

Product Information

Jetline® engineering

An Illinois Tool Works Company

MO-150-5 Mechanized Weld Oscillator

- Precision Arc Oscillation
- Independent Dwell Settings
- Independent Speed Settings
- Width & Center Adjustment
- Large Weight Capacity
- Smooth, Stable Oscillation

Introduction

In arc welding, the welder typically weaves the welding arc for various welding requirements. When automating the welding process, weaving or oscillation can still be a desired effect. Oscillating the arc helps with sidewall fusion, eliminates undercut, and is required when performing most overlay or cladding operations. In order to meet these welding requirements, Jetline Engineering is pleased to offer our MO-150 Mechanical Oscillator system which can easily be added to your existing weld system or included with your new Jetline system.

The MO-150-5 Mechanical Oscillator is compatible with all of the following weld processes:

- Plasma Transfer Arc (PTA)
- Gas Metal Arc Welding (GMAW/GMAWP)
- Plasma Arc Welding (PAW)
- Gas Tungsten Arc Welding (GTAW)
- Flux-core Arc Welding (FCAW)

Features

Control of the MO-150-5 mechanical oscillator system is through the 9200 analog based control. The control's micro-stepper drive uses a 10 micro-step per step resolution which results in high precision and a smooth drive motion.



MO-150-5 Mechanical Oscillator System

The rigid aluminum housing of the slide assembly implements a wide footprint to minimize twisting and distortion when oscillating heavy loads at higher speeds. The precision linear guide rails use ball bearing assemblies to support the platen assembly. Bellows covers provide sealed protection of the slide components from the environmental surroundings.

In the manual mode, the slide can be operated as a motorized slide by utilizing the center adjustment on the 9200 control.

9200 Control

The 9200 is an analog based control using a feedback potentiometer in the slide assembly for position reference. The control is designed for all arc welding processes, but due to its advanced circuitry, provides precision oscillation typically required for the GTAW and PAW processes.



The 9200 control includes the following features:

- Left speed control adjustment
- Right speed control adjustment
- Left Dwell adjustment
- Right Dwell adjustment
- Oscillation width adjustment
- Center adjustment
- Manual/Remote/Set-up selector switch
- Solid-state design
- Micro-stepper drive

MO-150 MECHANIZED WELD OSCILLATOR

9200 Control Optional features:

- Remote interface control board & connector
- Remote control pendant
- Step oscillation
- Extension interconnection cables
- Or special length 9256A interconnection cables

9200 Control Remote Functions:

Start/Stop: Contact Closure
Start/Stop (optional): +24 to 0 VDC
Stop (optional): +24 to 0 VDC
Center: 10K -3 wire
Width: 10K -3 wire
Speed: 0 to +5 VDC (Isolated)
Dwell: 0 to +5 VDC (Isolated)

9200 Control Operating Parameters:

Speed 1: 100 to 1.0 IPM (2540-25 mm/min)
Speed 2: 100 to 1.0 IPM (2540-25 mm/min)
Dwell 1: .01 to 3 seconds
Dwell 2: .01 to 3 seconds
Oscillation Width: 0.1" to 4.00" (2.5 to 101 mm)
Center: +2.3" (58 mm) from center of electrical stroke



MO-150-101-5D Slide Assembly

The slide assembly includes the following features:

- Rigid aluminum housing
- Precision linear guide rails
- Ball screw with ball nut drive assembly
- High speed, high torque stepper motor drive
- Standard 9256A interconnection cable 10 ft (3 m) long, from 9200 control to slide
- Bellows covers

Specifications

Control

Input voltage: 120/240 VAC, 1 Phase
Frequency: 50/60 Hz
Shipping weight: 30 lb (13.6 kg)
Dimensions: 13.5"H x 12.5"W x 7.19"D
343 mm x 318 mm x 183 mm

Slide

Weight Capacity: 150 lb (68 kg) out 2" (50 mm)
Mechanical Stroke: 4.875" (123 mm) maximum
Electrical Stroke: 4.625" (117.5 mm) maximum
Shipping weight: 26 lb (11.8 kg)
Dimensions: 4.75"H x 20.13 "W x 7"D
120 mm x 511 mm x 179 mm

How To Order:

Part No.	Description
MO-150-5	Complete Mechanical Oscillator System. Includes 9200 control, MO-150-101-5D slide, 9256A standard interconnection cable
9200	Control only
MO-150-101-5D	Slide Assembly only (slide can be used with all 9200 series controls)
9256A-EXT-xx	Extension cable, control to slide, where "xx" is the length of required extension (in feet)
9200-RP	Remote Pendant, including center and width adjustment, Left/Right speed adjustment, Left/Right dwell adjustment
9222	Remote I/O interface control board and connector. Provides open collector output during Left/Right travel and Left/Right dwell. Provides for opto-isolator driven remote start/stop. An amphenol connector (P11) with cable clamp is provided.

See Jetline price list for complete ordering information

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