

**James Walker<sup>®</sup>**

## KlickFix<sup>®</sup> – sequentially deployable sealing system for the pulp & paper industry

- *Reduced power consumption*
- *Minimal flush requirement*
- *Totally predictable in operation*
- *Significantly extended sealing life*
- *Environmentally beneficial alternative to mechanical seals & compression packing*



High Performance Sealing Technology



## What is KlickFix®?

**KlickFix® is a new alternative to mechanical seals and compression packings.**

**KlickFix is a cartridge sealing system containing multiple in-built lips that can be sequentially deployed in order to provide extended sealing life and predictable operational performance.**

**A simple, highly cost-effective solution that is easy to fit, can be refurbished on-site in a matter of minutes and has the potential to outperform significantly traditional mechanical seals and compression packings.**

**KlickFix aids working towards the ISO 14001 environmental management standard by virtually eliminating leakage, reducing power consumption and minimising or eliminating flush water requirements.**



## How does KlickFix® work?

- At the heart of KlickFix® is a unique system — with International PCT Patent — for deploying individual lips (typically eight in total) in sequence.
- The low friction PTFE lips run on a hard stainless steel shaft sleeve. This means that power consumption can be much less than with traditional mechanical seals and, in many instances, flush requirement is also greatly reduced. (Non-abrasive applications may not require flush at all).

## How easy is KlickFix® to use?

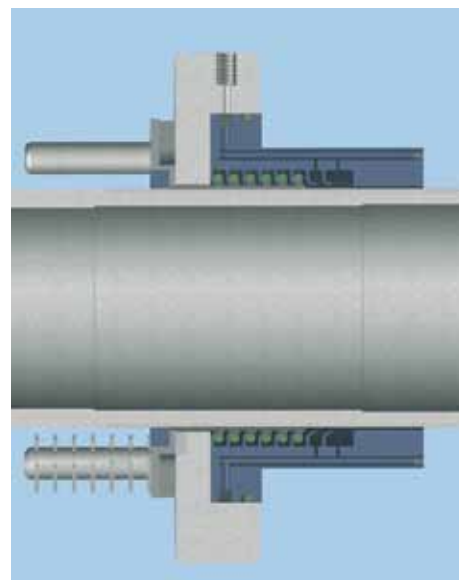
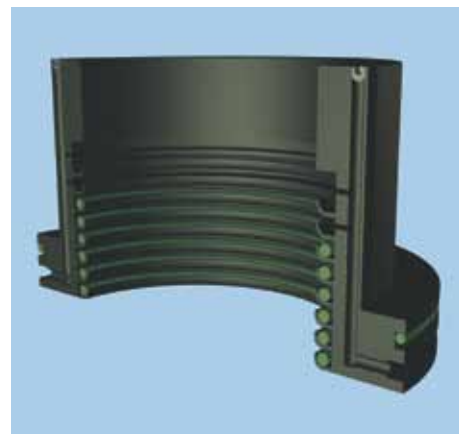
- As the lip in use gradually wears, any leakage is stemmed in a matter of seconds by deploying the next stored lip. A simple 'click' to 'fix' operation with no specialist technical knowledge required. With a traditional mechanical seal the task of changing sealing elements or faces can cost many hours of expensive down time and skilled maintenance input.
- When eventually all the lips are exhausted (and this could be a period many times longer than the service intervals required by mechanical seals or compression packings), the unit can be swiftly refurbished on-site using a simple Refurbishing Kit. These kits contain the small number of required parts and are readily available from your local James Walker company.

## Is KlickFix® robust?

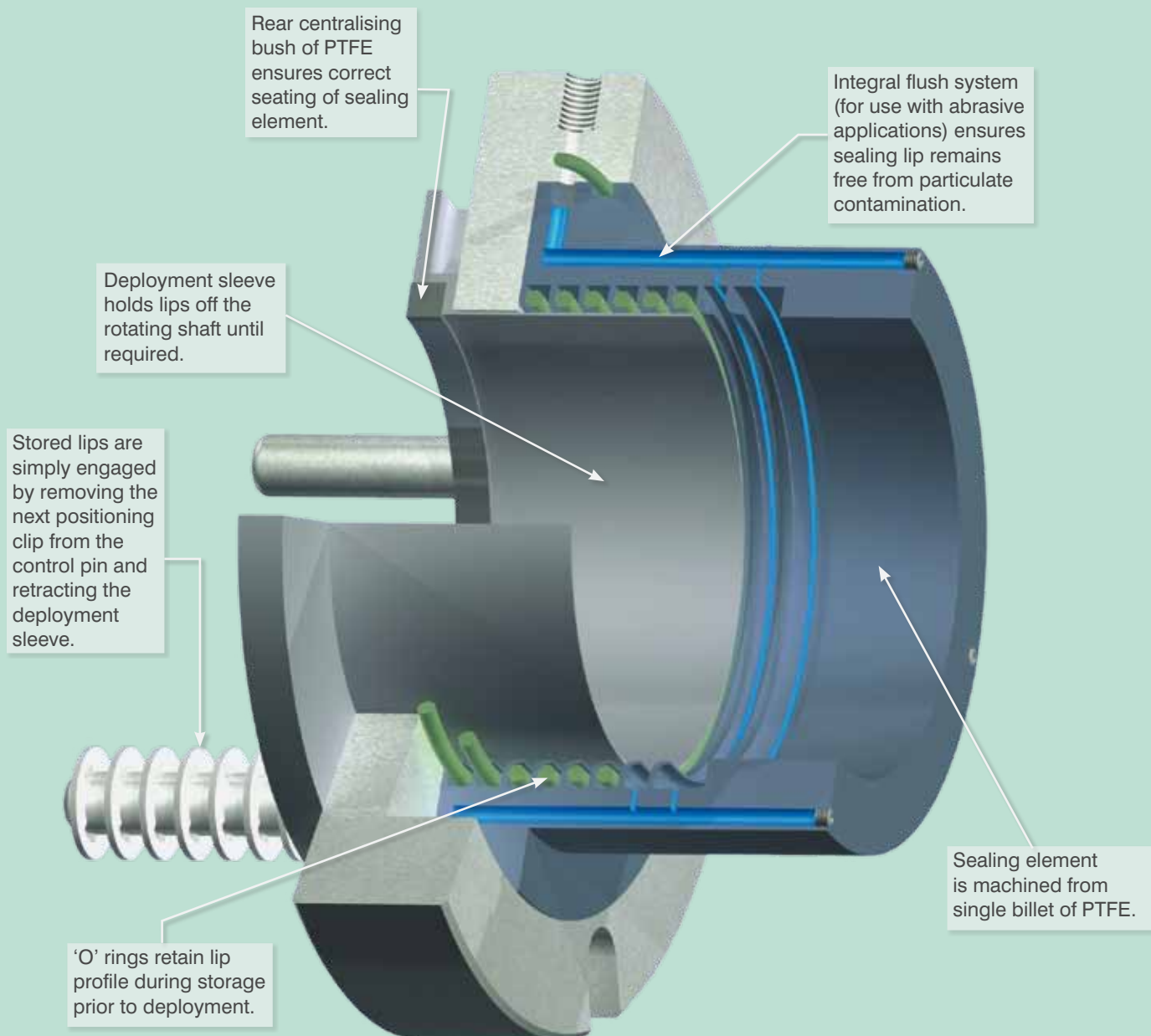
- A KlickFix® cartridge unit has no moving parts or brittle sealing faces to disturb. It can tolerate intermittent process faults and dry running conditions that would normally cause catastrophic failure within many traditional mechanical seals.
- KlickFix cartridges are manufactured from materials that provide an excellent resistance to chemical attack, enabling reliable sealing to be achieved with a very broad range of fluid media.

## The top 10 benefits of installing KlickFix®

- KlickFix® consumes less power
- KlickFix requires minimal flush (or no flush in non-abrasive applications)
- KlickFix is predictable in operation
- KlickFix is robust with no moving parts
- KlickFix offers significantly extended sealing life
- KlickFix stored lips can be deployed in seconds
- KlickFix can be easily refurbished on-site
- KlickFix integral sleeve eliminates shaft wear
- KlickFix requires no gland adjustment
- KlickFix minimises environmental impact



## KlickFix® sequentially deployable sealing system



## KlickFix Refurbishing Kit

Sealing element with built-in machined lips and fitted profile-retaining 'O' rings.

Reusable lip former (supplied with first refurbishing kit) for 'energising' lips prior to refitting the unit onto the pump shaft sleeve.



New rear centralising bush.

Replacement positioning clips for deployment sleeve control pin.

## Where can KlickFix® be used?

**KlickFix® sequentially deployable sealing cartridges are currently available for standard centrifugal and positive displacement pumps, handling liquids and solutions of virtually any type and viscosity.**

**Shaft sizes currently available:**  
25mm to 114mm / 1" to 4.5"

**Maximum chamber pressure:**  
0.70MPa (100psi)

**Maximum shaft speed:**  
8m/s (1575ft/min)

**Maximum run-out:**  
0.10mm / 0.004" TIR (total indicated run-out). For applications with larger run-out movement, contact James Walker.

Our range of products is constantly being extended to meet customer demand with special configurations being designed and manufactured to order.



## About James Walker

James Walker is a dynamic global manufacturing organisation with world-leading expertise in high performance fluid sealing and bolting technology.

We work constantly at the forefront of fluid seal development and materials science to provide industries worldwide with the top-quality products that are vital to the safe and efficient operation of plant and machinery.

James Walker carries a global reputation for solving fluid sealing problems. Backed by testing and manufacturing to world-class standards, we bring practical expertise and leading edge technology to the custom-design of optimum sealing solutions that match our customers' exact operational requirements.

We have more than 50 production, engineering, distribution and customer support facilities worldwide — supported by extensive IT networks, e-commerce systems and logistics operations — supplying a vast range of specialised products and services to customers in virtually every industrial sector in over 100 countries across the globe

Our research, development and manufacturing activities, together with our extensive engineering and materials science knowledge base, help to keep global industry running safely and efficiently, with the minimum of maintenance and downtime, year-in and year-out.



## KlickFix® — reducing costs, downtime and environmental impact in the pulp & paper industry

Pulp and paper slurry, being both highly abrasive and often chemically corrosive, is one of the most demanding media for pumping and sealing systems to handle.

Traditional mechanical seals can consume significant levels of power through mechanical friction and require large volumes of fresh water flush, whilst some compression packings cause rapid shaft wear in such an abrasive environment. With either option, when these sealing methods fail, replacement, refurbishment and clean up incurs a great deal of unscheduled downtime and associated cost.

KlickFix® is a more environmentally conscious alternative supporting the ISO 14001 environmental management standard by virtually eliminating leakage, reducing power consumption and minimising or eliminating flush water requirements.

The KlickFix sequentially deployable sealing system has been on extended trial as a direct replacement for a variety of mechanical seal options and the results for the example summarised below tell their own story;

Pump shaft diameter	Seal type	Flush	Media	Life
2.25"	Tungsten carbide faced mechanical seal	17 gallons UK (77 litres) per hour	3-5% paper stock	9-11 months
2.25"	KlickFix® cartridge with 8 sequentially deployable sealing lips	<1.7 gallons UK (7.7 litres) per hour	3-5% paper stock	Over 2.5 years (more than 22,000hrs) with 2 lips still to be deployed

**James Walker**

Environmental emissions control



How James Walker can help your business

A guide to effective sealing systems from the James Walker Group



## James Walker worldwide support and distribution

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## General information

**Health warning:** If PTFE or fluoroelastomer (eg, FKM, FFKM, FEPM) products are heated to elevated temperatures, fumes will be produced which may give unpleasant effects, if inhaled. Whilst some fumes are emitted below 250°C from fluoroelastomers or below 300°C from PTFE, the effect at these temperatures is negligible. Care should be taken to avoid contaminating tobacco with particles of PTFE or fluoroelastomer, or with PTFE dispersion, which may remain on hands or clothing. Material Safety Data Sheets (MSDS) are available on request.

Information in this publication and otherwise supplied to users is based on our general experience and is given in good faith, but because of factors which are outside our knowledge and control and affect the use of products, no warranty is given or is to be implied with respect to such information. Unless governed by type approval or contract, specifications are subject to change without notice. Statements of operating limits quoted in this publication are not an indication that these values can be applied simultaneously.

To ensure you are working with the very latest product specifications, please consult the relevant section of the James Walker website: [www.jameswalker.biz/klickfix](http://www.jameswalker.biz/klickfix).

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