

WHY TREGASKISS AND BERNARD?

The Tregaskiss® and Bernard® brands are backed by a shared team that is focused on helping you achieve success in your MIG welding operations.

YOU ASK. WE LISTEN.

Your needs and challenges are something we listen closely to as we improve existing products and launch innovative yet practical new products. Recent examples include our new AccuLock™ S and AccuLock R Consumables (see pages 4-8 for more information).

YOU NEED RELIABILITY. WE UNDERSTAND.

You need reliable MIG guns, consumables and welding products that are readily available and offer consistent performance. Simplicity, ease of maintenance and durability are always part of our design specifications.

YOU WANT QUALITY. WE DELIVER.

You prefer to use best-in-class welding products and components in your welding applications. Our premium quality welding consumables are precision-engineered for superior performance and longer life. To further support you, our MIG guns are designed to be universally compatible with most brands of welding machines and robots on the market.

YOUR NEEDS ARE UNIQUE. WE CUSTOMIZE.

You understand the efficiency benefits of using best-fit products that optimize your welding applications. Our configured and custom MIG product solutions help you achieve your goals.

YOU EXPECT ONGOING SUPPORT. WE VALUE OUR PARTNERSHIP.

You need supplier partners who stand firmly behind their products. We support you long after the sale by offering you competitive warranties as well as technical support via phone and email, 24/7 online resources, and an extensive authorized partner network (see page 45 for more information).

INDUSTRIES



AUTOMOTIVE



COMMERCIAL



COMMERCIAL TRUCK AND TRAILER



GENERAL MANUFACTURING



HEAVY EQUIPMENT



OIL & GAS



SHIP

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MIG GUN CONSUMABLES OVERVIEW

Genuine Bernard® and Tregaskiss® consumables enhance the performance of your MIG welding gun. They are manufactured to the same durable, high-performance standards as every MIG welding product we build, and they deliver the improved performance you've come to know and expect from us.

CONSUMABLES COMPARISON CHART

	AccuLock™ S	AccuLock R	Centerfire™	Quik Tip™	TOUGH LOCK®
Copper Contact Tips	✓	✓	✓	✓	✓
Chrome Zirconium Contact Tip	✓	✓	-	√	✓
HDP Contact Tips	-	✓	-	-	-
Drop-in contact tip (no threads)	-	-	✓	-	-
Coarse threaded contact tip prevents cross-threading	✓	✓	-	✓	-
Cooling tail on contact tip	✓	✓	-	-	-
Threaded nozzles	✓	✓	✓	✓	✓
Slip-on nozzles	✓	✓	-	✓	✓
Taper lock (tip to diffuser/head)	✓	✓	✓	✓	✓
Taper lock (diffuser/head to neck)	✓	√	-	-	√

Looking for a consumable series that is compatible with your existing Bernard semi-automatic or Tregaskiss robotic or fixed automatic MIG welding gun? Consult the reference chart below:

CONSUMABLES AND MIG GUN SERIES COMPATIBILITY CHART

					-
	AccuLock™ S*	AccuLock R^	Centerfire™	Quik Tip™	TOUGH LOCK®
Bernard BTB Semi-Automatic Air-Cooled MIG Guns (page 14)	✓	✓	1	✓	✓
Bernard W-Gun™ Semi-Automatic Water-Cooled MIG Guns (page 26)	COMING SOON	-	✓	✓	-
Bernard T-Gun [™] Semi-Automatic Water-Cooled MIG Guns (page 26)	COMING SOON			•	SP
Bernard Clean Air™ Fume Extraction MIG Guns (page 22)	COMING SOON	•	✓	✓	SP
Bernard Dura-Flux [™] Self-Shielded Flux-Core FCAW Guns with Replaceable Cable Liner (page 21)	-			✓	-
Bernard Dura-Flux Self-Shielded Flux-Core FCAW Guns with Fixed Power Cable Liner (page 21)	-				
Tregaskiss TOUGH GUN® TA3 Robotic Air-Cooled MIG Guns (page 28)	-	✓			1
Tregaskiss TOUGH GUN CA3 Robotic Air-Cooled MIG Guns (page 32)	-	✓		-	✓
Tregaskiss 600 amp TOUGH GUN Robotic Water-Cooled MIG Guns (page 39)	-	COMING SOON			1
Tregaskiss MA1 Fixed Automatic Air-Cooled MIG Guns (page 36)	-	✓		-	1
Tregaskiss MW1 Fixed Automatic Water-Cooled MIG Guns (page 36)	-	COMING SOON		-	1
Tregaskiss AW2 Fixed Automatic MIG Guns (page 36)	-	COMING SOON	/	✓	-

^{*}For use with AccuLock S Liners

GUIDE:

✓ Compa

SP Compatible but may require special parts (check spec sheet for details)

[^]For use with QUICK LOAD® Liners



LOAD AND LOCK TO REDUCE TROUBLESHOOTING, **DOWNTIME AND REWORK**

As you support more inexperienced welders, choosing equipment with fewer points of failure and simplified maintenance can reduce training and shorten your troubleshooting list.

Bernard® AccuLock™ S Consumables are designed to address liner trim length errors and erratic wire feeding. Both are common contributors to troubleshooting, rework and production downtime.

The AccuLock S Consumables system requires the use of all of the following MIG welding consumables and components:

- AccuLock Contact Tips
- AccuLock S Gas Diffusers
- AccuLock S Nozzles
- AccuLock S Liners
- AccuLock S Neck Insulators
- AccuLock S Power Pins and Caps



LOAD AND LOCK LINERS ACCURATELY AND EASILY







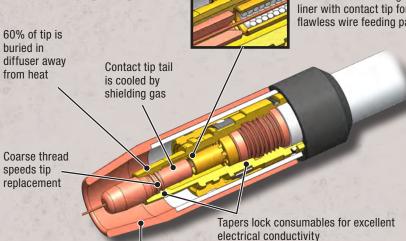


Error-Proof Replacement – With AccuLock S Consumables, the liner replacement process has been error-proofed. No more measuring means no more liners trimmed incorrectly!

- 1. Remove the nozzle, gas diffuser and power pin cap.
- 2. LOAD the liner through the neck until the brass liner lock bottoms on the neck.
- 3. LOCK and center the liner by reinstalling the diffuser and then the power pin cap. Torque the power pin cap to 10 ft-lbs / 120 in-lbs (13.5 Nm).
- 4. TRIM the liner flush with the power pin.

Optimized Wire Feeding – AccuLock S Liners are locked and concentrically aligned to both the contact tip and the power pin without the use of fasteners to guarantee smooth, uninterrupted delivery of the wire to the weld puddle. This means you'll benefit from reduced troubleshooting and downtime caused by burnbacks, birdnests, and erratic arc, plus 2-3x extended contact tip life.

KEY FEATURES



Nozzle is held in place by a steel retaining ring on the gas diffuser for reliable tip-to-work distance

Diffuser locks and aligns liner with contact tip for flawless wire feeding path

> Bernard AccuLock S Series and Tregaskiss® AccuLock R Series Consumables share a common contact tip. If you have a combination of semiautomatic and robotic

PLATFORM™

MIG guns in your facility, you'll benefit from the simplified inventory of a Common Consumable Platform.

COMMON CONSUMABLE

PART NUMBERS

SMALL NOZZLES	LARGE NOZZLES	'T' CONTACT TIPS	'TT' CONTACT TIPS
NS-A5800C 5/8" Bore, Flush, Copper NS-A5818C 5/8" Bore, 1/8" Recess, Copper NS-A5800B 5/8" Bore, Flush, Brass NS-A5818B 5/8" Bore, 1/8" Recess, Brass NS-A1218C 1/2" Bore, 1/8" Recess, Copper NS-A1200B 1/2" Bore, Flush, Brass NS-A1218B 1/2" Bore, 1/8" Recess, Brass NST-A3800B 3/8" Bore, Flush, Brass NST-A3818B 3/8" Bore, 1/8" Recess, Brass NST-A38XTB 3/8" Bore, 1/8" Extension, Brass NST-A1218B 1/2" Bore, 1/8" Recess, Brass	N-A3400C 3/4" Bore, Flush, Copper N-A3418C 3/4" Bore, 1/8" Recess, Copper N-A3414B 3/4" Bore, 1/8" Recess, Copper N-A3414B 3/4" Bore, 1/8" Recess, Brass N-A3414B 3/4" Bore, 1/4" Recess, Brass N-A5800C 5/8" Bore, Flush, Copper N-A5818C 5/8" Bore, 1/8" Recess, Copper N-A5814C 5/8" Bore, 1/4" Recess, Copper N-A5814B 5/8" Bore, 1/8" Recess, Brass N-A5814B 5/8" Bore, 1/4" Recess, Brass NT-A3800C 3/8" Bore, Flush, Copper	T-A023CH 0.023" (0.6 mm) T-A030CH 0.030" (0.8 mm) T-A035CH 0.035" (0.9 mm) T-A039CH 0.039" (1.0 mm) T-A045CH 0.045" (1.2 mm) T-A052CH 0.052" (1.4 mm) T-A052CH 1/16" (1.6 mm) T-A072CH 0.072" (1.8 mm) T-A078CH 5/64" (2.0 mm) T-A094CH 3/32" (2.4 mm) T-A109CH 7/64" (2.8 mm) T-A125CH 1/8" (3.2 mm)	TT-A023CH 0.023" (0.6 mm) TT-A030CH 0.030" (0.8 mm) TT-A035CH 0.035" (0.9 mm) TT-A039CH 0.039" (1.0 mm) TT-A045CH 0.045" (1.2 mm) TT-A052CH 0.052" (1.4 mm) TT-A062CH 1/16" (1.6 mm)

DIFFUSERS									
 DS-A1 DS-A2	Thread-On			Thread-On Slip-On					

LINERS					POWER PINS &	POWER PIN CAPS	
Cable Length							
Wire Size	Liner Color	10' (3.05 m)	15' (4.57 m)	20' (6.10 m)	25' (7.62 m)	Power Pin	Power Pin Cap
0.023" - 0.030"	Yellow	LA1A-10	LA1A-15	LA1A-20	LA1A-25	2200206	2200170 (Black*)
0.030" - 0.035"	Green	LA2A-10	LA2A-15	LA2A-20	LA2A-25	2200206	2200171 (Blue*)
0.035" - 0.045"	White	LAD3A-10	LAD3A-15	LAD3A-20	LAD3A-25	2200206	2200171 (Blue*)
0.045" - 1/16"	Red	LAD4A-10	LAD4A-15	LAD4A-20	LAD4A-25	2200206	2200203 (Orange*)
5/64" - 3/32"	Blue	LA6A-10	LA6A-15	LA6A-20	LA6A-25	2200206	2200203 (Orange*)

*Denotes internal color of the cap





In robotic MIG welding applications, MIG gun consumables require frequent replacement, contributing to both planned and unplanned production downtime. If you are looking for new ways to increase throughput and efficiency with minimal risk and effort, it's time to take a fresh look at your MIG gun consumables.

The AccuLock R Consumables system requires the use of all of the following MIG welding consumables and components:

- AccuLock Contact Tips
- AccuLock R Gas Diffusers
- Tregaskiss Nozzles
- QUICK LOAD Liners

LOAD AND LOCK TO REDUCE UNPLANNED DOWNTIME

Challenged by a shortage of experienced welding operators? The longer lifespan of AccuLock™ Contact Tips means fewer human interactions within your welding cells and fewer accidental errors as a result. With contact tip cross-threading issues also virtually eliminated from your list of failure modes, you'll spend less time troubleshooting and more time on proactive weld quality and productivity initiatives.

LOAD AND LOCK TO REDUCE PLANNED DOWNTIME

Achieve your annual cost reduction and throughput goals by decreasing planned downtime for consumables replacement.

AccuLock R Consumables offer an enhanced contact-tip-to-diffuser design which increases tip life over comparable consumables, reducing your replacement frequency. Upgrading from copper tips to AccuLock HDP Contact Tips can increase life by an **additional 6-10x** depending on your application.

In most cases, your current tip and diffuser can be replaced with no impact to TCP, making this upgrade low effort, low risk, and high payoff.

MAXIMIZE PERFORMANCE

- Contact tips last longer due to increased mass and being buried within the diffuser, away from the heat of the weld
- AccuLock HDP Contact Tips can extend life by 6-10x in pulse welding applications (see page 8 for more information)
- Tapered mating surfaces ensure optimal electrical conductivity for longer life and keep consumables locked in place
- No change to TCP easily upgrade from TOUGH LOCK® Consumables without the need to reprogram
- Copper, chrome zirconium and HDP contact tips available
- For use with front-loading QUICK LOAD® Liners

MINIMIZE ERRORS

- Coarse thread on contact tip virtually eliminates risk of cross-threading during replacement
- Long contact tip tail concentrically aligns the tip within the diffuser prior to thread engagement, ensuring quick, accurate replacement without cross-threading

KEY FEATURES

Liner seat in diffuser ensures good wire feeding

Long tail ensures tip concentricity

replacement and prevents cross-threading

More mass at front of tip to withstand heat

Tapered connections for excellent electrical conductivity

60% of tip buried in diffuser, away from heat

DIFFUSERS

D-ATSH Slip-On

COMMON CONSUMABLE PLATFORM™

Tregaskiss AccuLock R
Series and Bernard®
AccuLock S Series
Consumables share
a common contact tip.
If you have a combination
of robotic and semiautomatic MIG guns in
your facility, you'll benefit from the
simplified inventory of a Common
Consumable Platform.

PART NUMBERS

	NOZZLES
401-6-62 401-5-62 401-7-62 401-8-62 401-4-62 401-81-62 401-71-62 401-87-62	5/8" Bore, 1/8" Recess, Copper, Slip On, Tapered, 1.062", HD 5/8" Bore, 1/4" Recess, Copper, Slip On, Tapered, 1.062", HD 5/8" Bore, 1/4" Recess, Brass, Slip On, Tapered, 1.106", HD 5/8" Bore, 1/8" Stick-Out, Copper, Slip On, Tapered, 0.938", SD 5/8" Bore, 1/8" Recess, Copper, Slip On, Tapered, 0.938", SD 5/8" Bore, 1/8" Recess, Copper, Slip On, Tapered, 0.938", SD 5/8" Bore, Flush, Copper, Slip On, Bottleneck, 1.062", HD 5/8" Bore, 1/8" Stick-Out, Copper, Slip On, Tapered, 1.062", HD 5/8" Bore, 1/8" Stick-Out, Brass, Slip On, Tapered, 1.062", HD
401-14-62 401-18-62 401-20-62 401-43-62 401-30-62 401-30-62T	5/8" Bore, 1/8" Recess, Copper, Thread On, Tapered, 1.062", HD 5/8" Bore, 1/8" Stick-Out, Copper, Thread On, Tapered, 0.938", SD 5/8" Bore, 1/8" Stick-Out, Copper, Thread On, Tapered, 1.062", HD 5/8" Bore, 1/8" Recess, Copper, Thread On, Tapered, 0.938", SD 5/8" Bore, 1/8" Stick-Out, Brass, Slip On, Bottleneck, 0.938", SD 5/8" Bore, 1/8" Stick-Out, Brass, Thread On, Bottleneck, 0.938", SD

CONTACT TIPS									
COPPER	CH	ROME ZIRCO	NIUM	HDP					
T-A030CH 0.030" (0.8 mm) T-A030	ZH 0.030" (0	.8 mm)	T-A035WH	0.035" (0.9 mm)				
T-A035CH 0.035" (0.9 mm) T-A035	ZH 0.035" (0	.9 mm)	T-A039WH	0.039" (1.0 mm)				
T-A039CH 0.039" (1.0 mm) T-A039	ZH 0.039" (1	.0 mm)	T-A045WH	0.045" (1.2 mm)				
T-A045CH 0.045" (1.2 mm) T-A045	ZH 0.045" (1	.2 mm)	T-A052WH	0.052" (1.3 mm)				
T-A052CH 0.052" (1.3 mm)								
T-A062CH 1/16" (1.	6 mm)								
T-A072CH 0.072" (1.8 mm)								
T-A078CH 5/64" (2	.0 mm)								
T-A094CH 3/32" (2	.4 mm)								

OUICK LOAD® LINERS & RETAINERS

FOR STEEL WIF	RE
415-23-15Q	0.023", High Carbon Steel, Round Wound, 15'
415-30-6Q	0.030", High Carbon Steel, Round Wound, 6'
415-30-15Q	0.030", High Carbon Steel, Round Wound, 15'
415-35-6Q	0.035"-0.045", High Carbon Steel, Round Wound, 6'
415-35-10Q	0.035"-0.045", High Carbon Steel, Round Wound, 10
415-35-15Q	0.035"-0.045", High Carbon Steel, Round Wound, 15
415-35-25Q	0.035"-0.045", High Carbon Steel, Round Wound, 25
415-116-6Q	0.045"-1/16", High Carbon Steel, Round Wound, 6'
415-116-10Q	0.045"-1/16", High Carbon Steel, Round Wound, 10'
415-116-15Q	0.045"-1/16", High Carbon Steel, Round Wound, 15'
415-116-25Q	0.045"-1/16", High Carbon Steel, Round Wound, 25'
415-564-6Q	1/16"-5/64", High Carbon Steel, Round Wound, 6'
415-564-15Q	1/16"-5/64", High Carbon Steel, Round Wound, 15'
415-564-25Q	1/16"-5/64", High Carbon Steel, Round Wound, 25'
415-332-6Q	0.078"-3/32", High Carbon Steel, Round Wound, 6'
415-332-15Q	0.078"-3/32", High Carbon Steel, Round Wound, 15'
415-332-25Q	0.078"-3/32", High Carbon Steel, Round Wound, 25'

QUICK LOAD PRO LINERS

415-35-062Q 0.035"-0.045", Galvanized, D Wound, 6' (requires 415-26) 415-116-062Q 0.045"-1/16", Galvanized, D Wound, 6' (includes 415-31)

QUICK LOAD LINER RETAINERS (SOLD SEPARATELY)

415-26	0.030"-5/64", compatible with Tregaskiss and Bernard MIG Guns
415-37	0.030"-5/64", compatible with most Tweco® MIG Guns
415-31	0.045"-1/16", required for 415-116-062Q and 415-116-152Q
415-24	0.078"-3/32", compatible with Tregaskiss and Bernard MIG Guns

ACCULOCK HDP CONTACT TIPS

WEBSITE QUICKLINK: Tregaskiss.com/HDP



CENTERFIRE CONSUMABLES

WEBSITE QUICKLINK: BernardWelds.com/Centerfire



REGAIN AS MUCH AS 95% OF LOST PRODUCTIVITY FOR CONTACT TIP CHANGES

With new AccuLock™ HDP Contact Tips, you can now enjoy all the benefits of pulse welding plus dramatically extended contact tip life for increased production throughput.

Engineered with a special alloy that has superior resistance to arc erosion and wear, these tips last 6-10x longer than copper and chrome zirconium tips. Additional benefits include increased arc stability for improved weld quality and reduced spatter.



RESISTANCE TO WEAR

C122 COPPER TIP



CHROME ZIRCONIUM TIP

0 minutes arc on time

HDP TIP





0 minutes arc on time 120 minutes arc on time

Test parameters: 120 minutes arc on time (20 min x 6 cycles), High Speed Pulse waveform, ER70S3 .045" Cu coated solid wire from bulk package (ER480S3 in Canada), 450 ipm wire feed speed, 40-45 ipm travel speed,

90/10 mixed gas, 240-260 average amps, Tregaskiss TOUGH GUN® CA3 Gun with 22 degree neck

TOUGH LOCK CONSUMABLES

WEBSITE QUICKLINK: Tregaskiss.com/TOUGHLOCK





This system features our well-known TOUGH LOCK® Contact Tips and Retaining Heads. TOUGH LOCK Contact Tips are precision-machined using a process that tightly controls tip tolerances. TOUGH LOCK Retaining Heads are manufactured with a tapered design at both ends that keep the consumables locked from tip to neck for improved weld consistency and to maximize heat dissipation.

TOUGH LOCK Consumables with Dual Taper Technology keep consumables running cooler for longer tip life and improved performance.

Please refer to the TOUGH LOCK Consumables spec sheet (SP-TLC) at Tregaskiss.com/spec for a complete list of part numbers.

New AccuLock R Consumables are the next evolution of TOUGH LOCK Consumables and offer additional benefits (see page 6 for more information).



Centerfire[™] Consumables are easy to use and provide better arc starts, less spatter and more consistent welds. Centerfire Consumables are ideal for heavy-duty and light commercial applications.

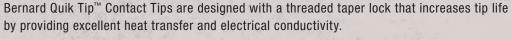
CENTERFIRE HD CONSUMABLES

Looking for consumables for heavy-duty applications such as shipbuilding, fabrication and other heavy equipment manufacturing operations? Consider Bernard Centerfire HD Series Consumables. Centerfire HD Nozzles feature a removable nozzle cone, thicker wall and a high-temperature insulator. The removable nozzle cone lowers downtime and consumables costs by allowing operators to replace only the cone (the most frequently damaged part of the nozzle) without removing and replacing the entire nozzle body for spatter removal.

Please refer to the Centerfire Consumables spec sheet (SP-CFC) at BernardWelds.com/spec for a complete list of part numbers.

WEBSITE QUICKLINK: BernardWelds.com/QuikTip

QUIK TIP CONSUMABLES



- In case of burnback, a quick twist will get you back on the job within moments
- Quik Tip Gas Diffusers have positive nozzle stops to secure Quik Tip Contact Tips in a fixed position for dependable repeatability and consistent, quality welds
- Quik Tip Nozzles are available in two styles threaded or slip-on with a variety of orifice diameters for optimal shielding gas coverage



Designed for heavy-duty applications such as shipbuilding, trailer fabrication and other heavy equipment manufacturing operations, Bernard Quik Tip HD Series Consumables feature a two-piece nozzle comprised of a nozzle cone and nozzle

body. The removable nozzle cone lowers downtime and consumables costs by allowing replacement of the cone (the most frequently damaged part of the nozzle) without removing and replacing the entire nozzle.

Please refer to the Quik Tip Consumables spec sheet (SP-QTC) at BernardWelds.com/spec for a complete list of part numbers.



COMPETITIVE CONVERSION SERIES CONSUMABLES

WEBSITE QUICKLINKS:
BernardWelds.com/Conversion



QUICK LOAD LINERS

WEBSITE QUICKLINKS:
Tregaskiss.com/QUICKLOAD



Not currently using a Bernard or Tregaskiss MIG Gun? You can still experience immediate benefits from Centerfire[™] (semi-automatic) or TOUGH LOCK[®] (semi-automatic or robotic) Consumables with competitive conversion parts. Enhance performance and standardize consumables for all your gun brands to minimize inventory management costs.

CENTERFIRE CONVERSION CHART

GUN Manufacturer	GUN MODEL	DESIRED NOZZLE	ADAPTOR	INSULATOR	GAS DIFFUSER
	ALPHA 3, ALPHA 3 Automatic		Not Required	4323R	DS-1B3
Binzel®	ALPHA 4, ALPHA 4 Automatic	Large	Not Required	4323R	D-1B4
	OMEGA 4	Large	Not Required	4323R	D-1B04
	Magnum® 250	Small	1380005	4323R	DS-1
Lincoln®	Magnum 300, Magnum 400	Small	Not Required	4323R	DS-1T
	Magnum Pro 300, Magnum Pro 400	Large	Not Required	4323R	D-1LP3
	XR Edge	Small	1380018	4323R	DS-1
	Art Euge	Large	1380018	10012	D-1
Miller®	XR30A, XR-W, Roughneck, Python	Small	Not Required	4323R	DS-1
WIIIGI		Large	Not Required	10012	D-1
	Aluma-Pro™	Small	Not Required	4323R	DS-1AP
	Alullia-FIO	Large	Not Required	10012	D-1AP
	No. 3, No. 4, Tuff-N-Lite, Supra® XT	Small	Not Required	4323R	DS-1T
	(HD Consumables)	Large	Not Required	4423R	D-1T
Tweco®	Spray Master® 450	Large	Not Required	4423R	D-1T
IWGGO	ELC 250, ELC 350, Spray Master 250,	Small	1380012	4323R	DS-1
	Spray Master 350	Large	1380012	10012	D-1
	ELC 450, EL 450, Supra XT (EL Consumables)	Large	1380017	10012	D-1



Brand and product names shown above are trademarks of their respective owners NOTE: More options available at BernardWelds.com/Conversion

TOUGH LOCK CONVERSION CHART

GUN MANUFACTURER	GUN MODEL	GUN NECK	TOUGH LOCK HD RETAINING HEAD	NECK Insulator	ADAPTOR	QUICK LOAD® LINER RETAINER
Binzel®	ALPHA 4	N/A	404-46	402-11	N/A	N/A
	Magnum® 300	KP1929, KP1928,	404-20*	4423R	N/A	N/A
	Magnum 400	KP1941	404-20*	4423R	N/A	N/A
Lincoln®	Magnum Pro (slip-on nozzles)	N/A	404-73	402-28	N/A	N/A
	Magnum Pro (thread-on nozzles)	N/A	404-75-25	402-28	N/A	N/A
	No. 3	63J-60	404-20*	4423R	N/A	415-37^
	No. 4	64J-60	404-20*	4423R	N/A	415-37^
	Spray Master® 350	MS63-60	404-20*	4423R	N/A	415-37^
	Spray Master 450	MS64H-60	404-20*	4423R	N/A	415-37^
Tweco®	Weldskill 400	64A-60	404-20*	4423R	N/A	415-37^
	Air-Cooled Robotics	QTR66-22 (with M11 thread)	404-30	402-19	404-69	N/A
	All-Cooled Hobotics	QTR66-22 (with M12 thread)	404-30	402-19	404-63	N/A



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

QUICK LOAD® Liners load from the front of the MIG gun and require less than half the time and effort to replace when compared with conventional liners.

A QUICK LOAD Liner Retainer must be purchased separately and installed inside the power pin on the first use of a QUICK LOAD Liner. All future QUICK LOAD Liner replacements will be done from the front of the MIG gun.

QUICK INSTALLATION

- Remove front-end consumables and slide liner over the wire, using it as a guide
- Ease of installation simplifies routine maintenance
- No need to cut and waste wire!

MAINTENANCE MADE EASY

- · Avoid having to remove MIG gun from wire feeder
- Change liner from a safe zone within the robotic work cell during routine pauses in production
- No need to climb up to change liners in semi-automatic
 MIG guns connected to boom mounted feeders

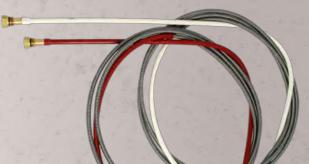
COMPATIBILITY

- Available for semi-automatic and automation applications
- The QUICK LOAD Liner is an important component of the AccuLock R Consumables system
- Available for Tregaskiss® TOUGH GUN® Robotic Air-Cooled and Automatic Air- and Water-Cooled MIG Guns*, and Bernard® BTB Semi-Automatic Air-Cooled and Clean Air™ Fume Extraction MIG Guns
- Compatible with AutoLength[™] Technology (see page 12 for more information)

*Not recommended for guns equipped with wire brake; Not compatible with robotic water-cooled or AW2 Fixed Automatic Water-Cooled MIG Guns

Please refer to the QUICK LOAD Liner and AutoLength Pins spec sheet (SP-QLL) at Tregaskiss.com/spec or BernardWelds.com/spec for a complete list of part numbers.





CONVENTIONAL LINERS

Tregaskiss® Conventional Liners for MIG welding guns are made of high carbon music wire for smooth wire feed and long life, and are available in lengths of up to 25 feet (7.6 m) for various wire sizes. These liners thread in from the rear of the gun with no need for set screws.

Please refer to the Tregaskiss Conventional Liner spec sheet (SPEC TRG-CVL) at Tregaskiss.com/spec for a complete list of part numbers.

^{*}The 404-20 TOUGH LOCK Retaining Head will fit on most necks with an external 9/16"-18 thread regardless of angle

[^]Order the 415-37 QUICK LOAD Liner Retainer to use QUICK LOAD Liners for wire sizes 0.030" through 5/64"

QUICK LOAD PRO LINERS

WEBSITE QUICKLINK:
Tregaskiss.com/QUICKLOAD



Part of the front-loading QUICK LOAD Liner family, the QUICK LOAD Pro Liner features a special profile and a galvanized coating that improves wire feedability and protects the integrity of the wire material in humid or damp welding environments.

- Ideal for solid and cored wire
- Larger coil profile strengthens the rigidity of the liner which improves wire support
- Fewer touch points during wire passage improves wire feeding and minimizes gun chatter
- Available for 0.035"-1/16" wire sizes in lengths up to 6 feet
- Compatible with AutoLength™ Technology (see below for more information)

QUICK LOAD LINER AUTOLENGTH SYSTEM

WEBSITE QUICKLINK:
Tregaskiss.com/AutoLength



The QUICK LOAD® Liner AutoLength™ System is designed to minimize wire feeding and quality issues commonly associated with short liner length. This innovative technology is designed specifically for use with QUICK LOAD Liners.

Short liners are a common root cause of poor wire feeding. A short liner does not have a chance of properly seating in the retaining head — often resulting in birdnesting of the welding wire, or premature contact tip failure and wear.

HOW IT WORKS

- Housed inside the power pin, this spring-loaded module applies constant forward pressure on the liner, keeping it seated in the retaining head
- Allows for up to one-inch forgiveness if the liner is too short
- Accommodates liner movement during welding

INCREASED PRODUCTIVITY

- Reduces issues caused by incorrect liner length
- Decreases burn-backs caused by misalignment between the liner and the contact tip
- Improves wire feedability by enhancing wire alignment with the contact tip

DESIGNED SPECIFICALLY FOR USE WITH QUICK LOAD LINERS

- Requires less than half the time and effort to replace, compared to conventional liners (see page 11 for more information)
- Liner portion feeds from the front no need to cut and waste wire!
- Compatible with Tregaskiss® Robotic and Automatic Air- and Water-Cooled MIG Guns*, and Bernard® BTB Semi-Automatic and Clean Air™ Fume Extraction MIG Guns, when equipped with a QUICK LOAD Liner

*Not recommended for MIG guns equipped with wire brake; Not compatible with robotic water-cooled or Tregaskiss AW2 Fixed Automatic Water-Cooled MIG Guns Please refer to the QUICK LOAD Liner and AutoLength Pins spec sheet (SP-QLL) at Tregaskiss.com/spec or BernardWelds.com/spec for a complete list of part numbers.

See this product in action at YouTube.com/TregaskissWelds or YouTube.com/TheBernardDifference

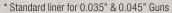


BERNARD CONVENTIONAL LINERS

BERNARD CONVENTIONAL LINERS

Bernard Conventional Liners are compatible with all legacy Q-Gun™, S-Gun™ and T-Gun™ Semi-Automatic Air-Cooled MIG Guns and all BTB Semi-Automatic MIG Guns, which allows you to **simplify and reduce your inventory.** Color-coded by wire size for ease of identification, these liners are made of high carbon music wire for smooth wire feeding and long life and are available in lengths up to 25' (7.6 m) for various wire sizes. Please see chart below for part numbers and wire sizes.

CONVENTIONAL LINERS						
Wire Size	Liner Color	10' (3.05 m)	15' (4.57 m)	25' (7.62 m)		
0.023" - 0.030"	Yellow	-	L1A-15	L1A-25		
0.030" - 0.035"	Green	-	L2A-15	L2A-25		
0.035" - 0.045"	White	L3A-10*	L3A-15*	L3A-25*		
0.045" - 1/16"	Red	L4A-10**	L4A-15**	L4A-25**		
5/64"	Blue	-	L6A-15	L6A-25		
3/32"	Grey	-	L7A-15	L7A-25		
7/64" - 1/8"	Black	-	L8A-15	L8A-25		



^{**} Standard liner for 1/16" Guns

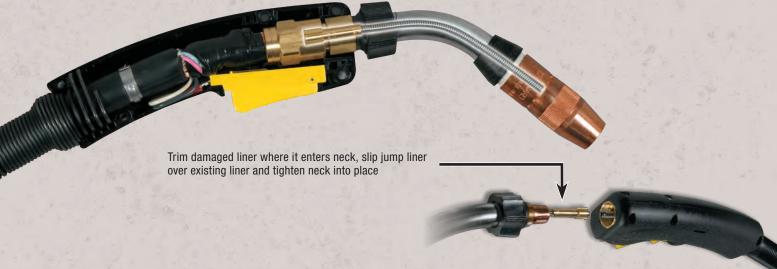
Please see the Bernard Conventional Liner Spec Sheet (SP-L) at BernardWelds.com/spec for a complete list of part numbers.



BERNARD JUMP LINER

VERY COST-EFFECTIVE AND GETS YOU BACK ON THE JOB WITHIN MINUTES!

Bernard jump liners replace only the most commonly worn and clogged liner area to **reduce the amount of time a gun is offline** and to **minimize inventory.** These jump liners enable quick and easy neck change-out so guns can be easily adapted to fit multiple applications. The Bernard Jump Liners connect with conventional liners at the base of the neck and run through the most commonly worn area up to the contact tip. For use with Bernard Conventional Liners, jump liners are available in sizes to fit 0.023" to 1/16" wire.



Please see the Jump Liner Spec Sheet (SP-JL) at BernardWelds.com/spec for a complete list of part numbers.





• Choose between seven different curved and straight handle styles

MULTIPLE HANDLE AND TRIGGER OPTIONS

- · C Series Straight Handle features comfortable overmolding and ergonomic rear swivel at no extra cost!
- · Wide selection of handles and easy-to-change trigger options allow guns to be matched to user preference and welding application
- Triggers are designed and built to last more than one million cycles

See page 18 for more information

DOUBLE-LIFE MIG GUN SYSTEM*

The Double-Life MIG Gun System features identical handles and internal connections on the front and back. Once the front end of the cable becomes worn, simply "flip-flop" the switch and neck from the front of the gun with the power pin on the back and get twice the life out of your MIG gun!

*Available for BTB MIG Guns with T and C Series Straight Handles. Not available with Bernard®, OXO™ or Euro power pins.

Compatible with all BTB and Clean AccuLock™ S Liners are locked Air Fume Extraction MIG Guns. and concentrically aligned to **Bernard Conventional Liners** both the contact tip and the power pin without the use of fasteners to

quarantee a flawless wire-feed path

LINER OPTIONS

See page 4 for more information

allow you to simplify and reduce

See page 11 for more information

Save time by loading your liner from the front of your gun with the innovative QUICK LOAD® Liner

See page 12 for more information

The QUICK LOAD Liner AutoLength™ System is designed to minimize downtime, wire feeding and quality issues commonly associated with short liner length

See page 13 for more information

FIXED OR ROTATABLE NECKS

- Wide variety of angle and length options
- · Aluminum armored necks withstand abuse and offer outstanding heat dissipation
- No tools required to adjust rotatable necks

See page 19 for more information

HIGH PERFORMANCE CONSUMABLES

 Available with NEW! AccuLock™ S. Centerfire™, Quik Tip™ or TOUGH LOCK® Consumables

See pages 4-9 for more information





Centerfire Consumables Cutaway



Quik Tip Consumables Cutaway



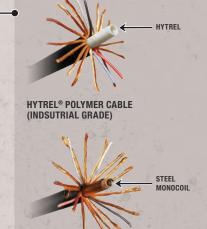
TOUGH LOCK Consumables Cutaway

UNICABLE DESIGN

- Cone and cone nut threaded cable connections for optimal electrical conductivity
- Internal gas hose resists kinking for consistent gas flow
- Choose Industrial Grade or Steel Monocoil cable (upgrade for extra pinch/kink resistance)

C Series Straight Handle

*SEDALARD



STEEL MONOCOIL CABLE

ACCESSORIES

- Neck coupler
- Neck guard and grip
- Heat shield
- Gun hanger
- Flex necks

WARRANTY

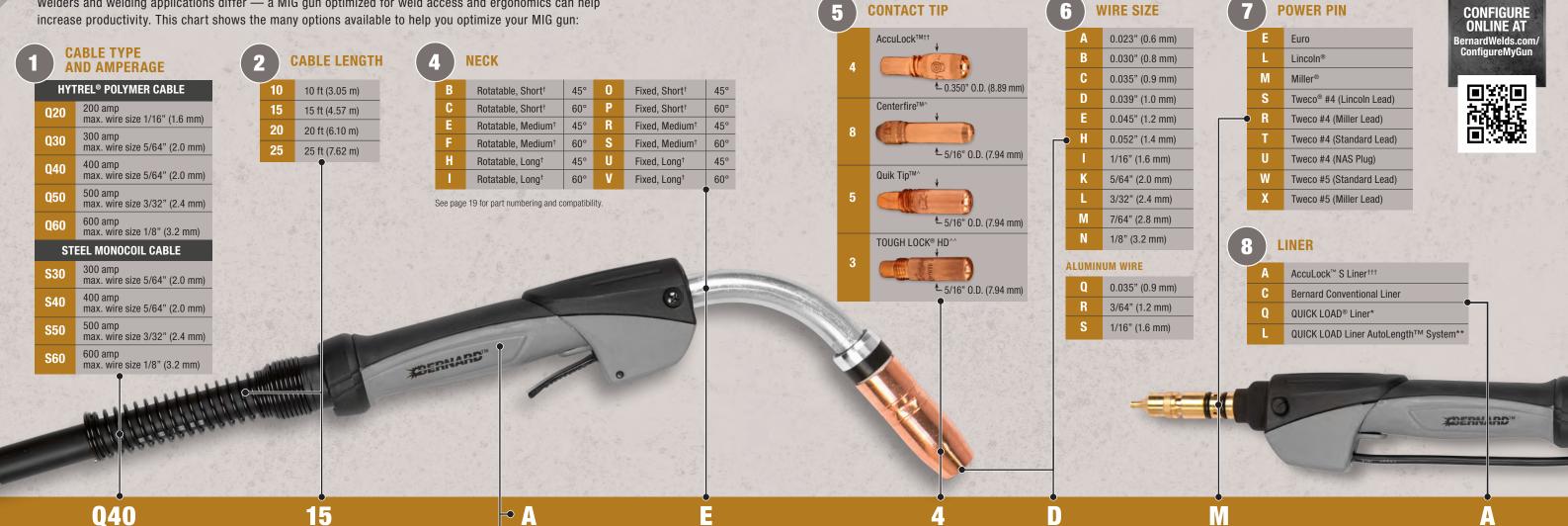
One year manufacturer's warranty

Lifetime warranty on rear straight strain relief and on all T Series and C Series Straight Handles and trigger switches



CHOOSE YOUR WEAPON - BTB MIG GUN CONFIGURATOR

Welders and welding applications differ — a MIG gun optimized for weld access and ergonomics can help



HANDLE AND TRIGGER

	400000000							1 1 1 1 1 1 20 1 1 1 1 1 1 1 1 1 1 1 1 1	
1000	B Series Small Curved Handle	Q20, Q30	A B C	Standard Trigger Locking Trigger Dual Pull Trigger	T Series Small Straight Handle	Q20, Q30	S	Standard Trigger	
	B Series Curved Handle	Q40	A B C D	Standard Trigger Locking Trigger Dual Pull Trigger Dual Schedule Switch Locking Dual Schedule	T Series Straight Handle	Q30, Q40, Q50, Q60, S30, S40	M N P Q	Standard Trigger Locking Trigger Dual Pull Trigger Dual Schedule Switch	
	O Series Curved Handle	Q40, Q50, Q60 S40, S50, S60	G H I K	Standard Trigger Locking Trigger Dual Pull Trigger Dual Schedule Switch	O Series Small Curved Handle	Q20, Q30, Q40, S30, S40	T U	Standard Trigger Locking Trigger	

Standard Trigger **C Series** Q20, Q30, Q40 Dual Pull Trigger Dual Schedule Switch Insight[™] Limited (Available only with Miller®

See page 18 for more information.

The diffusers and nozzles in the chart below come factory installed based on gun amperage:

AMP	ACCU	ILOCK S	CENT	ERFIRE	QUI	K TIP	TOUG	H LOCK
Aivir	Diffuser	Nozzle	Diffuser	Nozzle	Diffuser	Nozzle	Diffuser (HD)	Nozzle
200	DS-A1	NS-A1218B	DS-1	NS-1218B	D118Q	N1C58Q	N/A	N/A
300	DS-A1	NS-A5818C	DS-1	NS-5818C	D118Q	N1C58Q	404-26	401-6-62
300 (T Series Small Straight Handle Only)	DS-A1	NS-A5818C	DS-1	NS-5818C	D118Q	N1C58Q	404-26	401-4-62
400	D-A1	N-A5818C	D-1	N-5818C	D118Q	N1C58Q	404-26	401-6-62
500	D-A1	N-A5814C	D-1	N-5814C	D114Q	N1C34HQ	404-26	401-5-62
600	D-A1	N-A3414C	D-1	N-3414C	D114Q	N1C34HQ	404-26	401-5-75

†Not compatible with T Series Small Straight Handle styles.

^{††}Only available with Miller® power pin; Must be used with AccuLock S Liner.

^{†††}Compatible only with AccuLock contact tip option.

[^]Available for wire sizes up to 1/16" for 200 amp guns; Available for wire sizes up to 5/64" for 300 and 400 amp guns; Available for wire sizes up to 7/64" for 500 amp guns; Available for wire sizes up to 1/8" for 600 amp guns.

^{^^}Available for wire sizes up to 5/64" for 300 and 400 amp guns; Available for wire sizes up to 3/32" for 500 and 600 amp guns; Not available for 200 amp guns.

^{*}Available for wire sizes between 0.023" and 3/32": Available for cable lengths up to 15 ft (4.57 m): Not compatible with aluminum wire.

^{**}Available for wire sizes between 0.030" and 3/32"; Not compatible with aluminum wire; Not compatible with Bernard Power Pin or OXO Power Pin option.

WEBSITE QUICKLINKS:

BernardWelds.com/BTB BernardWelds.com/ConfigureMyGun



GUN AMPERAGE RATINGS*

GUN MODEL	60% Duty cycle — Mixed gases or 100% Duty cycle — ${\rm CO_2}$				
Q20	200 amp				
Q30, S30	300 amp				
Q40, S40	400 amp				
Q50, S50	500 amp				
Q60, S60	600 amp				

NOTE: Q indicates Hytrel® Polymer Cable; S indicates Steel Monocoil Cable *Ratings are based on tests that comply with IEC 60974-7 standards.

BTB MIG GUN HANDLE AND TRIGGER OPTIONS

Handle shape and size as well as trigger style can have a significant impact on welder ergonomics and overall comfort. Choose from one of the following seven handles and their respective trigger options:

HANDLE OPTIONS **FEATURES B SERIES B SERIES O SERIES O SERIES** T SERIES T SERIES C SERIES **SMALL CURVED** SMALL CURVED SMALL **STRAIGHT STRAIGHT CURVED** CURVED HANDLE **HANDLE** HANDLE HANDLE **STRAIGHT** HANDLE HANDLE HANDLE 200, 300, 400, 300, 400, 500, 200, 300, 400 400, 500, 600 200, 300 200, 300 400 **Amperage** 600 Style Curved Curved Curved Curved Straight Straight Straight Fixed or Fixed or Fixed or Fixed or Fixed or Fixed or Neck Fixed Rotatable Rotatable Rotatable Rotatable Rotatable Rotatable Standard, Standard, Locking, Dual Standard, Standard, Standard, Locking, Dual Pull, Dual Standard, Locking, Dual Locking, Dual Pull, Dual Trigger Locking, Standard Schedule Switch, Locking Pull, Dual Pull, Dual **Dual Pull** Schedule Switch, Locking Dual Schedule Switch Schedule Switch Insight Ltd. Schedule Switch Hytrel Polymer Hytrel Polymer Hytrel Polymer (Industrial Grade) Hytrel Polymer (Industrial Grade) (Industrial Grade) Hytrel® Polymer Hytrel Polymer Hytrel Polymer Cable or Steel Monocoil (Industrial Grade) or Steel Monocoil or Steel Monocoil (Industrial Grade) (Industrial Grade) (Industrial Grade) for 300, 400 amp or Steel Monocoi for 300, 400 amp for 300, 400 amp only **Double-Life** MIG Gun

BTB MIG GUN NECK OPTIONS

Optimize weld access by choosing your neck style, angle and length:



T Series Small Straight Handle



T Series Straight Handle



C Series Straight Handle



B Series Small Curved Handle



B Series Curved Handle



O Series Small Curved Handle



O Series Curved Handle

Neck Type		Angle/Length	Part #
Fixed	0	45, Short	205-45
-	Р	60, Short	205-60
	R	45, Medium	315-45
	S	60, Medium	315-60
***	U	45, Long	405-45NB
	V	60, Long	405-60NB

Neck Type		Angle/Length	Part # (T Series Handle Type)	Part # (C Series Handle Type)
Fixed	0	45, Short	305-45	305-45CT
	Р	60, Short	305-60	305-60CT
	R	45, Medium	405-45	405-45CT
	S	60, Medium	405-60	405-60CT
	U	45, Long	505-45	505-45CT
	V	60, Long	505-60	505-60CT

Neck Type		Angle/Length	Part #
Rotatable	В	45, Short	QT2-45
	C	60, Short	QT2-60
	E	45, Medium	QT3-45
	F	60, Medium	QT3-60
	Н	45, Long	QT5-45
	ı	60, Long	QT5-60

Neck Type		Angle/Length	Part #
Fixed	0	45, Short	QT2-45
	Р	60, Short	QT2-60
	R	45, Medium	QT3-45
	S	60, Medium	QT3-60
	U	45, Long	QT5-45
	V	60, Long	QT5-60

Didn't find the neck you need? See page 27 for additional Specialty Neck options.



Please see the Dura-Flux Spec Sheet (SP-DF) at BernardWelds.com/spec for a complete

list of part numbers.

A FLUX-CORED GUN BUILT FOR THE WAY YOU WELD

Self-shielded flux-cored welding can be rough on both you and your welding equipment. That's why Bernard designed the Dura-Flux™ Self-Shielded FCAW Gun to be extremely durable, yet comfortable to hold and use.

Dura-Flux Guns meet the demanding needs and harsh environments of construction, shipbuilding, heavy manufacturing and rental applications. Triggers are non-metallic to absorb less heat. The triggers are also made with a sealed micro switch that helps keep out dust and dirt to provide a long-lasting work life.

Bernard offers two lines of Dura-Flux Series Self-Shielded Flux-Cored FCAW Guns. One gun features a replaceable power cable liner, while the other one features a fixed liner.

Can't decide which gun line best suits your needs? See the comparison chart below:



Features	Dura-Flux Gun with Replaceable Power Cable Liner	Dura-Flux Gun with Fixed Power Cable Liner
350 amp	✓	✓
Internal Trigger Leads	✓	_
Replaceable Liner	✓	_
Fixed Liner	_	✓
Optional Dual Schedule Switch	✓	_
Hi-Viz™ Neck	✓	_
Quik Tip™ Contact Tips	✓	_
Centerfire™ Contact Tips	_	✓
Wire Size 0.045" - 5/64"	✓	_
Wire Size 1/16" - 3/32"	_	✓

DURA-FLUX™ SELF-SHIELDED FLUX-CORED GUNS WITH REPLACEABLE POWER CABLE LINER

- Internal trigger leads, which means no trigger cord to get caught on surrounding objects
- Replaceable power cable liner that allows quick and easy power cable maintenance
- Optional dual schedule switch allows wire speed adjustment while welding and is integrated into the handle to keep



BERNARD FUME EXTRACTION MIG GUNS

WEBSITE QUICKLINKS:

BernardWelds.com/FumeGuns BernardWelds.com/ConfigureMyGun



BERNARD CLEAN AIR™ FUME EXTRACTION MIG GUNS

GET RIGHT TO THE SOURCE!

For a cleaner, more compliant work environment, get right to the source and extract fumes at the weld with the Clean Air Fume Extraction MIG Gun. Closely matching the weight, handle size, durability and industrial-grade performance of Bernard BTB Semi-Automatic Air-Cooled MIG Guns, Clean Air Fume Extraction Guns are fully configurable with your choice of curved handle (formerly Bernard FILTAIR™ Fume Extraction Series) or straight handle.

- Ideal for large weldment and confined space welding applications
- For use with most solid and flux-cored wires
- Compatible with weld fume exhaust systems and welding machines from most major manufacturers
- Available with Bernard Conventional Liners, front-loading QUICK LOAD[®] Liners or the QUICK LOAD Liner AutoLength™ System



Features	Clean Air Curved Handle Series	Clean Air Straight Handle Series
Amperage	300, 400	300, 400, 500, 600
Neck Angle	30°, 45°, 60°	45°, 60°
Trigger	Standard	Standard
Adjustable Vacuum Chamber	✓	✓
Centerfire™ Contact Tips	✓	✓
Quik Tip™ Contact Tips	✓	✓
TOUGH LOCK® Contact Tips	✓	✓
Bernard Conventional Liners	✓	✓
QUICK LOAD® Liners	✓	✓
QUICK LOAD Liner AutoLength™ System	✓	✓
Handle Overmolding	_	✓
360 Degree Hose Swivel	_	✓

IS WELD JOINT VISIBILITY AND ACCESS AN ISSUE?

Consider the **new short nozzle shroud** for use on your Clean Air Fume Extraction MIG Gun.

This optional smaller vacuum chamber offers improved visibility and better access when working in confined spaces, and is compatible with TOUGH LOCK Heavy Duty (HD) Consumables, large Centerfire Consumables and large Quik Tip Consumables.



CONFIGURE ONLINE AT

ard copy configurator

Short Nozzle Shroud 1.43" tall



Standard Nozzle Shroud 3.5" tall



NOTE: The short nozzle shroud is not a configurable option, and must be purchased separately.

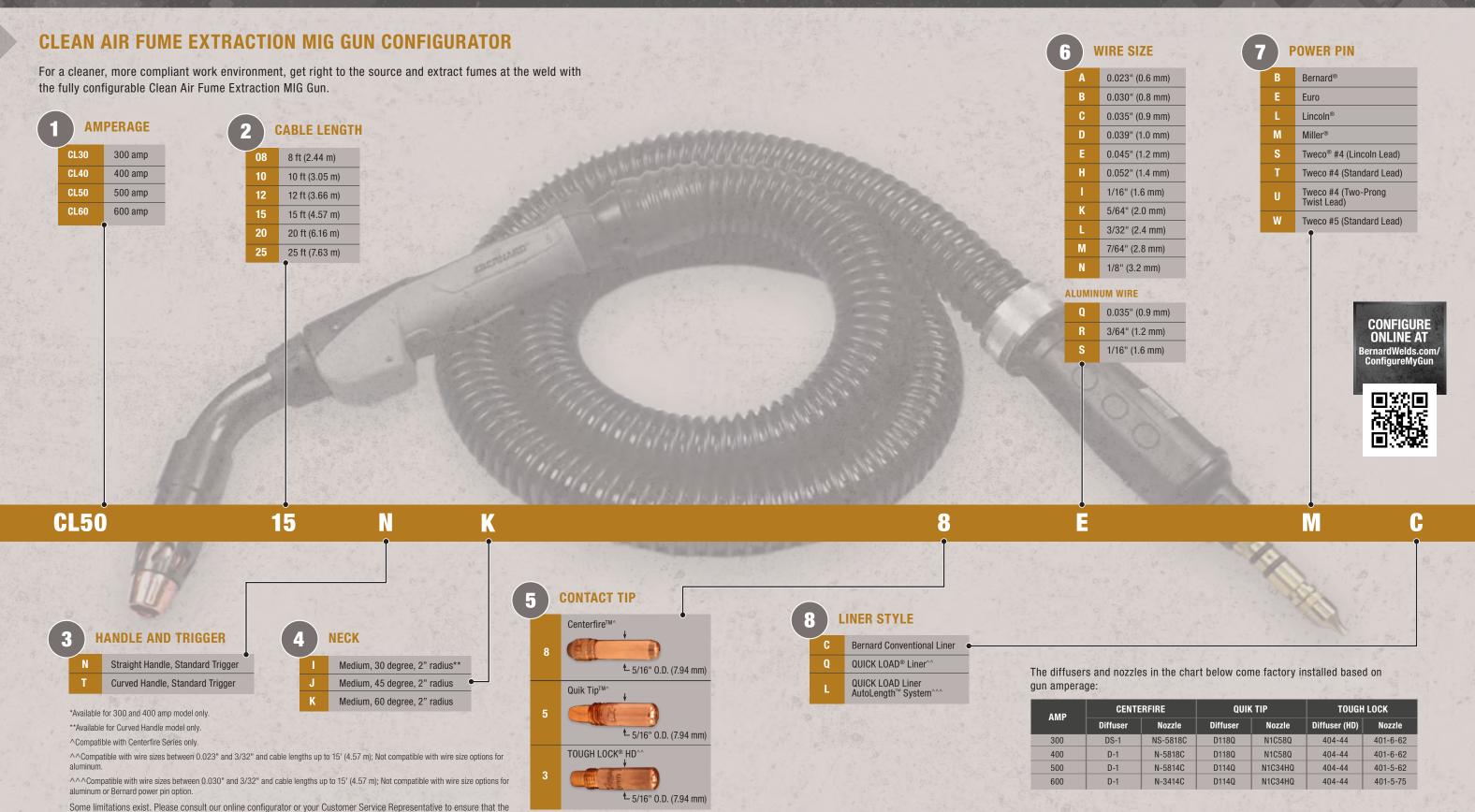
BERNARD FUME EXTRACTION MIG GUNS

part number configured using these pages is accurate prior to placing an order.

WEBSITE QUICKLINKS:

BernardWelds.com/FumeGuns
BernardWelds.com/ConfigureMyGun





BERNARD WATER-COOLED MIG GUNS

WEBSITE QUICKLINK:
BernardWelds.com/Water-Cooled



SPECIALTY NECKS

WEBSITE QUICKLINKS:
BernardWelds.com/SpecialtyNecks



BERNARD W-GUN™ SEMI-AUTOMATIC WATER-COOLED MIG GUNS

Bernard W-Gun Water-Cooled MIG Guns contain a flexible cable assembly with reinforced synthetic rubber hoses to prevent water leakage, provide increased water flow and reduce gas leakage. Heavy-duty necks are available in multiple lengths and bend configurations to allow for optimal weld accessibility and improved operator comfort. Multiple handle and trigger options are available as well to increase operator comfort.

- Water block with interchangeable direct plugs and trigger leads
- Durable and easily replaced power pin housing with a coolant hose strain relief
- Coolant channel keeps consumables temperatures low under high-amperage, high-heat applications
- Compatible with Centerfire or Quik Tip consumables



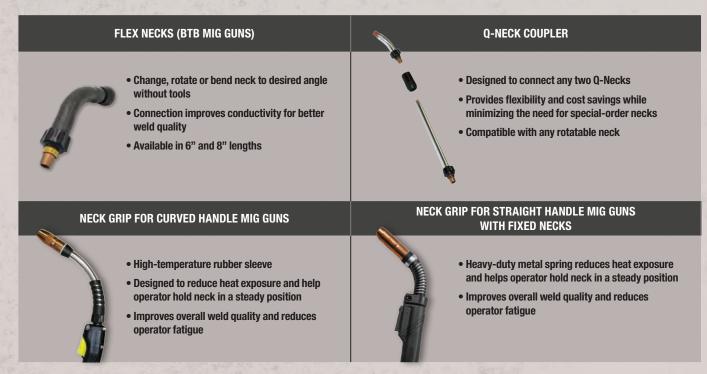
BERNARD T-GUN™ SEMI-AUTOMATIC WATER-COOLED MIG GUNS

The Bernard T-Gun Water-Cooled MIG Guns are engineered for superior performance in production environments requiring extremely high-heat applications. All guns are built to order.

- Neck is insulated and armored with stainless steel to withstand abuse
- All neck joints are silver brazed and 100% leak tested
- Custom gun length options
- Compatible with TOUGH LOCK consumables
- Available in 400 amp (compact series handle),450 and 600 amp models



If you are unable to reach your weld joints comfortably using one of our wide selection of standard necks, consider adding one of the following specialty necks or neck accessories to your Bernard Semi-Automatic MIG Gun:



BERNARD SHORTSTUB STICK ELECTRODE HOLDER

WEBSITE QUICKLINK:
BernardWelds.com/ManualProducts





One of the first products Bernard ever introduced was the Shortstub™ Stick Electrode Holder and it's still satisfying customers today.

- Electrode can be used within one inch of the high heat, high impact head, compared to the standard three inches of electrode leftover with typical tong-style holders
- Designed to greatly improve productivity with quick and easy electrode installation and replaceable head
- Over 2,000 lbs of gripping pressure allows the electrode to be bent to a desired shape for access to difficult welds

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TOUGH GUN TA3 ROBOTIC AIR-COOLED MIG GUNS

WEBSITE QUICKLINKS: Tregaskiss.com/TA3 Tregaskiss.com/ConfigureMyGun



TOUGH GUN® TA3 Robotic Air-Cooled MIG Guns were designed with a unique and durable Low-Stress Robotic (LSR) Unicable exclusive to Tregaskiss that feeds through the robot arm and provides outstanding precision and reliability.

These high-performance MIG welding guns are available as a complete package – from the power pin to the contact tip – for clutch and solid mount systems, including Yaskawa® Motoman®, FANUC®, ABB®, KUKA®, OTC Daihen®, COMAU®, Panasonic® and Kawasaki®.

FEATURES & BENEFITS

- Durable neck clamp provides consistent clamping force for repeatability and TCP accuracy
- Choose between a variety of standard necks for expanded tool center point options and variety of working envelopes
- Direct replacement for legacy TOUGH GUN ThruArm G1 Series
- Features a precision-engineered keyway system for accurate alignment and quick replacement

THE CONSUMABLE ADVANTAGE

- NEW!! AccuLock™ R Consumables offer an enhanced contact tip-to-diffuser design which increases tip life, plus the coarse thread on the contact tip virtually eliminates cross-threading issues (see page 6 for more information)
- QUICK LOAD® Liners require less than half the time and effort to replace compared to conventional liners (see page 12 for more information)
- The QUICK LOAD Liner AutoLength™ System minimizes downtime, wire feeding and quality issues commonly associated with short liner length (see page 13 for more information)



AVAILABLE OPTIONS

- Air Blast
- Wire Brake
- TOUGH GUN I.C.E.® Technology (see page 38 for more information) is available for select models

AMPERAGE RATINGS*

• 100%: 350 amps with Mixed Gases

*Gun performance unchanged. Ratings are based on tests that comply with new 2013 IEC 60974-7 standards.

TOUGH GUN LOW-STRESS ROBOTIC (LSR) UNICABLES

TOUGH GUN Low-Stress Robotic (LSR) Unicables from Tregaskiss are the core feature of TOUGH GUN TA3 Robotic Air-Cooled MIG Guns.

TOUGH GUN LSR Unicables incorporate unique features to prevent production downtime. Unlike conventional-style unicables, this product allows for stress-free rotation. It includes a rotating power connection and a protective conduit to shield the unicable components from harsh welding environments.

STRESS-RELIEVING FEATURES

- Unique design allows for stress-free rotation
- · Limits the influence of torsion and extends the usable life of the unicable



TOUGH GUN TA3 ROBOTIC AIR-COOLED MIG GUN CONFIGURATOR

WEBSITE QUICKLINKS: Tregaskiss.com/TA3 Tregaskiss.com/ConfigureMyGun



Ready to take on any challenge, TOUGH GUN® TA3 Robotic Air-Cooled MIG Guns minimize downtime and improve welding performance on through-arm robotic welding systems.

ROBOT MAKES AND

KUBU	JI MAKES AND	
MAKE	MODEL	DIGIT
	EA1400N or SSA2000**	M01
Yaskawa®	EA1900N or MA1900**	M02
	EA1400 (XRC)**	M16
	EA1900 (XRC)**	M17
Motoman®	MA3100**	M31
	MA1440	M35
	MA2010	M38
	MA3120	M39
	MH24	M40
	100iC*	F05
	120iC*	F06
	100iC-6L*	F07
	120iC-10L*	F08
FANUC®	100iC/8L*	F10
	100iD^^	F11
	100iD-10L^^	F14
	120iD^^	F15
	120iD-12L^^	F16
	IRB1600ID*	A24
ABB®	IRB2600ID 15/1.85*	A28
, 100	IRB2600ID 8/2.00*	A29
	IDB1660ID*	V30

GUN MOUNTS AND OPTIONS

	DESCRIPTION	DIGIT
3	Clutch	
	Clutch + Air Blast	
57	Solid Mount	
3	Solid Mount + Air Blast*	
3	Clutch + Wire Brake	
	Clutch + Wire Brake + Air Blast	
	Solid Mount + Wire Brake	
	Solid Mount + Wire Brake + Air Blast*	
		15-5- 费



PART NUMBER	DESCRIPTION	ANGLE	DIGIT
405-22QC	Air-Cooled, Short Length	22	
405-45QC	Air-Cooled, Short Length	45	С
405-22QCL	Air-Cooled, Medium Length	22	
405-45QCL	Air-Cooled, Medium Length	45	
590-45-XXXX**	TOUGH GUN I.C.E., Short Length	45	Н
		F 2. 1. 13	3-51



DESCRIPTION	PART NUMBER	DIGIT
TOUGH LOCK® Heavy Duty (HD)	403-20-XX	1
TOUGH LOCK Standard Duty (SD)	403-14-XX	
TOUGH LOCK Extended Life Heavy Duty (EXHD)	403-27-XX	4
AccuLock™ Copper++	T-A0XXCH	5
AccuLock Chrome Zirconium***	T-A0XXZH	6
AccuLock HDP***	T-A0XXWH	7

WIRE SIZE ‡ & LINER TYPE

STANDARD LINER*	
WIRE SIZE	DIGIT
0.030" (0.8 mm)	В
0.035" (0.9 mm)	С
0.040" (1.0 mm)	D
0.045" (1.2 mm)	Е
3/64" (1.2 mm)	F
0.052" (1.3 mm)	G
5/64" (2.0 mm)	Н
1/16" (1.6 mm)	J

QUICK LOAD PRO LINER**		
WIRE SIZE	DIGIT	
0.035" (0.9 mm)		
0.040" (1.0 mm)		
0.045" (1.2 mm)		
3/64" (1.2 mm)	Q	
0.052" (1.3 mm)	W	
0.055" (1.4 mm)	Х	
1/16" (1.6 mm)		
	1	

POWER PINS#

FEEDER BRAND	PART NUMBER	DIGIT
Euro	425-10E	
Fronius®	214-41 [†]	
Lincoln®	214-40	
Miller® (Auto Axcess®)	214-1	M
Miller (Auto-Continuum®)	214-1††	
OTC Daihen®	214-39	
Panasonic®	214-30	
Tweco® #4	214	
Tweco #5	214-12	W

AUTOLENGTH™ PINS***

FEEDER BRAND	PART NUMBER	DIGIT
Fronius®	214-X41 [†]	
Lincoln®	214-41	
Miller® (Auto Axcess®)	214-X1	
Miller (Auto-Continuum®)	214-X1 ^{††}	
OTC Daihen®	214-X39	
Panasonic®	214-X30	
Tweco® #4	214-X0	
Tweco #5	214-X12	
•		

PART NUMBER	TYPE	DESCRIPTION	MATERIAL	0.D.	DIGIT
401-6-62	HD	5/8" Bore, 1/8" Recess - Long Taper	Copper	1.062"	Α
401-81-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Copper	1.062"	
401-4-62	SD	5/8" Bore, 1/8" Recess - Short Taper	Copper	0.938"	С
401-8-62	SD	5/8" Bore, 1/8" Stick Out - Short Taper	Copper	0.938"	
401-42-50***	Bottleneck	1/2" Bore, 1/4" Stick Out	Brass	0.938"	
401-48-50***	Bottleneck	1/2" Bore, 1/8" Stick Out	Brass	0.938"	
401-48-62	Bottleneck	5/8" Bore, Flush Tip	Copper	0.938"	
401-87-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Brass	1.062"	М
401-30-62	SD	5/8" Bore, 1/8" Stick Out - Bottleneck	Brass	0.938"	
401-14-62	HD	5/8" Bore, 1/8" Recess - Short Taper (Thread-On)	Copper	1.062"	
401-41-62***	HD	5/8" Bore, 1/8" Stick Out - Short Taper (Thread-On)	Brass	1.062"	
401-53-62***	HD	5/8" Bore, 1/8" Stick Out - Bottleneck (Thread-On)	Copper	1.062"	
401-20-62	HD	5/8" Bore, 1/8" Stick Out - Short Taper (Thread-On)	Copper	1.062"	
401-43-62	SD	5/8" Bore, 1/8" Recess - Short Taper (Thread-On)	Copper	0.938"	
401-18-62	SD	5/8" Bore, 1/8" Stick Out - Short Taper (Thread-On)	Copper	0.938"	
401-30-62T	SD	5/8" Bore, 1/8" Stick Out - Bottleneck (Thread-On)	Brass	0.938"	



- *Solid mount models only
- **Clutch mount models only
- ***Not compatible with Contact Tip options 5, 6, or 7
- ^Must be configured with a Miller® or Panasonic® power pin
- ^^Solid mount models only; must be configured with a Miller or Lincoln® power pin
- ^^^Must be configured with a Miller power pin
- •Air blast option not available for FANUC® configurations equipped with TOUGH GUN I.C.E.® Technology
- •• Available for FANUC and ABB®; XXXX represents nozzle O.D.
- •••Available for wire sizes between 0.035" and 0.052"
- ++Not available for 0.055" wire sizes
- +++Available for wire sizes between 0.030" and 0.045"
- ‡Wire size option determines contact tip and liner size

- ‡‡If you are configuring a gun that will plug into a Fronius® feeder, please contact Tregaskiss Tech Support with feeder model number
- **‡‡***Not compatible with wire brake selection; For wire sizes between 0.030" and 0.045", X="8"; for wire sizes between 0.052" and 3/32",
- *QUICK LOAD Liner comes standard on all configurations UNLESS equipped with wire brake, in which case conventional liner is required
- xxThis liner features a special profile and coating for applications requiring extra wire feedability; Not available in lengths longer than 6 feet; Not compatible with wire brake selections

Some limitations exist. Please consult our online configurator or your Customer Service representative to ensure that the part number configured using these pages is accurate prior to placing

TOUGH GUN CA3 ROBOTIC AIR-COOLED MIG GUNS

WEBSITE QUICKLINKS:

Tregaskiss.com/CA3 Tregaskiss.com/ConfigureMyGun



Designed for high-volume production environments, fully configurable TOUGH GUN® CA3 Robotic Air-Cooled MIG Guns are engineered for precision, durability, accuracy, repeatability, minimal downtime and fast and easy maintenance.

> CONFIGURE **ONLINE AT**

or see page 34 for our

FEATURES & BENEFITS

- · Replaceable conventional unicable design offers extended service life and ease of serviceability
- Dual layer cable outer jacket, cable guide and increased copper content contribute to extended service life
- Durable neck clamp provides consistent clamping force for repeatability and TCP accuracy
- Many tool center point and working envelope options due to wide variety of standard necks and mounting arms
- Replacement for legacy TOUGH GUN G1 Series
- · Clutch and Solid Mount models available

THE CONSUMABLE ADVANTAGE

- NEW! AccuLock™ R Consumables offer an enhanced contact tip-to-diffuser design which increases tip life, plus the coarse thread on the contact tip virtually eliminates **cross-threading issues** (see page 6 for more information)
- QUICK LOAD® Liners require less than half the time and effort to replace compared to conventional liners (see page 12 for more information)
- The QUICK LOAD Liner AutoLength™ System minimizes downtime, wire feeding and quality issues commonly associated with short liner length (see page 13 for more information)

*Gun performance unchanged. Ratings are based on tests that comply with new 2013 IEC 60974-7 standards

AVAILABLE OPTIONS

- · Air Blast
- Wire Brake
- TOUGH GUN I.C.E.® Technology (see page 38 for more information)

AMPERAGE RATINGS*

• 100%: 385 amps with Mixed Gases

TOUGH GUN ROBOTIC PERIPHERALS

TOUGH GUN CLAMPS AND MOUNTING ARMS

TOUGH GUN® Clamps and Mounting Arms are made of tough yet resilient aluminum. These products are engineered to provide a robust and durable connection for the TOUGH GUN CA3 Robotic Air-Cooled MIG Gun.



The TOUGH GUN Clutch Clamp triggers an emergency stop in the event of a robotic collision and its compact design allows for a larger

> working envelope. The TOUGH GUN Solid Mount Clamp is available for clutchless models, offering the same increased working envelope.

For precision and repeatability, the **TOUGH GUN Mounting Arm features** a positive-stop keyway that locates the key on the front housing body in the same position every time when components, or the entire MIG gun, is replaced.



TOUGH GUN INSULATING DISCS

TOUGH GUN Insulating Discs help protect your investment by insulating robots and their controllers from the weld currents. Discs are available with different bolt patterns for attaching TOUGH GUN Robotic MIG Guns to various brands of robots.

LEGACY TOUGH GUN CLUTCH

Compatible with legacy TOUGH GUN G1 Series MIG Guns, the original TOUGH GUN Clutch is designed to e-stop your robot with a deflection of only 1° in the event of a robotic collision.



LEGACY TOUGH GUN SOLID ARM MOUNT

Made of high-strength aluminum, the TOUGH GUN Solid Arm Mount can replace a clutch on legacy TOUGH GUN G1 Series systems using collision detection software.



TOUGH GUN NECK CHECKING FIXTURES

For applications where verification of tooling is a requirement, the TOUGH GUN Neck Checking Fixture provides the opportunity to verify the accuracy of the neck to the intended tool center point (TCP). Further, an adjustment handle is provided to help implement minor adjustments if required.

- · Accommodates a wide variety of standard necks
- Special kits are available for customized Tregaskiss® Necks

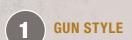


TOUGH GUN CA3 ROBOTIC AIR-COOLED MIG GUN CONFIGURATOR

WEBSITE QUICKLINKS:
Tregaskiss.com/CA3
Tregaskiss.com/ConfigureMyGun



Fully configurable, TOUGH GUN® CA3 Robotic Air-Cooled MIG Guns are engineered for precision, durability, accuracy and repeatability and can withstand even the harshest welding environments.



CABLE STYLE	DIGIT
Clutch	1
Solid Mount*	2

2 NECK

PART NUMBER	DESCRIPTION	ANGLE	DIGIT
405-22QC	Air-Cooled, Short Length	22	
405-45QC	Air-Cooled, Short Length	45	
405-180QC	Air-Cooled, Short Length	180	С
405-22QCL	Air-Cooled, Medium Length	22	
405-45QCL	Air-Cooled, Medium Length	45	
590-22-XXXX	TOUGH GUN I.C.E.®, Short Length+	22	

5 CABLE LENGTH

A B C D E
B C D
C D
D
F
K
M





7 CONTROL CABLE

PART NUMBER	DESCRIPTION	DIGIT
N/A	No Cable	0
519-2	Bare End - 5 meter	1
519-4	18" 4-Pin Amp CPC Series Connector (Motoman®/Miller®)	3

RA1

5	OI HONO	
	CABLE STYLE	DIGIT
-	No Option	Α
9	Wire Brake	В
	Air Blast	С
	Miro Brako + Air Blact	-

DESCRIPTION

TOUGH LOCK Heavy Duty (HD) for

TOUGH LOCK Extended Life Heavy Duty

(EXHD) for Slip-On Nozzles
TOUGH LOCK Heavy Duty (HD) for

Thread-On Nozzles

TOUGH LOCK Extended Life Heavy Duty

(FXHD) for Thread-On Nozzles

AccuLock™ Copper for Slip-On Nozzles

AccuLock Chrome Zirconium

for Slip-On Nozzles

AccuLock HDP for Slip-On Nozzles

AccuLock Copper for

Thread-On Nozzles

AccuLock Chrome Zirconium

for Slip-On Nozzles

AccuLock HDP for Slip-On Nozzles

CONTACT TIP + DIFFUSER**

For use with Contact Tip/Diffuser options 1 and 2

SLIP-ON NOZZLE^^ (FOR TOUGH LOCK SERIES)

PART NUMBER	TYPE	DESCRIPTION	MATERIAL	0.Ď.	DIGIT
401-6-62	HD	5/8" Bore, 1/8" Recess - Long Taper	Copper	1.062"	Α
401-81-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Copper	1.062"	D
401-8-62	SD	5/8" Bore, 1/8" Stick Out - Short Taper	Copper	0.938"	G
401-42-50	Bottleneck	1/2" Bore, 1/8" Recess	Brass	0.938"	Н
401-48-50	Bottleneck	1/2" Bore, 1/8" Stick Out	Brass	0.938"	J
401-48-62	Bottleneck	5/8" Bore, Flush Tip	Copper	1.062"	K
401-87-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Brass	1.062"	Р

*Control cable option not available for solid mount models

**XX = wire size

RETAINING

404-32

404-32

404-52

404-52

D-ATSH

D-ATSH

D-ATSH

D-ATTH

D-ATTH

D-ATTH

HEAD PART DIGIT

CONTACT TIP

403-20-XX

403-12-XX

T-A0XXCH*

T-A0XXZH‡

T-A0XXWH^{‡‡}

T-A0XXCH*

T-A0XXZH[‡]

T-A0XXWH^{‡‡}

***Wire Size option determines contact tip and liner size

^AutoLength TM Pin not compatible with wire brake or wire size selections for aluminum wire; For wire sizes between 0.030" and 0.045", X="8"; For wire sizes between 0.052" and 3/32", X="9"

^^Nozzle options differ based on retaining head / gas diffuser. Please carefully refer to headings in Nozzle column for nozzle selection

+XXXX represents nozzle O.D

**This liner features a special profile and coating for applications requiring extra wire feedability; Not available in cable lengths longer than 6 feet; Not compatible with wire brake

•Not available for 0.055" or 0.078" wire sizes

‡Available for 0.035", 1.0 mm and 0.045" wire sizes

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

For use with Contact Tip/Diffuser options 7 and 8

THREAD-ON NOZZLE^^ (FOR TOUGH LOCK SERIES)

	PART NUMBER	TYPE	DESCRIPTION	MATERIAL	0.D.	DIGIT
	401-14-62	HD	5/8" Bore, 1/8" Recess - Short Taper	Copper	1.062"	
11/2	401-20-62	HD	5/8" Bore, 1/8" Stick Out - Short Taper	Copper	1.062"	L

For use with Contact Tip/Diffuser options A, B and C

SLIP-ON NOZZLE^^ (FOR ACCULOCK SERIES)

	PART NUMBER	TYPE	DESCRIPTION	MATERIAL	0.D.	DIGIT
	401-6-62	HD	5/8" Bore, 1/8" Recess - Long Taper	Copper	1.062"	
	401-81-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Copper	1.062"	
	401-8-62	SD	5/8" Bore, 1/8" Stick Out - Short Taper	Copper	0.938"	
_	401-48-62	Bottleneck	5/8" Bore, Flush	Copper	1.062"	K
	401-71-62	HD	5/8" Bore, 1/8" Recess - Long Taper	Brass	1.106"	
	401-87-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Brass	1.062"	
	401-30-62	SD	5/8" Bore, 1/8" Stick Out - Bottleneck	Brass	0.938"	

For use with Contact Tip/Diffuser options D, E and F

THREAD-ON NOZZLE^^ (FOR ACCULOCK SERIES)

The state of the s						
	PART NUMBER	TYPE	DESCRIPTION	MATERIAL	0.D.	DIGIT
ı	401-14-62	HD	5/8" Bore, 1/8" Recess - Long Taper	Copper	1.062"	
	401-18-62	HD	5/8" Bore, 1/8" Stick Out - Long Taper	Copper	1.062"	
•	401-43-62	SD	5/8" Bore, 1/8" Stick Out - Short Taper	Copper	0.938"	
1	401-20-62	Bottleneck	5/8" Bore, Flush	Copper	1.062"	
	401-30-62T	HD	5/8" Bore, 1/8" Recess - Long Taper	Brass	1.106"	

8 WIRE SIZE*** & LINER TYPE

	WIRE SIZE	LINER TYPE	DIGIT
	0.030" (0.8 mm)	QUICK LOAD™ Liner	В
	0.035" (0.9 mm)	QUICK LOAD Liner	С
	0.040" (1.0 mm)	QUICK LOAD Liner	
	0.045" (1.2 mm)	QUICK LOAD Liner	Е
	3/64" (1.2 mm)	QUICK LOAD Liner	F
	0.052" (1.3 mm)	QUICK LOAD Liner	
	0.055" (1.4 mm)	QUICK LOAD Liner	
	1/16" (1.6 mm)	QUICK LOAD Liner	
	0.070" (1.8 mm)	Conventional	K
_	0.078" (2.0 mm)	Conventional	
	3/32" (2.4 mm)	Conventional	M
	0.035" (0.9 mm)	QUICK LOAD Pro Liner++	
	0.040" (1.0 mm)	QUICK LOAD Pro Liner++	
	0.045" (1.2 mm)	QUICK LOAD Pro Liner++	
	3/64" (1.2 mm)	QUICK LOAD Pro Liner++	Q
	0.052" (1.3 mm)	QUICK LOAD Pro Liner++	W
	0.055" (1.4 mm)	QUICK LOAD Pro Liner++	
	1/16" (1.6 mm)	QUICK LOAD Pro Liner++	
	0.035" (0.9 mm)	Aluminum	
	3/64" (1.2 mm)	Aluminum	
	1/16" (1.6 mm)	Aluminum	T
	0.045" (1.2 mm)	Aluminum	
	0.055" (1.4 mm)	Aluminum	
ā			

9 POWER PIN

FEEDER BRAND	PART NUMBER	DIGIT
Bernard®	426	В
Euro	425-20E	
Fronius® (North America Style)	214-17	
Lincoln (Short)	214-40	
Lincoln® (Short Swivel)	214-7	
Miller® (Short Robotic)	214-1	M
OTC Daihen®	214-39	
Panasonic® (Short)	214-30	
Tweco #4	214	
Tweco #5	214-12	W

AUTOLENGTH™ PIN[^]

FEEDER BRAND	PART NUMBER	DIGIT
Lincoln® (Short)	214-X40	
Miller® (Short Robotic)	214-X1	
Panasonic® (Short)	214-X30	
Tweco® #4	214-X0	

Some limitations exist. Please consult our online configurator or your Customer Service representative to ensure that the part number configured using these pages is accurate before placing an order.



Tregaskiss Fixed Automatic MIG Guns are engineered for hard tooling applications requiring a simple, durable and repeatable MIG gun. These automatic torches can be configured with the same consumables as your Bernard® semi-automatic or Tregaskiss robotic MIG guns to simplify your inventory.

TREGASKISS MA1 FIXED AUTOMATIC AIR-COOLED MIG GUNS

- Achieve maximum uptime and throughput. With the high-performance consumables, armored neck and body, and simple internal connections, these MIG guns are quick and easy to maintain.
 - Available in both cable and cableless (also known as Auto Heads) 500 and 600 amp models
 - Power cable equipped guns feature a spring-guard strain relief to prevent kinking and abrasion
 - Air-cooled neck is made from aircraft-grade aluminum
 - Compatible with TOUGH GUN I.C.E.® Technology which boosts the duty cycle by 50 amps (see page 38 for more information)

Please see the MA1 Fixed Automatic MIG Gun spec sheet (SP-MA1) at Tregaskiss.com/spec for a complete list of part numbers and ordering information.

TREGASKISS MW1 FIXED AUTOMATIC WATER-COOLED MIG GUNS

- These water-cooled MIG welding guns feature high-performance consumables, an armored neck and body, and simple internal connections which allow for quick and easy maintenance
- Available in 450 and 600 amp models
- Spring-guard strain relief prevents kinking and abrasion
- Water-cooled neck is made from stainless steel and is silver brazed and leak tested
- 600 amp water-cooled model has a thread-on heavy duty nozzle

Please see the MW1 Fixed Automatic MIG Gun spec sheet (SP-MW1) at Tregaskiss.com/spec for a complete list of part numbers and ordering information.

TREGASKISS AW2 FIXED AUTOMATIC WATER-COOLED MIG GUNS

Designed for dependable performance in high amperage, high temperature hard tooling welding applications. These guns feature a simple design with threaded connections and minimal number of replacement parts.

- Available in both cable and cableless 600 amp models
- Power cable equipped guns are available in lengths of 3 to 25 feet in 1/2-foot increments
- Internal threaded connections stay tight inside the anti-vibration compression fit body for good electrical connectivity and longer life

Please see the AW2 Fixed Automatic MIG Gun spec sheet (SP-AW2) at Tregaskiss.com/spec for a complete list of part numbers and ordering information.

TOUGH GUN I.C.E. TECHNOLOGY

WEBSITE QUICKLINK: Tregaskiss.com/ICE



TOUGH GUN ROBOTIC WATER-COOLED MIG GUNS

WEBSITE OUICKLINKS:

Tregaskiss.com/Water-Cooled Tregaskiss.com/ConfigureMyGun



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

TOUGH GUN I.C.E. Technology is an option for TOUGH GUN Robotic and MA1 Fixed Automatic Air-Cooled MIG Guns, resulting in a hybrid air- and water-cooled MIG gun solution.

MAINTENANCE MADE EASY

- Air-cooled unicable runs independently of water lines
- All water-cooling components are external
- Shut-off valves are located at the I.C.E. connections

COOLING

- Existing TOUGH GUN Robotic and MA1 Fixed Automatic Air-Cooled MIG Guns can be retrofit with TOUGH GUN I.C.E. Technology
- TOUGH GUN I.C.E. Technology boosts gun rating by 50 amps
- If water-cooling capability is lost, the original air-cooled product remains operational
- of consumables

INCREASED SAFETY

- Water avoids contact with power leads and remains virtually uncontaminated, preventing water from becoming electrically charged
- Neck runs cooler than typical air-cooled products

COMPATIBILITY & CONVENIENCE

- Compatible with the TOUGH GUN TT3 and TT3E Reamer (see page 40-41 for more information)
- Compatible with TOUGH LOCK® and NEW! AccuLock™ R Consumables (see pages 6-8 for more information)



PERFORMANCE YOU CAN COUNT ON IN THE TOUGHEST **WELDING APPLICATIONS**

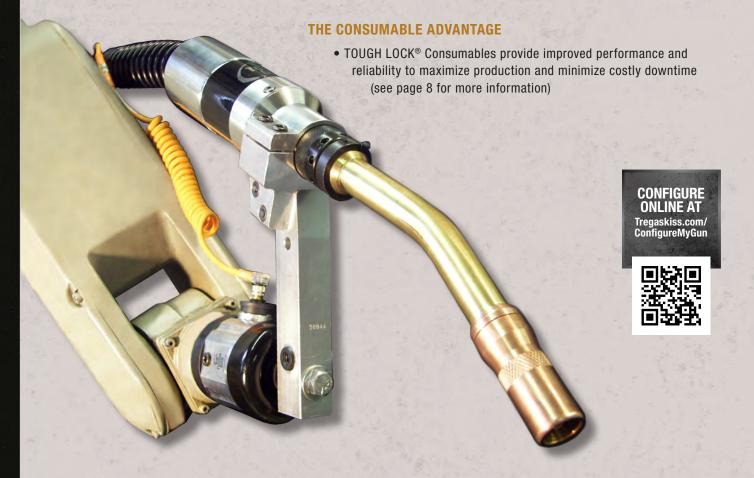
The 600 amp TOUGH GUN® Robotic Water-Cooled MIG Gun from Tregaskiss is ready to take on your most demanding welding applications. Its robust design is tough and dependable enough to maximize productivity when welding thick plate or running prolonged duty cycles.

ROBUST CONSTRUCTION

- · Durable stainless steel docking body
- Quick-connects allow the cable to swivel and provide support for the liner, resulting in smooth, consistent wire feeding
- Maintenance-friendly features include accessible front housing, quick-change fittings and replaceable components

ENHANCED PERFORMANCE

- Withstands the heat generated from welding thick plate or prolonged duty cycles
- · Water-cooled power cable and neck keep front-end consumables running cool
- Neck features four cooling channels to optimize cooling efficiency



TOUGH GUN TT3E REAMER

WEBSITE QUICKLINK:
Tregaskiss.com/ReamerTT3E



TOUGH GUN TT3 REAMER

WEBSITE QUICKLINKS:
Tregaskiss.com/ReamerTT3



NEW ETHERNET COMMUNICATIONS CAPABILITY

The new **TOUGH GUN® TT3E Reamer** robotic nozzle cleaning station from Tregaskiss continues to offer the same high levels of durability, serviceability and repeatability, and is now further enhanced by digital Ethernet communications that can help increase productivity in your welding applications.

REDUCED INTEGRATION TIME (COMPARED TO ANALOG MODELS)

- Eliminates the need for an analog switch
- Reduces cabling requirements in the robotic cell by up to two sets, depending on the number of additional peripherals
- Fewer components = fewer potential points of failure

REMOTE MONITORING CAPABILITY

- Error diagnostic and recording capability to minimize troubleshooting time
- Enables remote monitoring and troubleshooting of the I/O of each reamer function and their allowable parameters through the PLC

GREATER CONTROL OPTIMIZATION

 Discrete control enables flexibility to monitor and adjust all motions for increased productivity in your specific welding application

TOUGH GUN TT3 AND TT3E REAMER SPECIFICATIONS			
Rated Voltage	24 VDC		
Operating Voltage	±10% of rated voltage		
Power Requirements	Max. wattage in operation 5.3 W		
Air Requirements (minimum)	80 to 100 PSI (5.0 to 7.0 bar) at 16 CFM (7.5 L/s)		
Air Motor (at min. air requirement)	Stall Torque at 80 PSI (5.5 bar) = 83 inlbs. (9.4 Nm)		
Weight	50 lbs. (23 kg)*		
Product Dimensions (L x W x H)	13.5" x 11.25" x 21.0" (343 mm x 286 mm x 534 mm)*		
Dedicated Motor Lubricator	Optional*		
Wire Cutter	Optional*		
Nozzle Detect	Optional*		
Filter / Regulator	Optional*		
Spray Containment	Optional*		
Compatible With	TOUGH GUN Reamer Stand (see page 43 for more information) TOUGH GARD® Multi-Feed System (see page 44 for more information)		

*The optional features are sold separately or added as options when ordering, and can change the weight and physical dimensions of the product.

SAFE AND ACCURATE SETUP

- External setup switches allow independent operation of the sprayer, clamp and spindle during manual setup
- Cutter blade lifts into position but does not spin when activated by the spindle setup switch
- Manual override switches are momentary for increased safety during setup / troubleshooting
- Air blast and wire cutter are integrated through the Ethernet block, reducing setup time and maintenance of these options

SCALABILITY AND FLEXIBILTIY

- Use the TOUGH GUN TT3E Reamer as a switch to link robots with a single Ethernet port to an Ethernet welder or other peripheral devices for increased flexibility
- The base unit (configured with no options) has 6 configurable I/O, which allow monitoring or control of additional devices in the robotic cell

Please see the TOUGH GUN TT3 and TT3E Reamer Spec Sheet (SP-TT3) at Tregaskiss.com/spec for a complete list of parts and ordering information.





A SPATTER REMOVAL WORKHORSE

The **TOUGH GUN TT3 (analog) Reamer** is tough on spatter and operates reliably in even the harshest welding environments. Automating spatter removal will help to extend the life of your robotic MIG guns and consumables, benefitting both your bottom line and your production uptime and throughput.

FEATURES AND BENEFITS

- Wiring harness provides increased reliability and takes up minimal space inside the reamer, making it easy to service and replace
- Easy access setup switches are durable, waterproof, and fully protected from the elements
- Robust and durable check valve
- Wiring harness, setup switches and check valve are common across both the TOUGH GUN TT3 and TT3E Reamer (see page 40 for more information) platforms
- Sprayer comes standard

TOUGH GUN TT3E VS. TT3 REAMER COMPARISON

FEATURE	TOUGH GUN TT3E (ETHERNET) REAMER	TOUGH GUN TT3 (ANALOG) REAMER
Communication Protocol	Ethernet IP	24VDC Discrete I/O
Anti-Spatter Sprayer (standard)	1	✓
Air Motor (standard 3/4 HP)	✓	✓
Spindle (full stroke distance)	√	✓
Hardened, 4-Sided V-Block	✓	✓
Hardened, Single Flute Cutter Blade	√	✓
Quick-Change Base Plate	✓	✓
Daisy Chain Capability (minimizing cell wiring)	✓	-
Double Stroke Function	✓	-
Customize Your Reamer Cycle	✓	-
Air Blast	√	-

DEPENDABLE PERFORMANCE

DURABILITY

- ¾ Horsepower lubricated air motor with gear reducer provides the high torque required for spatter removal at the lower speed needed to protect the spindle and cutter blade from excessive wear
- No damage will occur to the air motor if stalling occurs
- Operates in any position

REPEATABILITY

- Spindle has rotating rod accuracy of 0.001"-0.004" at its extended position for cutting repeatability and optimized spatter removal
- Fixed motor, clamp and v-block provide cutting accuracy and repeatability – No manual adjustments to nozzle clamps, cutter height, or motor height are required

Please see the TOUGH GUNTT3 and TT3E Reamer Spec Sheet (SP-TT3) at Tregaskiss.com/spec for a complete list of parts and ordering information.





TOUGH GUN REAMER ACCESSORIES

LUBRICATOR

This dedicated motor lubricator maximizes performance and protects your TOUGH GUN® Reamer investment by extending the life of the motor, and is highly recommended for use in damp and moisture rich environments. Factory set for optimal pneumatic oil lubrication, the lubricator is available as an option when configuring your new unit* or is retrofittable to your existing TOUGH GUN TT3 or TT3E Reamer.

*Ordering your new TOUGH GUN Reamer with the lubricator option increases your warranty from 1 year to 2 years. Or increase your warranty to 3 years with the lubricator option plus exclusive use of Tregaskiss TOUGH GARD® Anti-Spatter Liquid.





FILTER / REGULATOR

The Filter/Regulator unit from Tregaskiss is another recommended accessory that helps extend the life of your TOUGH GUN Reamer. The filter cleans the air supply to the reamer and restricts debris from reaching the motor, keeping it uncontaminated and ensuring maximum performance and longer life. The regulator works to ensure optimal air pressure is achieved at the unit.

NOZZLE DETECT

Nozzle Detect for the TOUGH GUN TT3 and TT3E Reamer uses a proximity sensor mounted on the side of the reamer that can be used independently of the ream cycle. The robot positions the front end of the MIG gun close to the sensor to detect the presence of a nozzle. If the nozzle is present, a signal is then sent back to the robot controller or PLC.

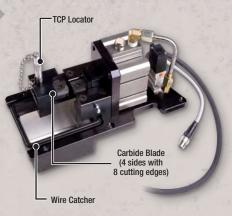
A Nozzle Detect system can help alert maintenance personnel that the nozzle is no longer present before a weld is attempted. This helps to reduce rework and scrap caused by welding without a nozzle.





SPRAY CONTAINMENT

The innovative Spray Containment unit from Tregaskiss helps prevent air contamination by catching anti-spatter overspray in its sealed basin, improving the air quality of the working environment and maintaining the cleanliness of the weld cell. The collected anti-spatter is then channeled away from the Spray Containment unit to a convenient point of disposal which can be shared among several Spray Containment units via an optional manifold.



WIRE CUTTER

The TOUGH GUN® Wire Cutter removes the ball-end of the welding wire to provide smooth arc starts and consistent wire stick-out. The TOUGH GUN Wire Cutter easily cuts a variety of wire types from stainless steel to aluminum to flux-core in wire sizes up to 1/16".

Our unique carbide cutter blade design provides eight indexable cutting surfaces that ensure low cost operation over the long haul and are precision-ground to outlast other wire cutters.

The TOUGH GUN Wire Cutter is the perfect complement to your TOUGH GUN TT3 and TT3E Reamer and mounts directly atop the unit.

It can also be easily mounted in a remote location which allows it to be used with virtually any robotic welding equipment.

REPLACEMENT CUTTER BLADES

Designed for use with TOUGH GUN TT3 and TT3E Reamer Robotic Nozzle Cleaning Stations, Tregaskiss Cutter Blades are engineered from harder, stronger material for enhanced performance and durability.

FEATURES & BENEFITS

- Designed for improved cutting and cleaning performance
- Harder material with stronger cutting edge
- Increased resistance against breaking, snapping, chipping or cracking
- · Improved dimensional accuracy
- Extremely competitive pricing
- Designed to be the perfect fit for TOUGH LOCK® and NEW! AccuLock™ R Consumables (see pages 6-8 for more information)



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V-BLOCKS

Compatible with Tregaskiss® and most competitive consumables, these 4-sided v-blocks ensure your cutter is concentric with your consumables and your nozzle bore to guarantee the most effective ream. Choose from five available v-block options when configuring your new TOUGH GUN TT3 and TT3E Reamer.

TOUGH GUN REAMER STAND

CUSTOM HEIGHT. QUICK INSTALLATION. EASY ON THE BUDGET.

Tregaskiss provides a simple fixed height durable stand for all TOUGH GUN TT3 and TT3E Reamer models. Each TOUGH GUN Reamer Stand can be ordered to a custom height between 18- and 45-inches.

FEATURES & BENEFITS

- Competitively priced due to simplified design
- Facilitates quick and accurate reamer change-outs via compatibility with the reamer quick-change base plate
- Precision manufactured, reamer mounting hole pattern specific to TOUGH GUN TT3 and TT3E Reamers eliminates issues that may be experienced with third party stands
- Standardized 8.5" x 6.5" hole pattern for mounting the stand to the floor allows stands to be easily swapped between stations



TOUGH GARD ANTI-SPATTER LIQUID

WEBSITE QUICKLINKS: Tregaskiss.com/TOUGHGARD Tregaskiss.com/Multi-Feed



TOUGH GARD® Anti-Spatter Liquid was developed to address the performance requirements of metal fabricators. TOUGH GARD Anti-Spatter Liquid won't harm machinery, it cleans up easily with no residue and it's safe for the environment. Helping prevent spatter adhesion and extending the life of consumables, TOUGH GARD Anti-Spatter Liquid reduces downtime thus lowering operating and maintenance costs.

SUPERIOR PERFORMANCE

Tregaskiss R&D studies* show that TOUGH GARD Anti-Spatter Liquid outperforms other brands on the market (see Figure 1).

*Results based on continuous GMAW - 6 minutes, 0.045" wire, E480S-6, 300A, Ar-CO2 gas mix





Competitive Anti-Spatter



TOUGH GARD Anti-Snatte



PART #	PACKAGE SIZES
TG-101-05	5 U.S. Gal. / 18.92 L
TG-101-55	55 U.S. Gal. / 208.3 L
TG-101-01	1 U.S. Gal. / 3.78 L
TG-101-32SP (Spray Bottle)	25.36 fl. oz. / 750 mL
TG-101-14S	14 fl. oz. / 414 mL

TOUGH GARD MULTI-FEED SYSTEM

The TOUGH GARD Multi-Feed System for anti-spatter solution can connect up to ten TOUGH GUN TT3 or TT3E Reamer stations. This system eliminates the need to refill anti-spatter reservoirs on a frequent basis, resulting in lower operating costs, reduced downtime and increased safety.

TOUGH GARD MULTI-FEED SYSTEM TG-103-05-2 For 5-Gallon pail (up to 2 nozzle cleaning stations) For 5-Gallon pail (up to 10 nozzle cleaning stations) TG-103-55-10 For 55-Gallon drum (up to 10 nozzle cleaning stations) **HOSE (SOLD SEPARATELY)** TG-103-50 50' Multi-Feed Hose (UV Rated) TG-103-100 100' Multi-Feed Hose (UV Rated) TG-103-200 200' Multi-Feed Hose (UV Rated)

For replacement parts, see OM-MF owner's manual for more information (available online at Tregaskiss.com/manuals)



SERVICE AND SUPPORT

In addition to the online tools and resources we provide that are available 24/7, more personal customer support is also available:

DESTRUCT CUSTOMER SERVICE

Phone: 1-855-MIGWELD (644-9353)

Email: cs@itwmig.com

Our Customer Service department can be reached by phone or email from 7:00 a.m. to 4:30 p.m. CST Monday through Friday

- . Manufacturer's Suggested Pricing and product availability
- Product configuration
- Answering consumables compatibility questions such as which diffuser/tip/nozzle is compatible with your MIG gun
- Warranty claims

TECHNICAL SUPPORT

Phone: 1-855-MIGWELD (644-9353), Option #3

Email: tech.support@itwmig.com

Our Technical Service team is ready to answer your technical support questions from 7:00 a.m. to 4:30 p.m. CST Monday through Friday. This team provides the following services to support customers both pre- and post-sale:

- Troubleshooting inquiries
- Replacement parts identification and stocking recommendations
- CAD model requests
- Assistance with product configuration
- Training product, maintenance, technical, etc.
- Consumable optimization

We will respond to all questions as soon as possible, but please note that it could take up to 2 business days to respond to inquiries submitted via email

YOUR WELDING DISTRIBUTOR

Your welding distributor is also a comprehensive resource for welding and cutting information and process or equipment troubleshooting. Distributors can help you choose the products and accessories that are right for you and your specific application. To locate a welding distributor in your area, visit the Where To Buy link on our websites

ONLINE RESOURCES

Visit us online for immediate access to the most up-to-date information

BernardWelds.com | Tregaskiss.com

BernardWelds.com/ConfigureMvGun

LET'S GET SOCIAL

Tregaskiss.com/ConfigureMvGun

Join our online community today!



VIDEOS

Check out our WhyBuy videos and find valuable how-to videos on our YouTube channels. Subscribe today!

ONLINE PRODUCT CONFIGURATORS

Use our new mobile-friendly online configurators to build the MIG

gun or reamer part number you need, plus get access to additional

resources and an expanded replacement parts list with diagram.



TECHNICAL ARTICLES

Whether you are new to welding or a seasoned professional, we have informative technical articles and case studies to help you get the most out of your applications.

AMPERAGE E-NEWSLETTER

This electronic publication from Bernard and Tregaskiss features

informative articles on improving welding performance, product

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TREGASKISS

MAXIMIZING THROUGHPUT. MINIMIZING COSTS.

Automated welding applications require flexible, repeatable solutions that maximize production uptime and throughput while minimizing costs. This is why industrial manufacturers rely on Tregaskiss and its proven track record for delivering reliable and resilient robotic MIG welding guns, fixed automatic MIG guns, nozzle cleaning stations and innovative welding gun consumables.

BERNARD

ENGINEERED FOR SIMPLICITY. BUILT FOR DURABILITY.

Industrial semi-automatic welding operations benefit from welding products that are built to withstand the rigors of multi-shift use, high heat, and abusive environments. Long-lasting, easy to maintain Bernard Semi-Automatic MIG Guns combined with a Common Consumable Platform™ means more uptime, fewer errors and less troubleshooting for welders.

THE TEAM BEHIND THE BRANDS

The shared team behind Tregaskiss and Bernard routinely listens and responds to the needs of our customers. Through the strength of our people and their dedication to practical product innovation, ISO production quality standards, and superior service and support, we strive to remain our customers' #1 choice.

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