

Weldcraft™ W-225 Pencil

Formerly WP-20P

Hand-Held Water-Cooled
TIG Welding Torches



QUICK SPECS

Model

W-225 Pencil

Applications

Aerospace	Petro/chemical
Dairy	Precision fabrication
Food/beverage industry	Shipbuilding
Manufacturing	Tube and pipe
Maintenance and repair	Vocational

Rated Output DC: 225 A, AC: 160 A

Duty Cycle 100%

Electrode Range .040–1/8 in. (1.0–3.2 mm)

W-225 Pencil TIG torch

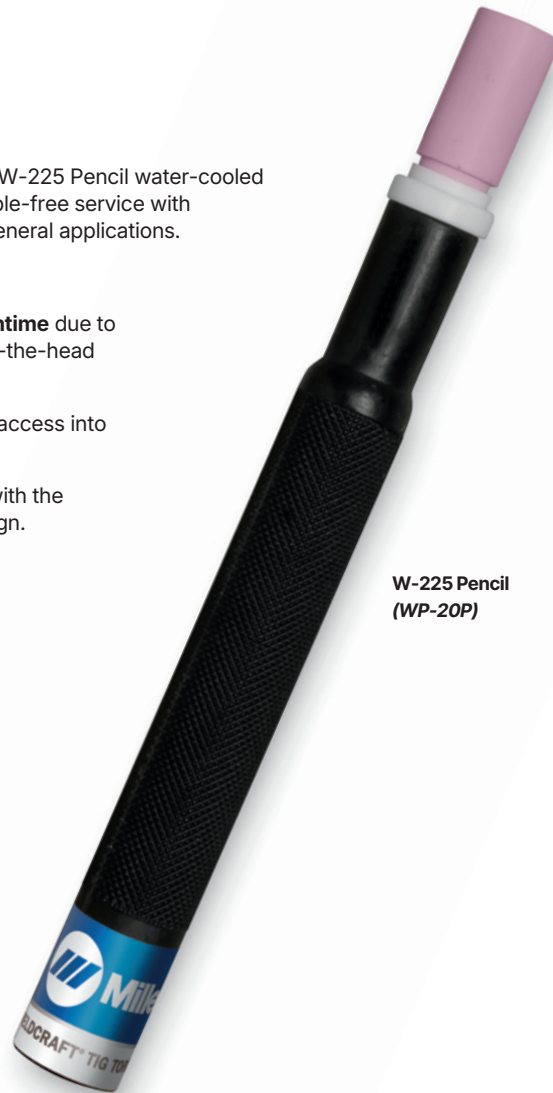
Formerly known as the WP-20P, the W-225 Pencil water-cooled torch is designed for long-term, trouble-free service with consistent welding performance in general applications.

Extend torch life and minimize downtime due to overheating with the efficient around-the-head cooling design.

Pencil-style head allows for greater access into hard-to-reach joints.

Comfort and control are increased with the lightweight, well-balanced body design.

Note: Torches delivered may vary slightly from images shown.



W-225 Pencil
(WP-20P)

TRUE BLUE
WARRANTY

Miller Electric Mfg. LLC
An ITW Welding Company
1635 West Spencer Street
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Appleton, WI 54912-1079 USA

Equipment Sales US and Canada
Phone: 866-931-9730
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MillerWelds.com



Torch Packages

MODEL		VINYL	
Old Model	New Name	12.5 ft. (3.8 m)	25 ft. (7.6 m)
WP-20P	W-225 Pencil	WP-20P-12	WP-20P-25

P = Pencil Torch packages include torch body, handle, power cable, gas hose, and water hose.

Connectors

1-piece power cable connectors



195377
50 mm Dinse-style with water return line for water-cooled torch.



301883
25 mm Dinse-style flow thru gas and water return lines for water-cooled torch.



301884
50 mm Dinse-style connector that adapts machines with flow through gas valves to coolers.



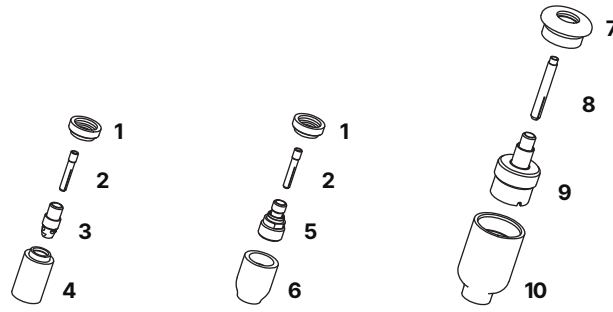
225028
50 mm thread-lock-style for water-cooled torch.



45V11
Power cable adapter for water-cooled torch.

MACHINES	CONNECTION TYPE	1-PIECE POWER CABLE CONNECTORS
TIG Machines		
CST™ 280/282	50 mm Dinse-style	195377
Dynasty® 200/210/280/300/350/400	50 mm Dinse-style	195377
Dynasty® 700/800	50 mm thread-lock	225028
Maxstar® 200/210/280/350/400	50 mm Dinse-style	195377
Maxstar® 700/800	50 mm thread-lock	225028
Syncrowave® 200/210/212	50 mm Dinse-style gas thru	301884
Syncrowave® 250 DX/300/350 LX/400	50 mm Dinse-style	195377
	1/2 in. stud	45V11
Multiprocess Machines		
Dimension™ 302/452/NT 450/650/652	1/2 in. stud	45V11
Dynasty® 280 DX Multiprocess/300 Multiprocess	50 mm Dinse-style	195377
Multimatic® 220 AC/DC	25 mm Dinse-style gas thru	301883
Multimatic® 235/255	50 mm Dinse-style	195377
PipeWorx	1/2 in. stud	45V11
XMT® 304/350/400	50 mm Dinse-style	195377
XMT® 450/650	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
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)	.040 (1.0)		1/16 (1.6)		3/32 (2.4)		1/8 (3.2)		
1 Insulator (required)	598882		598882		598882		598882		
2 Collet	13N21		13N22		13N23		13N24		
3 Collet Body	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)	.040 (1.0)		1/16 (1.6)		3/32 (2.4)		1/8 (3.2)		
1 Insulator (required)	598882		598882		598882		598882		
2 Collet	13N21		13N22		13N23		13N24		
5 Gas Lens	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)	.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		
8 Collet	13N21L		13N22L		13N23L		13N24L		
9 Large Diameter Gas Lens	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 Diameter Gas Lens	—	—	—	57N75	—	57N74	53N88	53N87	53N89
* Large Diameter Gas Lens-L	—	—	—	57N75L	—	57N74L	53N88L	53N87L	—
* Large Diameter Gas Lens-XL	—	—	—	57N75XL	—	57N74XL	53N88XL	53N87XL	—

*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 #
2% Ceriated (EWCe-2)		
Performs well in DC welding and arc starting at low-current settings, and offers excellent performance in AC processes.	0.040 (1.0)	WC040X7
	1/16 (1.6)	WC116X7
	3/32 (2.4)	WC332X7
	1/8 (3.2)	WC018X7
	5/32 (4.0)	WC532X7
2% Lanthanated (EWLa-2)		
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
	1/16 (1.6)	WL2116X7
	3/32 (2.4)	WL2332X7
	1/8 (3.2)	WL2018X7
	5/32 (4.0)	WL2532X7
Pure (EWP)		
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)	WP116X7
	3/32 (2.4)	WP332X7
	1/8 (3.2)	WP018X7
	5/32 (4.0)	—
Rare Earth (EWG)		
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)	WG116X7
	3/32 (2.4)	WG332X7
	1/8 (3.2)	WG018X7
	5/32 (4.0)	—

Replacement Parts

Torch Body		
W-225		WP-20P
Handles		
Ribbed		53N06R
Knurled		53N06
Vinyl Power Cables and Hoses		
	12.5 ft. (3.8 m)	25 ft. (7.6 m)
Power Cable	45V03HD	45V04HD
Water Hose*	45V07HD	45V08HD
Gas Hose*	45V09	45V10

*Requires hose clamp 53N04.

Genuine Miller® Accessories

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



Cable Cover
WC-3-10 10 ft. (3 m)
WC-3-22 22 ft. (6.7 m)



Wireless Remote Foot Control 301580
 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 301582
 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

Must be ordered in quantities of four. One-gallon recyclable plastic bottle. 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:

