

Seal-Lok Lite Introduction

Parker's Seal-Lok Lite fittings combine the traditional versatility of stainless steel Seal-Lok with the added feature of being adaptable to the new Flex Flange product line. Seal-Lok Lite fittings incorporate the O-ring face seal design to form a leak-tight seal. Seal-Lok Lite shaped fittings with SAE straight thread adjustable studs also feature Parker's new Robust Port Stud®, which provides improved reliability and easier assembly. Seal-Lok Lite fittings are **not** a direct interchange with standard industrial O-ring face seal fittings. Seal-Lok Lite's leak-free, compact design makes it suitable for use in applications for low pressure gases and general light duty industrial systems.

Design and Construction

The Seal-Lok Lite fitting consists of four main components: a body, a sleeve, an O-ring and a nut. The body, sleeve, and nut are manufactured from 316 stainless steel.

The Seal-Lok Lite Fitting Body: Seal-Lok Lite fittings are manufactured in the most popular stainless steel sizes and configurations. The body is manufactured with Parker's CORG (Captive O-ring Groove), which keeps the O-ring captive during installation. Straight bodies are machined from cold drawn bar stock, ensuring consistent dimensional tolerances, improved strength and better surface finish. Shaped Seal-Lok Lite fittings are manufactured from a one-piece forged construction. This forged construction provides added strength and longer service life, while eliminating the potential leak path associated with multi-component brazed fittings.

The Seal-Lok Lite Fitting Nut: Seal-Lok Lite tube nuts are machined from cold drawn bar stock. The Seal-Lok Lite tube nut is not interchangeable with the standard ORFS tube nut, as it is much shorter, more compact, and incorporates a metric thread.

The Seal-Lok Lite Parflange Sleeve: The preferred method of making a Seal-Lok Lite connection is by using the Parker Parflange machine to create the 90° flange on the tube end. The sleeve provides a contact shoulder for the nut and supports the flange and tubing. The Parflange process provides the following advantages:

- Several times faster than brazing
- No special pre- or post-flange cleaning
- Cleaner and safer than brazing
- Eliminates a potential leak path associated with braze joints

The Seal-Lok Lite fitting uses a standard Parflange sleeve and tooling. See [Equipment section](#) for the available Parflange tooling.

The Seal-Lok Lite Braze Sleeve: A second method of sleeve attachment is with the braze sleeve. The sleeve is brazed to the tube end as shown in Fig. B3. The flat, smooth surface of the braze sleeve seals against the O-ring when fully assembled. The holding power is provided by the braze. An additional method is a butt weld connector (TLW1) that is also used with a tube nut. It is designed especially for orbital welders.

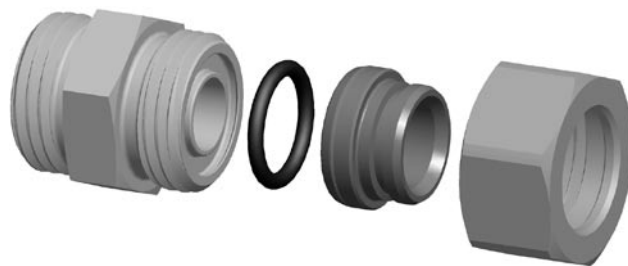


Fig. B1 – Seal-Lok Lite Fittings

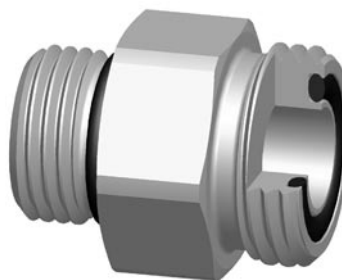


Fig. B2– Captive O-ring Groove (CORG)

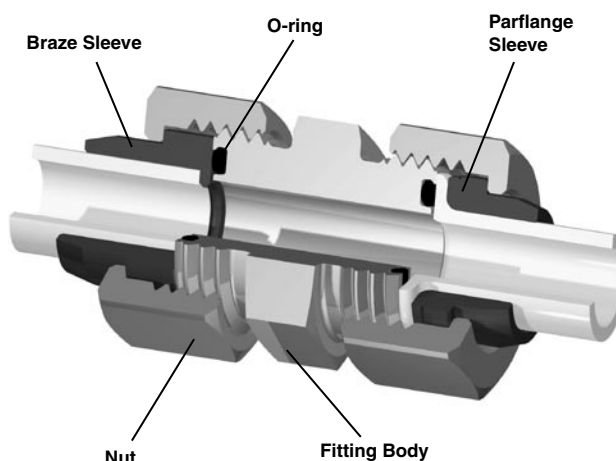


Fig. B3 – Seal-Lok Lite union cutaway with flanged and brazed assemblies