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WE ARE WELDING

Microplasma 25 | 55 | 105



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Latest generation plasma welding machines – system overview

The new high-performance Microplasma generation demonstrates its strengths in every area of application – whether in continuous daily use or in mobile applications at customer premises or in partially mechanised production processes. Versatile options such as the remote control, modular cooling unit and transport trolley mean you are perfectly equipped for any application.

Microplasma welding machines

- Plasma and TIG welding
- Plasma and pulsed TIG welding
- Plasma and pulsed TIG welding up to the kHz range allow a high welding speed with minimal heat input using a constricted arc
- Plasma and TIG welding current adjustable in 0.1 A increments
- Pilot arc current adjustable in 0.1 A increments between 3–15 A
- Non-latched/latched operation
- Spot welding/tack function (spotArc/spotmatic)
- Spotmatic – reduce the time required for tacking by up to 50% (TIG only)
- Adjustable up-slope and down-slope times
- Adjustable gas pre- and post-flow time
- Non-interchangeable connections for all mediums
- Temperature, flow and pressure monitoring for the coolant circuit
- All control elements and connections for welding torches, remote controls and workpiece leads are directly accessible on the front of the machine
- Network connectivity provided via LAN or WiFi gateway with ewm Xnet software
- Set-up with Trolley 55-6 and Cool 50 MPW50; alternatively, a separate recooling unit can be used

Cool 50 MPW50

- Very compact design
- Light, modular design for tool-free assembly
- Powerful centrifugal pump
- External coolant water filling nozzle with filling level gauge
- No additional mains connection required, the Cool unit is supplied with mains voltage via the power source
- Simple connection of the power source and the cooling unit





Connection box

- Easily accessible gas and water connections
- Tool-free connection of the shielding gas to the welding torch thanks to the quick connect coupling
- Connections that cannot be confused and easily legible labelling



Trolley 55-6

- Space for two shielding gas cylinders
- Low, flat loading edge for easy installation of the shielding gas cylinder
- Large rolls (diameter: 250 mm) for easy movement and passing over obstacles
- Large track widths ensure stability
- Supplied with guide castors
- Supplied with crane suspension
- Supplied with hose package holders on the sides
- Optional toolbox for better organisation in the workplace
- Very good accessibility to the rear connections on the welding machine and cooling unit



Microplasma

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Comfort 2.0 P



- Modular plasma/TIG welding machine with Comfort 2.0 control
- Plasma and TIG welding
- Plasma and pulsed TIG welding
- Plasma and pulsed TIG welding up to the kHz range allow a high welding speed with minimal heat input using a constricted arc
- Plasma and TIG welding current adjustable in 0.1 A increments
- Pilot arc current adjustable in 0.1 A increments between 3–15 A
- The pilot arc current can be adjusted at four operating points during the welding process (before-hand, during, and following welding, as well as during pauses in welding)
- Non-latched/latched operation
- Spot welding/tack function (spotArc/spotmatic)
- Spotmatic – reduce the time required for tacking by up to 50% (TIG only)
- Adjustable up-slope and down-slope time
- Adjustable gas pre- and post-flow time
- Temperature, flow and pressure monitoring for the coolant circuit
- All control elements and connections for welding torches, remote controls and workpiece leads are directly accessible on the front of the machine
- Non-interchangeable connections for all mediums
- Welding torch connection using quick connect coupling
- Connection capability for remote control
- Two system bus connections (e.g. for ewm Xnet)
- Set-up with Trolley 55-6 and Cool 50 MPW50; alternatively, a separate recooling unit can be used
- No additional mains connection required for Cool 50 MPW50, the Cool unit is supplied with mains voltage via the power source
- Network connectivity provided via LAN or WiFi gateway with ewm Xnet software
- 3.5 m mains supply lead with 16 A shock-proof plug

Microplasma	25	55	105
Mains voltage (tolerances)	1 x 230 V (-40 % - +15 %)		
Mains fuses (slow-blow)	1 x 10 A	1 x 16 A	1 x 20 A
Open circuit voltage	63 V		
Setting range for welding current	0.3 A - 20 A	0.3 A - 50 A	0.3 A - 100 A
Duty cycle 40 °C	–		100 A / 60 %
	20 A / 100 %	50 A / 100 %	70 A / 100 %
cos φ	0.99		
Dimensions machine, LxWxH in mm	625 x 377 x 531		
Weight, machine	33.6 kg		
Dimensions cooling unit in mm	695 x 298 x 329		
Weight, cooling unit	14.3 kg		
Trolley dimensions L x W x H in mm	1114 x 678 x 1486		
Trolley weight	35 kg		

Type	Designation	Item no.	PG
Microplasma 25	Microplasma welding machine	090-007027-00502	M1
PWH 100 3 m	Plasma manual welding torch without setting gauge	394-003843-00000	A3
EAG PHW100/150	Electrode setting gauge	094-008262-00000	A3
Cool 50 MPW50	Cooling unit with centrifugal pump	090-008818-00502	M1
WK25mm² 230A/60% 4m/K	Workpiece lead with clamp	092-000016-00000	M12
GH 2x1/4" 2m	Gas hose	094-000010-00001	E1
G1/4"+G3/8" 2 m		092-000525-00001	A2
Maxex AR/MIX 200bar 30m³ G1/4"	Pressure regulator	096-000000-00000	E1
Maxex Hydrogen 200bar 30m³ G3/8"L		096-000001-00000	E1
Trolley 55-6 DF	Transport cart for a power source, cooling unit and two shielding gas cylinders	090-008826-00000	M1
KF 23E-10, -10	Coolant (-10 °C), 9.3 l	094-000530-00000	M1
KOS26	Customised configuration with assembly for decompact systems	092-002685-00001	N1
KOS27	Commissioning: 1 hour	KOS-V00027-00000	N1

Microplasma 55	Microplasma welding machine	090-007028-00502	M1
PWH 100 3 m	Plasma manual welding torch without setting gauge	394-003843-00000	A3
EAG PHW100/150	Electrode setting gauge	094-008262-00000	A3
Cool 50 MPW50	Cooling unit with centrifugal pump	090-008818-00502	M1
WK25mm² 230A/60% 4m/K	Workpiece lead with clamp	092-000016-00000	M12
GH 2x1/4" 2m	Gas hose	094-000010-00001	E1
G1/4"+G3/8" 2 m		092-000525-00001	A2
Maxex AR/MIX 200bar 30m³ G1/4"	Pressure regulator	096-000000-00000	E1
Maxex Hydrogen 200bar 30m³ G3/8"L		096-000001-00000	E1
Trolly 55-6 DF	Transport cart for a power source, cooling unit and two shielding gas cylinders	090-008826-00000	M1
KF 23E-10, -10	Coolant (-10 °C), 9.3 l	094-000530-00000	M1
KOS26	Customised configuration with assembly for decompact systems	092-002685-00001	N1
KOS27	Commissioning: 1 hour	KOS-V00027-00000	N1
			Grand total:
Microplasma 105	Microplasma welding machine	090-007029-00502	M1
PWH 100 3 m	Plasma manual welding torch without setting gauge	394-003843-00000	A3
EAG PHW100/150	Electrode setting gauge	094-008262-00000	A3
Cool 50 MPW50	Cooling unit with centrifugal pump	090-008818-00502	M1
WK25mm² 230A/60% 4m/K	Workpiece lead with clamp	092-000016-00000	M12
GH 2x1/4" 2m	Gas hose	094-000010-00001	E1
G1/4"+G3/8" 2 m		092-000525-00001	A2
Maxex AR/MIX 200bar 30m³ G1/4"	Pressure regulator	096-000000-00000	E1
Maxex Hydrogen 200bar 30m³ G3/8"L		096-000001-00000	E1
Trolly 55-6 DF	Transport cart for a power source, cooling unit and two shielding gas cylinders	090-008826-00000	M1
KF 23E-10, -10	Coolant (-10 °C), 9.3 l	094-000530-00000	M1
KOS26	Customised configuration with assembly for decompact systems	092-002685-00001	N1
KOS27	Commissioning: 1 hour	KOS-V00027-00000	N1

Accessories

PWH 100



- Water-cooled plasma welding torch
- Greater load capacity of the plasma nozzles thanks to optimised cooling system
- Reduced operating costs, long service life of the plasma nozzles thanks to large, threadless retainer cone in the torch body and additional heat dissipation by means of the gas lens on the plasma nozzle
- Compact torch design and small torch head diameter for optimal handling with the best possible performance

Duty cycle DC-	100 A / 100 %
Duty cycle AC	80 A / 100 %
Duty cycle DC+	35 A / 100 %
Connection	Tuchel, 5-pole
Hose package length	3 m

Designation	PU Unit	Item no.	PG
Plasma manual welding torch without setting gauge	1	394-003843-00000	A3

Set PWH/PWM 100



- Consumables set for PWH 100 plasma torch
- Spare parts set, comprising:
 - 2 x back cap O-rings
 - 2 x retainer O-rings
 - 1 x collet chuck, 1.5 mm
 - 3 x seal for nozzle
 - Gas nozzle, short, 2 x 11 mm and 2 x 12 mm
 - Gas nozzle, long, 2 x 11 mm and 2 x 9.5 mm
 - 2 x insert tube 1.5 mm
 - 2 x gas lens, fine-pore
 - Plasma nozzle, 2 x 0.8 mm/2 x 1.0 mm/2 x 1.2 mm/2 x 1.4 mm/2 x 1.6 mm/2 x 1.8 mm
 - Plasma nozzle, long, 2 x 0.8 mm/2 x 1.0 mm/2 x 1.2 mm/2 x 1.4 mm/2 x 1.6 mm/2 x 1.8 mm
 - 4 x special tungsten electrode, 1.5 mm
 - 2 x electrode setting gauge
 - 1 x back cap
 - 1 x plasma nozzle, plus pole, AC 1.2 mm

Designation	PU Unit	Item no.	PG
Consumables box, PWH/PWM 100	1	094-008270-00000	A3

cool50 MPW50



- Cooling unit for water-cooled welding torches
- Recommended for manual and partially-mechanised welding tasks
- When using Microplasma for automated tasks we recommend the use of a recooling unit
- Modular design, tool-free assembly
- Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump
- External coolant water filling nozzle with filling level indicator

Cooling output	1000 W (1l/min)
Flow rate	5 l/min
Tank capacity	5 l
Coolant outlet pressure	3.5 bar
Dimensions cooling unit in mm	695 x 298 x 329
Weight, cooling unit	14.3 kg

Designation	PU Unit	Item no.	PG
Cooling unit with centrifugal pump	1	090-008818-00502	M1

RK 1



- High-performance recooling unit with fully thermal motor compressor
- Can be used as an alternative to the Cool 50 MPW50
- Recommended for automated continuous operation or at very high ambient temperatures
- **Note:** Does not fit under Microplasma or on Trolley 55-6
- Requires its own power supply
- Rear connections
- High-performance pump, pressure switch, temperature-controlled pump and fan
- Coolant drain valve and coolant level indicator
- Temperature control and LED display

Cooling output	900 W
Tank capacity	6 l
Dimensions cooling unit in mm	565 x 440 x 345
Weight, cooling unit	42 kg
Mains voltage	1 x 230 V

Designation	PU Unit	Item no.	PG
Recooling unit	1	094-002283-00000	A1

ON Case



- Tool box for mounting to transport cart Trolley 55-5/Trolley 55-6
- All tools and replacement parts always to hand.
- Only available in conjunction with Trolley 55-6/55-5 without an additional cooling unit

Designation	Item no.	PG
Tool box for mounting to transport cart Trolley 55-5/Trolley 55-6	092-002899-00000	M1

Trolley 55-6



- Transport cart
- Solid, stable design
- For transporting a power source, a cooling unit and one or two shielding gas cylinders
- Can be lifted by crane as standard
- Supplied with roll brakes

Trolley dimensions L x W x H in mm	1114 x 678 x 1486
Trolley weight	35 kg

Designation	Version	Item no.	PG
Transport cart for a power source, cooling unit and shielding gas cylinder	A shielding gas cylinder	090-008825-00000	M1
Transport cart for a power source, cooling unit and two shielding gas cylinders	Two shielding gas cylinders	090-008826-00000	M1

Accessories

ON TR Trolley 55-5 / 55-6



- Large cross arm for housing a wire feeder
- Mandatory when using EWM tigSpeed and Drive 4X IC/Drive 4 IC in conjunction with Trolley 55-5/ Trolley 55-6
- Can also be used as a rack and handle for better processing of designs without a wire feeder

Designation	PU Unit	Item no.	PG
Cross arm and holder for wire feeder	1	092-002700-00000	M1

RT1



- Infinitely adjustable welding current (0% to 100%) depending on the main current preselected at the welding machine.
- Operating point setting directly at the site of welding
- Robust metal casing with rubber feet, retaining clip and holding magnet
- Cable not supplied in delivery, please order connection cable separately

Dimensions in mm	180 x 100 x 70
Weight	1.2 kg
Connection	19-pole

Designation	PU Unit	Item no.	PG
Remote control, current	1	090-008097-00000	M1

RTF1



- Infinitely adjustable welding current (0% to 100%) depending on the main current preselected at the welding machine.
- Start/stop welding operation
- Operating point setting directly at the site of welding

Cable length	5
Connection	19-pole

Designation	PU Unit	Item no.	PG
Foot-operated remote control, current, with connection cable	1	094-006680-00000	M1

RTG1



- Infinitely adjustable welding current (0% to 100%) depending on the main current preselected at the welding machine.
- With pre-fitted 5 or 10 m connection cable
- Operating point setting directly at the site of welding

Dimensions in mm	180 x 100 x 70
Connection	19-pole

Designation	Cable length	PU Unit	Item no.	PG
	m			
Remote control, current	5.0	1	090-008106-00000	M1
	10.0			

RA5 19POL**Connection**

19-pole

Designation	Cable length m	PU Unit	Item no.	PG
Connection cables	5.0	1	092-001470-00005	M12
	10.0		092-001470-00010	M12
	20.0		092-001470-00020	M12

ON Filter 355/405/505/50

- Dirt filter for air inlet
- Reliably protects the machine from impurities in difficult working conditions.
- Suitable for decompact Phoenix xx5, Taurus xx5 and Microplasma xx5, as well as cool50 U40 and cool50-2 U40

Designation	PU Unit	Item no.	PG
Dirt filter for air inlet	1	092-002698-00000	M1

KF 23E-10

- Coolant for water-cooled welding machines and cooling units

Freezing point	-10 °C		
Contents	9.3 l		
Designation	PU Unit	Item no.	PG
Coolant (-10 °C), 9.3 l	1	094-000530-00000	M1

WK 4 M/K FIX

Material type	H 01 N2 neoprene		
Cross-section	25 mm ²		
Welding current	160 A		
Length	4		
Standards	VDE 0281		
Plug Ø	9 mm		
Characteristics	Original FIX® ground clamp		
Approvals	CE		

Designation	PU Unit	Item no.	PG
Workpiece lead with original FIX clamp	1	398-000593-00000	M12

WK 4M/K

Material type	H 01 N2 neoprene		
Length	4		
Standards	EN 60974-11		
Plug Ø	9 mm		
Characteristics	Clamp		
Approvals	CE		

Designation	Welding current A	PU Unit	Cross-section mm ²	Item no.	PG
Workpiece lead	150	1	16.0	094-005314-00000	M12
with clamp	200		25	092-000016-00000	M12

Accessories

Maxex AR/MIX



- Single-stage pressure regulator for measuring pressure
- Controller in front of gas metering units, for example

Bottle pressure	200 bar
Standards	DIN EN ISO 2503
Version	Manometer display One-stage

Designation	Bottle pressure bar	Working pressure bar	Gas type	Cylinder thread	Hose connection	Item no.	PG
Pressure regulator	200	0 - 10	Argon / Mix	W 21,8 x 1/14"	G 1/4"	096-000000-00000	E1
			H2	W 21,8 x 1/14"LH	G3/8" LH	096-000001-00000	E1

Gas hose



- Shielding gas hose
- Equipped with plastic nuts on both sides for tool-free assembly

Gas type	Argon/H2/CO2 (forming gas)
Standards	ISO 3821
Hose connection	2 x G1/4"
Working pressure	6 bar

Designation	Length m	PU Unit	Item no.	PG
Gas hose	2.0	1	094-000010-00001	E1
	3.0		094-000010-00003	E1
	5.0		094-000010-00005	E1
	10.0		094-000010-00011	E1

Gas hose



Standards	ISO 3821
Hose connection	G1/4" x G3/8"

Designation	Item no.	PG
Gas hose	092-000525-00001	A2