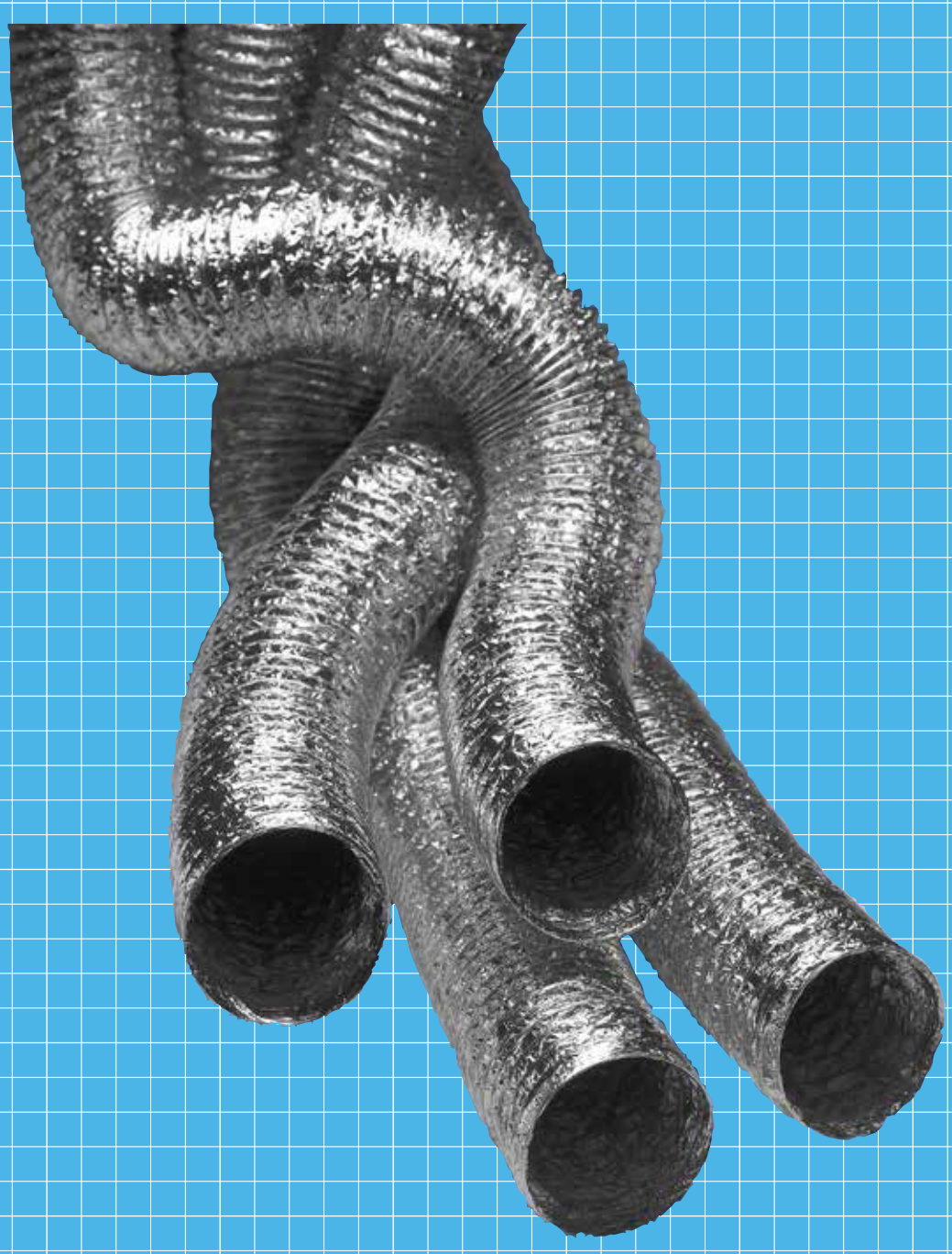

Lindab **Flexible ducts**

Assembly instructions

Lindab®

Flexible ducts

To mount flexible ducts correctly, the following instructions should be considered. The various aspects of mounting will be explained briefly with illustrations as examples.

Mounting instructions (general)

- The flexible duct must be stretched to its full length. A flexible duct that has not been stretched completely causes higher pressure loss. For this reason, do not use more of the flexible duct than is necessary.
- Use roughly 1,0 – 1,5 m of flexible duct for each connection piece. If a longer flexible duct is needed (e.g. for acoustic ducts), the flexible duct must be fastened correctly with circular suspension rings.
- During mounting, take care that the flexible duct is not damaged.
- Replace any flexible ducts and outer jackets of insulated flexible ducts which have been damaged.
- When the flexible duct is mounted on a spiral duct, airtightness is compromised.

Cutting the ducts

- Before cutting, make sure the flexible duct is completely stretched.
- Cut vertically across the flexible duct.
- Cut the steel wire.

Connecting the duct

- Cut the flexible duct to desired length.
- When connecting the flexible duct to another duct, make sure that 50 mm of the flexible duct overlap the other duct.
- When connecting the flexible duct to a fitting, make sure to pull the flexible duct up to the stop bead of a fitting (see fig. 1).

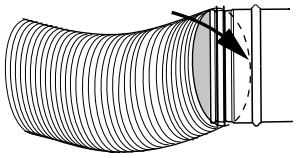

Fig. 1

- Use aluminium tape to seal the gap.
- Fix the flexible duct in position with a duct clamp. A non-insulted flexible duct can also be fixed with a nylon duct clamp.
- When installing a flexible duct in a metal connection, support the flexible duct before allowing it to bend to avoid damage to the duct. Otherwise there is a risk that the sharp metal edge of the connection cuts through the flexible duct.
- When installing the flexible duct, it is important that it is of appropriate length. If the flexible duct is too long, then there is a risk that the flexible duct either bends excessively, causing higher pressure loss, or is not adequately stretched, also causing higher pressure loss

Suspension points

The maximum sagging of the flexible duct, between two fastening points, should not exceed 50 mm/m (see fig. 2).

The distance between two suspension points varies from 1,5 up to 3 m depending on the duct type. A flexible duct above a ceiling construction needs a 1 m center-to-center distance support.

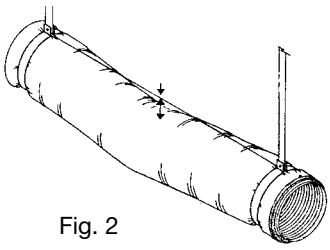

Fig. 2

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Bend radius

The minimum bend radius r_m of each product is described on the product information page. The bend should be as large as possible. A small bend radius causes higher pressure loss. (see fig. 3).

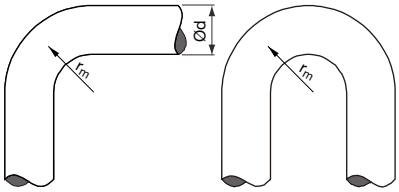

Fig. 3

Suspension

The flexible duct is easily shaped to a desired form. If the shape of the flexible duct is changed in such a way that the diameter is reduced, pressure loss will increase. Pay attention when fastening the ducts. In case of using duct clamps, use the correct clamp diameter and make sure that the clamp supports at least half of the diameter of the duct (see fig. 4).

Static electricity

To prevent static electricity to build up, connect the metal wire of the duct to protection earth (PE).

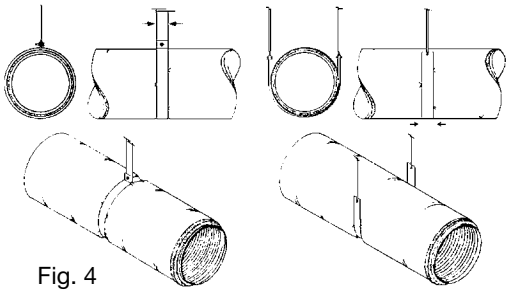

Fig. 4

Situations in practice

Do not install the flexible duct so that it comes in contact with hot equipment, piping, etc. High temperatures (relative to normal room temperature) increase the ageing process of the flexible duct and the lifespan can be shortened.

Thermally insulated flexible ductsy

For best performance, the thermally insulated flexible ducts need to be sealed according to the steps below:

- Cut to desired length.
- Push the flexible duct past the connection, at least 50 mm.
- Pull back the insulation blanket in order to apply the tape on the inner duct.
- Seal the connection piece of the inner duct with aluminium tape.
- Push the insulation blanket back to its original position.
- Attach the outer jacket with aluminium tape to the inner duct.
- Make sure that the end piece of the duct has been sealed tight.
- Attach the outer jacket and inner duct together with flexible duct clamp.

Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It's one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

We simplify construction