

PROFESSIONAL IN WELDING



TOPWELL MIG SERIES

STAY IN PROFESSIONAL
WORK FOR PROFESSIONAL

HSP | HSA | ULS | HSS | HPC | MDP

The MIG Family

Every welding task and specific requirements are different, and so is the positioning of our welding machines. Therefore, we not only provide a multi-functional welding machine, but also provide a full range of welding machines to meet more welding jobs and more diverse welding needs. But whether it's PROMIG, STEELMATE, or PROWAVE, TOPWELL's focus on welding ensures that they are all professional, bringing customers the most advanced welding processes and the most efficient welding results.



YOU WILL GET:

- ☑ Meeting welding needs in a more targeted manner and improving productivity;
- ☑ A wider and more diverse range of accessories to choose from, more professional;
- ☑ Unified, simple and universal operation of whole series.



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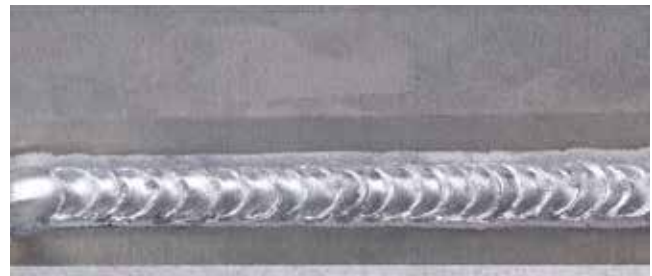
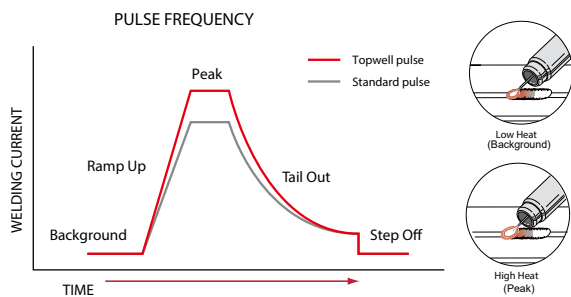
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Advanced technologies of Topwell

Better Pulse MIG

Topwell offers the TRUE pulse MIG process with higher peak current and a larger current difference, so it can bring out wetter and smoother aluminum welding result.

Typical Application: aluminum welding.



Pulse MIG on Aluminum

HSP - High Speed Pulse

The improved one-pulse multi-drop technology brings a higher deposition rate, increasing the welding speed by 48% compared to the standard one-pulse one-drop MIG process, while the stable arc reduces heat control, resulting in less spatter and a 50% reduction in noise.

Typical Application: cover welding, carbon steel thick plate, load-bearing parts.



HSP used in excavator buckets

MDP - Micro Double Process

MDP is Micro Double Process, ultra-precise on the synergy Pulse wave-form controlled process-control, freely adjust the weld seam chevrons from coarse to fine. The key is that when the high and low pulses alternate, there is no droplet formation in the low short-circuit phase. The advantage of MDP are precise energy input, low distortion, perfect TIG-like welding appearance easily produced by anyone, and the welding productivity can up to twice as quick as the conventional TIG.

Typical Application: thin to medium-walled (1-8mm) Aluminum, Steel, and CrNi applications.



MDP on CrNi



MDP on Aluminum

HSA - High Speed Spray Arc

The perfect combination of a highly concentrated and extremely stable arc with high density. HSA delivers deeper penetration, narrower heating zone, allows smaller opening angles for multi-layer welding, significantly improves the welding speed up to 30% faster than conventional MIG-MAG welding.

Typical Application: narrow gap welding, fillet welding, steel structure welding.



HSA allows an opening angle of only 30°

ULS - Ultra Low Spatters

The ULS process is a modified short-arc transfer arc, it controls the volatility during the change of state between short and arc to control splash size and reduce the amount of splash by 75%.

Typical Application: root welding, pipe welding, high demand thin plate welding.

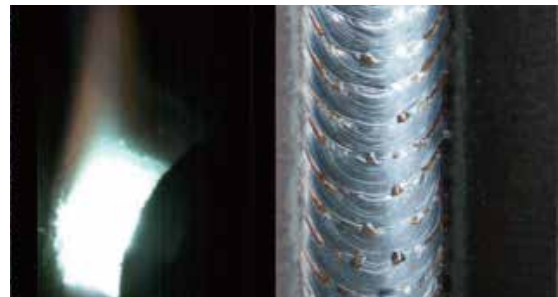


ULS on frame structure

HPC - Hybrid Pulse Control

Topwell's control technology ensures a perfect transition to the rapidly reduced energy phase. It ensures reliable penetration, precisely sized weld filling and a near-optimal throat thickness. Vertical-up welding with Topwell's HPC process is significantly much faster and simpler than classical "X-Mas tree".

Typical Application: pipe welding, structural welding.



Vertical-up welding with HPC

HSS - High Speed Spot Technology

HSS is the high speed spot welding, which is perfectly combining the welding process, arc physics, high dynamic power response and powerful motor control technology, short in arc ignition time and arc ending time, a welding spool can be formed swiftly. A spot welding cycle is quickly completed, cycle over and over, by adjusting the time gap with the robot to get the fish scale you wish, weld seam is clear and beautiful.

Typical Application: joint welding, automated welding.



HSS on bike rack

More suitable for industrial use

Integrated automatic welding system

In order to meet the specific needs of automated welding, Topwell has developed a series of mutually compatible mechanical and electrical modules and continuously upgrades its products. These modular components can be connected to any welding gun carrier or workpiece holding peripherals to form a complete integrated system for welding.

Multiple robot communication methods

Topwell's welding machines have flexible selection of multiple communication methods, achieving seamless integration with different brands of robots.



Optional remote control box design

Full digital communication interface, achieve seamless integration with different brands of robots, also available for MES system.



Long distance welding

- **Ultra-Long cable loop compensation function**

Topwell's welding machines is equipped with an ultra-long loop compensation function for using in oversized workpiece welding environments, providing stable performance even in long-distance welding environments.

- **Flexible control methods**

Multiple ways to regulate the machine, at the power supply, at the wire feeder, at the remote control, to control the welding program conveniently and quickly anywhere.

Compatible models: PROWAVE 1.0



at the power source



at the wire feeder



or at the both



at the remote control



directly at the torch

- **Upgraded cable connection interface**

The special cable design supports tracheal carriers communication, reduces bulky cable obstacles, and reduces the failure rate of long-distance welding.

Compatible models: SteelMate SL



Overview of the TOPWELL MIG welding Series

Areas of Application	Standard	Pulse Advanced	HSP	HSA	HPC	ULS	MDP	HSS
Sheet thickness up to 1 mm	★☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	★★★★	★★★★	★★★★
Sheet thickness between 1-3 mm	★★★★	★★★★	★★★★	☆☆☆☆	★★★★	★★★★	★★★★	★★★★
Sheet thickness between 3-6 mm	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Sheet thickness above 6 mm	★★★★	★★★★	★★★★	★★★★	★★★★	☆☆☆☆	★★★★	☆☆☆☆
Welding in positions	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Welding speed	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Welding with 100% CO2	★★★★	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	★★★★	☆☆☆☆	★★★★
Spatter eradication	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Materials								
Steel	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
CrNi	★★★★	★★★★	★★★★	☆☆☆☆	★★★★	★★★★	★★★★	★★★★
Aluminum	☆☆☆☆	★★★★	☆☆☆☆	☆☆☆☆	★★★★	★★★★	★★★★	☆☆☆☆
Other materials	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★

- * HSP: more droplets in one duty cycle, faster speed;
- * HSA: highly concentrated arc delivers deeper penetration and narrower HAZ ;
- * MDP: high and low pulse MIG welding with perfect TIG-like appearance;
- * ULS: modified short arc has ultra low spatter for thin sheet;
- * HPC: combination of 2 arc delivers directional stability;
- * HSS: high speed spot welding for thin pipes;
- * PULSE MIG: pulsed arc with controlled energy and low spatters;
- * Standard arc: perfect short arc and spray arc.

Areas of Application	Standard MIG	Pulse MIG	HSP	HSA	ULS	MDP	HPC	HSS
PROWAVE 350C	●	●	●	●	/	/	○	/
PROWAVE 350i	●	●	●	●	○	○	○	○
PROWAVE 500i	●	●	●	●	○	○	○	○
PROWAVE 650i	●	●	●	●	○	○	○	○
PROMIG 250XP	●	●	/	/	○	/	/	○
PROMIG 360C	●	●	●	●	/	/	○	/
PROMIG 360XP	●	●	●	●	○	○	○	○
PROMIG 500XP	●	●	●	●	○	○	●	○
PROMIG 650XP	●	●	●	●	○	○	●	○
SteelMate PRO350	●	●	●	●	○	/	○	○
SteelMate PRO500	●	●	●	●	○	/	○	○
SteelMate PRO650	●	●	●	●	○	/	○	○
SteelMate SL500	●	/	/	/	/	/	/	/
SteelMate SL650	●	/	/	/	/	/	/	/
PROMIG 200SYN Pulse	●	●	/	/	/	/	/	/
PROMIG 250SYN Pulse	●	●	/	/	/	/	/	/
PROMIG 250SYN DPulse	●	●	/	/	/	/	/	/

● Standard options ○ Optionally available / Not available

PROWAVE 1.0

A technical platform for all advanced MIG welding process

Process

- SMAW
- GMAW
- FCAW
- GTAW
- Gouge (CAG-C)

Applications

- General fabrication
- Transportation
- Light-gauge tube and sheet
- General manufacturing
- Structural steel fabrication
- Sheet metal fabrication



Quick specs

Item No.	350C	350i	500i	650i
Input voltage	3PH ~ 400V±15%	3PH ~ 400V±15%	3PH ~ 400V±15%	3PH ~ 400V±15%
Output range	30A/15.5V~350A/31.5V	30A/15.5V~350A/31.5V	30A/15.5V~500A/39V	30A/15.5V~650A/44V
Rated output(40°C) 60%	350A/31.5V	350A/31.5V	500A/39V	650A/44V
Net weight	56kg	75kg	81.5kg	91kg

Friendly I/O interface



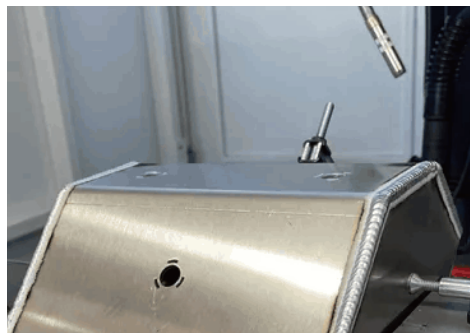
True color LCD large screen displays and operates welding tasks



Powerful scalability for various processes

More suitable for Industrial 4.0

- ✓ Can apply MES system to realize intelligent management;
- ✓ Can seamlessly integrated with robots;
- ✓ Combine advanced welding technology and precise control system;



Aluminum tank



Cylinder ring gap

PROMIG XP Series

High performance MIG welding solutions for all metals

Process

- SMAW
- GMAW-P
- GMAW
- GMAW-HDP
- FCAW
- GMAW-HSP

Applications

- Boat, ship and yacht building
- General fabrication
- Transportation
- Light-gauge tube and sheet
- General manufacturing
- Structural steel fabrication
- Sheet metal fabrication



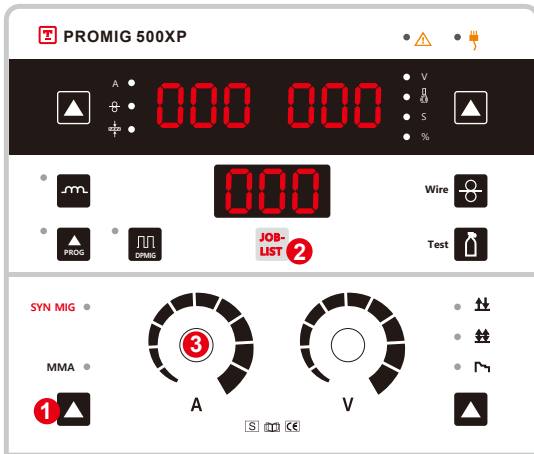
Quick specs

Item No.	250XP	360C	360XP	500XP	650XP
Input voltage	3PH ~ 400V±15%	3PH ~ 400V±15%	3PH ~ 400V±15%	3PH ~ 400V±15%	3PH ~ 400V±15%
Output range	30A/15.5V~250A/26.5V	30A/15.5V~360A/32V	30A/15.5V~360A/32V	30A/15.5V~500A/39V	30A/15.5V~650A/44V
Rated output(40°C) 60%	250A/26.5V	360A/32V	360A/32V	500A/39V	650A/44V
Net weight	52kg	56kg	71kg	81.5kg	91kg

As Topwell's classic MIG welding machine series, PROMIG XP Series has advanced welding technology, provides powerful arc performance and excellent welding results, and is suitable for industrial welding applications of metals such as steel, stainless steel and aluminum.



Classic simple operation with full control



JOBS-list							
	Material	Process	Gas	Wire			
				0.8	1.0	1.2	1.6
JOBS NO.							
M.S.	Solid wires	Standard	100%CO ₂	101	102	103	104
		HSP	82%Ar 18%CO ₂	201	202	203	204
		HSP-Short	82%Ar 18%CO ₂	/	/	407	/
		HSA	82%Ar 18%CO ₂	/	412	413	/
		HPC	82%Ar 18%CO ₂	/	422	423	/
	Flux Cored	Standard	100%CO ₂	/	/	303	304
S.S.	308	Pulse	98%Ar 2%CO ₂	/	502	503	/
	316			/	602	603	/
A.L.	4043	Pulse	100%Ar	/	702	703	/
	5356			/	802	803	/
	A199			/	902	903	/
				Standard	100%Ar	/	/

3 steps To Achieve Weld Perfection

- 1 Select operation mode.
- 2 Select Job-list No. (welding process)
- 3 Adjust welding current.

(Always the perfect setting by the synergic function using the material thickness)

Synergy control With Job-list

The Job-lists display is easily and intuitively controlled through its graphical user interface. We assembled the perfect welding curve in every Job-No. to help the users choose the best welding process for carbon steels, aluminum alloys and stainless steel. Operation is easier than ever before.

Compatible with all metal MIG welding processes



Meet all professional welding application



Industrial workshop



Automatic welding

SteelMate PRO Series

High productivity workhorse for steel welding jobs

Process

- SMAW
- GMAW
- FCAW
- GMAW-P
- GMAW-HDP
- GMAW-HSP

Applications

- Boat, ship and yacht building
- General fabrication
- Transportation
- Light-gauge tube and sheet
- General manufacturing
- Structural steel fabrication
- Sheet metal fabrication



Quick specs

Item No.	PRO350	PRO500	PRO650
Input voltage	3PH ~ 400V±15%	3PH ~ 400V±15%	3PH ~ 400V±15%
Output range	30A/15.5V~350A/31.5V	30A/15.5V~500A/39V	30A/15.5V~650A/44V
Rated output(40°C) 60%	350A/31.5V	500A/39V	650A/44V
Net weight	57kg	62kg	67kg

Designed for heavy industrial welding & fabrication applications

Compatible with the advanced steel welding process, equipped with a tough and robust portable wire feeder, SteelMate PRO provides:

- simple operations in hand and convenient use;
- durable and heavy duty machine, suitable for industrial welding and complex workshops;
- high deposition and high performance.



SteelMate SL Series

Designed for Ship-building or Steel-Fab by Carrier communication technology

Process

- Solid wires (GMAW)
- Flux-cored (FCAW)
- Metal-cored (MCAW)
- Air carbon arc cutting & gouging (CAC-A)
- Stick (SMAW)

Applications

- Boat, ship and yacht building
- Transportation
- Structural steel fabrication

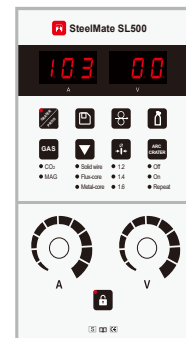


Quick specs

Item No.	SL500	SL650
Input voltage	3PH ~ 400V±15%	3PH ~ 400V±15%
Output range	30A/15.5V~500A/39V	30A/15.5V~650A/44V
Rated output(40°C) 60%	500A/39V	650A/44V
Net weight	62kg	67kg

Separated wire feeder with full function

- Lighter and portable wire feeder;
- Removable remote control on the wire feeder, all operations are in hand;
- Carrier communication technology, without additional connecting cables;
- Using long-distance arc voltage compensation technology, the cable length can reach 100 meters;



PROMIG Preferia Series

Portable but professional welder with true pulse MIG

Process

- SMAW
- FCAW
- GMAW
- GTAW

Applications

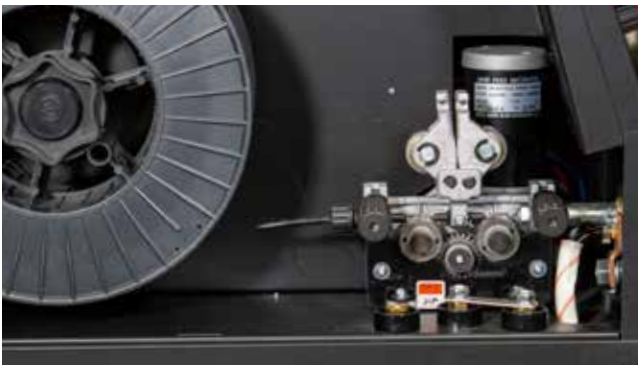
- General fabricators
- Contract welding services
- Plant maintenance shops



Quick specs

Item No.	PROMIG200SYN PULSE	PROMIG250SYN PULSE	PROMIG250SYN DPULSE
Input voltage	1PH ~ 230V±15%	1PH ~ 230V/3PH ~ 400V±15%	1PH ~ 230V/3PH ~ 400V±15%
Output range	10A/14.5V ~200A/24V	10A/14.5V ~250A/26.5V	10A/14.5V ~250A/26.5V
Rated output(40 C)	200A/24V/35%	250A/26.5V/60%	250A/26.5V/60%
Net weight	20kg	32kg	32kg

Professional 4-roller wire feeding system for workshop use



Wire Feeding system of PROMIG 250SYN PULSE /DPULSE



Wire Feeding system of PROMIG 200SYN PULSE

Perfect welding curve and arc performance



Optional Accessories

Digital torch

Full - featured digital torch can select different JOB number, and can adjust the current, the wire feeding speed and the arc length just at hand.

Compatible models: PROWAVE 1.0



Remote control

The remote control comes with full function settings, from gas regulation to wire feed speed regulation, are not limited to simple current and voltage settings. And you can save and call the JOB function, as well as locking the panel anywhere, making it easier to adjust the program.

Compatible models: PROWAVE 1.0 — I
 PROMIG XP Series — II
 SteelMate PRO — II



Push - Pull Torch

With optional Push-Pull gun, the outstanding aluminum welding performance can be achieved much faster and more easily.

Compatible models: PROMIG 360C
 PROMIG 360XP
 PROMIG 500XP
 PROMIG 650XP



Push-Pull Plus 240D

Water-cooling Unit: WC-150

The water-cooled water tank specially developed for water-cooled MIG/MAG welding guns prevents the welding gun from being damaged by overheating and extends its service life.

Compatible models: PROWAVE 350C
 SteelMate PRO Series
 SteelMate SL





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