

# Weldcraft™ W-280

## Formerly WP-280

Hand-Held Water-Cooled  
TIG Welding Torches



### Quick Specs

#### Model

W-280 Super Cool

#### Applications

Aerospace  
Aluminum fabrication  
Aluminum ship repair  
Automotive  
Exotic material fabrication  
Light and heavy manufacturing  
Maintenance and repair

Pipe and tube fabrication  
Precision metal fabrication  
Pressure vessel fabrication  
Shipbuilding  
Tool and die  
Tube and pipe  
Vocational

#### Rated Output

DC: 280 A, AC: 195 A

**Duty Cycle** 100%

#### Electrode Range

.020–1/8 in. (0.5–3.2 mm)

### W-280 Super Cool™ TIG torch

Formerly known as the WP-280, the W-280 Super Cool is a reliable water-cooled torch designed for demanding, high-amperage applications. The W-280 Super Cool is engineered with innovative technology and welding efficiency in mind.

**Super Cool technology** provides additional surface area to increase cooling efficiency and capacity.

**Reduce downtime** due to overheating through consistent water-cooled performance.

**Extend torch life** with dependable water-cooled technology.

**Reduce leakage** of gas and water through secure mechanical fittings and connections.

*Note: Torch delivered may vary slightly from image shown.*



W-280 Super Cool  
(301251)



**Miller Electric Mfg. Co.**  
An ITW Welding Company  
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MillerWelds.com  
f t y i n



# Torch Packages

Models		Braided Rubber			Braided Rubber with 50 mm Dinse
Old Model	New Name	12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)	25 ft. (7.6 m)
WP-280	W-280 Super Cool™	301251012	301251025	301251050	301251001*

Torch packages include torch body, handle, power cable, gas hose, water hose, and long back cap.

\*Cable cover included.

# Connectors

## Power cable connectors



**195380**  
50 mm Dinse-style gas thru with gas and water return lines for water-cooled torch.



**195377**  
50 mm Dinse-style with water return line for water-cooled torch.



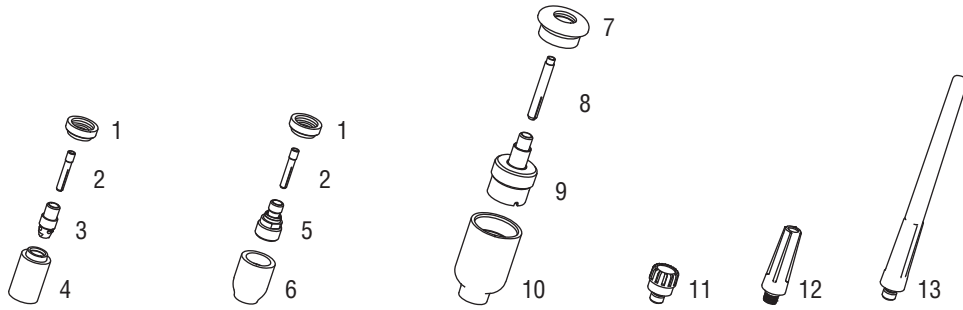
**45V11**  
Power cable adapter for water-cooled torch.



**225028**  
50 mm thread-lock-style for water-cooled torch.

Machines	Connection Type	1-Piece Power Cable Connectors
<b>TIG Machines</b>		
Syncrowave® 200/210	50 mm Dinse-style gas thru	<b>195380</b>
Syncrowave® 250 DX/350 DX (Dinse)	50 mm Dinse-style	<b>195377</b>
Syncrowave® 250 DX/350 DX (stud)	1/2 in. stud	<b>45V11</b>
Dynasty® 200/210/280/350, Maxstar® 200/210/280/350	50 mm Dinse-style	<b>195377</b>
Dynasty® 700, Maxstar® 700	50 mm thread-lock	<b>225028</b>
<b>Multiprocess Machines</b>		
Dimension™ 302/452/NT 450/652	1/2 in. stud	<b>45V11</b>
PipeWorx	1/2 in. stud	<b>45V11</b>
XMT® 304/350	50 mm Dinse-style	<b>195377</b>
XMT® 450	1/2 in. stud	<b>45V11</b>
<b>Engine-Driven Machines</b>		
Most Big Blue®, Trailblazer®, Bobcat™, Blue Star® and Wildcat® models	1/2 in. stud	<b>45V11</b>
Big Blue® 450 Duo CST	50 mm Dinse-style	<b>195377</b>
<b>General Reference</b>		
	50 mm Dinse-style	<b>195377</b>
	50 mm Dinse-style gas thru	<b>195380</b>
	50 mm thread-lock	<b>225028</b>
	1/2 in. stud	<b>45V11</b>
<b>Other Adapter</b>		
	Stud to Dinse-style adapter	<b>232728</b>

# 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)		1/8 (3.2)
1 Insulator (required)	598882		598882		598882		598882		598882
2 Collet	13N20		13N21		13N22		13N23		13N24
3 Collet Body	13N25		13N26		13N27		13N28		13N29
Nozzle Size — size # (inch)	3 (3/16)	4 (1/4)	5 (5/16)	6 (3/8)	7 (7/16)	8 (1/2)	10 (5/8)	12 (3/4)	Short
4 Alumina	—	13N08	13N09	13N10	13N11	13N12	13N13	—	—
* Lava	—	13N14	13N15	13N16	13N17	13N18	13N19	—	—
* Long Lava	796F70	796F71	796F72	796F73	—	—	—	—	—
* X-Long Lava	796F74	796F75	796F76	796F77	—	—	—	—	—
Gas Lens									
Electrode Size — inch (mm)	.020 (0.5)		.040 (1.0)		1/16 (1.6)		3/32 (2.4)		1/8 (3.2)
1 Insulator (required)	598882		598882		598882		598882		598882
2 Collet	13N20		13N21		13N22		13N23		13N24
5 Gas Lens	45V41		45V42		45V43		45V44		45V45
Nozzle Size — size # (inch)	3 (3/16)	4 (1/4)	5 (5/16)	6 (3/8)	7 (7/16)	8 (1/2)	10 (5/8)	12 (3/4)	Short
6 Alumina Gas Lens	—	53N58	53N59	53N60	53N61	53N61S	—	—	—
Large Diameter Gas Lens									
Electrode Size — inch (mm)	.020 (0.5)		.040 (1.0)		1/16 (1.6)		3/32 (2.4)		1/8 (3.2)
7 Insulator (required)	54N63-20		54N63-20		54N63-20		54N63-20		54N63-20
8 Collet	13N20L		13N21L		13N22L		13N23L		13N24L
9 Large Diameter Gas Lens	45V0204S		45V0204S		45V116S		45V64S		995795S
Nozzle Size — size # (inch)	3 (3/16)	4 (1/4)	5 (5/16)	6 (3/8)	7 (7/16)	8 (1/2)	10 (5/8)	12 (3/4)	Short
10 Large Dia. Gas Lens	—	—	—	57N75	—	57N74	53N88	53N87	53N89
* Large Dia. Gas Lens-L	—	—	—	57N75L	—	57N74L	53N88L	53N87L	—
* Large Dia. Gas Lens-XL	—	—	—	57N75XL	—	57N74XL	53N88XL	53N87XL	—
* Large Dia. Gas Lens-XXL	—	—	—	57N75XXL	—	57N74XXL	53N88XXL	53N87XXL	—
Back Caps									
11 Short	41V33		12 Medium		41V35		13 Long		41V24

\*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 #
<b>2% Ceriated (EWCe-2)</b>			<b>Pure (EWP)</b>		
Performs well in DC welding and arc starting at low-current settings, and offers excellent performance in AC processes.	0.040 (1.0)	<b>WC040X7</b>	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)	<b>WC116X7</b>		1/16 (1.6)	<b>WP116X7</b>
	3/32 (2.4)	<b>WC332X7</b>		3/32 (2.4)	<b>WP332X7</b>
	1/8 (3.2)	<b>WC018X7</b>		1/8 (3.2)	<b>WP018X7</b>
5/32 (4.0)	<b>WC532X7</b>	5/32 (4.0)	—		
<b>2% Lanthanated (EWLa-2)</b>			<b>Rare Earth (EWG)</b>		
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)	<b>WL2040X7</b>	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)	<b>WL2116X7</b>		1/16 (1.6)	<b>WG116X7</b>
	3/32 (2.4)	<b>WL2332X7</b>		3/32 (2.4)	<b>WG332X7</b>
	1/8 (3.2)	<b>WL2018X7</b>		1/8 (3.2)	<b>WG018X7</b>
5/32 (4.0)	<b>WL2532X7</b>	5/32 (4.0)	—		

## Replacement Parts

<b>Torch Body</b>		
W-280		<b>301251</b>
<b>Handle</b>		
Knurled		<b>269335</b>
<b>Braided Rubber Power Cables</b>		
<b>12.5 ft. (3.8 m)</b>	<b>25 ft. (7.6 m)</b>	<b>50 ft. (15.2 m)</b>
<b>269757</b>	<b>269758</b>	<b>269759</b>
<b>Braided Rubber Water Hoses</b>		
<b>12.5 ft. (3.8 m)</b>	<b>25 ft. (7.6 m)</b>	<b>50 ft. (15.2 m)</b>
<b>269766</b>	<b>269767</b>	<b>269769</b>
<b>Braided Rubber Gas Hoses</b>		
<b>12.5 ft. (3.8 m)</b>	<b>25 ft. (7.6 m)</b>	<b>50 ft. (15.2 m)</b>
<b>269770</b>	<b>269771</b>	<b>269773</b>

## Genuine Miller® Accessories



**Accessory Kit AK4C**  
Includes one long back cap, one of each size (#5, #6, #7) alumina nozzle, and one of each size (1/16, 3/32, 1/8 inch) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.

**Extension Kit EK-1-25-R** 25 ft. (7.6 m), rubber



**Cable Covers**  
**WC0183** 11.75 ft. (3.6 m)  
For use with torch package 301251012.  
**WC0182** 24.25 ft. (7.4 m)  
For use with torch packages 301251025 and 301251001.  
**WC-3-48** 48 ft. (14.6 m)  
For use with torch package 301251050.



**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.



**Low-Conductivity TIG Coolant 043810**  
Sold in multiples of four in 1-gallon recyclable plastic bottles. Miller coolants contains a base of ethylene glycol and deionized water to protect against freezing to -37° Fahrenheit (-38°C) or boiling to 227° Fahrenheit (108°C).

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