

# Tregaskiss® BA1

## Cobot Air-Cooled MIG Gun

Issued April 2024 • Index No. BA1/1.7

**MIG (GMAW)**   
**Robotic Welding**

### Quick Specs

#### Duty Cycle Rating

100%: 350 amp with Mixed Gases

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

#### Processes

MIG (GMAW) Welding

#### Cobots

Universal Robots (UR)  
 FANUC®  
 Yaskawa Motoman

#### Welding Machines

Compatible with most brands of welding machines.  
 (see Power Pin Options p.7)

Cobot users expect a quick-to-implement and easy-to-use automation solution that keeps their operations agile and profitable. Tregaskiss® BA1 cobot air-cooled MIG guns deliver this through their proven durability and overall simplicity of design – keeping weld operators focused on manufacturing quality parts instead of troubleshooting or maintaining MIG guns.

## AccuLock™

AccuLock™ MIG gun consumables were designed to maximize production uptime through their long service life and quick and accurate replacement.

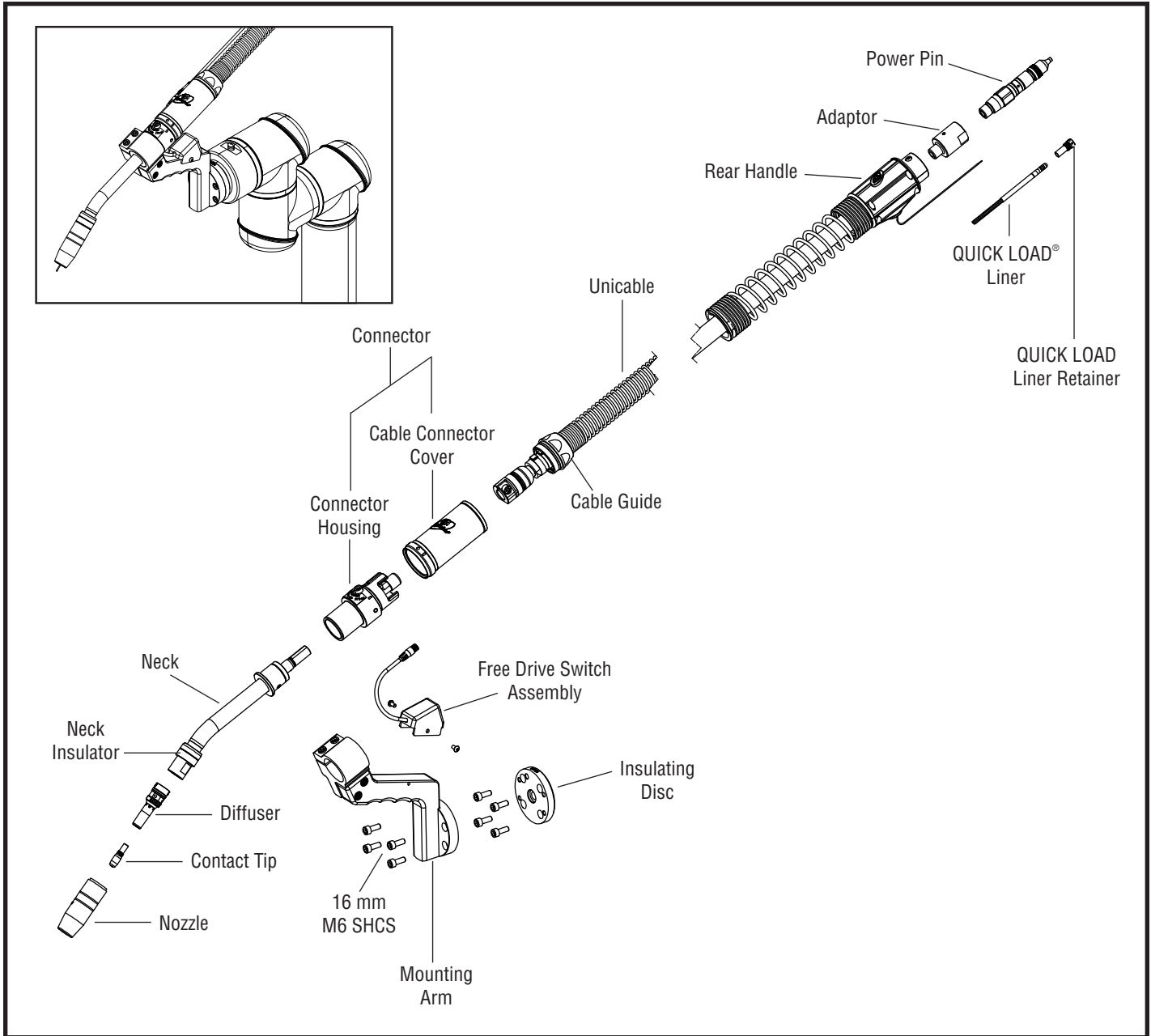
To further reduce the potential for error through simplified inventory, AccuLock consumables share a common contact tip across Bernard® semi-automatic, and Tregaskiss robotic, fixed automatic and cobot MIG welding guns.



**Tregaskiss**  
 2570 North Talbot Road  
 Windsor, Ontario N0R 1L0  
 Canada

Phone: 1-855-MIGWELD (644-9353) (US & Canada)  
 +1-519-737-3000 (International)  
 Fax: 519-737-1530  
 For more information, visit us at [Tregaskiss.com](http://Tregaskiss.com)

# System Components



## Know Your Options



### **AccuLock™ R 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 6-10x longer 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.



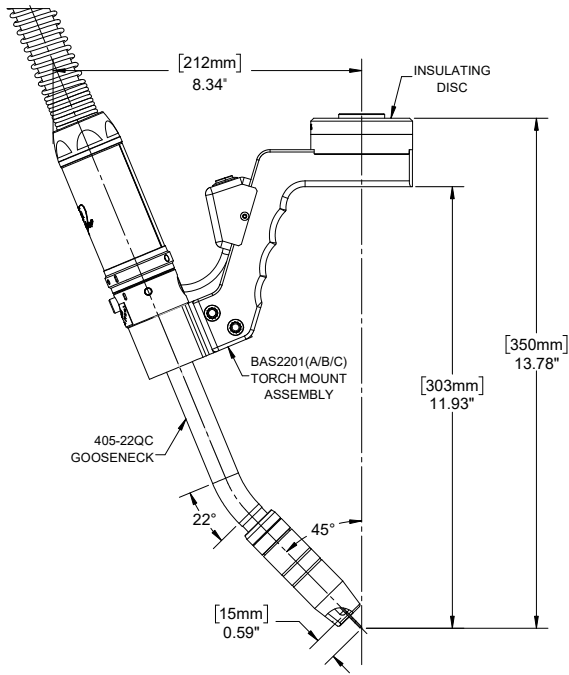
### **QUICK LOAD® Liners**

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® cobot MIG Guns. Available for wire sizes between 0.030" and 3/32" and in lengths of up to 15 feet.

# Gun Configurations

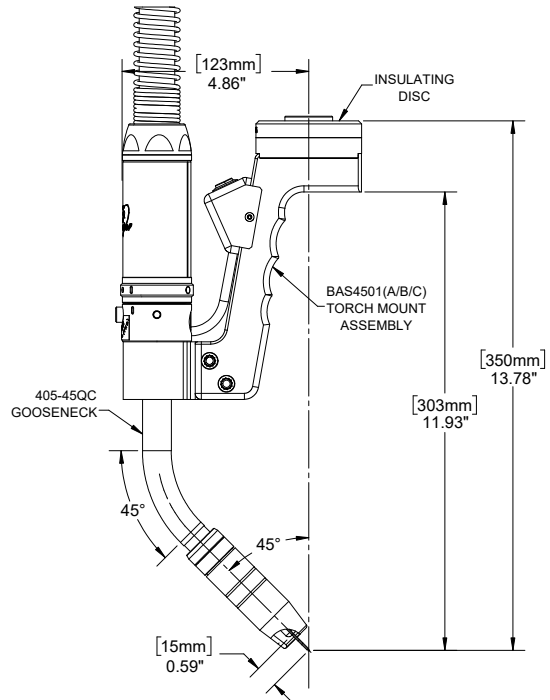
**NOTE:** For Center Of Mass information, see owner's manual OM-BA1 at [Tregaskiss.com/BA1](http://Tregaskiss.com/BA1)

## Configuration – 22 Degree Neck



350 mm (13.78") TCP,  
Neck 405-22QC

## Configuration – 45 Degree Neck



350 mm (13.78") TCP,  
Neck 405-45QC

# Consumable Options

## AccuLock™ Heavy Duty (HD) Copper Contact Tips

<b>T-A030CH*</b>	for 0.030" (0.8 mm) wire; qty. 10	<b>T-A062CH</b>	for 1/16" (1.6 mm) wire; qty. 10
<b>T-A035CH*</b>	for 0.035" (0.9 mm) wire; qty. 10	<b>T-A072CH</b>	for 0.070" (1.8 mm) wire; qty. 10
<b>T-A039CH*</b>	for 0.039" (1.0 mm) wire; qty. 10	<b>T-A078CH</b>	for 5/64" (2.0 mm) wire; qty. 10
<b>T-A045CH*</b>	for 0.045" (1.2 mm) wire; qty. 10	<b>T-A094CH</b>	for 3/32" (2.4 mm) wire; qty. 10
<b>T-A052CH*</b>	for 0.052" (1.3 mm) wire; qty. 10		

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 Heavy Duty (HD) Chrome Zirconium Contact Tips

<b>T-A030ZH</b>	for 0.030" (0.8 mm) wire; qty. 10	<b>T-A039ZH</b>	for 0.039" (1.0 mm) wire; qty. 10
<b>T-A035ZH</b>	for 0.035" (0.9 mm) wire; qty. 10	<b>T-A045ZH</b>	for 0.045" (1.2 mm) wire; qty. 10

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

## AccuLock HDP Contact Tips

<b>T-A035WH</b>	for 0.035" (0.9 mm) wire; qty. 10	<b>T-A045WH</b>	for 0.045" (1.2 mm) wire; qty. 10
<b>T-A039WH</b>	for 0.039" (1.0 mm) wire; qty. 10	<b>T-A052WH</b>	for 0.052" (1.3 mm) wire; qty. 10

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

## AccuLock Teach Pointers (used for cobot programming)

<b>T-A001TP</b>	Adjustable teach pointer	<b>T-A075TP</b>	Teach pointer, 3/4" CTWD
<b>T-A050TP</b>	Teach pointer, 1/2" CTWD	<b>T-A10MTP</b>	Teach pointer, 10 mm CTWD
<b>T-A062TP</b>	Teach pointer, 5/8" CTWD	<b>T-A15MTP</b>	Teach pointer, 15 mm CTWD

## AccuLock R Gas Diffusers

<b>D-ATTH</b>	Gas diffuser, thread-on, AccuLock R	<b>D-ATSH</b>	Gas diffuser, slip-on, AccuLock R
---------------	-------------------------------------	---------------	-----------------------------------

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

## Tregaskiss® Nozzles

Part Number	Description	Style	Configurator Digit
<b>401-14-62</b>	HD - 5/8" bore, 1/8" recess (copper)	Thread-on	D
<b>401-43-62</b>	SD - 5/8" bore, 1/8" recess (copper)	Thread-on	G
<b>401-18-62</b>	SD - 5/8" bore, 1/8" stick out (copper)	Thread-on	E
<b>401-20-62</b>	HD - 5/8" bore, 1/8" stick out (copper)	Thread-on	L
<b>401-30-62T</b>	SD - 5/8" bore, 1/8" stick out (bottleneck, brass)	Thread-on	4
<b>401-6-62</b>	HD - 5/8" bore, 1/8" recess (copper)	Slip-on	A
<b>401-8-62</b>	SD - 5/8" bore, 1/8" stick out (copper)	Slip-on	G
<b>401-48-62</b>	HD - 5/8" bore, flush tip (bottleneck, copper)	Slip-on	K
<b>401-81-62</b>	HD - 5/8" bore, 1/8" stick out (copper)	Slip-on	D
<b>401-71-62</b>	HD - 5/8" bore, 1/8" recess (bottleneck, brass)	Slip-on	N
<b>401-87-62</b>	HD - 5/8" bore, 1/8" stick out (brass)	Slip-on	P
<b>401-30-62</b>	HD - 5/8" bore, 1/8" stick out (bottleneck, brass)	Slip-on	3



### 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.

**TG-101-32SP** 32 fl. oz. / 946 mL (spray bottle)

For further information visit [Tregaskiss.com/TOUGHGARD](http://Tregaskiss.com/TOUGHGARD)

## Consumable Options *(Continued)*

### QUICK LOAD® Liners

---

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

### QUICK LOAD E-Z Feed™ Liners — for cored and aluminum wire

---

<b>415-31</b>	Liner retainer
<b>415-35-062Q</b>	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 6' (1.8 m) (requires 415-26 retainer)
<b>415-116-062Q</b>	for 0.045" (1.2 mm) - 1/16" (1.6 mm) wire; 6' (1.8 m) (requires 415-31 retainer)

### Polymer Liners — for aluminum wire (must be used with below jump liners)

---

<b>415-45-01</b>	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 6' (1.8 m)
<b>415-45-02</b>	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 10' (3.05 m)
<b>415-45-03</b>	for 0.035" (0.9 mm) - 0.045" (1.2 mm) wire; 15' (5.0 m)
<b>415-116-21</b>	for 0.045" (1.2 mm) - 1/16" (1.6 mm) wire; 6' (1.8 m)
<b>415-116-22</b>	for 0.045" (1.2 mm) - 1/16" (1.6 mm) wire; 10' (3.05 m)
<b>415-116-23</b>	for 0.045" (1.2 mm) - 1/16" (1.6 mm) wire; 15' (5.0 m)

### Jump Liners — used with above polymer liners for aluminum wire

---

<b>415-25</b>	for 0.030" (0.8 mm) - 1/16" (1.6 mm) wire; 8'
<b>415-25-13</b>	for 0.030" (0.8 mm) - 1/16" (1.6 mm) wire; 13'

## Neck Options

### Air-Cooled Necks

---

<b>405-22QC</b>	22 degree neck
<b>405-45QC</b>	45 degree neck

## Power Pins Options

### Power Pins

---

425-20E	Euro	214-7	Lincoln®	214-30	Panasonic®
214-17	Fronius®	214-40	Lincoln (short)	214	Tweco® #4
425E	L-Tec® Euro	214-1	Miller®	214-12	Tweco #5
				214-18	Tweco #5 (external gas line)

## Mounting Options *(Sold Separately)*

### Mounting Arm Assembly

---

#### Option A

---

**BAS2201A** Mounting arm assembly for 22 degree neck, standard, TCP 350 mm, for all cobot models

**BAS4501A** Mounting arm assembly for 45 degree neck, standard, TCP 350 mm, for all cobot models

#### Option B

---

**BAS2201B** Mounting arm assembly for 22 degree neck, with free drive switch for controller I/O connection (3-pin, 5 meter cable, not terminated), TCP 350 mm, for all cobot models

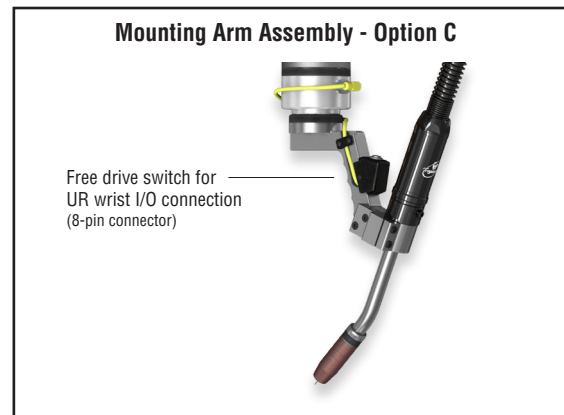
**BAS4501B** Mounting arm assembly for 45 degree neck, with free drive switch for controller I/O connection (3-pin, 5 meter cable, not terminated), TCP 350 mm, for all cobot models

#### Option C

---

**BAS2201C** Mounting arm assembly for 22 degree neck, with free drive switch for UR wrist I/O connection (8-pin connector), TCP 350 mm, for Universal Robots (UR) only

**BAS4501C** Mounting arm assembly for 45 degree neck, with free drive switch for UR wrist I/O connection (8-pin connector), TCP 350 mm, for Universal Robots (UR) only



### Insulating/Transition Discs

---

#### For Universal Robot (UR) cobots:

**59D06** Insulating disc for Universal Robot cobot models: UR5, UR5e, UR10, UR10e, UR16, UR16e

#### For FANUC® cobots:

**59D06** Insulating disc for Fanuc cobot models: CRX-5iA, CRX-10iA, CRX-10iA/L, CRX-20iA/L, CRX-25iA

**59DT-010** Insulating disc for Fanuc cobot models: CR-4iA, CR-7iA, CR-7iA/L, CR-14iA/L, CR-15iA, CR-35iA  
\*kit includes transition disc and 59D01 insulating disc

#### For Yaskawa Motoman cobots:

**59DT-013** Insulating disc for Yaskawa Motoman cobot models: HC10DT-XP  
\*kit includes transition disc and 59D02 insulating disc

## Replacement Unicable *(Sold Separately)*

### Unicables

---

**BA1UXXS** Replaceable unicable, solid mount

**EBA1UXXS** Replaceable unicable, solid mount (Euro)

NOTE: XX in the part numbers above represent cable length; i.e. BA1U04S = 4 ft, BA1U04.5S = 4.5 ft, BA1U10S = 10 ft, etc. (refer to Ordering Information on page 8 for available cable lengths)

# Ordering Information

## Step #1 - Tregaskiss BA1 Cobot MIG Guns

BA1 Series			Gun Style	Neck	Option #1	Contact Tip + Diffuser <sup>+</sup>	Cable Length	Nozzle	Option #2	Wire Size	Power Pin
<b>B</b>	<b>A</b>	<b>1</b>	<b>2</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>O</b>	<b>E</b>	<b>M</b>
			2 Solid mount	<b>Air-Cooled</b>	A No options	<b>AccuLock™</b>	A 3.0'	<b>Slip-On</b>	0 No options	<b>QUICK LOAD®</b>	E Euro 425-20E
				A 22 degree 405-22QC		<b>For Slip-On Nozzles</b>	B 3.5'	A 401-6-62		<b>E-Z Feed™ Liner<sup>^</sup></b>	F Fronius®
				B 45 degree 405-45QC		A T-A0XXCH* + D-ATSH	C 4.0'	D 401-81-62		<b>for Cored Wire</b>	214-17
						B T-A0XXZH** + D-ATSH	D 4.5'	G 401-8-62		A 0.035"	L Lincoln® 214-7
						C T-A0XXWH*** + D-ATSH	E 5.0'	K 401-48-62		N 1.0 mm	M Miller® 214-1
						<b>For Thread-On Nozzles</b>	F 5.5'	N 401-71-62		P 0.045"	C L-Tec® Euro
						D T-A0XXCH* + D-ATTH	G 6.0'	P 401-87-62		W 0.052"	425E
						E T-A0XXZH** + D-ATTH	J 7.0'	3 401-30-62		Y 1/16"	P Panasonic®
						F T-A0XXWH*** + D-ATTH	L 8.0'	<b>Thread-On</b>		<b>QUICK LOAD</b>	214-30
							N 9.0'	D 401-14-62		<b>Liner</b>	R Tweco® #5
							R 10.0'	E 401-18-62		B 0.030"	(external gas
							S 12.0'	G 401-43-62		C 0.035"	line) 214-18
							T 15.0'	L 401-20-62		D 1.0 mm	S Lincoln
								4 401-30-62T		E 0.045"	(short) 214-40
										G 0.052"	T Tweco #4 214
										J 1/16"	W Tweco #5
										K 0.070"	214-12
										L 0.078"	
										M 3/32"	
										<b>Polymer Liner</b>	
										<b>for Aluminum Wire</b>	
										R 0.035"	
										T 1/16"	
										U 0.045"	

+ Wire size = XX

\* Not available for 0.078" wire size

\*\* Available for 0.030", 0.035", 1.0 mm and 0.045" wire sizes

\*\*\* Available for 0.035", 1.0 mm, 0.045" and 0.052" wire sizes

<sup>^</sup> QUICK LOAD Pro Liner features a special profile and coating for applications requiring extra wire feedability; Not available in cable lengths longer than 6 feet; For cored wire

## Step #2 - Insulating/Transition Discs

Select your insulating disc from page 7 and enter it here:

## Step #3 - Mounting Arms

Select your mounting arm from page 7 and enter it here:

Brand and product names shown above are trademarks of their respective owners.

Tregaskiss®, AccuLock™, TOUGH GUN®, TOUGH LOCK® and QUICK LOAD® are trademarks of Tregaskiss, a division of ITW Canada Inc.

Subject to Change – The information presented in this spec sheet is accurate to the best of our knowledge at the time of printing. Please visit Tregaskiss.com for the most up-to-date information.

Distributed By:

