

# Orbital Welding System

Weld Head, Fixture Blocks,  
Side Plates, Plenum, and Collets



## Series 10

- Available for tube outside diameters from 1/4 to 1 in. and 6 to 25 mm
- Offers versatility for use in a variety of industries
- Weld head includes arc gap gauge, tool package, and tungsten electrodes

### Series 10 Weld Head

- Is for outside weld joint diameters of 1/4 to 1 in. and 6 to 25 mm
- Offers optical speed control—no tachometer or calibration required
- Has polarized power connectors to ensure proper weld head/power supply connection
- Is suitable for prototypes

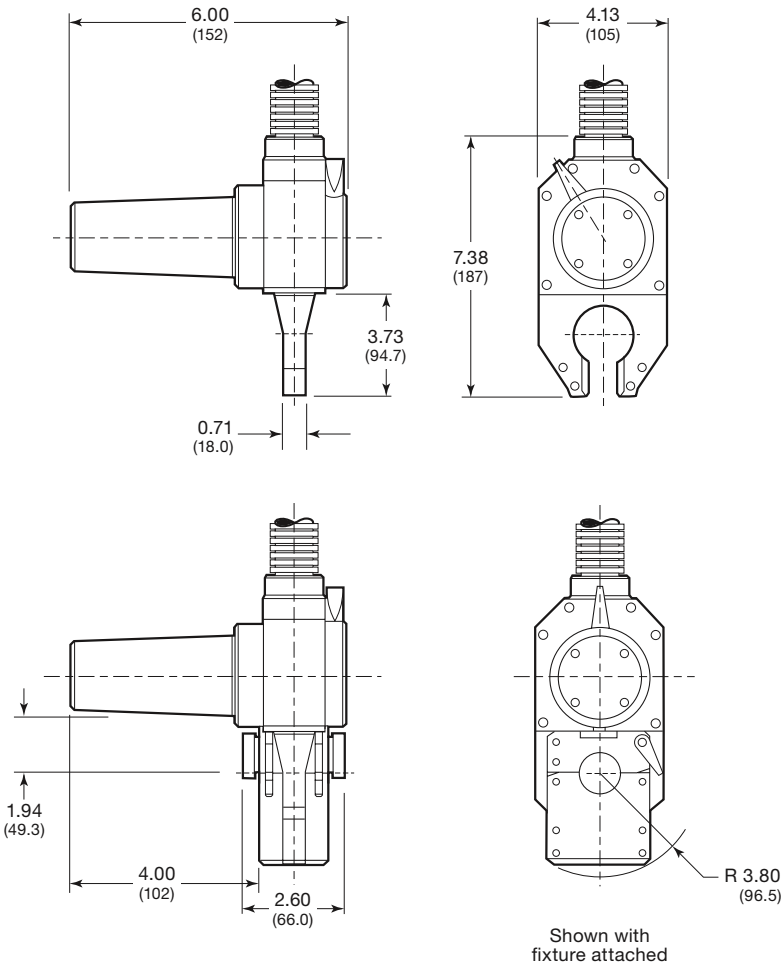
### Series 10 Fixture Blocks, Side Plates, and Plenum

- Are for outside weld joint diameters of 1/4 to 1 in. and 6 to 25 mm
- Offer improved productivity from the ability to set up one fixture while welding with another fixture
- Fixture block includes centering gauge

### Ordering Information and Dimensions

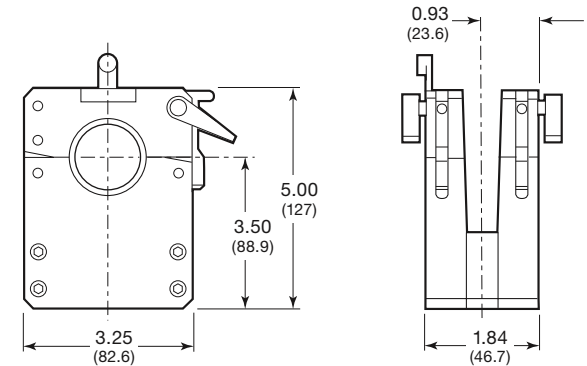
Dimensions, in inches (millimeters) are for reference only and are subject to change.

#### Weld Head

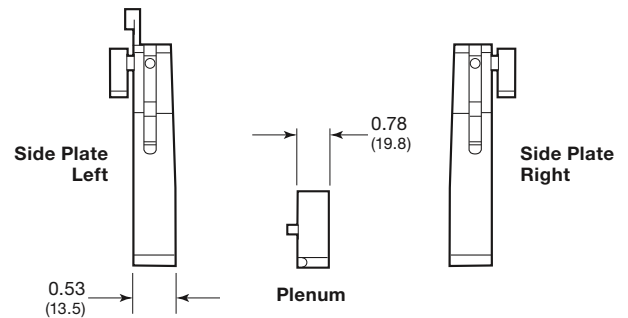


Description	Ordering Number
Weld head	SWS-10H-B

#### Fixture Block



#### Fixture Side Plates and Plenum



Description	Ordering Number
Fixture block	CWS-10TFB <sup>①</sup>
Fixture side plate—left	CWS-10TSPL
Fixture side plate—right	CWS-10TSPR
Plenum	CWS-10PLEN

<sup>①</sup> Swagelok automatic tube weld and tube butt weld fittings with 0.75 in. (19.1 mm) tube extensions can be welded with the fixture block and counter-bored collets. A 0.93 in. (23.6 mm) tube extension is required for all other fittings.

## Tube Collets

- Are removable to allow for easy component size changes
- Hold components rigidly during welding
- Unique universal collet design holds components with a  $\pm 0.005$  in. (0.13 mm) tube outside diameter variation.
- Are offered in counter-bored and non-counter-bored styles for a full range of applications



Counter-bored collets shown

## Ordering Information

### Counter-Bored Collets

Counter-bored collets offer greater clearance for welding components. Two collet halves are required per side plate.

### Non-Counter-Bored Collets

Non-counter-bored collets provide ease of alignment. Two collet halves are required per side plate.

To order, add **T** to the ordering number.

Example: CWS-10UCI-04T

Collet Size in.	Collet Half Ordering Number
1/4	CWS-10UCI-04
5/16	CWS-10UCI-05
3/8	CWS-10UCI-06
1/2	CWS-10UCI-08
5/8	CWS-10UCI-10
3/4	CWS-10UCI-12
7/8	CWS-10UCI-14
1	CWS-10UCI-16

Collet Size mm	Collet Half Ordering Number
6	CWS-10UCI-06MM
8	CWS-10UCI-08MM
10	CWS-10UCI-10MM
12	CWS-10UCI-12MM
14	CWS-10UCI-14MM
15	CWS-10UCI-15MM
16	CWS-10UCI-16MM
18	CWS-10UCI-18MM
19	CWS-10UCI-19MM
20	CWS-10UCI-20MM
22	CWS-10UCI-22MM
23	CWS-10UCI-23MM
25	CWS-10UCI-25MM

## Options and Accessories

### Weld Head Extension Cables

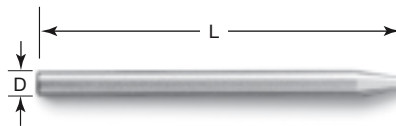
Swagelok® weld head extension cables, in combination with the standard weld head, provide weld head operation of up to 50 ft (15.2 m) away from the power supply. Cables are available in lengths of 12.5 and 37.5 ft (3.8 and 11.4 m).

Extension Cable ft (m)	Ordering Number
12.5 (3.8)	SWS-WHEC-B-12.5FT
37.5 (11.4)	SWS-WHEC-B-37.5FT



### Tungsten Electrodes

Swagelok electrodes, available in packages of ten, provide consistent, repeatable welds. Electrodes consist of 2 % ceriated tungsten, axially ground to rigid specifications.



Weld Joint Nominal Outside Diameter		Electrode Diameter (D) in. (mm)	Electrode Length (L) in. (mm)	Ordering Number
in.	mm			
1/4 through 5/8	6 through 16	0.062 (1.5)	1.105 (28.1)	CWS-C.062-1.105-P
3/4 through 1	18 through 25		0.855 (21.7)	CWS-C.062-.855-P

**Safe Product Selection**

**When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.**

**Caution: Do not mix or interchange parts with those of other manufacturers.**

**Warranty Information**

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit [swagelok.com](http://swagelok.com) or contact your authorized Swagelok representative.

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