

Tregaskiss® MA1 Fixed Automatic Air-Cooled MIG Guns

Issued May 2021 • Index No. MA1/1.5

Automatic Air-Cooled
MIG Welding Guns



Quick Specs

Duty Cycle Rating

100%: 350 and 385 amp
CO₂ gas and mixed gases

Ratings are based on tests that comply with IEC 60974-7 standards

Processes

MIG (GMAW) Welding

Industry

Heavy Equipment
Heavy Fabrication

Welding Applications

Fixed/hard automation
Long repeatable seams
Fixed orbital

Ensure consistent high-quality welds while reducing downtime for maintenance and repairs

Fixed automatic MIG guns that you fabricate yourself can cause downtime and rework. Get Tregaskiss® Fixed Automatic MIG Guns for the dependable performance, productivity and weld quality you need.

Tregaskiss MA1 Fixed Automatic Air-Cooled MIG Guns are engineered for hard tooling automation applications requiring a simple, durable and repeatable MIG gun. These MIG welding guns are available in 350 and 385 amp models, and are compatible with TOUGH GUN I.C.E.® Technology.

AccuLock™

Now Available!

AccuLock™ R Consumables are designed for increased tip life and replacement accuracy, which can reduce your replacement frequency and related downtime.



**MINIMAL
REPLACEMENT
PARTS**

Few replacement parts results in low inventory costs



**QUICK
AND
EASY
MAINTENANCE**

Simple design makes maintenance easy and quick



**CABLE
LENGTH
FLEXIBILITY**

Choose from cable lengths ranging from 3' to 15'



Tregaskiss

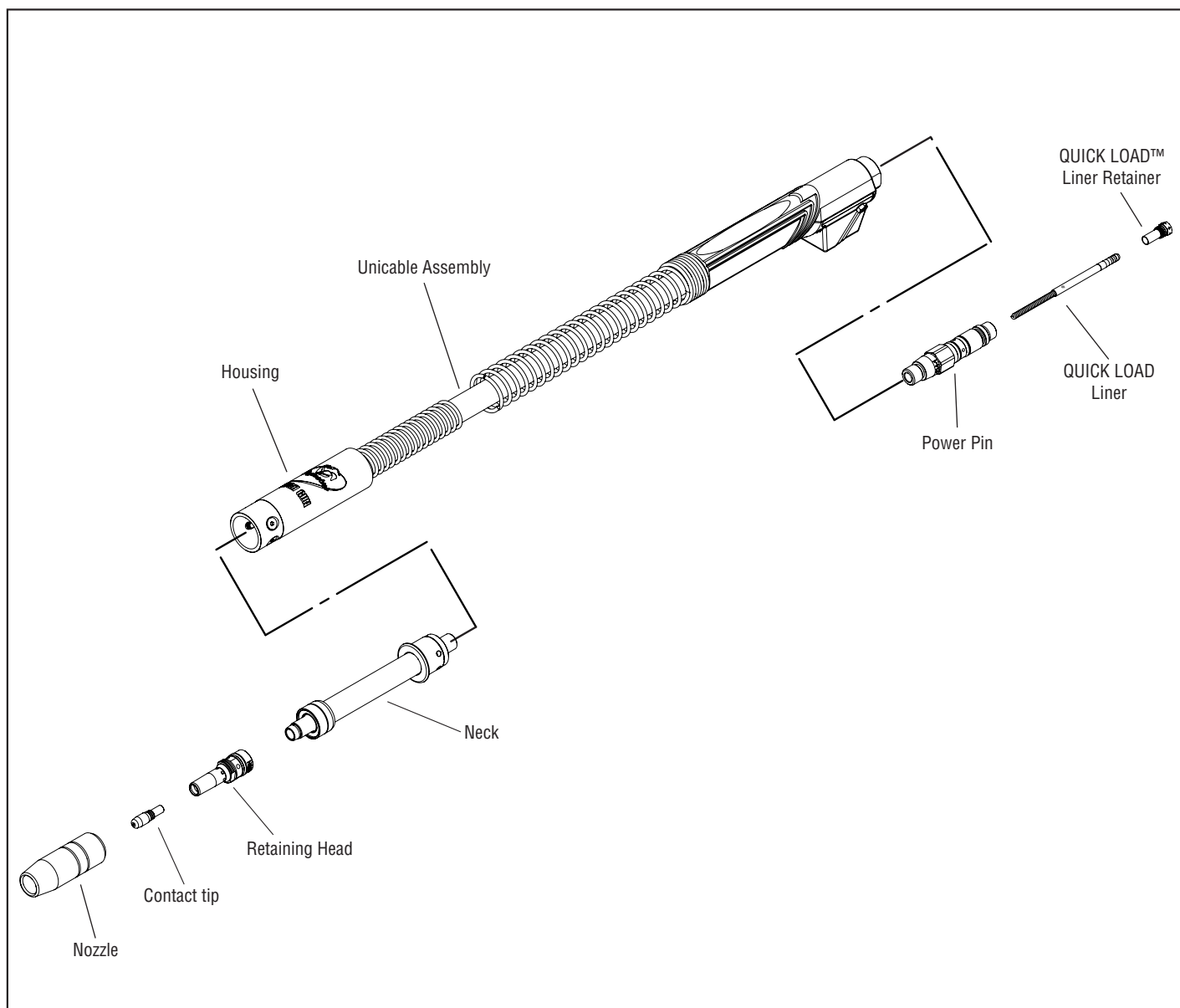
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For more information, visit us at Tregaskiss.com

System Components



Know Your Options

AccuLock™ R (Robotic) Consumables

Eliminate contact tip cross-threading issues with new AccuLock R Consumables. These new consumables are designed for increased tip life, which can reduce replacement frequency and related downtime. AccuLock HDP Contact Tips can increase life by an additional 10x or more in pulse welding applications. And in most cases, your current tip and diffuser can be replaced with no impact to Tool Center Point (TCP), making this upgrade low effort, low risk, and high payoff.



TOUGH GUN I.C.E.® Technology

This technology boosts the duty cycle of our already highly robust air-cooled MIG Guns by providing water-cooled benefits through our I.C.E. (Integrated Cooling Enhancer) component. This component circulates water at the nozzle, keeping the consumables running cooler and lasting longer.

QUICK LOAD® Liners

The QUICK LOAD Liner System loads from the front of the MIG gun, and requires less than half the time and effort for replacement when compared with conventional liners. These liners interface with a QUICK LOAD Liner Retainer that is seated within the power pin of the gun on first use. QUICK LOAD Liners come standard on Tregaskiss Fixed Automatic MIG Guns unless aluminum is selected as an option. These liners are compatible with the QUICK LOAD Liner AutoLength™ System. Available for wire sizes between 0.023" and 3/32" and in lengths of up to 15 feet for robotic applications.



QUICK LOAD Liner AutoLength™ System

The QUICK LOAD Liner AutoLength System is designed to minimize downtime, wire feeding and quality issues commonly associated with short liner length. Housed inside the power pin, this spring-loaded module applies constant forward pressure on the liner, keeping it seated properly in the retaining head. This revolutionary technology allows for up to one-inch forgiveness if the liner is too short and accommodates liner movement during welding. Available for wire sizes between 0.030" and 3/32", this new system is designed specifically for use with QUICK LOAD Liners, and is not available when the wire brake option is selected.



Consumables Options

AccuLock™ Heavy Duty (HD) Copper Contact Tips

[^]Compatible with Tregaskiss Auto Head Fixed Automatic MIG Guns

T-A030CH^{^^} for 0.030" (0.8 mm) wire; qty. 10
T-A035CH^{^^} for 0.035" (0.9 mm) wire; qty. 10
T-A039CH^{^^} for 0.039" (1.0 mm) wire; qty. 10
T-A045CH^{^^} for 0.045" (1.2 mm) wire; qty. 10
T-A052CH^{^^} for 0.052" (1.3 mm) wire; qty. 10

T-A062CH[^] for 1/16" (1.6 mm) wire; qty. 10
T-A072CH for 0.070" (1.8 mm) wire; qty. 10
T-A078CH[^] for 5/64" (2.0 mm) wire; qty. 10
T-A094CH[^] for 3/32" (2.4 mm) wire; qty. 10
T-ALTOOL AccuLock Tip Tool



NOTE: add "-100" to the end of the above HD copper contact tip part numbers for quantities of 100.

* add "-1000" to the end of the above part numbers for quantities of 1000.

AccuLock R Gas Diffusers

[^]Compatible with Tregaskiss Auto Head Fixed Automatic MIG Guns

D-ATTH Gas diffuser, thread-on, AccuLock R

D-ATSH[^] Gas diffuser, slip-on, AccuLock R

NOTE: add "-100" to the end of the above gas diffuser part numbers for quantities of 100.

TOUGH LOCK® Heavy Duty (HD) Contact Tips

[^]Compatible with Tregaskiss Auto Head Fixed Automatic MIG Guns

403-20-30[^] for 0.030" (0.8 mm) wire
403-20-35[^] for 0.035" (0.9 mm) wire
403-20-1.0[^] for 0.040" (1.0 mm) wire
403-20-45[^] for 0.045" (1.2 mm) wire
403-20-364[^] for 3/64" (1.2 mm) wire
403-20-52[^] for 0.052" (1.3 mm) wire

403-20-1.4 for 0.055" (1.4 mm) wire
403-20-116[^] for 1/16" (1.6 mm) wire
403-20-1.8 for 0.070" (1.8 mm) wire
403-20-78 for 0.078" (2.0 mm) wire
403-20-564[^] for 5/64" (2.0 mm) wire
403-20-332[^] for 3/32" (2.4 mm) wire

TOUGH LOCK Heavy Duty Tapered Contact Tips (comes with TOUGH LOCK Nozzles with 1/2" bore)

403-21-30 for 0.030" (0.8 mm) wire
403-21-35 for 0.035" (0.9 mm) wire
403-21-1.0 for 0.040" (1.0 mm) wire

403-21-45 for 0.045" (1.2 mm) wire
403-21-52 for 0.052" (1.3 mm) wire
403-21-116 for 1/16" (1.6 mm) wire

TOUGH LOCK Retaining Heads

[^]Compatible with Tregaskiss Auto Head Fixed Automatic MIG Guns

404-52 HD – retaining head for thread-on nozzle

404-32[^] HD – retaining head for slip-on nozzles

Nozzles

[^]Compatible with Tregaskiss Auto Head Fixed Automatic MIG Guns

Part Number	Description	Style	O.D.	Compatible Consumables Series	
				TOUGH LOCK	AccuLock R
401-6-62	HD - 5/8" bore, 1/8" recess (copper)	Slip-on	1.062"	X	X
401-5-62[^]	HD - 5/8" bore, 1/4" recess (copper)	Slip-on	1.062"	X	X
401-6-50[^]	HD - 1/2" bore, 1/8" recess (copper)	Slip-on	1.062"	X	
401-42-50[^]	SD - 1/2" bore, 1/8" recess (bottleneck, brass)	Slip-on	0.938"	X	
401-7-62	HD - 5/8" bore, 1/4" recess (copper)	Slip-on	1.106"	X	X
401-7-75	HD - 3/4" bore, 1/8" recess (brass)	Slip-on	1.106"	X	X
401-4-50	SD - 1/2" bore, 1/8" recess (copper)	Slip-on	0.938"	X	
401-7-87	HD - 3/4" bore, 1/8" recess (brass)	Slip-on	1.106"	X	X
401-30-62[^]	SD - 5/8" bore, 1/8" stick out (brass)	Slip-on	0.938"	X	X
401-30-62T	SD - 5/8" bore, 1/8" stick out (bottleneck, brass)	Thread-on	0.938"	X	X

Consumables Options (Continued)

QUICK LOAD® Liners

415-30-6Q	for 0.030" (0.8 mm) wire; 6' (1.8 m)
415-30-15Q	for 0.030" (0.8 mm) wire; 15' (5.0 m)
415-35-6Q	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 6' (1.8 m)
415-35-10Q	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 10' (3.05 m)
415-35-15Q	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 15' (5.0 m)
415-116-6Q	for 0.052" (1.3 mm) - 1/16" (1.6 mm) wire; 6' (1.8 m)
415-116-10Q	for 0.052" (1.3 mm) - 1/16" (1.6 mm) wire; 10' (3.05 m)
415-116-15Q	for 0.052" (1.3 mm) - 1/16" (1.6 mm) wire; 15' (5.0 m)
415-564-6Q	for 1/16" (1.6 mm) - 5/64" (2.0 mm) wire; 6' (1.8 m)
415-564-15Q	for 1/16" (1.6 mm) - 5/64" (2.0 mm) wire; 15' (5.0 m)
415-332-6Q	for 0.078" (2.0 mm) - 3/32" (2.4 mm) wire; 6' (1.8 m) (requires 415-24 retainer)
415-332-15Q	for 0.078" (2.0 mm) - 3/32" (2.4 mm) wire; 15' (5.0 m) (requires 415-24 retainer)
415-26	Liner Retainer, for 0.030" (0.8 mm) - 5/64" (2.0 mm) wire
415-24	Liner Retainer, for 0.078" (2.0 mm) - 3/32" (2.4 mm) wire

Conventional Liners for Aluminum *(Jump Liner required)*

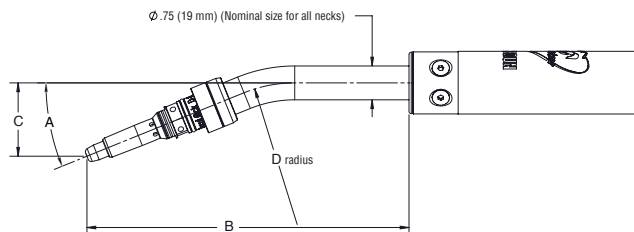
415-45-01	for 0.035" (0.9 mm) - 3/64" (1.2 mm) wire; 6' (1.8 m) – aluminum
415-45-02	for 0.035" (0.9 mm) - 3/64" (1.2 mm) wire; 10' (3.05 m) – aluminum
415-45-03	for 0.035" (0.9 mm) - 3/64" (1.2 mm) wire; 15' (5.0 m) – aluminum
415-116-21	for 3/64" (1.2 mm) - 1/16" (1.6 mm) wire; 6' (1.8 m) – aluminum
415-116-22	for 3/64" (1.2 mm) - 1/16" (1.6 mm) wire; 10' (3.05 m) – aluminum
415-116-23	for 3/64" (1.2 mm) - 1/16" (1.6 mm) wire; 15' (5.0 m) – aluminum

Jump Liners *(required with liners for Aluminum)*

415-25	for 0.030" (0.8 mm) - 3/32" (2.4 mm) wire; Bronze; 8"
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Components

Air-Cooled Necks



Neck	A Angle	B		C		D	
		inches	mm	inches	mm	inches	mm
405-22	22°	7.10	180	1.63	41	3.00	76
405-45	45°	5.19	132	3.55	90	3.00	76
305-60	60°	4.10	105	4.00	103	2.00	51
405-60	60°	4.98	127	4.78	121	3.00	76
405-180	180°	7.38	187	---	---	---	---
505-22	22°	8.29	211	1.72	44	4.00	102
505-45	45°	7.23	184	3.87	98	4.00	102
505-60	60°	6.04	153	5.30	135	4.00	102
505-180	180°	8.63	219	---	---	---	---
405-45LL	45°	8.69	221	7.78	121	3.00	76
405-60LL	60°	8.48	216	7.78	121	3.00	76

Components (Continued)

TOUGH GUN I.C.E.™ Necks

591-22-XXXX	22 degree neck
591-45-XXXX	45 degree neck
591-60-XXXX	60 degree neck
591-180-XXXX	180 degree neck

NOTE: XXXX in the part numbers above represent nozzle O.D.; i.e. 591-22-0.938 = 0.938" O.D., 591-45-1.106 = 1.106" O.D. (refer to the O.D. column in the Nozzle Section on page 4)

Unicable

For 350 amp

513-103	3' (0.9 m)	513-107	7' (2.1 m)
513-103.5	3.5' (1.1 m)	513-107.5	7.5' (2.3 m)
513-104	4' (1.2 m)	513-108	8' (2.4 m)
513-104.5	4.5' (1.4 m)	513-108.5	8.5' (2.6 m)
513-105	5' (1.5 m)	513-109	9' (2.7 m)
513-105.5	5.5' (1.7 m)	513-109.5	9.5' (2.9 m)
513-106	6' (1.8 m)	513-110	10' (3.06 m)
513-106.5	6.5' (2.0 m)	513-112	12' (3.66 m)
		513-115	15' (4.6 m)

For 385 amp

613-103	3' (0.9 m)	613-107	7' (2.1 m)
613-103.5	3.5' (1.1 m)	613-107.5	7.5' (2.3 m)
613-104	4' (1.2 m)	613-108	8' (2.4 m)
613-104.5	4.5' (1.4 m)	613-108.5	8.5' (2.6 m)
613-105	5' (1.5 m)	613-109	9' (2.7 m)
613-105.5	5.5' (1.7 m)	613-109.5	9.5' (2.9 m)
613-106	6' (1.8 m)	613-110	10' (3.06 m)
613-106.5	6.5' (2.0 m)	613-112	12' (3.66 m)
		613-115	15' (4.6 m)

Power Pins

Power Pins

214-1	Miller®	214-30	Panasonic®	214-1-9	Miller - For Aluminum Only
214-17	Fronius®	214	Tweco® #4		
214-7	Lincoln®	214-12	Tweco #5		
214-40	Lincoln (short)	425-20E	Euro		

AutoLength™ Pins*

214-X1	Miller	214-X30	Panasonic
214-X17	Fronius	214-X0	Tweco #4
214-X7	Lincoln	214-X12	Tweco #5

* For use with QUICK LOAD Liners only.

NOTE: For wire sizes between 0.035" and 0.045", X="8"; For wire sizes between 0.052" and 3/32", X="9". AutoLength™ Pin not compatible with wire size selections for aluminum wire.

Accessories

TOUGH GARD Anti-Spatter Liquid



This ready-to-use water-soluble, non-toxic product creates a sacrificial surface that reduces spatter adhesion. This prolongs the life of your consumables and minimizes downtime due to nozzle cleaning which can help reduce your operating and maintenance costs.

TOUGH GARD Anti-Spatter Liquid

TG-101-05	5.28 U.S. Gallon / 20 L
TG-101-55	55 U.S. Gallon / 208 L
TG-101-01	1 U.S. Gallon / 3.78 L
TG-101-32SP	32 fl. oz. / 946 mL (spray bottle)
TG-101-14S	16.9 fl. oz. / 500 mL

Tregaskiss® Auto Head Fixed Automatic Air-Cooled MIG Guns



Tregaskiss Auto Heads are designed for direct connection to a wire feeder in automatic applications, and incorporate the same robust features as Tregaskiss Fixed Automatic MIG Guns. Tregaskiss Auto Heads are available in air-cooled models and models enhanced with TOUGH GUN I.C.E.® Technology

Replacement Parts (See Page 4 for Consumables Options)

Air-Cooled Auto Head

405-180NB	180 degree neck
405-45NB	45 degree neck
405-60NB	60 degree neck
505-60NB	60 degree neck

TOUGH GUN I.C.E Auto Head

592-180-1.062	180 degree neck, 1.062" O.D.
591-15	Jump Line Assembly, 15'

Conventional Liner

415-116-1	for 0.035" (0.9 mm) - 1/16" (1.6 mm) wire
415-332-1	for 5/64" (2.0 mm) - 3/32" (2.4 mm) wire

Power Pins

414-110-116	Miller® Power Pin (includes Control Plug)
414-10	Tweco® #4 Power Pin (includes Control Plug)

Conventional Liner for Aluminum

415-45-01	for 0.035" (0.9 mm) - 3/64" (1.2 mm) wire
415-116-21	for 3/64" (1.2 mm) - 1/16" (1.6 mm) wire

Jump Liner

415-25	for 0.030" (0.8 mm) - 3/32" (2.4 mm) wire; Bronze; 8"
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Ordering Information (Tregaskiss Auto Head Fixed Automatic MIG Gun)

Denotes TOUGH GUN I.C.E.® Setup	Power Pin	Gun Model	Length	Wire Size	Nozzle	Neck	Liner
I[^]	M	52	06	-45	-5	-460	-9
	M Miller®	52 550 amp	06 6"	-30 0.030"	<u>Air-Cooled</u>	<u>60 Degree</u>	-9 for Aluminum Wire
	TW Tweco® #5			-35 0.035"	-3 401-6-50**	-460*	
				-1.0 1.0 mm	-5 401-5-62	-560*	
				-45 0.045"	-7 401-42-50**	<u>45 Degree</u>	
				-364 3/64"	-9 401-30-62	-445*	
				-52 0.052"	<u>TOUGH GUN I.C.E.® Setup</u>	<u>22 Degree</u>	
				-116 1/16"		-422	
				-564 5/64"	-3 401-6-50**		
				-332 3/32"	-5 401-5-62		
				<u>Wire Size for AccuLock™ R Consumables</u>	-6 401-7-62**		
					-7 401-42-50**		
					-8 401-7-75**		
				-A30 0.030"	-9 401-30-62		
				-A35 0.035"			
				-A39 1.0 mm			
				-A45 0.045"			
				-A52 0.052"			
				-A16 1/16"			
				-A64 5/64"			
				-A32 3/32"			

[^] "I" will only appear in the part number when I.C.E. is configured

* Air-cooled only

** Not compatible with AccuLock™ R Consumables options

Ordering Information *(Tregaskiss MA1 Fixed Automatic MIG Gun)*

Air-Cooled Automatic Series			Gun Style	Neck	Option #1	Gas Diffuser & Contact Tip	Unicable Length	Nozzle	Option #2	Wire Size	Power Pin	
M	A	1	5	A	0	1	A	B	0	C	M	
			5 350 amp	<i>Air-Cooled</i>		0 No consumables	A 3'	A* 401-6-62		B* 0.030"	B Benard®	
			6** 385 amp	<i>Short Length</i>		1 TOUGH LOCK®	B 3.5'	B* 401-5-62		C* 0.035"	C L-Tech®	
			A 22 degrees 405-22	5 AccuLock™ (slip-on)		C 4'	C 401-6-50	D* 0.040"		E Euro		
			B 45 degrees 405-45	6 AccuLock (thread-on)		D 4.5'	D 401-42-50	E* 0.045"		F Fronius®		
			L 60 degrees 305-60				E 5'	E* 401-7-62		F 3/64"	L Lincoln®	
			C 60 degrees 405-60				F 5.5'	F* 401-7-75		G* 0.052"	M Miller®	
			D 180 degrees 405-180				G 6'	H 401-4-50		H 0.55"	P Panasonic®	
			<i>Medium Length</i>				H 6.5'	J* 401-7-87		J* 1/16"	T Tweco® #4	
			E 22 degrees 505-22				J 7'	K* 401-30-62		K 0.070"	W Tweco #5	
			F 45 degrees 505-45				K 7.5'	L* 401-30-62T		L 5/64"	<i>AutoLength™ ++</i>	
			G 60 degrees 505-60				L 8'			M 3/32"	1 Tweco #4	
			H 180 degrees 505-180				M 8.5'			<i>Aluminum</i>	2 Lincoln	
			<i>Long Length</i>				N 9'			R* 0.035"	3 Tweco #5	
			J 45 degrees 405-45LL				P 9.5'			S 3/64"	4 Miller	
			K 60 degrees 405-60LL				R 10'			T* 1/16"	6 Euro	
			<i>TOUGH GUN I.C.E.®</i>				S 12'			U* 0.045"	7 Panasonic	
			M 22 degrees 591-22				T 15'			V* 0.055"		
			N 45 degrees 591-45				W* 0.052"					
			P 60 degrees 591-60									
			Q 180 degrees 591-180									

* Compatible with AccuLock™ Consumables

** TOUGH GUN I.C.E. Technology is not available with 385 amp model

++ AutoLength™ Power Pins are not compatible with aluminum wire size options

* Compatible with AccuLock™ Consumables

** TOUGH GUN I.C.E. Technology is not available with 385 amp model

++ AutoLength™ Power Pins are not compatible with aluminum wire size options

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