

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
Motorsport
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 thinner-gauge materials. The A-80 Series torches deliver comfort and flexibility for a variety of welding applications.

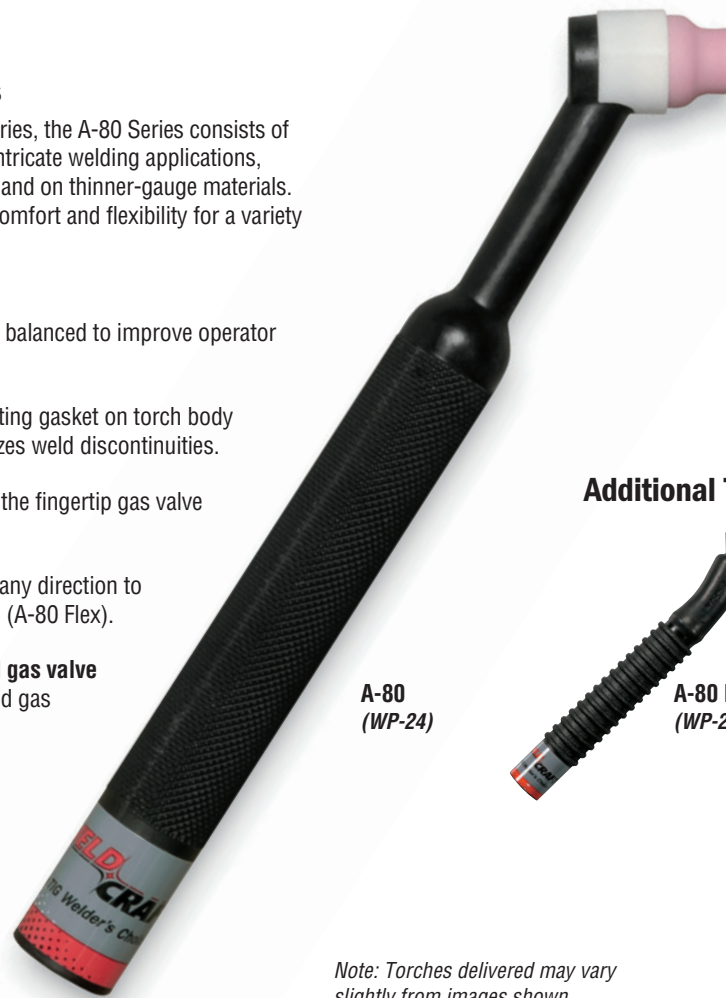
Featherweight torch body is well balanced to improve operator comfort and control.

Minimize discontinuities. Insulating gasket on torch body prevents gas leakage and minimizes weld discontinuities.

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).

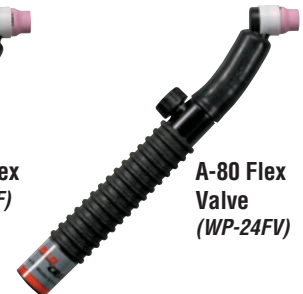


A-80
(WP-24)

Additional Torch Models



A-80 Flex
(WP-24F)



A-80 Flex
Valve
(WP-24FV)

Note: Torches delivered may vary slightly from images shown.



Torch is warranted for 1 year parts.



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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



194 722
50-mm Dinse-style gas thru for one-piece air-cooled torch.



195 378
50-mm Dinse-style for one-piece air-cooled torch.



105 257
Power cable adapter for one-piece air-cooled torch.



195 234
25-mm (small) Dinse-style gas thru for one-piece air-cooled torch.

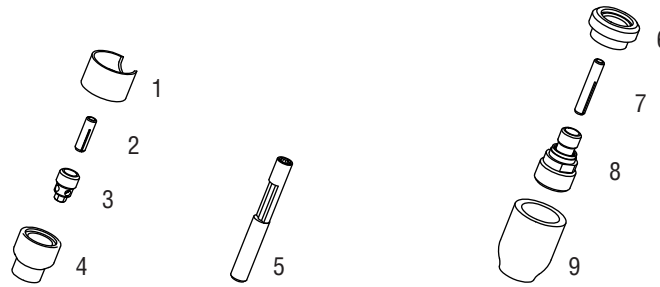


24-5
3/8-24 male adapter for A-80.

Machines	Connection Type	1-Piece Power Cable Connector	
		A-80	A-80 Flex / A-80 Flex Valve
TIG Machines			
Syncrowave® 200/210	50-mm Dinse, Gas Thru	194 722*	194 722
Syncrowave® 250 DX/350 DX (Dinse)	50-mm Dinse	195 378*	195 378
Syncrowave® 250 DX/350 DX (Stud)	1/2-in. Stud	105 257*	105 257
Maxstar® 150 STL/STH	25-mm, Gas Thru	195 234*	195 234
Dynasty® 200/280/350, Maxstar® 200/280/350	50-mm Dinse	195 378*	195 378
Multiprocess Machines			
Multimatic™ 200	25-mm, Gas Thru	195 234*	195 234
PipeWorx	1/2-in. Stud	105 257*	105 257
XMT® 304/350	50-mm Dinse	195 378*	195 378
Engine-Driven Machines			
Most Big Blue®, Trailblazer®, Bobcat™, Blue Star® and Wildcat® models	1/2-in. Stud	105 257*	105 257
Big Blue® 450 Duo CST	50-mm Dinse	195 378*	195 378
General Reference			
	25-mm, Gas Thru	195 234*	195 234
	50-mm Dinse	195 378*	195 378
	50-mm Dinse, Gas Thru	194 722*	194 722
	1/2-in. Stud	105 257*	105 257
Other Adapter			
	Stud to Dinse Adapter	232 728*	232 728

*Requires optional 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

A Line of Premium Tungsten for the Most Demanding TIG Welding Applications!

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

Note: Refer to manufacturer MSDS 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)	—

Genuine Miller® Accessories



Wireless Remote Foot Control

#300 429

For remote current and contactor

control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 90-foot (27.4 m) operating range.



RCCS-14 Remote Contactor and Current Control

#043 688

North/south rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 26.5-foot (8 m) control cord and 14-pin plug.



Cable Covers

#WC-3-10 10 ft. (3 m)

#WC-3-22 22 ft. (6.7 m)



Wireless Remote Hand Control

#300 430

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

#151 086

East/west rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 26.5-foot (8 m) cord and 14-pin plug.



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