Model 415 WDR

PROGRAMMABLE MULTI-FUNCTION WELD POWER SUPPLY

AMI®
AN **ESAB®** BRAND

- ARC
- OSC
- WIRE FEED
- TRAVEL
- WIRE MANIPULATOR
- V HOT WIRE
- A CURRENT

STATE-OF-THE-ART TECHNOLOGY WITH UNPARALLELED FLEXIBILITY AND CAPABILITY

The Model 415 WDR is an all-in-one computer controlled GTAW power supply. It is primarily designed to work with AMI's orbital and fixed automation weld heads. The Model 415 WDR power supply can control third party positioners and welding manipulators.

The Model 415 WDR incorporates a powerful automation controller designed to meet the challenges of the most demanding welding applications. The Model 415 WDR is operated by an industrial computer programmed via a large 12" touch screen or keyboard. The intuitive graphical user interface (GUI) makes programming easy using standard welding industry terminology and clearly organized input fields.

INDUSTRY

- Nuclear
- Power Generator
- Shipyard
- Offshore
- Oil and Gas

OPTIONAL HARDWARE

- 4 closed loop motor servos
- 4 open loop motor drives for positioning and job functions
- High resolution, digital remote vision systems
- Auxiliary water cooler for cameras
- Digital data acquisition module or chart recorder
- Remote control PC interface via Ethernet LAN
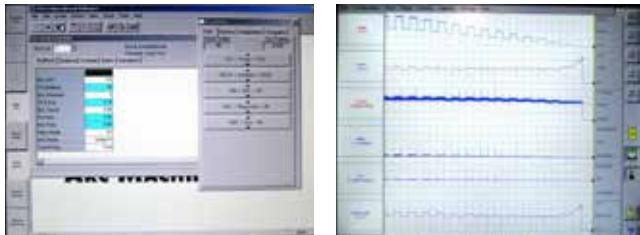
M415 WDR PROGRAM EXECUTION SCREEN

DATA ACQUISITION MODULE

Visit **arcmachines.com** for more information.

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QUICK SPECS	
Input Power	200 - 575 VAC Service, 3-phase 50/60 Hz
Weld Current	5 - 400A 100% Duty Cycle
I/O Devices	2 USB ports RS232 serial interface Data acquisition output Ethernet over fiber optic
Memory Capacity	1000+ weld programs
Water Cooler	Included
Weight	710 lbs. (325 kg)
WDR (Weld Data Recording)	Standard; recording and saving of weld data; exporting to a storage device in native or other formats; saving weld project data records as a single file.
Dimensions	39" x 26" x 36" (990 mm x 660 mm x 915 mm)

3 PHASE   **HERTZ 50/60**   **400 AMPS @ 100%**   **CC**

STANDARD HARDWARE

The Model 415 WDR power supply has many standard hardware and software features. The power supply contains all the hardware and control elements of a welding automation cell in a highly integrated compact package. It can easily be switched between orbital and fixed automation applications.

- Computer controlled, solid state, pulsed, and air cooled Buck Converter

- 12" touch screen graphical user interface (GUI) to display all weld data

- High capacity, programmable memory for storage of weld schedule information

- Current servo plus 4 Standard Closed Loop velocity servos

- 2 programmable auxiliary outputs for Hot Wire and travel control

- Integrated water cooler for welding torch and weld head cooling

- 2 USB and 1 Ethernet ports

- Full function remote pendant

- HF or Lift Start arc initiation

- Data streaming output via RS232 / Ethernet

- Compact size keyboard

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STANDARD SOFTWARE

- Single or multipass welding schedule programming

- Up to 100 levels in one pass and up to 100 individual passes

- Pulsed current, travel, wire feed, oscillation, and wire manipulator synchronization

- Stepped or spiral travel programming

- Level programming in time or distance

- Data acquisition output

- Pre-programmed library of weld head definitions to reduce calibration and setup times

- User-modifiable programming field descriptions

- Multi-level password protection

- Bar graph presentation of real-time welding parameters

- Foreign language software versions

- 2 User programmable fault I/Os

- Weld Data Recording (WDR): recording and saving of weld data; exporting to a storage device in native or other formats; saving weld project data records as a single file

ONE LEVEL EDIT SCREEN
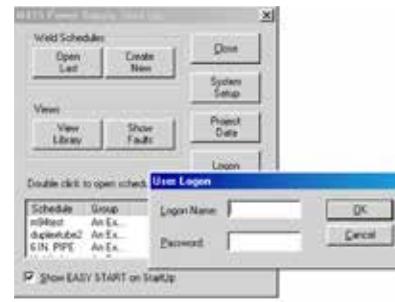
START UP SCREEN

OPTIONAL SOFTWARE

- Remote operation and offline programming via a network

SENSORS & FAULT MONITORS

- Torch Gas Flow Sensor - an analog flow sensor that monitors gas flow rate (CFH)

- Coolant Flow Sensors - monitor coolant flow rate and create a Sequence Stop if below 0.2 GPM

- Coolant Level Sensor - senses coolant level in reservoir and displays to the operator if the level is low

- Over Temperature Sensors - located in critical assemblies, will create ALL STOP conditions if certain assemblies get too hot

- Ground Fault - prevents Sequence Start or creates an ALL STOP condition if the work piece ground is not connected

SYSTEM STATUS SCREEN

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WHAT'S INCLUDED	
M415 WDR Package	
• M415 WDR remote pendant with 20 ft. cable (6 m)	• 10 ft. (3 m) shielding gas hose
• Pendant cable extension - 50 ft. (15 m)	• Input power cable, 25 ft. (7.6 m)
• Ground cable with 400A ground clamp - 50 ft. (15 m)	• Keyboard
• Weld head control cable - 40 ft. (12 m)	• Heavy-duty, reusable shipping crate
• Weld head services cable - 40 ft. (12 m)	• Software package and operator manual

COMPLEMENTARY PRODUCTS

Remote Vision System	Remote PC
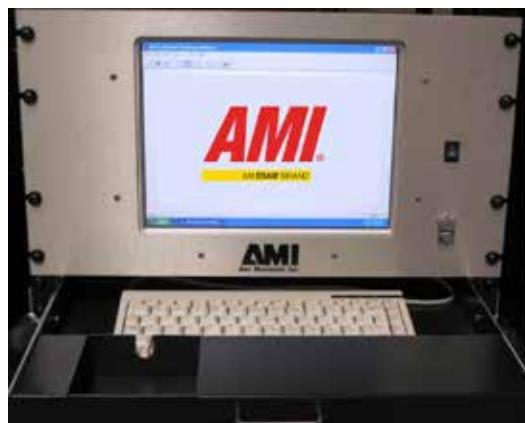
WELD HEADS

Model 2 Modular Welding System	Model 43 ID Pipe Weld Head	Model 52 Heavy-Duty Pipe Weld Head

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REMOTE PENDANT

FEATURES

- Designed to interface to Model 415 power supply
- Includes 25 ft / 6 M cable w/ strain relief
- Includes 40 ft / 12 M extension cable
- Rubber Silicon Multi-keypad with tactile feedback for industrial applications
- Protective weld shield
- Weld viewing window
- LED display providing operator with weld details and parameter values based on button pressed
- Jog buttons for travel, wire, AVC
- Encoder wheel for cross seam slide position
- Over-rides for Weld current, AVC, Wire, Travel and OSC parameters
- Ability to change programs within a folder, weld levels, weld passes
- Seq. Start, Seq. Stop, All Stop and Emergency stop capability
- 4 position button used to control wire manipulator position
- 6 undefined user buttons which can be programmed as needed for special applications
- Lamp button to turn on/off lamps associated with digital cameras
- Wire On/Off control button
- Travel Direction and Off button
- Gas Purge button
- Oscillation button
- Clear fault button
- Weld mode / Test Mode button.
- Other special function buttons for ease of remote operation
- Weight w/ 25 ft cable: 7 lbs (3.2 kg)

ACCESSORIES

- Includes shipping/carrying case
- Rugged metal enclosure with Removal Rubber Silicon outer cover

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GLOBALLY CERTIFIED MANAGEMENT SYSTEMS