

## Case Study: Pharmaceutical plant odour abatement pump

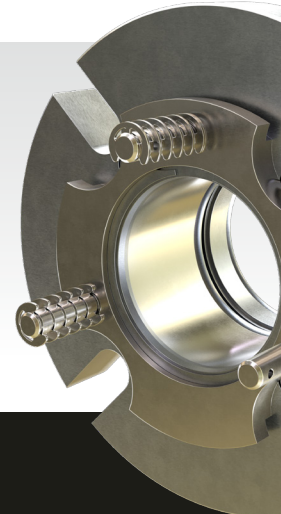
### Problem

Due to the chemicals used in the process, the customer was experiencing regular failures of the mechanical seals, with an average operational life of one week. This was resulting in excessive maintenance and downtime for either adjustment or replacement.

## Short seal life cycle

### James Walker solution

A KlickFix® cartridge was installed in an effort to prolong the seal life cycle and reduce the costs associated with regular adjustment and replacement. The KlickFix uses a sequentially deployable sealing lip system and contains three lips. As and when the stored lips need to be utilised, the process can be undertaken in a matter of minutes. Furthermore, the standard specification of a KlickFix cartridge has excellent performance levels when used in a range of chemical and abrasive media environments.



### Results and benefits

The installation of the KlickFix® cartridge has allowed the customer to maximise their cost savings through reduced adjustment, replacement and maintenance. The first sealing lip alone has been running uninterrupted for over 30 months, with the other lips ready to be deployed when required. Such is the scale of realised improvement, the customer has procured additional KlickFix units for other pumps within the facility.

## Hugely extended seal life cycle

### Application

#### UK pharmaceutical plant

- Single stage centrifugal pump
- Shaft diameter 47.62 mm (2")
- Shaft speed: 1460 rpm
- Gland pressure: <1 bar (0.1 MPa)
- Sterile water flush: 1.5 bar (0.15 MPa)
- Media: sodium hypochlorite and sodium hydroxide



### Existing solution

AES cartridge mechanical seal with silicon carbide faces, Aflas O-rings and Hastalloy metal components.



Improved operational efficiency due to less downtime



Reduced costs related to regular seal replacement



Significant reduction in maintenance requirements