

P6 SERIES

TIG - DC - Cold Wire / Hot Wire

Mobile Smart Welding Station
for orbital welding



OPC UA



POLYSOUDE

60 YEARS
ANNIVERSARY 

PL6 SERIES

Mobile Smart Welding Station

for orbital welding

Compatible with all Polysoude™ welding heads particularly with those equipped with Arc Voltage Control (AVC) and Torch Oscillation Control (OSC)

Advantages

- **Ergonomic design:** user-friendly, easy to operate human-machine-interface with wireless touchscreen
- **Modular design:** Smart Welding Station and range of accessories can be perfectly tailored to the particular applications
- **Modern and ever evolving:** 100% Industry 4.0 compatible and IoT connectivity. Remote access to welding program loading and to data retrieval
- **Powerful:** current range 300 or 520 A, with or without arc voltage control (AVC) and torch oscillation control (OSC)
- **Robust and reliable:** particularly well suited for prefabrication due to its structure sturdiness and resistance to harsh environmental conditions

The results of 60 years' experience in mastering welding technologies

* IoT: Internet of Things

General characteristics



Plug & Play software for wired and wireless touch controllers



Multiple USB ports (4 in total) for backup, transfer and archiving of welding programmes and monitored data (USB stick supplied)



Ultra-precise gas flow control with display in the graphic interface



Full function remote control 4-axes or 6-axes with welding program selection



Compatible with many standard peripheral equipment – printer, barcode reader, oxygen meter, etc.



Built-in printer or USB stick for welding procedure archiving and documentation

LAN and WLAN compatible, Wifi & Ethernet

Automatic recognition of Polysoude welding heads

Closed loop regulation of wire speed

Closed loop regulation of torch rotation

Built-in Arc Voltage Control (AVC) and Torch Oscillation Control (OSC)

Welding gas control and backing gas (option) with adjustable mass flowmeter

Built-in closed loop water cooling system with safety valve for welding head and torch

Associated welding heads



► MU Series

Open welding heads with or without AVC and OSC for TIG tube-to-tube welding with filler wire



► TS Series

Open and closed welding heads with or without AVC for TIG tube-to-tubesheet welding with or without filler wire



► Polycar Series

Open-type carriage welding heads with AVC and OSC for welding of large diameter tubes and pipes, with filler wire

Wire feeders



► Polyfil series

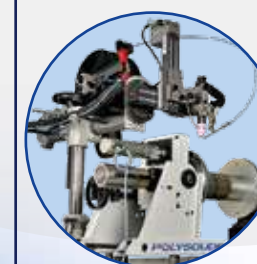
External portable wire feeders with spool protection

Switch box

Alternate use of two welding heads including automatic selection of the corresponding welding programme



Welding solutions



► Automated welding systems

TIG – Cold Wire, Hot Wire

Graphical User Interface (GUI): Just follow the instructions!

► Intuitive graphical interface

With multilingual “Help” menu for optimised welding programmes including tack welding.



Integration into a connected plant

Thanks to the on-board OPC-UA server, performance and connectivity combine to offer new and unique services: secure transfer of data to production software, sending of remote start orders, real-time monitoring of welding data, etc.



They trust us Our customers are our best references





Technical specifications

P6 series	P6-4 CW – 4-axes	P6-4 CW – 6-axes	P6-4 HW – 6-axes
Welding method	TIG – Cold Wire		TIG – Hot Wire
Input power	Three phase 400 V / 415 V ± 15 % – 50 / 60 Hz incl. multi voltage kit option from 200 V to 480 V		Three phase 400 V / 415 V ± 10 % – 50 / 60 Hz
Open circuit voltage	< 113 V		
Insulation class	F		
Protection class	IP 23S		
Welding current range Hot Wire current range	5 to 300 A – constant or pulsed		5 to 520 A – constant or pulsed 3 to 140 A
Welding current precision	± 1 A when I ≤ 100 A and ± 1 % when I > 100 A		
Duty cycle welding current Duty cycle Hot Wire	300 A / 60 % – 240 A / 100 %		≥ 520 A / 60 % – 420 A / 100 % 140 A / 100 %
Motion controls	Torch rotation: constant or pulsed Wire feeder: constant or pulsed / automatic wire retract	Torch rotation: constant or pulsed Wire feeder: constant or pulsed / automatic wire retract AVC – Arc Voltage Control OSC – Torch Oscillation Control	
Shielding gas control	Welding gas with manual adjustment mass flowmeter, 2 nd gas for backing gas (option for P6-4 CW)		
Power source cooling	Forced ventilation		
Welding torch cooling	Two built-in closed loop water cooling systems with flow safety valve (2 nd in option)		External cooling system with internal flow safety valve
Display / recording (non-volatile) of real values during welding	Arc Voltage, welding current, electrode position in angular degrees, welding speed and wire speed		
Real time data acquisition	Hard disc / USB memory stick		
Dimensions L x W x H	630 x 470 x 795 mm 630 x 470 x 970 mm (incl. multi voltage option) 950 x 560 x 1130 mm (incl. multi voltage + trolley option)		800 x 470 x 970 mm 1060 x 530 x 1145 mm
Weight	75 kg 115 kg (incl. multi voltage option)		138 kg
Standards	EN 60974-1 / EN 60974-10		



Options and accessories

- 10,4" quick release colour touchscreen with graphical, intuitive and multilingual software
- Wireless touchscreen controller
- Laptop
- Full function remote control 4 or 6-axes
- Wire feeder control
- AVC control - Arc Voltage Control
- OSC control - Torch oscillation
- Interface for welding manipulators for automated welding (positioner, column and boom, seam welder...)
- Extension cable (15 m) for welding heads
- Supports for wireless touchscreen controller and laptop
- Control kit for closed welding heads fitted with tachometer for welding heads other than POLYSOUDE™
- Multi voltage kit 200 V to 480 V (not for HW version)
- Kit for backing gas (only for P6-4 CW)
- 2nd integrated cooling unit (only for P6-4 CW)
- Dual welding head switch box (only for CW version)
- Trolley
- DAQbox
- Oxygenmeter



POLYSOUDE : Related services

► Guidance and technical support

A welding application specialist in your area will advise you on the welding process and appropriate equipment for your application.

► Commissioning / Training

A complete training program will enable you to start using the equipment immediately and in the best way possible.

► Maintenance / Repair

Maintenance and repair operations can be carried out at the Polysoude plant as well as on site by our service network.

► Rental service

Increase the flexibility of your production! A large range of equipment is available for rental from our hire fleet.



Your partners worldwide

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