

Case Study: Paper stock pump

Problem

High costs plus health and safety issue

Due to the unreliable performance of both mechanical seals (catastrophic failure) and compression packing constant product leakage when fitted to this application the customer was experiencing heavy product loss which was not only costly but created a safety issue.

James Walker solution

To overcome the existing issues, a KlickFix® cartridge fitted using the customer shaft sleeve with clean water flush was applied. The cartridge uses a sequentially deployable sealing lip system with six lips to eliminate the risk of catastrophic failure. The cartridge uses a sequentially deployable sealing lip system with six lips to eliminate the risk of catastrophic failure. Utilising the stored lips in the cartridge is a quick and simple process with minimal downtime.



Results and benefits

The KlickFix® cartridge was installed and ran trouble free for ten months before clean flush water leakage was observed from the outboard side (not product), at which point the second sealing lip was then successfully deployed. Since the installation of KlickFix, the customer has massively reduced the health and safety risks associated with the previous sealing solutions.

Improved health and safety

Application

Gould's 3175S centrifugal pump at a paper mill in America.

- Shaft diameter: 2.50" (63.50 mm)
- Shaft sleeve diameter: 3.00" (76.20 mm)
- Shaft speed: 800 ft/min (4.06 m/sec)
- Stuffing box pressure: 15 psi (0.10 MPa)
- Flush pressure: 25 psi (0.17 MPa)
- Media: white liner board stock
- Temperature: ambient



Existing solution

Compression packing



Improved operational efficiency



Reduced costs and health and safety issues



Significant reduction in maintenance