

Weldcraft™ W-500

Formerly WP-12

Hand-Held Water-Cooled
TIG Welding Torches 

Quick Specs

Model
W-500

Applications

Aluminum Ship Repair
Heavy Fabrication
Metal Fabrication
Pipe and Tube Fabrication

Pressure Vessel Fabrication
Tool and Die
Tube Mills
Vocational

Rated Output

DC: 500 A, AC: 350 A

Duty Cycle 100%

Electrode Range

1/16–1/4 in. (1.6–6.4 mm)



W-500
(WP-12)

W-500 TIG Torch

Formerly known as the WP-12, the W-500 is a dependable water-cooled torch designed for high-capacity, demanding applications. The W-500 is engineered to pair heavy-duty welding applications with a water-cooled system.

Comfort and reduced downtime due to the sealed water chamber that minimizes torch overheating.

Heavy-duty components provide reliable welding performance, even after continuous and demanding use.

Copper construction ensures maximum thermal conductivity.

Note: Torch delivered may vary slightly from image shown.



Torch is warranted for 1 year parts.



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

Equipment Sales US and Canada
Phone: 866-931-9730
FAX: 800-637-2315
International Phone: 920-735-4554
International FAX: 920-735-4125

MillerWelds.com
  



Torch Packages

Models		Rubber
Old Model	New Name	25 ft. (7.6 m)
WP-12	W-500	WP-12-25

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

Connectors

Power Cable Connectors



195 380
50-mm Dinse-style gas thru with gas and water return lines for water-cooled torch.



195 377
50-mm Dinse-style with water return line for water-cooled torch.



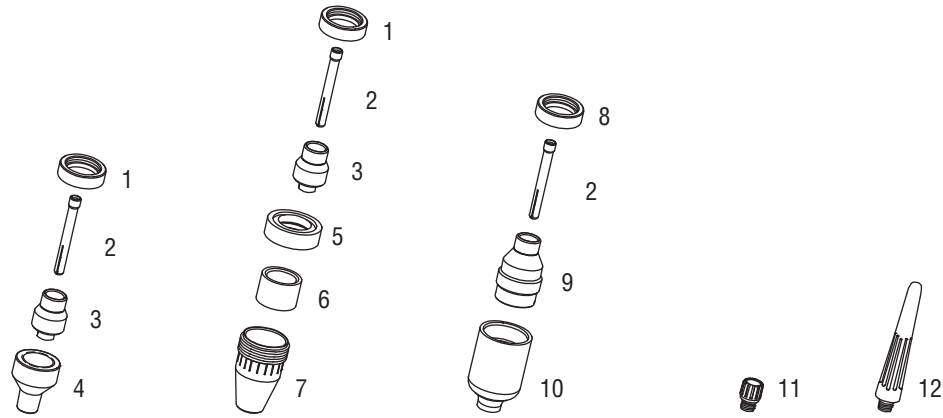
45V11
Power cable adapter for water-cooled torch.



225 028
50-mm thread-lock-style for water-cooled torch.

Machines	Connection Type	1-Piece Power Cable Connector
TIG Machines		
Syncrowave® 200/210	50-mm Dinse, Gas Thru	195 380
Syncrowave® 250 DX/350 DX (Dinse)	50-mm Dinse	195 377
Syncrowave® 250 DX/350 DX (Stud)	1/2-in. Stud	45V11
Dynasty® 200/280/350, Maxstar® 200/280/350	50-mm Dinse	195 377
Dynasty® 700, Maxstar® 700	50-mm Thread-Lock	225 028
Multiprocess Machines		
Dimension™ 302/452/NT 450/652	1/2-in. Stud	45V11
PipeWorx	1/2-in. Stud	45V11
XMT® 304/350	50-mm Dinse	195 377
XMT® 450	1/2-in. Stud	45V11
Engine-Driven Machines		
Most Big Blue®, Trailblazer®, Bobcat™, Blue Star® and Wildcat® models	1/2-in. Stud	45V11
Big Blue® 450 Duo CST	50-mm Dinse	195 377
General Reference		
	50-mm Dinse	195 377
	50-mm Dinse, Gas Thru	195 380
	50-mm Thread-Lock	225 028
	1/2-in. Stud	45V11
Other Adapter		
	Stud to Dinse Adapter	232 728

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



Non-Gas Lens								
Electrode Size — inch (mm)	1/16 (1.6)	3/32 (2.4)	1/8 (3.2)	5/32 (4.0)	3/16 (4.8)			1/4 (6.4)
1 Insulator (required)	12NG	12NG	12NG	12NG	12NG			12NG
2 Collet	85Z14	85Z15	85Z16	85Z17	85Z18			85Z19
3 Collet Body	11WP65	11WP65	11WP65	11WP65	11WP65			11WP65
Nozzle Size — size # (inch)	4 (1/4)	5 (5/16)	6 (3/8)	7 (7/16)	8 (1/2)	10 (5/8)	12 (3/4)	Short
4 Alumina	14N57	14N58	14N59	14N60	14N61	14N61-10	14N61-12	—
* Long Alumina	14GL68	14GL69	14GL70	14GL71	14GL72	—	—	—
Metal Non-Gas Lens								
Electrode Size — inch (mm)	1/16 (1.6)	3/32 (2.4)	1/8 (3.2)	5/32 (4.0)	3/16 (4.8)			1/4 (6.4)
1 Insulator (required)	12NG	12NG	12NG	12NG	12NG			12NG
2 Collet	85Z14	85Z15	85Z16	85Z17	85Z18			85Z19
3 Collet Body	11WP65	11WP65	11WP65	11WP65	11WP65			11WP65
5 Nozzle Gasket (required)	12MNG	12MNG	12MNG	12MNG	12MNG			12MNG
6 Insulator Sleeve (required)	85Z99	85Z99	85Z99	85Z99	85Z99			85Z99
Nozzle Size — size # (inch)	4 (1/4)	5 (5/16)	6 (3/8)	7 (7/16)	8 (1/2)	10 (5/8)	12 (3/4)	Short
7 Metal	—	—	—	—	86Z02	—	—	—
Gas Lens								
Electrode Size — inch (mm)	1/16 (1.6)	3/32 (2.4)	1/8 (3.2)	5/32 (4.0)	3/16 (4.8)			1/4 (6.4)
8 Insulator (required)	12GLG	12GLG	12GLG	12GLG	12GLG			12GLG
2 Collet	85Z14	85Z15	85Z16	85Z17	85Z18			85Z19
9 Gas Lens	11GL16	11GL32	11GL18	11GL53	11GL36			—
Nozzle Size — size # (inch)	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	56Y45		12 Long 56Y44					

*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 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.



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.



RCCS-14 Remote Contactor and Current Control #043 688

North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) control cord and 14-pin plug.



RCC-14 Remote Contactor and Current Control #151 086

East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord and 14-pin plug.



Cable Covers #WC-4-22 22 ft. (6.7 m)

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



Low-Conductivity TIG Coolant #043 810

Sold in multiples of four in one-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).

Distributed by:

