

# Weldcraft™ W-250 Series

## Formerly WP-20 Series

Hand-Held Water-Cooled  
TIG Welding Torches



### QUICK SPECS

#### Models

W-250  
W-250 Valve

#### Applications

Aerospace	Petro/chemical
Dairy	Precision fabrication
Food/beverage industry	Shipbuilding
Manufacturing	Tube and pipe
Maintenance and repair	Vocational

**Rated Output** DC: 250 A, AC: 180 A

**Duty Cycle** 100%

**Electrode Range** .020–1/8 in. (0.5–3.2 mm)



### W-250 Series TIG torches

Formerly known as the WP-20 Series, the W-250 Series water-cooled torches provide consistent performance and long-term trouble-free service with around-the-head water cooling.

**Extend torch life and minimize downtime** due to overheating with the efficient around-the-head cooling design.

**Comfort and control** are increased with the lightweight, well-balanced body design.

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

**Easy hose replacement** with the innovative mechanical fittings design (W-250 Valve).

*Note: Torches delivered may vary slightly from images shown.*

W-250  
(WP-20)

W-250 Valve  
(WP-20V)



**Miller Electric Mfg. LLC**  
An ITW Welding Company  
1635 West Spencer Street  
P.O. Box 1079  
Appleton, WI 54912-1079 USA

**Equipment Sales US and Canada**  
Phone: 866-931-9730  
International Phone: 920-735-4554

MillerWelds.com



# Torch Packages

MODELS		BRAIDED RUBBER		VINYL	
Old Model	New Name	12.5 ft. (3.8 m)	25 ft. (7.6 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)
WP-20	W-250	WP-20-12-R	WP-20-25-R	WP-20-12	WP-20-25
WP-20V	W-250 Valve	—	—	—	WP-20V-25

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

## Connectors

### 1-piece power cable connectors



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



**301883**  
25 mm Dinse-style flow thru gas and water return lines for water-cooled torch.



**301884**  
50 mm Dinse-style connector that adapts machines with flow through gas valves to coolers.



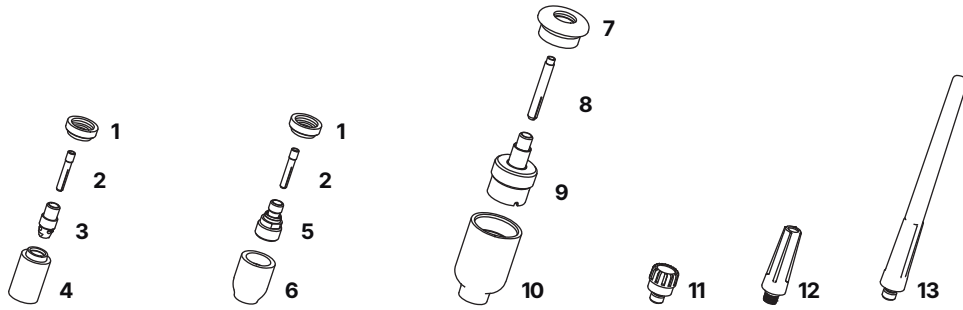
**225028**  
50 mm thread-lock-style for water-cooled torch.



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

MACHINES	CONNECTION TYPE	1-PIECE POWER CABLE CONNECTORS
<b>TIG Machines</b>		
CST™ 280/282	50 mm Dinse-style	<b>195377</b>
Dynasty® 200/210/280/300/350/400	50 mm Dinse-style	<b>195377</b>
Dynasty® 700/800	50 mm thread-lock	<b>225028</b>
Maxstar® 200/210/280/350/400	50 mm Dinse-style	<b>195377</b>
Maxstar® 700/800	50 mm thread-lock	<b>225028</b>
Syncrowave® 200/210/212	50 mm Dinse-style gas thru	<b>301884</b>
Syncrowave® 250 DX/300/350 LX/400	50 mm Dinse-style	<b>195377</b>
	1/2 in. stud	<b>45V11</b>
<b>Multiprocess Machines</b>		
Dimension™ 302/452/NT 450/650/652	1/2 in. stud	<b>45V11</b>
Dynasty® 280 DX Multiprocess/300 Multiprocess	50 mm Dinse-style	<b>195377</b>
Multimatic® 220 AC/DC	25 mm Dinse-style gas thru	<b>301883</b>
Multimatic® 235/255	50 mm Dinse-style	<b>195377</b>
PipeWorx	1/2 in. stud	<b>45V11</b>
XMT® 304/350/400	50 mm Dinse-style	<b>195377</b>
XMT® 450/650	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>Other Adapter</b>		
	Stud to Dinse-style adapter	<b>232728</b>

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



NON-GAS LENS									
<b>Electrode Size — inch (mm)</b>	<b>.040 (1.0)</b>		<b>1/16 (1.6)</b>			<b>3/32 (2.4)</b>		<b>1/8 (3.2)</b>	
1 Insulator (required)	598882		598882			598882		598882	
2 Collet	13N21		13N22			13N23		13N24	
3 Collet Body	13N26		13N27			13N28		13N29	
<b>Nozzle Size — size # (inch)</b>	<b>3 (3/16)</b>	<b>4 (1/4)</b>	<b>5 (5/16)</b>	<b>6 (3/8)</b>	<b>7 (7/16)</b>	<b>8 (1/2)</b>	<b>10 (5/8)</b>	<b>12 (3/4)</b>	<b>Short</b>
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									
<b>Electrode Size — inch (mm)</b>	<b>.040 (1.0)</b>		<b>1/16 (1.6)</b>			<b>3/32 (2.4)</b>		<b>1/8 (3.2)</b>	
1 Insulator (required)	598882		598882			598882		598882	
2 Collet	13N21		13N22			13N23		13N24	
5 Gas Lens	45V42		45V43			45V44		45V45	
<b>Nozzle Size — size # (inch)</b>	<b>3 (3/16)</b>	<b>4 (1/4)</b>	<b>5 (5/16)</b>	<b>6 (3/8)</b>	<b>7 (7/16)</b>	<b>8 (1/2)</b>	<b>10 (5/8)</b>	<b>12 (3/4)</b>	<b>Short</b>
6 Alumina Gas Lens	—	53N58	53N59	53N60	53N61	53N61S	—	—	—
LARGE DIAMETER GAS LENS									
<b>Electrode Size — inch (mm)</b>	<b>.040 (1.0)</b>		<b>1/16 (1.6)</b>			<b>3/32 (2.4)</b>		<b>1/8 (3.2)</b>	
7 Insulator (required)	54N63-20		54N63-20			54N63-20		54N63-20	
8 Collet	13N21L		13N22L			13N23L		13N24L	
9 Large Diameter Gas Lens	45V0204S		45V116S			45V64S		995795S	
<b>Nozzle Size — size # (inch)</b>	<b>3 (3/16)</b>	<b>4 (1/4)</b>	<b>5 (5/16)</b>	<b>6 (3/8)</b>	<b>7 (7/16)</b>	<b>8 (1/2)</b>	<b>10 (5/8)</b>	<b>12 (3/4)</b>	<b>Short</b>
10 Large Diameter Gas Lens	—	—	—	57N75	—	57N74	53N88	53N87	53N89
* Large Diameter Gas Lens-L	—	—	—	57N75L	—	57N74L	53N88L	53N87L	—
* Large Diameter Gas Lens-XL	—	—	—	57N75XL	—	57N74XL	53N88XL	53N87XL	—
BACK CAPS									
11 Short 41V33	12 Medium 41V35	13 Long 41V24	* Back cap insulator 9-4						

\*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 #
<b>2% Ceriated (EWCe-2)</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>
	1/16 (1.6)	<b>WC116X7</b>
	3/32 (2.4)	<b>WC332X7</b>
	1/8 (3.2)	<b>WC018X7</b>
	5/32 (4.0)	<b>WC532X7</b>
<b>2% Lanthanated (EWLa-2)</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>
	1/16 (1.6)	<b>WL2116X7</b>
	3/32 (2.4)	<b>WL2332X7</b>
	1/8 (3.2)	<b>WL2018X7</b>
	5/32 (4.0)	<b>WL2532X7</b>
<b>Pure (EWP)</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>WP116X7</b>
	3/32 (2.4)	<b>WP332X7</b>
	1/8 (3.2)	<b>WP018X7</b>
	5/32 (4.0)	—
<b>Rare Earth (EWG)</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>WG116X7</b>
	3/32 (2.4)	<b>WG332X7</b>
	1/8 (3.2)	<b>WG018X7</b>
	5/32 (4.0)	—

# Replacement Parts

<b>Torch Bodies</b>		
W-250		<b>WP-20</b>
W-250 Valve		<b>WP-20V</b>
<b>Handles</b>		
W-250 (ribbed)		<b>53N06R</b>
W-250 Valve (knurled)		<b>53N06</b>
<b>Valve Knob</b>		
W-250 Valve		<b>VS-2</b>
<b>Braided Rubber Power Cables and Hoses</b>		
	<b>12.5 ft. (3.8 m)</b>	<b>25 ft. (7.6 m)</b>
Power Cable	<b>45V03R</b>	<b>45V04R</b>
Water Hose*	<b>45V07R</b>	<b>45V08R</b>
Gas Hose*	<b>45V09R</b>	<b>45V10R</b>
<b>Vinyl Power Cables and Hoses</b>		
	<b>12.5 ft. (3.8 m)</b>	<b>25 ft. (7.6 m)</b>
Power Cable	<b>45V03HD</b>	<b>45V04HD</b>
Water Hose*	<b>45V07HD</b>	<b>45V08HD</b>
Gas Hose*	<b>45V09</b>	<b>45V10</b>

\*Requires hose clamp 53N04.

# Genuine Miller® Accessories



### Gas Lens Kit AK4GL

Includes one short back cap, one of each size (#6, #7, #8) alumina

nozzle, and one of each size (1/16, 3/32, 1/8 inch) of the following: gas lens, collet, and 7-inch 2% ceriated tungsten electrode.



### Gas Lens Kit 301877

For use with Syncrowave® 212. Consumables match Auto-Set recommendations.

Includes one of each size (#5, #8) alumina nozzle, and one of each size (1/16, 3/32 inch) of the following: gas lens, collet, and 7-inch 2% ceriated tungsten electrode.



### 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

**WC-3-10** 10 ft. (3 m)  
**WC-3-22** 22 ft. (6.7 m)



### Wireless Remote Foot Control 301580

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 301582

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

Must be ordered in quantities of four. One-gallon recyclable plastic bottle. Miller coolants contain 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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