

# ST Water-Cooled GMAW Guns



- Rated at 600A with any shielding gas
- Handles flux cored wires to 7/64 in. (2.8 mm)
- ST-21M has an in-line body style designed for mechanized applications



ST-21



ST-16

ST-21M

## Ordering Information

ST-16, 10 ft. (3 m) .....	997498
ST-21, 12 ft. (3.6 m) .....	995950
ST-21M, 2 ft. (0.6 m) .....	690509

Does not include liner/conduits, contact tips/tubes or nozzles.

## Options & Accessories

Warrior Feed 304 for ST-21 & ST-16 .....	0588002048
Spatter liner .....	633603
Centering bushing .....	17782
EH-10A mech. Gun mounting bracket (ST-21M) ....	633885
EH-10A connection block assembly (ST-21M) .....	58V74
Outlet guide, .045-1/16 in. (1.2-1.6 mm) .....	0588000995
Power cable adaptor .....	45V11
Gas meter <sup>1</sup> .....	19043

<sup>1</sup>Measures gas flow at the gun.

## Specifications

	ST-16	ST-21	ST-21M
Gun capacity	600A @ 100% duty cycle	600A @ 100% duty cycle	600A @ 100% duty cycle
Dimensions, LxH, in. (mm)	13-3/4x4-1/4 (350x110)	12-1/2x7-1/16 (315x180)	10.25 (260) (length only)
Handle diameter, in. (mm)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)
Gun angle	55°	180°	180°
Weight, (less service lines), oz. (g)	28 (794)	38 (1077)	28 (794)
Cooling requirements, qt/min (L/min) <sup>1</sup>	1.6 (1.5)	1.6 (1.5)	1.6 (1.5)
Wires accommodated, in. (mm):			
Hard	.030-3/32 (0.8-2.4)	.030-3/32 (0.8-2.4)	.030-3/32 (0.8-2.4)
Soft	.035-3/32 (0.9-2.4)	.035-3/32 (0.9-2.4)	.035-3/32 (0.9-2.4)
Cored	.030-7/64 (0.8-2.8)	.030-7/64 (0.8-2.8)	.030-7/64 (0.8-2.8)

<sup>1</sup>Minimum.

# ST Water-Cooled GMAW Guns



## Conduits & Liners for ST-16 & ST-21 Water-Cooled GMAW Guns

Wire Size, in. (mm)	Hard and Flux-Cored Wire			Aluminum		
	10 ft. (3 m) Conduit	ST-16 Jumper Liner	ST-21 Jumper Liner	10 ft. (3 m) Conduit	ST-16 Jumper Liner	ST-21 Jumper Liner
.030 (0.8)	633455	993822	-	-	-	-
.035 (0.9)	633455	993822	-	633578	636877 <sup>1</sup>	-
.045 (1.2)	633456	993823	995951	-	-	-
3/64 (1.2)	-	-	-	633578	636877 <sup>1</sup>	995953
.052 (1.4)	633456	993823	995951	-	-	-
1/16 (1.6)	633456	993823	995951	634777	636879	995953
5/64 (2.0)	598806	993823	995952	-	-	-
3/32 (2.4)	598922	598927	995952	46V68	994552	995954

<sup>1</sup>Requires support liner #598927.

## Conduits & Liners for ST-21M Water-Cooled GMAW Guns

Wire Size, in. (mm)	Hard and Flux-Cored Wire			Aluminum			Conduit Liner
	4 ft. (1.2 m)	6 ft. (2 m)	10 ft. (3 m)	4 ft. (1.2 m)	6 ft. (2 m)	10 ft. (3 m)	
.045 (1.2)	38V86	39V99	40V18	-	-	-	-
3/64 (1.2)	-	-	-	38V89	40V01	-	42V74
.052 (1.4)	38V86	39V99	40V18	-	-	-	-
1/16 (1.6)	38V86	39V99	40V18	39V80	39V83	40V20	42V75
5/64 (2.0)	38V89	40V01	-	-	-	-	-
3/32 (2.4)	39V80	39V83	40V20	39V80	39V83	40V20	42V73
7/64 (2.8)	39V80	39V83	40V20	-	-	-	-

ST-21M requires bracket #633885 and adaptor #61N59 for use with the above conduits when mounting away from feeder. Refer to torch manuals for specific accessories required to install on wire feeder (available online at [esabna.com](http://esabna.com)).

## ST-16, 21 & 21M Contact Tips & Tubes

Wire Size, in. (mm)	Inside Diameter, in. (mm)	Contact Tips		Contact Tubes
		Short	Long	
.030 (0.8)	0.037 (0.9)	632791	-	-
.035 (0.9)	0.043 (1.1)	632793	632794	996104
.045 (1.2)	0.054 (1.4)	37278	37279	37280
3/64 (1.2)	0.058 (1.5)	-	-	996105
3/64 (1.2)	0.061 (1.6)	632795	632796	-
.052 (1.4)	0.062 (1.6)	-	-	996816
1/16 (1.6)	0.073 (1.9)	-	37282	37283
1/16 (1.6)	0.078 (2.0)	632797	632798	996106
5/64 (2.0)	0.094 (2.4)	-	-	996107
3/32 (2.4)	0.107 (2.7)	632800	-	996108
7/64 (2.8)	0.123 (3.1)	633611	-	-

## ST-16, 21 & 21M Gas Nozzles

Nozzle Size	Inside Diameter, in. (mm)	ST-16/21/21M
8	1/2 (12.7)	598739 <sup>1</sup>
10	5/8 (15.8)	598721 <sup>1</sup>
10 Long	5/8 (15.8)	598891 <sup>1</sup>
12	3/4 (19)	633985
12 Medium	3/4 (19)	997310
12 Long	3/4 (19)	639756
12 Spot	3/4 (19)	993757

<sup>1</sup>Requires spatter liner #633603.