James Walker®

Walkersele® OSJ-2

High Performance Sealing Technology

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Walkersele® OSJ is James Walker's patented and highly successful technique for the On-Site Joining of split-type Walkersele lip seals. Its many user benefits include:

- **High performance – installed units provide the sealing performance of high-integrity endless Walkerseles.**
- **Worldwide proven – on marine propulsion systems, gearboxes, power stations, sugar refineries, etc . . .**
- **Cost effective maintenance – the performance and integrity of an endless-type seal is achieved:**
  - **without major plant strip-down**
  - **without expensive on-site vulcanising.**

In consultation with longterm OSJ customers, we are constantly improving the installation kit to make it easier and more efficient to use under arduous maintenance conditions and at larger diameters.

The improvements include:

- **new 'user-friendly' clamping band with finer tension control**
- **redesigned jig to provide a more positive location of the seal joint**
- **improved temperature indicator**
- **availability in larger diameters.**

What is Walkersele®?

Walkersele is our family of radial lip seals for rotating shafts and rotary plant such as gearboxes, rolling mills, marine propulsion systems, process mixers and kilns.

Industry relies on Walkersele to:

- Protect bearings
- Keep lubricants contaminant-free
- Prevent oil and grease spoiling finished products.

The main aim of a Walkersele is to retain lubricant within a bearing assembly. When manufactured with a secondary lip, or installed in pairs, they also prevent the ingress of liquid or solid contaminants.

Endless versus split-type seals
Numerous improvements in Walkersele materials and design have been introduced over the past 50 years.

One of these was the split-type seal, which proved invaluable where glands and shafts had to be dismantled to fit a moulded endless seal. This development drastically cut the costs of plant downtime and maintenance man-hours.

But normal split seals are not penalty-free, as sealing performance can be affected when shaft dynamics are severe. Abutting the ends is still a viable option if a small degree of leakage is acceptable.

Completing the circle with OSJ®
On-site vulcanising was, for many years, the only answer to split-seal assemblies where leakage was unacceptable. But, this process could prove expensive, as it needed a high level of skill and elaborate jigs. So we developed Walkersele OSJ.

Since the introduction of Walkersele OSJ in 1991, rotary lip seal replacement has come 'full circle' to form a full circle again.

After a few hours' hands-on training, a maintenance fitter is able to produce a securely bonded joint that provides a split Walkersele with the integrity of a fully moulded endless seal.

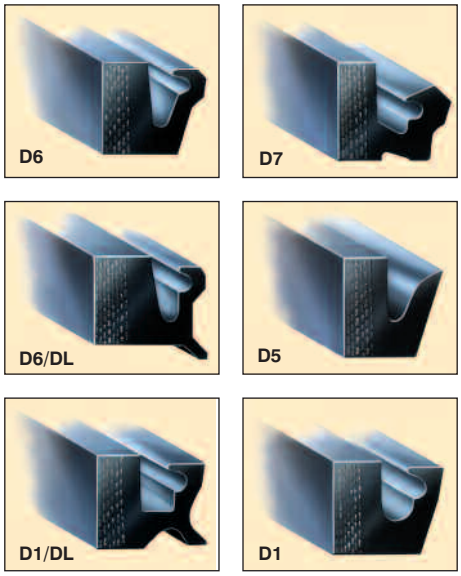
The fitting procedure, summarised in the diagrams shown here, is straightforward and covered in detail in the comprehensive instructions provided with every OSJ kit.

Fitting procedure

Stage 1: Apply epoxy adhesive to joint faces of Walkersele® OSJ.

Seal availability

Profiles:
Walkersele OSJ-2 is supplied in all Walkersele designs that incorporate seal backs moulded from rubberised fabric. The relevant profiles are:



Materials:
Walkersele OSJ-2 is supplied in three elastomer grades – nitrile (NBR), hydrogenated nitrile (HNBR) or fluorocarbon (FKM).

Temperature limit:
This is dependent on the seal material. It should also be noted that the bonding technique imposes an upper limit of 150°C on the seal.

Sizes:
Seals are readily supplied for shaft sizes from 60mm to 2000mm. When considering diameters outside this range, please contact our Applications Engineering Team *(see below)* for advice.

Performance envelope:
Please discuss exact details of media compatibility, pressure, temperature and surface speed with our Applications Engineering Team *(see below)* before placing an order, if you need further guidance.

Training

Successful application of the Walkersele OSJ technique relies on careful adherence to all stages of the joining process – as laid down in the detailed fitting instructions supplied with each kit.

We recommend that first-time users attend one of our hands-on training sessions that can be carried out at your premises or one of our sites. For details, please contact our Technical Services Team or your James Walker distributor.

Technical advice

Expert technical advice is freely available on the application of fluid sealing technology and the generation of *best value* solutions to fluid sealing problems.

Our **Applications Engineering Team** will advise you on the suitability and application of Walkersele OSJ-2. Please contact:

Tel +44 (0)1270 536145
Fax +44 (0)1270 536100
Email technical.crewe@jameswalker.biz

Stage 2: Align joint in moulded jig.

Stage 3: Clamp in position with steel band.

Stage 4: Cure epoxy adhesive with hot air gun.

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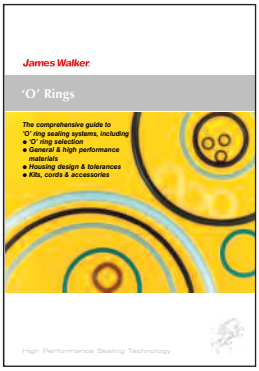
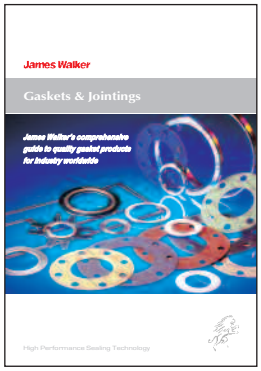
Please ask your local James Walker company for your copy of these free guides.
Many of these guides can also be downloaded in pdf form from our website www.jameswalker.biz.

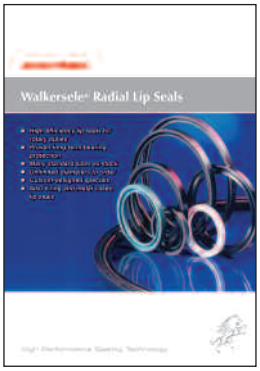


'O' Rings

Compression Packings

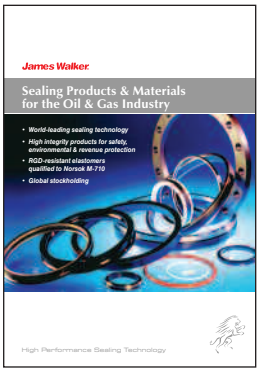


Gaskets & Jointings

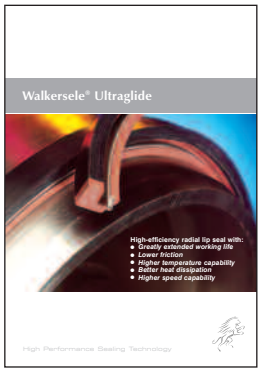


Walkersele® Radial Lip Seals

Hydraulic sealing products



Oil & Gas sector



Walkersele® Ultraglide

High Performace Elastomers

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. 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.

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BP4175 0109/2m
ML-013559