

# Weldcraft™ A-250 Series

Hand-Held Air-Cooled  
TIG Welding Torches



## Quick Specs

### Models

A-250  
A-250 Valve

### Applications

Fabrication  
Maintenance and repair  
Manufacturing  
Shipbuilding  
Vocational

### Rated Output

DC: 250 A, AC: 188 A

**Duty Cycle** 60%

### Electrode Range

.020–5/32 in. (0.5–4.0 mm)

## A-250 Series TIG torches

The A-250 Series is a high-amperage air-cooled torch designed for heavy-duty welding applications without needing to be water-cooled.

**Eliminate the expense** of a water-cooled system. The air-cooled capability pairs reliability with cost-effectiveness for all field applications.

**Robust performance.** The heavy copper construction delivers optimal welding capacity for rugged fieldwork.

**Effortless adjustments.** The A-250 Valve provides a gas control valve to ensure a quick, easy adjustment of shielding gas flow.

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



A-250  
(301525)

A-250 Valve  
(301526)



### Miller Electric Mfg. LLC

An ITW Welding Company  
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### MillerWelds.com



## Torch Packages

Models	2-Piece Power Cable, Rubber
<b>Name</b>	<b>25 ft. (7.6 m)</b>
A-250	<b>301525025</b>
A-250 Valve	<b>301526025</b>

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

## Connector

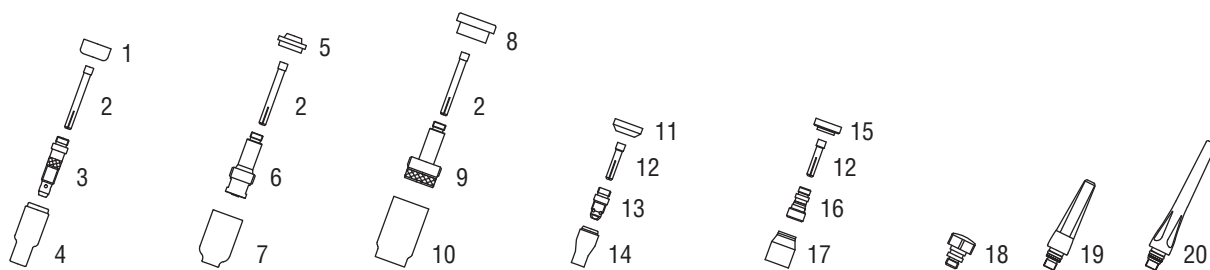
### 2-piece power cable connector



**129527**  
50 mm Dinse-style for two-piece cable air-cooled torch.

Machines	Connection Type	2-Piece Power Cable Connector
<b>TIG Machines</b>		
Syncrowave® 250 DX/350 LX (Dinse)	50 mm Dinse-style	<b>129527</b>
Syncrowave® 250 DX/350 LX (stud)	1/2 in. stud	N/A
Dynasty® 210/280/400 and Maxstar® 210/280/400	50 mm Dinse-style	<b>129527</b>
<b>Multiprocess Machines</b>		
Dynasty® 280 DX Multiprocess	50 mm Dinse-style	<b>129527</b>
Dimension™ 302/452/NT 450/652	1/2 in. stud	N/A
PipeWorx	1/2 in. stud	N/A
XMT® 304/350	50 mm Dinse-style	<b>129527</b>
XMT® 450	1/2 in. stud	N/A
<b>Engine-Driven Machines</b>		
Most Big Blue®, Trailblazer®, Bobcat™, Blue Star® and Wildcat® models	1/2 in. stud	N/A
Big Blue® 450 Duo CST	50 mm Dinse-style	<b>129527</b>
<b>General Reference</b>		
	50 mm Dinse-style	<b>129527</b>
	50 mm Dinse-style gas thru	N/A
	1/2 in. stud	N/A

# 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

Torch Bodies	
A-250	<b>301525</b>
A-250 Valve	<b>301526</b>
Handles	
A-250 (ribbed)	<b>H-200R</b>
A-250 Valve (knurled)	<b>H-200</b>
Valve Knob	
All valve models	<b>VS-1</b>

## Genuine Miller® Accessories



### Accessory Kit **AK3GL**

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.



### 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.



### Cable Cover **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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