

AWS-400

Arc Spray System

Introduction

Flame Spray Technologies is a worldwide recognized high quality supplier to the Thermal Spray Industry. One of the products of FST is the powerful and versatile AWS-400 Arc-Spray System. Designed with flexibility in mind, the AWS-400 Arc-Spray system accommodates a wide variety of surface modification needs. Lightweight and portable, the system is used in hand-held, automated and robotic applications in industries including tubing and extrusion, general machine and maintenance, automotive, cookware, aerospace, pulp and paper, and medical industries, just to name a few. Additionally, the robust construction of the AWS-400 makes it highly effective for on-site applications.

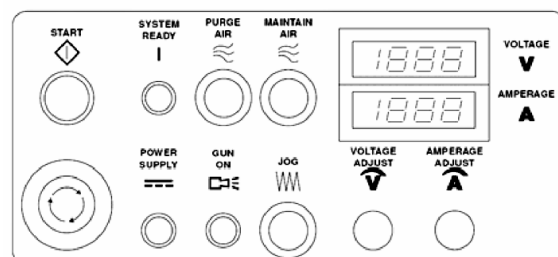


AWS-400 Unit

AWS-400 Wire Feeder/Control Console

The AWS-400 is “simple” to operate. For handheld operations the AWS-400 offers a handle with trigger. For manipulator and/or robotic mounting, the handle is removed and the AWS-400 can be controlled remotely (on/off). The heavy duty push-wire delivery design of the AWS-400 virtually eliminates wire drive system maintenance. The Quick Change four drive roll per wire system features either U-Groove or VK-Groove drive rolls for positive, slip free wire feeding. No tools are needed for drive roll or wire diameter changes. The closed-loop regenerative wire drive control system ensures consistent and repeatable coatings.

The faceplate controls consist of E-Stop, Power reset, Wire Jog, Maintain Air and Purge Air switches. The power supply controls include Voltage Control, Amperage Control and Digital LED Arc-Voltage and Arc-Amperage displays.



AWS-400 Side Panel Controls

- **Wire Counter:** Re-settable LCD meter that displays wire fed in feed or meters.
- **Time Counter:** Re-settable LCD meter that displays elapsed spray times.
- **Remote/Local Voltage Control Switch:** Allows for remote control of voltage when incorporating AWS-400 to automation. Disables voltage panel on face plate
- **Remote/Local Amperage Control Switch:** Allows for remote control of arc amperage when incorporating AWS-400 to automation. Disables amperage panel control on faceplate.
- **Preflow Adjust:** Operator adjustment that lengthens or shortens time that air flow is started prior to arc start. Optimizes arc start for different wire feedstock.
- **Burnback adjust:** Operator adjustment that lengthens or shortens the arc power. Atomizing air is left on for a short period after trigger is released.
- **Display Hold Adjust:** Shows last voltage and amperage values on display from 0-10 seconds after trigger is released.

AWS-400 Power Supply

The AWS-400's output rating of 15-400 amperes at 100% duty cycle makes it the most productive Arc Spray system in its class. Besides the high deposition rate capability, the AWS-400 offers unparalleled arc stability at very low spray rates. This low-end stability ensures high quality coatings at amperage levels as low as 25 amps. The power supply has been designed and built specifically for arc spraying. Regardless of the spray rates your components may require, the AWS-400 will allow you to complete your project quickly and economically while meeting the quality standards you and your customer demand.

AWS-400 Arc-Spray Gun

There are no moving drive components in the gun to wear out, thus reducing its weight significantly (gun weighs less than 3 lbs.). The absence of moving drive complements virtually eliminates maintenance costs and downtime. Not only are there no moving parts in the gun, but no air cap or front wire guide adjustments are required, providing repeatable high quality coatings year after year. The AWS-400 delivers optimal airflow and atomization with a variety of air caps that are designed to produce the correct spray pattern for any job. From the High Velocity Air Cap featuring Converging/Diverging Air Chamber Geometry to the Fan Spray Air Cap, which provides the largest spray pattern.



Features Summary

AWS-400 Arc-Spray Gun

- Self-aligning air cap and wire guides
- Lightweight, long lasting design (less than 3 lbs.1.36 kg)
- Dead-man switch for hand held applications
- Full-function point and shoot trigger
- Simple interface to external controller
- 1.6mm (1/16") Standard hardware

AWS-400 Wire Feeder

- Digital voltage and amperage meters
- Individual voltage and amperage controls (remote from power source)
- Burn back control for trouble-free starts
- Synchronous dual wire feeding with four drive roll system per side
- Wire job switch for wire feeding without engaging contactor
- 1/4 HP permanent magnet gear motor electric drive
- Solid-state controls
- 1.6mm (1/16") Standard hardware

Options

A wide range of options is available for the AWS-400 Arc Spray System. These options are sold separately to allow greater system flexibility.

- High Velocity Air Cap Package: Provides concentrated air pattern and increased particle velocity.
- Fan Spray Package: Provides wide spray patterns for covering large areas.
- AWS-400 Extension Guns: Designed for inside diameter and clasp spraying.
- Extension guns are available in 12 in. (305 mm) and 24 in. (610 mm) lengths.
- Straight and 90 degree angle spray configurations are available.

Specifications

Gasses	Air 8 – 10 bar (dry, clean air free of oil)
Electrical input	50Hz: 380 Volt - 39 Amp 440 Volt - 33 Amp 60Hz: 200 Volt - 72 Amp 230 Volt - 63 Amp 60Hz: 460 Volt - 32 Amp 575 Volt - 24 Amp
Width	565 mm
Length	908 mm
Height	692 mm
Weight	174 kg (NET)

Note: for more technical details about our systems, please contact your local FST sales contact.

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