

P3 UHP

TIG - Without filler wire

Smart Welding Station High Purity

for orbital tube welding

Ready
4.0 - Smart factory



POLYSOUDE
THE ART OF WELDING

P3 UHP

Smart Welding Station High Purity for orbital tube welding

Compatible with all Polysoude™ closed chamber welding heads without filler wire - dedicated to High Purity industries

Advantages

- ▶ **Ultra-compact:** With optimal space-saving dimensions and lightest weight of only 17kg, it provides the best combination of power density and features available in an automatic welding power source on the market today
- ▶ **High Purity Mission:** While primarily conceived for the Semiconductor market, the P3 UHP's high precision capabilities and impeccable quality make it equally well designed for the most demanding UHP industries and applications
- ▶ **Ergonomically Intelligent:** Intuitive interface with automatic welding head detection and WPS library for a wide variety of welding applications and materials
- ▶ **Ultra-precise:** The P3 UHP's control and programming of the welding current in steps of 1/10 Amperes provides unrivalled precision and exquisite quality
- ▶ **State-of-the-art Capabilities:** The industry leading WiFi connection and functionality allows the Smart Welding Station to interface perfectly with the Industry 4.0 process and the OPC-UA protocol
- ▶ **Modern and scalable:** the installations can be completed with numerous accessories like a wireless barcode scanner, an intuitive remote control pendant and a responsive wireless touchscreen

Resulting from 60 years' experience in mastering welding technologies



General characteristics

- LAN and WLAN compatible
- Built-in printer for welding procedure archiving and documentation
- Automatic welding head detection
- Closed loop regulation of torch rotation
- Adjustable mass flowmeters for welding gas control and backing gas with safety valve
- Air-cooling; optional closed loop water cooling system with safety valve for welding head and torch
- Auto-range 115 - 230 V single phase
±10% compatible with field power generators



Wireless touchscreen controller LAN/WLAN based programming by free-of-charge "Plug & Play" software or Windows® PC



USB memory stick for saving, loading and archiving of welding programs and monitored welding data



Gas flow control by a mass flow sensor adjustable by a button, the set flow rate is shown on a display



Barcode scanner: automatic selection of the welding programme, improved documentation, etc.

* IIoT: Industrial Internet of Things

Associated Welding Heads



▶ UHP Series

Closed chamber welding heads, dedicated Ultra High Purity, for TIG tube-to-tube welding without filler wire



▶ Cooling

External cooling unit with water flow safety for high duty-cycle welding heads

Accessories



▶ Switch box

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



▶ Remote control pendant

Full function remote control with welding program selection

▶ Compatibility

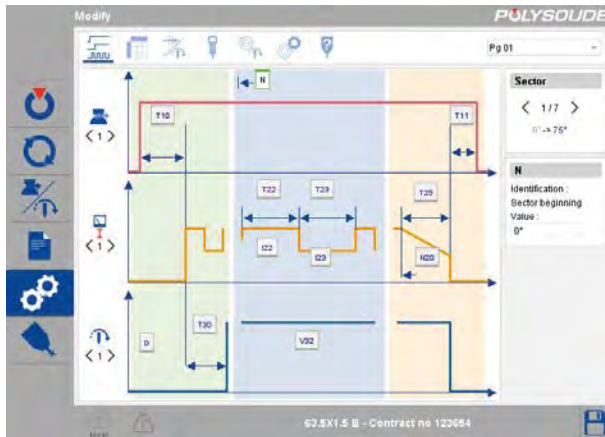
with standard peripheral equipment: printer, DAQbox data acquisition, oxygen indicator, etc.



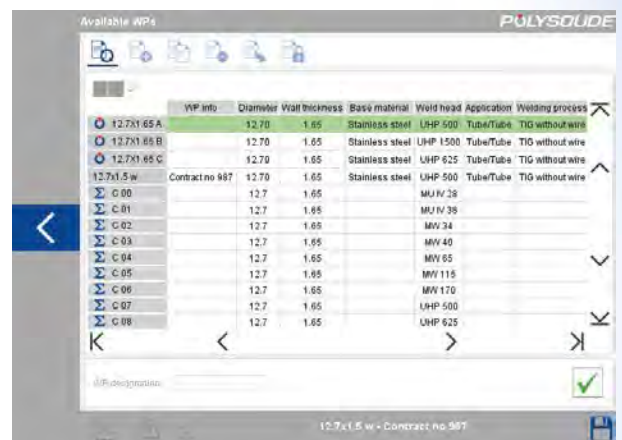
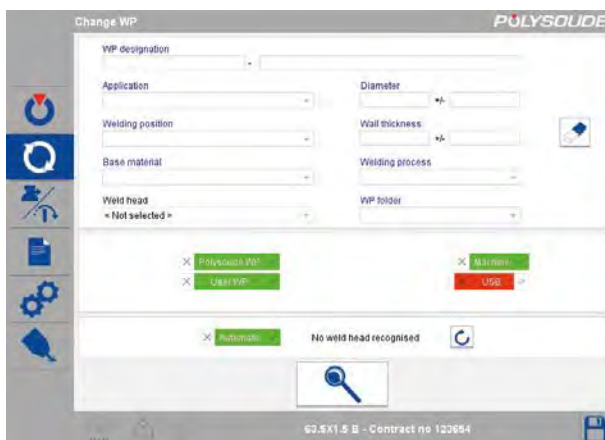
Graphical User Interface (GUI): Just follow the instructions!

► Intuitive graphical interface

With multilingual "Help" menu for optimised welding programs



► Synergic mode auto-programming



They trust us

Our customers are our best references





Technical specifications

Welding process	TIG - DC, constant or pulsed
Input power (Auto-range)	Single phase 115 V / 230 V \pm 10% 50 / 60 Hz
Open circuit voltage	< 113 V
Insulation class	H
Protection class	IP 21
Welding current standard (steps of 1 A)	Range 125 A: 3 to 125 A (230 V) 3 to 95 A (115 V)
High precision (steps of 1/10 A)	Range 50 A: 3 to 50 A (115 V/ 230 V)
Welding current precision	\pm 1 A when $I \leq 100$ A and \pm 1% when $I > 100$ A
Duty cycle	140 A / 25% (230 V) • 100 A / 40% (115 V) 95 A / 100% (230 V) • 75 A / 100% (115 V)
Motion controls	Torch rotation constant or pulsed
Shielding gas control	Welding gas and backing gas with adjustable mass flow meters and flow safety valve
Power source cooling	Forced ventilation
Welding torch cooling	Air-cooled system. Option : external closed loop water cooling system with flow safety valve
Display / recording (non-volatile) of real values during welding	Arc Voltage, welding current, electrode position in angular degrees, welding speed
Welding program storage / transfer	Hard disc / USB memory stick
Dimensions L x W x H	575 x 224 x 455 mm
Net weight	17 kg
Standards	EN 60974-1 / EN 60974-10



Options and accessories

- Wireless touchscreen controller or laptop with free "Plug & Play" intuitive and multilingual software
- 10,4" quick release colour touchscreen
- Full function remote control
- Dual welding head switch box
- Mass flow meter for backing gas
- Wireless digital barcode-scanner with cradle and USB cable
- Kit for continuous gas flow
- Control kit for welding heads fitted with tachometer from POLYSOUDE™ or other manufacturers
- External cooling unit 115/230 V with flow safety valve when using high duty-cycle welding heads

