

# Weldcraft™ W-410

## Formerly CS410

Hand-Held Water-Cooled  
TIG Welding Torches 

### Quick Specs

**Model**  
W-410

**Applications**

Aerospace  
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: 410 A, AC: 310 A

**Duty Cycle** 100%

**Electrode Range**

.020–5/32 in. (0.5–4.0 mm)



W-410  
(CS410A)

### W-410 TIG Torch

Formerly known as the CS410, the W-410 is a versatile torch designed for demanding applications. The W-410 increases amperage output without increasing the torch size, and is engineered for welder satisfaction even in the coldest weather with top of the line technology.

**Simplify torch package installation** with the 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 minimize gas leakages with the double-lip back cap seal.

*Note: Torch delivered may vary slightly from image shown.*



Torch is warranted for 1 year parts.



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An ITW Company  
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**MillerWelds.com**  
  



## Torch Packages

Models		Braided Rubber
<b>Old Model</b>	<b>New Name</b>	<b>25 ft. (7.6 m)</b>
CS410A	W-410	<b>CS410-25</b>

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

## 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.



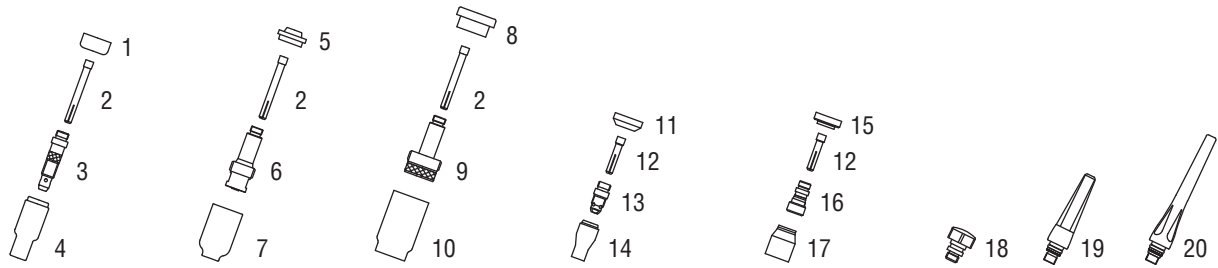
**45V11**  
Power cable adapter for water-cooled torch.



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

Machines	Connection Type	1-Piece Power Cable Connector
<b>TIG Machines</b>		
Syncrowave® 200/210	50-mm Dinse, Gas Thru	<b>195 380</b>
Syncrowave® 250 DX/350 DX (Dinse)	50-mm Dinse	<b>195 377</b>
Syncrowave® 250 DX/350 DX (Stud)	1/2-in. Stud	<b>45V11</b>
Dynasty® 200/280/350, Maxstar® 200/280/350	50-mm Dinse	<b>195 377</b>
Dynasty® 700, Maxstar® 700	50-mm Thread-Lock	<b>225 028</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	<b>195 377</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	<b>195 377</b>
<b>General Reference</b>		
	50-mm Dinse	<b>195 377</b>
	50-mm Dinse, Gas Thru	<b>195 380</b>
	50-mm Thread-Lock	<b>225 028</b>
	1/2-in. Stud	<b>45V11</b>
<b>Other Adapter</b>		
	Stud to Dinse Adapter	<b>232 728</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 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 #
<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)	—

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



### #AK4C Accessory Kit

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.

Distributed by:

