



**OM-MF-1.0**

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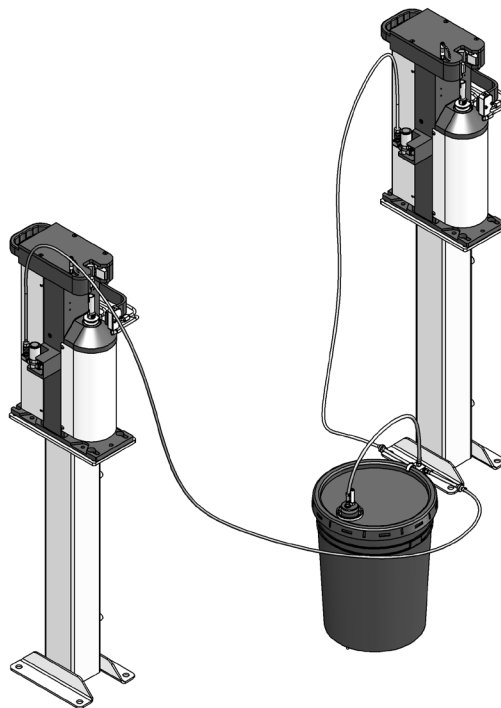
**Processes**

MIG (GMAW) Welding

**Description**

MIG (GMAW) Welding  
Peripheral

# TOUGH GARD™ Anti-Spatter Multi-Feed System



## OWNER'S MANUAL

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# Thank You for Choosing Tregaskiss

Thank you for selecting a Tregaskiss product. Before installing, compare the equipment received against the invoice to verify that the shipment is complete and undamaged. It is the responsibility of the purchaser to file all claims of damage or loss that may have occurred during transit with the carrier.

The owner's manual contains general information, instructions and maintenance to help better maintain your product. Please read, understand and follow all safety precautions.

While every precaution has been taken to assure the accuracy of this owner's manual, Tregaskiss assumes no responsibility for errors or omissions. Tregaskiss assumes no liability for damages resulting from the use of information contained herein. The information presented in this owner's manual is accurate to the best of our knowledge at the time of printing. Please reference [Tregaskiss.com](http://Tregaskiss.com) for updated material.

For customer support and special applications, please call the Tregaskiss Customer Service Department at 1-855-MIGWELD (644-9353) (US & Canada) or +1-519-737-3000 (International) or fax 1-519-737-1530. Our trained Customer Service Team is available between 8:00 a.m. and 5:30 p.m. EST, and will answer your product application or repair questions.

Tregaskiss manufactures premium robotic MIG (GMAW) welding guns, peripherals and consumables. For more information on other premium Tregaskiss products, contact your local Tregaskiss distributor or visit us on the web at [Tregaskiss.com](http://Tregaskiss.com).

For additional support materials such as spec sheets, troubleshooting information, how-to guides and videos, animations, online configurators and much more, please visit [Tregaskiss.com](http://Tregaskiss.com). Scan this QR Code with your smart phone for immediate access to [Tregaskiss.com/TechnicalSupport](http://Tregaskiss.com/TechnicalSupport)



# TABLE OF CONTENTS

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<b>SECTION 1 - SAFETY PRECAUTIONS - READ BEFORE USING</b> .....	<b>4</b>
1-1 Safety Warnings for Installation, Operation and Maintenance .....	4
1-2 California Proposition 65 Warnings .....	4
1-3 Commercial Warranty .....	4
<b>SECTION 2 - SPECIFICATIONS</b> .....	<b>5</b>
2-1 System Components .....	5
<b>SECTION 3 - INSTALLATION / SET UP</b> .....	<b>6</b>
3-1 Installing TOUGH GARD™ Anti-Spatter Multi-Feed System.....	6
<b>SECTION 5 - MAINTENANCE</b> .....	<b>8</b>
<b>SECTION 6 - PARTS LIST</b> .....	<b>8</b>
<b>SECTION 7 - TROUBLESHOOTING</b> .....	<b>9</b>

*Subject to Change – The information presented in this manual is accurate to the best of our knowledge at the time of printing.  
Please visit [Tregaskiss.com](http://Tregaskiss.com) for the most up-to-date information.*

# SECTION 1- SAFETY PRECAUTIONS - READ BEFORE USING

## 1-1 Safety Warnings for Installation, Operation and Maintenance



### READ INSTRUCTIONS

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing the unit. Read the safety information at the beginning of the manual and each section.
- Use only genuine replacement parts from the manufacturer.
- Perform maintenance and service according to the Owner's Manual, industry standards and national, state/provincial and local codes.



### SLIP HAZARD

- Be aware of slip hazard if chemical leaks onto the floor.



### WEAR CHEMICAL RESISTANT GLOVES

- Ensure that gloves are resistant to chemicals to prevent skin contact.



### WEAR SAFETY GLASSES

- Avoid getting chemical or hazardous material in your eyes.

## 1-2 California Proposition 65 Warnings

Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)

This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after use.*

## 1-3 Commercial Warranty

Seller's Products specified below shall be free from defects in material and workmanship for the period specified below from the delivery to an authorized Buyer provided the Products are operated, maintained, and repaired properly and pursuant to Product documentation provided by the manufacturer. The Warranty against defects does not apply to: (1) consumable components or ordinary wear items; or (2) use of the Products with equipment, components or parts not specified or supplied by Seller or contemplated under the Product documentation.

Should there be a defect please refer to our Return Merchandise Policy.

Product	Warranty
Tregaskiss TOUGH GUN™ Robotic MIG Guns and Components	1 year
Tregaskiss TOUGH GUN™ Automatic MIG Guns	1 year
Tregaskiss TOUGH GUN Reamer	1 year
<ul style="list-style-type: none"> <li>• When factory-equipped with Lubricator</li> <li>• When both (i) factory-equipped with Lubricator and (ii) used only with Tregaskiss™ TOUGH GARD™ Anti-Spatter Liquid</li> </ul>	2 years when factory equipped with Lubricator  3 years when both (i) and (ii)
Tregaskiss Robotic Peripherals (Clutch, Sprayer, Wire Cutter, Arms and the TOUGH GARD Anti-Spatter Multi-Feed System)	1 year
Tregaskiss Low-Stress Robotic Unicables (LSR Unicables)	2 years

(Commerical Warranty continued)

Seller reserves the right to inspect any allegedly defective Product for the alleged deficiencies and that the deficiencies were not caused by accident, misuse, neglect, improper installation, unauthorized alteration or repair, or improper testing.

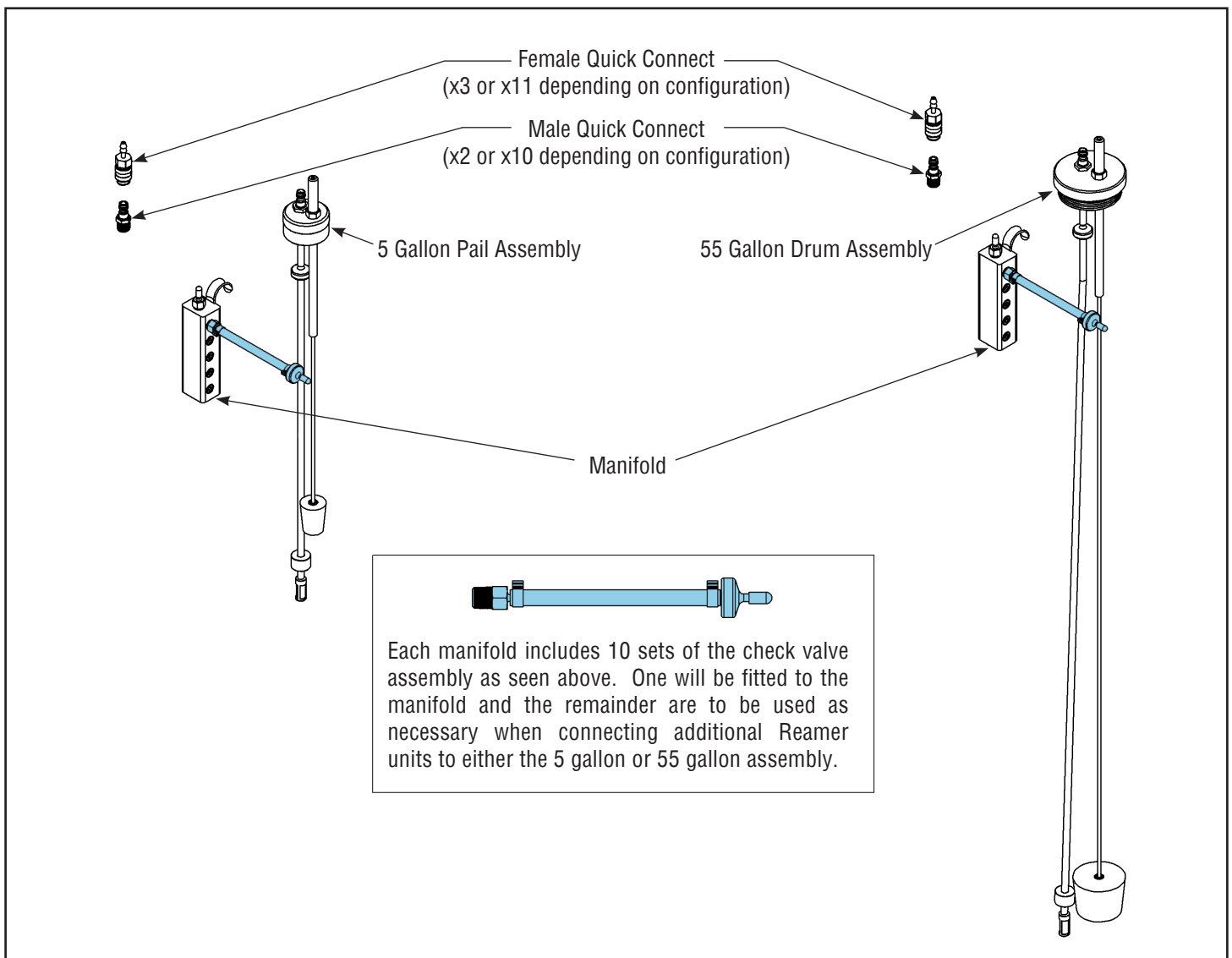
In the event of a defect covered by the above warranty, Seller will, at its option, repair, replace or refund the purchase price of the defective Product. Product found not defective will be returned to Buyer at Buyer's cost after notification by Seller's Customer Service Department. Any TOUGH GUN Reamer component part replaced or repaired pursuant to the warranty herein shall be further warranted for a period of six months after delivery of the replacement.

EXCEPT AS SET FORTH ABOVE, SELLER MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE. SELLER SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO ANY, DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSS OF PRODUCTION OR LOSS OF PROFITS RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, ANY DELAY, ACT, ERROR OR OMISSION OF SELLER.

Genuine Bernard™ and Tregaskiss™ parts must be used for safety and performance reasons or the warranty above shall not be valid. Warranty shall not apply if accident, abuse, or misuse damages a product, or if a product is modified in any way except properly and by authorized Seller personnel.

## SECTION 2 - SPECIFICATIONS

### 2-1 System Components



For complete parts list, please see **SECTION 6 - PARTS LIST**

# SECTION 3 - INSTALLATION / SET UP

## 3-1 Installing TOUGH GARD™ Anti-Spatter Multi-Feed System

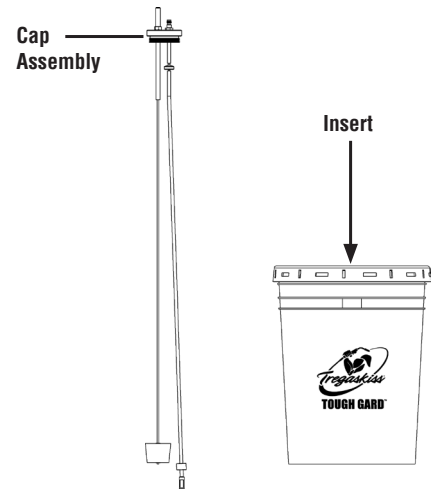
**IMPORTANT:** Ideal operating conditions require 80-100 psi at 16 CFM at the Reamer for Sprayer operation.

TOUGH GARD Anti-Spatter Liquid is available in 5 gallon pails and 55 gallon drums.

### A. To Install Cap Assembly:

1. Remove the plastic cap from the TOUGH GARD Anti-Spatter Liquid pail / drum. (Leave the spout down in the 5 gallon pail.)
2. Insert the cap assembly and tighten securely.

**NOTE:** The cap assembly should pass through the pail / drum opening freely.



The cap assembly features a Fluid Level Indicator in order to help monitor levels of TOUGH GARD Anti-Spatter Liquid (see Figure 1).

**NOTE:** When the Fluid Level Indicator is no longer visible, there is less than 1" of fluid left.

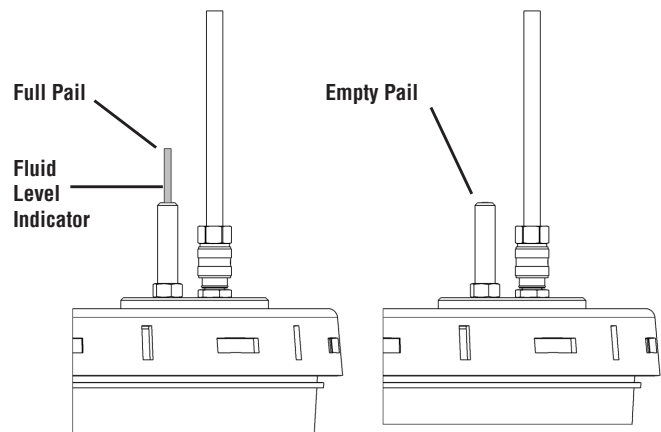
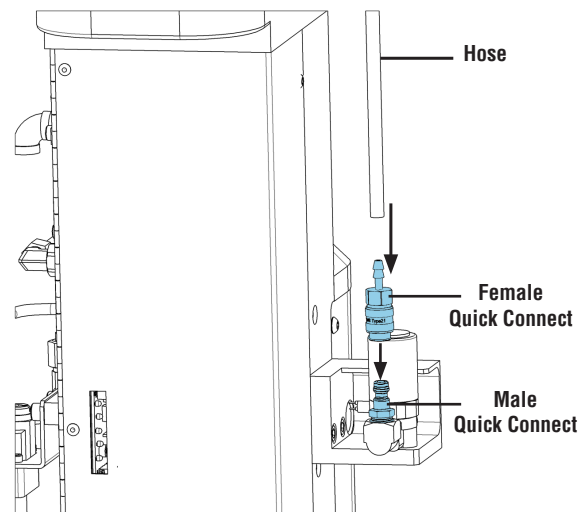


Figure 1

### B. To Connect Hose to Spray Unit

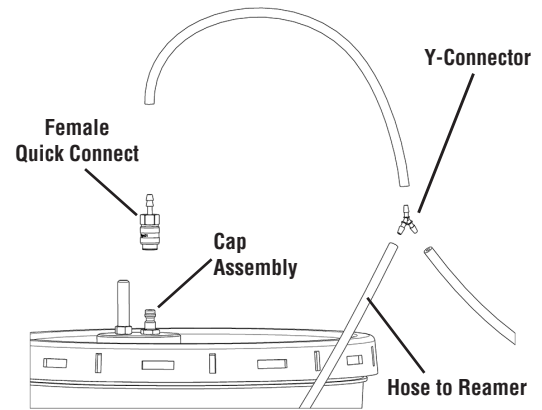
**NOTE:** It is best to start by establishing the pail / drum location. This makes it easier to run hoses and permanently secure them.

1. Remove the reservoir from the Reamer.
2. From the pail / drum, run the hose to the Reamer being sure not to run hoses where they may be damaged or kinked.
3. Once the desired length of hose is set, install the barbed female quick connect fitting in the line (use a very small amount of lube to allow the fitting to insert into the hose easier).
4. Clamps should be used at all connections.
5. Connect the female quick connect on the hose to the male quick connect on the spray unit.



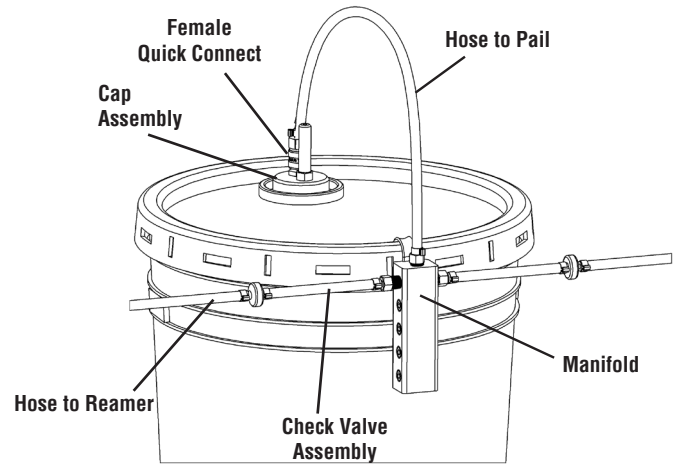
### C. To Connect Hose to Pail / Drum with the Y-Connector

- Connect a hose to Y-connector by using a small amount of lube on the barb and pushing the line onto the barb. Push the line all the way to shoulder of the barbed fitting.
- Clamps should be used on all connections.



### D. To Connect Hose to Pail / Drum with a Manifold

1. Remove caps from manifold fittings and install the check valve assembly for the desired number of lines.
2. Install the line from the pail / drum to the end of the check valve assembly (as shown on right).



### E. Priming the hose

Once the hoses have been completely installed, they need to be primed to remove any air bubbles.

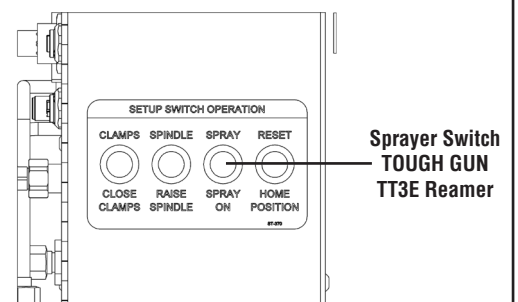
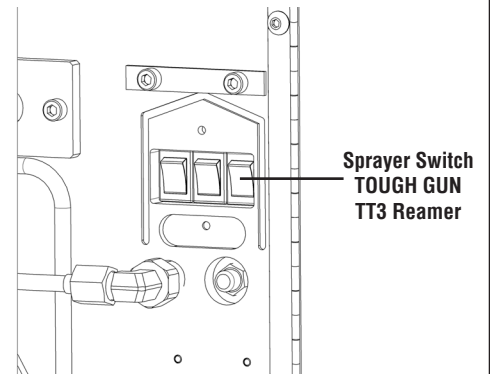
#### To Prime Hose Manually

- Activate the sprayer switch on the TOUGH GUN Reamer until a steady stream of TOUGH GARD Anti-Spatter Liquid is visible from the spray head.

#### To Prime Hose Automatically

- Activate the sprayer from the robot controller until a steady stream of TOUGH GARD Anti-Spatter Liquid is visible from the spray head.

**NOTE:** Be sure to check for any leaks while priming the hose. Use check valves at all manifold ports to ensure each line keeps its prime.



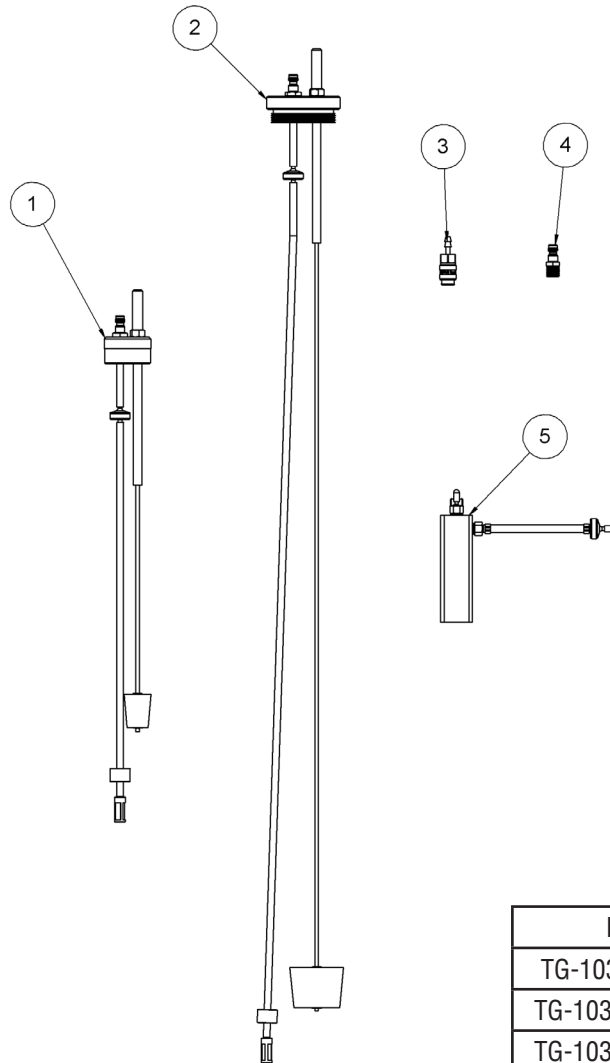
# SECTION 5 - MAINTENANCE

Under regular operating conditions, there is no need for maintenance.

**NOTE:** Ensure that all hose connections are clamped and tightened as needed to prevent leaks (clamps not included). Clean cap assembly to prevent the TOUGH GARD Anti-Spatter Liquid from clogging. Also check to see that there is a sufficient amount of TOUGH GARD Anti-Spatter Liquid in the pail / drum and replace as needed.

# SECTION 6 - PARTS LIST

## TOUGH GARD™ Anti-Spatter Multi-Feed Cap Assembly



ITEM #	PART #	DESCRIPTION
1	TG-103-2	Cap Assembly (5 Gallon Pail)
2	TG-103-3	Cap Assembly (55 Gallon Drum)
3	TG-103-2-15	Female Quick Connect
4	TS-500-40	Male Quick Connect
5	TG-103-4	Manifold (includes 10 sets of the Check Valve Assembly)

Hoses (Sold Separately)	
TG-103-50	50' Hose (Not shown)
TG-103-100	100' Hose (Not shown)
TG-103-200	200' Hose (Not shown)

TOUGH GARD Anti-Spatter Liquid (Sold Separately)	
TG-101-01*	1 Gallon (Not shown)
TG-101-05	5 Gallon Pail (Not shown)
TG-101-14S*	14 oz (Not shown)
TG-101-32SP*	25.36 oz (Not shown)
TG-101-55	55 Gallon Drum (Not shown)

\* Not required for the Multi-Feed System



## SECTION 7 - TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. No spray.	<ol style="list-style-type: none"> <li>1. Sprayer blocked.</li> <li>2. Loss of air supply.</li> <li>3. Faulty solenoid valve.</li> <li>4. Kink in the multi-feed line.</li> <li>5. Clogged vent in cap assembly.</li> <li>6. Loose hose connections.</li> <li>7. Air bubbles in lines.</li> <li>8. Unused lines on manifold are not capped.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean spray head.</li> <li>2. Check air supply to ensure adequate pressure is supplied.</li> <li>3. Replace solenoid valve.</li> <li>4. Check lines and re-run lines to remove and prevent obstructions.</li> <li>5. Clean cap assembly.</li> <li>6. Check hose connections and tighten as needed.</li> <li>7. Re-prime lines.</li> <li>8. Ensure all unused ports on manifold are plugged with a 1/8 NPT plug.</li> </ol>
2. Air flow but no anti-spatter.	<ol style="list-style-type: none"> <li>1. Loose hose connections.</li> <li>2. Pail / drum is empty.</li> <li>3. Spool in solenoid valve block stuck.</li> <li>4. Fluid line blocked.</li> <li>5. Faulty check valve.</li> <li>6. Inadequate air pressure.</li> <li>7. Clogged filter in cap assembly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check hose connections and tighten as needed.</li> <li>2. Refill / replace TOUGH GARD Anti-Spatter Liquid.</li> <li>3. Replace solenoid valve block assembly.</li> <li>4. Clean or repair fluid line.</li> <li>5. Replace check valve.</li> <li>6. Adjust air pressure to 80-100 psi at 16 CFM (5.5-7.0 bar at 450 LPM).</li> <li>7. Clean cap assembly.</li> </ol>
3. Inconsistent spray flow.	<ol style="list-style-type: none"> <li>1. Loose hose connections.</li> <li>2. Damaged hose.</li> <li>3. Clogged vent in cap assembly.</li> <li>4. Air bubbles in hose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check hose connections and tighten as needed.</li> <li>2. Replace hose.</li> <li>3. Clean cap assembly.</li> <li>4. Re-prime hose.</li> </ol>
4. Cannot remove air bubbles from lines.	<ol style="list-style-type: none"> <li>1. Loose hose connections.</li> <li>2. Priming not completed.</li> <li>3. Unused ports on manifold are not plugged with 1/8 NPT plug.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check hose connections and tighten as needed.</li> <li>2. Prime until steady stream is visible from spray head.</li> <li>3. Ensure all unused ports on the manifold are plugged with a 1/8 NPT plug.</li> </ol>

For additional support materials such as Spec Sheets, troubleshooting information, how-to guides and videos, animations, online configurators and much more, please visit [Tregaskiss.com](http://Tregaskiss.com). Scan the QR Code with your smart phone for immediate access to [Tregaskiss.com/TechnicalSupport](http://Tregaskiss.com/TechnicalSupport).



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Scan to view TOUGH GUN™ TT3 Reamer Spec Sheet.....



Scan to view TOUGH GUN™ TT3 Reamer Owner's Manual.....



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Scan to learn about TOUGH GARD™ Anti-Spatter Liquid.....



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