

# HOW TO REBUILD A GLASS-TRAC LEVEL GAGE

Note: A Glass-Trac level gage may be repaired while installed on a vessel. However, it is easier to perform the following steps in a workshop on an appropriate worktable.

## DISASSEMBLY

1. Isolate gage from service, relieve internal pressure and drain.
2. Loosen end bolts first. Then, work towards center, alternating from top to bottom.
3. Remove glass, gaskets, cushions and shields from assembly. Clean chamber and cover seats of all gasket material. **NEVER REUSE GLASS, GASKETS, CUSHIONS, OR SHIELDS!**

## REASSEMBLY

1. Place gasket in the chamber seat and cushion in the cover seat. Do **NOT** lubricate gasket or cushion.
2. Locate the glass centrally in the chamber seat and cover to avoid glass-to-metal contact at the ends or sides. This is best done with the gage horizontal on a bench. If the gage must be reassembled in a vertical position, use a small strip of gasket material as a spacer at each end of the glass. This will prevent any glass-to-metal contact.
3. Clean nut and bolt threads and apply Molykote or similar molybdenum disulfide lubricant to the bolt threads and nut seating surface. If the nut cannot be **freely** spun down the length of the bolt threads, then the nut and/or bolt should be discarded. If nuts and bolts show signs of excessive corrosion, they should be discarded. For gages operating at more than 150° F, use a high temperature resistant lubricant.

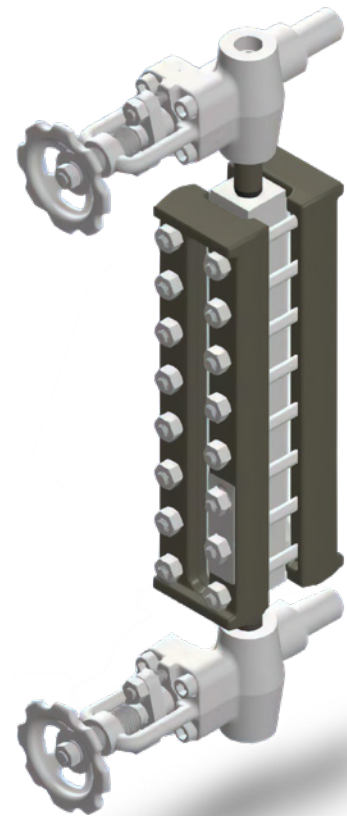
4. Clean chamber gasket surface and cover cushion seating area. Remove all debris or residual gasket material.
5. Thoroughly inspect chamber gasket surface seating area. Remove any pitting damage, steam cuts, gouges, or scars on a milling machine. The minimum dimension shown in Figure A must be maintained.

4. If the gage includes an option for Belleville spring washers, reference Figure B for proper orientation of the washer stacks.
5. Tighten nuts finger-tight, working from the middle set, alternating outward [See Figure E]. Next, tighten with a torque wrench in the same sequence in 5 ft.-lb. [6.7 N-m] increments. [See Figure D]
6. Be aware that new gaskets often become permanently compressed after a short time in service, particularly if the gage operates at an elevated temperature. This could result in slight leaks or apparent loosening of bolts. If the gage has not been provided with spring washers, isolate and relieve the gage and retorque to the original value after the gage has been in hot operation for thirty minutes.
7. For additional maintenance tips, please refer to the Glass-Trac IOM manual.

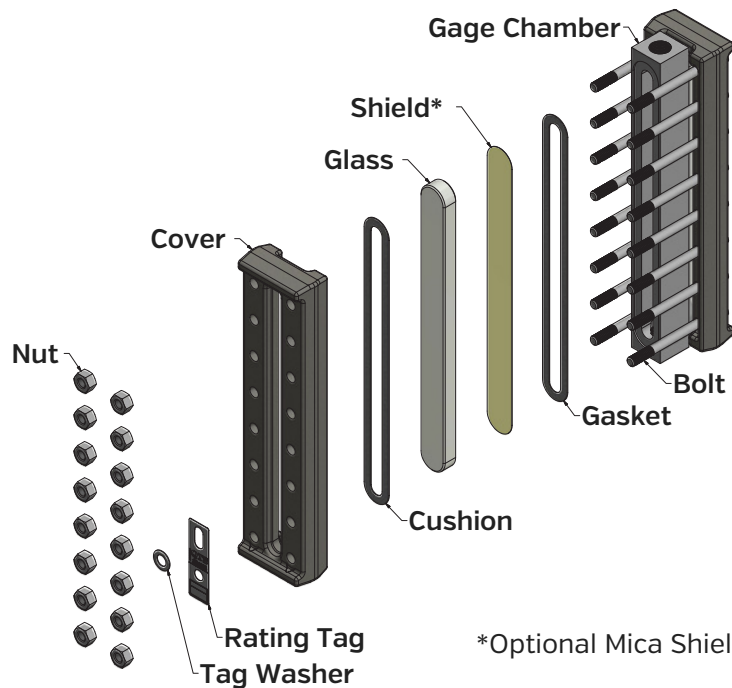


## QUESTTEC WARRANTY

Questtec will only warrant the use of Questtec replacement parts, which can be obtained from the representative or manufacturer. The use of non-authorized parts results in a gage not tested or rated by the Questtec engineering group. Catalog ratings apply only to Questtec gages containing authentic repair parts.



Learn more information about Questtec available spare part kits for easy inventory and assembly.



\*Optional Mica Shield Shown

FIGURE A  
Minimum Thickness at Chamber End

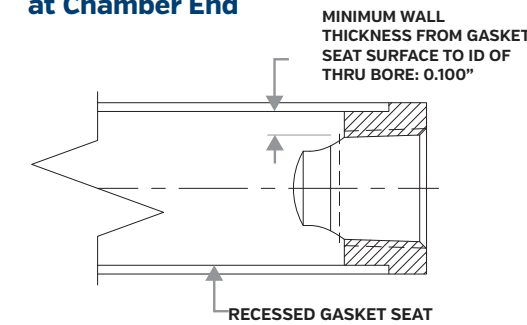


FIGURE B  
Stacking Order for Belleville Washers

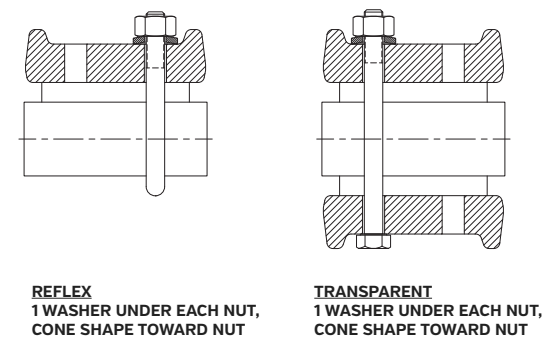


FIGURE C  
Sequence for Tightening Cover Bolts

NUMBERS INDICATE TIGHTENING SEQUENCE

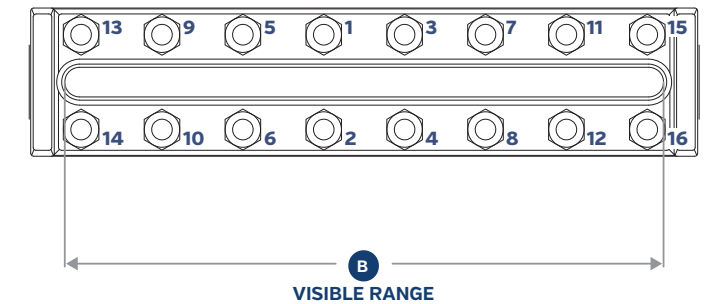
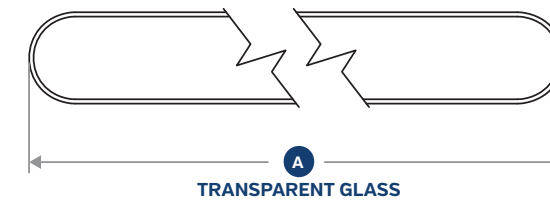


FIGURE D  
Glass Sizes & Visible Range



SIZE	A GLASS SIZE INCHES	B VISIBLE RANGE
1	4.50	3.75
2	5.50	4.75
3	6.50	5.75
4	7.50	6.75
5	8.625	7.875
6	9.875	9.125
7	11.00	10.25
8	12.625	11.875
9	13.375	12.625

FIGURE E

## Process Gage Torque Data Reflex and Transparent Gages

GAGE SERIES	TORQUE	
	FT./LBS <small>[tighten in 4-5 ft.Lb. Increments]</small>	NM
RL, TL	20	27
RM, TM	32	43
RM, TH	40	54

TORQUE VALUES ARE THE SAME FOR ALL GASKET MATERIALS

