

# CWT™ WOC-2

## WELD OSCILLATOR CONTROL



### Key Features

Our Weld Oscillator Control (WOC-2) is a compact, lightweight weld torch oscillation control and remote operator pendant for setup and operation. The WOC-2 can operate three oscillating devices - Pendulum Oscillator Assembly (POA), the HSA Series Slides or the VSA Series Slides.

- » Easy and simple installation, setup and operation
- » Operator Pendant with Run Control (On/Off), Jog Control (CW/CCW), Speed Control, Width Control, Left and Right Dwell
- » Operator can make adjustments to oscillation parameters while welding
- » The POA, HSA and VSA are stepper motor driven with 0.001" (0.025mm) position resolution
- » Install as a stand-alone system using the Operator Pendant or interface to an existing logic control for automation with the Remote I/O Cable which includes the RS-485 Serial Port with Modbus RTU protocol and remote inputs/outputs

### Connectivity »

RS-485 Serial Port with Modbus® Protocol

## FEATURES:

### » Horizontal Motion Devices

- Pendulum Oscillator
- HSA-2000 Series Slide
- VSA-2000 Series Slide

### » Pendulum Oscillator

- Install in-line or at 90 degree to the weld
- The compact configuration makes it suitable for confined spaces as well
- Stepper motor driven for high reliability and low maintenance costs

### » HSA and VSA Series Slides

- Installed at almost any position horizontal to the weld joint
- The slim line design makes the slide ideal for both manual and automated applications
- Stepper motor driven for high reliability and low maintenance costs

### » Applications

- Pipe fabrication welding
- Long seam welding
- Multiple pass welding
- Sidewall penetration Control

## WOC-2 STANDARD CONFIGURATIONS

Product Name	Product Number	Input Power	Net Weight lbs (kg)
WOC-2 Pendulum System	E0A5023	115vac @ 1.0 amps	11 (5.0)
WOC-2 HSA System	E0A5025	115vac @ 1.0 amps	8 (3.6)
WOC-2 VSA System	E0A5032	115vac @ 1.0 amps	8 (3.6)

### WOC-2 with Pendulum Oscillator System (E0A5023)



#### What's Included

- WOC-2 Controller
- WOC-2 Operator Pendant
- Remote I/O Cable
- Pendulum Oscillator
- 8' Motor Cable

### WOC-2 HSA System (E0A5025)



#### What's Included

- WOC-2 Controller for HSA Slides
- WOC-2 Operator Pendant
- Remote I/O Cable

### WOC-2 VSA System (E0A5032)



#### What's Included

- WOC-2 Controller for VSA Slides
- WOC-2 Operator Pendant
- Remote I/O Cable

## HSA SLIDE CONFIGURATIONS

Product Name	Product Number	Input Power	Net Weight lbs (kg)
HSA-2003 Linear Slide with 3" Travel	SOA5139	24vdc @ 4.0 amps	31 (14.1)
HSA-2008 Linear Slide with 7-1/2" Travel	SOA5140	24vdc @ 4.0 amps	33 (15.0)
HSA-2012 Linear Slide with 12" Travel	SOA5141	24vdc @ 4.0 amps	37 (16.8)

### HSA Slides



#### What's Included

- Linear Slide
- 25' Motor Cable

#### Weight Capacity

35 lbs. (15.9kg) at 6" (15.24cm) from slide face

## VSA SLIDE CONFIGURATIONS

Product Name	Product Number	Input Power	Net Weight lbs (kg)
VSA-2006B Linear Slide with 6" Travel	SOA5143	24vdc @ 4.0 amps	43 (19.5)
VSA-2010B Linear Slide with 9-3/4" Travel	SOA5144	24vdc @ 4.0 amps	47 (21.3)

### VSA Slides



#### What's Included

- Linear Slide
- 25' Motor Cable

#### Weight Capacity

100 lbs. (45.4kg) at 6" (15.24cm) from slide face

For additional slide configurations  
email [sales@cweldtech.com](mailto:sales@cweldtech.com) or call 713-462-2118

## PRODUCT SPECIFICATIONS

### WOC-2 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)
Dwell Time	0.02 to 2.0 seconds (left and right)
Velocity	100 – 6700 steps/sec
Peak Motor Current / Phase	2.0 – 6.0 amps
Two Remote I/O Outputs	Isolated Solid State Relay (SSR) 28VDC max @ 100 ma
Two Remote I/O Inputs	Isolated 28 VDC input @ 10 ma.

### WOC-2 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	3 lbs (1.4 kg)
Operating Temperature	-10°F (-23°C) to +140°F (+60°C)
Power Requirements	24 VDC @ 0.2 amps

### Pendulum Oscillator Specifications

Dimensions	3.50" H X 3.25" W X 5.75" L (90mm X 83mm X 146mm)
Weight	4.75 lbs (2.15kg)
Velocity	0.24° to 60° per second
Output Shaft Rotational Torque	820 ounce/inches
Output Shaft Holding Torque	1657 ounce/inches
Approximate Weight Limit	15 lbs (6.8 kg) at 3" (76.2mm) from center of output shaft

### HSA-2003 Horizontal Slide Specifications

Slide Dimensions	8.43" H x 11.67" W x 3.66" D (214mm x 296mm x 93mm)
Mounting Dimensions	1.392" H X 1.392" W (35.35mm X 35.35mm)
Weight	10 lbs (4.5kg)
Approximate Weight Limit	35 lbs (15.9 kg) at 6" (152.4mm) from slide face
Travel Distance	3"
Travel Velocity	0.05" to 6.00" (1.27mm - 152.4mm) per second
Position Accuracy	+/- 0.004" (0.102mm)
Position Resolution	+/- 0.001" (0.025mm)
Operating Temperature	-30° to 150° F (-34° to 65° C)

### VSA-2006 Horizontal Slide Specifications

Slide Dimensions	16.50" H x 18.70" W x 5.90" D (419mm x 475mm x 150mm)
Mounting Dimensions	7.250" H X 5.500" W (184.12mm X 139.70mm)
Weight	22 lbs (10.4kg)
Approximate Weight Limit	100 lbs (45.4 kg) at 6" (152.4mm) from slide face
Travel Distance	6"
Travel Velocity	0.05" to 6.00" (1.27mm - 152.4mm) per second
Position Accuracy	+/- 0.004" (0.102mm)
Position Resolution	+/- 0.002" (0.051mm)
Operating Temperature	-30° to 150° F (-34° to 65° C)

### HSA-2008 Horizontal Slide Specifications

Slide Dimensions	8.43" H x 16.39" W x 3.66" D (214mm x 416mm x 93mm)
Mounting Dimensions	1.392" H X 1.392" W (35.35mm X 35.35mm)
Weight	12 lbs (5.4kg)
Approximate Weight Limit	35 lbs (15.9 kg) at 6" (152.4mm) from slide face
Travel Distance	7-1/2"
Travel Velocity	0.05" to 6.00" (1.27mm - 152.4mm) per second
Position Accuracy	+/- 0.004" (0.102mm)
Position Resolution	+/- 0.001" (0.025mm)
Operating Temperature	-30° to 150° F (-34° to 65° C)

### VSA-2010 Horizontal Slide Specifications

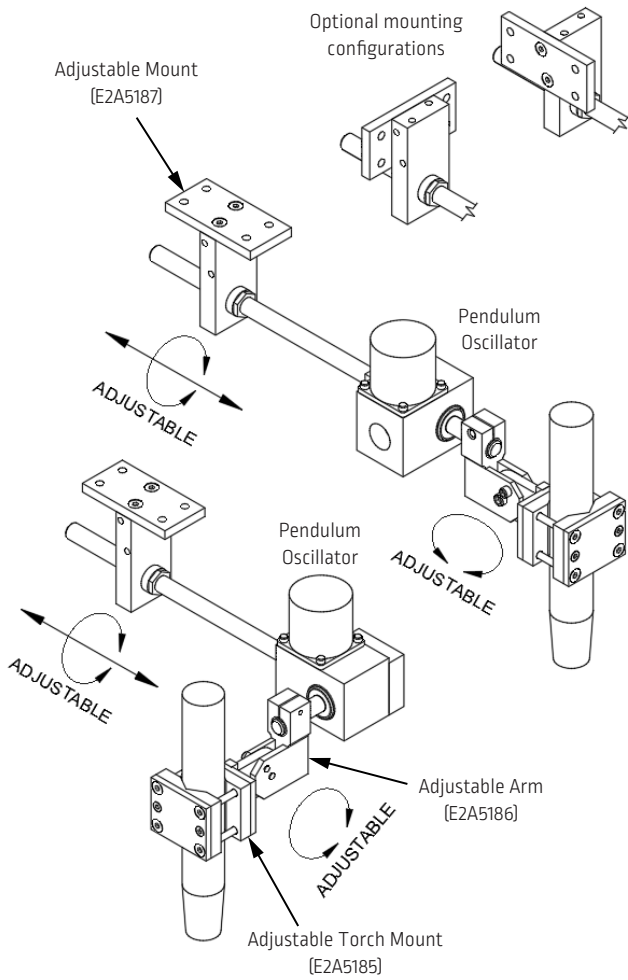
Slide Dimensions	16.50" H x 23.68" W x 5.90" D (419mm x 601mm x 150mm)
Mounting Dimensions	7.250" H X 5.500" W (184.12mm X 139.70mm)
Weight	26 lbs (12.2kg)
Approximate Weight Limit	100 lbs (45.4 kg) at 6" (152.4mm) from slide face
Travel Distance	9-3/4"
Travel Velocity	0.05" to 6.00" (1.27mm - 152.4mm) per second
Position Accuracy	+/- 0.004" (0.102mm)
Position Resolution	+/- 0.002" (0.051mm)
Operating Temperature	-30° to 150° F (-34° to 65° C)

### HSA-2012 Horizontal Slide Specifications

Slide Dimensions	8.43" H x 21.12" W x 3.66" D (214mm x 536mm x 93mm)
Mounting Dimensions	1.392" H X 1.392" W (35.35mm X 35.35mm)
Weight	16 lbs (7.3kg)
Approximate Weight Limit	35 lbs (15.9 kg) at 6" (152.4mm) from slide face
Travel Distance	12"
Travel Velocity	0.05" to 6.00" (1.27mm - 152.4mm) per second
Position Accuracy	+/- 0.004" (0.102mm)
Position Resolution	+/- 0.001" (0.025mm)
Operating Temperature	-30° to 150° F (-34° to 65° C)

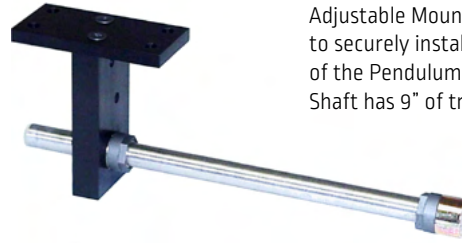
# PENDULUM OSCILLATOR OPTIONS

Product Name	Product Number	Net Weight lbs (kg)
Adjustable Mount	E2A5187	2.25 (1.02)
Adjustable Arm	E2A5186	0.31 (0.14)
Adjustable Torch Mount	E2A5185	0.81 (0.37)



Note: Mounting hardware will allow adjustments for any needs.

## Adjustable Mount (E2A5187)



Adjustable Mount will allow the customer to securely install and adjust the position of the Pendulum Oscillator to their needs. Shaft has 9" of travel adjustment.

## Adjustable Arm (E2A5186)



Adjustable Arm securely installs to the oscillating shaft of the Pendulum Oscillator and is required to install the Adjustable Torch Mount.

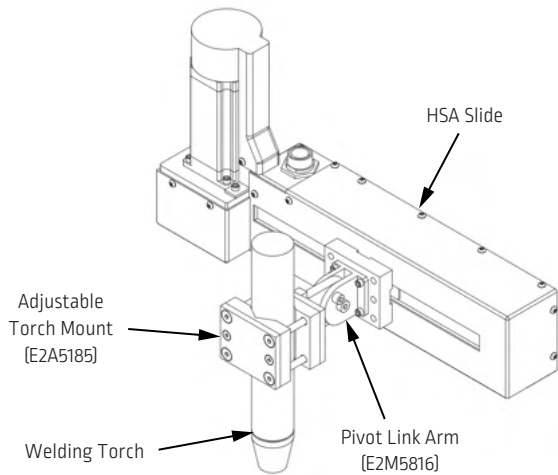
## Adjustable Torch Mount (E2A5185)



Adjustable Torch Mount will pivot to allow proper positioning of the welding torch. Handles a torch from 3/4" to 1-1/2" in diameter.

## HSA SLIDE OPTIONS

Product Name	Product Number	Net Weight lbs (kg)
Pivot Link Arm	E2M5816	0.19 (0.09)
Adjustable Torch Mount	E2A5185	0.81 (0.37)



### Pivot Link Arm (E2M5816)



Pivot Link Arm operates with the Adjustable Torch Mount to make pivot adjusts for the welding torch. Pivot Link Mount is installed to the slide block on the HSA slide.

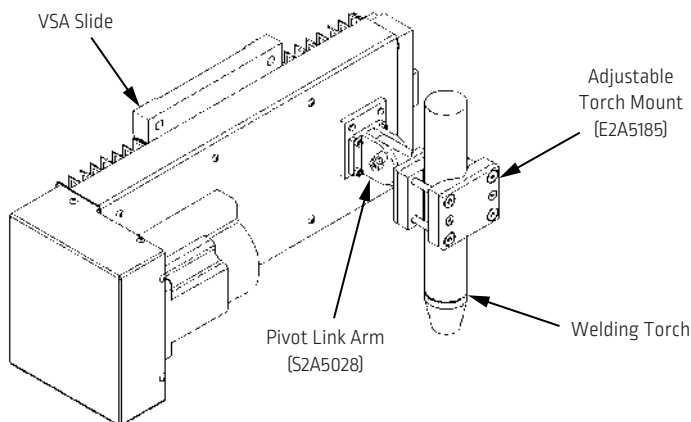
### Adjustable Torch Mount (E2A5185)



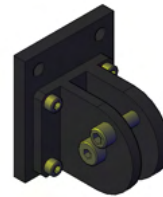
Adjustable Torch Mount will pivot to allow proper positioning of the welding torch. Handles a torch from 3/4" to 1-1/2" in diameter.

## VSA SLIDE OPTIONS

Product Name	Product Number	Net Weight lbs (kg)
Pivot Link Arm	S2A5028	0.19 (0.09)
Adjustable Torch Mount	E2A5185	0.81 (0.37)



### Pivot Link Arm (S2A5028)



Pivot Link Arm operates with the Adjustable Torch Mount to make pivot adjusts for the welding torch. Pivot Link Mount is installed to the face on the VSA slide.

### Adjustable Torch Mount (E2A5185)



Adjustable Torch Mount will pivot to allow proper positioning of the welding torch. Handles a torch from 3/4" to 1-1/2" in diameter.

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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