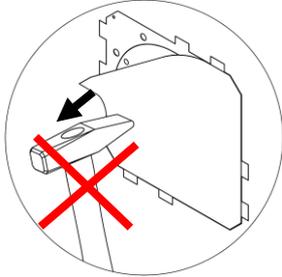
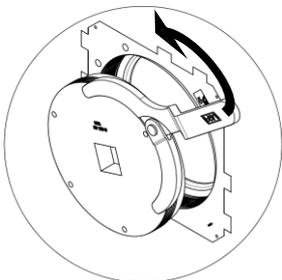




## Preparation and instructions for installation in seal packing



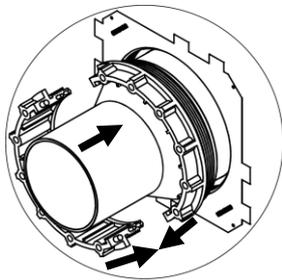
- Take off protective foil and warm slightly if necessary.
- **Do not open forcefully, in order to avoid damage!**



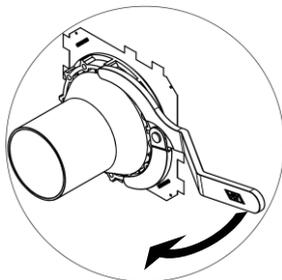
- Unscrew blank cover anticlockwise with UGA articulated face wrench "GSS".
- Clean any dirt off the thread.
- Do not use solvent-based cleaning agents for cleaning (UGA cable cleaner "KR" recommended).

**Before cable installation, mount system cover, pipes or cable protection systems.**

### Assembling the system cover KD 110 with blue split nut:

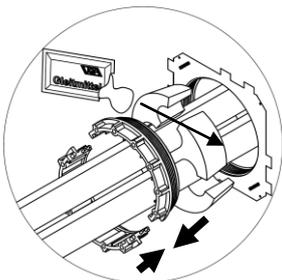


- Guide the KD 110 system cover into the KD 110 seal packing to the stop.
- Put the blue split nut together and screw into the thread of the KD 110 seal packing by hand.



- Tighten the nut with the UGA articulated face wrench "GSS" until the system cover cannot be turned any further, and it is no longer possible to lightly turn the nut.

### Assembling the KD 110-DGM 110 and KD 110- WA(Z)x(D):



- Lubricate all inner/outer surfaces, with split version the division cut surfaces of the rubber insert, as well as cables/pipes.
- Insert the cables/pipes in the holes intended and press the rubber insert in the KD 110 seal packing.
- **Mount the blue split nuts as previously described.**



## Shrinking technology

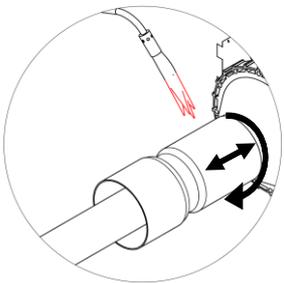


### General preparations:

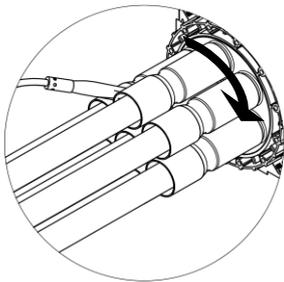
- Check cable for damage.
- Clean dirt on the cable and dirt on the system cover support (UGA cable cleaner "KR" recommended).

**Do not use solvent-based cleaning agents for cleaning.**

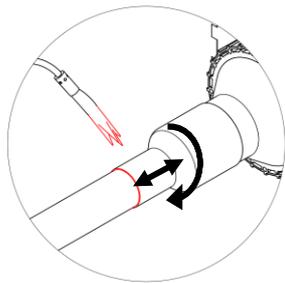
### Shrinking with thermal sleeve TM:



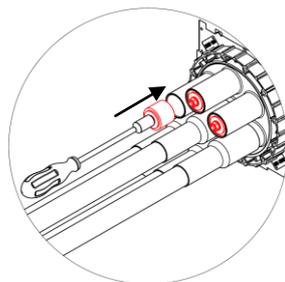
- Slide the thermal sleeve supplied onto the system cover support and feed in cleaned cable.
- Shrink thermal sleeve with hot air gun or propane gas burner (**setting: yellow, soft flame**) evenly all round onto the system cover support, until this encompasses the support fully and is crease-free.
- During the shrinking process, the flame must be moved constantly in a radial direction, in order to avoid burns due to localised overheating.



- With system covers with multiple supports, all thermal sleeves are shrunk simultaneously from the support centre outwards.
- Protect unused supports against heat with a piece of sheet metal.



- After the shrinking area on the cable/pipe has cooled, continue until the thermal sleeve is crease-free and completely encompasses the cable/pipe, so that the hot-melt adhesive emerges evenly out of the thermal sleeve all round.

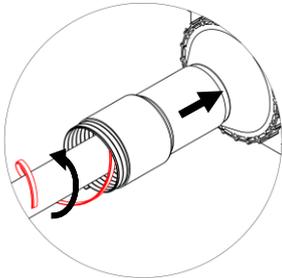


### General note:

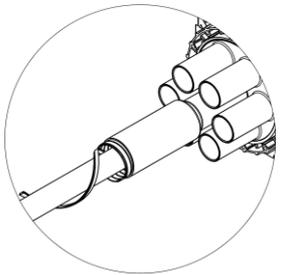
- System cover supports that are unused can be closed with UGA stopper plugs "VS" (not included in the scope of supply) and can be utilised at a later time.



## Shrinking with cold shrink-on sleeve KSM:

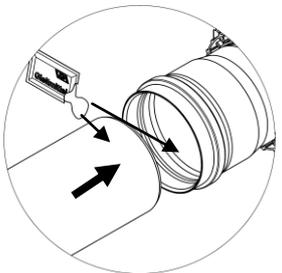


- Slide the cold shrink-on sleeve supplied onto the system cover support and feed in cleaned cable.
- In order to avoid leaks due to a longitudinal scoring on the cable or pipe fed in, first apply UGA melting adhesive tape "SKB" (not included in the scope of supply) in the shrinking area.
- Hold the cold shrink-on sleeve tight, in order to avoid the system cover support slipping when the support spiral is drawn out.
- Draw out the support spiral fully.
- With temperatures below 5° C, heat the cold shrink-on sleeve to room temperature.



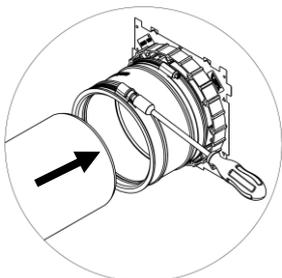
- With system covers with multiple supports, the shrinking process must be started with the centre support.

## Pipe connections



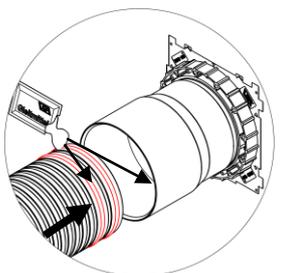
### Connection of smooth pipes to system cover with plug-in sleeve:

- Clean pipe end to be fed in and plug-in sleeve if necessary.
- Coat the seal of the plug-in sleeve and pipe end to be fed in with lubricant (not included in the UGA scope of supply).
- Feed the pipe end into the plug-in sleeve to the stop.



### Connection of smooth pipes to system cover with collar:

- The pipe to be fed in and the collar must be clean and free of grease in the area of the connection.
- Loosen stainless steel hose clip on the collar.
- Guide the pipe 80 mm into the collar (**do not use lubricant**).
- Tighten stainless steel hose clip (max. 6 Nm).

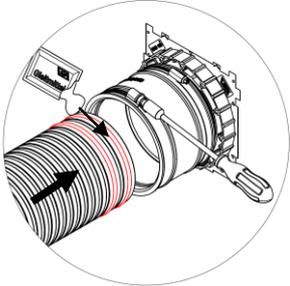


### Connection of corrugated pipes to system cover with coupling sleeve:

- Clean corrugated pipe end to be fed in and coupling sleeve if necessary.
- Fit corrugated pipe gasket from the pipe manufacturer (not included in the UGA scope of supply) on the corrugated pipe according to the pipe manufacturer's specifications.
- Coat the sealing ring and inside the coupling sleeve with lubricant (not included in the UGA scope of supply).
- Feed the corrugated pipe end into the coupling sleeve to the stop.



## Connection of corrugated pipes to system cover with collar:

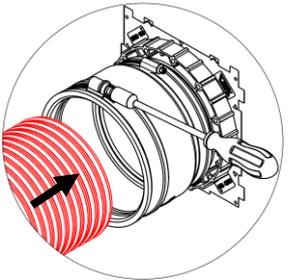


- The corrugated pipe end must be trimmed squarely to length in the corrugation trough, clean and free of burrs.
- Fit corrugated pipe gasket from the pipe manufacturer (not included in the UGA scope of supply) on the corrugated pipe according to the pipe manufacturer's specifications.
- Coat the sealing rings with lubricant (not included in the UGA scope of supply).
- Guide the corrugated pipe 80 mm into the collar.
- Tighten stainless steel hose clip (maximum 3 Nm).

### Attention:

**In case of plastic pipes with thin walls, or produced from foamed plastic or soft materials such as PE, do not tighten the hose clips so tight that the pipes are deformed. The user is responsible for checking that the connection variant is suitable for the respective installation case.**

## Connection of KSS hoses to system cover with collar:



- The KSS hose to be fed in and the collar must be clean and free of grease in the area of the connection.
- Guide the KSS hose 80 mm into the collar (**do not use lubricant**).
- Tighten stainless steel hose clip (maximum 6 Nm).

**With all connection variants it is necessary to ensure that the pipe/cable to be connected exhibits no damage in the area of the seal.**

**It is necessary to ensure that no tensile/pressure forces and mechanical loads act on the pipe to be connected, and on the penetration.**

### Important note:

**We accept no warranty claims in case of deviations from the information in the assembly instructions and/or with incorrect use of our products.**

**This also applies to combinations with external products that have not been approved by us.**

### General:

Observe the nationally valid installation and filling specifications of the pipe manufacturer!

Compact the substrate and cable foundation well before cable/pipe installation, so that the cables/pipes cannot sink.

Incorrect cable or protection pipe installation and unprofessional filling of the cable trench leads to settling, which can in turn lead to damage.

Only open cable penetrations directly before fitting with cables, in order to avoid unintentional damage during structural work.

**You find assembly instructions in other languages on the side [www.uga.eu](http://www.uga.eu) or on inquiry!**