



# Seal-All™ Diverter Insert

Divert Gas Safely Under the Most Difficult Conditions

## Pressure Control Equipment: Diverters

### THE PROBLEM



Diverter packing unit cannot properly seal around the crevices between multiple through-bore items when closed.

### THE SOLUTION



Packing unit easily seals around Seal-All Diverter Insert, ensuring full, safe gas diversion.

### APPLICATIONS & BENEFITS

The Seal-All™ Diverter Insert greatly improves drilling rig safety during completion and workover operations. Used alone, a diverter or annular BOP can fail to seal the crevices between the drill pipe and auxiliary lines in the wellbore, making it possible for explosive gases to reach the drill floor. Used with either type of equipment, the Seal-All insert eliminates that problem. It:

- Provides radical improvement in sealing capability.
- Creates a positive seal on drill pipe, auxiliary lines, cables and more.
- Works despite heave and rotation of floating rigs.
- Reduces wear and tear on auxiliary lines.
- Will not slip on drill pipe.

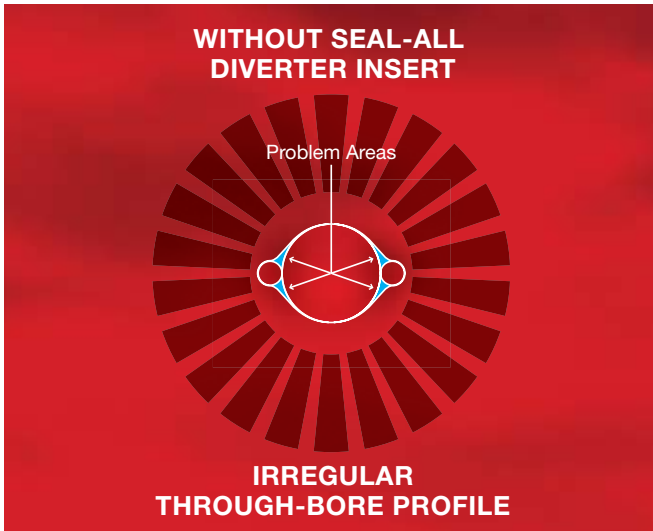
### KEY FEATURES

The Seal-All Diverter Insert ensures proper gas diversion by combining a smooth exterior with a custom-molded elastomer insert.

- **Elastomer inserts** can be designed to fit any line/pipe combination.
- **8-ft-long diverter inserts** can be stacked to match any expected heave intervals—even 40 ft or greater.
- **Low-profile hinges and bolts** provide a smooth surface for shutoff.
- **Internal molding and conical end caps** prevent slipping on drill pipe.
- **Custom-compounded elastomers** are based on Hydril's proprietary, high-performance technology.
- **Inserts have been working pressure-tested** to 500 psi and tested to 500 heave cycles without slippage or failure.

**ENGINEERING DATA**

Length (inches)	Length (mm)	Length with End Caps (inches)	Length with End Caps (mm)	Weight (lbs)	Weight (kg)
96	2,438	128	3,251	1,350	612
60	1,524	92	2,337	875	397
36	914	68	1,727	570	259



**THE SEAL-ALL ADVANTAGE**

The revolutionary Seal-All design eliminates

a dangerous situation that can occur during completions and workovers. No longer must rig personnel risk problems that could result from using too little diverter closing pressure. Nor must they risk potentially damaging auxiliary lines by applying excessive pressure.

The Seal-All provides the solution with a cylindrical unit that is split vertically and bolted flush. Its outside diameter is perfectly round and smooth, eliminating the need for the diverter packing unit to seal around the drill pipe and the auxiliary lines. The interior of the insert packer consists of an elastomer that is bonded to each side of the split shell. The elastomer insert is custom designed for the line/pipe combination being run. The Seal-All is closed and bolted around the drill pipe and the auxiliary lines. If the need arises to close the diverter due to a gas kick, the packing unit closes around the smooth outer shell of the Seal-All insert creating a positive seal for any pipe or tubular combination.

**Enhance safety and divert gas kicks more effectively with the new Seal-All Diverter Insert.**

