

PC SERIES

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

Full function power source
for orbital or automated welding and cladding



POLYSOUDE
THE ART OF WELDING

PC SERIES

Full function power source

for orbital or automated 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



Integrated controller

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



Real time monitoring system

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



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

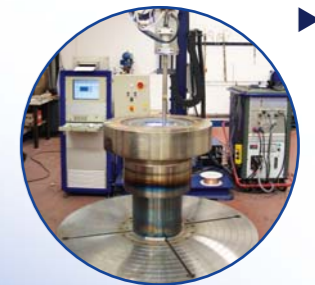
External portable wire feeders with spool protection

Welding and cladding solutions



▶ Automated welding systems

TIG – Cold Wire, Hot Wire, Plasma



▶ Automated cladding systems

TIG – Cold Wire, Hot Wire



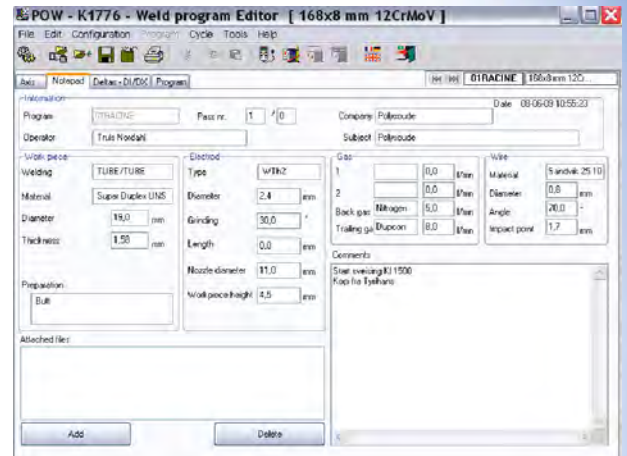
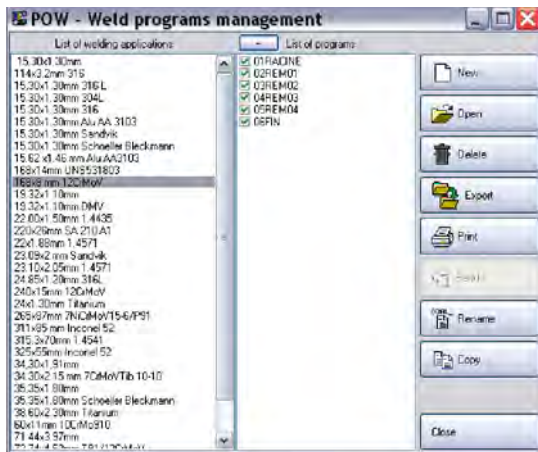
PO-WIN: powerful Windows® based welding and cladding software

PC offline or online programming

► Multilingual, intuitive software



► Procedure library and notepad



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

N°	Start	End/Axis	Function	Condition	Parameter	Value	Unit	
1		N	Rotation	Diameter change	Tube diameter	75.1	mm	
2		O	Position	Absolute deviation	Lat deviation/pendr	0.0	mm	
3		N	Asc voltage	Touch not/pece	Speed	100	mm/min	
4		N	Gas	Absolute height	Height / speed	2.5	mm	
5		O	Asc voltage	Height / speed	Height	2.5	mm	
6	5-05	O	Current	HF ignition	Std	Ignition cur	60.0	A
7	6	N	Current	Slope current	Supersped pulsation	Slope line	1.5	V
					Current	60.0	A	
					High pulse time	50	ms	
					Base current	24.0	A	
					Base pulse time	200	ms	
					Supersped out	60.0	A	
					Supersped time	20	ms	
8	6	N	Asc voltage	AVC sensibility	Sensibility	4		
					Block over/lost	10	ms	
					Max AVC speed	200	mm/min	
9	6-25	N	Wire	Wire feed (slope)	Slope line	2.5	s	
					Wire feed speed	200.0	mm/min	
10	6-25	N	Asc voltage	AVC level	High pulse sensing	Asc voltage	9.0	V
11	6-05	N	Rotation	Feed rotation (slope)	Slope line	1.0	s	
					Speed	70.0	mm/min	
12	11	N	Asc voltage	AVC level	High pulse sensing	Asc voltage	9.0	V
13	49	N	Sequencer	—Sector—				
14	13	N	Current	Slope current	Supersped pulsation	Slope line	1.0	V
					Current	60.0	A	
					High pulse time	50	ms	
					Base current	24.0	A	
					Base pulse time	200	ms	
					Supersped out	60.0	A	
					Supersped time	20	ms	
15	14	N	Wire	Wire feed (slope)	Slope line	0.1	s	
					Wire feed speed	205.0	mm/min	
16	15	N	Rotation	Feed rotation (slope)	Slope line	0.5	s	
					Speed	70.0	mm/min	
17	16	N	Asc voltage	AVC level	High pulse sensing	Asc voltage	9.0	V
18	100	N	Sequencer	—Sector—				

► 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	/	/	/	/	160 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

ARGENTINA

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

AUSTRALIA

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

AUSTRIA

POLYSOUDE AUSTRIA GmbH
☎ +43 (0) 3613 200 36
austria@polysoude.at

BELGIUM

POLYSOUDE BENELUX
☎ +31 (0) 653 84 23 36
k.meurs@polysoude.com

POLYSOUDE BENELUX

(SERVICE)
☎ +31 (0) 653 38 85 58
h.milder@polysoude.com

BRAZIL

**AJADE COMÉRCIO INSTALAÇÕES
E SERVIÇOS Ltda.**
☎ +55 (0) 11 4524 3898
fernando@ajade.com.br

BULGARIA

KARWELD EOOD
☎ +359 (0) 29 73 32 15
Karweld@bg400.bg

CANADA

MAG Tool – West
EDMONTON – ALBERTA
☎ +1 800 661 9983
magtool@magtool.com

MAG Tool – East

TORONTO – ONTARIO
☎ +1 905 699 – 5016
ray@magtool.com

CHINA

POLYSOUDE SHANGHAI CO. Ltd
☎ +86 (0) 21 64 09 78 26
jm.pan@polysoude.com.cn

CROATIA

EUROARC D.O.O.
☎ +385 (0) 1 2 40 60 77
euroarc@euroarc.hr

CZECH REPUBLIC

POLYSOUDE CZ
☎ +420 602 60 28 55
m.matousek@polysoude.cz

DENMARK

HALL & CO. INDUSTRI
☎ +45 (0) 39 56 06 76
p.lorenzen@polysoude.com

EGYPT

POLYSOUDE UK
☎ +44 (0) 1942 820 935
info@polysoude.com

ESTONIA

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

FINLAND

SUOMEN TEKNOHAUS OY
☎ +358 (0) 927 47 2 10
info@teknohaus.fi

FRANCE

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

GERMANY

**POLYSOUDE DEUTSCHLAND GmbH
DUSSLINGEN**
☎ +49 (0) 7072 60076 0
info@polysoude.de

POLYSOUDE DEUTSCHLAND GmbH

NIEDERLASSUNG LEVERKUSEN
☎ +49 (0) 2171 58 13 35
info@polysoude.de

ISRAEL

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

ITALY

POLYSOUDE ITALIA SRL
☎ +39 (0) 2 93 79 90 94
info@polysoude.it

JAPAN

GMT CO Ltd – KAWASAKI
☎ +81 (0) 44 222 6751
gmt@e-gmt.co.jp

GMT CO Ltd – OSAKA

☎ +81 (0) 798 35 6751
gmt.kansai@e-gmt.co.jp

NEW ZEALAND

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

NORWAY

TEMA NORGE AS
☎ +47 (0) 51 69 25 00
tema@tema-norge.no

PAKISTAN

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

PHILIPPINES

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

SINGAPORE

POLYSOUDE SINGAPORE OFFICE
☎ +65 0734 8452
Jmpan@singnet.com.sg

SLOVAKIA

POLYSOUDE CZ
☎ +420 602 60 28 55
m.matousek@polysoude.cz

SOUTH AFRICA

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

SOUTH KOREA

CHEMIKO CO Ltd
☎ +82 (0) 2 567 5336
chemiko@chol.com

SPAIN

POLYSOUDE IBERIA OFFICE
☎ +34 609 154 683
la.deandres@polysoude.com

SWEDEN

HALL & CO. INDUSTRI
☎ +45 (0) 39 56 06 76
p.lorenzen@polysoude.com

SWITZERLAND

POLYSOUDE (SWITZERLAND) Inc.
☎ +41 (0) 43 243 50 80
contact@polysoude.ch

TAIWAN R.O.C.

FIRST ELITE ENT. CO. Ltd
☎ +886 (0) 287 97 88 99
auto.pipe@msa.hinet.net

THAILAND

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

TURKEY

EGE MAKINE
☎ +90 (0) 212 237 36 00
onurakin@egemakina.com.tr

UNITED ARAB EMIRATES

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

UKRAINE

POLYSOUDE RUSSIA
☎ +7 (0) 495 564 86 81
polysoude@co.ru

UNITED STATES

ASTRO ARC POLYSOUDE Inc.
☎ +1 661 702 01 41
sales@astroarc.com

VENEZUELA

ENRIVA C.A.
☎ +58 (0) 412 34 82 602
enriva@cantv.net



JORDAN

POLYSOUDE UK
☎ +44 (0) 1942 820 935
info@polysoude.com

LATVIA

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

LITHUANIA

POLYSOUDE S.A.S.
☎ +33 (0) 2 40 68 11 00
info@polysoude.com

MALAYSIA

POLYSOUDE SINGAPORE OFFICE
☎ +65 0734 8452
Jmpan@singnet.com.sg

NETHERLANDS

POLYSOUDE BENELUX
☎ +31 (0) 653 84 23 36
k.meurs@polysoude.com

POLYSOUDE BENELUX

(SERVICE)
☎ +31 (0) 653 38 85 58
h.milder@polysoude.com

POLAND

UNIDAWELD – BEDZIN
☎ +48 (0) 32 267 05 54
dariusz.szota@unidaweld.pl

ZALCO Sp. z o.o. – WARSZAWA

☎ +48 (0) 22 894 55 30
mbergman@zalco.pl

PORTUGAL

POLYSOUDE IBERIA OFFICE
☎ +34 609 154 683
la.deandres@polysoude.com

ROMANIA

DEBISUD S.R.L.
☎ +40 (0) 255 21 57 85
office@debisud.ro

RUSSIA + C.I.S.

POLYSOUDE RUSSIA
☎ +7 495 564 86 81
info@polysoude.ru

SAUDI ARABIA

**ALRUQEE INDUSTRIAL
MARKETING Co. Ltd**
☎ +966 (0) 3857 6383
11Manager.Khalidoun@alruqee.com

A Member of



POLYSOUDE
THE ART OF WELDING



Polysoude S.A.S.
Z.I. du Bois Briand • 2 rue Paul Beaupère
F - 44316 NANTES Cedex 3
Tél.: +33 (0) 2 40 68 11 00 • Fax: + 33 (0) 2 40 68 11 88
www.polysoude.com • e-mail: info@polysoude.com