

AWS-200/400

Computer Controlled TIG/PLASMA
Welding System "Fully Intergrated"
for Automatic Welding

WELDLOGIC INC.

Welding Solutions For
Advanced Manufacturing



Dual Process

Tig

Plasma



Full function pendant puts
all system controls at the
operator's fingertips

The AWS-200/400 Advanced Welding System is a micro processor based system designed and built to provide a high quality, economically priced, very accurate and repeatable total welding system. This totally integrated system combines either a 200/400 Ampere precision D.C. power supply, travel rate servo, arc distance control and wire feed servo all in one rugged modular enclosure.

The AWS-200/400 is a highly refined field proven product. Its software base and hardware are the end result of 20+ years of designing and manufacturing precision automatic computer controlled G.T. A. welding systems.

- Close Loop Servo Control of Weld Current, Travel Speed, Arc Distance Control & Wire Feed.
- Internal memory holds up to 60 multi-level function weld schedules, key switch protected.
- Synchronized current, voltage, travel and wire if desired.
- Torch and back up gas flow meters with gas fault sensors.
- Programmable operators overrides 0-100%.
- Minimal operator skill required
- Manually selected or automated multi pass capability.
- Detects and indicated faults, i.e., gas flow, temperature, voltage, etc.
- Very operator friendly remote control & weld program selector.
- Programmable high frequency protected optically isolated I/O 8 inputs & 8 outputs.
- Remote Pendant has expansion for 11 additional special feature buttons.

THE ULTIMATE PRODUCTION SYSTEM

SELECT YOUR OPTIONS

NBC-200-400

Notebook
Computer

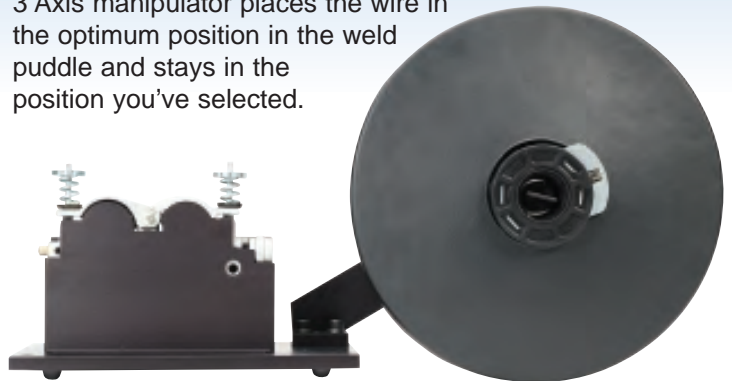


AWS-200/400 FRONT PANEL

This smart looking front panel eliminates all the switches and knobs of yesteryear! The notebook can be stored in the locked storage drawer or may be used as a desktop system.

C.W.F. COLD WIRE FEED

Weldlogic C.W.F. option is a closed loop tachometer feedback for high accuracy feed rates of 0.1 to 100.0 inches per minute. A 4 drive roll mechanism provides positive production worthy feeder for wire Dia. .010 to .093. The 3 Axis manipulator places the wire in the optimum position in the weld puddle and stays in the position you've selected.



A.D.C.-3"/6" ARC DISTANCE CONTROL

Weldlogic A.D.C. option is a dual function automatic torch positioner. The A.D.C. can be programmed to provide a fixed tungsten to work distance in .001 increments and also provides continuous arc distance control during the duration of the Weld. The A.D.C. is available in a 3.0" & 6.0" stroke.



T.R.S. TRAVEL RATE SERVO

Weldlogic T.R.S. option is a closed loop tachometer feedback 28 volt D.C. Precision Drive. The Servo will provide up to 6 amps of drive current. A wide range of D.C. motors are available to accommodate your specific rotary or linear requirements. Our T.R.S. has 1/0 for limit switches and a return to home sensor.



Gas Connections

220V Switched Accessory

Servo Connections

- Travel
- Arc Distance
- Wire

Remote I/O

Foot Pedal Control

Remote Pendant

USB-Connection

Torch Sense Connections



R.P.W. REMOTE PENDANT

This lightweight remote operators pendant provides Overrides, jogs, start, stop, purge, weld/set-up. The key-locked weld schedule allows the operator to access any of the 60 internal weld schedules resident in the welder. The function key allows the operator to select which servo feedback to display

AWS REAR PANEL

The rear panel provides easy access to all interconnects. Clean cable runs and none of the external servo boxes we're so use to seeing in this industry.

A POWERFUL DEVELOPMENT TOOL

THE NOTEBOOK ADVANTAGE

The Notebook computer is only used to develop, edit and download the Weld schedule into the on board protected memory in the AWS-System. The menu driven software and F1 help screens assist the welding engineer to easily create and optimize simple or complex weld schedules for the production system. The operator need only select the assigned program number on the operator pendant to enable the total weld program execution.



Interactive main weld screen feed back meter & target parameters

Pop Up Menus provide easy access to system features

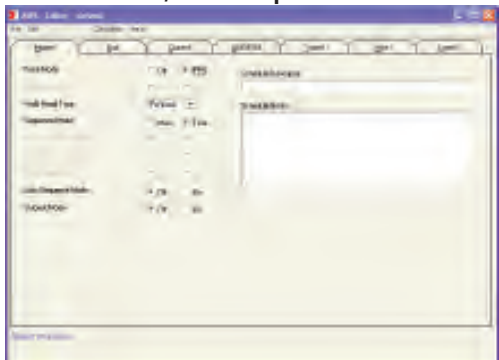
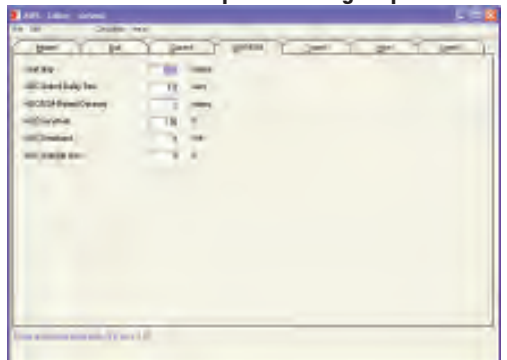
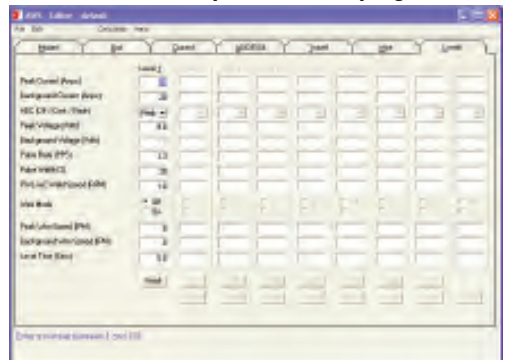


- Easy menu driven software prompts you in plain English and other languages.
- See the entire program on one screen No single line displays to scroll through.
- Print, review & edit your weld schedules at your desk.
- Password protection of your weld schedules
- Create your own pre weld screens and Customized software.
- Use the notebook for other industrial or business applications.

Program up to 9 levels per weld schedule plus level sloping

Set up menu provides direct access to parameter groups

Mode switches are easily toggled on/off with space bar



AWS-200/400 TYPICAL APPLICATIONS



Seam Welding



Orbital Welding



Circumferential Welding

SPECIFICATIONS SUBJECT TO CHANGE

AWS-200-400 WELDER

AWS-200/400 PROGRAMMABLE PARAMETERS

FRONT PANEL

- Power on/off switch (Circuit Breaker)
- Adjustable flow meters for torch and backup with gas fault sensor
- Locked storage drawer for note book

REAR PANEL

- Twist Lock Connectors (ADC, Travel, Wire, Pendant, USB, Foot Pedal)
- DB-37 Remote I/O
- Dinse-Torch, Work
- Quick Disconnect Gas In and Out, Torch and Backup Gases
- Power Cable 220V AC, 25 Amps., 8 feet long

WELD SCHEDULE CAPACITY

- Internal memory storage for 60 different Weld Schedules, each with up to 9 levels. Note book unlimited.

PRIMARY INPUT POWER

- Input Voltage: 220-240 VAC
- Line Current: 25 Amperes @ 220VAC
- Frequency: 50/60 Hz, Single Phase

SECONDARY OUTPUT POWER

- Welding Range: 1 to 200/400 Amperes
- Peak Pulse Current: 200-400 Amperes
- Duty Cycle: 90%
- Voltage: 16 Volts @190/380 Amps

ARC STARTER

- H.V. Impulse or D.C arc start options.

MOTOR DRIVES

- Rotary/Linear Servo 28 volts D.C. 5. Amperes current
- Computer Interactive Arc Distance Control.
- Wire feed servo with tachometer feedback

COMMUNICATIONS

- USB port for notebook
- Optional 1/0 interface
- Remote Operator Pendant

PHYSICAL DATA

- Dimensions- AWS 200 L-22", W-20", H-18"
AWS 400 L-22", W-20", H-28"
- Shipping Weight- AWS 200 140 lbs. • AWS 400 190 lbs
- Net Weight – 91 lbs. (200 kg.)

OPERATING ENVIRONMENT

- Ambient Temperature: 40 to 110 F (4.4 to 43 C)
- Relative Humidity: 10% to 90%

UTILITIES

- Inert Gas Control: 5 to 50 SCFH @ 40 to 60 PSI
Adjustable flow meters

REMOTE OPERATOR PENDANT

- Operation Modes: WELD/SETUP
- Welding Function: Sequence START/STOP DOWNSLOPE
Manual PURGE
- Travel Functions: Return to HOME
Jog Fwd, Jog Rev. Travel On/Off
- Display Functions: (FUNC) Selects which Parameter is displayed
in 3 digit led meter

MANUFACTURERS OF:

0.1-900 ampere TIG/Plasma power supplies, orbital tube welders, computer controllers, multi axis, seamers, arc distance controls, oscillators, wire feeders, turn key systems.

Distributed by:

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SYSTEM MODES

- Pulse Mode (OFF/ON)
- Sequence Mode (MAN/TIME)
- Auto Sequence Mode: (OFF/ON)
- Stubout Mode (OFF/ON)
- Return To Home (OFF/ON)
- Start From Home (OFF/ON)
- Plasma mode (OFF/ON)

GAS PARAMETERS

- Torch Prepurge Time 0 to 1000 Secs.
- Torch Prepurge Time 0 to 1000 Secs.
- Backup Prepurge Time 0 to 9999 Secs.
- Backup Prepurge Time 0 to 9999 Secs.

CURRENT PARAMETERS

- Start Current 1 to 50 Amps
- Upslope Time 0 to 100.0 Secs.
- Level Slope time 0 to 100.0 Secs.
- Downslope Time 0 to 100.0 Secs.
- Finish Current 1 to 50 Amps.
- Current Override Limit 0 to 100%

ARC DISTANCE CONTROL PARAMETERS

- Start Gap 001 to .250 Inch
(.0254mm to 6.35mm)
- ADC Unlock Delay Time 0 to 100.0 Secs.
- ADC Retract Distance 0 to 3.0/6.0 Inches (76.2mm/152mm)
- ADC Sensitivity 0 to 100%
- ADC Deadband 0 to 1.0 Volts
- ADC Override Limit 0 to 100%

TRAVEL PARAMETERS

- Step Mode (ON/OFF)
- Travel Start Delay Time 0 to 100.0 Secs
- Weld Direction (FWD/REV) (CW/CCW)
- Travel Jog Speed 0 to Full Range*
- Travel Advance Time 0 to 999.9 Secs.
- Travel Advance Speed 0 to Full Range*
- Travel Speed Override Limit 0 to 100%

*Full Range Depends on Motor and Mechanism

WIRE PARAMETERS

- Wire Start Delay 0 to 100.0 Secs
- Wire Jog Speed 0 to 100.0 IPM (42.3mm.s)
- Wire Retract Distance 0 to 1.0 Inch (0 to 25.4mm)
- Wire Override Limit 0 to 100%

LEVEL PARAMETERS

- Peak Current 1 to 200/400 Amps
- Background Current 1 to 200/400 Amps
- ADC (Off/Cont/Peak) (Off/Peak/Cont)
- Peak voltage 7.0 to 25.0 Volts
- Background voltage 7.0 to 25.0 Volts
- Pulse Rate 0.1 to 100 P.P.S.
- Pulse Width 0.1 to 99.9%
- Wire Mode OFF/ON
- Peak Wire Speed 0 to 100.0 IPM (42.3mm/s)
- Background Wire Speed 0 to 100.0 IPM (42.3mm/s)
- Level Time 0.1 to 999.9

*Alternate RPM and linear speed options available

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