

MECH SEAL 8 WAY 2.5-4.2MM GLAND INSTALLATION GUIDE

Description

This kit is used to install 8 cables of diameters between 2.5 and 4.2mm into a mechanical seal gland using aramid yarns to restrain into place.

Tools & Additional Items Required

Tools:

- Crosshead screwdriver**
- Sharp Cutting Tool**

Crosshead screwdriver

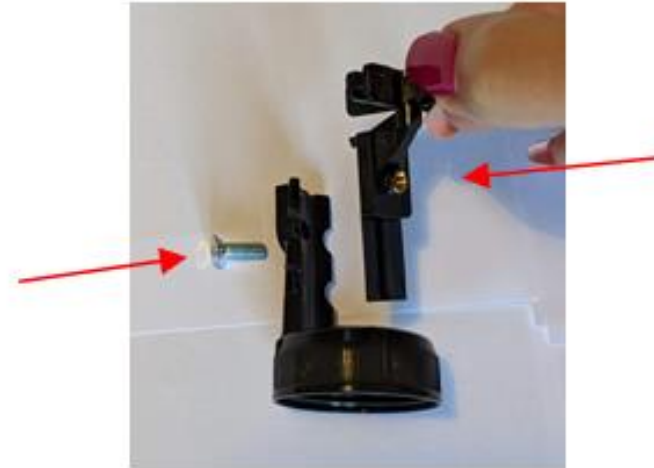
Sharp Cutting Tool

Component Parts (pictures not to scale)



MECH SEAL 8 WAY 2.5-4.2MM GLAND INSTALLATION GUIDE

Step 1



- Align the csm bracket with the aramid retention post and screw.

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Step 2



- Using a cross head screwdriver fully tighten the screw.

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Step 3



- Ensure all faces of parts are tightly flush.

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Step 4



- Align the gland body with the spreader.

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Step 5



- Insert the spreader into the gland body.
- Align the tab of the gland body with the cut out on the spreader.

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Step 6



- Ensure the parts are inserted correctly.

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Step 7



- Align csm bracket with gland body assembly.

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Step 8



- Screw the csm bracket into position until the faces mate.
- Ensure the spreader stays locked into position.

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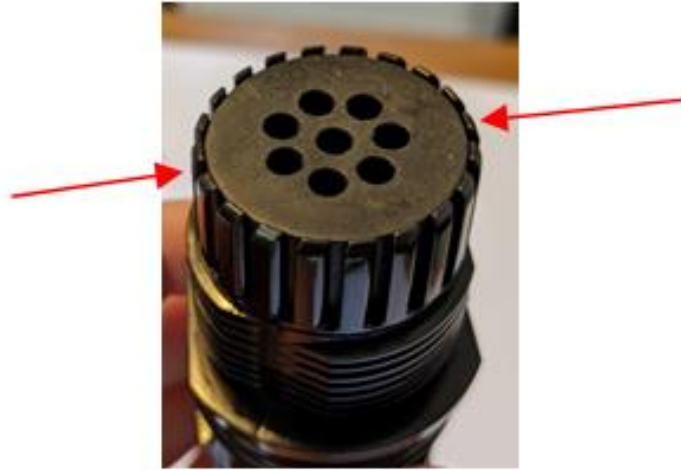
Step 9



- Align the 8-way seal with the gland body assembly.

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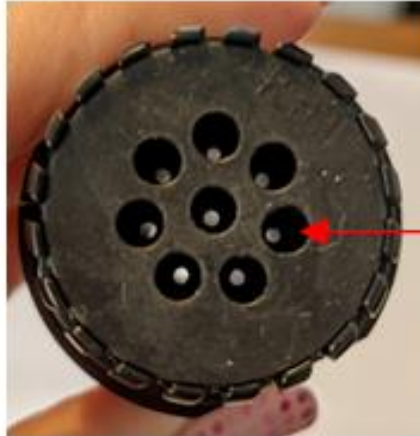
Step 10



- Ensure the 8-way seal is fully inserted and in the correct orientation.

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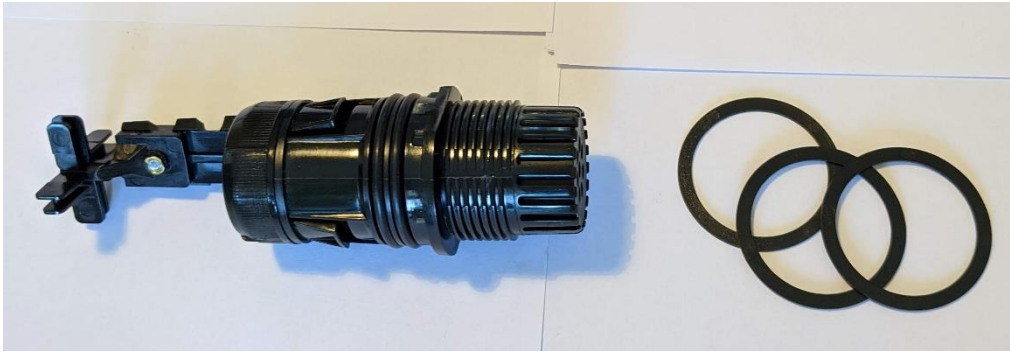
Step 11



- Hold the gland body up to a light surface or a light and ensure the 8-way seal holes align with the 8-way spreader holes as shown.
- If they don't remove the seal and replace again carefully.

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Step 12



- Select the correct number of spacers for the cable you are installing.
- See table from next step.

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Step 13

Cable Range	No of Spacers
2.5 – 3.4mm	1
3.5 – 4.2mm	2
Fully populated with blanks & 1 central cable	1

- Select the correct number of spacers.

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Step 14



- Align and insert the selected number of spacers onto the gland body.

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Step 15



- Align the seal spacer to the gland body assembly.

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Step 16



- Place the seal spacer as shown.
- **Note:** it is loose, so hold it in place whilst you prepare the nut.

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Step 17



- Open grease sachet.

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Step 18



- Dispense a small amount of grease onto your fingertip.

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Step 19



- Apply the grease to the inside thread of the nut.
- Spread the grease 360 degrees around the thread.

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Step 20



- Place the nut over the top of the seal spacer and turn loosely onto the gland body assembly.
- If the nut is tight, take a tiny bit of grease from the sachet and smooth it on the inside thread before loosely assembling.

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Step 21



- Do not fully tighten nut to gland body assembly.
- Ensure the seal is not compressed at this stage.

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Step 22

**INSTALL BLANKING
PART NOW**



- Before installing any cables ensure the blanking port part is installed first.

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Step 23



- Align blanking part with gland body assembly.

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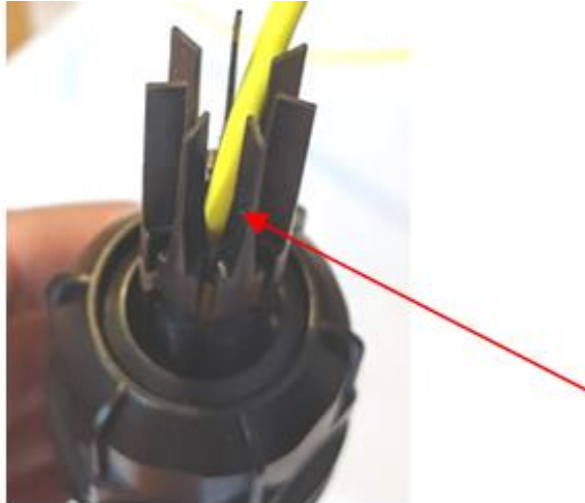
Step 24



- Ensure the blanking part stays pushed into position.
- The surfaces should touch.

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Step 25



- The first cable position must always be the central position.
- Insert your first cable using the central position.
- You must populate the central position otherwise the gland is not sealed.

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Step 26



- Turn the gland body assembly around and ensure the cable pushed through the central spreader position.
- If it misses the central position pull back and gently try again.

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Step 27



- Pull through approximately 2.2m (CMJ, MMJ) or 3.2m (LMJ).
- Strip back cable in line with current practices.
- Ensure you leave a minimum of 100mm of aramid yarns for cable retention.

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1 CABLE GO TO STEP 29

2 CABLES GO TO STEP 33

**IF ADDING MORE THAN 1 CABLE GO TO ADDITIONAL CABLES
SECTION FOR PREP**

- IF installing odd number of cables (1 cable per aramid retention post) GO TO STEP 29.
- IF installing even number of cables (2 cables per aramid retention post) GO TO STEP 33.
- IF ADDING MORE THAN 1 CABLE GO TO ADDING ADDITIONAL CABLES SECTION FOR PREP.

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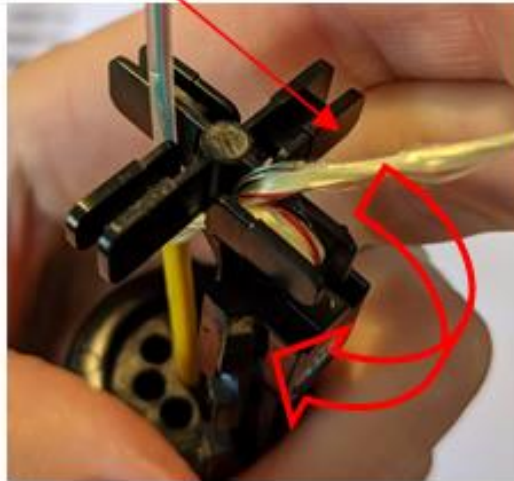
Step 29



- Starting with the back post first.
- Gather aramid yarns together and pull against left side of post and clockwise over the post.

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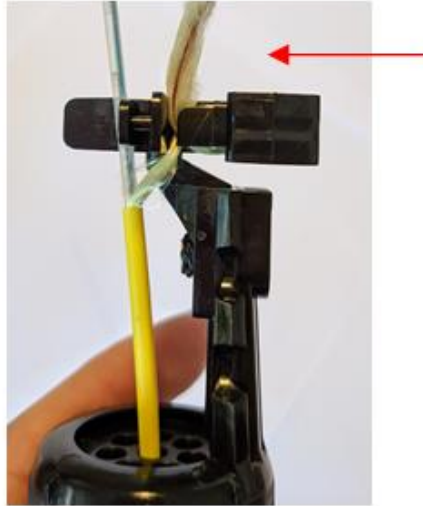
Step 30



- Take 4 full clockwise turns until you end up in this position.

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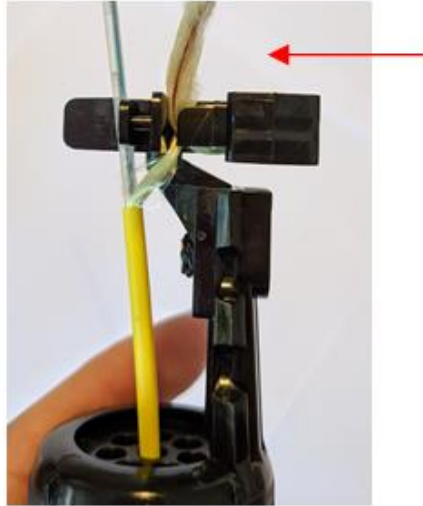
Step 31



- Slide over the top the aramid restraint clip.

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Step 32



- Ensure the restraint clip is fully engaged as shown.

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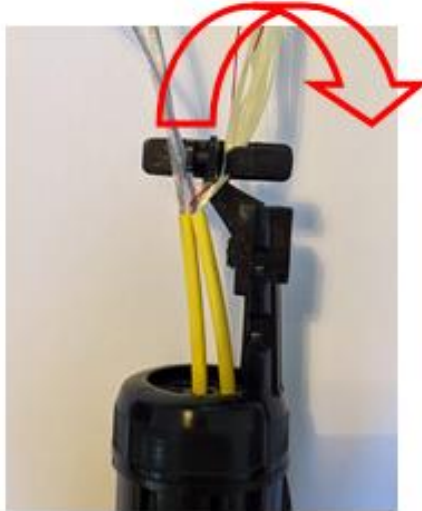
Step 33



- When installing the first second cable into the seal take position closest to the back.
- This position is closest to the back aramid restraint post.

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Step 34



- Starting with the back post first.
- Gather aramid yarns together from both cables and pull against left side of post and clockwise over the post.

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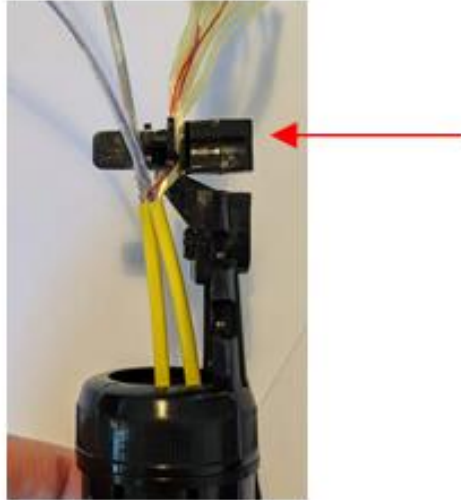
Step 35



- Take 2 full clockwise turns until you end up in this position.
- Slide over the top the aramid restraint clip.

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Step 36



- Ensure the restraint clip is fully engaged as shown.

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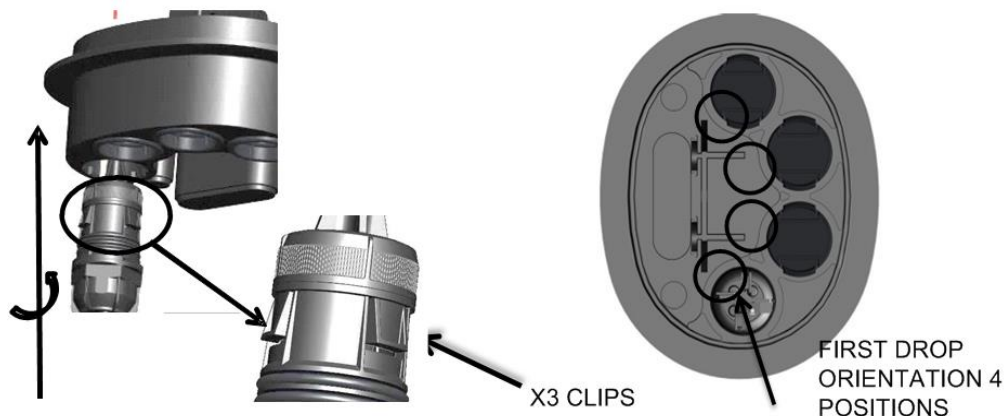
Step 37



- Close the gland by tightly screwing the nut onto the gland body assembly so the faces mate.
- The spacers will not be loose.
- ENSURE all seal positions are occupied.

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Step 38



- Push the gland assembly into the base.
- Once resistance is felt on the O-ring, continue pushing with a twisting action until an audible click is heard.
- Visually check from inside the base all 3 clips are secured into base.

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Step 39



- Insert the cable tube into the manifold restraints and strip the tube at the indicated position, as shown.
- Route element and fibres as per the closure installations instructions.

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Step 40



- Replace the manifold cover by clipping into place.

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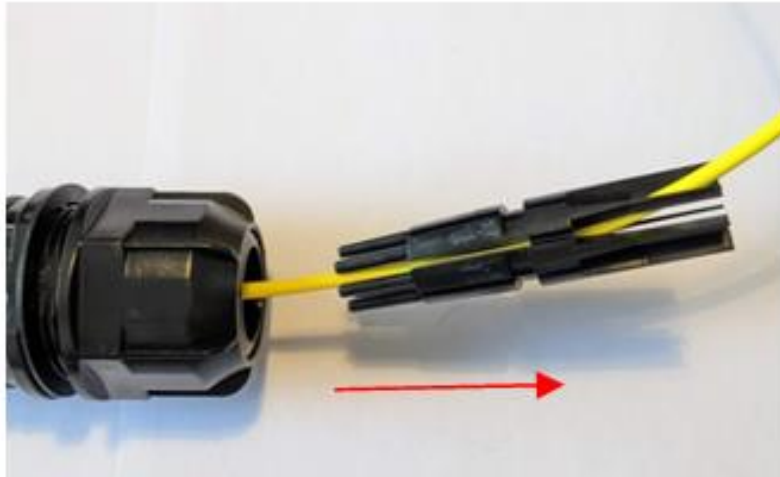
Step 41



- Loosen the gland nut by hand or using the gland tightening tool.
- Do not remove the nut.
- Joint omitted for clarity.

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Step 42



- Gently pull the blanking part out.

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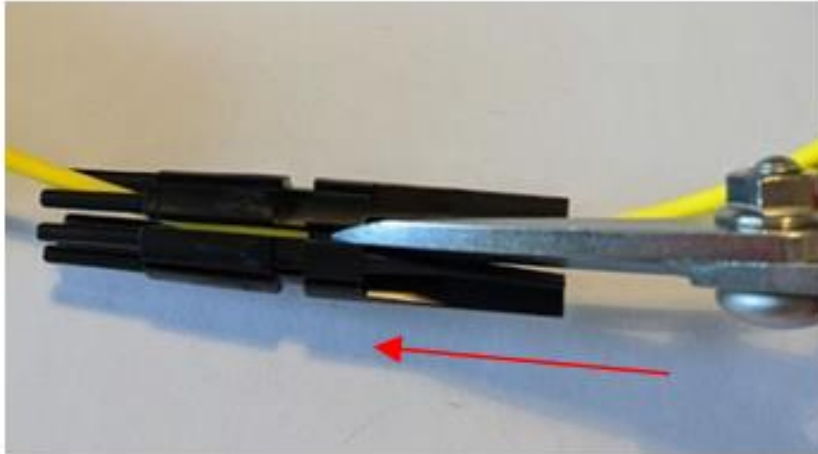
Step 43



- Using a sharp cutting tool carefully cut the plastic at the position circled.
- Be careful not to damage the cable already installed.

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Step 44



- Cut in the direction shown using your cutting tool.

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Step 45



- Cut as many that are required to install the required number of cables.
- Be careful not to damage the cable already installed.

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Step 46



- Discard removed blank positions.

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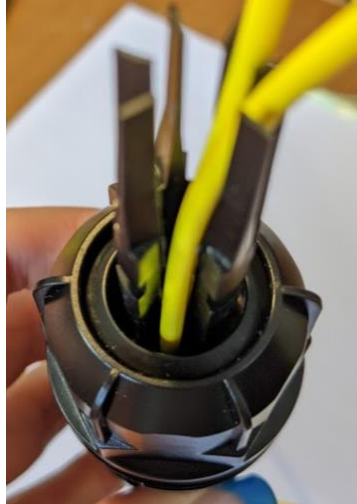
Step 47

Follow preparation of cables from installations steps 27-36

- Follow preparation of cables from installations steps 27-36.

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Step 48



- Ensure no cable positions are left empty.

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Step 49



- Tighten the gland nut by hand or using the gland tightening tool.
- Joint omitted for clarity.