

# TOUGH GUN® TT4A / TT4E Reamer

## Robotic Nozzle Cleaning Station

Issued December 2023 • Index No. TT4/1.7

Robotic MIG (GMAW)  
Welding Peripheral 

### Quick Specs

#### Applications

Automotive  
Fabrication  
Heavy Equipment  
Manufacturing

#### Dimensions

L: 13.74" (349.0 mm)\*  
W: 10.36" (263.2 mm)\*  
H: 22.18" (563.4 mm)\*

\* Base unit only. Optional features may change weight and dimensions

#### Weight

≈41 lbs (18.6 kg)\*

#### Rated Input/Output

24 VDC

### Power Through Weld Spatter for Increased Uptime and Weld Quality

TOUGH GUN TT4A and TT4E (Ethernet) nozzle cleaning stations maximize uptime through superior cleaning performance, high durability components, and features that allow quick and easy maintenance. You'll spend less time maintaining and troubleshooting your robotic welding equipment and more time getting product out the door as your orders increase.

These reamers **power through the toughest spatter** with a .95HP motor and 236 lbs. of lifting force at 95 psi. Automated cleaning improves gas flow for reduced weld porosity, rework and scrap in robotic applications.

### Keep your welding operation up and running for extended periods of time with high performance components:

- Powerful, lubricated motor lasts up to 18M cycles at 80+ psi
- Durable valves and cylinders rated for 10M+ cycles
- Wire cutter can run 1M+ cycles without requiring maintenance

### New Standard Features reduce downtime, safety incidents and costly weld defects related to anti-spatter:

#### New anti-spatter reservoir (comes standard)

- A tethered cap and easy-clean filter help prevent anti-spatter contamination which can lead to weld quality issues
- Larger 20-oz capacity increases uptime between refills

#### New low fluid level indicator (comes standard)

- Sends a signal to the PLC / robot when anti-spatter is running low

#### New spray containment unit (comes standard)

- Reduces slip / trip accidents and reduce cleaning downtime costs
- Easy to remove and clean

TOUGH GUN Wire Cutter cuts a variety of wire types, including stainless steel, aluminum and cored wires, in sizes up to 1/16" (optional)

External setup switches allow independent operation of the sprayer, clamp and spindle during manual setup

New cutter blades are engineered from harder, stronger material, making them more resistant to breaking, chipping or cracking

Spray containment improves the working quality of the cell. Reduces slip / trip accidents and cleaning downtime costs

Dedicated Motor Lubricator improves longevity of the motor (standard)

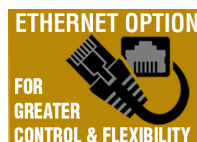
Quick change base plate

4-sided v-block eliminates the need to purchase new v-blocks when changing nozzle styles

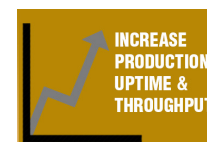
NEW! Sprayer reservoir includes tethered cap, removeable filter, and low fluid level indicator.

Low fluid level indicator provides an alert when running low to reduce the risk of running out.

Multi-feed compatible.



NEW! Configuration option for the TOUGH GUN TT4 Reamer



Extend life of consumables and increase production uptime



When used exclusively with TOUGH GARD® Anti-Spatter Liquid



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

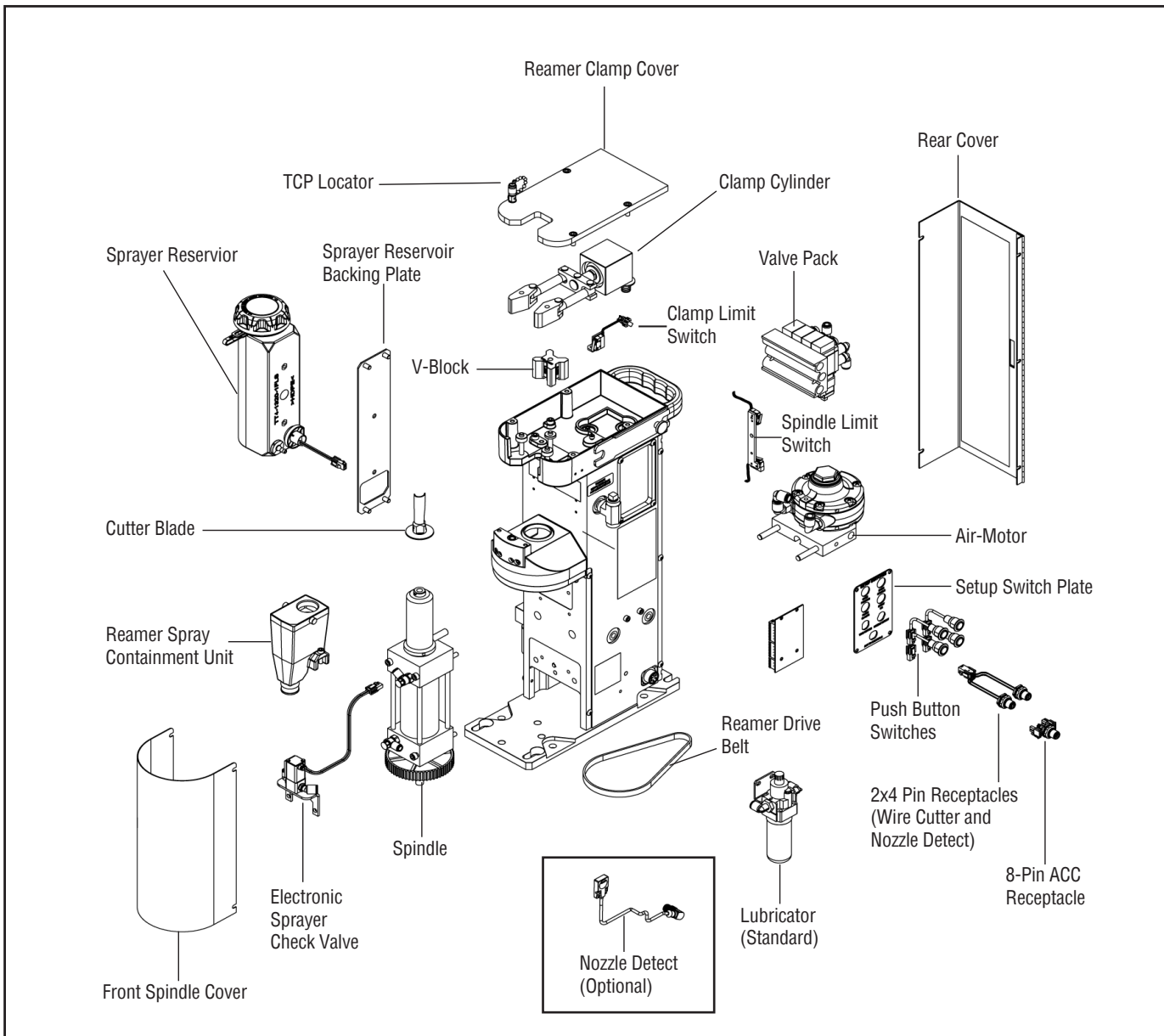
Phone: 1-855-MIGWELD (644-9353) (US & Canada)  
+1-519-737-3000 (International)  
Fax: 519-737-1530  
For more information, visit us at [Tregaskiss.com](http://Tregaskiss.com)

# Specifications *(subject to change without notice)*

Rated Voltage	Operating Voltage	Power Consumption	Air Requirements (minimum)	Air Motor (at min. air requirement)	Weight	Product Dimensions
24 VDC	±10% of rated voltage	Max. wattage in operation 5.3 W	80 to 100 PSI (5.0 to 7.0 bar) at 16 CFM (450 LPM)	Stall torque at 80 PSI (5.5 bar) = 83 in.-lbs. (9.4 Nm)	≈41 lbs (18.6 kg)*	L: 13.74" (349.0 mm)* W: 10.36" (263.2 mm)* H: 22.18" (563.4 mm)*

\*The optional features (sold separately or selected as options when ordering) can change the weight and physical dimensions of the product.

## TOUGH GUN® TT4A Reamer (Analog)





# Components

## Sprayer and Reservoir Components

### Specifications

<b>Electrical</b>	24 volts DC 2.5 watts
<b>Pneumatic</b>	80-100 psi at 16 CFM

### Components

<b>TT4-500-15</b>	Spray Assembly
<b>TT4-500-20</b>	Spray Check Valve Assembly
<b>TT4-1320</b>	Reservoir with Wire Connect
<b>TT4-1320KIT</b>	Reservoir Filter and Tethered Cap
<b>TT4-1325</b>	Reservoir Fluid Level Sensor

Recommended for use with TOUGH GARD® anti-spatter liquid (page 8)

## Cutter Blades

### For Standard Duty or Heavy Duty Consumables

<b>RCT-01</b>	5/8" Bore (configurable), single flute
<b>RCT-04</b>	1/2" Bore (configurable), single flute
<b>RCT-13</b>	3/4" Bore (configurable), double flute

### Ordered Separately

<b>RCT-16</b>	15.5 mm Panasonic® 350A, double flute
<b>RCT-17</b>	16 mm Panasonic® 500A, double flute
<b>RCT-18</b>	15.5 mm 10 Tip Binzel® WH500T, double flute
<b>RCT-20</b>	.850 Binzel®, double flute
<b>RCT-21</b>	Fronius®, double flute
<b>RCT-D13</b>	13 mm Dinse®, double flute
<b>RCT-D15</b>	15 mm Dinse®, double flute
<b>RCT-D18</b>	18 mm Dinse®, double flute
<b>RCT-D21</b>	21 mm Dinse®, double flute
<b>RC-01</b>	TR Reamer (5/8" Bore), double flute
<b>RC-04</b>	TR Reamer (1/2" Bore), double flute
<b>RC-06</b>	TR Reamer (3/8" Bore), double flute
<b>RC-08</b>	TR Reamer (15.2 mm / .600" Binzel®), double flute
<b>RC-12</b>	TR Reamer (3/4" Bore), double flute

Panasonic® is a trademark of Panasonic Welding Systems Co. Ltd  
 Binzel® is a registered trademark of Alexander Binzel GmbH & Co. KG, Germany  
 Fronius® is a registered trademark of Fronius International GmbH  
 Dinse® is a registered trademark of Dinse Inc.

## 4-Sided V-Blocks

<b>V-Block Part #</b>	<b>Nozzle Outside Diameter (O.D.) for Each Side</b>				
<b>TR-2150</b>	0.850"	0.938"	1.062"	1.106"	
<b>TR-2161</b>	0.830"	0.978"	0.984"	1.125"	
<b>TR-2162</b>	0.875"	0.813"	0.780"	1.000"	
<b>TR-2163</b>	0.938"	1.062"	25 mm	21 mm	(For Panasonic®)
<b>TR-2164</b>	0.938"	1.062"	1.180"	1.106"	(For Binzel®)
<b>TR-2165</b>	24 mm	26 mm	28 mm	30 mm	



Panasonic® is a trademark of Panasonic Welding Systems Co. Ltd  
 Binzel® is a registered trademark of Alexander Binzel Schweisstechnik GmbH & Co. KG, Germany

# Cutter Blade and V-Block Chart

Nozzle Part #	Outside Diameter (O.D.)	Reamer Model	V-Block Part #	Cutter Blade Part #
401-4-50	0.938" (23.8 mm)	TT4*093804	TR-2150	RCT-04
401-42-50	0.938" (23.8 mm)	TT4*093804	TR-2150	RCT-04
401-44-50	0.938" (23.8 mm)	TT4*093804	TR-2150	RCT-04
401-46-50	0.938" (23.8 mm)	TT4*093804	TR-2150	RCT-04
401-48-50	0.938" (23.8 mm)	TT4*093804	TR-2150	RCT-04
401-6-50	1.060" (26.9 mm)	TT4*106004	TR-2150	RCT-04
401-4-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
401-46-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
401-48-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
401-5-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
401-6-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
401-7-62	1.106" (28.1 mm)	TT4*110601	TR-2150	RCT-01
401-72-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
401-8-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
401-81-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
401-87-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
401-9-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
401-4-75	0.938" (23.8 mm)	TT4*093812	TR-2150	RCT-13
401-5-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
401-6-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
401-7-75	1.106" (28.1 mm)	TT4*110612	TR-2150	RCT-13
451-6-50	0.938" (23.8 mm)	TT4*093804	TR-2150	RCT-04
451-1-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
451-5-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
451-6-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
451-61-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
451-8-62	0.938" (23.8 mm)	TT4*093801	TR-2150	RCT-01
451-1-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
451-6-75	0.938" (23.8 mm)	TT4*093812	TR-2150	RCT-13
650-5-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
650-6-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
650-5-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
650-6-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
651-5-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
651-6-62	1.060" (26.9 mm)	TT4*106001	TR-2150	RCT-01
651-5-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
651-6-75	1.060" (26.9 mm)	TT4*106012	TR-2150	RCT-13
No Cutter/ No V-Block	—	TT4*XXXXXX	—	—

\*Placeholder for communication type; Choose "A" for analog model; "E" for Ethernet model

## Components *(Continued)*

### Spray Containment – *Now Standard!*

Improve the working quality of the cell environment. Helps keep areas dry and maintains the cleanliness of the cell. Spray containment ensures anti spatter is captured in an enclosed basin.

**TT4-SC-100** TOUGH GUN® TT4 Reamer Spray Containment  
**663-1-3** TOUGH GUN TT4 Reamer Spray Containment Hose



### Motor Lubricator – *Now Standard!*

This dedicated motor lubricator maximizes performance and protects your 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, now standard.

**TT4-2250** TOUGH GUN TT4 Reamer Motor Lubricator with Fittings



### Reservoir – *Now Standard With Double the Fluid Capacity!*

Reservoir mounts directly to the reamer frame for increased durability and protection. All reservoirs contain a built in low fluid level indicator which alerts operators when anti spatter fluid is running low. Includes tethered cap and a removable filter.

**TT4-1320** TOUGH GUN TT4 Reservoir with Wire Connector



## Additional Options



### Wire Cutter

The TOUGH GUN Wire Cutter from Tregaskiss removes the ball at the end of the welding wire to provide smooth arc starts and consistent wire stick-out (ideal for Touch Sensing). This system cuts a variety of wire types, including stainless steel, aluminum and flux-core, in sizes up to 1/16" (1.6 mm).

**WC-400** TOUGH GUN Wire Cutter



### Nozzle Detect

Nozzle Detect for the TT4 Reamer uses a proximity sensor mounted on the side of the reamer that can be used independent of the ream cycle. The robot positions the front end of the MIG gun close to the sensor to detect the presence of the 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.

**TT3E-2344** Proximity Sensor for Nozzle Detect  
**519-2** 8-pin, 5m cordset



# Accessories



## **TOUGH GUN® Reamer Stand (Optional)**

Tregaskiss provides a competitively priced, simple fixed height durable stand for all TOUGH GUN TT4 Reamer models.

TOUGH GUN reamer stands are available in heights between 18 and 36 inches in 6-inch increments.

<b>RST-18</b>	18-inch height
<b>RST-24</b>	24-inch height
<b>RST-30</b>	30-inch height
<b>RST-36</b>	36-inch height

## **TOUGH GARD Multi-Feed System**

Eliminate the need to frequently refill sprayer reservoirs with the TOUGH GARD® Multi-Feed System from Tregaskiss. Feed up to 10 TOUGH GUN Reamer units from a single 5-gallon or 55-gallon drum of TOUGH GARD Anti-Spatter Liquid.

- All TOUGH GUN TT4 Reamer units are multi-feed ready by removing the sprayer reservoir and adding a multi-feed plate
- Can be gravity fed by elevating the position of TOUGH GARD Liquid source
- Does not require a pump or power
- A low fluid-level indicator displays when pail or drum requires refilling
- Quick-connects allow fast and easy connection to nozzle cleaners
- Increased safety — eliminates the need for operators to enter robotic cells if pails or drums are located outside
- Each circuit has a dedicated check valve to reduce the risk of poor connections causing leaks



## **TOUGH GARD Multi-Feed System**

<b>TG-103-05-2</b>	for 5 Gallon Pail (up to 2 Reamer Units)
<b>TG-103-05-10</b>	for 5 Gallon Pail (up to 10 Reamer Units)
<b>TG-103-55-10</b>	for 55 Gallon Drum (up to 10 Reamer Units)

## **TOUGH GARD Multi-Feed Adapter**

**TT4-MF-100** Multi-Feed Adapter

## **TOUGH GARD Multi-Feed System Hose (Sold Separately)**

<b>TG-103-100</b>	100' Multi-Feed Hose (UV Rated)
<b>TG-103-200</b>	200' Multi-Feed Hose (UV Rated)

## **Reamer Test Box**

Troubleshoot your TOUGH GUN TT4A reamer robotic nozzle cleaning station quickly and easily with the reamer test box. This test box comes with a 6-foot, 5-pin cordset which allows you to test your reamer from a safe distance to troubleshoot the following:

- Ream cycle
- SINK/SOURCE function(s)
- Sprayer function
- Anti-spatter liquid fluid level signal
- Wire cutter operation (if equipped)
- Nozzle detect function (if equipped)



**RT-1000** Reamer Test Box

## Accessories (continued)



### 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 for nozzle cleaning which can help reduce your operating and maintenance costs.

#### TOUGH GARD Anti-Spatter Liquid

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

**Extended 3 year warranty with exclusive use of 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® TT4 Reamer. *Must be ordered separately.*

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.

**TT-FR-SMC** Filter/Regulator

## Ordering Information

Model	Version	V-Block	Cutter Blade	Option 1	Option 2
<b>T T 4</b>	<b>A</b>	<b>0938</b>	<b>01</b>	<b>S</b>	<b>L</b>
	<b>A</b> Analog	<b>0938</b> 0.938" (23.8 mm) Nozzle O.D.	<b>01</b> 5/8" (15.9mm) Bore Standard or HD Consumables	<b>S</b> Sprayer (Standard)	<b>L</b> Lubricator
	<b>E</b> Ethernet	<b>1000</b> 1.000" (25.4 mm) Nozzle O.D.	<b>04</b> 1/2" (12.7mm) Bore Standard or HD Consumables	<b>W</b> Sprayer + Wire Cutter (WC)	
		<b>1060</b> 1.062" (26.9 mm) Nozzle O.D.	<b>13</b> 3/4" (19.1mm) Bore Standard, HD or Robotic Water-Cooled Consumables	<b>N</b> Sprayer + Nozzle Detect	
		<b>1106</b> 1.106" (28.1 mm) Nozzle O.D.		<b>P</b> Sprayer + Nozzle Detect + WC	
		<b>XXXX</b> No V-Block	<b>XX</b> No Cutter		

Configure your TT4 reamer or reverse lookup your existing TT4 reamer part number to find your replacement parts list!



Tregaskiss®, TOUGH GUN®, TOUGH GARD®, TOUGH LOCK®, are trademarks of Tregaskiss, a division of ITW Canada, Inc.

Other brand and product names shown are trademarks of their respective owners.

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:

