KlickFix®

James Walker

Case Study: Pulp refiner shaft sealing

Problem

Heavy leakage leading to increased maintenance

High costs and frequent unscheduled downtime due to the unreliability in service of the compression packing, which was resulting in heavy leakage and the need for regular adjustment.

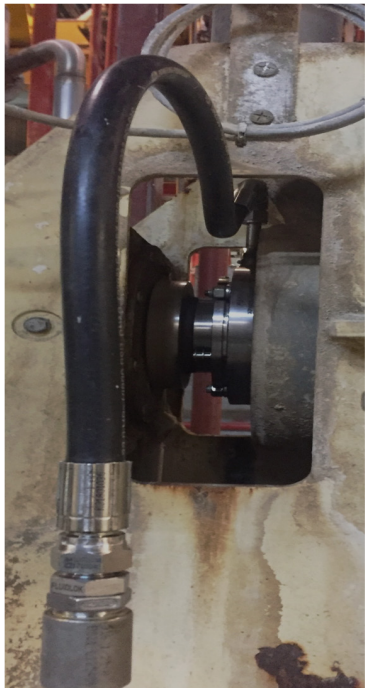
Application

Voith Twin-Flow Refiner at a tissue production plant in the UK.

- Shaft diameter: 90 mm (3½”) shaft sleeve 105 mm (4”)
- Shaft speed: 4.7 m/s (925 ft/min)
- Media: abrasive paper stock 3% to 5% concentration

Existing solution

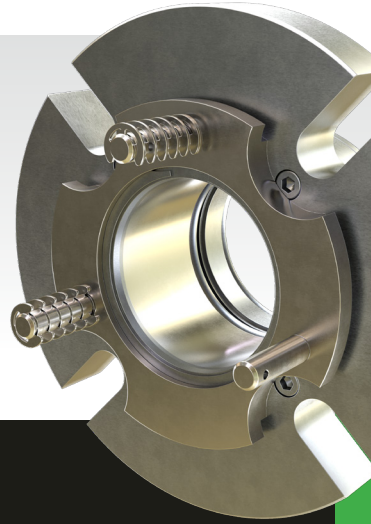
Compression packing



James Walker solution

To combat the frequent adjustment required for the existing compression packing, a KlickFix® cartridge was fitted as a replacement sealing solution. The cartridge uses a sequentially deployable sealing lip system to minimise downtime and allow for an improved maintenance schedule.

Utilising the stored lips in the cartridge is a simple process and means that pumps can be back online within a matter of seconds.



Results and benefits

After 15 months in service the second sealing lip was deployed. The first lip alone massively outperformed the existing compression packing, with no visible leakage reported. With one further sealing element in the cartridge ready to be deployed when required, the lengthy service life of the KlickFix® cartridge is already allowing the customer to realise significant benefits in maintenance planning.

No visible leakage in operation

- **Simplified maintenance planning**
- **Zero leakage in operation**
- **Reduced servicing and associated costs**