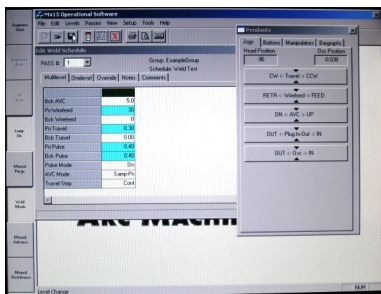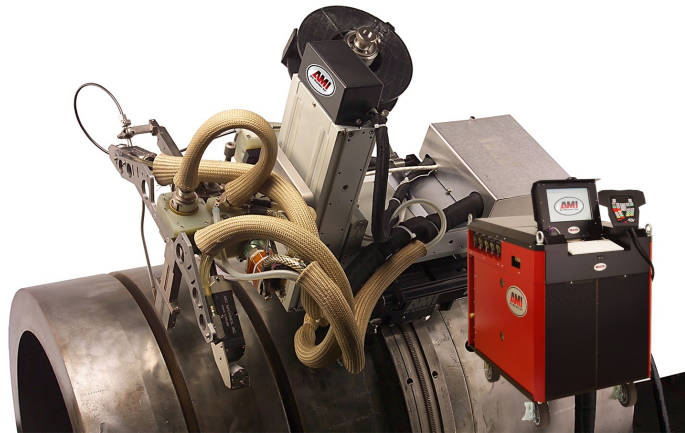# MODEL 415 WDR

PROGRAMMABLE MULTI-FUNCTION WELD POWER SUPPLY

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.

M415 WDR Program Execution Screen

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.

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 **50/60 Hz** **400 AMPS @ 100%** **CC** **MADE IN U.S.A PRODUCT**

# MODEL 415 WDR   PROGRAMMABLE MULTI-FUNCTION WELD POWER SUPPLY

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 GTAW inverter
- 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
- Parallel printer connector
- Compact size keyboard

OPTIONAL HARDWARE
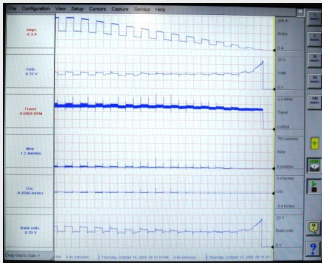
Data Acquisition Module

- 4 closed loop motor servos
- 8 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

PROGRAMMABLE FUNCTIONS

CURRENT — Welding Current Control	ARC — Arc Voltage Control (AVC)	WIRE FEED — Wire Feed
TRAVEL — Rotation/Travel Control	HOT WIRE — Hot Wire Voltage Control	OSC — Oscillation

OPTIONAL FUNCTIONS

|	
WIRE MANIPULATOR — Motorized Wire Manipulator	CAMERA — Camera Illumination

MODEL 415 WDR PROGRAMMABLE MULTI-FUNCTION WELD POWER SUPPLY

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
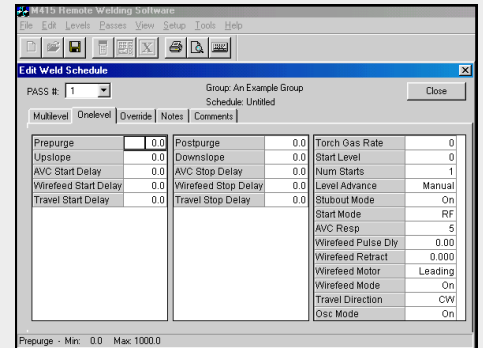

One Level Edit Screen
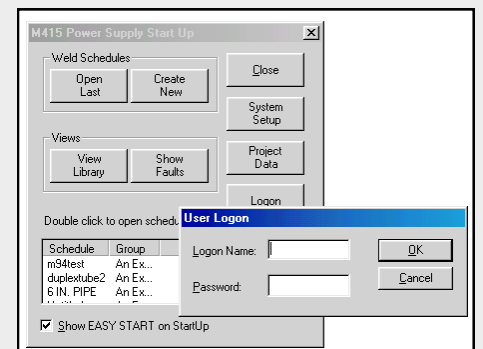
Start Up Screen

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
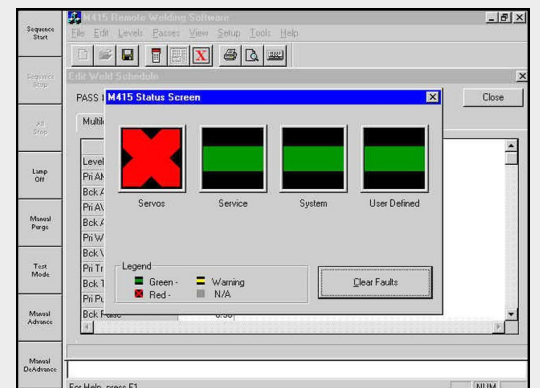
System Status Screen

MODEL 415 WDR   PROGRAMMABLE MULTI-FUNCTION WELD POWER SUPPLY

WHAT'S INCLUDED

M415 WDR Package

1. M415 WDR remote pendant with 20 ft. cable (6m)
2. Pendant cable extension - 50 ft. (15m)
3. Ground cable with 400A ground clamp - 50 ft. (15m)
4. Weld head control cable - 40 ft. (12m)
5. Weld head services cable - 40 ft. (12m)
6. 10 ft. (3m) shielding gas hose
7. Input power cable, 25 ft. (7,6m)
8. Keyboard
9. Heavy-duty, reusable shipping crate
10. Software package and operator manual

COMPLEMENTARY PRODUCTS

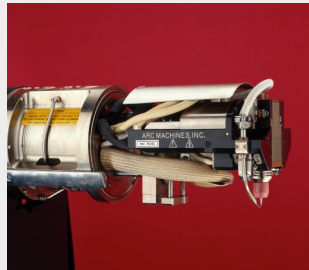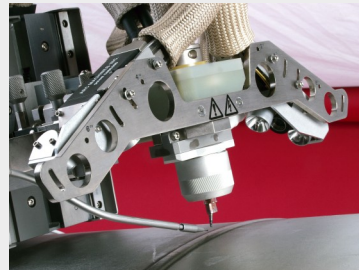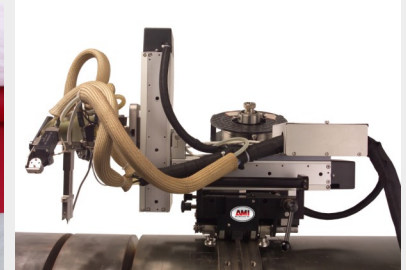Remote Vision System

Chart Recorder

Remote PC

WELD HEADS

Model 2
Modular Welding System

Model 43
ID Pipe Weld Head

Model 52
Heavy-Duty Pipe Weld Head

Model 62
Configurable Pipe Weld Head

The Global Welding Company

AMI Arc Machines, Inc.®

ISO 9001:2008 REGISTERED

Dynamic. Growing. Integrated.