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## SpiralTrac™ Packing Version

# CUSTOMER BENEFITS

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For years SpiralTrac technology has been blazing trails for customers who use mechanical packing, allowing them to gain outstanding features and important benefits not available previously. In conjunction with high quality packing, customers are afforded a unique sealing solution for any application, while also being provided the opportunity to dramatically reduce direct and indirect costs associated with the operation of packed pumps and equipment. Some of these benefits are:

### Flush is reduced by 60% or more in many applications

Through the use of tangential injection into a centrifugal separation chamber, and the incorporation of spiral grooving, SpiralTrac P is able to **use flush far more effectively** and efficiently in rejecting particulate from the pumpage. This permits the flush rate to be metered to much lower, and known quantities. This can dramatically benefit most process and effluent cost considerations.

### Less leakage

The packing used with SpiralTrac P must be of a high quality that will enable control of leakage to a drip rate or in some cases, no leakage at all. This results in a far **cleaner** working environment, **longer** bearing service life, and **reduced** housekeeping costs.

### The packing set is less sensitive to dirt in the flush water

In most mill and mining services, the flush itself contains solids from pipe scale, silt or from settling ponds. Current approaches use a lantern ring between two sets of packing. The dirt is injected with the flush and forced under one or both sets of packing, contaminating the inner surface and grinding the shaft in the process. SpiralTrac P **collects this dirt** and **channels it** from the chamber through a **dedicated exit groove**.

### Greatly reduced sleeve wear

Dirt from flush is rejected instead of imbedding in the packing. As well, most of the dirt attempting to enter the packing set from process is captured in the spiral grooving system and rejected with the flush before it can embed under the lower packing ring. The combination has proven to dramatically **reduce sleeve wear**, and in turn make the sealing system **less sensitive** to axial and radial movement.

### Longer packing life

Previously, the lowest grade of packing was used in many applications since the service was so rugged or difficult that good packing simply tore out as quickly, as lower grades. SpiralTrac P finally enables the economic use of high-grade packing, enabling users to gain the advantages of their inherent ability to **operate longer**, with **less leakage**, and **less sleeve wear**.

### Cleaner leakage

One of the most frequent reports from the field is the comment that the leakage from the packing set is not only reduced to drip rate, but that the contaminant level within the leakage is astonishingly low. This has been especially the case in stock applications on the larger shaft installations such as refiners and hydropulpers. This again accrues **massive visual and house cleaning benefits** to the user.

### Less packing used

The standard packing set incorporates 2 packing rings, a lantern ring, then 3 packing rings above. SpiralTrac P replaces the bottom 2 packing rings and the lantern ring. This immediately achieves a **40% reduction of packing** in the cavity, and when combined with the longer service life, represents a significant savings for the user.

### Faster, easier, more effective packing maintenance

The longer service life of packing is one aspect of maintenance savings, but a greater factor may be that the lantern ring and the bottom two packing rings **no longer have to be changed out**. These have always been the most difficult and time consuming items involved in the maintenance of the sealing system.

### The sealing system is far less sensitive to flush pressure fluctuations

SpiralTrac P is installed in conjunction with a check valve; therefore, when the flush pressure drops below the cavity pressure, there is **no reverse flow**, and stock or abrasives are **not** drawn into the SpiralTrac or flush piping. This enables SpiralTrac to **easily resume** normal operation when the flush pressure returns.

### The proven solution to packing large rotating equipment

SpiralTrac P has provided a long-awaited answer to the problems associated with packing and maintenance of not only pumps and mixers, but for **large rotating equipment** where the benefits have been even more evident. This equipment has included agitators, refiners, hydropulpers, and thick stock pumps. These pieces of equipment were previously known for the difficulties associated with **controlling and maintaining low leakage** conditions.