



UNITIZED SEAL-LOK™

FREUDENBERG
OIL & GAS TECHNOLOGIES

 **FREUDENBERG**
INNOVATING TOGETHER

UNITIZED SEAL-LOK™

Freudenberg Oil & Gas Technologies' patented Unitized Seal-lok™ bi-directional seal is a proven sealing solution, particularly suited for extreme HPHT applications, that helps reduce installation time and potential errors. The engineered modular design features of the Unitized™ Seal, combined with suitable materials that are compatible to a broad range of well bore and surface conditions, results in a customized and economically equivalent sealing solution that replaces your typical multicomponent seal stacks and bonded seals.

Features

- Inter-Locking, compact, one piece design
- Symmetrical bi-directional sealing
- Customizable materials fit for your application
- Available in wide range of sizes & cross-sections

Benefits

- Easy & efficient to install
 - Eliminates mis-assembling of multi-ring seal stacks
 - Bi-directional design for error-free installation
- Reduced co-efficient of friction
 - Minimizes forces required to assemble or function tools
- Maintains form, fit & function when passing over ports under pressure
- Machined design eliminates upfront tooling costs

Product Design

- Cross Section sizes range from .109" to .500"
- Minimum Inside Diameter > 1.000"
- Maximum Outside Diameter < 36.00"
- Minimum Overall Length starting at .875"
- Temperature Tested up to 600F
- Pressure Tested to 15,000 PS

Applications

Engineered as an improved sealing solution for all applications where traditional Multi Component Type Seal Stacks and Bonded Seals are currently used, including:

- HPHT applications
- Sliding Sleeves
- Liner Hanger Seal
- Replacement of seal stack
- Frac Port Tools
- Polished Bore Receptacles (PBR)
- Tie Back Receptacles (TBR)
- Safety Valves
- Gas Lift
- Completion Packers



Product Validation Testing

Engineered as an improved sealing solution for all applications where traditional Multi Component Type Seal Stacks and Bonded Seals are currently used. In-house validation testing includes:

- Tested to ISO 14310 V0
- Tested to 10,000 PSI @ 325F
- Tested to 15,000 PSI @ 325F
- Tested to 3,000 PSI @ 600F
- Test reports available on request

Materials

Elastomer-free, customizable solution allows material selection based on application requirements.

- PEEK (Un-Filled, Glass-Filled, Carbon Filled)
- Modified PTFE (Moly TFM, Carbon Filled TFM)
- Glass-Filled PTFE
- PPS

