

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.

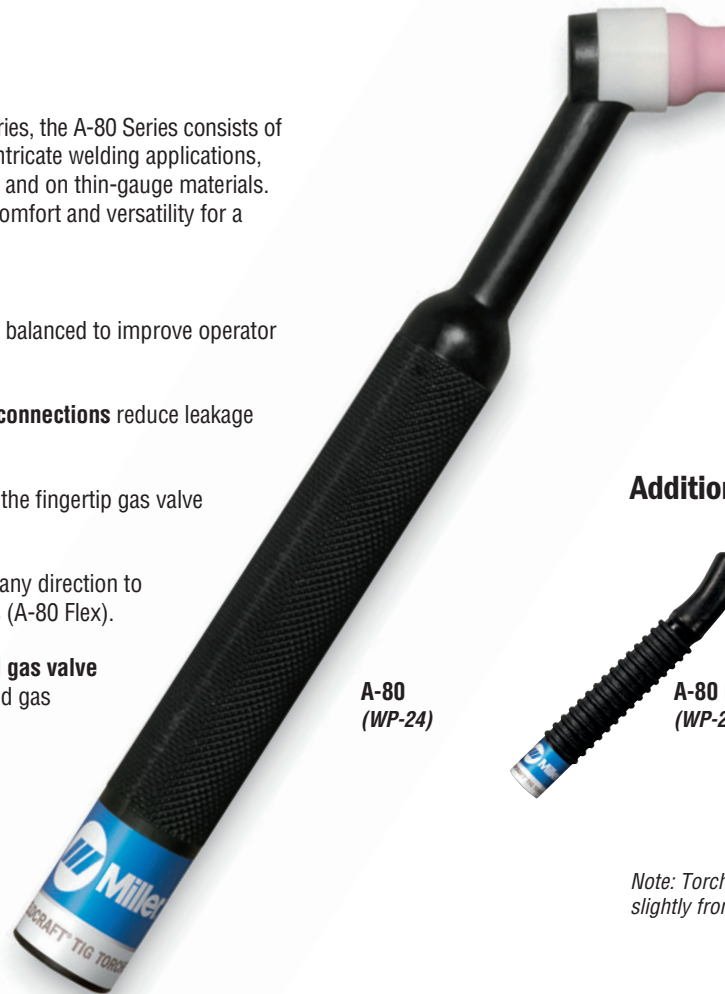
Featherweight torch body is well balanced to improve operator comfort and control.

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).

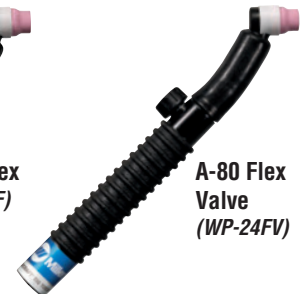


A-80
(WP-24)

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.

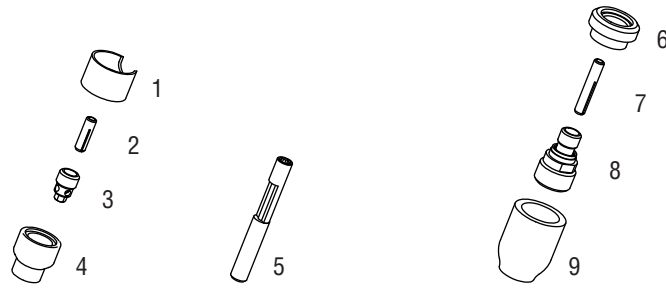


24-5
3/8-24 male adapter for A-80.

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.

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