



KEEP FOR REFERENCE

Rev. C
Supersedes B

238-024 TSL Tubing Repair Kit

FOR THE H₂O PRO SYSTEMS 237-927 AND 237-928

Installation

Use this kit to replace the TSL (throat seal liquid) tubing lines and connecting hardware.

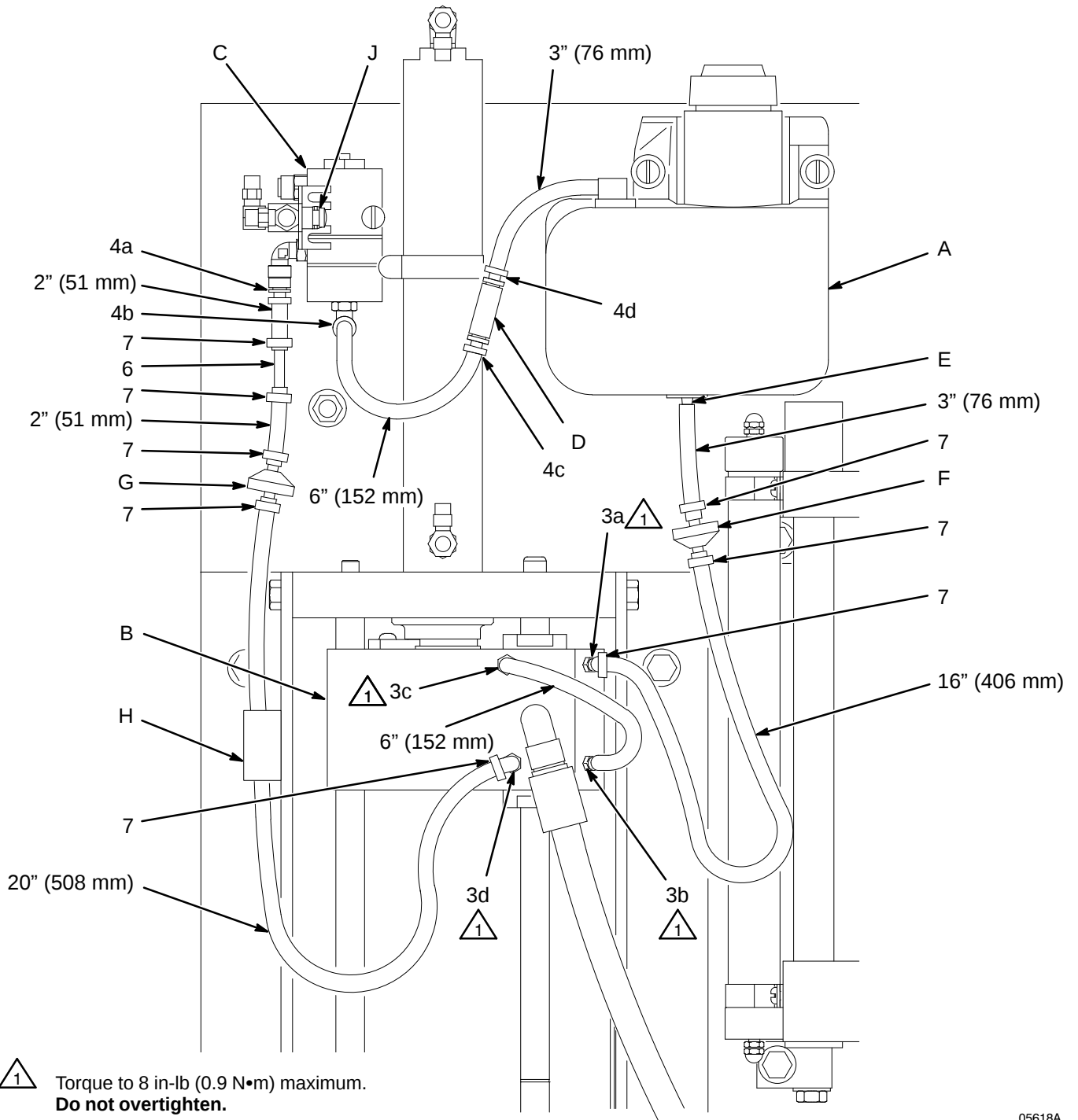
WARNING

Refer to the H₂O PRO System manual 308–504 or 308–581 for important warnings and information.

1. Follow the General Shutdown Procedure in the H₂O PRO System manual 308–504 or 308–581.
 2. Follow the Fluid Voltage Discharge and Grounding Procedure in the H₂O PRO System manual 308–504 or 308–581.
 3. Disconnect the TSL container outlet tube at point 3a (see the Parts drawing on page 3). Drain the TSL into a waste container.
 4. Disconnect the TSL return tube at points 4a and 4c and drain the TSL into a waste container.
 5. Disconnect all the other TSL tube lines and drain the TSL into a waste container.
 6. Remove the TSL container (A) and clean the interior. Do not mix with water or solvent. Temporarily remount the container while making the tubing connections.
 7. Remove the four barb fittings (3a–3d) from the isolator fluid block (B). Remove the barb stems (4a–4d) from the TSL pump (C) and from the tube coupler (D). Discard the fittings.
 8. Install the four barb fittings (3a–3d) in the isolator fluid block (B). Torque the barb fittings to 8 in-lb (0.9 N•m) maximum. **Do not overtighten.**
 9. Install two barb stems (4c, 4d) in the tubing coupler (D) and two more (4a, 4b) in the TSL pump (C). Replace all fittings securely.
 10. Make sure all barbs are clean and dry of TSL before connecting the new tubing lines.
 11. Cut the new tubing into lengths as follows:
 - two segments 2" (51 mm) long
 - two segments 3" (76 mm) long
 - two segments 6" (152 mm) long
 - one segment 16" (406 mm) long
 - one segment 17" (432 mm) long
- Follow the steps below to connected the TSL lines. Install a tube clamp (7) at each of the tube connections, as shown in the parts drawing.
12. Replace the TSL outlet line from the TSL container (A) to the isolator fluid block (B) as follows:

Connect a new 3" (76 mm) tube to the outlet barb (E) of the TSL container, followed by a check valve (F). Be sure to install the check valve correctly; the fluid flow direction of the check valve is from white to black. Connect a 16" (406 mm) tube to the black end of the check valve and to the open barb (3a) on the isolator fluid block (B).
 13. Replace the crossover line on the isolator fluid block (B) with a 6" (152 mm) tube (barbs 3b and 3c).
 14. Replace the TSL return line from the isolator fluid block (B) to the TSL pump (C) using a 17" (432 mm) tube from the isolator fitting (3d) to the white end of the check valve (G) followed by a 2" (51 mm) tube from the black end of the check valve to the sight tube (6). Connect the other 2" (51 mm) tube from the sight tube to the pump fitting (4a). Retain the 17" (432 mm) tube in the tubing holder (H).
 15. Replace the TSL return line from the TSL pump (C) to the TSL container (A) using a 6" (152 mm) tube from the TSL pump outlet fitting (4b) to the coupler (D), followed by a 3" (76 mm) tube from the coupler to the TSL container.
 16. Remove the TSL container (A) retaining screws and remove the container. Fill it with TSL and remount the container.
 17. Fill the tubing with TSL by pressing the button (J) on the TSL pump repeatedly until all air is purged from the tubing.
 18. To return the system to service, follow the startup procedure in the H₂O PRO System manual 308–504 or 308–581.

Parts



05618A

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	054-737	TUBING; thermoplastic rubber; 3/16" (5 mm) ID	7 ft	4	113-211	STEM, barb	4
2	M71-265	CHECK VALVE	2	5	206-995	THROAT SEAL LIQUID (TSL); 1 quart (0.95 liter)	1
3	113-213	FITTING, hose, barb	4	6	191-077	TUBE, sight	1
				7	113-894	CLAMPS, tubing	8

Important Phone Numbers

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you: **1-800-367-4023 Toll Free**

Manual Change Summary

Assembly Changed	Part Status	Ref. No.	Part No.	Name
238-024 Repair Kit	ADDED	7	113-894	Clamps

Graco Standard Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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