

CWT™ WFD-3

TIG WIRE FEED SYSTEM



Key Features

The WFD-3 Systems utilize a control, wire drive unit, and wire delivery components for precision TIG applications, providing exact wire input from one weld to the next. The system is easy to program and integrates with a wide range of power supplies, torches, and positioners for assembling turn-key automation systems.

- » The Wire Feed System is made up of a controller, operator pendant, precision wire feeder with a zero backlash, and 3-axis wire articulator
- » PWM motor speed controller to provide speed regulation and torque compensation. With the control pendant, the operator can start/stop the feeder, change the direction, control the speed, and manual jog the wire.
- » Capstan Drive produces a positive, slip free drive force to the filler material, without damaging or flattening the wire surface
- » The wire articulator consists of a guide mechanism to allow full position adjustment for vertical, cross seam, feed angle and distance from the electrode

Connectivity »
RS-485 Serial Port with
Modbus® Protocol

STANDARD CONFIGURATIONS

Product Name	Product Number	Input Power	Net Weight lbs (kg)
WFD-3 TIG Wire Feed System	SOA5150	120 vac ± 10% @ 2.5amps	8 (3.6)

FEATURES:

» WFD-3 Controller

- Compact, lightweight, wire feed controller
- Status LEDs

» Operator Pendant Functions

- Run; On/Off
- Jog Direction; CW/CCW
- Jog Speed
- Manual Jog

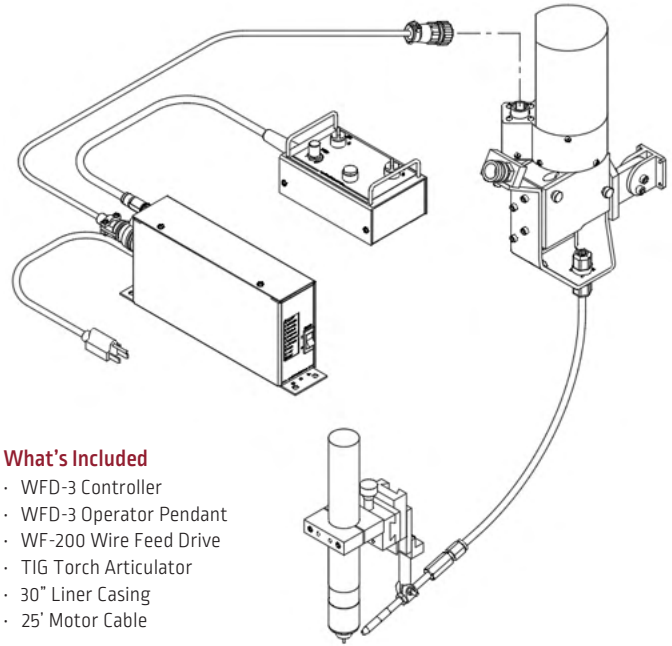
» Capstan Wire Feeder

- Compact and lightweight
- Plastic deforms the filler wire, virtually eliminating existing wire cast
- Increased drive force eliminates wire slip and flattening or damage to wire surface
- Precisely locate the filler wire independent of wire cast

» TIG Torch Articulator

- Fits 1-3/8" TIG Torch
- Adjustments in 3-Axis

WFD-3 TIG Wire Feed System



What's Included

- WFD-3 Controller
- WFD-3 Operator Pendant
- WF-200 Wire Feed Drive
- TIG Torch Articulator
- 30" Liner Casing
- 25' Motor Cable

WFD-3 Control Enclosure Specifications

Enclosure Dimensions	4.75"H X 2.25"W X 11.00"L (121 mm x 57 mm x 279 mm)
Mounting Dimensions	1.25" W x 10.25" L, four 0.25" diameter hole
Weight	4 lbs (1.8 kg)
Operating Temperature	-10°F (-23°C) to +140°F (+60°C)
Power Input	120 vac ± 10% @ 2.5amps
Armature Current	0.5 – 6.5 amps
Armature Voltage	0 – 24 vdc
Encoder Input	5 or 15 vdc 100 lines/rev max frequency 25.0khz
Forward Input	24 vdc @ 20ma (Active High)
Reverse Input	24 vdc @ 20ma (Active High)
Speed Reference Input	0-10 vdc @ 0.1 ma

WFD-3 Operator Pendant Specifications

Enclosure Dimensions	2.0"H x 3.5"W x 5.75"L (50mm x 89mm x 147 mm)
Mounting Dimensions	Hand Held
Weight	1 lbs (1.18 kgms)
Operating Temperature	-10°F (-23°C) to +140°F (+60°C)
Power Input	24 VDC @ 0.2 amps

WF-200 Wire Feed Drive Specifications

Drive Dimensions	13.9"H x 10.4"W x 3.5"L (353mm x 264mm x 90 mm)
Wire Feed Speed	1 - 100 IPM (0.4-42 mm/s)
Weight	6.8 lbs (3.08 kgms)
Operating Temperature	-10°F (-23°C) to +140°F (+60°C)
Power Input	24 VDC @ 4 amps

1-3/8" TIG Torch Articulator Specifications

Adjustment	3-Axis - vertical, cross seam, feed angle and distance from the electrode
Weight	2.0 lbs (0.91 kgms)

WIRE DIAMETER AND FILLER WIRE MATERIAL CONFIGURATION KITS

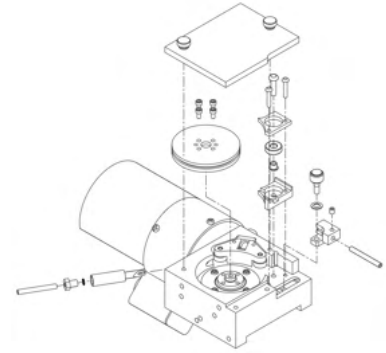
The WF-200 Wire Feed Drive requires different component parts for each diameter of filler wire used. Refer to the charts below to select the correct configuration kit for the wire diameter and filler wire material required.

Steel Alloy Wire Straightener Kits							
Product	Wire Size - in (mm)						Part Number
	0.030" [0.67]	0.035" [0.89]	0.040" [1.02]	0.045"/0.047" [1.14/1.19]	0.052" [1.32]	0.062" [1.57]	
Standard Hand Kits		■					E2A5165
			■				E2A5166
				■			E2A5167

Note: Other wire size kits may be available upon request.

When using a steel alloy filler wire with the capstan, a Steel Alloy Wire Straightener Kit specifically made for each size wire must be installed on the capstan.

These Kits include:
 Capstan Wheel
 Stripper Bearing Spacer
 Stripper Cover
 Stripper
 Inlet Wire Guide
 Outlet Wire Guide
 Bearings
 Spring
 O-Ring
 Fitting
 and Liners

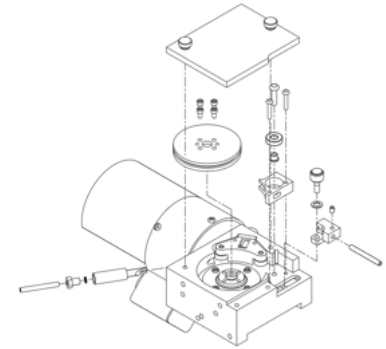


Aluminum Wire Straightener Kits							
Product	Wire Size - in (mm)						Part Number
	0.030" [0.67]	0.035" [0.89]	0.040" [1.02]	0.045"/0.047" [1.14/1.19]	0.052" [1.32]	0.062" [1.57]	
For Standard Hand Kits		■					E2A5147
			■				E2A5148
				■			E2A5149
						■	E2A5158

Note: Other wire size kits may be available upon request.

When using an aluminum filler wire with the capstan, an Aluminum Wire Straightener Kit specifically made for each size wire must be installed on the capstan.

These Kits include:
 Capstan Wheel
 Stripper Bearing Spacer
 Stripper
 Inlet Wire Guide
 Outlet Wire Guide
 Bearings
 Spring
 O-Ring
 Fitting
 and Liners

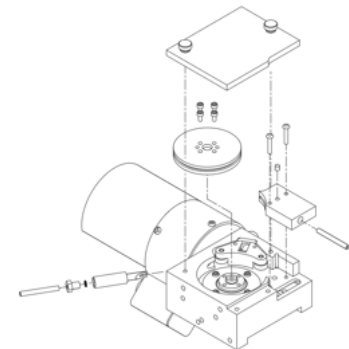


Aluminum Wire Pick-up Block Kits							
Product	Wire Size - in (mm)						Part Number
	0.030" [0.67]	0.035" [0.89]	0.040" [1.02]	0.045"/0.047" [1.14/1.19]	0.052" [1.32]	0.062" [1.57]	
For Standard Hand Kits		■					E2A5155
			■				E2A5156
				■			E2A5157
						■	E2A5192

Note: Other wire size kits may be available upon request.

When using an aluminum filler wire with the capstan, an Aluminum Wire Pick-up Block Kit specifically made for each size wire must be installed on the capstan.

These Kits include:
 Capstan Wheel
 Inlet Wire Guide
 Outlet Wire Guide
 Bearings
 Spring
 O-Ring
 Fitting
 Liners

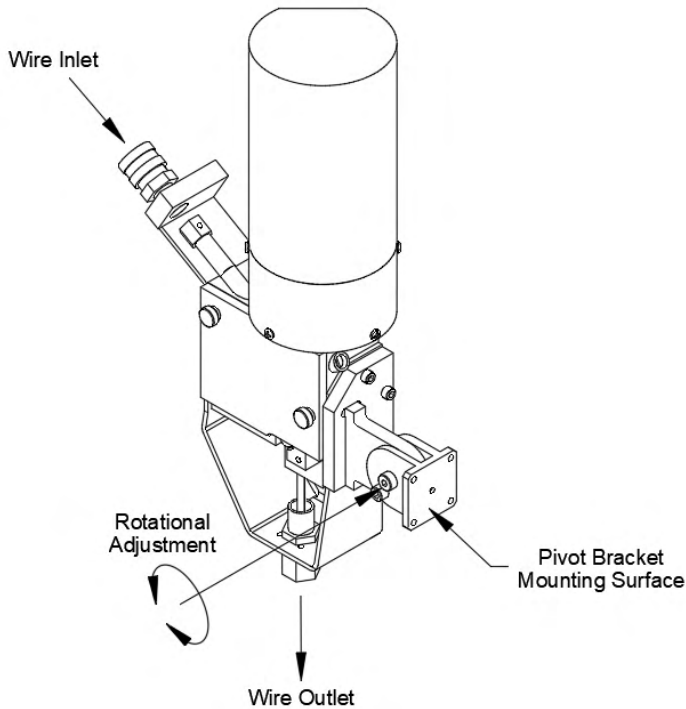


Color Codes for All Wire Size Kits	
Wire Size: in (mm)	Color Code
0.030" [0.67]	White
0.035" [0.89]	Red
0.040" [1.02]	Gold
0.045"/0.047" [1.14/1.19]	Yellow
0.052" [1.32]	Blue
0.062" [1.57]	Green

All parts that are wire size specific in these kits are marked with color codes to prevent mixing of incompatible parts.

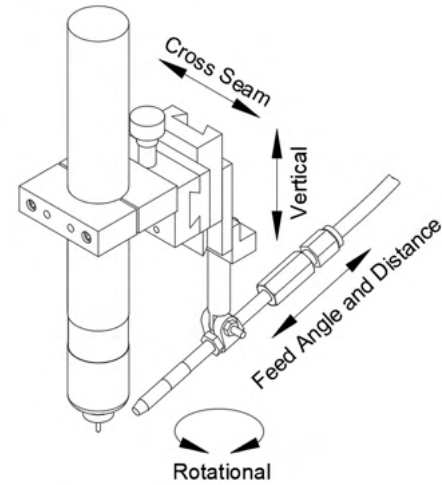
WF-200 WIRE FEED DRIVE

The WF-200 Capstan Wire Feed Drive is designed specifically for automation. The Pivot Bracket on the WF-200 will allow up to 90 degree or rotational adjustment.



TIG TORCH ARTICULATOR

The TIG Torch Articulator is designed for a 1-3/8" diameter TIG torch. The wire articulator consists of a guide mechanism to allow full position adjustment for vertical, cross seam, feed angle and distance from the electrode. Consists of two lockable micro slides for precise cross seam and vertical adjustments. The vertical adjust shaft allows both vertical and rotational adjustments.



The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

CUSTOMER ASSISTANCE POLICY

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