

# Weldcraft™ W-350 Series

## Formerly WP-18 Series

Hand-Held Water-Cooled  
TIG Welding Torches



### Quick Specs

#### Models

W-350  
W-350 Valve

#### Applications

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

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

#### Rated Output

DC: 350 A, AC: 250 A

**Duty Cycle** 100%

#### Electrode Range

.020–5/32 in. (0.5–4.0 mm)



### W-350 Series TIG torches

Formerly known as the WP-18 Series, the W-350 Series is comprised of rugged torches engineered for high-amperage and continuous hand-held welding in mechanized applications. With the W-350 Series, welders can handle their welding applications with more power and comfort.

**Reduce downtime and costs** by minimizing overheating with the unique cooling design engineered for operator comfort.

**Reduce discomfort and fatigue** using the comfortable handle design.

**Superior gas flow control** offered through the built-in fingertip gas control (W-350 Valve).

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

W-350  
(WP-18)

W-350 Valve  
(WP-18V)



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**MillerWelds.com**  
f t y i n



## Torch Packages

Models		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-18	W-350	WP-18-12-R	WP-18-25-R	WP-18-12	WP-18-25
WP-18V	W-350 Valve	—	WP-18V-25-R	—	WP-18V-25

V = Valve

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

## 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.



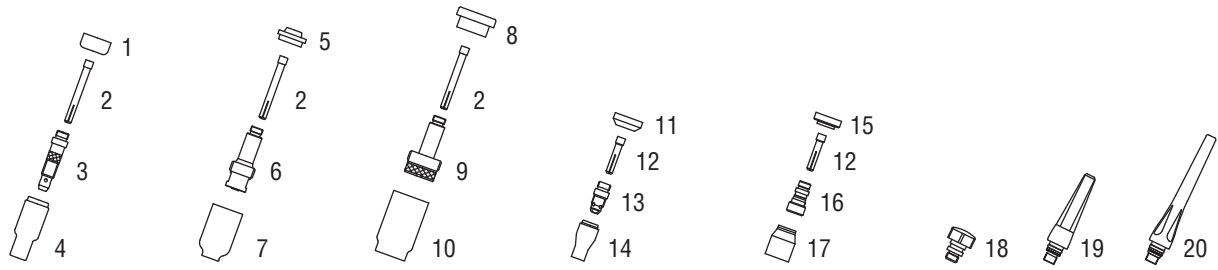
**45V11**  
Power cable adapter for water-cooled torch.



**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								
<b>Electrode Size — inch (mm)</b>	<b>.020 (0.5)</b>	<b>.040 (1.0)</b>	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>		
1 Insulator (required)	18CG	18CG	18CG	18CG	18CG	18CG	18CG	18CG
2 Collet	10N21	10N22	10N23	10N24	10N25	10N25	54N20	54N20
3 Collet Body	10N29	10N30	10N31	10N32	10N28	10N28	406488	406488
<b>Nozzle Size — size # (inch)</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	10N50	10N49	10N48	10N47	10N46	10N45	10N44	—
* Long Alumina	—	10N49L	10N48L	10N47L	—	—	—	—
* Lava	105Z43	105Z42	105Z44	105Z45	08N78	08N79	08N80	—
* Long Lava	12N03	105Z60	12N02	105Z61	—	—	—	—
Gas Lens								
<b>Electrode Size — inch (mm)</b>	<b>.020 (0.5)</b>	<b>.040 (1.0)</b>	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>		
5 Insulator (required)	54N01	54N01	54N01	54N01	54N01	54N01	54N01	54N01
2 Collet	10N21	10N22	10N23	10N24	10N24	10N25	54N20	54N20
6 Gas Lens	45V29	45V24	45V25	45V26	45V26	45V27	45V28	45V28
<b>Nozzle Size — size # (inch)</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>
7 Alumina Gas Lens	54N18	54N17	54N16	54N15	54N14	—	—	54N19
* Long Gas Lens	—	54N17L	54N16L	54N15L	—	—	—	—
Large Diameter Gas Lens								
<b>Electrode Size — inch (mm)</b>	<b>.020 (0.5)</b>	<b>.040 (1.0)</b>	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>		
8 Insulator (required)	54N63	54N63	54N63	54N63	54N63	54N63	54N63	54N63
2 Collet	10N21	10N22	10N23	10N24	10N24	10N25	54N20	54N20
9 Large Diameter Gas Lens	45V0204	45V0204	45V116	45V64	45V64	995795	45V63	45V63
<b>Nozzle Size — size # (inch)</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 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	—
Stubby Non-Gas Lens								
<b>Electrode Size — inch (mm)</b>	<b>.020 (0.5)</b>	<b>.040 (1.0)</b>	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>			
11 Insulator (required)	18CG20	18CG20	18CG20	18CG20	18CG20	18CG20	18CG20	18CG20
12 Stubby Collet	—	10N22S	10N23S	10N24S	10N24S	10N25S	10N25S	10N25S
13 Stubby Collet Body	17CB20	17CB20	17CB20	17CB20	17CB20	17CB20	17CB20	17CB20
<b>Nozzle Size — size # (inch)</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>
14 Stubby Alumina	13N08	13N09	13N10	13N11	13N12	13N13	—	—
Stubby Gas Lens								
<b>Electrode Size — inch (mm)</b>	<b>.020 (0.5)</b>	<b>.040 (1.0)</b>	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>			
15 Insulator (required)	17GLG20	17GLG20	17GLG20	17GLG20	17GLG20	17GLG20	17GLG20	17GLG20
12 Stubby Collet	—	10N22S	10N23S	10N24S	10N24S	10N25S	10N25S	10N25S
16 Stubby Gas Lens	—	17GL040	17GL116	17GL332	17GL332	17GL18	17GL18	17GL18
<b>Nozzle Size — size # (inch)</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>
17 Alumina Gas Lens	53N58	53N59	53N60	53N61	53N61S	—	—	—
Back Caps								
18 Short	57Y04	19 Medium	300M	20 Long	57Y02			

\*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 Bodies</b>		
W-350		<b>WP-18</b>
W-350 Valve		<b>WP-18V</b>
<b>Handles</b>		
W-350 (ribbed)		<b>H-200R</b>
W-350 Valve (knurled)		<b>H-200</b>
<b>Valve Knob</b>		
W-350 Valve		<b>VS-1</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>40V64R</b>	<b>41V29R</b>
Water Hose	<b>40V74R</b>	<b>41V32R</b>
Gas Hose	<b>40V75R18</b>	<b>41V30R18</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>40V64</b>	<b>41V29</b>
Water Hose	<b>40V74</b>	<b>41V32</b>
Gas Hose	<b>40V75</b>	<b>41V30</b>

## Genuine Miller® Accessories



### Accessory Kit AK3C

Includes one short back cap, one of each size (#5, #6, #8) 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.



### Accessory Kit MAK-2S

Includes one short and one long back cap, four back cap o-rings, two cup gaskets, one gas lens insulator, and one of each size (.040, 1/16, 3/32, 1/8 inch) gas lens. Also includes the following: ten collets (1) .040, (3) 1/16, (3) 3/32, (2) 1/8, (1) 5/32; and eight collet bodies (1) .040, (2) 1/16, (2) 3/32, (2) 1/8, (1) 5/32.

### 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 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 coolant 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).

Distributed by:

