

Weldcraft™ W-310

Formerly CS310

**Hand-Held Water-Cooled
TIG Welding Torches**



Quick Specs

Model
W-310

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: 310 A, AC: 235 A

Duty Cycle 100%

Electrode Range

.020–1/8 in. (0.5–3.2 mm)



**W-310
(CS310A)**

W-310 TIG torch

Formerly known as the CS310, the W-310 is a consistent and versatile water-cooled torch designed for demanding applications. With the W-310, welders are able to increase amperage output without increasing the torch size.

Simplify torch package installation with ColorSmart™ hose and cable sets that differentiate input water, water/power cable, and gas hoses.

D-Handle™ design features a self-indexing flat top that allows for torch orientation by feel.

Work in cold weather with the Tri-Flex™ hose and cable assembly that remains flexible to ease handling and extends cable life.

Improve high-frequency shielding and reduce gas leakages with the double-lip back cap seal.

Note: Torch delivered may vary slightly from image shown.



Miller Electric Mfg. Co.
An ITW Welding Company
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MillerWelds.com



Torch Packages

Models		Braided Rubber		
Old Model	New Name	12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)
CS310A	W-310	CS310-12	CS310-25	CS310-50

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

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.



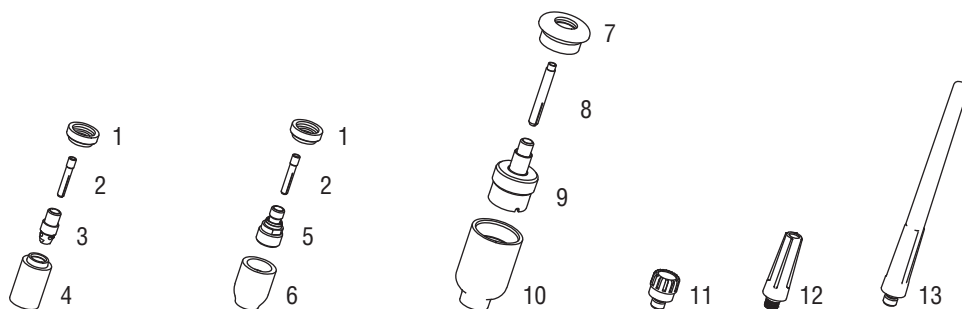
45V11
Power cable adapter for water-cooled torch.



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

Machines	Connection Type	1-Piece Power Cable Connectors
TIG Machines		
Syncrowave® 200/210	50 mm Dinse-style gas thru	195380
Syncrowave® 250 DX/350 DX (Dinse)	50 mm Dinse-style	195377
Syncrowave® 250 DX/350 DX (stud)	1/2 in. stud	45V11
Dynasty® 200/210/280/350, Maxstar® 200/210/280/350	50 mm Dinse-style	195377
Dynasty® 700, Maxstar® 700	50 mm thread-lock	225028
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-style	195377
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-style	195377
General Reference		
	50 mm Dinse-style	195377
	50 mm Dinse-style gas thru	195380
	50 mm thread-lock	225028
	1/2 in. stud	45V11
Other Adapter		
	Stud to Dinse-style adapter	232728

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 CS110-BSC 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 #
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)	—

Replacement Parts

Torch Body		
W-310		CS310A
Handle		
D-Handle		CS110-H
Braided Rubber Power Cables		
12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)
269764	269765	269759
Braided Rubber Water Hoses		
12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)
CS310-12W	CS310-25W	CS310-50W
Braided Rubber Gas Hoses		
12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)
CS310-12G	CS310-25G	CS310-50G

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
WC-3-10 10 ft. (3 m)
WC-3-22 22 ft. (6.7 m)
WC-3-48 48 ft. (14.6 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 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:

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