

Weldcraft™ Automation Series

Machine-Held TIG
Welding Torches



QUICK SPECS

Models	Type	Rated Output	Duty Cycle	Electrode Range
A-150 Automation	Air-cooled	DC: 150 A, AC: 120 A	60%	.040–3/32 in. (1.0–2.4 mm)
W-250 Automation	Water-cooled	DC: 250 A, AC: 180 A	100%	.040–1/8 in. (1.0–3.2 mm)
W-500 Series Automation	Water-cooled	DC: 500 A, AC: 350 A	100%	.040–1/4 in. (1.0–6.4 mm)

Automation Series TIG torches

Designed for high- and low-amperage mechanized applications, these air- and water-cooled automation torches are engineered to meet your stringent and continuous demands.



A-150 Automation
(WP-23A)



W-250 Automation
(WP-22A)



W-500A Automation
(WP-27A)



W-500B Automation
(WP-27B)

Minimize downtime associated with tungsten changeover by using the front or back tungsten loading areas.

Built-in gas lens improves gas coverage to minimize shielding gas turbulence and improve weld quality (W-500A Automation, W-500B Automation).

Handle the most demanding high-amperage applications with the W-500 Series Automation torches.

Note: Torches delivered may vary slightly from images shown.



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An ITW Welding Company
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Equipment Sales US and Canada
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MillerWelds.com



A-150 Automation Torch and Packages

Applications	Type	Rated Output	Duty Cycle	Electrode Range
Automated welding Robots Tube mills Seamers	Air-cooled	DC: 150 A, AC: 120 A	60%	.040–3/32 in. (1.0–2.4 mm)



A-150
Automation
(WP-23A)

MODEL		1-PIECE POWER CABLE STANDARD RUBBER	2-PIECE POWER CABLE RUBBER
Old Model	New Name	12.5 ft. (3.8 m)	12.5 ft. (3.8 m)
WP-23A	A-150 Automation	WP-23A-12-R	WP-23A-12-2

Torch packages include torch body and power cable.

A-150 Automation Connectors

1-piece power cable connectors



273483
25 mm (small) Dinse-style gas thru for one-piece air-cooled torch.



194722
50 mm Dinse-style gas thru for one-piece air-cooled torch.



195378
50 mm Dinse-style for one-piece air-cooled torch.



105Z57
Power cable adapter for one-piece air-cooled torch.

2-piece power cable connectors



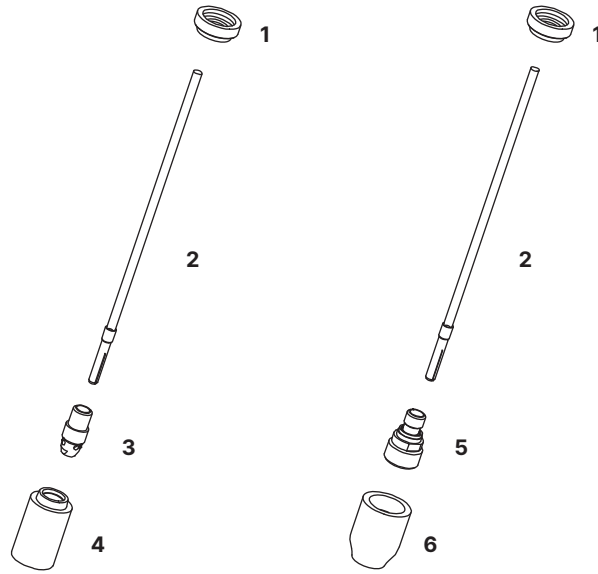
127836
25 mm (small) Dinse-style for two-piece cable air-cooled torch.



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

MACHINES	CONNECTION TYPE	1-PIECE POWER CABLE CONNECTORS	2-PIECE POWER CABLE CONNECTORS
TIG Machines			
CST™ 280	50 mm Dinse-style	195378	129527
	Tweco-style	N/A	191981
CST™ 282	Dinse-style	195378 (50 mm)	042533 (70 mm)
	Tweco-style	N/A	191981
Dynasty® 200/210/280/300/350/400	50 mm Dinse-style	195378	129527
Maxstar® 150 STL/STH, 161 STL/STH	25 mm (small) Dinse-style	273483 (gas thru)	127836
Maxstar® 200/210/280/350/400	50 mm Dinse-style	195378	129527
Syncrowave® 250 DX/300/350 LX/400	50 mm Dinse-style	195378	129527
	1/2 in. stud	105Z57	N/A
Multiprocess Machines			
Dimension™ 302/452/NT 450/650/652	1/2 in. stud	105Z57	N/A
Dynasty® 280 DX Multiprocess/ 300 Multiprocess	50 mm Dinse-style	195378	129527
Maxstar® 280 Multiprocess	Tweco-style	N/A	191981
Multimatic® 200/215/220 AC/DC	25 mm (small) Dinse-style	273483 (gas thru)	127836
Multimatic® 235/255	50 mm Dinse-style	195378	129527
PipeWorx	1/2 in. stud	105Z57	N/A
XMT® 304/350	50 mm Dinse-style	195378	129527
XMT® 400	50 mm Dinse-style	195378	129527
	Tweco-style	N/A	191981
XMT® 450/650	1/2 in. stud	105Z57	N/A
Engine-Driven Machines			
Most Big Blue®, Trailblazer®, Bobcat™, Blue Star® and Wildcat® models	1/2 in. stud	105Z57	N/A
Big Blue® 450 Duo CST	50 mm Dinse-style	195378	129527
Other Adapter			
	Stud to Dinse-style adapter	232728	N/A

A-150 Automation 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)	22-10		22-10		22-10		22-10	
2 Collet and Tube Assembly	22N21A		22N22A		22N23A		22N24A	
3 Collet Body	13N26		13N27		13N28		13N29	
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	13N08	13N09	13N10	13N11	13N12	13N13	—	—
* Lava	13N14	13N15	13N16	13N17	13N18	13N19	—	—
* Long Lava	796F71	796F72	796F73	—	—	—	—	—
* X-Long Lava	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)	22-10		22-10		22-10		22-10	
2 Collet and Tube Assembly	22N21A		22N22A		22N23A		22N24A	
5 Gas Lens	45V42		45V43		45V44		45V45	
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
6 Alumina Gas Lens	53N58	53N59	53N60	53N61	53N61S	—	—	—

*Not shown.

W-250 Automation Torch and Packages

Applications	Type	Rated Output	Duty Cycle	Electrode Range
Automated welding Robots Tube mills Seamers	Water-cooled	DC: 250 A, AC: 180 A	100%	.040–1/8 in. (1.0–3.2 mm)



W-250
Automation
(WP-22A)

MODEL		RUBBER	VINYL		
Old Model	New Name	25 ft. (7.6 m)	3 ft. (0.9 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)
WP-22A	W-250 Automation	WP-22A-25-R	WP-22A-3	WP-22A-12	WP-22A-25

Torch packages include torch body, power cable, gas hose and water hose.

W-250 Automation Connectors

1-piece power cable connectors



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



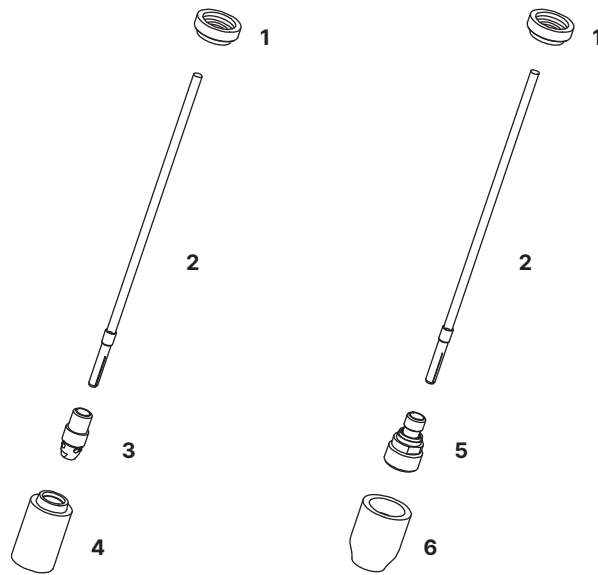
225028
50 mm thread-lock-style for water-cooled torch.



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® 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® 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

W-250 Automation 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)	22-10		22-10		22-10		22-10	
2 Collet and Tube Assembly	22N21A		22N22A		22N23A		22N24A	
3 Collet Body	13N26		13N27		13N28		13N29	
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	13N08	13N09	13N10	13N11	13N12	13N13	—	—
* Lava	13N14	13N15	13N16	13N17	13N18	13N19	—	—
* Long Lava	796F71	796F72	796F73	—	—	—	—	—
* X-Long Lava	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)	22-10		22-10		22-10		22-10	
2 Collet and Tube Assembly	22N21A		22N22A		22N23A		22N24A	
5 Gas Lens	45V42		45V43		45V44		45V45	
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
6 Alumina Gas Lens	53N58	53N59	53N60	53N61	53N61S	—	—	—

*Not shown.

W-500 Series Automation Torch and Packages

Applications	Type	Rated Output	Duty Cycle	Electrode Range
Automated welding Robots Tube mills Seamers	Water-cooled	DC: 500 A AC: 350 A	100%	.040–1/4 in. (1.0–6.4 mm)

MODELS		RUBBER	
Old Model	New Name	3 ft. (0.9 m)	12.5 ft. (3.8 m)
WP-27A	W-500A Automation	WP-27A-3	WP-27A-12
WP-27B	W-500B Automation	WP-27B-3	WP-27B-12

Torch packages include torch body, power cable, gas hose, and water hose.
3-foot cable packages also include bracket assembly.



W-500A
Automation
(WP-27A)



W-500B
Automation
(WP-27B)

W-500 Series Automation Connectors

1-piece power cable connectors



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



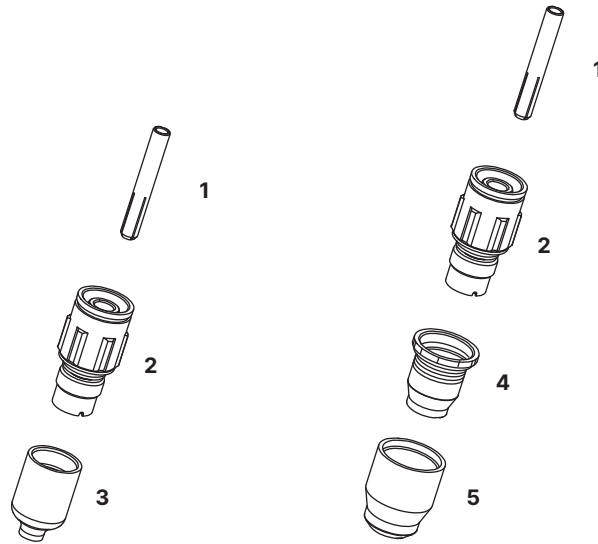
225028
50 mm thread-lock-style for water-cooled torch.



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® 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® 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

W-500 Series Automation Consumables (Refer to Owner's Manual for additional replacement parts.)



GAS LENS							
Electrode Size — inch (mm)	.040 (1.0)	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 Collet	—	57N46	57N47	57N48	57N49	57N50	57N51
2 Gas Lens	—	49V23	49V24	49V25	49V26	49V27	49V28
Nozzle Size — size # (inch)	6 (3/8)		8 (1/2)		12 (3/4)		Short
3 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			—
GAS LENS — METAL NOZZLE SETUP							
Electrode Size — inch (mm)	.040 (1.0)	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 Collet	—	57N46	57N47	57N48	57N49	57N50	57N51
2 Gas Lens	—	49V23	49V24	49V25	49V26	49V27	49V28
4 Metal Nozzle Adapter (required)	57N76	57N76	57N76	57N76	57N76	57N76	57N76
Nozzle Size — size # (inch)	6 (3/8)		8 (1/2)		12 (3/4)		Short
5 Metal	—	—	57N78	—			—

*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
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
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
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

A-150 Components	
Torch Body	WP-23A
Barrel	22-8A
Boot	22-9-1
Knob	22-7
Rubber Power Cables	
12.5 ft. (3.8 m) 1-Piece	57Y01R
12.5 ft. (3.8 m) 2-Piece	57Y01-2
W-250 Components	
Torch Body	WP-22A
Barrel	22-8A
Boot	22-9-1
Knob	22-7
Rubber Power Cables and Hoses	
25 ft. (7.6 m) Power	45V04RR
25 ft. (7.6 m) Water	45V08RBB
25 ft. (7.6 m) Gas	45V10R
Vinyl Power Cables and Hoses	
3 ft. (0.9 m) Power	45V03HD-L3
3 ft. (0.9 m) Water	45V07HD-L3
3 ft. (0.9 m) Gas	45V09-L3
12.5 ft. (3.8 m) Power	45V03HD
12.5 ft. (3.8 m) Water	45V07HD
12.5 ft. (3.8 m) Gas	45V09
25 ft. (7.6 m) Power	45V04HD
25 ft. (7.6 m) Water	45V08HD
25 ft. (7.6 m) Gas	45V10
W-500 Series Components	
Torch Bodies	
W-500A	WP-27A
W-500B	WP-27B
Barrels	
W-500A	27-10A
W-500B	27-10B
Knobs	
W-500A	27-13A
W-500B	27-13B
Boot	27-12
Bracket Assembly	27-18
Rubber Power Cables and Hoses	
3 ft. (0.9 m) Power	40V84R-3
3 ft. (0.9 m) Water	40V83R-3
3 ft. (0.9 m) Gas	40V82R-3
12.5 ft. (3.8 m) Power	40V84R
12.5 ft. (3.8 m) Water	40V83R
12.5 ft. (3.8 m) Gas	40V82R

Genuine Miller® Accessories



Cable Covers
For A-150 and W-250 torches
WC-3-10 10 ft. (3 m)
WC-3-22 22 ft. (6.7 m)
For W-500 torches
WC-4-2 2 ft. (0.6 m)
WC-4-10 10 ft. (3 m)



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).

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