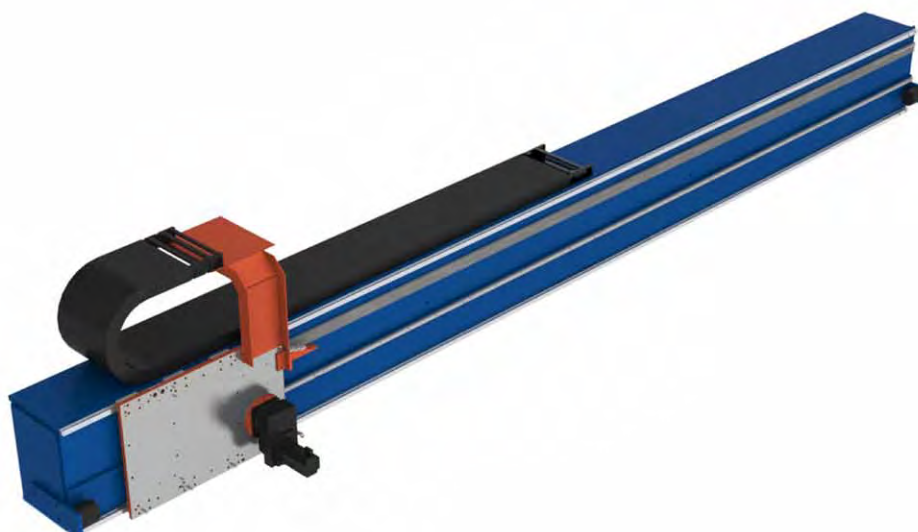
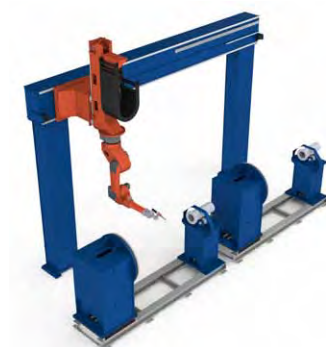
The top mounted track system, mounted on posts, allows overhead mounting of robots. A carriage with servomotor moves the robot in horizontal direction. The overhead-mounted linear track allows to weld long workpieces, can be used for systems with several stations and can be equipped with a second carriage with robot. This makes it possible to weld pairwise on one workpiece.

Technical features

- A fully synchronised robot axis
- Indexing of the 0 position for motor change
- Mounting components freely selectable and adaptable/to be integrated
- Opening in steel construction for a good accessibility during service works
- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections

Options

- Increase of travelling length due to extension of the linear track
- Additional carriage for second robot



Technical data	RP-GL-10	RP-GL-20	RP-GL-35	RP-GL-50
Load	10.0 kN	20.0 kN	35.0 kN	50.0 kN
Travelling length	5-20 m	5-20 m	5-25 m	5-25 m
Grid travelling length	1.00 m	1.00 m	1.00 m	1.00 m
Travelling speed	1.70 m/s	0.65 m/s	0.65 m/s	0.65 m/s

Horizontal stroke for mounting on C-frame/overhead-mounted linear track

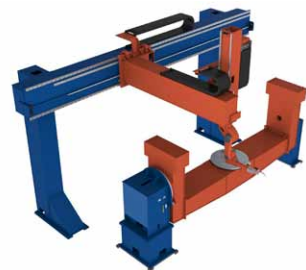
The horizontal stroke is used on an overhead linear track or mounted on a vertical stroke and increases the horizontal working range of the overhead mounted robot.

Technical features

- A fully synchronised robot axis
- Indexing of the 0 position for motor change
- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections

Options

- Increase of travelling length due to extension of the linear track



Technical data	RP-HL-5 (GL-20)	RP-HL-10 (GL-35)	RP-HL-10 (GL-50)
Load	5.0 kN	10.0 kN	10.0 kN
Travelling length	1.00 m / 1.50 m / 2.00 m	0.70 m / 1.00 m / 1.50 m / 2.00 m	2.00 m / 2.50 m / 3.00 m
Travelling speed	1.80 m/s	1.80 m/s	1.80 m/s

Vertical stroke for mounting on an overhead-mounted linear track

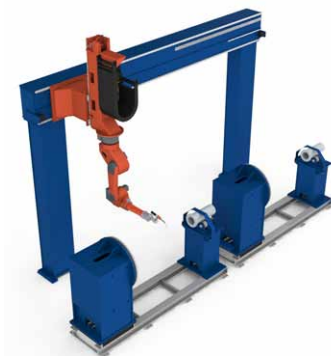
The vertical stroke is used on a top mounted track, a turnable C-frame or mounted on a horizontal stroke. It increases the vertical working range of the overhead mounted robot and allows welding of high-volume workpieces.

Technical features

- A fully synchronised robot axis
- Indexing of the 0 position for motor change
- Opening in steel construction for a good accessibility during service works

Options

- Increase of travelling length due to extension of the linear track



Technical data	RP-VL-5	RP-VL-5-C
Load	5.0 kN	5.0 kN
Vertical stroke	1.00 m / 1.50 m / 2.00 m	0.70 m / 1.00 m / 1.50 m
Stroke speed	12.0 m/min	12.0 m/min

Transverse slide for overhead robot mounting

2

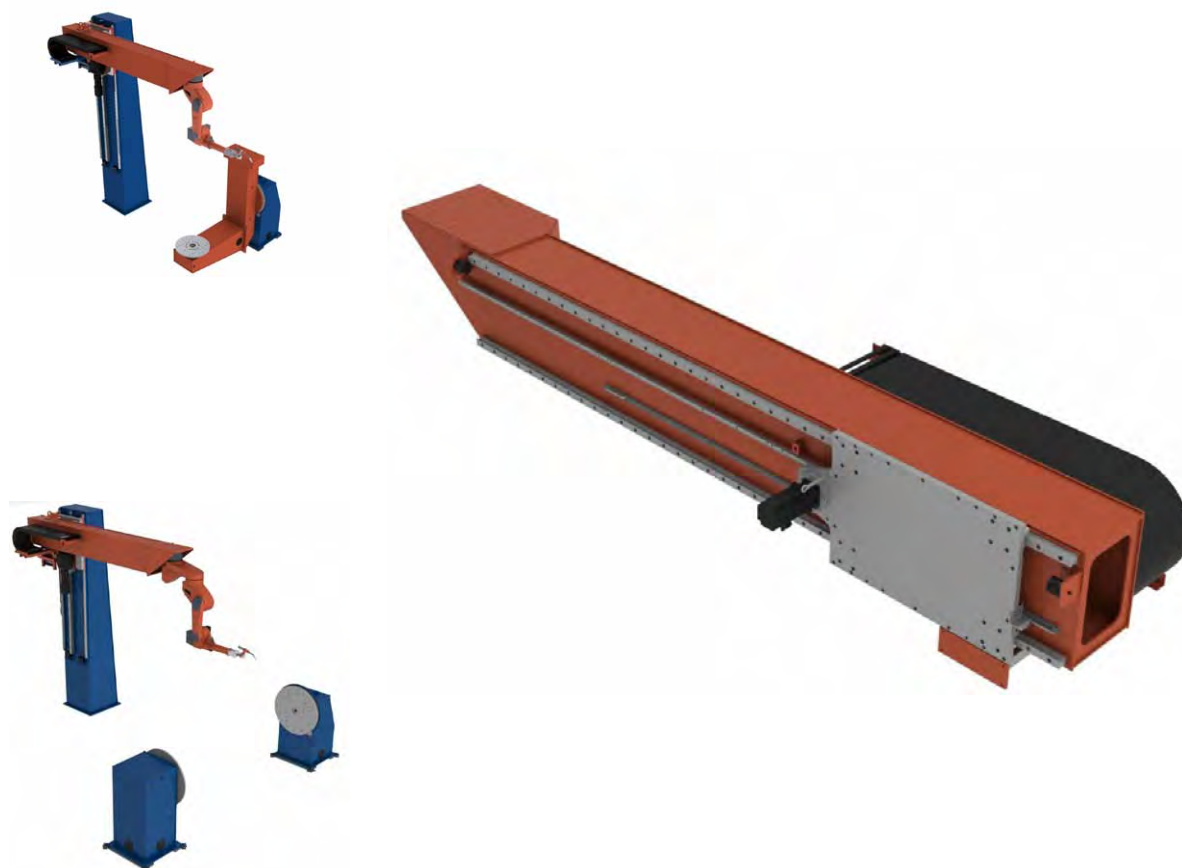
The transverse slide extends the working range of the upright mounted robot by one degree of freedom in order to weld complex, high-volume workpieces. The lateral mounting of the transverse stroke enables a deep entry of the robot into the workpiece. The transverse slide is mounted to a vertical stroke.

Technical features

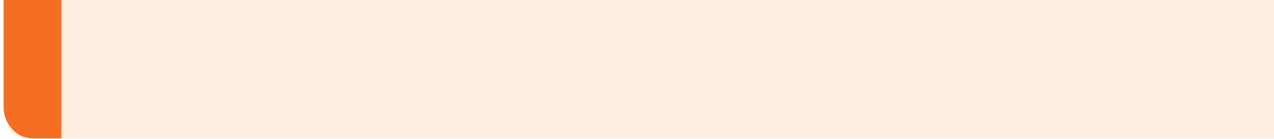
- A fully synchronised robot axis
- Indexing of the 0 position for motor change
- High repeatability (± 0.1 mm) because of spring-pretensioned toothed wheel connections

Options

- Increase of travelling length due to extension of the linear track



Technical data	RP-CL-5
Load	5.0 kN
Travelling length	1.50 m / 2.00 m / 2.50 m
Travelling speed	1.80 m/s



Workpiece Positioner

Advantages robot positioner:

Turning, swivelling and tilting: always the optimum workpiece position

- Optimum weld seam quality

Positioners for loads between 2.5kN and 300kN

- Solution for each workpiece size

Mature combination of different movement devices

- Welding of complex contours without interruption
- Improved accessibility of nearly all weld seams on the workpiece

3





Workpiece Positioner with vertical rotation

The workpiece positioner has a vertically arranged faceplate. The workpiece which is fixed on this faceplate can be turned into the optimum processing position by a horizontal turning axis.

Technical features

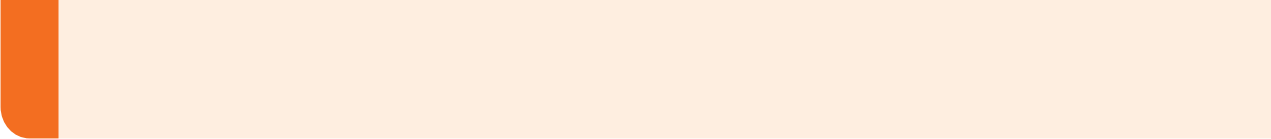
- Faceplate with universal hole pattern for mounting the workpiece fixture
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Hollow-drilled shaft in the faceplate centre for media feed-through
- Digital drive system
- Indexing of the 0 position for motor change

Options

- Holding angle for mounting the workpiece fixtures
- Rotary distributor for media supply
- Non-stop rotation of the faceplate

Technical data	WP-TV-2,5	WP-TV-5	WP-TV-10	WP-TV-20	WP-TV-30	WP-TV-50	WP-TV-100	WP-TV-150
Load	2.5 kN	5.0 kN	10.0 kN	20.0 kN	30.0 kN	50.0 kN	100.0 kN	150.0 kN
Free-turning radius	700-1300 mm	700-1300 mm	700-1000 mm / 1000-1500 mm	700-1000 mm / 1000-1500 mm	600-2200 mm	700-1700 mm	800-2200 mm	900-2100 mm
Grid free-turning radius	100 mm	100 mm	100 mm / 250 mm	100 mm / 250 mm	200 mm	200 mm	200 mm	200 mm
Rotating speed	120.0 °/sec	120.0 °/sec	90.0 °/sec	60.0 °/sec	20.0 °/sec	8.0 °/sec	8.5 °/sec	6.5 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°





Workpiece Positioner with vertical rotation and vertical stroke

The workpiece positioner has a vertically arranged faceplate. The workpiece which is fixed on this faceplate can be turned into the optimum processing position by a horizontal turning axis. The integrated vertical stroke facilitates loading and unloading of the workpieces near to the floor and increases the free-turning radius of the workpiece positioner thus allowing to weld bigger workpieces.

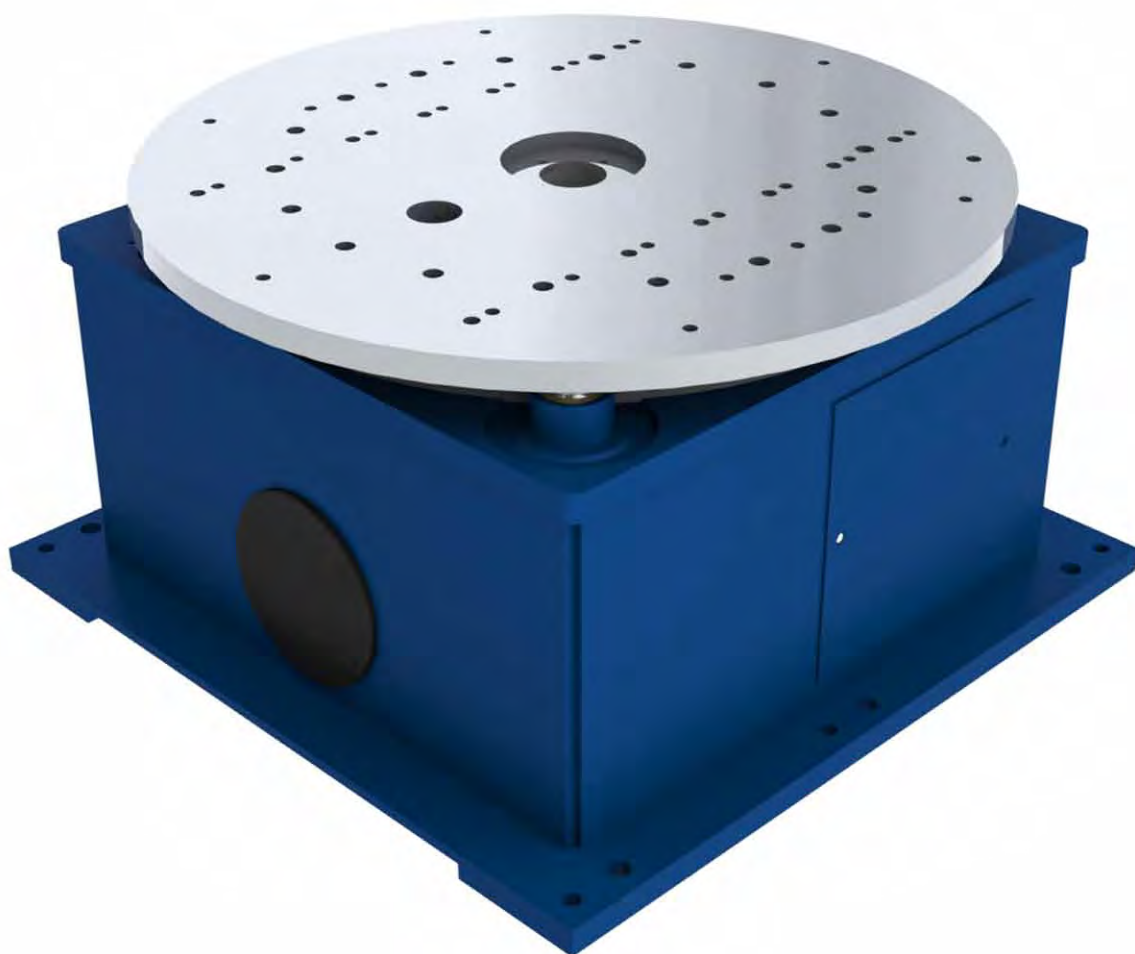
Technical features

- Very high travelling speed
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Indexing of the 0 position for motor change
- 2 digital drive systems

Options

- Holding angle for mounting the workpiece fixtures
- Non-stop rotation of the faceplate

Technical data	WP-TVV-5	WP-TVV-10	WP-TVV-20	WP-TVV-50	WP-TVV-75	WP-TVV-100	WP-TVV-150
Load	5.0 kN	10.0 kN	20.0 kN	50.0 kN	75.0 kN	100.0 kN	150.0 kN
Free-turning radius	600-1000 mm	600-1600 mm	900-2150 mm	1000-2500 mm	1000-2500 mm	1000-2500 mm	1250-2750 mm
Centre height	600-1000 mm	600-1600 mm	900-2150 mm	1000-2500 mm	1000-2500 mm	1000-2500 mm	1250-2750 mm
Vertical stroke	0.40 m	1.00 m	1.25 m	1.50 m	1.50 m	1.50 m	1.50 m
Rotating speed	120.0 °/sec	90.0 °/sec	60.0 °/sec	8.0 °/sec	8.0 °/sec	8.5 °/sec	6.5 °/sec
Stroke speed	2.0 m/min	2.0 m/min	2.0 m/min	2.0 m/min	2.0 m/min	2.0 m/min	2.0 m/min
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°



Workpiece Positioner with horizontal rotation

The workpiece positioner has a horizontally arranged faceplate. Workpiece which is fixed on this face plate can be turned into the optimum processing position by a vertical turning axis. This workpiece positioner is also used to build up a simple double-station robot system. The positioner changes the station by a 180° rotation.

Technical features

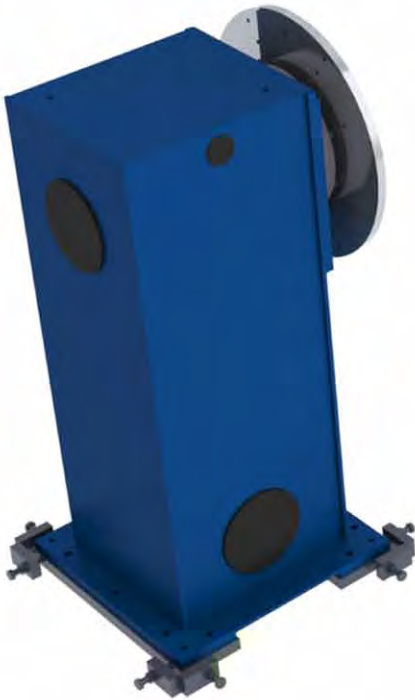
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Digital drive system
- Indexing of the 0 position for motor change

Options

- Non-stop rotation of the faceplate
- Pneumatic indexing of the 0 position at the counter bearing

3

Technical data	WP-TH-5	WP-TH-10	WP-TH-20	WP-TH-30	WP-TH-60	WP-TH-100	WP-TH-200
Load	5.0 kN	10.0 kN	20.0 kN	30.0 kN	60.0 kN	100.0 kN	200.0 kN
Centre height	400-600 mm	500-1000 mm	400-700 mm	400-600 mm	400-700 mm	400-700 mm	400-700 mm
Grid centre height	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm
Rotating speed	120.0 °/sec	120.0 °/sec	90.0 °/sec	50.0 °/sec	40.0 °/sec	30.0 °/sec	20.0 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°



Workpiece Positioner with vertical rotation with counter bearing

The workpiece positioner with counter bearing has two vertically arranged faceplates. The workpiece fixture is mounted between the two faceplates. Thus, heavy or long workpieces can be perfectly positioned and welded. The two components of the workpiece positioner are mounted on the shop floor. As an option, the workpiece positioner can be mounted on a common base frame (WP-TC-F). The counter bearing can be moved on the base frame manually (WP-TC-M) or by a motor (WP-TC-E). Thus, the distance between the two faceplates can be adjusted according to the different workpiece sizes.

Technical features

- Parallel working of the system operator and the robot.
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Clamping length and free-turning radius can be adapted to the component size and the space on site.
- Digital drive system
- Indexing of the 0 position for motor change

Options

- Holding angle for mounting the workpiece fixtures
- Counter bearing mounted on base frame (F)
- Counter bearing to be moved manually (M)
- Pneumatic indexing of the 0 position at the counter bearing
- Clamping stroke mounted on counter bearing (S)

Technical data	WP-TC-5	WP-TC-10	WP-TC-20	WP-TC-40	WP-TC-60	WP-TC-100	WP-TC-200
Load	5.0 kN	10.0 kN	20.0 kN	40.0 kN	60.0 kN	100.0 kN	200.0 kN
Free-turning radius	700-1300 mm	700-1300 mm	700-1000 mm / 1000-1500 mm	700-1000 mm / 1000-1500 mm	600-2200 mm	700-1700 mm	800-2200 mm
Grid free-turning radius	100 mm	100 mm	100 mm / 250 mm	100 mm / 250 mm	200 mm	200 mm	200 mm
Travelling length	1.00 - 3.00 m	1-5 m	1-5 m	1-10 m	1-10 m	1-12 m	1-15 m
Grid travelling length	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m
Clamping length	1.00-3.00 m	1-5 m	1-5 m	1-10 m	1-10 m	1-12 m	1-15 m
Rotating speed	120.0 °/sec	120.0 °/sec	90.0 °/sec	60.0 °/sec	20.0 °/sec	8.0 °/sec	8.5 °/sec
Grid clamping length	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m	1.00 m
Variants	F / M / S	F / M / S	E / F / M / S	E / F / M / S	E / F / M	E / M	E
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°





Counter bearing

The movable counter bearing has a vertically arranged faceplate. The counter bearing is used with another workpiece positioner. The workpiece fixture is mounted between the two faceplates of the counter bearing and the selected workpiece positioner. The counter bearing can be moved on the base frame manually (WP-C-M) or by a motor (WP-C-E). Thus, the distance between the two faceplates can be adjusted according the different workpiece sizes.

Technical features

- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- The free-turning radius can be adapted to the component size and the space on site.

Options

- Holding angle for mounting the workpiece fixtures
- Non-stop rotation of the faceplate
- Counter bearing to be moved manually (M)
- Pneumatic indexing of the 0 position at the counter bearing
- Pneumatic quick clamping system to change the machine
- Clamping stroke mounted on counter bearing (S)

Technical data	WP-C-2,5	WP-C-5	WP-C-10	WP-C-20	WP-C-30	WP-C-50	WP-C-100
Load	2.5 kN	5.0 kN	10.0 kN	20.0 kN	30.0 kN	50.0 kN	100.0 kN
Free-turning radius	700-1300 mm	700-1300 mm	700-1000 mm / 1000-1500 mm	700-1000 mm / 1000-1500 mm	600-2000 mm	700-1700 mm	800-2200 mm
Grid free-turning radius	100 mm	100 mm	100 mm / 250 mm	100 mm / 250 mm	200 mm	200 mm	200 mm
Travelling length	0-5 m	0-5 m	0-6 m	0-6 m	0-8 m	0-8 m	0-10 m
Variants	M / S	M / S	E / M / S	E / M	E / M	E	E





Workpiece Positioner with vertical rotation with roller support

The workpiece positioner has a vertically arranged faceplate and a counter bearing with supporting rolls. The workpiece fixture is mounted on the faceplate and supported at the counter bearing by means of the supporting rolls. The two components are screwed on the floor or, as an option, can be mounted on a base frame (QR-WP-TR-F), moved manually (QR-WP-TR-M) or electrically (QR-WP-TR-E).

Technical features

- Parallel working of the system operator and the robot.
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Clamping length and free-turning radius can be adapted to the component size and the space on site.
- Digital drive system
- Indexing of the 0 position for motor change

Options

- Holding angle for mounting the workpiece fixtures
- Counter bearing in roller bracket design
- Counter bearing for processing long, rotation-symmetric components
- Counter bearing mounted on base frame (F)
- Pneumatic indexing of the 0 position at the counter bearing

Technical data	WP-TR-10	WP-TR-20	WP-TR-40	WP-TR-100	WP-TR-300
Load	10.0 kN	20.0 kN	40.0 kN	100.0 kN	300.0 kN
Free-turning radius	700-1300 mm	700-1000 mm / 1000-1500 mm	700-1000 mm / 1000-1500 mm	700-1700 mm	900-2100 mm
Grid free-turning radius	100 mm	100 mm / 250 mm	100 mm / 250 mm	200 mm	200 mm
Travelling length	-	1-5 m	-	-	-
Grid travelling length	-	1.00 m	-	-	-
Clamping length	1-5 m	1-5 m	1-10 m	1-12 m	-
Grid clamping length	1.00 m	1.00 m	1.00 m	1.00 m	0.00 m
Rotating speed	120.0 °/sec	90.0 °/sec	60.0 °/sec	8.0 °/sec	6.5 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°
Variants	F	F / M	F	-	-



Counter bearing with roller support

The movable counter bearing with supporting rolls has no vertical faceplate but only serves as supporting bearing. The counter bearing with supporting rolls is used with another workpiece positioner. The workpiece is clamped between the faceplates of the workpiece positioner and the counter bearing with supporting rolls. The counter bearing can be moved on the base frame manually (WP-R-M) or by a motor (WP-C-E). Thus, the distance can be adjusted according the different workpiece sizes.

Technical features

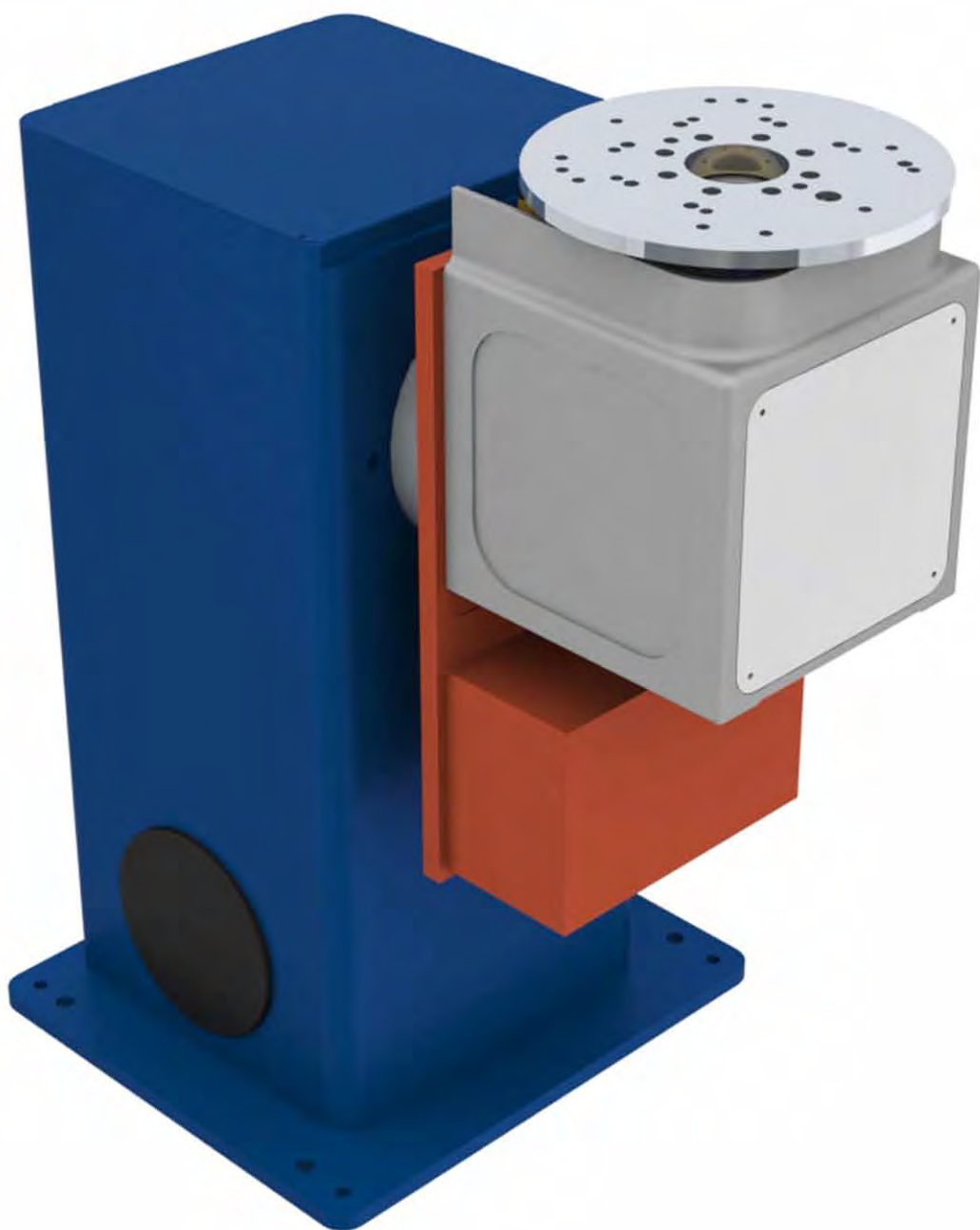
- The free-turning radius can be adapted to the component size and the space on site.
- Adjusting screws for a precise alignment during mounting
- Earthing transmission for non-stop rotation

Options

- Counter bearing in roller bracket design

3

Technical data	WP-R-5	WP-R-10	WP-R-20	WP-R-50	WP-R-150
Load	5.0 kN	10.0 kN	20.0 kN	50.0 kN	150.0 kN
Free-turning radius	700-1300 mm	1000-1500 mm / 700-1000 mm	1000-1500 mm / 700-1000 mm	700-1700 mm	900-2100 mm
Grid free-turning radius	100 mm	100 mm / 250 mm	100 mm / 250 mm	200 mm	200 mm
Travelling length	-	0-6 m	-	-	-
Variants	-	M	-	-	-



Workpiece Positioner with swivelling and horizontal rotation

The workpiece positioner has a turning axis with horizontally arranged faceplate and another swivelling axis which swivels the faceplate in both directions by 90°. The faceplate is moved from a horizontal to a vertical position. The workpiece positioner is designed to position light to medium-weight, large-surface workpieces perfectly for welding.

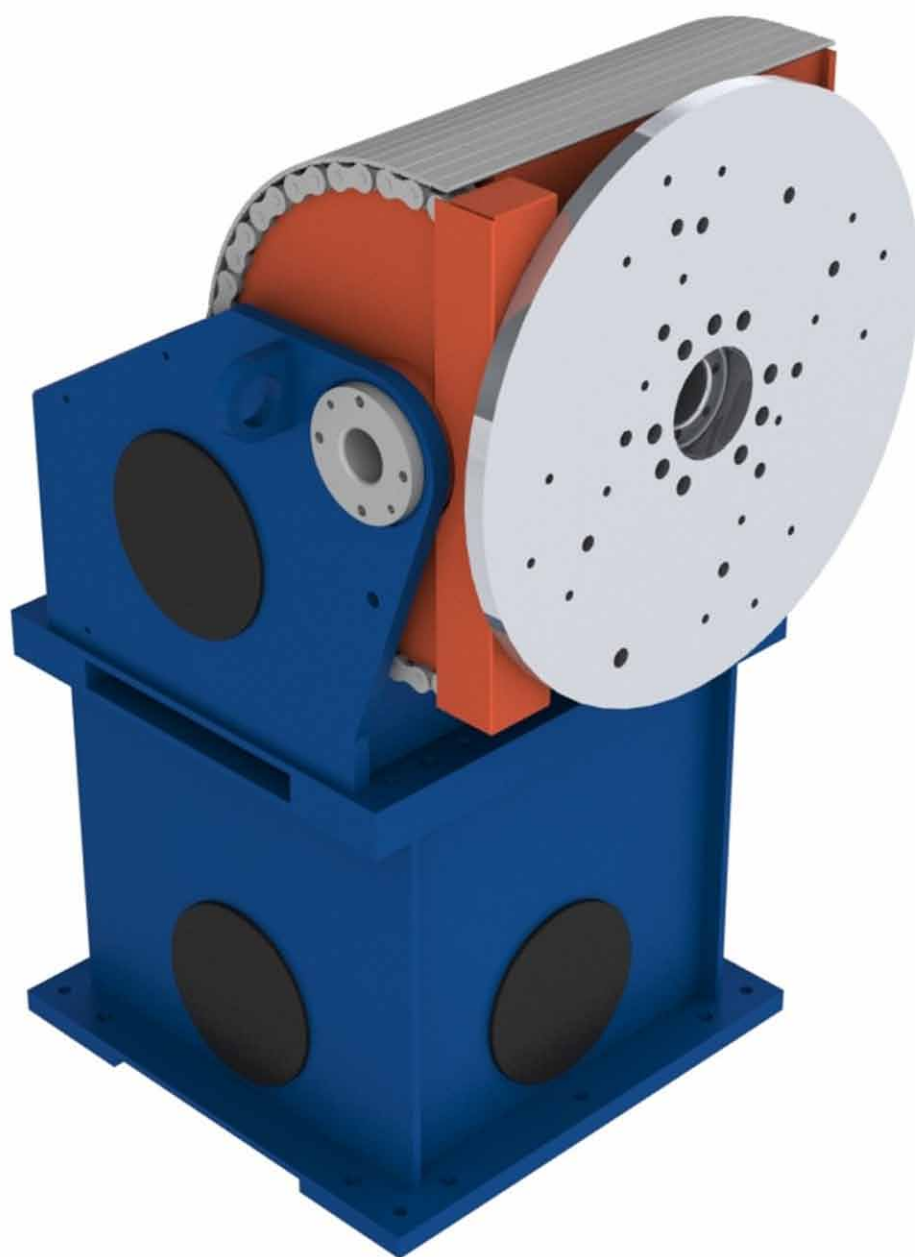
Technical data

- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Hollow-drilled shaft in the faceplate centre for media feed-through
- The free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 2 digital drive systems

Options

- Rotary distributor for media supply
- Non-stop rotation of the faceplate
- Pneumatic indexing of the 0 position at the counter bearing

Technical data	WP-TSH-1	WP-TSH-2,5	WP-TSH-5
Load	1.0 kN	2.5 kN	5.0 kN
Free-turning radius	750 mm	750 mm	750 mm
Centre height	700-1300 mm	700-1300 mm	700-1000 mm / 1000-1500 mm
Grid centre height	100 mm	100 mm	100 mm / 250 mm
Faceplate height	1.0 m	1.0 m	1.0 m
Rotating speed	120.0 °/sec	120.0 °/sec	120.0 °/sec
Tilting speed	120.0 °/sec	120.0 °/sec	90.0 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°
Tilting range	+/- 180°	+/- 180°	+/- 180°



Workpiece Positioner with turning and tilting movement

The workpiece positioner has a turning axis with vertically arranged faceplate which is mounted near to a tilting axis shifted by 90°. The tilting axis moves the turnable faceplate from a vertical to a horizontal position. Thus the positioner is designed for medium-weight compact workpieces. Flat and large-surface workpieces can be loaded easily.

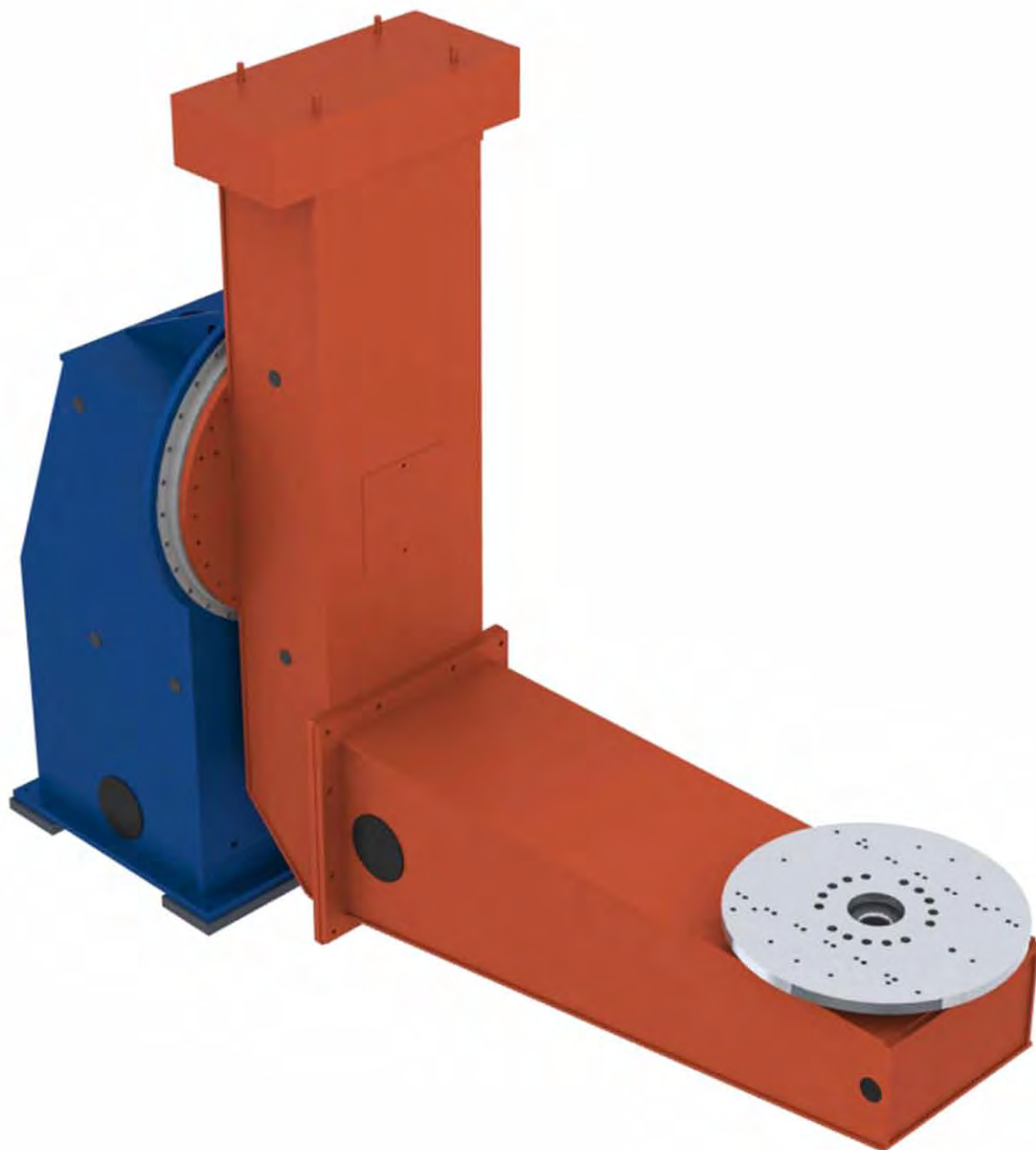
Technical features

- Faceplate with universal hole pattern for mounting the workpiece fixture
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Earthing transmission for non-stop rotation
- Adjusting screws for a precise alignment during mounting
- Hollow-drilled shaft in the faceplate centre for media feed-through
- The free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 2 digital drive systems

Options

- Holding angle for mounting the workpiece fixtures
- Non-stop rotation of the faceplate
- Counter bearing for processing long, rotation-symmetric components

Technical data	WP-TT-5	WP-TT-10	WP-TT-20
Load	5.0 kN	10.0 kN	20.0 kN
Free-turning radius	900 mm	900 mm	900 mm
Centre height	900 mm	900 mm	900 mm
Faceplate height	1.0 m	1.0 m	1.0 m
Rotating speed	120.0 °/sec	20.0 °/sec	20.0 °/sec
Tilting speed	120.0 °/sec	15.0 °/sec	8.5 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°
Tilting range	135 °	135 °	135 °



Workpiece Positioner with turning and swivelling movement

The workpiece positioner has a horizontal swivelling axis with an L-shaped extension arm. The extension arm contains a vertical turning axis with horizontal faceplate, which serves for holding the workpiece. The workpiece positioner is designed to position medium-weight to heavy complex workpieces perfectly for welding.

Technical features

- Very high travelling speed
- Parallel working of the system operator and the robot.
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Indexing of the 0 position for motor change
- 2 digital drive systems

Options

- 90° indexing of the tilting axis when using counter bearing
- Non-stop rotation of the faceplate
- Pneumatic quick clamping system to change the machine

Technical data	WP-TS-2,5	WP-TS-5	WP-TS-10	WP-TS-15	WP-TS-30	WP-TS-50	WP-TS-100
Load	2.5 kN	5.0 kN	10.0 kN	15.0 kN	30.0 kN	50.0 kN	150.0 kN
Free-turning radius	500 mm	700-1000 mm	1000 mm	1000-1750 mm	1250-2000 mm	1750-2000 mm / 2000-3000 mm	2000-3000 mm
Grid free-turning radius	-	100 mm	-	250 mm	250 mm	250 mm / 500 mm	500 mm
Faceplate height	0.85 m	0.8 m	0.75 m	0.9 m	1.2 m	1.25 m	1.4 m
Option hollow-drilled shaft	-	-	-	Ø630 mm	Ø800 mm	Ø880 mm	-
Rotating speed	120.0 °/sec	120.0 °/sec	90.0 °/sec	60.0 °/sec	20.0 °/sec	8.0 °/sec	8.5 °/sec
Swivelling speed	120.0 °/sec	90.0 °/sec	60.0 °/sec	20.0 °/sec	8.0 °/sec	8.5 °/sec	6.5 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°
Swivelling radius	450 mm	750 mm	1200 mm	1250 mm	1500 mm	1750 mm	1750 mm





Workpiece Positioner with turning and swivelling movement and vertical stroke

The workpiece positioner has a horizontal swivelling axis with an L-shaped extension arm. The extension arm contains a vertical turning axis with horizontal faceplate. The integrated vertical stroke facilitates loading and unloading of the workpieces near to the floor and increases the free-turning radius of the swivelling movement. Due to the workpiece light to medium-weight, long and complex workpieces can be welded.

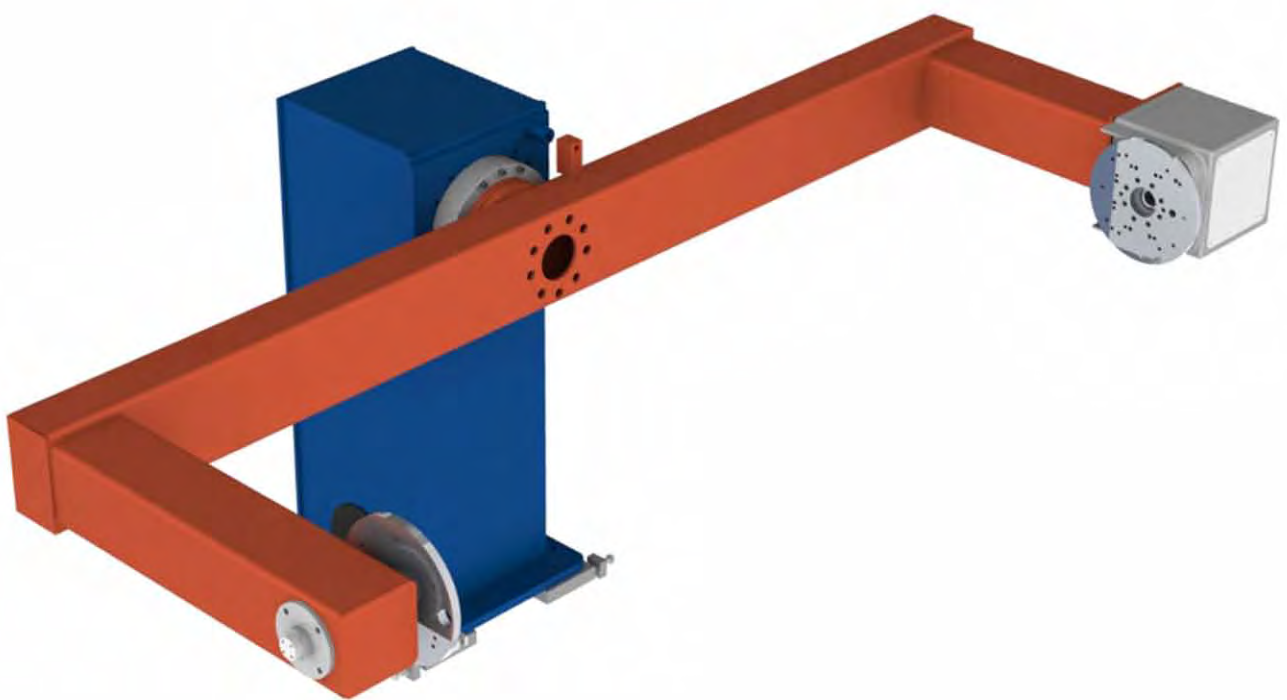
Technical data

- Very high travelling speed
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Indexing of the 0 position for motor change
- 3 digital drive systems

Options

- 90° indexing of the tilting axis when using counter bearing
- Rotary distributor for media supply
- Non-stop rotation of the faceplate

Technical data	WP-TSV-5	WP-TSV-10	WP-TSV-50
Load	5.0 kN	10.0 kN	50.0 kN
Free-turning radius	700-1000 mm	1000 mm	1750-2000 mm / 2000-3000 mm
Grid free-turning radius	100 mm	-	250 mm / 500 mm
Faceplate height	0.6-1.6 m	0.75-2.0 m	1.0-2.5 m
Vertical stroke	1.00 m	1.25 m	1.50 m
Rotating speed	120.0 °/sec	90.0 °/sec	8.0 °/sec
Swivelling speed	90.0 °/sec	60.0 °/sec	8.5 °/sec
Stroke speed	2.0 m/min	2.0 m/min	2.0 m/min
Turning range	+/- 360°	+/- 360°	+/- 360°
Swivelling radius	750 mm	1200 mm	1750 mm
Swivelling range	+/- 185°	+/- 185°	+/- 185°



Workpiece Positioner with turning and swivelling movement and counter bearing

The workpiece positioner has a horizontally arranged swivelling axis. An extension arm with integrated turning axis with counter bearing is mounted on this axis. The workpiece can be turned and swivelled. Due to the workpiece light to medium-weight, long and complex workpieces can be welded.

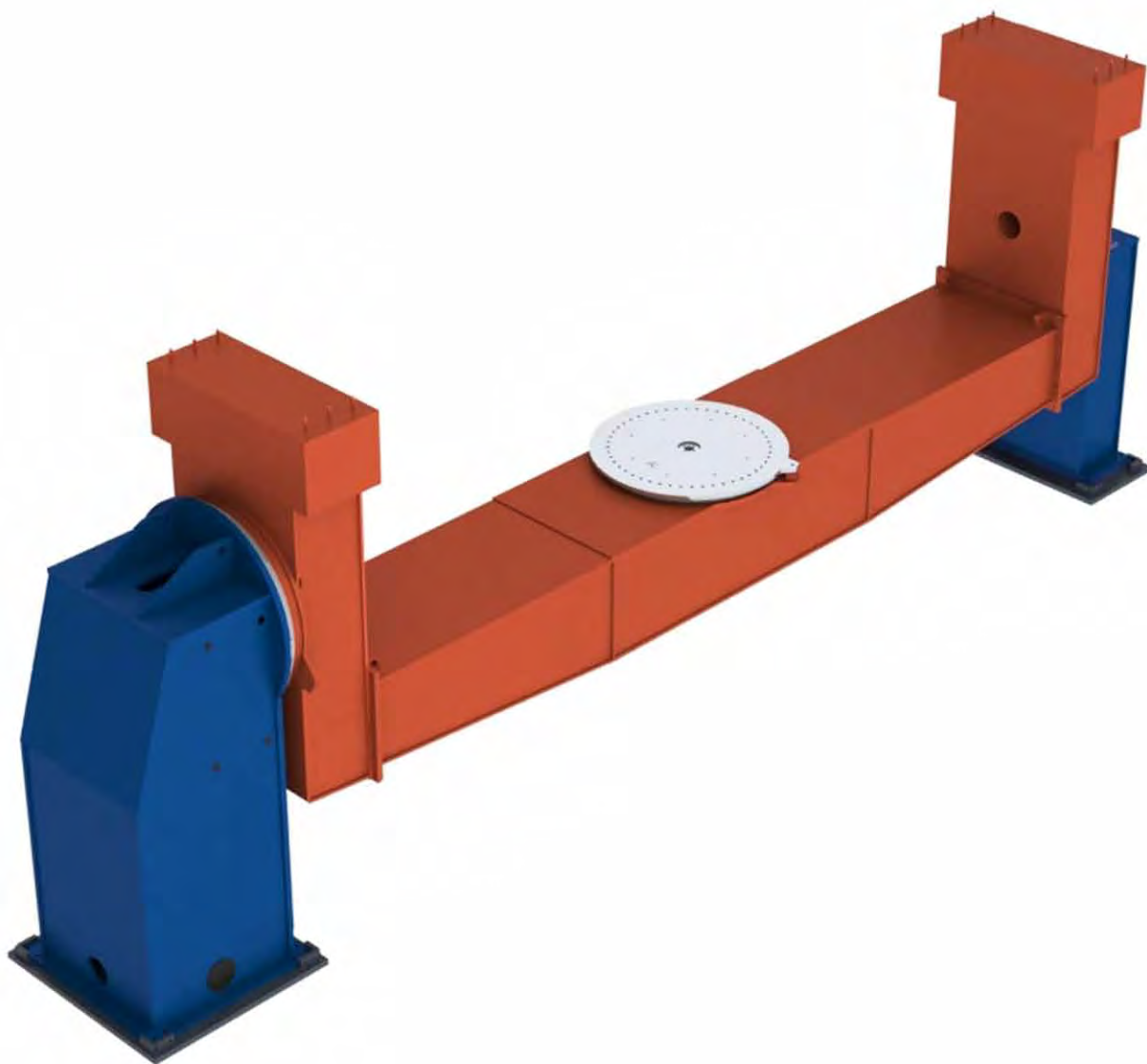
Technical features

- Very high travelling speed
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Clamping length and free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 2 digital drive systems

Options

- Holding angle for mounting the workpiece fixtures
- Non-stop rotation of the faceplate
- Counter bearing to be moved manually (M)
- Pneumatic indexing of the 0 position at the counter bearing
- Clamping stroke mounted on counter bearing (S)

Technical data	WP-TSC-5	WP-TSC-40	WP-TSC-60
Load	5.0 kN	40.0 kN	60.0 kN
Free-turning radius	700-800 mm	700-1000 mm / 1000-1250 mm	600-1400 mm
Grid free-turning radius	100 mm	100 mm / 250 mm	200 mm
Centre height	1250 mm	1100 mm	1250 mm
Clamping length	1.00-3.00 m	4.00 m	2-6.5 m
Rotating speed	120.0 °/sec	60.0 °/sec	8.0 °/sec
Swivelling speed	90.0 °/sec	8.5 °/sec	6.5 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°
Swivelling radius	1200 mm	3000 mm	4750 mm
Swivelling range	+/- 185°	+/- 185°	+/- 185°



Workpiece Positioner with turning/swivelling movement and fixed counter bearing

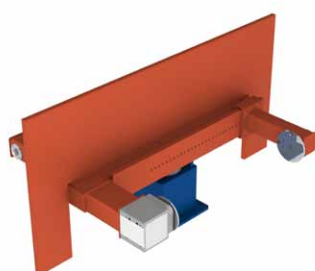
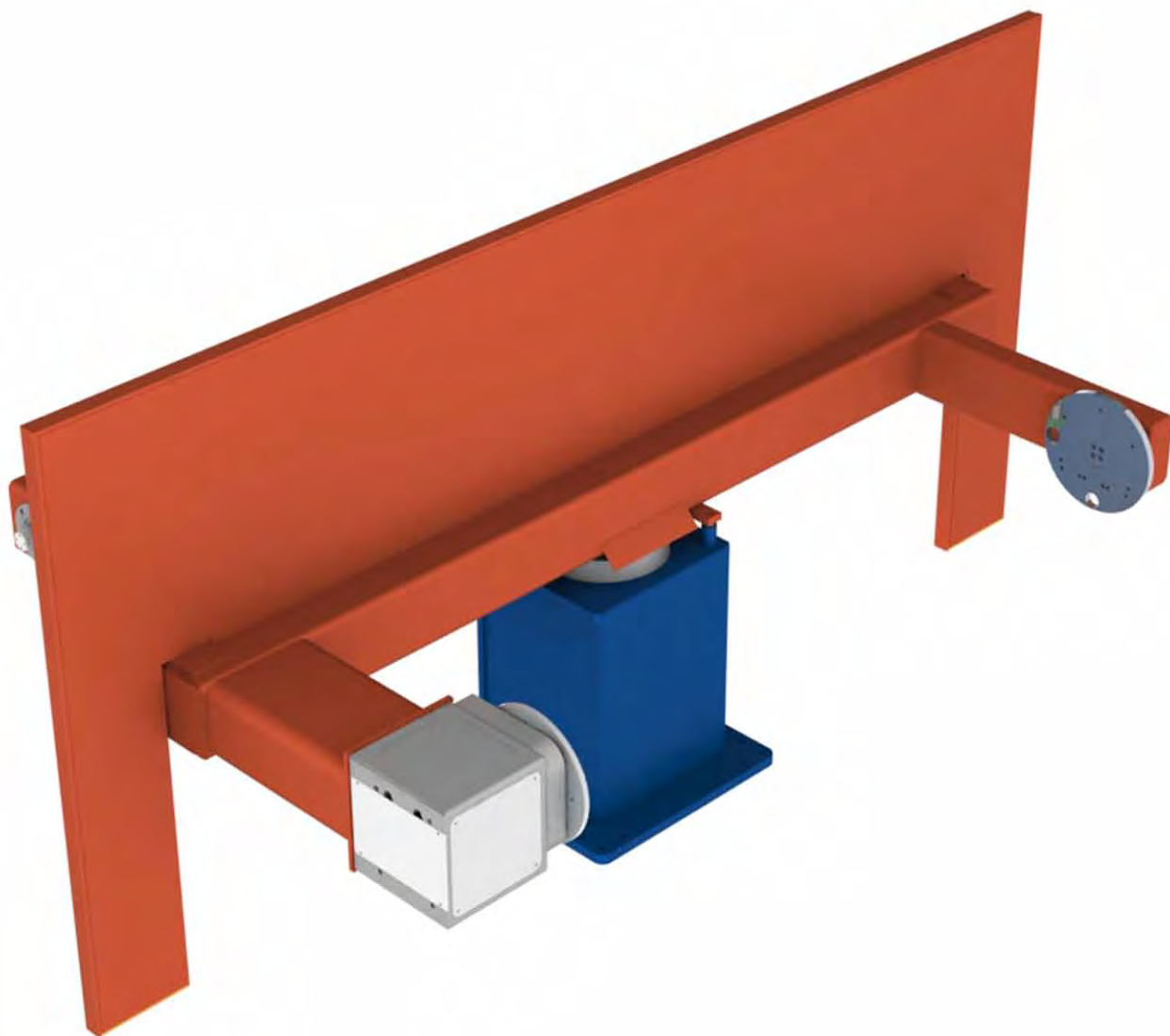
The workpiece positioner has a horizontal swivelling axis with an U-shaped extension arm which is supported by a counter bearing. In the middle of the U-shaped extension arm there is a horizontal faceplate which is moved by means of a vertical turning axis. This positioner takes up large-volume, complex workpieces and positions them perfectly for welding.

Technical features

- Faceplate with universal hole pattern for mounting the workpiece fixture
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Indexing of the 0 position for motor change
- 2 digital drive systems

3

Technical data	WP-TSF-2,5	WP-TSF-50
Load	2.5 kN	50.0 kN
Free-turning radius	500-1500 mm	1200-3000 mm
Grid free-turning radius	100 mm	100 mm
Centre height	1200 mm	2100 mm
Faceplate height	1.2 m	1.6 m
Rotating speed	120.0 °/sec	8.0 °/sec
Swivelling speed	120.0 °/sec	8.5 °/sec
Turning range	+/- 360°	+/- 360°
Swivelling range	+/- 185°	+/- 185°



Horizontal rotary positioner with vertical rotation and counter bearing

The two-station positioner changes the station by a horizontal rotation. Each station is equipped with a horizontal turning axis and counter bearing. The two-station positioner is designed to take up light to medium-weight, long workpieces.

Technical features

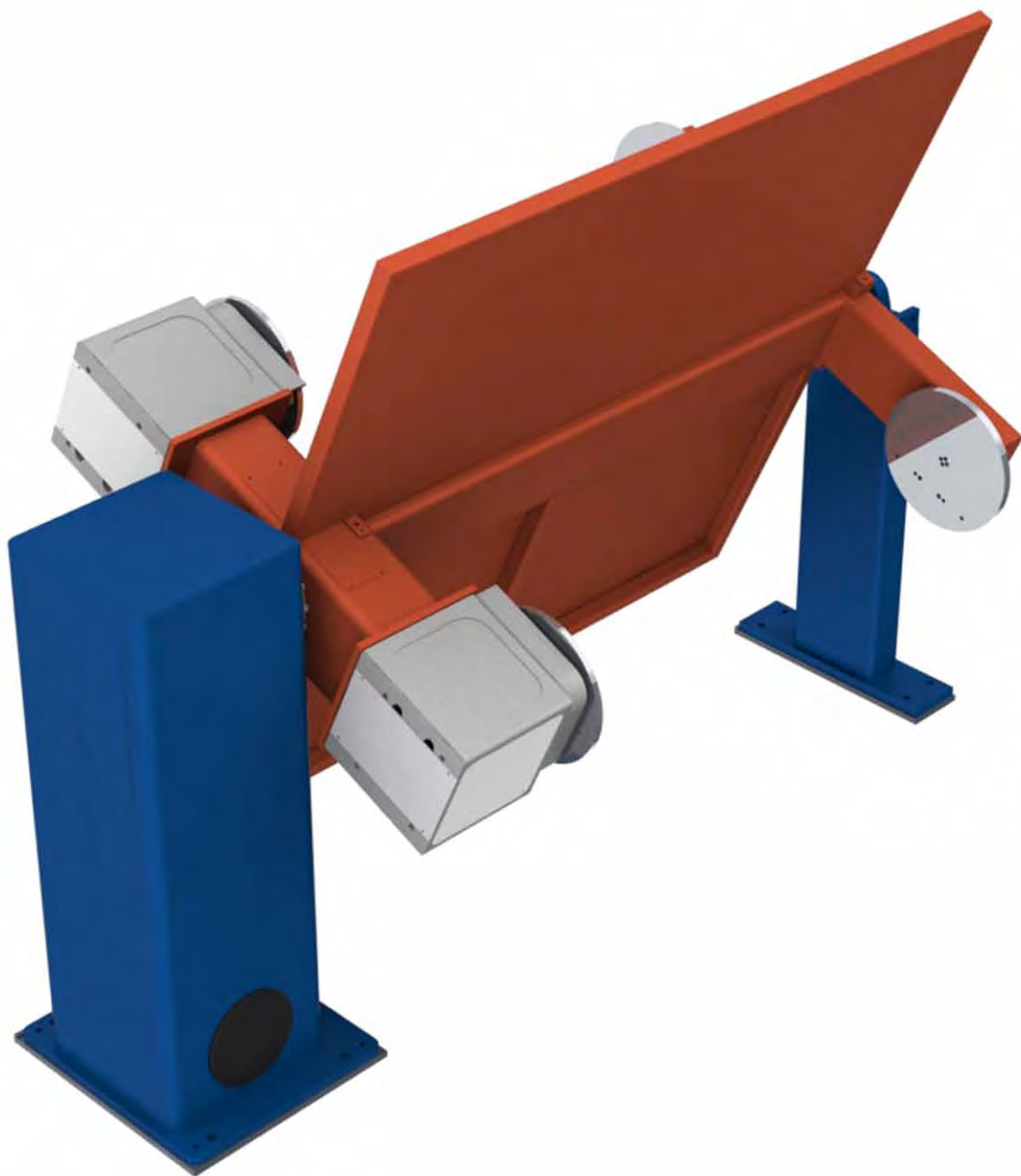
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Clamping length and free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 3 digital drive systems

Options

- Holding angle for mounting the workpiece fixtures
- Non-stop rotation of the faceplate
- Counter bearing to be moved by motor (E)
- Counter bearing to be moved manually (M)
- Pneumatic indexing of the 0 position at the counter bearing

Technical data	WP-DH-TC-2,5	WP-DH-TC-5	WP-DH-TC-7,5	WP-DH-TC-10	WP-DH-TC-20
Load	2.5 kN	5.0 kN	7.5 kN	10.0 kN	20.0 kN
Free-turning radius	500-700 mm	500-800 mm	500-800 mm	1200-2000 mm	600-1000 mm
Grid free-turning radius	100 mm	100 mm	100 mm	100 mm	100 mm
Clamping length	1.00-2.00 m	1.50-3.00 m	1.50-2.50 m	2.5-3.5 m	2.5-3.5 m
Grid clamping length	0.25 m	0.25 m	0.25 m	0.25 m	0.25 m
Faceplate height	0.85 m	1.0 m	0.9 m	1.0 m	1.0 m
Rotating speed	120.0 °/sec	120.0 °/sec	120.0 °/sec	120.0 °/sec	120.0 °/sec
Turning speed	90.0 °/sec	50.0 °/sec	50.0 °/sec	40.0 °/sec	40.0 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°	+/- 360°
Turning range	+/- 180°	+/- 180°	+/- 180°	+/- 180°	+/- 180°
Turning radius	2000 mm	2250 mm	2250 mm	3250 mm	3250 mm
Variants	M	-	-	-	-





Vertical rotary positioner with vertical rotation and counter bearing

The two-station positioner changes the station by a vertical rotation. Each station is equipped with a horizontal turning axis and counter bearing. The two-station positioner requires little space and is designed to take up light to medium-weight, long workpieces. The vertical turning movement for station change has a small collision radius. Systems with this double-station positioner require only little floor space.

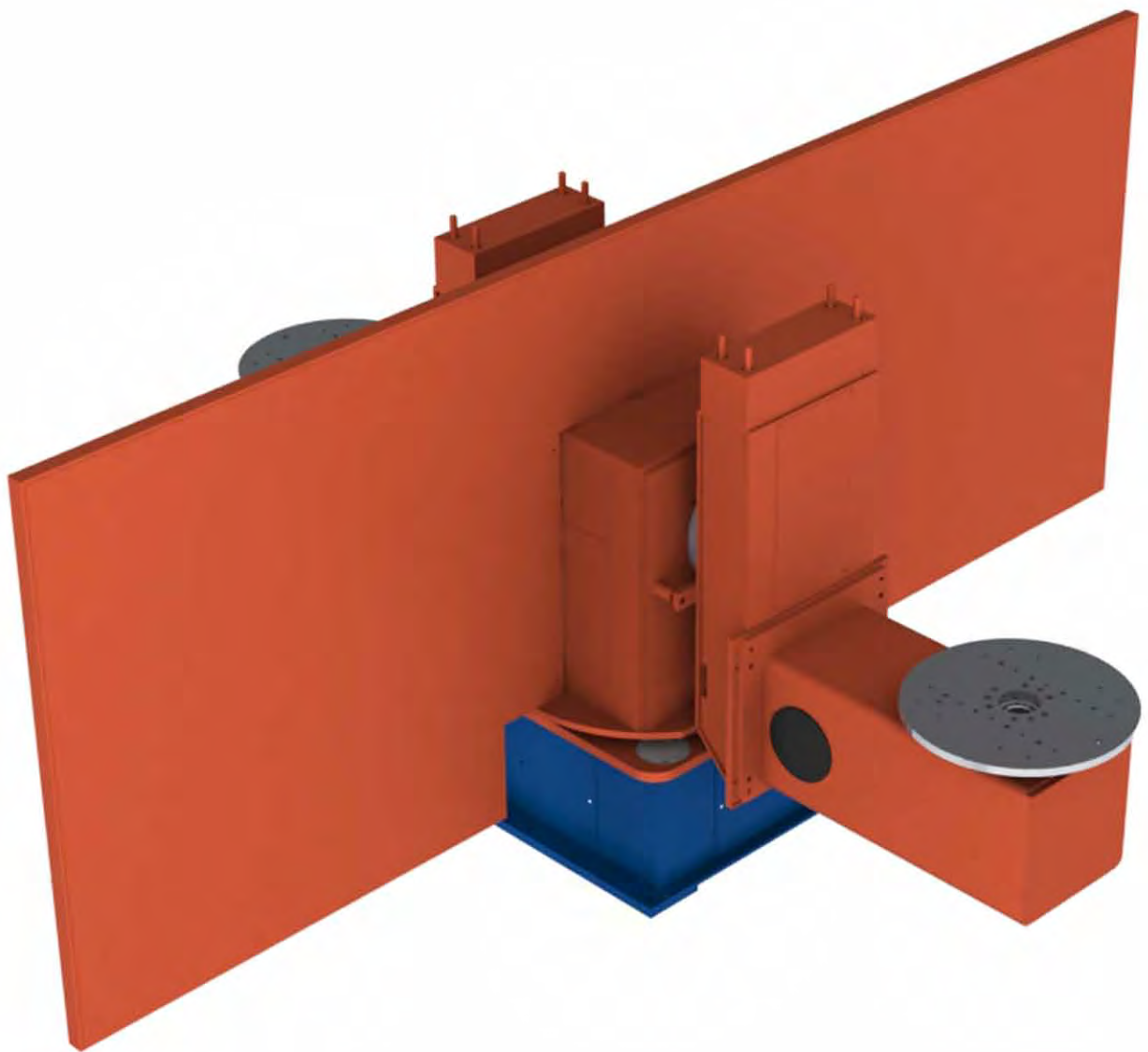
Technical features

- Very high travelling speed
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Clamping length and free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 3 digital drive systems

Options

- Holding angle for mounting the workpiece fixtures
- Non-stop rotation of the faceplate
- Counter bearing to be moved by motor (E)
- Counter bearing to be moved manually (M)
- Pneumatic indexing of the 0 position at the counter bearing
- Clamping stroke mounted on counter bearing (S)

Technical data	WP-DV-TC-2,5	WP-DV-TC-5	WP-DV-TC-10	WP-DV-TC-20
Load	2.5 kN	5.0 kN	10.0 kN	20.0 kN
Free-turning radius	400 mm	500 mm	750 mm	750 mm
Clamping length	1.00-2.00 m	1.25-3.00 m	2-6 m	2-5 m
Grid clamping length	0.25 m	0.25 m	0.25 m	0.25 m
Faceplate height	1.0 m	1.1 m	1.2 m	1.3 m
Rotating speed	120.0 °/sec	120.0 °/sec	120.0 °/sec	90.0 °/sec
Swivelling speed	120.0 °/sec	90.0 °/sec	20.0 °/sec	8.0 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°
Swivelling range	+/- 180°	+/- 180°	+/- 180°	+/- 180°
Variants	-	M	E / M	-



Horizontal rotary positioner with turning/swivelling movement

The two-station positioner changes the station by a horizontal rotation. Each station is equipped with a horizontal swivelling axis. An L-shaped extension arm is mounted on this axis. The extension arm contains a turning axis with horizontal faceplate. The positioner can take up light to medium-weight complex workpieces and positions them perfectly for welding.

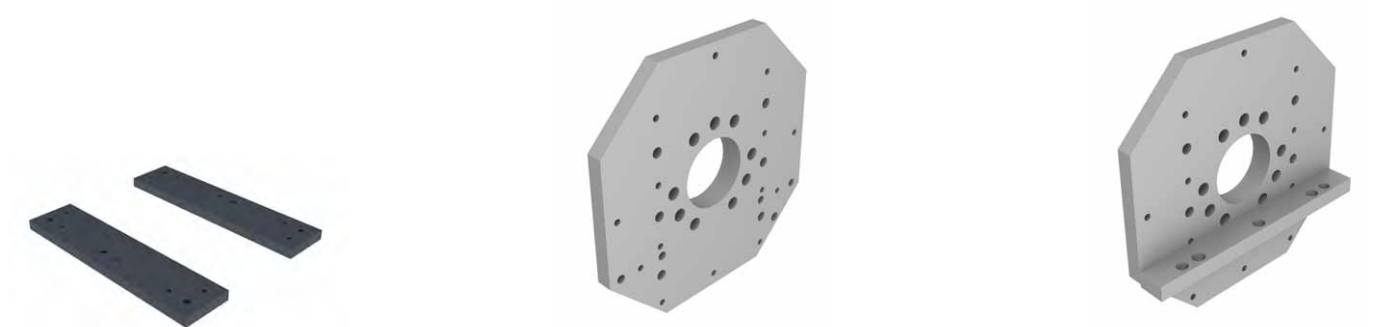
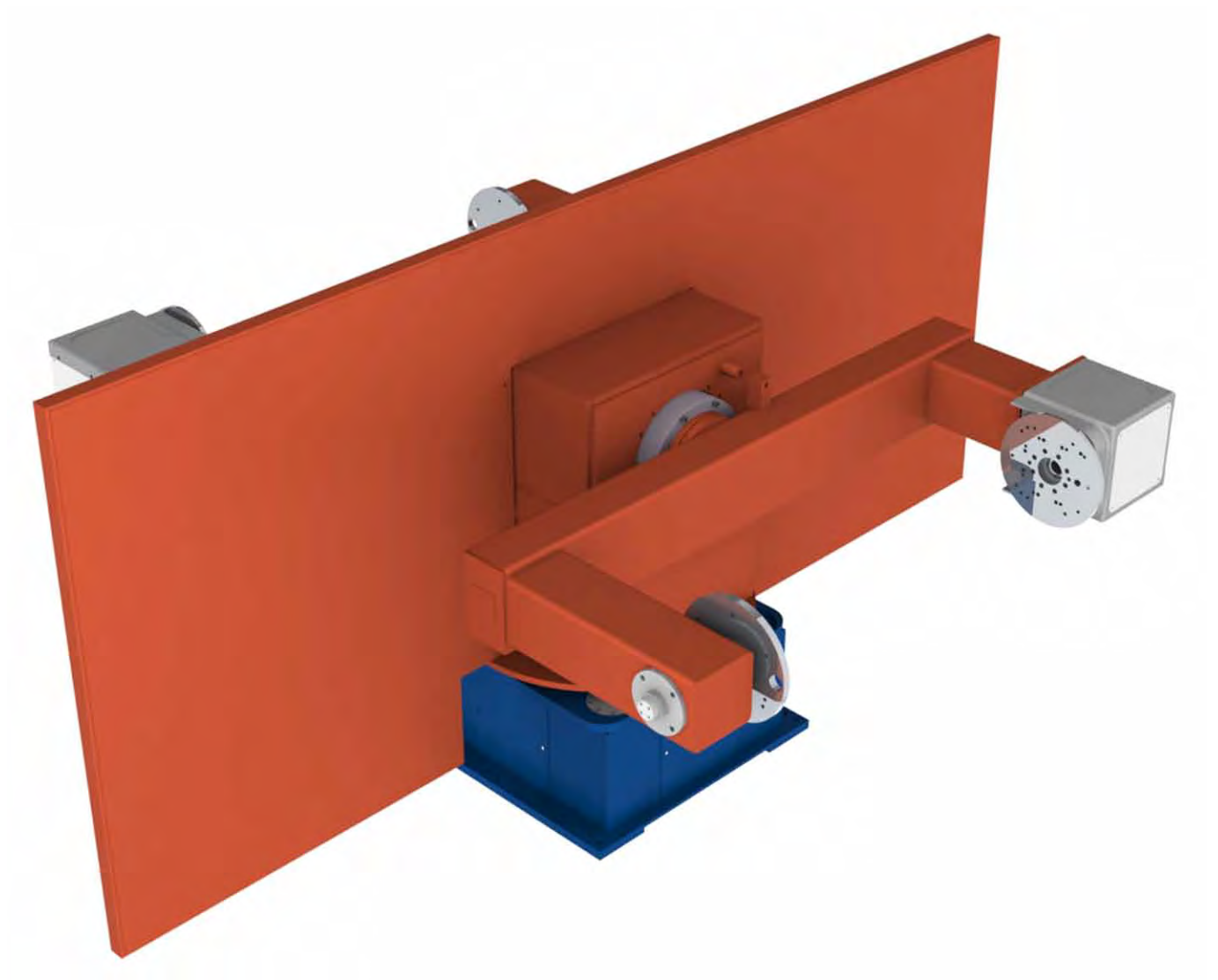
Technical features

- Very high travelling speed
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- The free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 5 digital drive systems

Options

- Rotary distributor for media supply
- Non-stop rotation of the faceplate

Technical data	WP-DH-TS-1	WP-DH-TS-2,5	WP-DH-TS-5	WP-DH-TS-10
Load	1.0 kN	2.5 kN	5.0 kN	10.0 kN
Free-turning radius	300 mm	500 mm	700-1000 mm	1000 mm
Grid free-turning radius	-	-	100 mm	-
Faceplate height	0.85 m	0.75 m	0.9 m	1.0 m
Rotating speed	120.0 °/sec	120.0 °/sec	120.0 °/sec	90.0 °/sec
Tilting speed	120.0 °/sec	120.0 °/sec	90.0 °/sec	60.0 °/sec
Swivelling speed	50.0 °/sec	50.0 °/sec	50.0 °/sec	40.0 °/sec
Turning range	+/- 360°	+/- 360°	+/- 360°	+/- 360°
Swivelling range	+/- 180°	+/- 180°	+/- 180°	+/- 180°
Tilting range	+/- 185°	+/- 185°	+/- 185°	+/- 185°



Horizontal rotary positioner with turning/swivelling movement and counter bearing

The two-station positioner changes the station by a horizontal rotation. Each station is equipped with a horizontal swivelling axis. An extension arm with integrated turning axis and counter bearing is mounted on this axis. The positioner turns and tilts the workpiece so that light to medium-weight, long and complex workpieces can be welded.

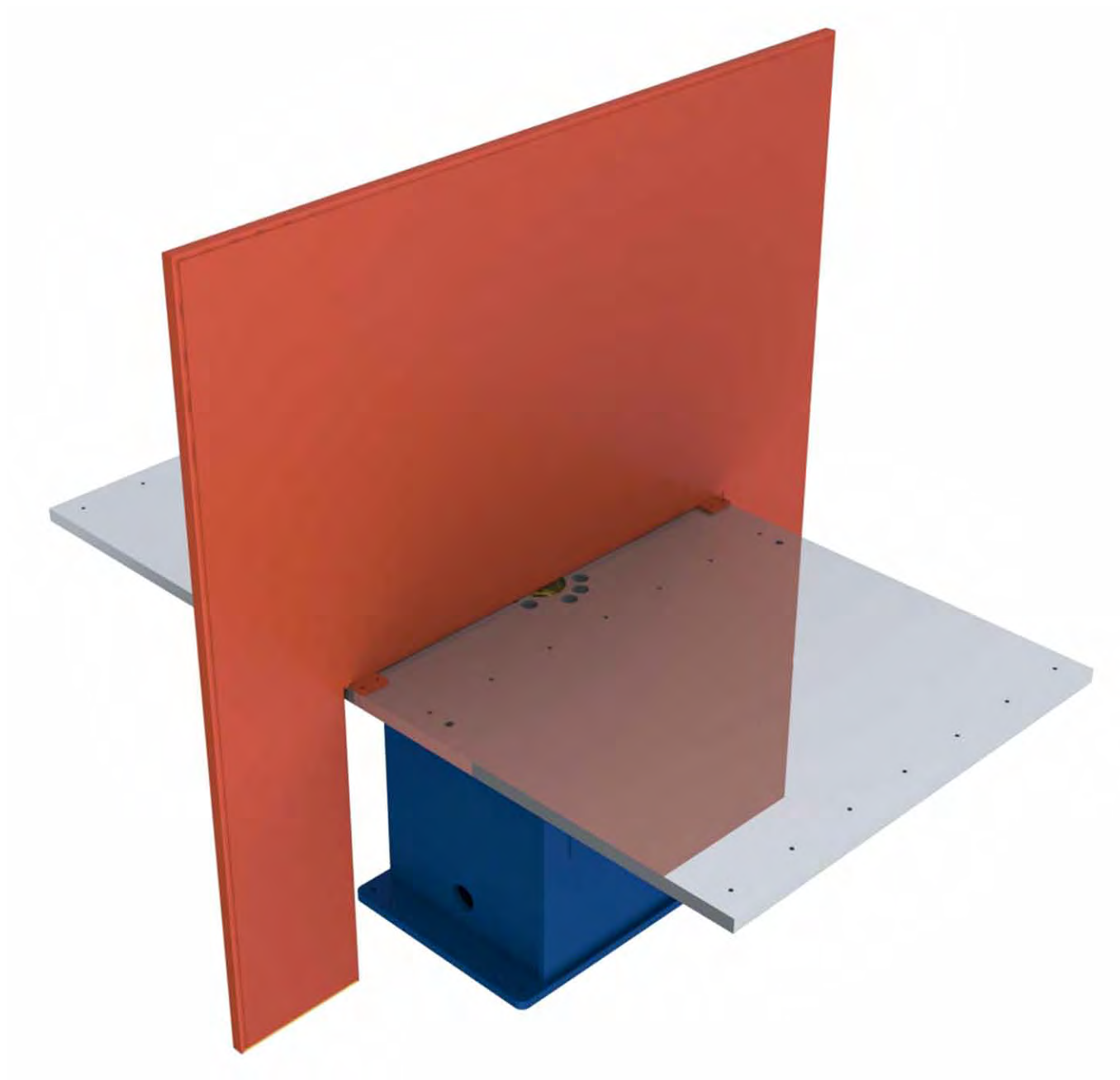
Technical features

- Very high travelling speed
- Repeatability less than 0.1 mm
- Service-friendly direct drives
- Opening in steel construction for a good accessibility during service works
- Adjusting screws for a precise alignment during mounting
- Clamping length and free-turning radius can be adapted to the component size and the space on site.
- Indexing of the 0 position for motor change
- 5 digital drive systems

Options

- Holding angle for mounting the workpiece fixtures
- Rotary distributor for media supply
- Non-stop rotation of the faceplate
- Counter bearing to be moved by motor (E)
- Counter bearing to be moved manually (M)
- Pneumatic indexing of the 0 position at the counter bearing
- Clamping stroke mounted on counter bearing (S)

Technical data	WP-DH-TSC-5	WP-DH-TSC-10
Load	5.0 kN	10.0 kN
Free-turning radius	500-750 mm	1200 mm
Grid free-turning radius	50 mm	100 mm
Clamping length	1.25-2.00 m	1.00-2.50 m
Grid clamping length	0.25 m	0.25 m
Faceplate height	1.1 m	0.85 m
Rotating speed	120.0 °/sec	120.0 °/sec
Swivelling speed	90.0 °/sec	20.0 °/sec
Turning speed	50.0 °/sec	30.0 °/sec
Turning range	+/- 360°	+/- 360°
Swivelling range	+/- 185°	+/- 185°
Turning range	+/- 180°	+/- 180°
Turning radius	2750 mm	3750 mm
Variants	M	-



Two-station positioner with horizontal station change

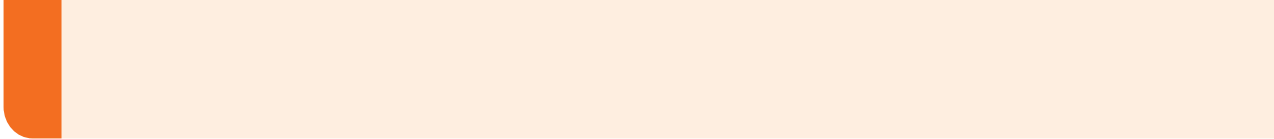
The two-station positioner with horizontal station changeover has two opposite stations. A clamping plate is available to support the tools. The operator works parallel to the robot.

Technical features

- Indexing of the 0 position for motor change
- Digital drive system
- Adjusting screws for a precise alignment during mounting
- Opening in steel construction for a good accessibility during service works
- Service-friendly direct drives
- Repeatability less than 0.1 mm
- Parallel working of the system operator and the robot.

3

Technical data	WP-DH-2,5	WP-DH-7,5	WP-DH-10
Load	2.5 kN	7.5 kN	10.0 kN
Faceplate height	0.75 m	0.75 m	0.75 m
Swivelling speed	120.0 °/sec	120.0 °/sec	120.0 °/sec
Swivelling range	+/- 180°	+/- 180°	+/- 180°
Clamping plate	500x1000	1250x1550	800x1500



Compact cells

The QIROX compact cells are perfectly matched "ready to weld" systems in a compact size. Each compact cell is equipped with two welding areas so that a high and economic duty cycle can be obtained. The cells are characterised by a container design and mounted on a base frame which can be transported via forklift trucks. The basic system dimensions allow a transport by truck without any disassembly. Each system consists of a QIROX robot with controller, a water-cooled QINEO welding power source with wire drive unit, cable

assemblies, welding torch, torch bracket incl. collision sensor and an automatic torch cleaning unit. Depending on the system, manual rotary tables, rotary tables with turning or turn-tilt positioners are available. We also supply a complete safety package, i. e. protective enclosure, service door, start preselection with emergency stop, glare shield and light barrier. The compact cell is the perfect solution to start with automation and to economically weld smaller components.

4
4.1



Compact cell CC-1

"Ready to weld system" with manual rotary table QR-WP-DH. The max. load per station is 100 kg, the horizontal clamping surface 1000 x 700 mm. By means of a pneumatic indexing the positioner and thus the component to be welded is exactly positioned. The inserting height of approx. 900 mm and the end-of-stroke damper enable a gentle operation of the positioner and an ergonomic working space for your employees.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service



Technical data	CC-1
Positioner	Manual rotary table
Load per station	1.0 kN
Clamping surface per station	1000 x 710 mm
Time for station changeover	manually by operator
Dimensions (L/W/H)	4590 x 2150 x 2000 mm
Weight	approx. 2.700 kg
Safety technology	Locking of the rotary table as long as the robot moves, antiglare device and service door

Compact cell CC-2

"Ready to weld system" with manual rotary table. Two fix clamping tables, 1000 x 670 mm each, load up to 150 kg, are placed in front of the robot. In the front loading area the start preselection is automatically activated by actuating a manual sliding door. Thus simultaneous welding and loading of the other working space is possible. The system convinces by very short ways and a very high availability.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service

4
4.1



Technical data	CC-2
Positioner	Clamping plate, divided in two stations
Load per station	1.5 kN
Clamping surface per station	900 x 600 mm
Time for station changeover	Manually by moving the door
Dimensions (L/W/H)	3900 x 2150 x 2000 mm
Weight	approx. 2.800 kg
Safety technology	Sliding door, antiglare device and service door

Compact cell CC-3

"Ready to weld system" with two rotating positioners QR-WP-TV 2.5KN. In each station components up to Ø 700 mm, 650 mm long and 250 kg can be clamped. The welding area is closed by a manual sliding door which automatically releases the start preselection signal. Thus simultaneous welding and loading of the other working space is possible. The system convinces by very short ways and a very high availability. All robot and positioner axes are fully synchronised. This provides optimum welding results.

Technical features

- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- Minimal downtime from maintenance and repair work
- Easy integration into any production line
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- One contact for development, project management, production and service



Technical data	CC-3
Positioner	2 Rotating positioners
Load per station	2.5 kN
Clamping surface per station	Ø 700 x 650 mm
Time for station changeover	Manually by moving the door
Dimensions (L/W/H)	4590 x 2150 x 2000 mm
Weight	approx. 3.000 kg
Safety technology	Sliding door, antiglare device and service door

Compact cell CC-4

"Ready to weld system" with two-station rotary table in H form. This system is characterised by a rotating positioner QR-WP-TC 21.5KN for components up to Ø 800 mm, 1000 mm long and 250 kg. By means of the rotary axis the station is turned from the loading area to the robot within 3 sec. During this procedure, the loading area is protected by a light barrier and an additional lateral safety fence. There is a glare shield between the two stations. Thus the system operator is perfectly protected. Due to the rotating positioners your component is placed in optimum welding position. All robot and positioner axes are fully synchronised. This provides optimum welding results.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service

4
4.1



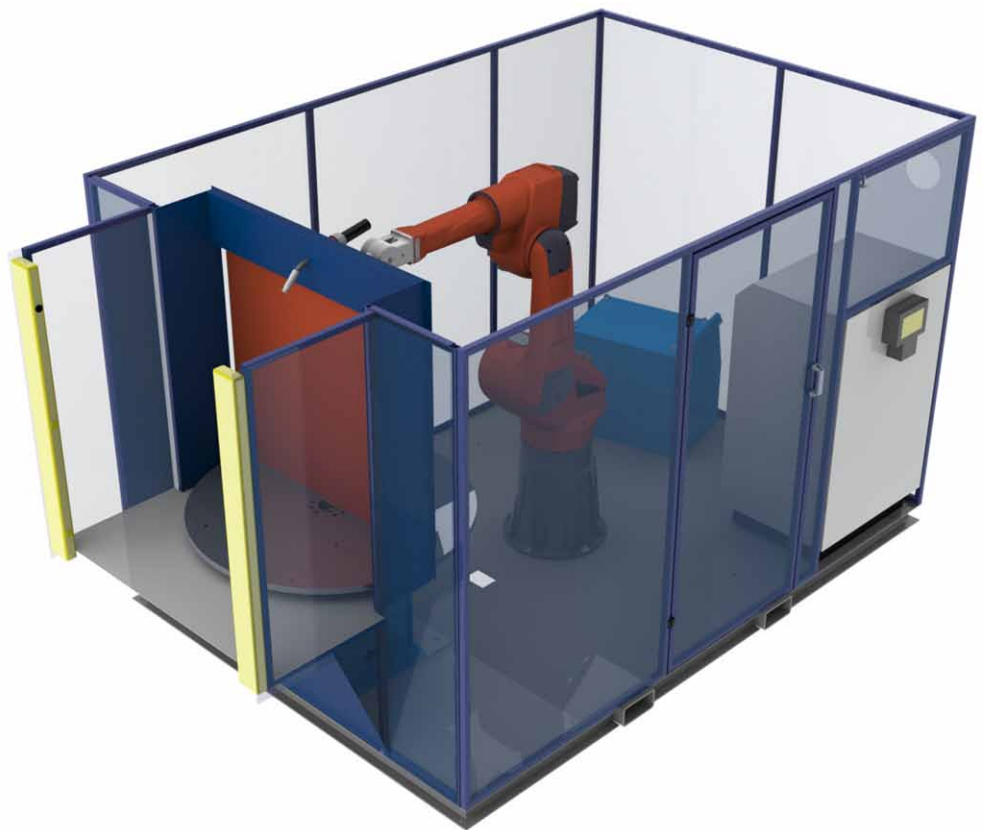
Technical data	CC-4
Positioner	Two-station rotary table with counter bearing
Load per station	1,2 - 2,5 kN
Clamping surface per station	Ø 800 x 1000 mm
Time for station changeover	automatically in less than 2 sec.
Dimensions (L/W/H)	5770 x 2000 x 2160 mm
Weight	approx. 2.800 kg
Safety technology	Light barrier, antiglare device and service door

Compact cell CC-5

"Ready to weld system" with automated rotary table QR-WP-TH. The max. load per station is 250kg, the horizontal clamping surface of the total plate Ø 1200. The cycle time of the rotary axis is only 2-3 sec. The loading area is secured by a light barrier within a short distance of approx. 300 mm to the clamping plate. This allows very short ways for the operator to load and unload the components. The inserting height of approx. 900 mm and a glare shield between the stations provide an ergonomic working space for your employees.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service



Technical data	CC-5
Positioner	Two-station rotary table
Load per station	5.0 kN
Clamping surface per station	650 x 400 mm
Time for station changeover	automatically in less than 2 sec.
Dimensions (L/W/H)	4250 x 2150 x 2000 mm
Weight	approx. 2.900 kg
Safety technology	Light barrier, antiglare device and service door

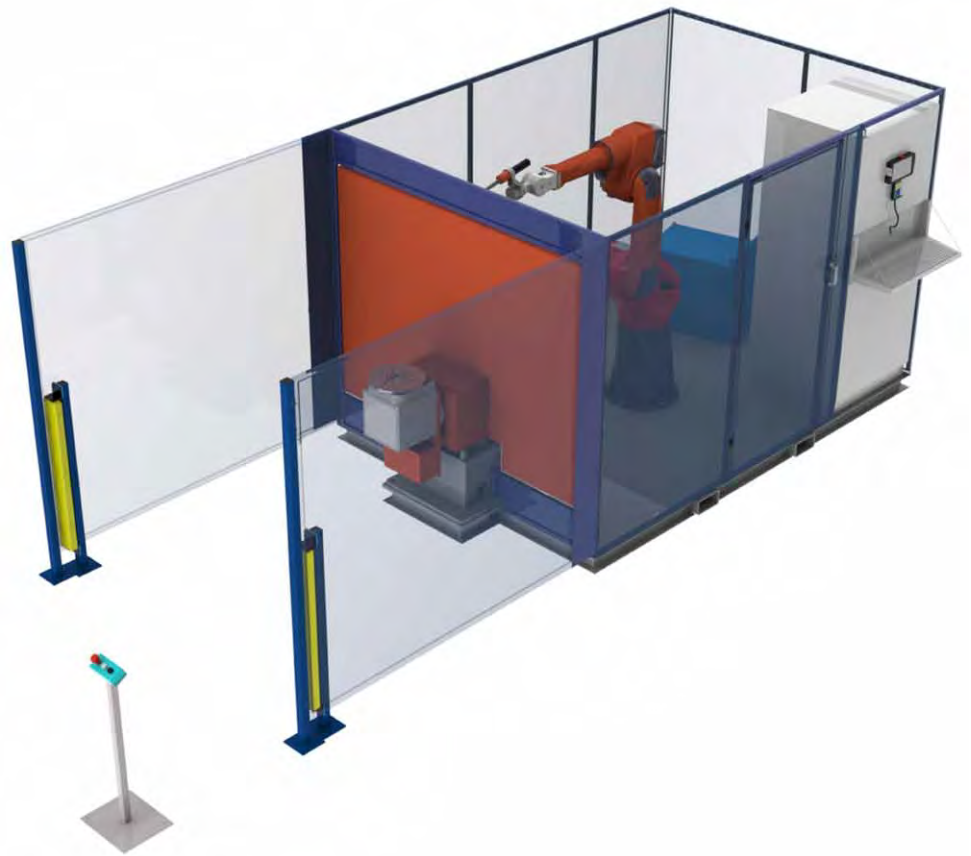
Compact cell CC-6

"Ready to weld system" with two-station positioner QR-WP-DH-TS-2.5KN. In each station components up to 250 kg and a diameter of up to Ø 900 mm can be clamped. Per station the positioner has a fully synchronised turn/tilt axis for an optimum component positioning. This provides optimum welding results. The loading area is protected by a lateral safety fence and a light barrier during the cycle. The inserting height of approx. 900 mm and a glare shield between the stations provide an ergonomic working space for your employees.

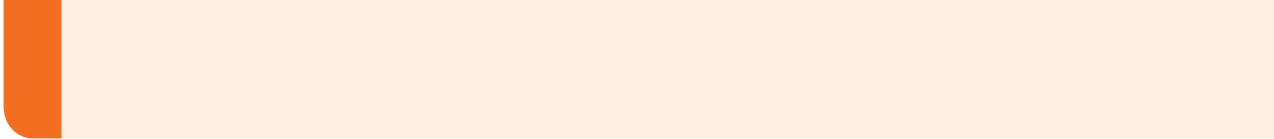
Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service

4
4.1



Technical data	CC-6
Positioner	Two station Orbit for small workpieces
Load per station	1.0 kN
Clamping surface per station	Ø 600 mm
Time for station changeover	approx. 3 sec.
Dimensions (L/W/H)	5770 x 2000 x 2160 mm
Weight	approx. 3.000 kg
Safety technology	"Light barrier, antiglare device and service door"



Compact systems

The QIROX compact systems are perfectly matched "ready to weld" systems in a compact size. Each compact system is equipped with two stations so that a high and economic duty cycle can be obtained.

While the robot is welding the components on one side, loading or unloading is carried out simultaneously on the other station. Robot and positioner are mounted on a common base frame. This guarantees a quick and perfectly adjusted system assembly.

Each compact system consists of a QIROX robot with controller, a water-cooled QINEO welding power source with wire drive unit, cable assem-

blies, welding torch, torch bracket incl. collision sensor and an automatic torch cleaning unit. As an option, the processes TIG, TIG+cold wire, plasma welding and plasma cutting can be integrated. Depending on the system, rotary tables with fix clamping plates or a rotary table with turning or turn-tilt positioners are available. We also supply a complete safety package, i. e. swing doors, start preselection with emergency stop, glare shield and light barrier and optionally the protective housing. The compact system is the optimum solution for economic welding of small to medium-sized components up to 3000 mm and 1000 kg.

4
4.2



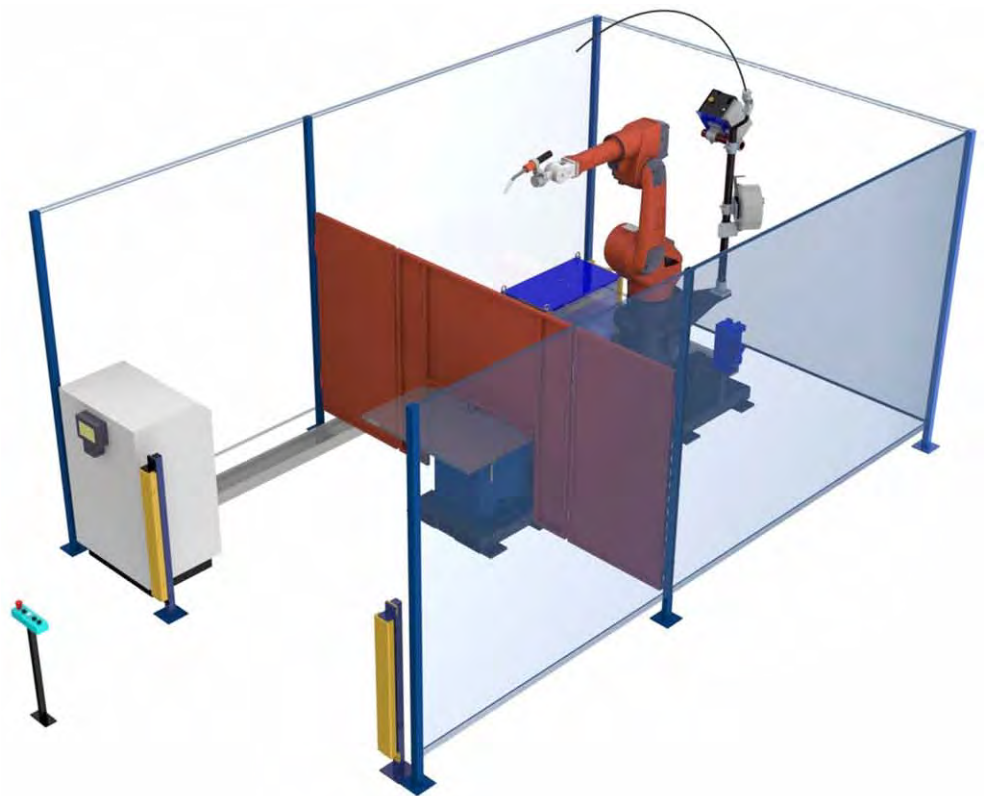
Compact system CS-10

"Ready to weld system" with automated rotary table QR-WP-TH. You can select the load per station from 250 - 1000 kg. According to the load, the horizontal clamping surface varies between 1000 x 500 mm to 2000 x 800 mm.

By means of a motor-drive rotary axis the positioner and thus the component to be welded is exactly positioned. The cycle is between 2-6 sec. depending on the system type. The inserting height of approx. 750 mm and the glare shield between the stations provide an ergonomic working space for your employees. The scope of supply also comprises the complete safety system such as swing doors, light barriers and start preselection panel with emergency stop button. As an option we also supply the protective enclosure adapted to the conditions at your site.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service



Technical data	CS-10-2,5kN	CS-10-7,5kN	CS-10-10kN
Load per station	2.5 kN	7.5 kN	10.0 kN
Peripheral equipment	Robot base	Robot base	Robot base
Robot mounting	Floor	Floor	Floor
Positioner	Two-station rotary table	Two-station rotary table	Two-station rotary table
Suitable tool size	100x500 - 200x800 mm	100x500 - 200x800 mm	100x500 - 200x800 mm

Compact system CS-20

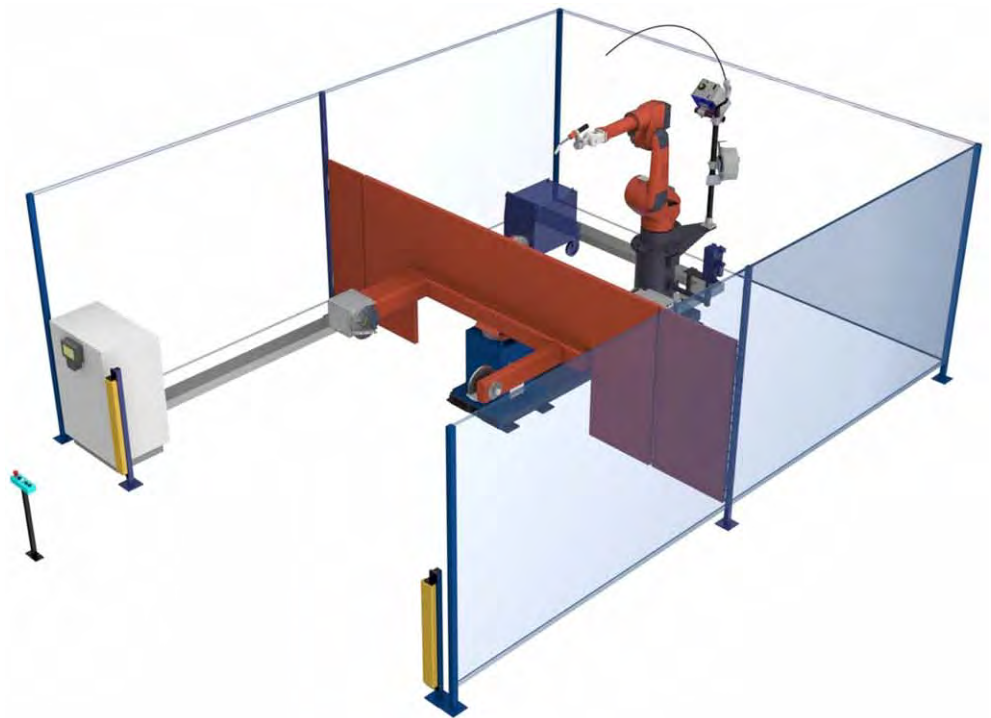
"Ready to weld system" with two-station rotary table incl. a turning axis and a counter bearing per station. The robot is mounted in upright position. The turning axis changes the station by a horizontal rotation. Depending on the system, each station can be loaded with 250-1000 kg. Clamping lengths of 1250 mm - 2500 mm can be realised with this system.

Due to the two-station design, robot welding in one station and loading of the components in the other station is simultaneously possible. This reduces the secondary processing times and ensures a high system availability. The scope of supply also comprises the complete safety system such as swing doors, light barriers and start preselection panel with emergency stop button. As an option we also supply the protective enclosure adapted to the conditions at your site.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service

4
4.2



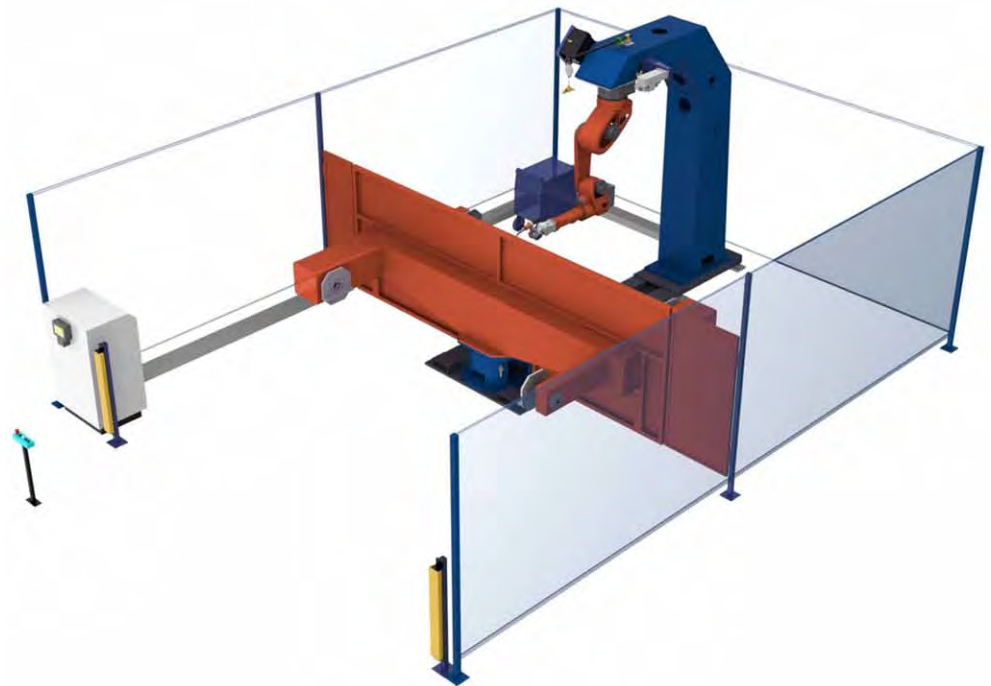
Technical data	CS-20-2,5kN	CS-20-5kN
Load per station	2.5 kN	5.0 kN
Peripheral equipment	Robot base	Robot base
Robot mounting	Floor	Floor
Positioner	2 rotating positioners integrated in H frame on turning positioner	2 rotating positioners integrated in H frame on turning positioner
Suitable tool size	up to Ø 1600x2000 mm	up to Ø 1600x2000 mm

Compact system CS-30

"Ready to weld system" with two-station rotary table incl. a turning axis and a counter bearing per station. The robot is mounted in overhead position on a C frame. The turning axis changes the station by a horizontal rotation. Depending on the system, each station can be loaded with 500-1000 kg. Clamping lengths of 2000mm - 3500mm can be realised with this system. Due to the two-station design, robot welding in one station and loading of the components in the other station is simultaneously possible. This reduces the secondary processing times and ensures a high system availability. The scope of supply also comprises the complete safety system such as swing doors, light barriers and start preselection panel with emergency stop button. As an option we also supply the protective enclosure adapted to the conditions at your site.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service



Technical data	CS-30-5kN	CS-30-7,5kN
Load per station	5.0 kN	7.5 kN
Peripheral equipment	C-frame	C-frame
Robot mounting	Floor	Floor
Positioner	2 rotating positioners integrated in H frame on turning positioner	2 rotating positioners integrated in H frame on turning positioner
Suitable tool size	up to Ø 1600x3000 mm	up to Ø 1600x3000 mm

Compact system CS-40

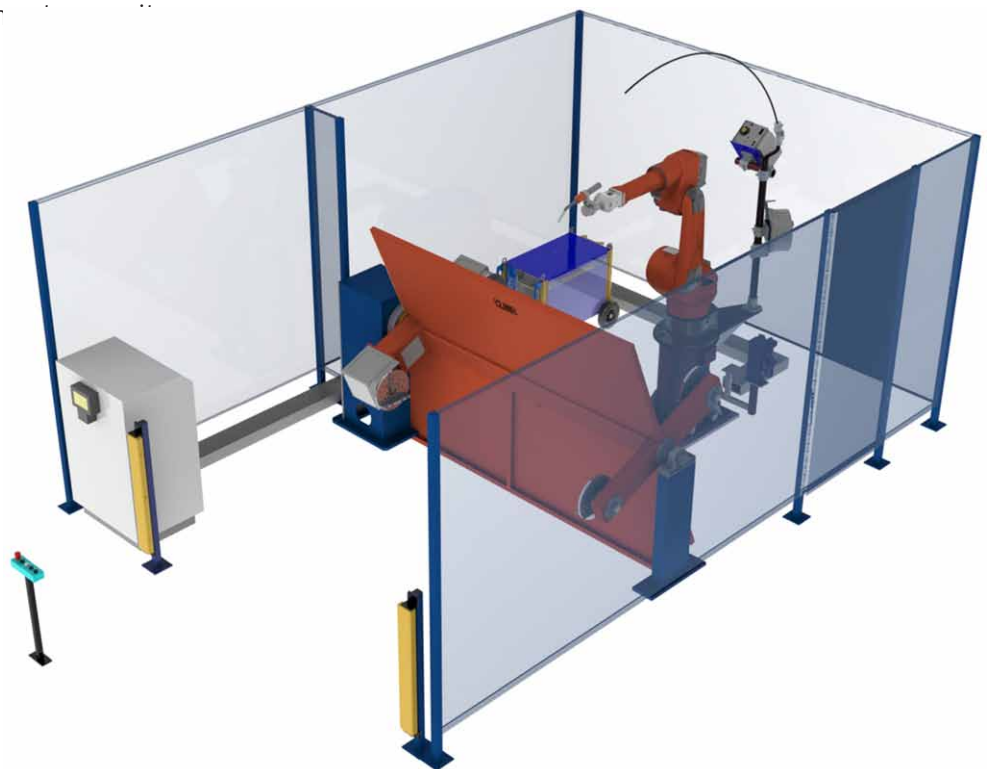
"Ready to weld system" with two-station rotary table incl. a turning axis and a counter bearing per station. The robot is mounted in upright position. The turning axis changes the station in vertical direction. Depending on the system, each station can be loaded with 250-500 kg. Clamping lengths of 1250 mm - 3000mm can be realised with this system.

Due to the two-station design, robot welding in one station and loading of the components in the other station is simultaneously possible. This reduces the secondary processing times and ensures a high system availability. The scope of supply also comprises the complete safety system such as swing doors, light barriers and start preselection panel with emergency stop button. As an option we also supply the protective enclosure adapted to the condition

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service

4
4.2



Technical data	CS-40-2,5kN	CS-40-5kN
Load per station	2.5 kN	5.0 kN
Peripheral equipment	Robot base	Robot base
Robot mounting	Floor	Floor
Positioner	2 rotating positioners integrated in H frame on a quick turning positioner	2 rotating positioners integrated in H frame on a quick turning positioner
Suitable tool size	Ø 800x1500 mm	Ø 800x1500 mm

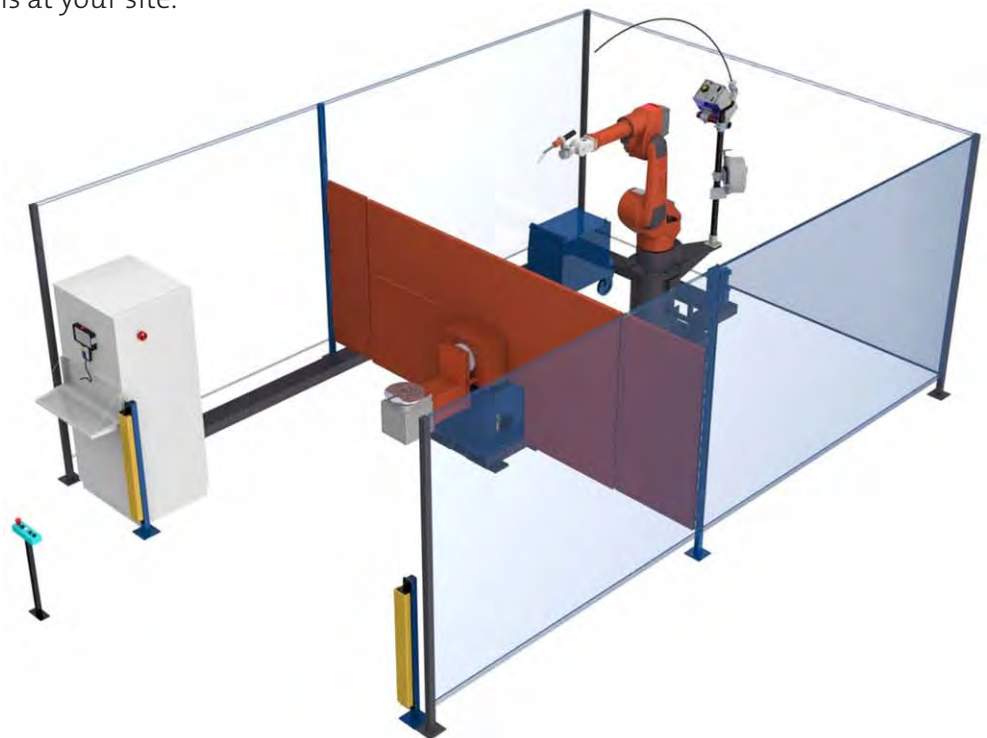
Compact system CS-50

"Ready to weld system" with two-station rotary table incl. a turn/tilt axis per station. The robot is mounted in upright position. Depending on the system, each station can be loaded with 250-1000 kg. A free-turning diameter of 1000 mm and a faceplate of 330 mm (250 kg variant) or 1400-1600 mm with a faceplate of 600 mm (500/1000 kg variant) offer optimum processing conditions for your components.

Due to the two-station design, robot welding in one station and loading of the components in the other station is simultaneously possible. This reduces the secondary processing times and ensures a high system availability. The scope of supply also comprises the complete safety system such as swing doors, light barriers and start preselection panel with emergency stop button. As an option we also supply the protective enclosure adapted to the conditions at your site.

Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service



Technical data	CS-50-2,5kN	CS-50-5kN
Load per station	2.5 kN	5.0 kN
Peripheral equipment	Robot base	Robot base
Robot mounting	Floor	Floor
Positioner	Orbit turning positioner	Orbit turning positioner
Suitable tool size	up to Ø 1600 mm	up to Ø 1600 mm

Compact system CS-60

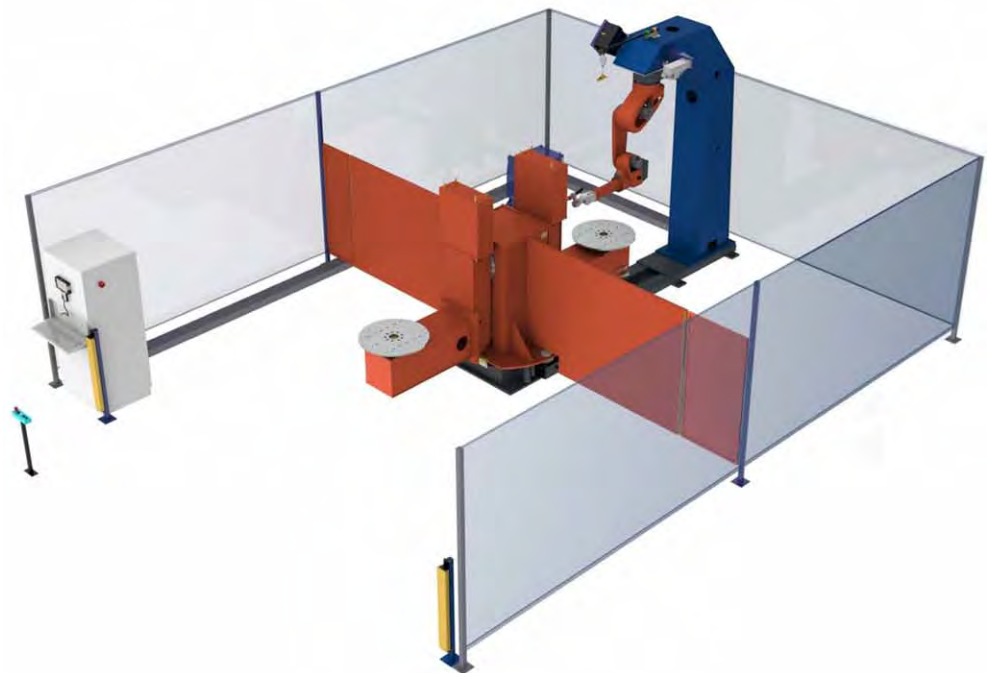
"Ready to weld system" with two-station rotary table incl. a turn/tilt axis per station. The robot is mounted in overhead position on a C frame. Depending on the system, each station can be loaded with 500-1000 kg. A free-turning diameter of 1400-1600 mm with a faceplate of 600 mm offer optimum processing conditions for your components.

Due to the two-station design, robot welding in one station and loading of the components in the other station is simultaneously possible. This reduces the secondary processing times and ensures a high system availability. The scope of supply also comprises the complete safety system such as swing doors, light barriers and start preselection panel with emergency stop button. As an option we also supply the protective enclosure adapted to the conditions at your site.

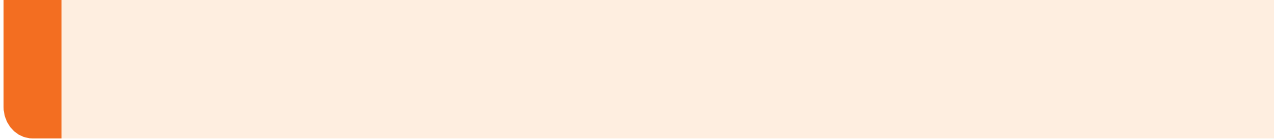
Technical features

- Minimal downtime from maintenance and repair work
- Short commissioning times due to pre-assembly and run-off tests
- High productivity thanks to parallel work stations
- Low space requirement due to compact design
- Easy integration into any production line
- Comprehensive standard supply and individual options
- Excellent efficiency due to optimum product quality and perfectly matched components
- One contact for development, project management, production and service

4
4.2



Technical data	CS-60-2,5kN	CS-60-5kN
Load per station	2.5 kN	5.0 kN
Peripheral equipment	C-frame	C-frame
Robot mounting	Overhead	Overhead
Positioner	Orbit turning positioner	Orbit turning positioner
Suitable tool size	up to Ø 1600 mm	up to Ø 1600 mm



QIROX Sensor systems QR-SN

The main task of our sensor systems is to ensure quality control through precise welding procedures. The flexibility of your systems increases due to the control and compensation of tolerances between the programmed paths and the real workpieces.

CLOOS sensors which have been proven in the field are available for the most varied materials, weld forms and applications:

QR-SN-LS / QIROX® - Laser offline sensors
QR-SN-LT / QIROX® - Laser online sensors
QR-SN-ST / QIROX® - Arc sensors
QR-SN-TS / QIROX® - Tactile offline sensors
QR-SN-TT / QIROX® - Tactile online sensors

5





Tactile offline sensors QR-SN-TS

The CLOOS tactile sensor uses the torch gas nozzle, the welding wire or a separate tracer pin to determine the start and/or end of the weld seam and corrects the programmed welding path. In the case of a V seam, the CLOOS tactile sensor also measures the seam volume. Furthermore, the tactile sensor can be combined with the arc sensors. In the case of a V seam, the CLOOS tactile sensor measures the seam volume and calculates the seam volume. Weld parameters can be adapted to the seam volume change. The tactile sensor is normally used together with the arc sensors.

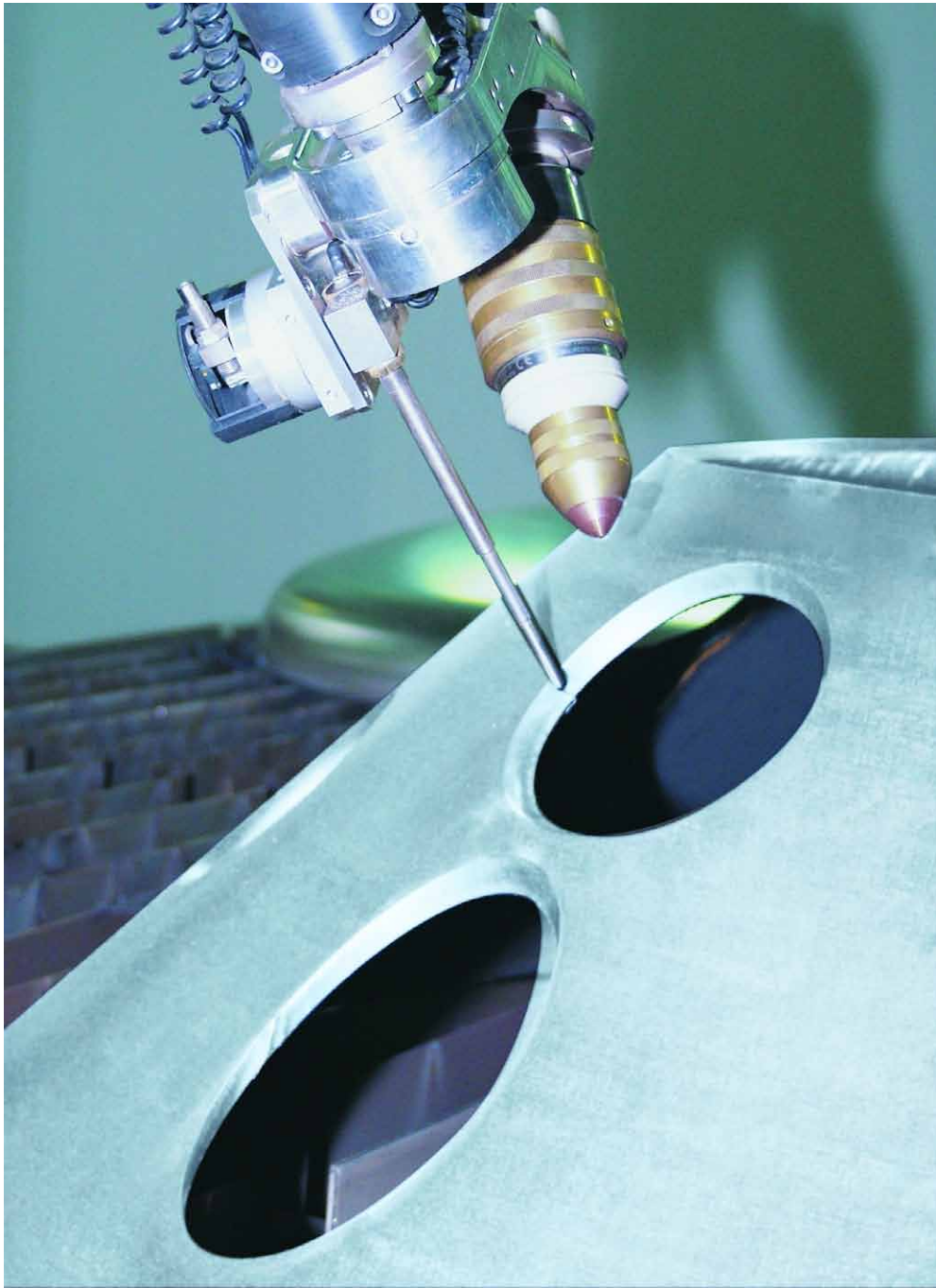
Technical features

- Direct integration into the user program
- No interference from attached parts (except when using a tracer pin)

5

Technical data	QR-SN-TS-W	QR-SN-TS-G	QR-SN-TS-P-F	QR-SN-TS-P-M
Mains connection	400V ~ / 0.2A	400V ~ / 0.2A	400V ~ / 0.2A	400V ~ / 0.2A
Measuring voltage	60 V & 700 V	60 V & 700 V	60 V & 700 V	60 V & 700 V
Dimensions (mm)	L:380 W:210 H:300	L:380 W:210 H:300	L:380 W:210 H:300	L:380 W:210 H:300
Weight	1200 grams	1200 grams	1200 grams	1200 grams
Detecting tool	Welding wire	Gas nozzle	Tracer pin fix	Tracer pin flexible
Tracking speed	approx. 30 cm/min	approx. 30 cm/min	approx. 30 cm/min	approx. 60cm/min





Tactile online sensors QR-SN-TT

The CLOOS analogue sensor is a tactile measuring system to be used with machines for automated welding. The sensor scans the joint of the workpiece and directly corrects the welding torch.

Technical features

- Memory function – data storage for welding of cover runs
- Online compensation of workpiece tolerances

5

Technical data	QR-SN-TT
Max. tracking speed	150 cm/min
Measuring distance	100 mm
Joint depth min.	2 mm
Mains connection	230 V
Measuring voltage	+/-10 V
Detecting tool	Tracer pin flexible





Arc sensor QR-SN-ST

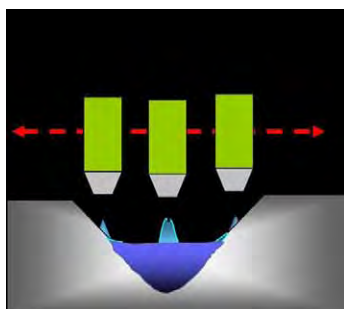
The CLOOS arc sensor uses the arc to measure the joint position of the workpiece. As the arc sensor enables measurement and welding to be carried out simultaneously, the cycle times are not influenced. At the same time workpiece distortions – for example due to heat expansion – are directly compensated for. After the robot has welded the root seam, the correction data determined is saved and used for welding the cover runs. The final result is further improved when combined with the CLOOS gas nozzle or offline sensor. Due to the weld start determination by the gas nozzle sensor and the subsequent seam guide by the arc sensor an optimum result is reached when having big tolerances.

Technical features

- Adaptation of the correcting sensitivity
- Direct connection to the QIROX® robot controller
- No interference from attached parts - no restriction of accessibility
- Memory function – data storage for welding of cover runs
- Nearly constant cycle times

5

Technical data	QR-SN-ST
Mains connection	24V DC / 1A
Weld current range	50 - 500 A
Min. side height	5.0 mm
Max. welding speed	200 cm/min





Laser offline sensors QR-SN-LS

The offline laser sensors are non-contact optical measuring systems to position the robot and to determine the weld geometry. The laser sensor tracks the weld seam (offline) before starting the welding process. An optimum combination is to use the offline laser sensor for weld start determination and the arc sensor for seam tracking.

Technical features

- Fixture below or beside the collision sensor
- Short search intervals due to optimum sensor position
- Maximum flexibility: Largely irrespective of the material
- Memory function – data storage for welding of cover runs
- Programming and analysis possible using the QIROX® robot controller teach pendant
- Insensitive due to non-contact measuring procedure

5

Technical data	QR-SN-LS-S 100-40 C	QR-SN-LS-L 400-85 C	QR-SN-LS-L 400-85 C-M
Measuring distance	100 mm	400 mm	400 mm
Measuring range	+/- 40 mm	+/- 85 mm	+/- 85 mm
Resolution horizontal	50 µm	50 µm	50 µm
Resolution vertical	16 µm	110 µm	110 µm
Min. side height	1.0 mm	1.0 mm	1.0 mm
Gap width min.	1.0 mm	1.0 mm	1.0 mm
Max. tracking speed	300 cm/min	300 cm/min	300 cm/min
Dimensions (mm)	D:42 W:85 H:160	Diam.:100 H:43	Diam.:100 H:43
Laser protection class	2	3R	3R
Safety distance		6.5 m	6.5 m
Video camera	no	no	yes





Laser online sensors QR-SN-LT

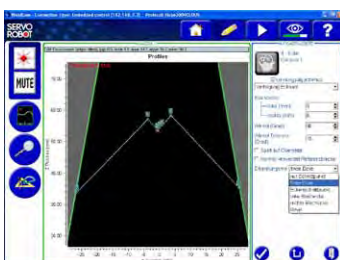
The operation of the CLOOS online laser sensor opens up completely new application areas for automated welding. The online laser sensor first moves to the programmed start position. The tracking section is then measured online during welding. These sensors are used in nearly any application ranges. During welding the weld geometry is measured and the welding parameters are adaptively adjusted.

Technical features

- Direct connection to the Qirox robot controller
- For the most varied weld seam shapes
- Integrated quality control with interruption in the case of tolerance deviations
- Online compensation of workpiece tolerances
- Weld parameter selection in the case of weld geometry changes
- Tracking of weld start and weld end

5

Technical data	QR-SN-LT 140-50-140	QR-SN-LT 100-35-65	QR-SN-LT 110-60-90
Measuring distance	140 mm	100 mm	110 mm
Vertical field of view	140 mm	65 mm	90 mm
Horizontal field of view	50 (27-76) mm	35 (23-46) mm	60 (37-83) mm
Resolution horizontal	50 µm	35 µm	60 µm
Resolution vertical	90 µm	60 µm	150 µm
Min. side height	1.0 mm	1.0 mm	2.0 mm
Gap width min.	1.0 mm	1.0 mm	2.0 mm
Max. tracking speed	200 cm/min	200 cm/min	200 cm/min
Dimensions (mm)	L:33 B:58 H:158.9	L:35 B:60 H:172.4	L:35 B:60 H:172.4
Laser protection class	3B	3B	3B
Safety distance	1.5 m	2.0 m	1.7 m





Laser tool measurement system QR-SN-LTM

The robot repeatability is essential for the processing quality of a robot system. Even minimal differences between the actual and calculated central tool position can have an adverse effect on the processing quality. If an automatic test facility is integrated into the program run, this risk will be reduced. The robot checks the tool tip position in the tool measurement system which is mounted on the robot base and measures the tool tip by means of a light barrier.

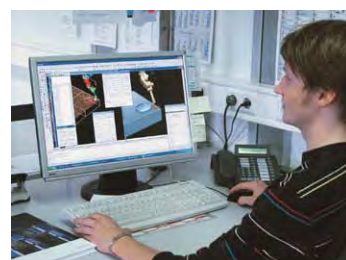
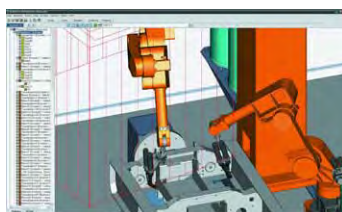
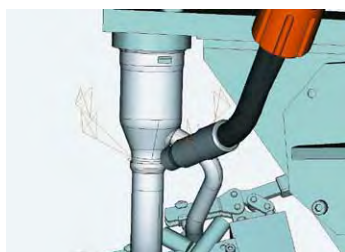
Technical features

- Integrated auxiliary equipment enables cause of fault to be quickly recognised and removed
- Program reproducibility is maintained
- Quality assurance
- Production of faulty workpieces is almost completely prevented
- No interruption of the production due to the measurement process

5

Technical data	Tool Controller CTMS incl. robot software
Fork opening	50 mm
Mains connection	10 - 35V DC / <30mA
Output	1 x pnp
Load current	200 mA, short circuit protection
smallest part to be detected	Ø 0.5 mm
Operating temperature	-10°C - 60°C
Max. tracking speed	50 cm/min
Type of protection	IP 64
Laser protection class	2





RoboPlan professional

QIROX RoboPlan QRP professional

Roboplan QRP professional is the maximum configuration level of the modular Cloos Offline programming software. Due to the application of various software modules you can perfectly match the system to your requirements. Thus you reach the highest programming efficiency.

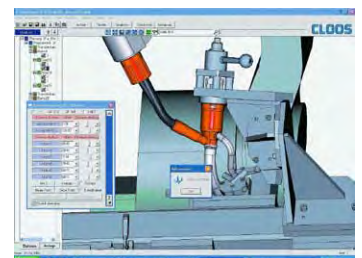
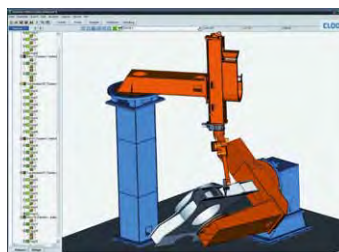
QIROX RoboPlan QR XRoI:

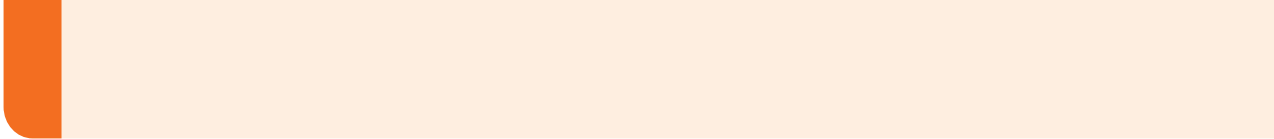
Roboplan QR XRoI is the first step into the world of offline programming. It offers an intuitive user interface and an excellent price/performance ratio.

For simple standard robot systems XRoI is the optimum solution for cost-efficient programming with a low after-teach expenditure. Roboplan QR XRoI cannot be extended with the Roboplan QRP modules, however, the upgrade to Roboplan QRP professional is always possible.

Technical features

- Program reload
- Program upload
- Transfer path generation
- Weld path generation
- Search in pipe interior
- RoboMod
- Renumber points
- Collision testing
- Excel conversion
- Fade-out of component collision
- Save views as picture
- AVI Video generation







Weld your way.

Carl Cloos Schweisstechnik GmbH
Industriestrasse
D-35708 Haiger

Telephone +49 (0)2773 85-0
Telefax +49 (0)2773 85-275
E-mail info@cloos.de
www.cloos.de



www.cloos.de