

LF Purge Pac® Assembly

Low-Friction™ technology decreases rod temperatures, enabling purged and buffered packing cases to last longer.

The Cook Compression® “AL” ring is known throughout the industry as state-of-the-art sealing technology for purging or buffering environmentally sensitive packing cases. Cook Compression LF Purge Pac assemblies build on this proven technology to take purge and buffer seal performance to the next level.

AL RING FUNCTION

The AL design side-loads seal rings in opposite directions to form a virtually leak-free chamber for the purge or buffer medium. Side loading is accomplished using a center wedge ring. A spring on the wedge ring exerts force radially (Fig. 1). The radial force is split into axial and radial components by the wedge-shaped contact surface. The axial force creates highly effective sealing action, which has made AL rings the preferred design in the industry.

However, Cook Compression engineers are continually searching for opportunities to make components more robust and cost-effective. Internal testing on the AL design revealed that the radial component exerted by the center wedge ring creates additional undesirable heat, which can reduce the service life of the ring. Further research led to the development of Low-Friction (LF) technology, which creates effective side-loading without using a wedge ring.

LF PURGE PAC ASSEMBLY

LF Purge Pac assemblies offer the high performance of previous purge and buffer seal designs, plus extended service life and simplified field maintenance.

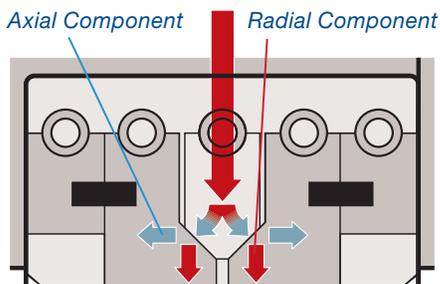


Figure 1. AL Ring

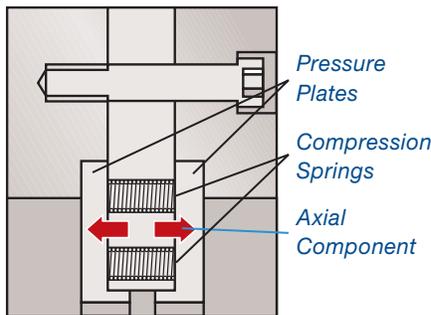


Figure 2. LF Purge Pac Assembly

ADVANTAGES

- Extends seal ring and packing case life
- Forms a virtually leak-proof chamber for purge or buffer medium
- Retrofits to most packing cases
- Accommodates standard size seal rings
- Cartridge design for trouble-free field maintenance



The assembly uses springs and pressure plates to side-load standard seal rings (Fig. 2) without the increased heat generated by a wedge-type ring.

The convenient and innovative cartridge design of the LF Purge Pac assembly simplifies installation and maintenance by eliminating the need to handle small, loose parts.

OPERATION

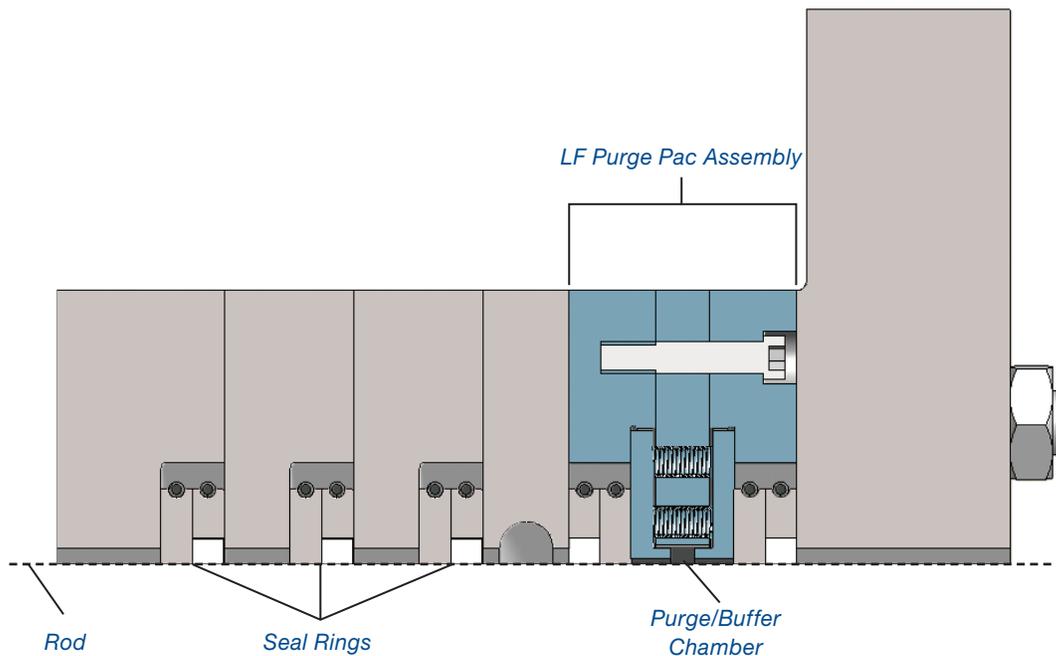
The side-loading technology eliminates the radial component of the wedge ring. Field data and internal testing on instrumented Cook test compressors demonstrate that Low-Friction technology reduces rod temperatures by 50°F (27.8°C) or more.

The plates and springs are preassembled and bolted into the LF Purge Pac assembly at the factory to create .375 in. (9.5 mm) cavities where standard seal rings will fit.

This design simplifies maintenance by eliminating the need to handle individual springs and other internal components in the field when rings are replaced.

APPLICATIONS

An LF Purge Pac assembly can be retrofitted to most packing cases with at least 1.33 in. (33.78 mm) of axial space. If space is limited, the axial dimension can be reduced to 1.19 in. (30.23 mm) by substituting thinner seal rings.



LF Purge Pac assemblies are designed to fit most packing cases