

## ■ SPECIAL HELIX LIP DESIGN

deVries International offers oil seals with helical ribbed seal lips for both unidirectional and bidirectional shaft rotation as an option with most of its designs.

Helical ribs on the air side of a seal lip function in the same way as the vanes of a pump, forcing liquid caught between the lip and the shaft back to the fluid side of the seal.

### UNIDIRECTIONAL

The unidirectional design is for shafts rotating in one direction only, and provides the most effective pumping action. This design is widely used in automotive applications.

NOTE: When ordering the unidirectional design, please specify whether shaft rotation is to be clock-wise (CW) or counter-clockwise (CCW) when viewing the seal from the air side. If the shaft rotates in the opposite direction from that of the ribs, the ribs will work in reverse, pumping the fluid past the seal lip to the air side of the assembly.

### BIDIRECTIONAL

The bidirectional helix (BD) provides a similar function for shafts which rotate in both directions. However, because the ribs of the seal must be configured as triangular wedges to accommodate bidirectional rotation, this design is not as effective as the unidirectional.

Many manufacturers use the bidirectional helix design in place of knife trimming the seal lip for positive sealing. deVries International seal lips are knife trimmed as a standard, thus eliminating any need for a bidirectional helix.

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