



POWER SAW 1000 MP



MULTI-PROCESS SAW WELDING MACHINE

POWER SAW 1000 MP

- Multi-process welding machine: SAW, GMAW, Gouging and SMAW;
- Equipping CC and CV characteristics makes it suitable for several kinds of applications;
- Plenty choices for configuration; supporting many kinds of SAW processes: thick wire, thin wire, strip cladding, twin-wire single arc, visible arc flux-cored wire and other welding;
- Supporting several kinds of GMAW process: single wire and twin-wire single arc of solid wire welding, FCAW and so on;
- Equipping digital or analog interface and supporting extension of robot interfaces achieve robotic SAW and robotic GMAW processes;
- Equipping digital or analog interface enables matching with PLC and others to form welding automation system;
- Enjoying great application in pipeline, steel fabrication, wear-resisting layer cladding and other industries



POWER SAW 1000 MP



SAW tractor



Wirefeeder

POWER SOURCE AND ACCESSORIES

POWER SAW 1000 MP

- Multi-process welding machine: one key to switch between SAW, GMAW, Gouging and SMAW processes;
- User-friendly operation interface; Synergic adjustment in GMAW mode provides easy operation;
- Equipping CC and CV characteristics makes it suitable for several applications;
- The welding wire with diameter of 1.6-5.0mm can be adopted in SAW process;
- The welding wire with diameter of 1.2-1.6mm can be adopted in GMAW process;
- The welding current can reach up to 800 A if the wire with diameter of 1.6 mm is adopted;
- The interface for connecting wire feeder in GMAW mode supports to connect with normal wire feeder without raster;
- Enjoying 100% duty cycle;
- Equipping digital or analog interface enables matching with PLC and others to form the welding automation system;
- Intelligent fan control;
- Enjoying multiple protection against faults and error code display functions



PRODUCT SPECIFICATIONS

POWER SAW 1000 MP

Rated input voltage/frequency	3-phase, 380V±10% 50Hz
Rated input capacity (KVA)	55
Rated input current (A)	83
Rated duty cycle (%)	100
OCV (V)	84
Range of output current (A)	60A ~ 1000A
Range of output voltage (V)	22.4V ~ 44V
Protection class	IP21S
Insulation class	H
Dimension: L×W×H (mm)	790X370X820
Weight (Kg)	95

SAW TRACTOR

MCU control system provides precise digital control for welding

Enjoying a storage for 10 sets of welding parameters

Equipping the function to detect the short-circuit between wire and workpiece in stand-by period prevents tractor from tipping over

4WD wire feeding mechanism and digital motor control provide precise and stable wire feeding

4 rollers (double gears) drive provides stable wire feeding drive

Thick wire design realizes the application of the welding wire with diameter of 3.0-5.0mm

Straight and cross carriage can be adopted to get a convenient welding seam location



PRODUCT SPECIFICATIONS

<i>Item</i>	<i>Description</i>
Rated input voltage of traveling mechanism	DC110V
Rated input voltage of wire feeder motor	DC110V
Welding speed range	20 ~ 150cm/min
Wire feeding speed range	25 ~ 250cm/min
Wirefeeding motor speed	2600/6000 RPM
Suitable Wire Diameter	Φ3.0 ~ Φ5.0mm
Lifting height of crossbeam	100mm
MAX distance of two heads	600mm
Rotation angle of cross beam around column	±90°
Head rotation angle	±45°
Deflection angle of welding gun	±45°
Flux capacity	6L
Wire reel capacity	25Kg
Boundary dimension (L×w×h)	1100×900×770mm
Weight	75Kg(Without welding wire)

STANDARD MACHINE HEAD

- MCU digital control system provides precise digital control for welding
- Independent parameters control of anterior and posterior wires meets various process requirements
- Equipping function to detect the short-circuit between wire and workpiece in stand-by period prevents tractor from tipping over
- Digital motor control provides more precise and more stable wire feeding speed
- 4 rollers (double gears) drive brings stable drive
- Thick wire design realizes the application of the welding wire with diameter of 3.0-5.0mm
- Enjoying linkage control with automation equipment to conduct simultaneous start and stop

Main technical parameters:

Wire feeding speed range	0.25-2.5m/min
Applicable wire diameter	3.0-5.0 mm
Wire feeding motor speed	2600rpm(3.0-5.0mm)
Powering voltage	110VDC

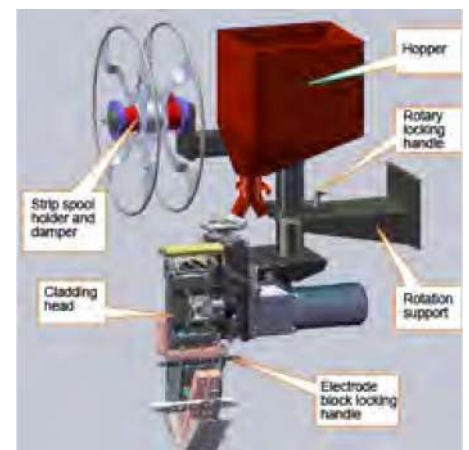


STRIP CLADDING HEAD

- Strip cladding head is composed by machine head body, rotating bracket, cross carriage, hopper, strip spool holder and so on;
- Adopting overall structural design to get a flexible and convenient assembly;
- Low-cost surface cladding;
- Reliable machine head design;

Technical parameters

Applicable welding strip width	30~60mm
Applicable welding strip thickness	0.4~1.0mm
The adjustment range of cross carriage	100mm×100mm
Strip feeding motor	DC 90V, 1800r/min
Hooper capacity	10L



WIRE FEEDER - CLOSED TYPE - SINGLE WIRE

- Closed type wire feeding mechanism provides much more safe protection and reduces the appearance of short circuit
- 4WD wire feeding motor provides more precise and more stable wire feeding speed
- European type welding torch connector
- The maximum diameter of the welding wire spool that can be applied is 300 mm
- It enjoys small size and light weight



PRODUCT SPECIFICATIONS

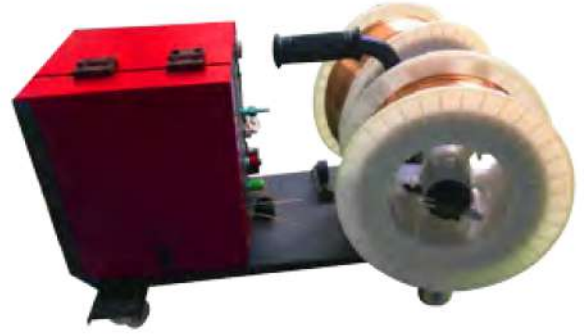
Model

WIRE FEEDER 5000 L

Motor	Magnet motor
Rated voltage of motor (V)	DC24
Rated current of motor (A)	4
Wire feeding speed (m/min)	1.5-18
Rated welding current (A)	500
Duty cycle (%)	60
Welding wire diameter (mm)	Φ1.0,Φ1.2,Φ1.6
Wire spool shaft diameter (mm)	50
Wire spool dimension (mm)	Φ300*Φ50*103
Gas flow (L/min)	10~25
Dimension (mm3)	645×233×385
Weight (Kg)	11

WIRE FEEDER - TWIN-WIRE

- Twin wire spools holder
- 4WD wire feeding motor provides more precise and more stable wire feeding speed
- European type welding torch connector
- The maximum diameter of the welding wire spool that can be applied is 300 mm
- The design of water cooling



PRODUCT SPECIFICATIONS

<i>Model</i>	<i>WIRE FEEDER 5000</i>
Motor	Magnet motor
Motor rated voltage (V)	DC24
Motor rated current (A)	4
Wire feeding speed (m/min)	1.0-22
Rated welding current (A)	500
Duty cycle (%)	60
Wire diameter (mm)	Φ0.8,Φ1.0,Φ1.2
Wire spool shaft diameter (mm)	50
Wire spool dimension (mm)	Φ300*Φ50*103
Gas flow (L/min)	10~25
Dimension (mm3)	635×300×390
Weight (Kg)	15

WELDING TRACTOR

- It integrates wire feeding, travelling and swinging functions, without a wire feeder;
- Powerful HMI: touch screen control, all the settings, save and recall of swing parameters and welding parameters can be conveniently completed on the touch screen, which is intuitive and convenient.
- Automatic welding, freeing hands: PLC automatic control, the system automatically completes the welding process;
- Straight pendulum and angular pendulum design, the fish scale pattern is perfectly presented: it can effectively increase the width of the welding seam, obtain the effect of multiple welding in one welding, and greatly improve the productivity;
- Precise control and consistent pace: The swing part is driven by a stepping motor and driven by a ball screw, which can control the swing amplitude and swing speed with high precision.
- Two designs to expand the welding space: it is most suitable for butt welding with or without groove, fillet welding, etc. It is a high-efficiency welding tool for long seam welding.
- Exquisite mechanism, easy to move: small size, light weight, the top of the column is designed with a handle, which is convenient for the overall movement of the tractor.

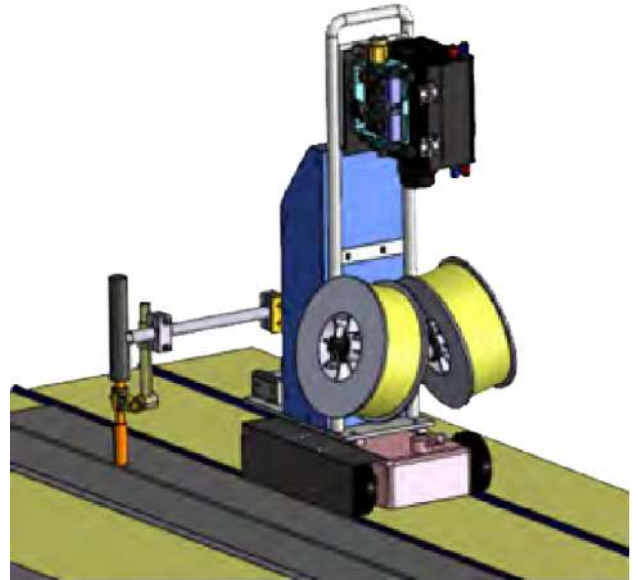


PRODUCT SPECIFICATIONS

Model	QBC-I	QBC-II	QBC-III	QBC-IV
Number of welding wire	Single wire		Single wire	
Types of welding joints	Butt joint		fillet joint	
The interval of rails (mm)			245	
Horizontal adjustment distance (mm)			400	
Vertical adjustment distance (mm)	85+120		85	
Oscillating range	0-95mm		0-20°	
Oscillating angel	0		0-10°	
Maximum oscillating frequency (times/min)	-		100	
Oscillating precision	0.1mm		±0.1°	
Dwell time at oscillating ends (Sec)			0-5	
Rated bearing (kg)			50	
Rated bearing of torch holder(kg)			5	

WELDING TRACTOR - TWIN WIRE

- Integrating the functions of wire feeding, travelling and oscillating with no need of wire feeder;
- Robust human-machine interface: controlled by touch screen; All of setting, save and recall of oscillating and welding parameters can be accomplished on the touch screen, which is intuitive and convenient.
- Automatic welding frees hands: System automatically finishes the whole welding process because of the PLC automatic control;
- Exquisite structure and easy movement: small size and light weight; A handle is installed at the top of column to move tractor easily.
- Twin-wire welding greatly improves the efficiency



PRODUCT SPECIFICATIONS

<i>Model</i>	SQBC-II
Number of welding wire	Twin-wire
Types of welding joints	Butt joint
The interval of rails (mm)	245
Horizontal adjustment distance (mm)	400
Vertical adjustment distance (mm)	85+120
Oscillating range	0-95mm
Oscillating angel	0
Maximum oscillating frequency (times/min)	-
Oscillating precision	0.1mm
Dwell time at oscillating ends (Sec)	0-5
Rated bearing (kg)	50
Rated bearing of torch holder(kg)	5

WATER COOLER

- It enjoys the high lift whose maximum value can reach up to 30m;
- The motor enjoys high quality, heat proof and anti-rust features, which greatly improves the heat dissipation and service life of welding torch;
- The vortex pump with cooper body avoids water scale generating after long time use;
- The water level can be monitored in time through the transparent water level inspection window;
- Unique wind tunnel design for heat dissipation provides 30% cooling effect higher than equivalent product;
- Practical water tank with 19L large capacity whose weight is light and size is small;



PRODUCT SPECIFICATIONS

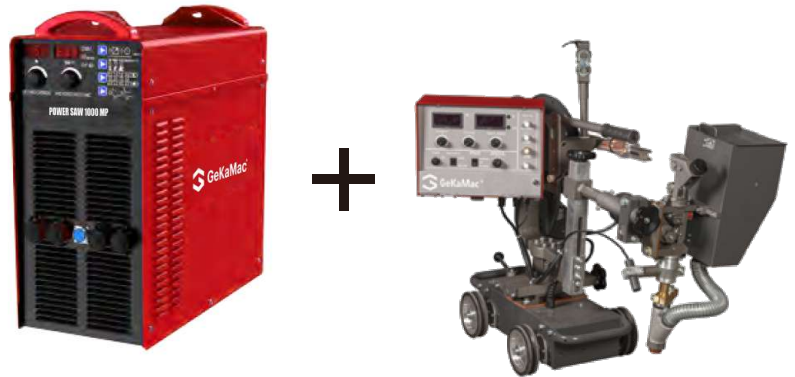
<i>Model</i>	WATER COOLER
Input voltage / frequency (V/Hz)	1~ 380V50/60Hz
Motor power (KW)	0.37
Rated current (A)	0.7
Duty cycle (%)	100
Maximum pressure (MPa)	0.3
Water flow [L/min]	8.5
Maximum lift (m)	30
Cooling efficiency (KW)	2.9
Water tank capacity	20
Dimension (mm3)	655*385*650
Weight (Kg)	32

RECOMENDED CONFIGURATION

SAW+TRACTOR

Configuration 1

DC welding machine: POWER SAW 1000 MP
 Thick-wire flat welding tractor
 (equipping MZK-IV control box)



Configuration 1 - POWER SAW 1000 MP + TRACTOR

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Tractor	MZC-P1	1	optional
Wedling cable	70mm2*15m	2	
Control cable	16m	1	
Ground cable	70mm2*5m	2	

Notes: Other types of tractors can be selected according to requirements.

Optional tractor



Tractor for H beam



Tractor for fillet welding seam



Pipeline welding tractor



Three-wheeled tractor



Electroslag welding tractor



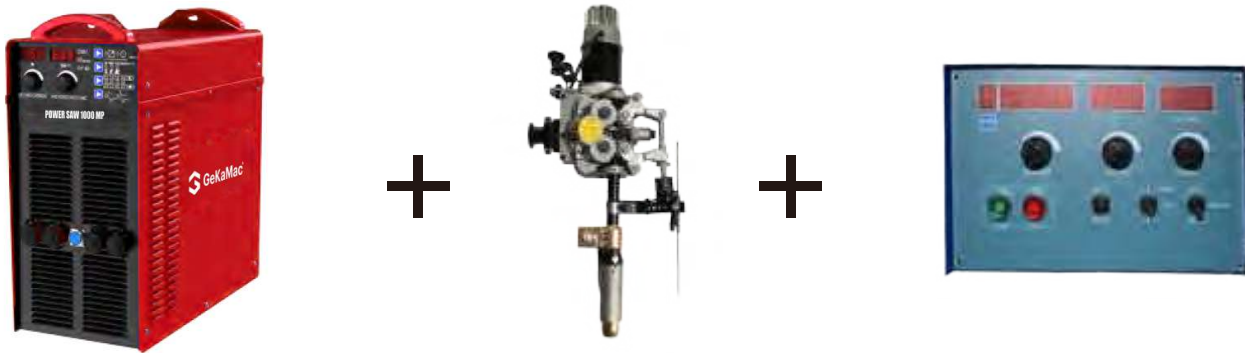
Twin-thin-wire welding tractor

SAW + AUTOMATION SYSTEM CONFIGURATION

Automation system configuration1 - single wire welding

DC welding machine: POWER SAW 1000 MP

Thick wire welding machine (equipping MZK-IV control box) manipulator



Configuration 1 - POWER SAW 1000 MP + WELDING HEAD

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Welding head	MZC-P1	1	optional
Wedling cable	70mm2*15m	2	
Control cable	16m	1	
Ground cable	70mm2*5m	2	
Control box	MZK-IV	1	

Notes: Other types of tractors can be selected according to requirements.

Optional welding head



Strip cladding



Electroslag welding



Visible arc cladding



Twin-wire welding heat

MIG + SINGLE WIRE CONFIGURATION

Configuration 1 - high cost-performance

DC welding machine:
POWER SAW 1000 MP
Open type wire feeder
MIG/MAG torch



Configuration 1 - POWER SAW 1000 MP+Wire feeder (Gas cooling)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Wirefeeder	5000	1	optional
Wirefeeder cable	70mm2*15m	1	
Ground cable	70mm2*5m	1	
MIG/MAG torch	500A	1	

Configuration 2 - water-cooled

DC welding machine:
POWER SAW 1000 MP
Closed type wire feeder
Water cooler
MIG/MAG torch



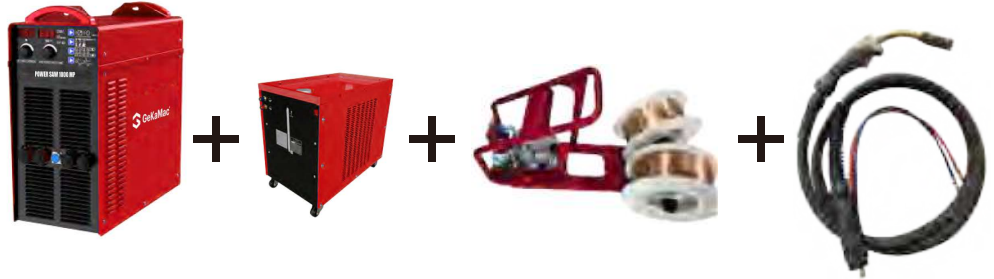
Configuration 2 - POWER SAW 1000 MP + Wire feeder (Water cooling)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Wirefeeder	5000 L	1	optional
Wirefeeder cable	70mm2*15m	1	
Water cooler	WCS-20	1	
Ground cable	70mm2*5m	1	
MIG/MAG torch	500A	1	Water cooling

MIG + TWIN WIRE CONFIGURATION

Configuration 1 - high cost-performance

DC welding machine:
 POWER SAW 1000 MP
 Open type twin-wire wire feeder
 Water cooler
 MIG/MAG torch 600A

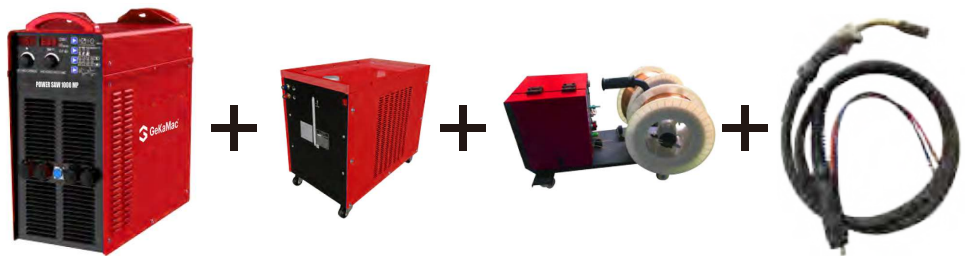


Configuration 1 - POWER SAW 1000 MP + Wire feeder (Water cooling)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Wirefeeder	WF-500DO	1	Open type
Wirefeeder cable	95mm2*15m	1	
Water cooler	WCS-20	1	
Ground cable	95mm2*5m	1	
MIG/MAG torch	SDW600L		Water cooling

Configuration 2 - water-cooled

DC welding machine:
 POWER SAW 1000 MP
 Closed type twin-wire wire feeder
 Water cooler
 MIG/MAG torch 600A



Configuration 2 - POWER SAW 1000 MP + Wire feeder (Water cooling)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Wirefeeder	WF-500DC	1	Close type
Wirefeeder cable	95mm2*15m	1	
Water cooler	WCS-20	1	
Ground cable	95mm2*5m	1	
MIG/MAG torch	SDW600L	1	Water cooling

SINGLE WIRE MIG - WELDING TRACTOR

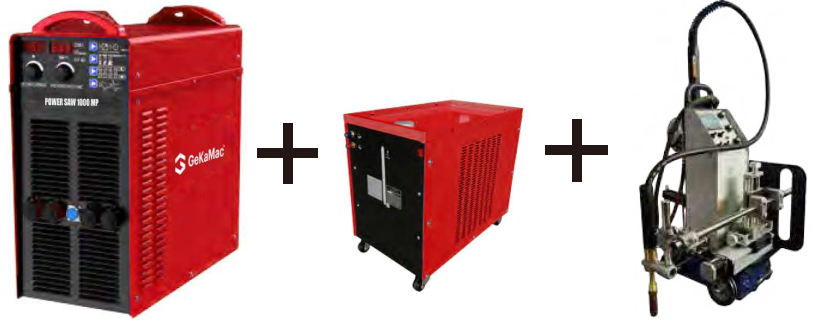
Configuration 1 - butt joint welding seam

DC welding machine: POWER SAW 1000 MP

Water cooler

Welding tractor QBC-II

MIG/MAG torch 500A



Configuration 1 - POWER SAW 1000 MP + welding tractor (butt joint welding seam)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
MIG/MAG tractor	QBC-II	1	Butt welding
Wirefeeder cable	70mm2*15m	1	
Water cooler	WCS-20	1	
Ground cable	70mm2*5m	1	
MIG/MAG torch	500A	1	Water cooling

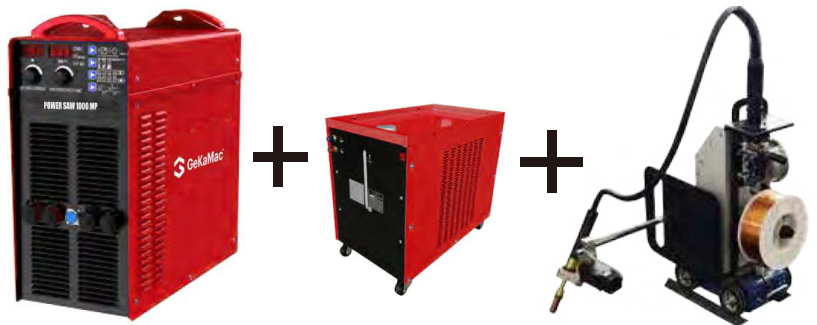
Configuration 2 - fillet joint welding seam

DC welding machine: POWER SAW 1000 MP

Water cooler

Welding tractor QBC-IV

Welding torch 500A



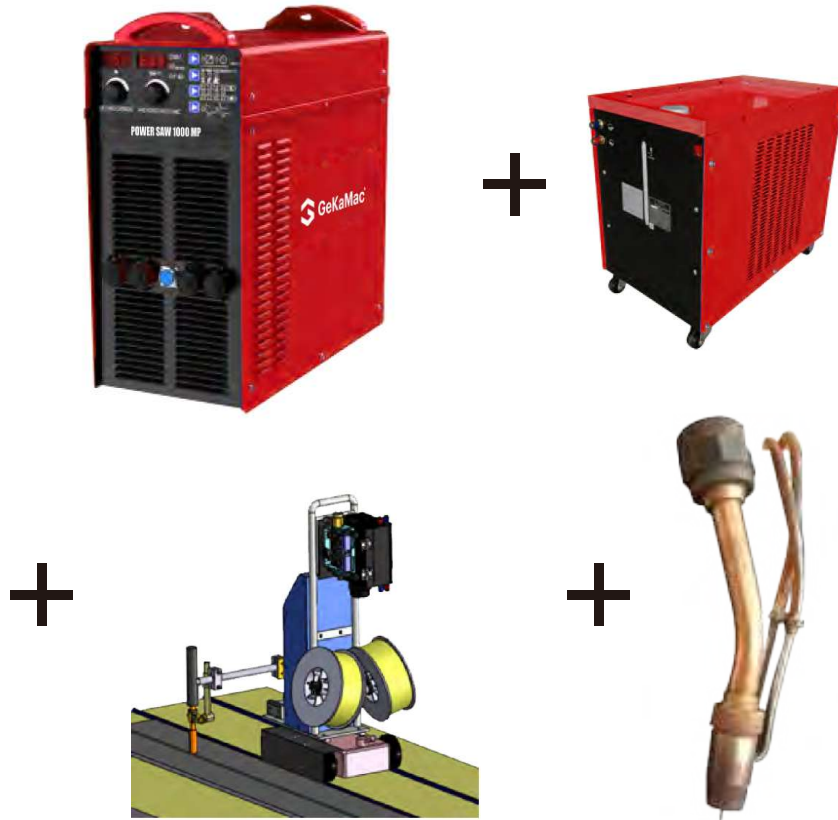
Configuration 1 - POWER SAW 1000 MP + welding tractor (fillet joint welding seam)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
MIG/MAG tractor	QBC-IV	1	Fillet welding
Wirefeeder cable	70mm2*15m	1	
Water cooler	WCS-20	1	
Ground cable	70mm2*5m	1	
MIG/MAG torch	500A	1	Water cooling

TWIN WIRE MIG - WELDING TRACTOR

Configuration 1 - butt joint welding seam

DC welding machine:
 POWER SAW 1000 MP
 Water cooler
 Welding tractor: SQBC-II
 MIG/MAG torch 800A



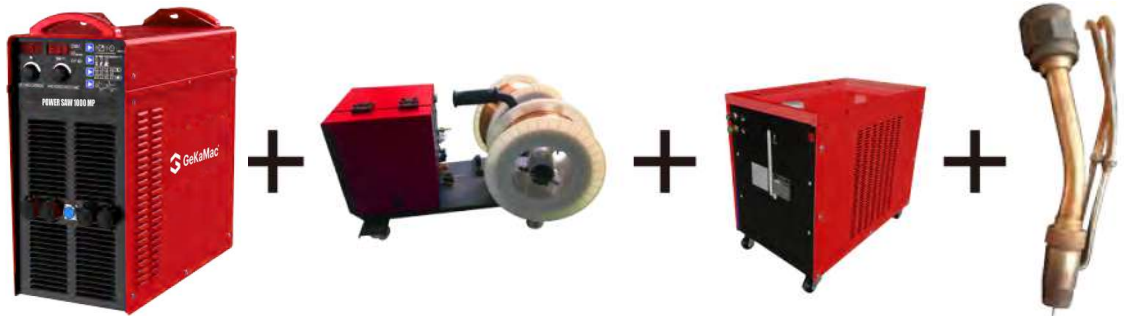
Configuration 1 - POWER SAW 1000 MP + welding tractor (butt joint welding seam)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
MIG/MAG tractor	SQBC-II	1	Butt welding
Wirefeeder cable	70mm2*15m	2	
Water cooler	WCS-20	1	
Ground cable	70mm2*5m	2	
MIG/MAG torch	W800A	1	Water cooling

TWIN WIRE MIG - AUTOMATION SYSTEM & ROBOT CONFIGURATION

Configuration 1 - automation system

DC welding machine:
POWER SAW 1000 MP
Twin-wire wire feeder
Water cooler
MIG/MAG torch 800A

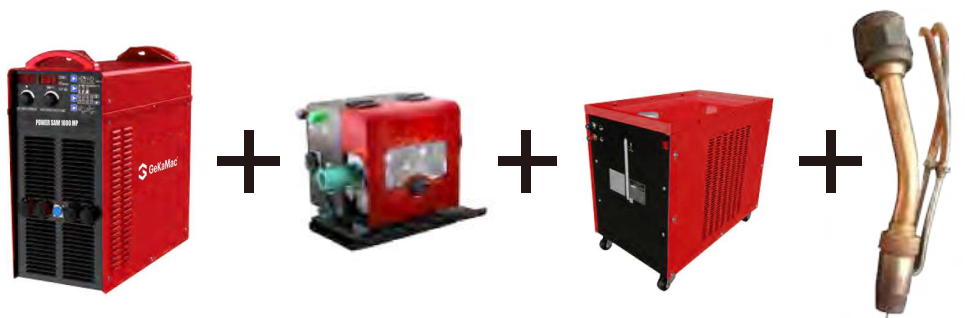


Configuration 1 - POWER SAW 1000 MP + wire feeder (automation system)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Wirefeeder	WF-500DC	1	Close type
Wirefeeder cable	70mm2*15m	2	
Water cooler	WCS-20	1	
Ground cable	70mm2*5m	2	
MIG/MAG torch	W800A	1	Water cooling

Configuration 2 - Robot

DC welding machine:
POWER SAW 1000 MP
Closed type twin-wire wire feeder
Water cooler
MIG/MAG torch 800A



Configuration 1 - POWER SAW 1000 MP + wire feeder (robot)

Item	Model	Qty	Remarks
Power source	POWER SAW 1000 MP	1	
Wirefeeder	WF-500R	1	MZRPT
Welding cable	70mm2*15m	2	
Water cooler	WCS-20	1	
Ground cable	70mm2*5m	2	
MIG/MAG torch	W800A	1	Water cooling

INDUSTRIAL APPLICATION SAW PROCESS - VISIBLE ARC CLADDING FOR ROLLERS AND GRINDING ROLLERS



MIG (ROOT)+SAW PROCESSES - PIPELINE PREFABRICATION



MIG process for root welding



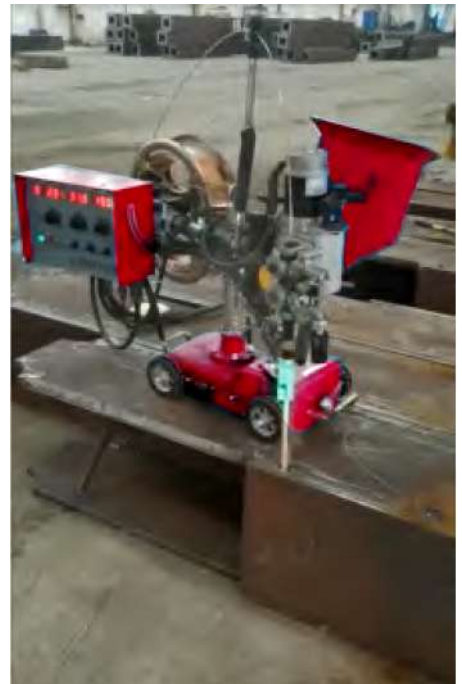
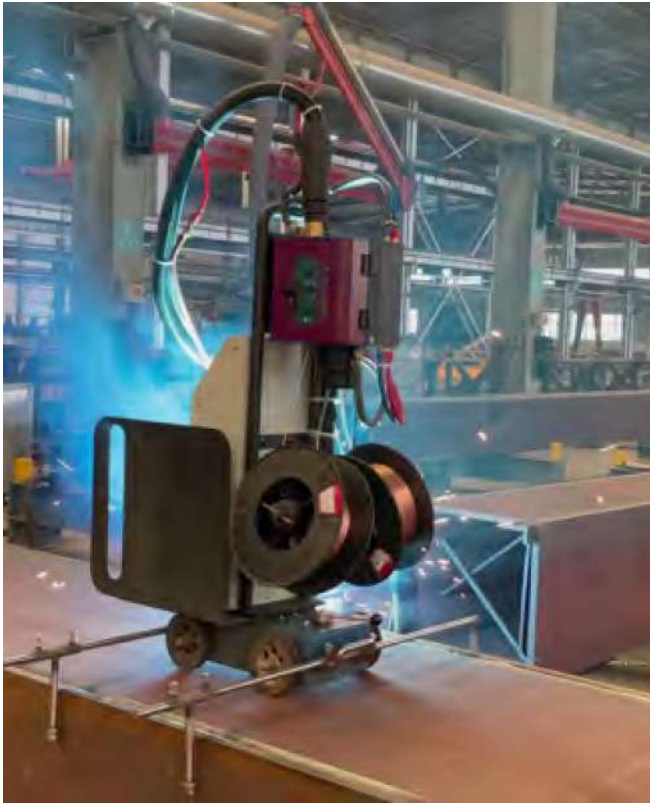
SAW process for fill and cosmetic welding



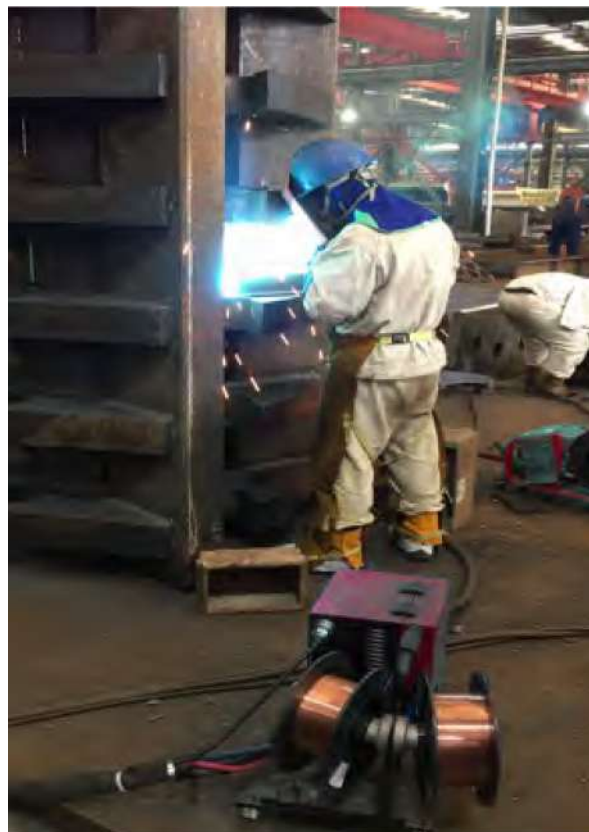
STEEL FABRICATION - H BEAM - GANTRY WELDING + TRACTOR TYPE



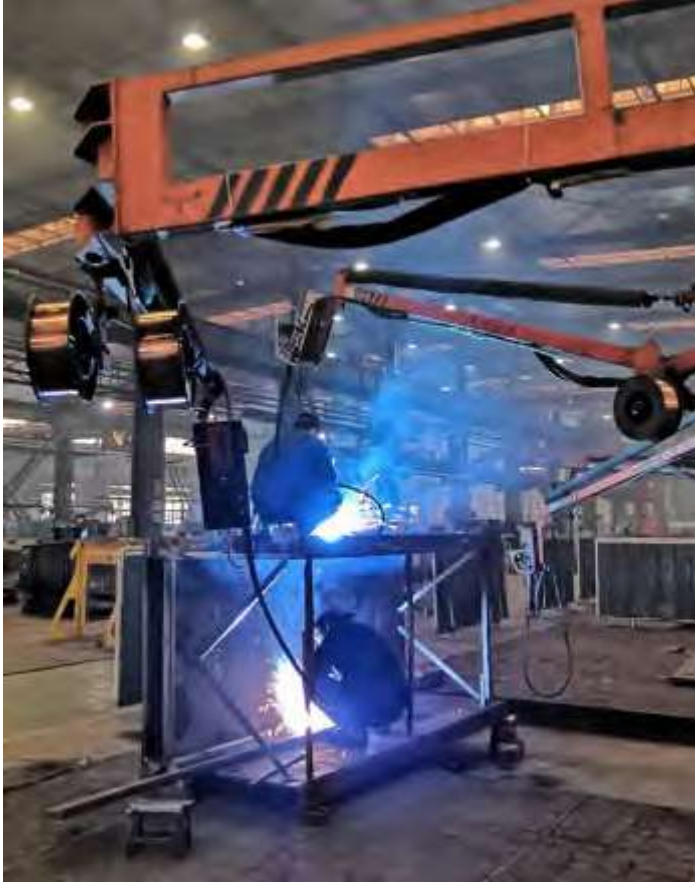
MIG PROCESS - TWIN-WIRE TRACTOR - STEEL FABRICATION - BOX BEAM



MIG PROCESS -TWIN WIRE - MANUAL - COAL MINING MACHINERY



MIG PROCESS -TWIN WIRE - MANUAL+ROBOT - COAL MINING MACHINERY



MIG PROCESS - TWIN WIRE - ROBOT - POWER TOWER SUPPORTS





Gedik Welding Inc.

Ankara Caddesi No: 306 Şeyhli 34906 Pendik - İstanbul / Turkey

P. +90 216 378 50 00 • F. +90 216 378 20 44 / 79 36

www.gedikwelding.com

