

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

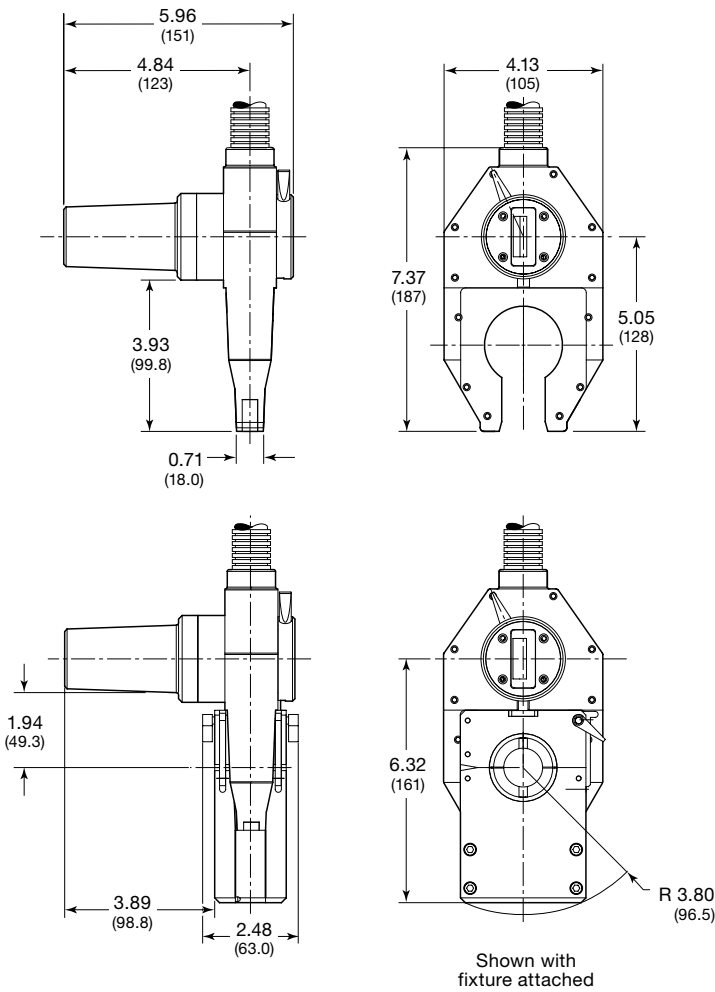
Series 10 Weld Head

- 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.

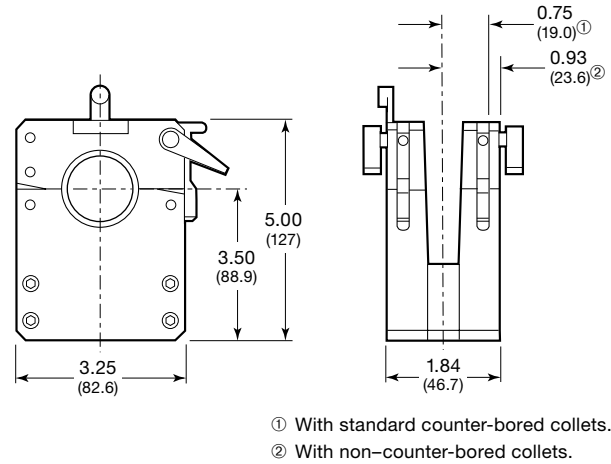
Weld Head



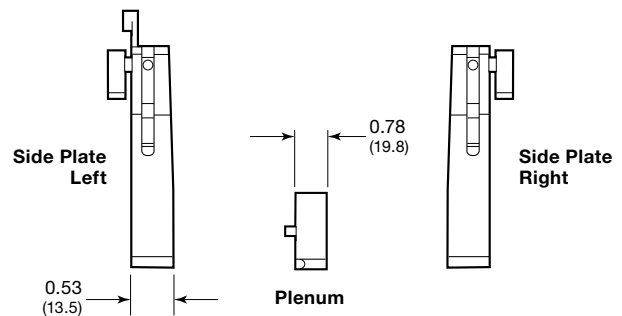
Series 10 Fixture Blocks, Side Plates, and Plenum

- 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



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.

WARNING

Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, 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.