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Model BP400 Arc Spray System

Praxair and TAFE is a worldwide industry leader in arc spray technology. At the forefront of this technology is the powerful and versatile Model BP400 Electric Arc Spray System. Designed with flexibility in mind, the BP400 system accommodates a wide variety of surface modification needs. Lightweight and portable, the system is used in hand-held 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 BP400 makes it highly effective for onsite applications as those required for bridge work, locks and dams, holding tank treatment, boiler resurfacing, even large artwork and sculptures.

"Simple to operate,
features one touch
point-and-shoot"

The BP400 is simple to operate. For hand-held operations the BP400 offers a one touch, point-and-shoot trigger. For manipulator mounting, the handle is removed and a single electrical closure provides complete system on/off control.

"Highly engineered
push-wire
delivery design"

The highly engineered push-wire delivery design of the BP400 virtually eliminates wire drive system maintenance. The drive system incorporates four "U" groove drive rolls per wire, powered by a 1/4 HP electric drive motor to push the wire to the BP400 gun. There are no moving drive components in the gun to wear out, thus reducing its weight significantly (gun weighs less than 3 lbs.) and all but eliminating

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 BP400's output rating of 350 amperes at 100% duty cycle makes it the most productive arc spray system in its class. Besides the high deposition rate capability, the BP400 offers unparalleled arc stability at very low spray rates.

"BP400 offers
unparalleled arc
stability"

This low-end stability ensures high quality coatings at amperage levels as low as 25 amps. The power supply and its corresponding output characteristics

have been designed and built specifically for arc spraying. Regardless of the spray rates your components may require, the BP400 will allow you to complete your project quickly and economically while meeting the quality standards you demand.

Features

BP400 Gun

- Self-aligning air cap and wire guides
- Lightweight, long lasting design (less than 3 lbs., 1.36 kg.)
- Durable gun hanger
- Dead-man switch for hand held applications
- Full-function point and shoot trigger
- Simple interface to external controller
- 14 GA Standard hardware

BF400R Feeder

- Digital voltage and amperage meters
- Individual voltage and amperage controls (remote from power source)
- Burnback control for trouble-free starts
- Synchronous dual wire feeding with four-drive roll system per side
- System power reset intrinsic safety feature
- Wire job switch for wire feeding without engaging contactor
- 1/4 HP permanent magnet gear motor electric drive
- Solid-state controls
- 14 GA Standard hardware

Power Supply

All Praxair TAFE power units provide a relatively flat, constant, potential volt/ampere characteristic with a continuous control included for setting the open circuit voltage while operating. In the power supply the characteristics are developed exclusively for metal spraying. These features hold noise emission during spraying to the lowest possible level by carefully matching capacitance and inductance. The dimensions of the power supply are H-26¼ in. (67cm), W-16¼ in. (41cm), D-30¼ in. (77cm). The net weight of the unit is 346 pounds (157kg).

This unit operates with three-phase, 60 or 50 Hz, AC power. Casters on each power supply make the power supply portable.

Options

A wide range of options is available for the BP400 System. These options are sold separately to allow for 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.

BP400 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.



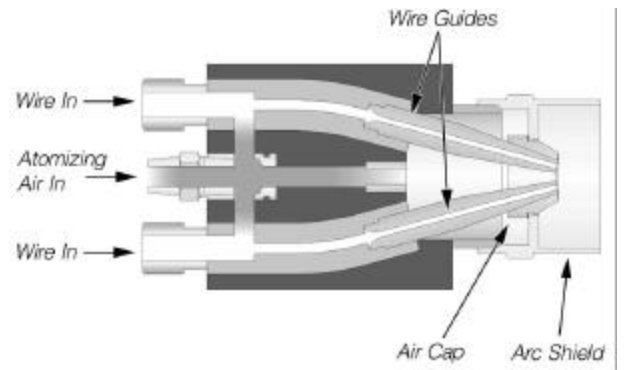
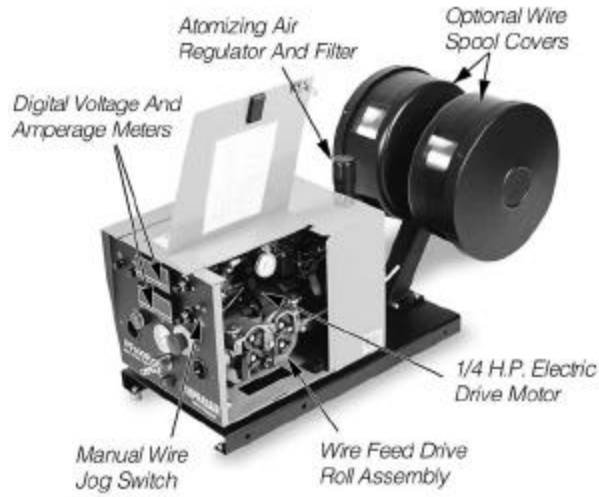
Tube Mill Line Tracker Control: Designed to ensure uniform coating thicknesses where varied line speeds are common. Requires modified PF400R feeder.

Specifications

BP400 Gun



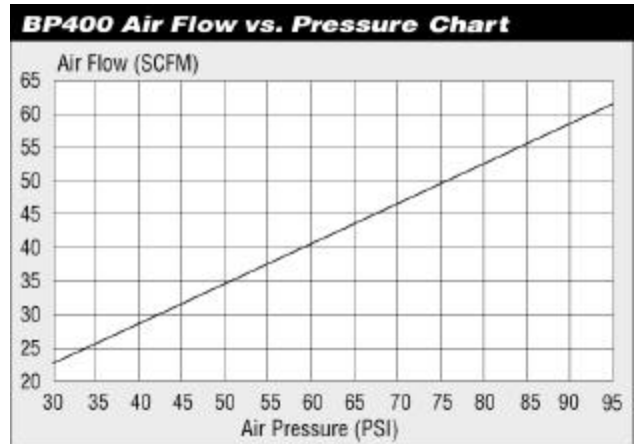
PF400R Wire Feeder



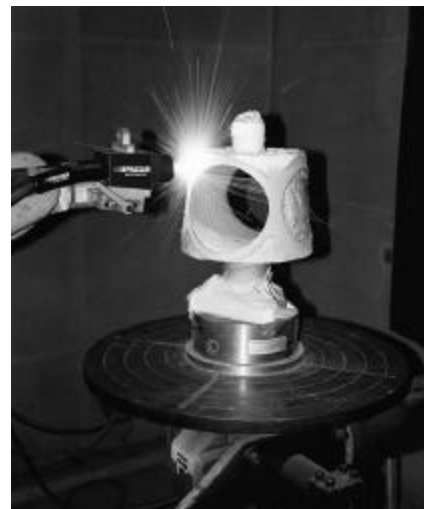
PF400R Wire Feeder

Dimensions	13: (330 mm) W x 33" (840 mm) L x 16.5" (419 mm) H
Electrical input	115 VAC 60 Hz.
Weight	Net: 85 lbs. (39 kg)

Power Supply



BP400 Gun	
Wire diameter capability	17 GA (.045", 1.1 mm) 14 GA (.063", 1.6 mm) 2 mm (.079") 11 GA (.091", 2.3 mm)
Weight	Net: <3 lbs. (1.4 kg) without cables



Ordering Information

Part Number	Description
9104003-10	BP400 Gun (10", 3m, gun to feeder connection). 15' (4.5m) and 20' (6m) cable lengths available
5005233-10	Coaxial Cable (2 required), 10', 3m
5000659-10	Atomizing Air Hose, 10', 3m
5000660-15	Power Cable (positive), 15', 4.5m
5002298-15	Power cable (negative), 15', 4.5m
5000613-15	Control Cable, 15', 4.5m
9104030	PF400R Wire Feeder
	Power Supply (specify supply voltage)
Options	
910400	High Velocity Package, 14 ga.
910405	Fan Spray Package, 14 ga.
910406	Fan Spray Package, 11 ga.
910407	Conversion Package, 11 ga.
9104021	BP400 Extension Gun, 12" (305 mm), Straight Spray
9104020	BP400 Extension Gun, 24" (610 mm), 90 degree Angle Spray
9104023	BP400 Extension Gun, 12" (305 mm), Straight Spray
9104024	BP400 Extension Gun, 24" (610 mm), 90 degree Angle Spray
5000070	Left Wire Spool cover for PF400R
5000071	Right Wire Spool Cover for PF400R



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Tafa is constantly improving its products, therefore specifications are subject to change without notice

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