



Automation™

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AP Automation TIG Wire Feed System Product Brochure



TIG Wire Feed

Accurate, Repeatable Feed Rates



The AP Automation DWF-4 automatically delivers TIG and plasma filler wire to the welding arc. It includes a precision stepper motor, accurate between .1 and 300 ipm, and a precise, 4-axis wire guide manipulator.

The extreme accuracy of this system places it at the very top of its market.

- *Wire feed rates are easily set on the control panel or remote pendant.*
- *Wire speed registers on a large, easy-to-read digital display.*
- *Start delay and stop delay are independently set on the front panel.*
- *Wire automatically retracts from the weld puddle at the end of the welding cycle.*
- *Wire can be manually jogged forward or reverse.*

Used for TIG and Plasma welding with .020 - 1/16th"-diameter wire.

For more information about TIG Wire Feed, please visit www.ap-automation.com



DWF-4 CONTROL UNIT

Engineered for easy operation, the all-digital control unit features the following controls:

- **Start Selector Switch** selects manual start or remote start.
- **Wire Speed** is adjusted by a ten-turn potentiometer and displayed on a digital readout.
- **Speed Control Switch** selects front panel, potentiometer or remote speed control signal.
- **Start Delay** inhibits wire feed for an adjustable time until the weld puddle has formed.
- **Stop Delay** continues wire feed for an adjustable time during end of weld down slope to fill in the crater.
- **Jog** controls forward/reverse wire jog at 100 ipm.
- **Retract** controls the amount of wire retracted at end of weld in order to prevent wire from freezing in the puddle.



WIRE GUIDE MANIPULATOR

The wire guide manipulator adjusts the guide tip on four axes. The supplied 3-ft. conduit may be shortened to any length. Special length conduits are also available.



WIRE DRIVE UNIT

The AP Automation wire drive unit is a compact, fully enclosed drive mechanism. It incorporates four-gear drive rolls driven by a stepper motor through a single pinion. One set of drive rolls, equipped with replaceable polyurethane driving surfaces, accommodates a wire size range of .020 to .062 in. Drive roll force is controlled by a single thumbscrew.



CDWF-4 Compact Wire Drive Unit.

For tight clearance requirements, the compact model incorporates both the drive mechanism and the wire guide manipulator into one space efficient package.

TIG Wire Feed Systems are used in these industries:

- Tube and Pipe Mills
- Military
- Fuel Tanks & Pressure Vessels
- Multi-pass Pipe Welding

Actual Job:



10" Schedule 80 V-Prep

0.6-inch wall thickness is completed in four passes. High wire feed deposition with magnetic weave fills in and caps a wide weld joint. Deep side wall penetration is achieved with a magnetic oscillator. Each pass requires a different wire feed rate.

Product Specifications

AP Automation TIG Wire Feed components are fully compatible with all Cyclomatic™ equipment.

Wire Sizes: 0.020" - 0.093"

C-DWF-4: .020" to .062"

Speed Range: 0 - 299.9 ipm

C-DWF-4: 0- 74.9 ipm

Speed Resolution: 0.1 ipm

Start Delay Range: 0 - 9.9 sec.

Stop Delay Range: 0 - 9.9 sec.

Delay Resolution: 0.1 sec.

Conduit Length: 3'; other lengths available

Drive Cable Length: 8'; extensions available

Power Cable Length: 7.5'

Input Power Requirement: 115/230 VAC, 50/60 Hz

Torch Sizes: up to 2" dia.

C-DWF-4: From 3/4" to 1-5/8" dia.

Control Weight: 13.8 lbs.

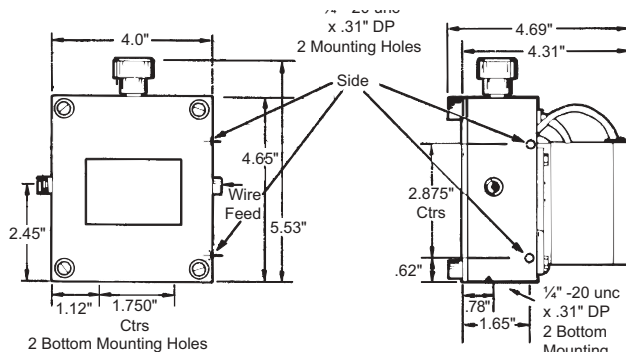
DWF-4 Drive Weight: 6.2 lbs.

DWF-4 Conduit and Manipulator Weight: 2 lbs.

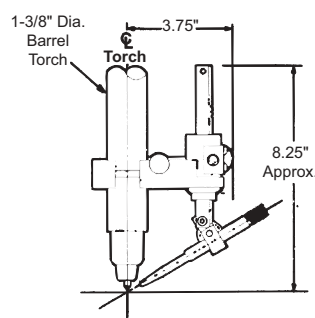
DWF-4 System Shipping Weight: 24 lbs.

C-DWF-4 Drive Weight: 4.75 lbs.

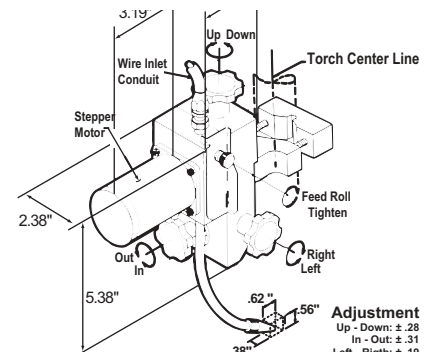
C-DWF-4 Conduit and Manipulator Weight: 2 lbs.



Wire Drive Unit



Wire Guide Manipulator



Compact Digital Wire Feed Drive