ARC® SPECIALTIES
AUTOMATED MANUFACTURING SYSTEMS

Integrated Solutions: Engineering, Robotics Consulting, Machine & Controls

ARC-05PL
Light Bore Cladding System

The Right Size for the Job

The ARC-05PL packs all the power and functionality of the ARC-05P+ into a new compact, cost-effective design that perfectly fits cladding applications on components up to a diameter of 40 in (1.02 m) and 5,000 lb (2268 kg).

As the lighter version ARC-05P+, the system still retains all the features the ARC-05P+ is renowned for such a simple operation, cutting-edge controls, high quality precision, comprehensive data logging, and robust dependability.

FEATURES

- Compact Design: The most compact system providing more welding capacity than any other compact cladding systems
- Quick Setup: Easy-to-use, touch screen interface with 3D graphics minimizes arc-off time due to setup
- Servo-controlled precision for torch positioning
- Full line of ARC Specialties GTAW torches including small bore, oval, adjustable heads and more
- Latest ARC-05P+ controls including full closed loop control, semi-automated calibration, RMS values, and more
- Remote diagnostics, operation, monitoring, and maintenance via network or internet connection

Standard Handheld Pendant

Wireless Touchscreen Pendant (Option)

1730 Stebbins Drive
Houston, Texas 77043
Phone 713.631.7575
Fax 713.356.0844

www.arcspecialties.com
info@arcspecialties.com

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ARC-05PL+
Compact Bore Cladding System

Advanced welding technology meets simple control design for superior weld quality, and fast set up.

Ring Grooves

T-Joint Intersecting Bores

X-Joint Intersecting Bores

Straight and Conical Bore, Bottom Faces, Diameter Variation

Upper Minor Bore

Lower Minor Bore

The ARC-05PL control system is built on years of experience and leadership in the field of automated bore cladding.

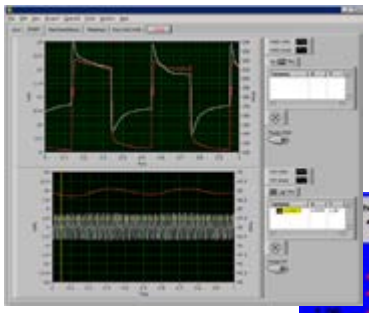
Developed by and for welding system operators, the ARC-05PL control system has the most sophisticated functionality and best process reliability combined with a powerful, easy-to-use touch screen interface.

FUNCTIONALITY AT THE TOUCH OF A FINGER

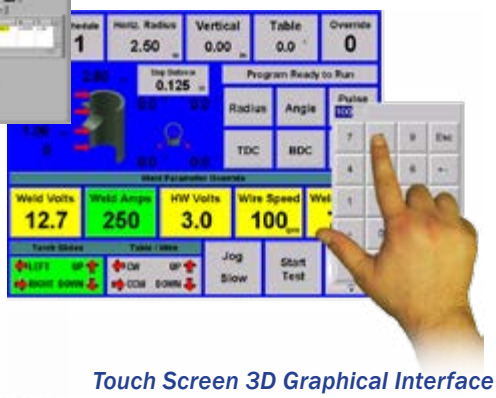
- Teach & repeat
- Touch & retract
- Constant surface speed
- Manual override on all weld parameters
- AVC - Arc Voltage Control (maintains constant arc length)
- Comprehensive data logging
- Actual values with real-time feedback
- Multi-language and units toggling
- RMS heat value calculations
- Full closed loop control
- Semi-automated calibration
- Wireless control tablet

Heavy Duty Wireless Control Tablet

COMPACT, LIGHT, INTUITIVE HMI



Total Process Analyzer, extended data logging (option)



Touch Screen 3D Graphical Interface

Remote diagnostics, operation, monitoring, and tech support via internet / ethernet

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ARC-05PL Technical Capabilities and Specifications

ARC-05PL	Description
Control	PLC
Automatic Voltage Control	Yes
Touchscreen Programming	Yes
Hand-held Operator Pendant	Yes
Cabinet Housing	NEMA 12
Displayed Unit of Measurement	Imperial/Metric Switchable on the fly from HMI
Number of programs (Internal memory)	50,000
Interface for external printer	USB and Ethernet Compatible
Compact flash	2 GB
USB	Yes
Data cable	Ethernet
RMS Values Displayed	Yes (Can Display Peak, Background, or RMS)
Wire Counter for Accurate Measurement of Usage	Yes
Arc On Timer	Yes
PLC Remote Diagnosis	Yes
Constant Surface Speed	Yes
Software operation Language	English, Ability to program any language into HMI and be switchable
Welding Process	TIG-Hotwire
Programming Capability	Position Based Calculations (Faster and Easier Programming)
Simple 2 Point Programming of Cylinders	Yes
Simple 4 Point Programming of Tee Joint	Yes
Simple 4 Point Programming of X Joint	Yes
Simple 3 Point Programming of Upper Minor Bore	Yes
Simple 3 Point Programming of Lower Minor Bore (Seat Pocket)	Yes
Intersecting Bores for Cylindrical Bores (Intersecting Center Lines Only)	Yes
Ring Groove Programming	Yes
Over Ride of Volts, Amps, HW Volts, WFS, Table Speed while welding	Yes
Real time Position Over Ride of Programmed Positions while welding	Yes
X Axis	Servo-Controlled, 32” Travel
Z Axis	Servo-Controlled, 40” Travel
Wire Feeder	Servo-Controlled
Turntable Capacity	5,000lb @ 12”
Tabletop Size	40”
Bore Torch	1.9” Diameter, 36” Length, Adjustable Head
Maximum Part Diameter	40”
Maximum Part Height	32”
Basic Data Logging with Heat Input Calculation	Yes
Slip Ring for Turntable for Preheating	Optional