

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
- Provides higher output capabilities
- Offers versatility for use in a variety of industries

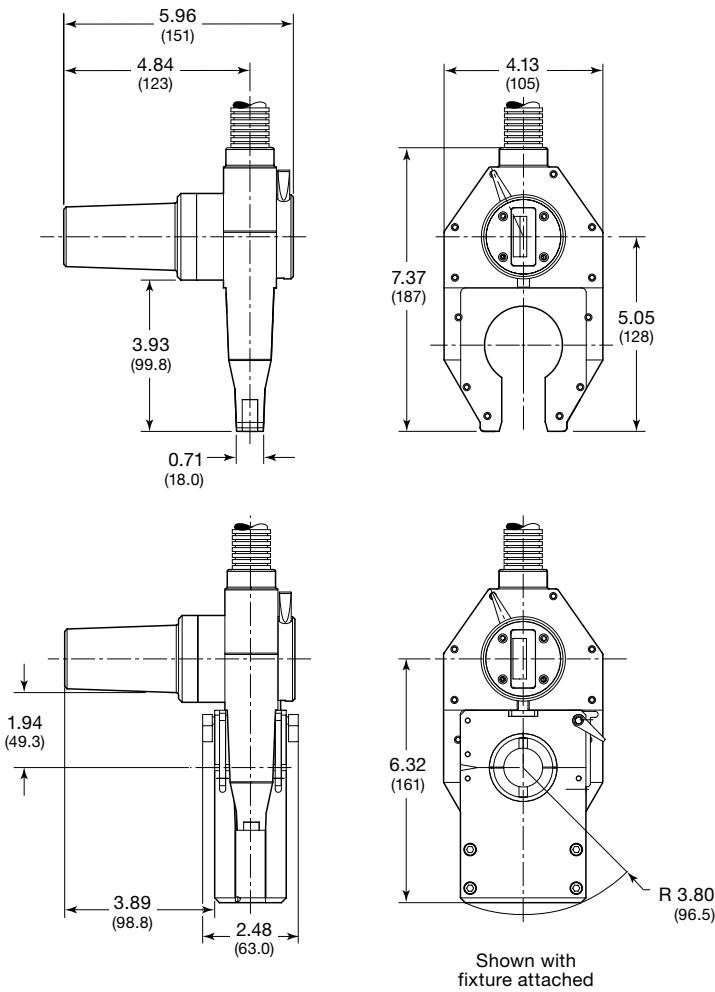
Series 10 Weld Head

- 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
- Provides higher output capabilities:
 - Increased performance
 - Heavier-wall tubing or pipe applications.

Ordering Information and Dimensions

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

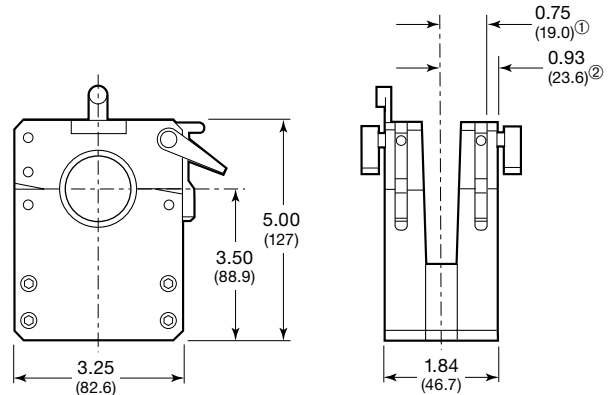
Weld Head



Series 10 Fixture Blocks, Side Plates, and Plenum

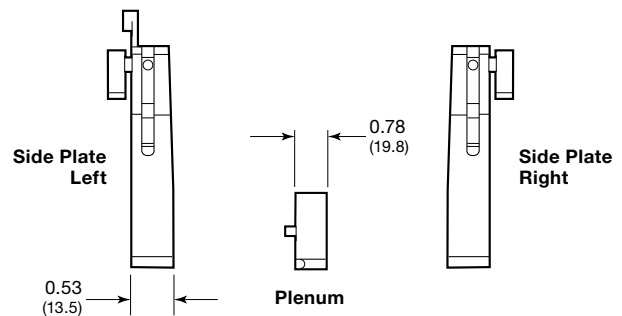
- Are for outside weld joint diameters of 1/4 to 1 in. and 6 to 25 mm
- Offer improved productivity from the ability to set up one fixture while welding with another fixture
- Fixture block includes centering gauge

Fixture Block



- ① With standard counter-bored collets.
- ② With non-counter-bored collets.

Fixture Side Plates and Plenum



Description	Cable Length ft (m)	Ordering Number
Weld head (includes arc gap gauge, tool package, and tungsten electrodes)	15 (4.6)	SWS-10H-D-15
	35 (10.7)	SWS-10H-D-35
	50 (15.2)	SWS-10H-D-50

Cables attach directly to the Swagelok® M200 power supply. For Swagelok M100 and earlier power supply models, an adapter is required.
Ordering number: **SWS-M100-WH-ADPTR**



Description	Ordering Number
Fixture block	CWS-10TFB
Fixture side plate—left	CWS-10TSPL
Fixture side plate—right	CWS-10TSPR
Plenum	CWS-10PLEN

Tube Collets

- Are removable to allow for easy component size changes
- Hold components rigidly during welding
- Unique universal collet design holds components with a ± 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



Ordering Information

Counter-Bored Collets

Standard series 10 collets are counter-bored to 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 enable weld head operation away from the M200 power supply, up to a total cable length of 200 ft (61 m).

See the Swagelok *Series 10 Weld Head User's Manual*, MS-13-204, for information on weld head performance with optional weld head extension cables.



Extension Cable ft (m)	Ordering Number
35 (10.7)	SWS-WHEC-D-35
50 (15.2)	SWS-WHEC-D-50

Weld Head Adapter Cable

The weld head adapter cable allows connection from earlier Swagelok 10H-B model weld heads to the Swagelok M200 power supply.

Ordering number:
SWS-M200-WH-ADPTR



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 or contact your authorized Swagelok representative.