

PC SERIES

TIG - AC/DC - Cold Wire, Hot Wire and Plasma

Full function power source
for orbital or mechanised welding and cladding



POLYSOUDE
THE ART OF WELDING

PC SERIES

Full function power source

for orbital or mechanised welding and cladding

Compatible with all POLYSOUDE™ welding or cladding heads and manipulators

Advantages

- ▶ The most simple to use and reliable system available
- ▶ A multitude of unique features and solutions as well as a data acquisition system to meet the highest quality control standards
- ▶ High precision power sources for perfectly controlled heat input and welding penetration

Resulting from 50 years' experience in mastering welding and cladding technologies



General characteristics

PO-WIN: powerful Windows® based welding and cladding software
PC offline or online programming, transfer and storage of weld and clad procedures

Error-diagnostic system

Integrated controller with individual axis cards for all welding and cladding motions
Unique synchronisation possibilities between current, torch and work piece motion
Closed loop regulation of all welding and cladding motions: welding and cladding speed, wire speed, AVC, OSC ...
Programming by angular degrees in mm/min or inch/min

Built-in closed loop water cooling system for head and torch

Programmable mass flowmeter with flow safety valve, for torch gas, backing gas and other protection gases



Integrated controller



Real time monitoring system



Full function remote control with LCD screen, display of real values
Welding or cladding programs are directly selected by the full function remote control

Associated
Welding
Heads



▶ MU + Polycar Series

Open and carriage type welding heads with AVC and OSC for TIG tube to tube welding



▶ TS Series

Welding heads with AVC and filler wire for TIG tube to tubesheet welding

Wire feeders



▶ Polyfil series

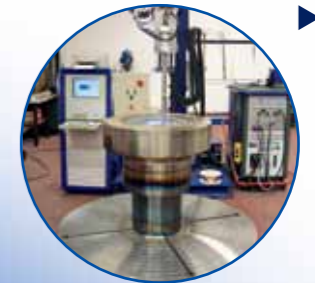
External portable wire feeders with spool protection

Welding and
cladding
solutions



▶ Mechanised welding systems

TIG – Cold Wire, Hot Wire
MIG/MAG, Plasma



▶ Automated cladding systems

TIG – Cold Wire, Hot Wire



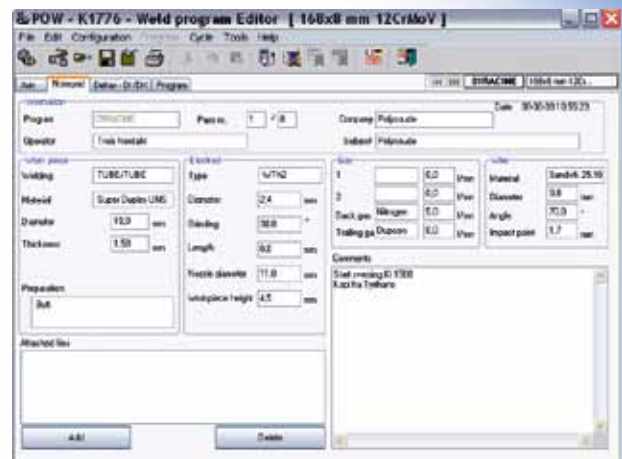
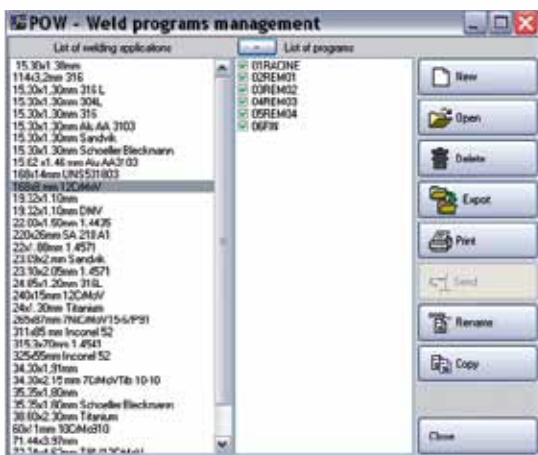
PO-WIN: powerful Windows® based welding and cladding software

PC offline or online programming

► **Multilingual, intuitive software**



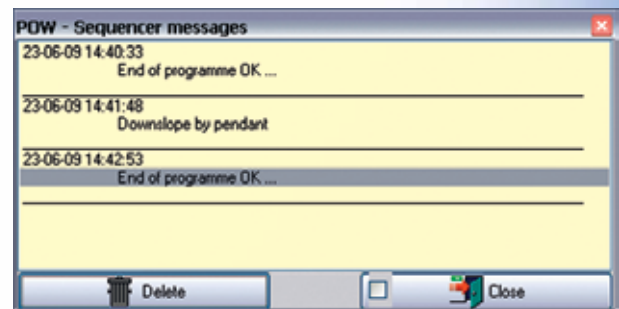
► **Procedure library and notepad**



► **Numerous functions/possibilities for tailor-made welding and cladding programs**

№	Order	Material	Position	Location	Process	Date	Use
1	1	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
2	2	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
3	3	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
4	4	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
5	5	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
6	6	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
7	7	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
8	8	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
9	9	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
10	10	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
11	11	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
12	12	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
13	13	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
14	14	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
15	15	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
16	16	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
17	17	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
18	18	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
19	19	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
20	20	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
21	21	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
22	22	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
23	23	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
24	24	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
25	25	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
26	26	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
27	27	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
28	28	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
29	29	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
30	30	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
31	31	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
32	32	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
33	33	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
34	34	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
35	35	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
36	36	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
37	37	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
38	38	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
39	39	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
40	40	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
41	41	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
42	42	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
43	43	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
44	44	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
45	45	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
46	46	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
47	47	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
48	48	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
49	49	W. 10mm	Flare stop	Flare stop	19.8	19.8	no
50	50	W. 10mm	Flare stop	Flare stop	19.8	19.8	no

► **Quality assurance**





Technical specification

PC Series	PC 100 TR CW	PC 300 TR CW	Control unit PC 350 CW with AC/DC power source	PC 600-3 CW	PC 600-3 HW
Process	TIG/Microplasma - DC Cold Wire	TIG - DC Cold Wire	TIG - AC/DC Cold Wire	TIG/Plasma - Cold Wire	TIG/Plasma - Hot Wire
Type of power source	Transistor (secondary)	Transistor (secondary)	Inverter	Inverter	Inverter
Current range	0.5-100 A	3-300 A	5-350 A	5-550 A	5-550 A
Duty cycle	64 A / 100% - 100 A / 60%	240 A / 100% - 300 A / 60%	350 A / 60% - 300 A / 100%	420 A / 100% - 540 A / 60%	420 A / 100% - 540 A / 60%
Input power For other voltage, please contact us	200 V / 230 V / 400 V / 415 V / 500 V Three phase (±10%) 50/60 Hz	200 V / 230 V / 400 V / 415 V / 500 V Three phase (±10%) 50/60 Hz	380 V / 400 V / 415 V Three phase (±10%) 50/60 Hz	380 V / 400 V / 415 V Three phase (±10%) 50/60 Hz	380 V / 400 V / 415 V Three phase (±10%) 50/60 Hz
Rated load	4.5 kVA	14 kW	16 kVA	28 kW	28 kW
Current pulse frequency (max.)	500 - 10 000 Hz	500 - 10 000 Hz	50 - 200 Hz (AC) 50 - 3 000 Hz (DC)	500 - 2 000 Hz	500 - 2 000 Hz
Current slope time	250 A / 250 µs	250 A / 250 µs	/	250 A / 1 ms	250 A / 1 ms
Hot Wire max. current	/	/	/	/	140 A / 100%
Plasma welding	Option	/	/	Option	Option
Controlled axes		- Torch movement control - Wire feeder control - Multi-axis control for welding manipulators		- Torch Oscillation Control (OSC) - Arc Voltage Control (AVC)	
Gas control (on option with programmable mass flowmeters / security valve)		- Shielding gas - Backing gas		- Bi-gas - Trailing gas	
Procedure user memory	Up to 100 programs				
Procedure storage / transfer	Hard disc / USB memory stick				
Procedure print out	External standard printer				
Real time monitoring system	Option				
Overall dimensions L x W x H	1270 x 740 x 1370 mm	1270 x 740 x 1370 mm	Control unit 1270 x 740 x 1370 Power source 1270 x 740 x 1370	1270 x 740 x 1370 mm	1270 x 740 x 1370 mm
Weight	310 kg	330 kg	Control unit (PC 350) 250 kg Tetrix power source 144 kg	330 kg	330 kg
Standards	EN 60974-1 - EN 60974-10 (2003)				
Cooling		Integrated		External and integrated*	External

* Duty cycle: 270 A / 100% - 350 A / 60%



Options and Accessories

- Laptop
- AVC - Arc Voltage Control
- OSC - Torch Oscillation Control
- Multi-axis interface for welding and cladding manipulators (positioner, column and boom, seam welder...)
- Extension cable (15m) for welding heads
- Additional gas control
- 2nd integrated cooling unit
- External heavy duty water cooling unit
- Real time monitoring system
- ...

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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