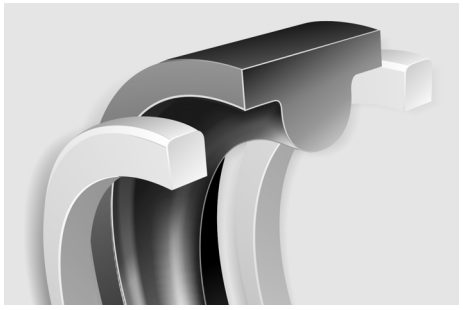
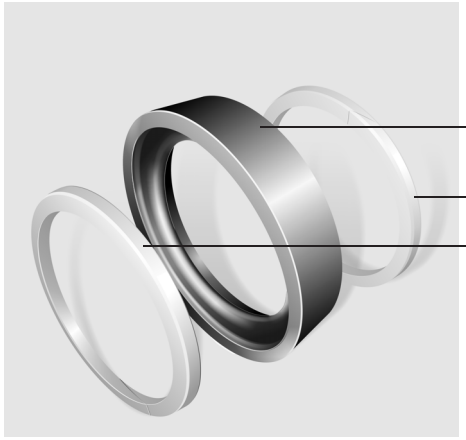
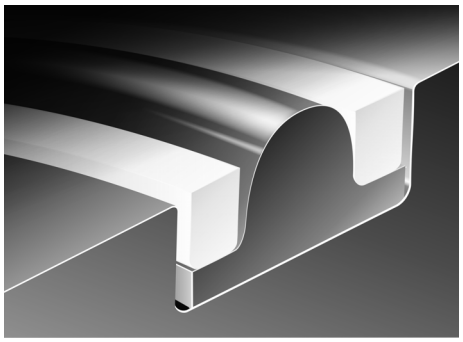
James Walker

Fitting Guide for Teesele® — double-acting dynamic seal for high pressure equipment

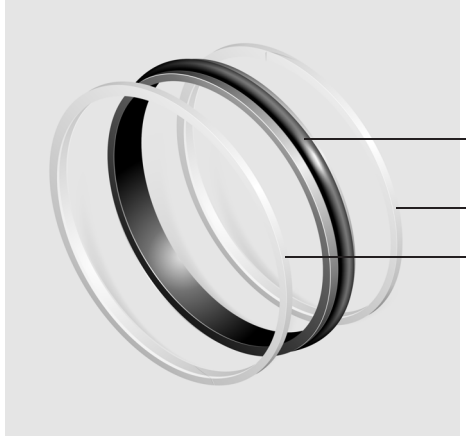


Teesele® internal seal





Teesele® external seal



Please read these instructions fully before starting to fit the seal.

1 Check that all components of the seal are present.

Each set comprises:

- 1 off elastomeric sealing element (either for internal seal or external seal).
- 2 off scarf-split plastic anti-extrusion rings (either for internal seal or external seal).

GB **Check that you have all the seal components**

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2

Ensure that the Teesele® is the correct size and type for the housing.

Inspect all seal components to ensure they are in good condition and have not been damaged during storage.

GB **Check seal type, size & condition**

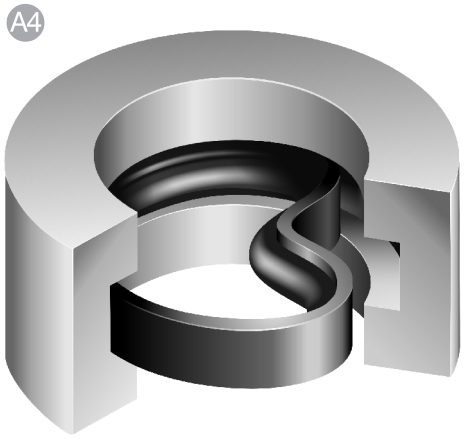
3

Clean the housing and inspect for sharp edges, burrs or any other areas that could damage the seal. Repair housing where necessary.

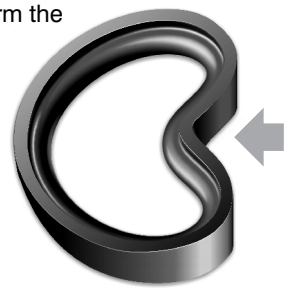
GB **Clean the housing. Repair where necessary**

A: Internal seal applications

A4



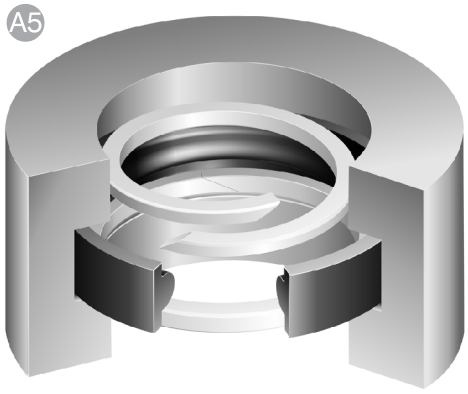
Insert the elastomeric sealing element into the housing groove in the bore. If necessary, deform the element into a crescent shape and position it into the groove.



Ensure that sealing element is seated correctly with no twists, creases or kinks.

GB **Fit elastomeric element into housing. Ensure it is seated correctly**

A5



Position one plastic anti-extrusion ring on each side of the elastomeric element's raised sealing face. Do this by closing the plastic ring slightly at its scarf split then opening it on to one of the flat surfaces of the element. The rings are identical and can be used on either side of the elastomeric element.

After Installation check that the anti-extrusion rings are seated correctly.

Do not overstress the rings during this operation.

GB **Position one plastic ring on each flat side of sealing element**

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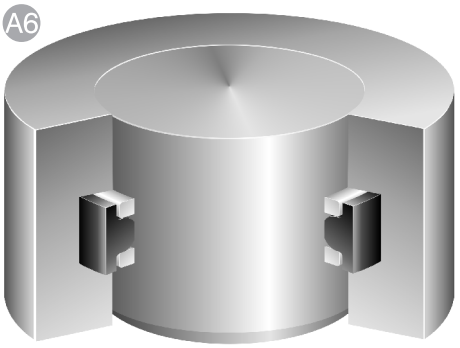
A6



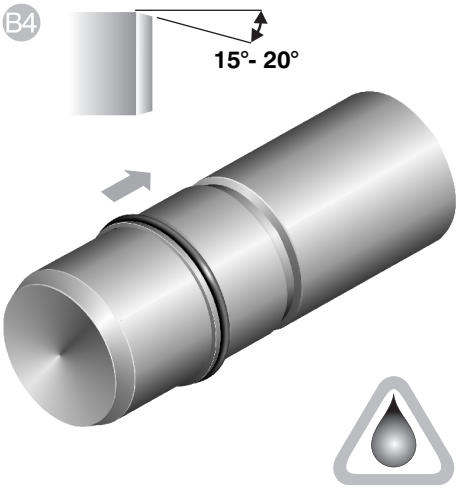
Ensure that rod end has a 15°-20° lead-in. Align the rod carefully, and insert it until it just touches the seal, then press the rod firmly through the seal bore. The Teesele® is now installed.

A thin film of system compatible lubricant may be used (if in doubt, please contact James Walker or the equipment manufacturer).

GB **Align rod and firmly press through seal bore.**

B: External seal applications

B4



Ensure there is a 15°- 20° lead-on at the end of the rod.

Stretch the elastomeric sealing element over the rod, using the 15°-20° lead-on to aid stretching. It is not advisable to stretch the seal ID to a size greater than the cylinder bore. Push the elastomeric element along the rod until it locates in the housing groove correctly.

Note: the elastomer may need time to seat in the groove, depending upon the environmental temperature.

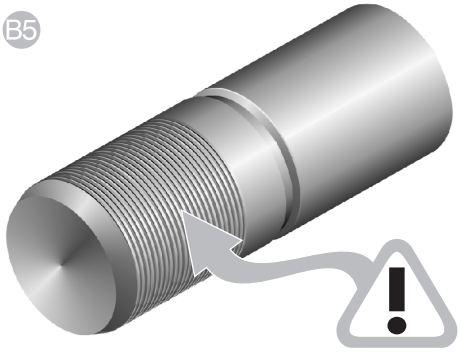
A thin film of system compatible lubricant may be used (if in doubt, please contact James Walker or the equipment manufacturer).

GB **Stretch elastomeric element on to rod and push to housing groove**

If elastomeric sealing element cannot be stretched sufficiently, then warm it for about 30 minutes at 100°C in a conventional oven. Once warmed, follow the fitting guide instructions shown above. Follow local Health & Safety regulations for handling of hot items.

Allow elastomeric element to return to ambient temperature, then check that it is seated properly.

B5



When the elastomeric sealing element must pass over a threaded or abrasive surface, cover the rod surface to protect the seal. When passing over grooves, these should be filled to allow smooth transit of seal components.

GB **Cover threaded/abrasive areas before pushing sealing element over them**

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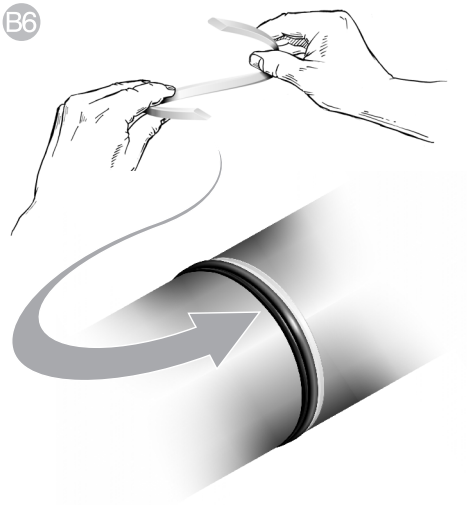
B6



Open up each plastic anti-extrusion ring at its scarf split to form a helix. This will allow the ring to slip over the rod without over-stressing the ring material.

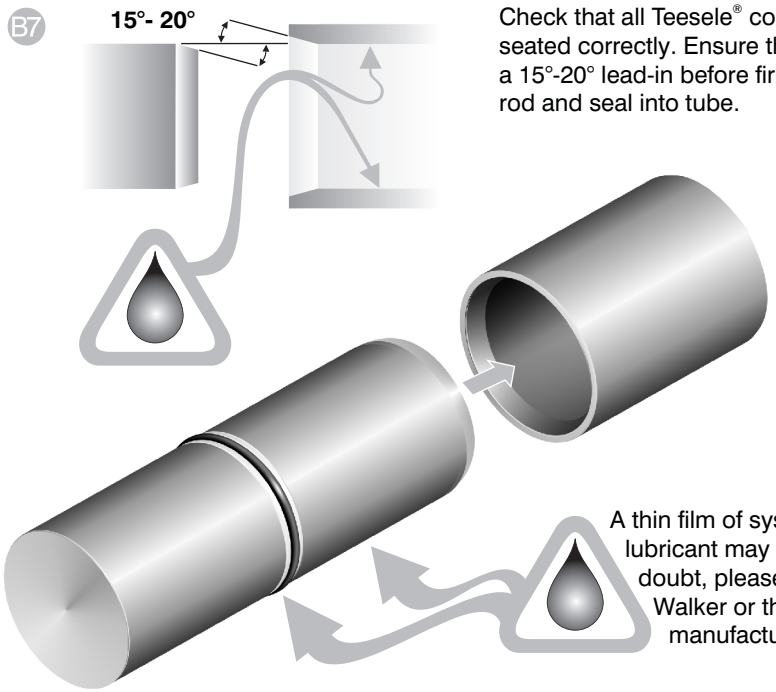
Position one ring on each flat side of elastomeric element. The rings are identical and can be used on either side of the element.

After Installation check that the anti-extrusion rings are seated correctly.

ⓘ **Do not overstress the rings during this operation.**

GB **Position one plastic ring on each flat side of sealing element**

B7



Check that all Teesele® components are seated correctly. Ensure that the bore has a 15°-20° lead-in before firmly pressing the rod and seal into tube.

A thin film of system compatible lubricant may be used (if in doubt, please contact James Walker or the equipment manufacturer).

GB **Ensure seal is seated correctly before inserting into tube**

Material Safety Data Sheets are available on request

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