James Walker, Mechanicalaan 14-16, Wilrijk, Antwerp, 2610, Belgium
Tel:+32 3 820 7900 Fax:+32 3 828 5484 Email: technical.unilion@jameswalker.biz

Safety Data Sheets (SDS) are available on request

Health warning: If PTFE products are heated to elevated temperatures, fumes will be produced which may give unpleasant effects, if inhaled. Whilst some fumes are emitted 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 PTFE dispersion, which may remain on hands or clothing.

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

JW4667 01/2017/PDF

James Walker®

Fitting guide for Unilion® — spring-energised PTFE/plastic lip seals

Please read these instructions before starting to fit the seal

Fitting techniques should be considered at the design stage of any equipment using spring-energised PTFE lip seals.

They cannot be stretched or squeezed into position as easily as elastomeric seals. Take care not to damage or permanently distort the PTFE/plastic element during installation.

1

For Health & Safety reasons, shut down the fluid handling system before installing your new seal. Please wear all required PPE to ensure a safe working environment.

2

Check the seal and seal housing. Ensure that the seal is suitable for the operating parameters of the equipment, and that the seal and housing are the correct sizes.

3

Remove old seal, and thoroughly clean the seal housing and lead-on/lead-in surfaces where seal must pass during installation.

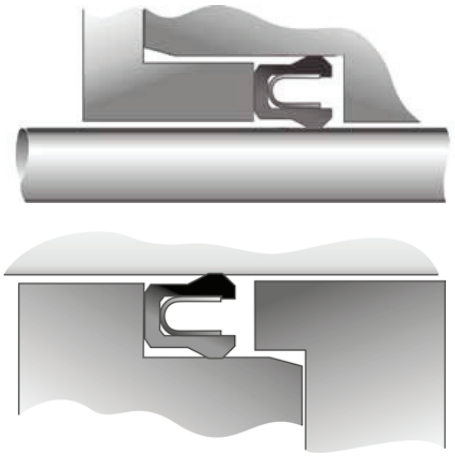
Always install a Unilion® with its open face towards the pressure media to be retained

James Walker®

Fitting guide for Unilion® — spring-energised PTFE/plastic lip seals

4 Split-type housings

For high-integrity sealing and cryogenic applications, we always recommend the use of a split housing, as it virtually eliminates the need to distort the Unilion during installation.



Expose the seal housing cavity by removing the gland follower or retaining plate. Insert the seal fully into the exposed cavity, with the seal's open face towards the system pressure.

Ensure the seal is evenly seated around the entire circumference. Replace the gland follower or retaining plate, and carefully reassemble the equipment.

A 20° to 30° lead-on/lead-in chamfer is required to ensure that the seal is not damaged when passing the cylinder/bore entrance, or piston head/shaft end.

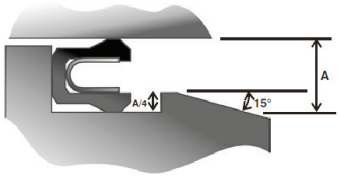
5 Piston with partially enclosed housing

Use this method only when the inside diameter of the seal is at least 25 times its nominal radial section.

If you require advice on fitting a Unilion® seal in this housing configuration, please contact the James Walker Technical Support Team. E:technical.unilion@jameswalker.biz

James Walker®

Fitting guide for Unilion® — spring-energised PTFE/plastic lip seals



This operation requires a 15° lead-on chamfer to the housing groove from the pressure side of the system. A locking lip of A/4 is needed to ensure the seal seats securely (where A is the nominal radial section of the seal).

To install the seal, gently feed it up the chamfer, with the seal's open face towards the system pressure. Then swiftly press it over the locking lip and into the housing groove, thus minimising any distortion.

6 Partially enclosed cylinder housing

Use this method only when the inside diameter of the seal is at least 10 times its nominal radial section.

If you require advice on fitting a Unilion® seal in this housing configuration, please contact the James Walker Technical Support Team. E:technical.unilion@jameswalker.biz

This operation requires a 15° lead-in chamfer to the housing groove from the pressure side of the system. A locking lip of A/4 is needed to ensure the seal seats securely (where A is the nominal radial section of the seal).

To install the seal, distort it slightly into an ellipse and insert it into the bore, with the seal's open face towards the system pressure. When the back of one quadrant of the seal is located firmly in the housing, feed the remainder of the seal down the 15° lead-in and into the housing.