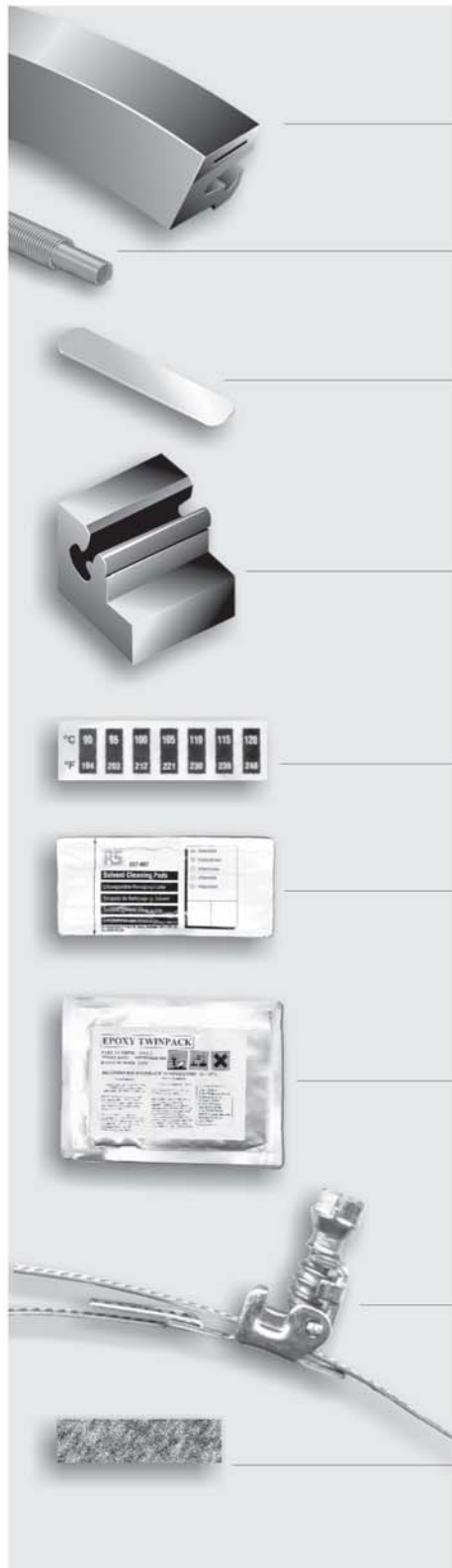


Joining Instructions for Walkersele® OSJ-2



Kit contents

- Split-type Walkersele®
- Spring (where applicable)
- Nylon insert
- Silicone rubber jig for aligning the seal lips (remove protective insert before use)
- Temperature indicating strip
- Impregnated cleaning cloth
- Silver-coloured sachet containing adhesive resin and hardener
- Clamping band and attached screw housing
- Adhesive-backed abrasive paper

- Brush (to apply adhesive)

- Nut driver

- Abrasive stick



i Check kit contents. **Then carefully read these instructions in their entirety before starting.**

Verify that the adhesive is still within its expiry date and, if not, discard the sachet and apply to your seal supplier for a replacement. (The adhesive has ample shelf life when the kit is supplied.)

Other equipment required/recommended.

Hot air gun — required (eg, as used for paint stripping).
Electronic temperature probe (recommended).

Joining Instructions for Walkersele® OSJ-2

i Before preparing the ends of the seal and applying adhesive, assemble the seal, nylon insert, silicone alignment jig and clamping band in accordance with the instructions below to

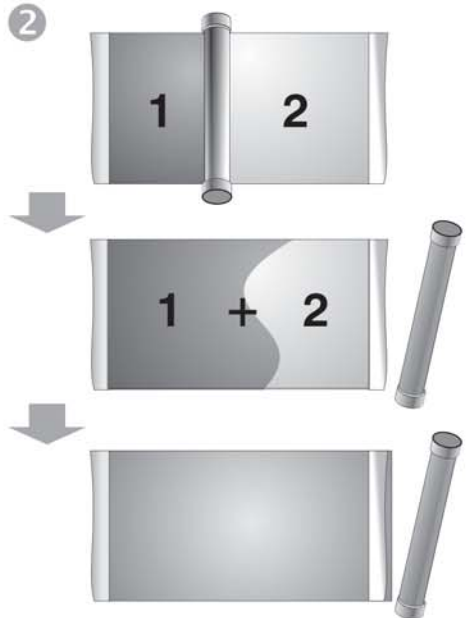
become familiar with the procedure. Study the screw housing of the clamping band. Note how the band passes freely through the housing while the screw is held at right angles to the band. But when

the screw is laid flat it engages the band, which will then move only in response to the turning of the screw. Turning the screw clockwise will tighten the band and anti-clockwise will loosen the band.



The seal will be loose on the shaft before fitting. This is intentional. **Do not trim the ends of the seal.**

- GB** Do not trim the ends of the seal
- D** Enden der Dichtung nicht abschneiden
- F** Ne pas recouper les extrémités du joint
- NL** De uiteinden van de afdichting niet afknippen
- I** Non rifinire le estremità della guarnizione
- NOR** Ikke beskjør endene på pakningen



A. Cut open the silver-coloured outer sachet at one end, taking care not to puncture the inner twin-pack.
B. Remove the twin-pack and remove the centre clip.
C. Mix the two components by persistent hand kneading of the pack until they are uniformly blended.
D. Then place the pack on a smooth surface and use the centre clip to scrape the two components from the sides and corners of the pack into the middle.
E. Now knead the contents together again by hand for three minutes.

- GB** Mix adhesive
- D** Klebstoff mischen
- F** Mélanger l'adhésif
- NL** Meng het kleefmiddel
- I** Mescolare l'adesivo
- NOR** Bland limet

If in doubt — mix again, as **insufficient mixing will result in soft spots of uncured material** in the final product.



= 3 mins

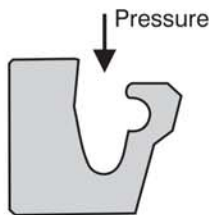


Bend back (ie, outwards) the ends of the seal to counter any tendency to curl in.

- GB** Bend out the ends of the seal
- D** Enden der Dichtung nach aussen biegen
- F** Redresser les extrémités du joint
- NL** Buig de uiteinden van de afdichting naar buiten
- I** Piegare verso l'esterno le estremità della guarnizione
- NOR** Bøy ut endene på pakningen

Joining Instructions for Walkersele® OSJ-2

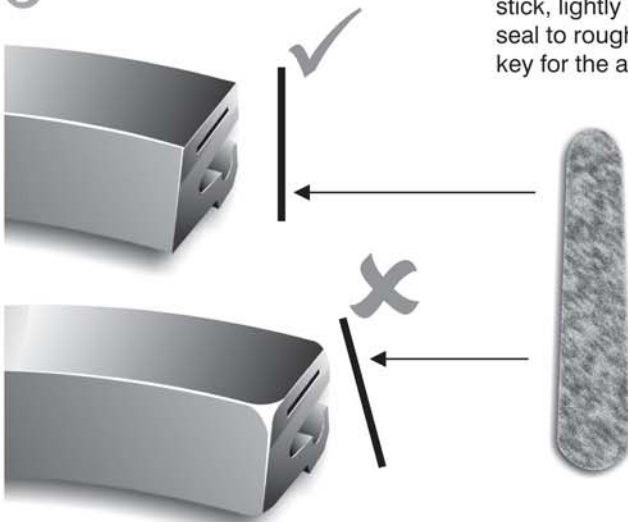
4



Place the seal around the shaft ensuring that the **lip is facing in the direction of the media to be sealed.**

- ⒸⒺ Place seal around the shaft
- Ⓓ Dichtung um die Welle legen
- Ⓕ Positionner le joint autour de l'axe
- Ⓖ Plaats de afdichting rond de schacht
- Ⓘ Posizionare la guarnizione intorno all'albero
- ⓃⓇ Plasser pakningen rundt akselen

5

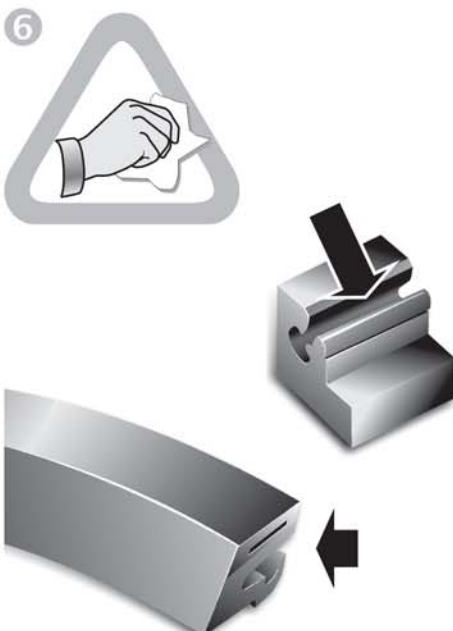


Using the coarse side of the abrasive stick, lightly abrade the cut faces of the seal to roughen them to produce a good key for the adhesive.

Care must be taken to avoid over-abrading the faces as this could result in rounding the edges or tearing the seal lip.

- ⒸⒺ Roughen the cut ends
- Ⓓ Die Stirnflächen der Fügestelle aufrauen
- Ⓕ Gratter les extrémités
- Ⓖ Ruw de afgesneden uiteinden op
- Ⓘ Irruvidire le estremità tagliate
- ⓃⓇ Grovpuuss kutteflatene

6



Wipe the cut faces with the impregnated cleaning cloth to remove dirt and grease, etc. Ensure no residual fibres from the cloth remain on the roughened surfaces. Wipe the silicone rubber aligning jig, paying particular attention to the groove where the seal profile will be seated.



The success of this joining method is dependent upon the strength of the bond. Therefore it is of paramount importance to ensure that the seal surfaces are absolutely clean.

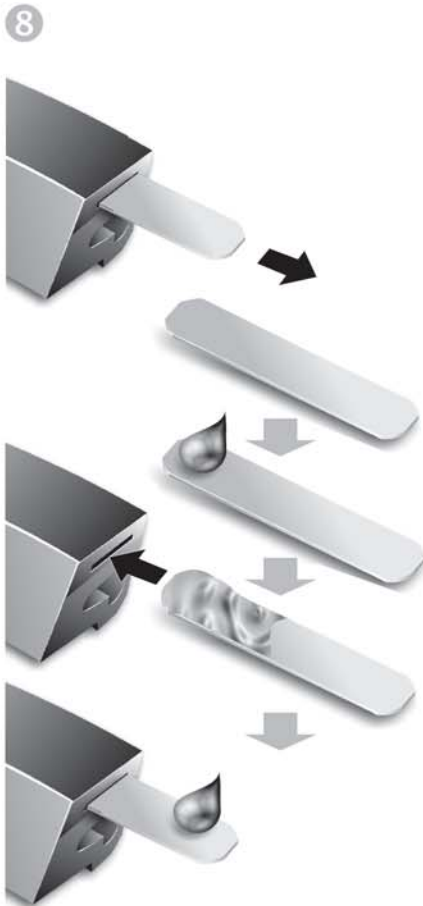
- ⒸⒺ Clean cut faces and jig groove
- Ⓓ Stirnflächen und Fügevorrichtung reinigen
- Ⓕ Nettoyer la surface coupée et la rainure du guide de montage
- Ⓖ Maak de afgesneden oppervlakken en de malgroef schoon
- Ⓘ Pulire le superfici tagliate e lavorare con maschere la scanalatura
- ⓃⓇ Rengjør kutteflatene og jiggsporet

Joining Instructions for Walkersele® OSJ-2



Push the silicone rubber jig onto one end of the seal and slide it approximately 10mm beyond the cut face of the seal, leaving the seal face fully exposed.

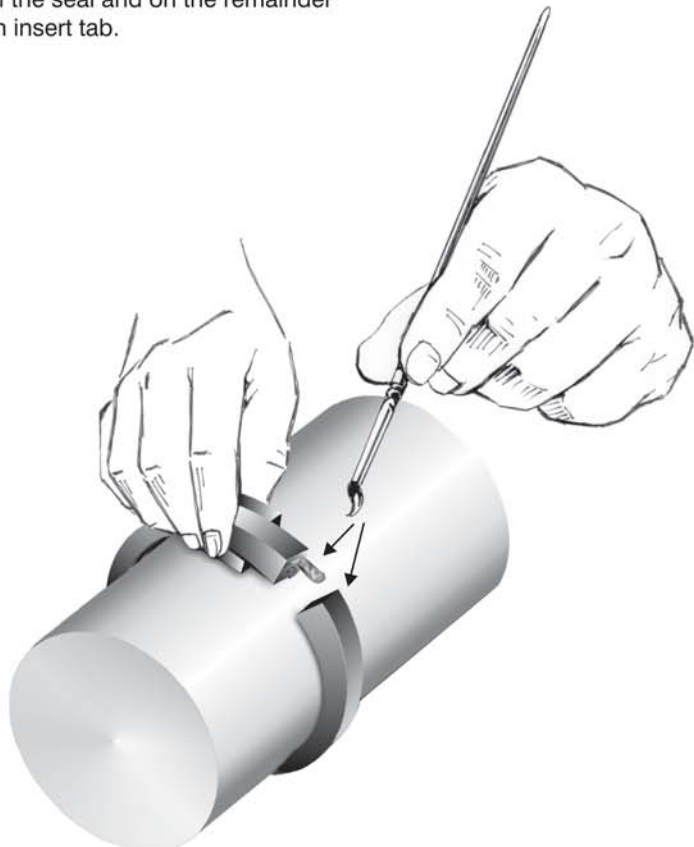
- Ⓒ Slide jig onto seal
- Ⓓ Dichtung auf die Fügevorrichtung schieben
- Ⓕ Poser le guide sur le joint
- Ⓖ Schuif de mal op de afdichting
- Ⓘ Far scorrere la maschera nella guarnizione
- Ⓝ Skyv jiggen inn på pakningen



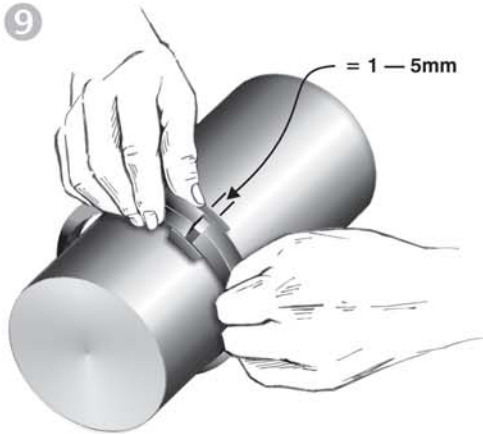
Brush a THIN layer of adhesive on both sides of one end of the nylon insert tab and reinsert this tab end in one end of the seal.

Brush a THIN layer of adhesive on both cut faces of the seal and on the remainder of the nylon insert tab.

- Ⓒ Brush on thin layer of adhesive
- Ⓓ Dünne Schicht Klebstoff auftragen
- Ⓕ Appliquer une mince couche d'adhésif
- Ⓖ Breng een dun laagje kleefmiddel aan
- Ⓘ Spazzolare un sottile strato di adesivo
- Ⓝ Pensle på et tynt lag lim

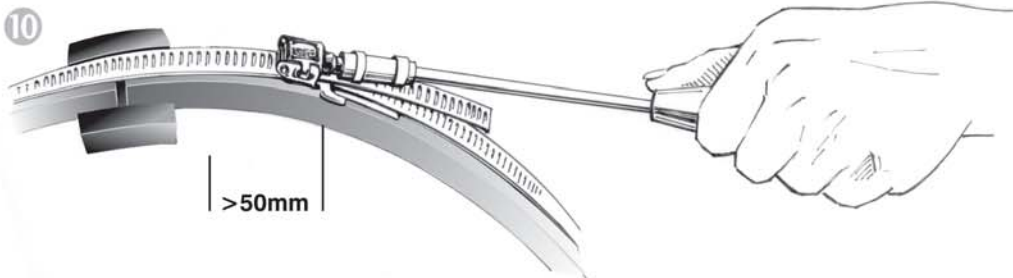


Joining Instructions for Walkersele® OSJ-2



Push the ends of the seal towards each other, engaging the nylon tab, but leaving a gap of approximately 1mm to 5mm between the cut faces of the seal. Slide silicone rubber jig to bridge the gap.

- Ⓒ Push ends together but leave gap
- Ⓓ Die Enden zusammenschieben, aber einen Spalt lassen
- Ⓕ Rapprocher les extrémités en laissant un espace
- Ⓖ Duw de uiteinden naar elkaar toe, maar laat wat tussenruimte over
- Ⓘ Riunire le estremità lasciando uno spazio
- Ⓝ Skyv endene sammen, men la det være et lite mellomrom



Place the clamping band around the seal. Ensure that it is centrally positioned around the back of the seal and that all the seal is in the same plane around the shaft. On larger diameter seals, guides are fitted to the band to hold it in place. The screw housing should be positioned near to but not on the silicone rubber jig (i.e. minimum of 100mm from the join on large diameter seals and 50mm on

smaller seals.) Tighten the band, using the nut driver, to bring the seal ends together, using sufficient pressure to ensure full contact. Now apply full pressure by rotating the nut-driver an extra half turn. **Do not over tighten.** Minor adjustments can be made to the seal ends to ensure they come together evenly, as the band is tightened.

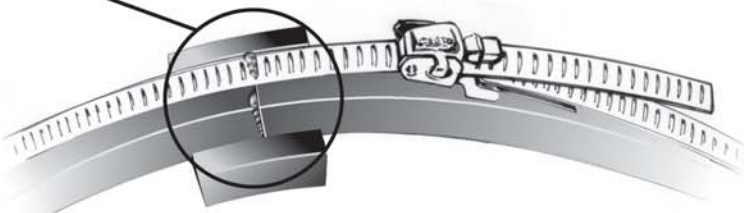
- Ⓒ Clamp
- Ⓓ Anziehen
- Ⓕ Brider
- Ⓖ Vastklemmen
- Ⓘ Serrare
- Ⓝ Sett i klemme

i Do not over tighten.

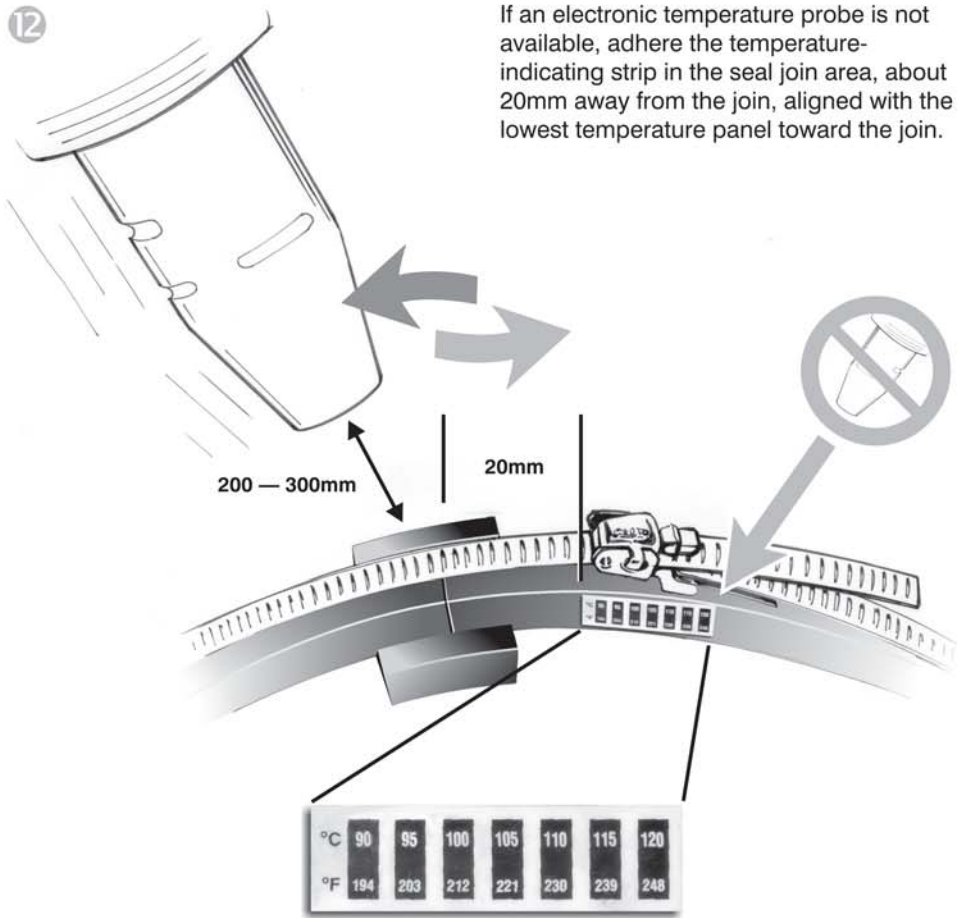


Wipe any excess adhesive away from join area.

- Ⓒ Clean
- Ⓓ Überschüssigen Kleber entfernen
- Ⓕ Nettoyer
- Ⓖ Schoonmaken
- Ⓘ Pulire
- Ⓝ Rengjør



Joining Instructions for Walkersele® OSJ-2



- Ⓒ Heat join, avoid indicator strip
- Ⓓ Fügestelle erhitzen, Erwärmen des Indikatorstreifens vermeiden
- Ⓕ Chauffer le raccord en évitant l'indicateur
- Ⓖ Verwarm de verbinding, vermijd de indicatorstrook
- Ⓘ Riscaldare la giunzione evitando la guarnizione dell'indicatore
- Ⓝ Varmeskjøt, unngå indikatorstrimelen

i Do not allow the hot air flow to dwell on the temperature-indicating strip for more than a few seconds, or it will be destroyed.

In order to avoid burning or scorching, the hot air gun should be held 200mm to 300mm away from the joint and waved over the joint area rather than pointed at one single point.

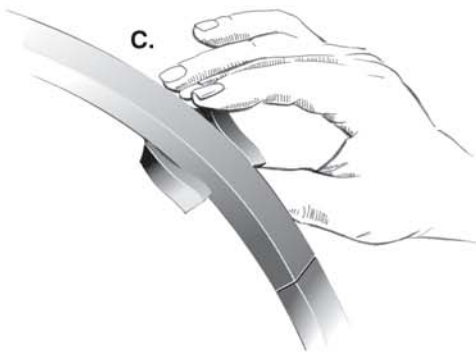
Using a hot air gun, warm the seal surfaces in the joint area to between 100°C and 115°C. This temperature should be maintained as follows:

	=	≤ 16mm		20mins		30mins
		≤ 19mm		25mins		40mins
		≤ 22mm		30mins		45mins
		> 22mm		35mins		55mins

Note the extended heating time in severe conditions. It is essential that at no time should the surface temperature at any point exceed 120°C. A temperature of 115°C at the joint can be achieved by activating the 90°C panel continuously (mainly green, fleetingly brown) and the 100°C panel intermittently (mainly blue, fleetingly green).

Joining Instructions for Walkersele® OSJ-2

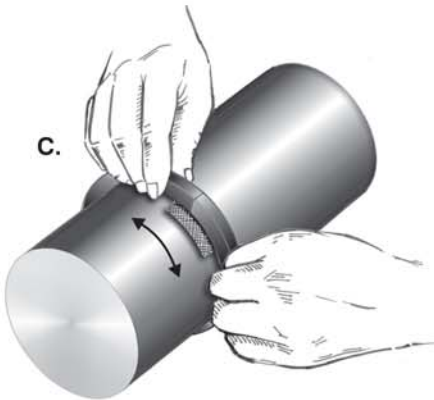
13



A. Allow seal to cool naturally, normally 20 to 30 minutes depending on seal size and environmental temperature.
B. Undo the clamp screw and remove the band from the seal. In some cases the band may stick to the seal due to excess adhesive from the join area. If necessary, gently twist the band to separate it from the seal rather than peeling it away.
C. Gently slide the silicone jig away from the join area, and then remove it from the seal.

- Ⓒ Allow to cool, remove band, remove jig
- Ⓓ Abkühlen lassen, Spannband abnehmen, Fügevorrichtung entfernen
- Ⓕ Laisser refroidir, enlever le collier, enlever le guide de montage
- Ⓖ Af laten koelen, eerst de band, dan de mal verwijderen
- Ⓘ Lasciar raffreddare, rimuovere il nastro e rimuovere la maschera
- Ⓝ La enheten avkjøles, fjern båndet, fjern jiggen

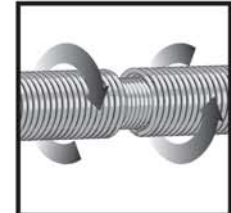
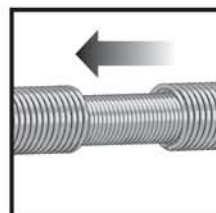
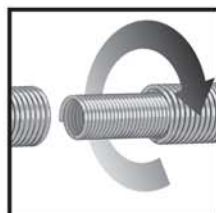
14



A. Using the fine side of the abrasive stick, remove any hardened excess adhesive from the seal back and sides.
B. Ensure that the spring groove is free from any excess adhesive. Peel away any excess adhesive from the groove that would cause the spring to bulge and not seat correctly. A thin layer of adhesive will not cause a problem.
C. Adhere the strip of abrasive paper to the shaft, keeping it away from any point on the shaft where seals may operate. Carefully slide the seal over the abrasive paper and gently oscillate the seal to remove any hardened excess adhesive from the lip join area, ensuring at all times that no damage is caused to the lip. Remove abrasive paper from shaft and any adhesive residues.

- Ⓒ Remove excess adhesive
- Ⓓ Überschüssigen Klebstoff entfernen
- Ⓕ Enlever l'excès de colle
- Ⓖ Verwijder het teveel aan kleefmiddel
- Ⓘ Rimuovere l'adesivo in eccesso
- Ⓝ Fjern overflødig lim

15



Take the seal spring, unscrew (Note: left-handed thread) at join and place around shaft. Twist the spring several times as if unscrewing, then place ends together and rejoin the spring by screwing the ends together in the opposite direction to the

twists. If spring insert does not stay in place during this operation, apply slight pressure to outer coil of spring in insert area using pincers to lock in place.

- Ⓒ Join spring around shaft
- Ⓓ Feder um die Welle legen und verschrauben
- Ⓕ Raccorder le ressort autour de l'axe
- Ⓖ Bevestig de veer rond de schacht
- Ⓘ Unire la molla intorno all'albero
- Ⓝ Monter fjæren rundt akselen

Joining Instructions for Walkersele® OSJ-2

16



Seal housings and shafts should be thoroughly cleaned and seals should be wiped over with a clean cloth to remove any dust, which may have been collected in storage.

- GB Clean Housing
- D Gehäuse und Welle reinigen
- F Nettoyer le logement du joint
- NL Maak de kast schoon
- I Pulire l'alloggiamento
- NOR Rengjør huset

17



Fit spring into its recess in seal lip and apply a smear of mineral oil or grease to the seal lip and shaft immediately prior to fitting (the bearing lubricant is usually most convenient for this purpose).



In the case of ethylene propylene rubber seals, mineral based oils or greases must not be used. A silicone based grease is recommended.

- GB Fit spring and lubricate
- D Feder montieren und schmieren
- F Poser le ressort et le lubrifier
- NL Installeer en smeer de veer
- I Inserire la molla e il lubrificare
- NOR Sett på fjæren og smør

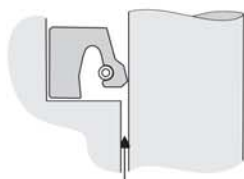
18



Fit seal into housing by inserting the joined area first.

- GB Insert seal join first
- D Fügeverbindung zuerst einsetzen
- F Commencer par insérer le raccord du joint
- NL De afdichtingverbinding als eerste insteken
- I Inserire per prima l'unione della guarnizione
- NOR Sett inn pakningskjøten først

19



Press the seal(s) firmly against the bottom of the housing.

- GB Press seal into housing
- D Dichtung in das Gehäuse drücken
- F Pousser le joint dans son logement
- NL Druk de afdichting in de kast
- I Spingere la guarnizione in posizione
- NOR Press pakningen inn i huset

20



Apply retaining plate and bolt up until it is hard against the seal housing face. This compresses the seal axially by the designated amount and holds it firmly in position.

- GB Tighten retaining plate bolts
- D Rückhalteplatte verschrauben
- F Serrer les boulons de fixation
- NL Draai de borgmoeren vast
- I Serrare i bulloni di sostegno
- NOR Stram festeplateskruene

General Notes: It is advisable to provide a generous lead-in at the ends of shafts, roll necks, abutment rings, etc, over which the seal has to pass, to avoid damage to seal

lips. If seal housings are detachable and in halves, we recommend that, where possible, the half-housings should be bolted before installing the seal. The use of thin metal

retaining plates should be avoided wherever possible, as they tend to distort when bolting up and consequently do not give evenly distributed compression to the seals.

Material Safety Data Sheets are available on request

www.jameswalker.biz

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