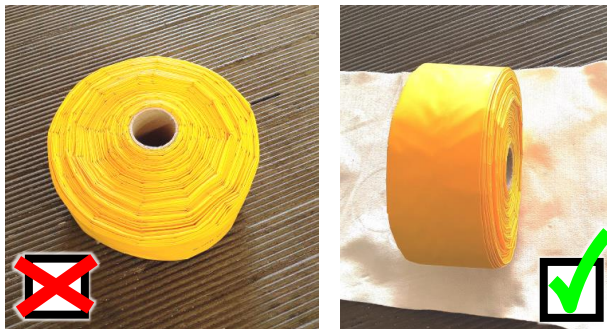


# 1 INSTRUCTIONS TUBES

## 1.1 Creating an end on the calibration hose

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### 1.1.1 Transport and storage



**!** **CAUTION!** Risk of damage. Calibration hose can be damaged by rough surfaces, sharp edges, tools etc. and therefore leak, especially at the edges. The edges can be worn through during transport.

- ⇒ Protect calibration hose against damage.
- ⇒ Place the calibration hose upright on a clean and soft surface.

Fig. 1-1: Storage of calibration hose  
left: lying down, on dirty or rough ground  
right: set up, on a clean and soft surface

### 1.1.2 Cut calibration hose to length and inflate



**!** **CAUTION!** Risk of damage. Calibration hose can be damaged when cutting by rough surfaces, sharp edges, tools etc. and therefore leak, especially at the edges.

- ⇒ Protect calibration hose against damage.
- ⇒ Place the calibration hose upright on a clean and soft surface.

**!** **CAUTION!** Wrinkles in the calibration hose can damage the calibration hose.

- ⇒ Smooth out the calibration hose.

**!** **CAUTION!** Bonded calibration hose does not press the liner to the pipe, can be damaged inside and leak or burst.

- ⇒ Inflate the calibration hose after cutting to length.
- ⇒ Ensure that it opens along its entire length easily.
- ⇒ Do not use calibration hose that is stuck together.

Fig. 1-2: Calibration hose that is stuck together

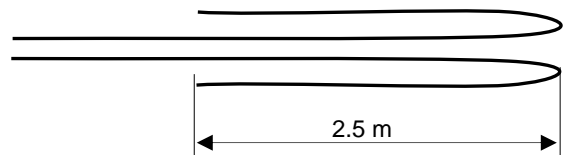
### 1.1.3 Calibration hose end doubled with support hose (adhesive tape)

Calibration hose end with glued support hose as protection against overstretching.

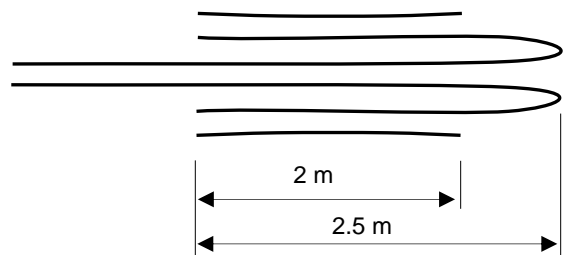
- ➔ Prepare materials:
  - Siga-Rissan adhesive tape



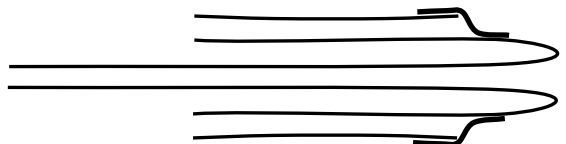
- ➔ Cut 2 m off the calibration hose.
- ➔ Turn the calibration hose end inside out 2.5 m long and flatten it.



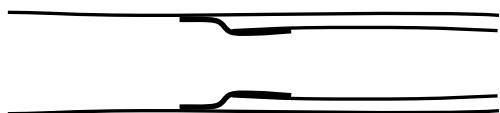
- ➔ Pull the cut-off piece of hose over the inverted calibration hose until both ends are flush.



- ➔ Glue the cut-off piece of hose all around with the inverted calibration hose, using Siga-Rissan adhesive tape.

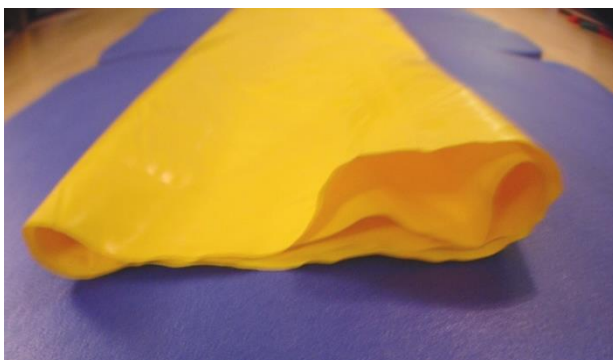


- ➔ Put the inverted end of the hose back and smooth it out.



**!** **CAUTION!** Wrinkles in the calibration hose can damage the calibration hose.

- ⇒ Turn the cut piece of tubing over well and smooth it out on the inside.



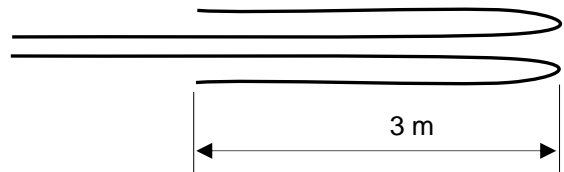
### 1.1.4 Calibration hose end doubled with support hose (adhesive)

Calibration hose end with glued support hose as protection against overstretching.

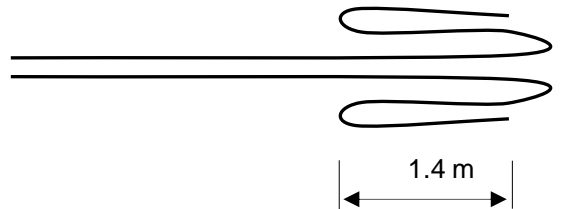
- ➔ Prepare materials:
  - Loctite 401 adhesive



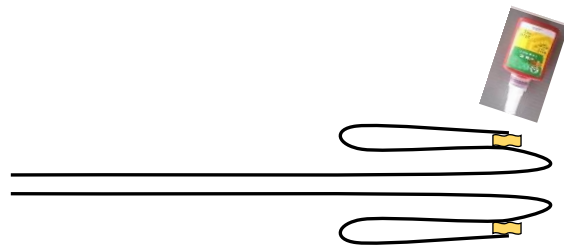
- ➔ Turn the calibration hose end inside out 3 m long and flatten it.



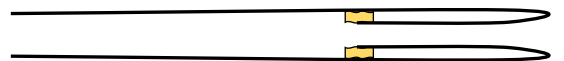
- ➔ Turn the inverted piece of hose back 1.4 m.



- ➔ Glue the open end of the hose to the calibration hose, using LOCTITE 401 adhesive.



- ➔ Put the inverted end of the hose back and smooth it out.



**!** **CAUTION!** Wrinkles in the calibration hose can damage the calibration hose.

- ⇒ Turn the inverted piece of tubing over well and smooth it out on the inside.

### 1.1.5 Calibration hose end with overhand knot

Overhand knots at the calibration hose end ensure that the calibration hose remains closed, especially at higher temperatures and when lubricants are used for inversion.



#### Make the overhand knots

- ➔ Calibration hose end doubled, with glued support hose. See section 1.1.3 or 1.1.4.
- ➔ Fold the end of the hose tightly lengthwise.
- ➔ Tie a simple knot at the end and tighten well.



- ➔ Tie the second knot 20 cm from the first knot and tighten well.



**NOTE:** Warm water helps.

- ⇒ Put the knots in warm water, then you can tighten them more.



#### Finish the end

- ➔ Fold over the knotted piece of hose.
- ➔ Tie the restraining string with a masthead knot between the knots, close to the first knot.