

Weldcraft™ A-80 Series

Formerly WP-24 Series

Hand-Held Air-Cooled
TIG Welding Torches 

Quick Specs

Models

A-80
A-80 Flex
A-80 Flex Valve

Applications

Shipbuilding
Motorsports
Aviation
Restricted areas

Rated Output

DC: 80 A, AC: 50 A

Duty Cycle 60%

Electrode Range

.020–3/32 in. (0.5–2.4 mm)

A-80 Series TIG torches

Formerly known as the WP-24 Series, the A-80 Series consists of innovative torches designed for intricate welding applications, especially in limited-access areas and on thin-gauge materials. The A-80 Series torches deliver comfort and versatility for a variety of welding applications.

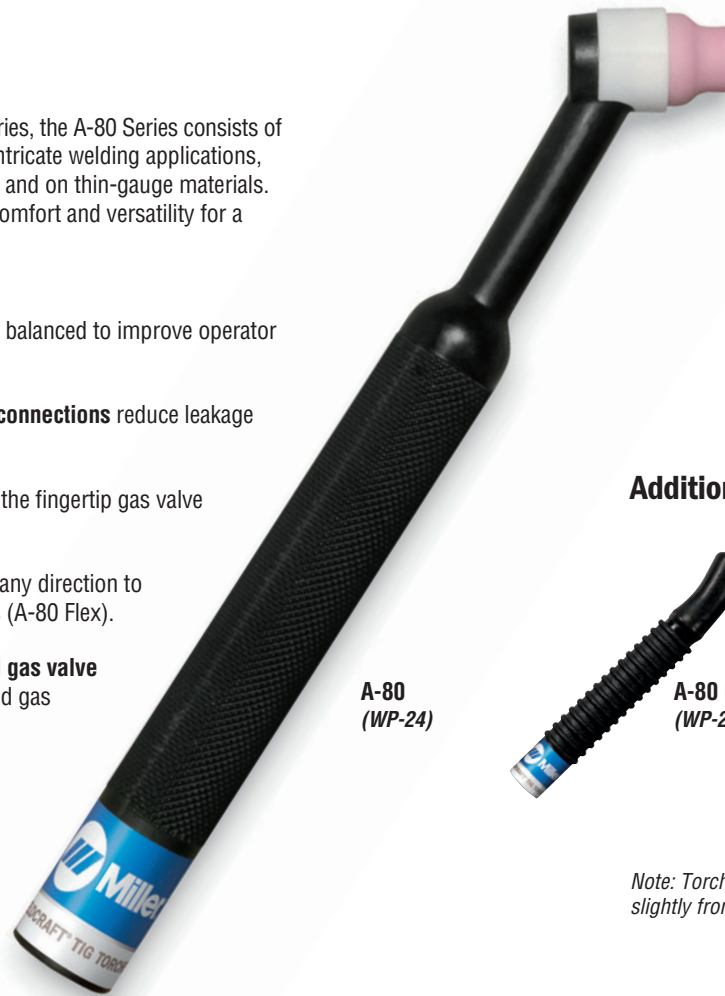
Featherweight torch body is well balanced to improve operator comfort and control.

Secure mechanical fittings and connections reduce leakage of gas and water.

Easy gas-flow adjustment using the fingertip gas valve (A-80 Flex Valve).

Flexible neck can be adjusted in any direction to facilitate welding in difficult joints (A-80 Flex).

Combining the flexible neck and gas valve is ideal for optimal positioning and gas flow control (A-80 Flex Valve).

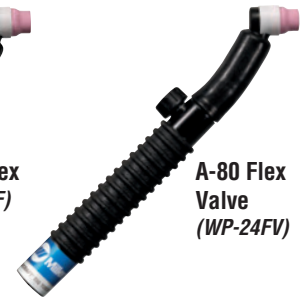


A-80
(WP-24)

Additional torch models



A-80 Flex
(WP-24F)



A-80 Flex
Valve
(WP-24FV)

Note: Torches delivered may vary slightly from images shown.



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Torch Packages

| Models | | 1-Piece Power Cable Standard Rubber | |
|-----------|-----------------|--|----------------|
| Old Model | New Name | 12.5 ft. (3.8 m) | 25 ft. (7.6 m) |
| WP-24 | A-80 | WP-24-12-R | WP-24-25-R |
| WP-24F | A-80 Flex | WP-24F-12-R | WP-24F-25-R |
| WP-24FV | A-80 Flex Valve | WP-24FV-12-R | WP-24FV-25-R |

V = Valve F = Flex FV = Flex Valve

Torch packages include torch body, handle, and power cable.

Connectors

1-piece power cable connectors



194722
50 mm Dinse-style gas thru for one-piece air-cooled torch.



195378
50 mm Dinse-style for one-piece air-cooled torch.



105257
Power cable adapter for one-piece air-cooled torch.



273483
25 mm (small) Dinse-style gas thru for one-piece air-cooled torch.

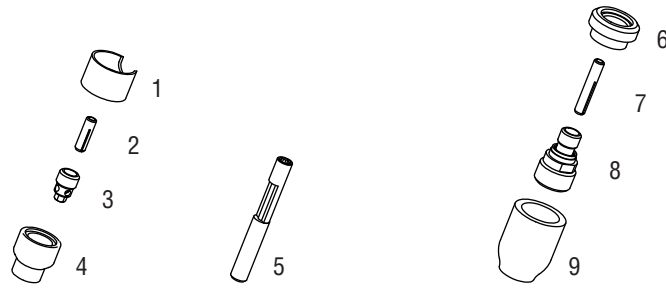


24-5
3/8-24 male adapter for A-80.

| Machines | Connection Type | 1-Piece Power Cable Connectors | |
|---|------------------------------------|--------------------------------|-----------------------------|
| | | A-80 | A-80 Flex / A-80 Flex Valve |
| TIG Machines | | | |
| Syncrowave® 200/210 | 50 mm Dinse-style gas thru | 194722* | 194722 |
| Syncrowave® 250 DX/350 DX (Dinse) | 50 mm Dinse-style | 195378* | 195378 |
| Syncrowave® 250 DX/350 DX (stud) | 1/2 in. stud | 105257* | 105257 |
| Maxstar® 150 STL/STH | 25 mm (small) Dinse-style gas thru | 273483* | 273483 |
| Dynasty® 200/210/280/350, Maxstar® 200/210/280/350 | 50 mm Dinse-style | 195378* | 195378 |
| Multiprocess Machines | | | |
| Multimatic™ 200 | 25 mm (small) Dinse-style gas thru | 273483* | 273483 |
| PipeWorx | 1/2 in. stud | 105257* | 105257 |
| XMT® 304/350 | 50 mm Dinse-style | 195378* | 195378 |
| Engine-Driven Machines | | | |
| Most Big Blue®, Trailblazer®, Bobcat™, Blue Star® and Wildcat® models | 1/2 in. stud | 105257* | 105257 |
| Big Blue® 450 Duo CST | 50 mm Dinse-style | 195378* | 195378 |
| General Reference | | | |
| | 25 mm (small) Dinse-style gas thru | 273483* | 273483 |
| | 50 mm Dinse-style | 195378* | 195378 |
| | 50 mm Dinse-style gas thru | 194722* | 194722 |
| | 1/2 in. stud | 105257* | 105257 |
| Other Adapter | | | |
| | Stud to Dinse-style adapter | 232728* | 232728 |

*Requires 24-5 adapter.

Consumables (Refer to Owner's Manual for additional replacement parts.)



Non-Gas Lens

| Electrode Size — inch (mm) | .020 (0.5) | .040 (1.0) | 1/16 (1.6) | 3/32 (2.4) |
|-----------------------------|------------|------------|------------|------------|
| 1 Insulator (required) | 53N22 | 53N22 | 53N22 | 53N22 |
| 2 Collet | 53N15 | 53N16 | 53N14 | 24C332 |
| 3 Collet Body | 53N17 | 53N18 | 53N19 | 24CB332 |
| Nozzle Size — size # (inch) | .165 | 4 (1/4) | 5 (5/16) | 6 (3/8) |
| 4 Alumina | — | A53N24 | A53N25 | A53N27 |
| * Lava | 53N23 | 53N24 | 53N25 | 53N27 |
| * Long Lava | — | 53N28 | — | 53N26 |

Collet Body Wrench

5 53N20

Gas Lens

| Electrode Size — inch (mm) | .020 (0.5) | .040 (1.0) | 1/16 (1.6) | 3/32 (2.4) | |
|-----------------------------|------------|------------|------------|------------|---------|
| 6 Insulator (required) | 53N66 | 53N66 | 53N66 | 53N66 | |
| 7 Collet | 53N62 | 53N63 | 53N64 | 24GLC332 | |
| 8 Gas Lens | 45V41 | 45V42 | 45V43 | 45V44 | |
| Nozzle Size — size # (inch) | 4 (1/4) | 5 (5/16) | 6 (3/8) | 7 (7/16) | 8 (1/2) |
| 9 Alumina Gas Lens | 53N58 | 53N59 | 53N60 | 53N61 | 53N61S |

*Not shown.

Tungsten

Tungsten for the most demanding TIG welding applications!

Available in four types and industry-standard diameters, our line of Weldcraft™ tungsten electrodes has undergone rigorous testing to ensure the highest quality and durability. Color-coded packages include ten 7-inch (175 mm) tungsten electrodes.

Note: Refer to manufacturer SDS sheets for proper preparation and safety. Use proper ventilation/capture during preparation. Refer to manufacturer warning regarding ventilation.



| Type | Diameter in. (mm) | Part # | Type | Diameter in. (mm) | Part # |
|--|-------------------|-----------------|---|-------------------|----------------|
| 2% Ceriated (EWCe-2) | | | Pure (EWP) | | |
| Performs well in DC welding and arc starting at low-current settings, and offers excellent performance in AC processes. | 0.040 (1.0) | WC040X7 | Forms a clean, balled end when heated and provides good arc stability for AC welding with a balanced or unbalanced squarewave or sine wave. | 0.040 (1.0) | — |
| | 1/16 (1.6) | WC116X7 | | 1/16 (1.6) | WP116X7 |
| | 3/32 (2.4) | WC332X7 | | 3/32 (2.4) | WP332X7 |
| | 1/8 (3.2) | WC018X7 | | 1/8 (3.2) | WP018X7 |
| | 5/32 (4.0) | WC532X7 | | 5/32 (4.0) | — |
| 2% Lanthanated (EWLa-2) | | | Rare Earth (EWG) | | |
| Provides excellent arc starting, arc stability and re-ignition, and less tip erosion in AC or DC welding. Can substitute for 2% Thoriated. | 0.040 (1.0) | WL2040X7 | Combines the best of all alloying elements, and provides excellent arc stability in AC or DC welding. | 0.040 (1.0) | — |
| | 1/16 (1.6) | WL2116X7 | | 1/16 (1.6) | WG116X7 |
| | 3/32 (2.4) | WL2332X7 | | 3/32 (2.4) | WG332X7 |
| | 1/8 (3.2) | WL2018X7 | | 1/8 (3.2) | WG018X7 |
| | 5/32 (4.0) | WL2532X7 | | 5/32 (4.0) | — |

Replacement Parts

| | | |
|---------------------|-------------------------|-----------------------|
| Torch Bodies | | |
| A-80 | WP-24 | |
| A-80 Flex | WP-24F | |
| A-80 Flex Valve | WP-24FV | |
| Handles | | |
| Ribbed | 105Z55R | |
| Knurled | H-100 | |
| Valve | | |
| A-80 Flex Valve | 150VTB | |
| Power Cables | | |
| | 12.5 ft. (3.8 m) | 25 ft. (7.6 m) |
| Rubber | 56Y38R | 56Y97R |

Genuine Miller® Accessories



Cable Covers
WC-3-10 10 ft. (3 m)
WC-3-22 22 ft. (6.7 m)



Wireless Remote Foot Control 300429
 For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 90-foot (27.4 m) operating range.



Wireless Remote Hand Control 300430
 For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 300-foot (91.4 m) operating range.



RCC-14 Remote Contactor and Current Control 151086

East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord with 14-pin plug.



RCCS-14 Remote Contactor and Current Control 043688

North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord with 14-pin plug.

Distributed by:

