

# TOUGH GUN® TT3 Reamer

## Nozzle Cleaning Station

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



### Quick Specs

#### Applications

Automotive  
Fabrication  
Manufacturing

#### Dimensions

L: 13.24" (336.2 mm)\*  
W: 11.97" (304 mm)\*  
H: 22.917" (582.1 mm)\*

#### Weight

≈50 lbs (23kg)\*

#### Rated Input/Output

24 VDC

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

The TOUGH GUN® TT3 Reamer is *TOUGH* on spatter and operates reliably in the harshest welding environments. Automating spatter removal and anti-spatter liquid application will help to extend the life of your robotic MIG guns and consumables, benefitting your bottom line, production uptime and throughput.

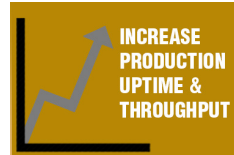
**NEW!!** The TOUGH GUN TT3E Reamer robotic nozzle cleaning station offers the same high levels of durability, serviceability and repeatability now further enhanced by digital Ethernet communications that better integrate this unit into the digital controls infrastructure of your facility.

Enjoy greater control optimization, remote monitoring capability, and faster troubleshooting of all discrete I/O functions to facilitate increased productivity in your robotic welding applications.

#### ETHERNET OPTION

FOR  
GREATER  
CONTROL & FLEXIBILITY

NEW! Configuration option for the TOUGH GUN TT3 Reamer



Extend life of consumables and increase production uptime



Extended warranty when configured with a dedicated motor lubricator and used exclusively with TOUGH GARD® Anti-Spatter Liquid

#### DURABILITY

- 3/4 HP air motor with gear reducer provides the high torque required for spatter removal at the low speeds 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 with rotating rod accuracy of 0.001"-0.004" at 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



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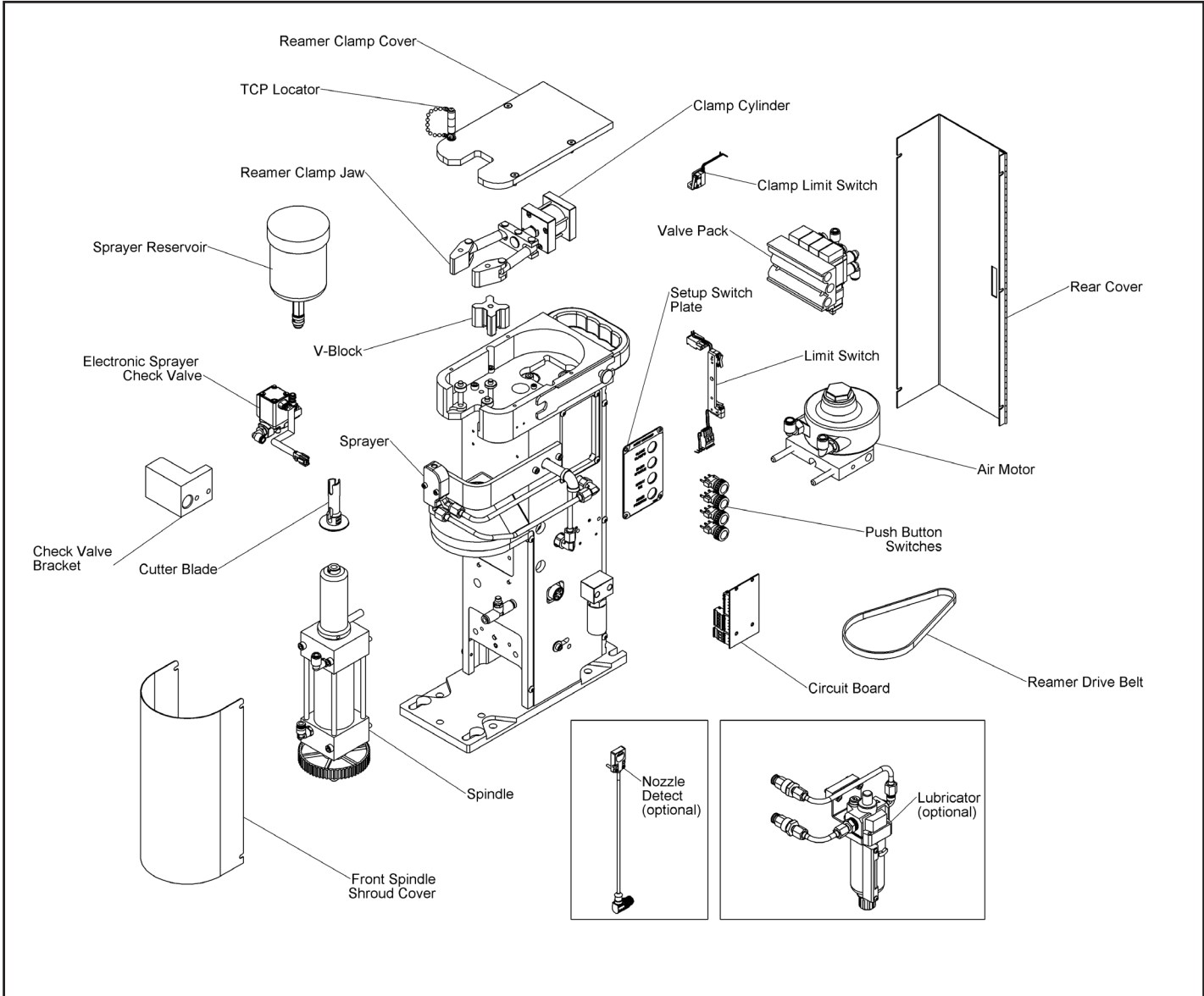
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# Specifications *(subject to change without notice)*

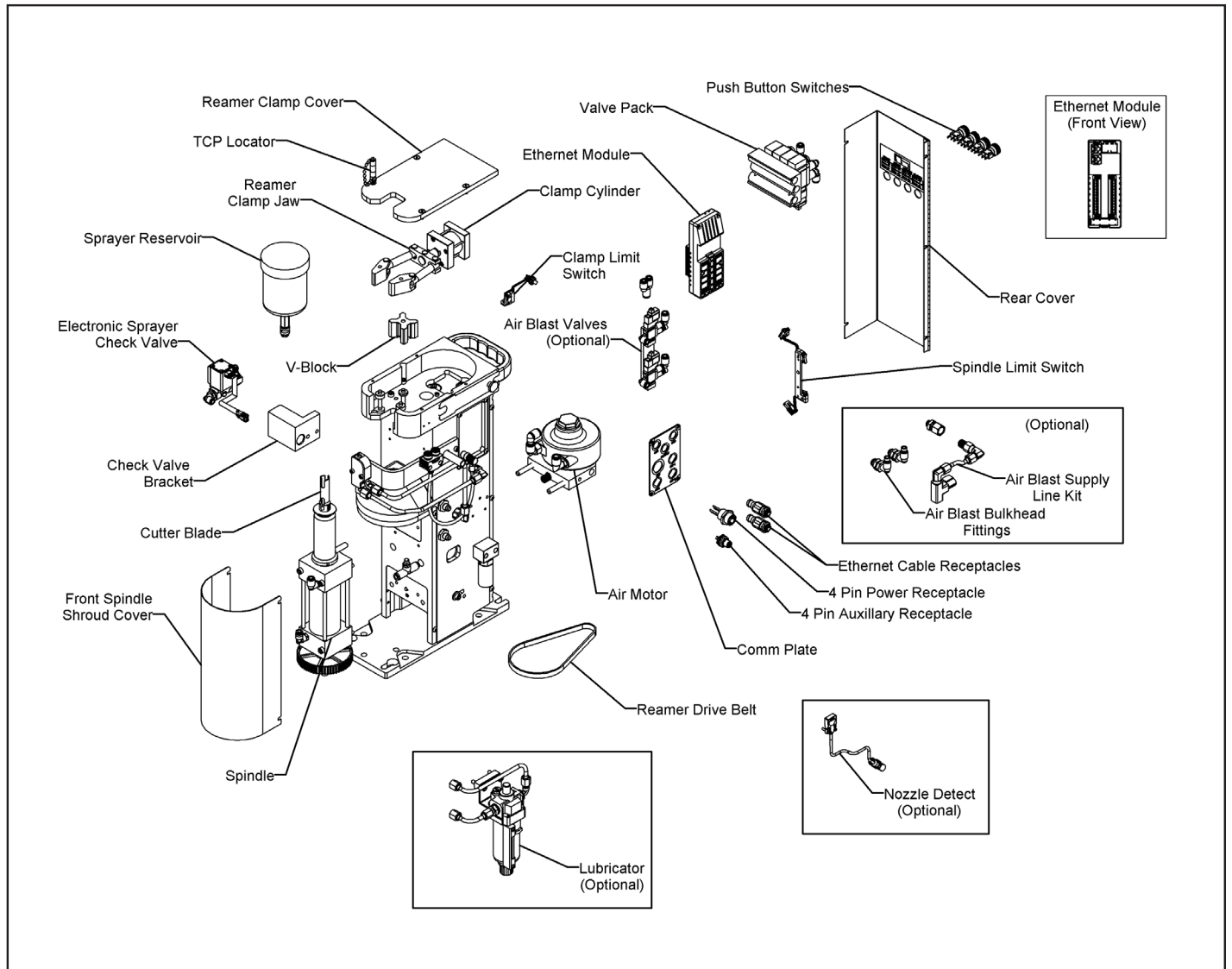
Rated Voltage	Operating Voltage	Power Consumption	Air Requirements (minimum)	Air Motor (at min. air requirement)	Weight	Product Dimensions
24 VDC	±10% of rated voltage	Max. wattage in operation 5.3 W	80 to 100 PSI (5.0 to 7.0 bar) at 16 CFM (450 LPM)	Stall torque at 80 PSI (5.5 bar) = 83 in.-lbs. (9.4 Nm)	≈50 lbs (23kg)*	L: 13.24" (336.2 mm)* W: 11.97" (304 mm)* H: 22.917" (582.1 mm)*

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

## TOUGH GUN TT3 Reamer (Analog)



# TOUGH GUN TT3E Reamer (Ethernet)



# Components

## TT3-500 Sprayer – Now Standard

### Specifications

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

Recommended for use with TOUGH GARD™ Anti-Spatter Liquid (page 7)

### Components

<b>TT3-500</b>	TOUGH GUN Sprayer Kit
<b>TT3-001-5</b>	Sprayer Steel Line Kit
<b>RR-1320</b>	Reservoir
<b>TS-500-40</b>	Sprayer Quick Connect
<b>Not sellable</b>	1/4" Sprayer Hose
<b>SR-500-20</b>	Sprayer Check Valve
<b>TS-500-15</b>	Spray Block with Fittings
<b>Not sellable</b>	1/4" Tubing, 90° Elbow, Uni-fit Thread
<b>Not sellable</b>	Extruded 90 Degree Street Elbow
<b>SR-500-1</b>	Sprayer Bracket

## Cutter Blades

### For Standard Duty or Heavy Duty Consumables

<b>RCT-01</b>	5/8" Bore
<b>RCT-04</b>	1/2" Bore
<b>RC-06</b>	3/8" Bore
<b>RC-12</b>	3/4" Bore
<b>RCT-13</b>	3/4" Bore (600 amp Robotic Water-Cooled)

### For TOUGH ACCESS™ Consumables

<b>RCT-05</b>	1/2" Bore
<b>RCT-10</b>	5/8" Bore

### For Other Consumables

<b>RC-08</b>	5/8" Bore, Binzel®
<b>RCT-16</b>	15.5 mm, Panasonic®, 350 amp
<b>RCT-17</b>	16.0 mm, Panasonic, 500 amp
<b>RCT-18</b>	15.5 mm Nozzle M10 Tip WH500T Torch, Binzel

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

## 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"	25 mm	1.125"
<b>TR-2162</b>	0.875"	0.813"	0.780"	1.000"
<b>TR-2163</b>	0.938"	1.062"	25mm	21mm (For Panasonic®)
<b>TR-2164</b>	0.938"	1.062"	1.180"	1.106" (For Binzel®)



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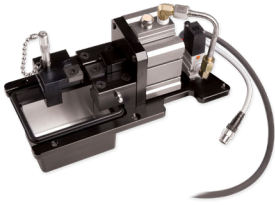
# Cutter Blade and V-Block Chart

Nozzle Part #	Outside Diameter (O.D.)	Reamer Model	V-Block Part #	Cutter Blade Part #
401-4-50	0.938" (23.8mm)	TT3*093804	TR-2150	RCT-04
401-42-50	0.938" (23.8mm)	TT3*093804	TR-2150	RCT-04
401-44-50	0.938" (23.8mm)	TT3*093804	TR-2150	RCT-04
401-46-50	0.938" (23.8mm)	TT3*093804	TR-2150	RCT-04
401-48-50	0.938" (23.8mm)	TT3*093804	TR-2150	RCT-04
401-6-50	1.060" (26.9mm)	TT3*106004	TR-2150	RCT-04
401-4-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
401-46-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
401-48-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
401-5-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
401-6-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
401-7-62	1.106" (28.1 mm)	TT3*110601	TR-2150	RCT-01
401-72-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
401-8-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
401-81-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
401-87-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
401-9-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
401-4-75	0.938" (23.8mm)	TT3*093812	TR-2150	RCT-13
401-5-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13
401-6-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13
401-7-75	1.106" (28.1mm)	TT3*110612	TR-2150	RCT-13
451-6-50	0.938" (23.8mm)	TT3*093804	TR-2150	RCT-04
451-1-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
451-5-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
451-6-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
451-61-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
451-8-62	0.938" (23.8mm)	TT3*093801	TR-2150	RCT-01
451-1-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13
451-6-75	0.938" (23.8mm)	TT3*093812	TR-2150	RCT-13
650-5-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
650-6-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
650-5-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13
650-6-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13
651-5-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
651-6-62	1.060" (26.9mm)	TT3*106001	TR-2150	RCT-01
651-5-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13
651-6-75	1.060" (26.9mm)	TT3*106012	TR-2150	RCT-13

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

## 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. 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-100** TOUGH GUN Wire Cutter (Analog)  
**WC-100E** TOUGH GUN Wire Cutter (Ethernet)

### Filter/Regulator



The Filter/Regulator unit from Tregaskiss is another recommended accessory that helps extend the life of your TOUGH GUN® TT3 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.

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

### TOUGH GUN Reamer Stand



Tregaskiss provides a new, competitively priced, simple fixed height durable stand for all TOUGH GUN TT3 Reamer models. Each TOUGH GUN Reamer Stand can be ordered to a custom height between 18- and 45-inches in one-inch increments.

**RST-XX** TOUGH GUN Reamer Stand  
(XX represents height available from 18 to 45)

### Motor Lubricator



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, the lubricator is available as an option when configuring your new unit or is retrofittable to your existing TOUGH GUN TT3 Reamer.

**TT-LUB-SMC** Motor Lubricator  
**TT3-LUB** Motor Lubricator Kit

### Nozzle Detect



Nozzle Detect for the TT3 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 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  
**RS-500-5** 4m Cable with 3 Poles, M12 Connector

Extend your warranty to 2 years when ordering your TOUGH GUN Reamer with a factory-installed dedicated motor lubricator. Or increase your warranty to 3 years with a factory-installed dedicated motor lubricator plus exclusive use of TOUGH GARD Anti-Spatter Liquid (page 7).



# Accessories



## 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 TT3 Reamer units are multi-feed ready by removing the sprayer reservoir.
- Can be gravity fed by elevating the position of TOUGH GARD Liquid source.
- Does not require a pump.x
- A 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**

- TG-103-05-2** for 5 Gallon Pail (up to 2 Reamer Units)
- TG-103-05-10** for 5 Gallon Pail (up to 10 Reamer Units)
- TG-103-55-10** for 55 Gallon Drum (up to 10 Reamer Units)

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

Extended 3 year warranty when your TOUGH GUN Reamer is ordered with a factory-installed dedicated motor lubricator plus exclusive use of TOUGH GARD Anti-Spatter Liquid.



## 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**

- TG-101-14S** 14 fl. oz. / 414 mL
- TG-101-32SP** 25.36 fl. oz. / 750 mL (spray bottle)
- TG-101-01** 1 U.S. Gallon / 3.78 L
- TG-101-05** 5 U.S. Gallon / 18.92 L
- TG-101-55** 55 U.S. Gallon / 208.3 L

# Ordering Information

Model			Version	V-Block	Cutter Blade	Option 1	Option 2
T	T	3	A	0938	01	S	L
			A Analog	0938 0.938" (23.8 mm) Nozzle O.D.	01 5/8" (15.9mm) Bore Standard or HD Consumables	S Sprayer ( <i>Standard</i> )	A* Air Blast (Dual) (AB)
			E Ethernet	1000 1.000" (25.4 mm) Nozzle O.D.	04 1/2" (12.7mm) Bore Standard or HD Consumables	W Sprayer + Wire Cutter (WC)	B* AB + Lubricator (L)
				1060 1.062" (26.9 mm) Nozzle O.D.	13 3/4" (19.1mm) Bore Standard, HD or	N Sprayer + Nozzle Detect	G* AB + Filter/Regulator (FB)
				1106 1.106" (28.1 mm) Nozzle O.D.	Robotic Water-Cooled Consumables	P Sprayer + Nozzle Detect + WC	H* AB + L + FR
							L Lubricator
							Q Filter/Regulator
							R L + FR
							Z No Option #2

\*Air Blast option only available for Ethernet models

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