

EMBEDDED O-RING SELF-SEALING FASTENER SYSTEM VS. LIQUID SEALING & THREADLOCKING TECHNIQUES

TWO-STEP LIQUID: ANAEROBIC TECHNIQUE

ACTION: Apply To Select Threads & Cure

POOR

RESULTS:

- Sealing limited to threaded area — does NOT provide sealing benefit to attached surfaces
- Employee training required — must be applied properly 360° to male threads, female threads may also require several drops
- Curing time required, can be up to 24 hours or more depending on temperature and substrate used. May require an activator to shorten curing time, which in itself also requires some curing time (making this a three step process). Caution is also advised about use with aqueous washing solutions
- Chemical vapor employee breathing impact & ventilation concerns
- Chemical environmental disposal issues
- Manufacturers advise caution when used in a pure oxygen and/or oxygen rich systems, and should not be used as a sealant for chlorine or other strong oxidizing materials
- According to NFFS Category P1, these types of sealants should not be used where it might come in contact with food — (could also be a problem with other materials and liquids)
- Disassembly can be problematic, and according to manufacturer instructions may require localized heat to nut or bolt to approx. 250°C making field servicing even more difficult and time consuming



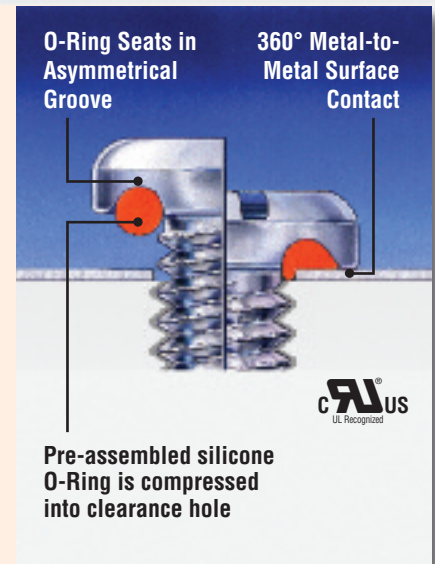
ONE-STEP EMBEDDED O-RING-IN-A-GROOVE TECHNIQUE

ACTION: Predetermined size O-Ring embedded in an asymmetrical groove. Partially compressed (20%) into countersunk-threaded area.

EXCELLENT

RESULTS:

- Seals 100% of the threaded area (360°) including the top mounting surface and bottom of fastener head. NO VOIDS.
- No chemical vapors to control or environmental disposal issues
- System allows full torquing with sealing integrity
- O-Ring pre-assembled with wide choice of elastomeric materials
- 360° metal-to-metal head-panel contact
- Seals to 20,000 psig/vacuum against internal/external gas/liquid leakage
- Multiple reusability due to minimum O-ring friction
- Temperature range -160°F to +500°F (-106°C to +260°C)
- UL Recognized, RoHS Certified
- Vibration-resistant with optional threadlocking enhancements. Choice of factory installed patch, pellet or strip (bar)



PRE-INSTALLED THREADLOCKING TECHNIQUES



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