



# Assembly Instruction Lindab Safe Air Duct System in Air Tightness Class D

# Assembly instruction for Lindab Safe

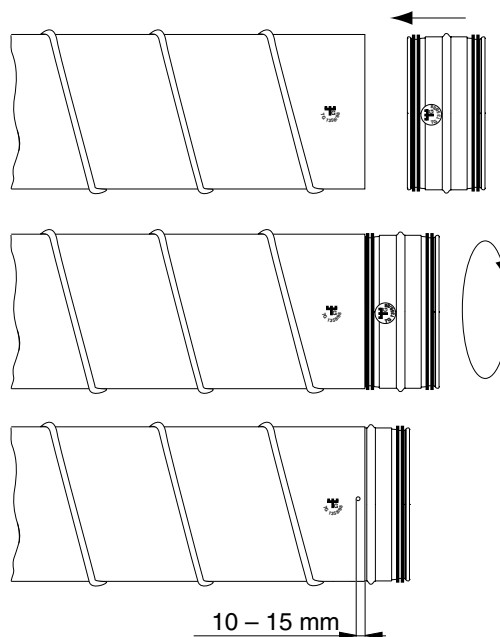
Lindab Safe is approved and submitted to continuous manufacturing control.

This means that the requirements of leakage class D are met if the Lindab Safe ducts and fittings are used and the assembly is done according to this instruction.

**NOTE!** Leakage class D is guaranteed only when all of the products in the system are of the type Lindab Safe.

**NOTE!** If the system is to be leakage tested this shall be done **before the system is hidden in the building construction and insulated** in order to get a chance to inspect and take proper actions. All eventual claims regarding air tightness will be treated **only** if the system is fully accessible for inspection.

The products covered by the approval, are either stated in the delivery note or provided with the marking below. The marking can be either a label or embossing in the sheet metal, see examples.



- Place the fasteners 10–15 mm from the end of the duct so they don't damage the rubber gasket.
- Always place the fastener at for the moment the largest radial gap between fitting and duct. Make sure to get equal distribution around the periphery.

Tighten carefully eventual holes for measuring, after removed screws, rivets or alike.

Dimension Ø [mm]	Minimum number of fasteners in order to achieve sufficient tightness [pcs]
63 – 125	2
140 – 250	3
280 – 630	4
710 – 1250	6
1400 – 1600	10

## NOTE!

In order to achieve sufficient structural strength of the duct system you may often need a larger number of fasteners than this.

## Preparation for mounting

- Make sure that all ducts and fittings are marked as above.
- Store ducts and fittings at a well organized and weather protected site in order to minimize the risk of damages. Don't use ducts and fittings, which have been damaged in such a way that the tightness or the structural strength of the system is jeopardized.
- Cut the ducts at right angles. Remove eventual burrs at the cut. Without burrs the assembly will be easier and the risk of damaging the gaskets decreases.

## Assembly

- Start by entering the turned-over edge of the fitting into the duct.
- Make sure that the first lip of the gasket is in close contact with the edge of the duct all around and that the lip is not twisted in any direction.
- Push the end of the fitting into the duct. A slight turning of the fitting makes the assembly easier. (A slight turning also makes eventual disassembly easier.)
- Then fasten the fitting with sheet metal screws or with airtight blind rivets.

**NOTE!** Local authorities may stipulate which of these two fasteners that should be used.

## Hints!

In some cases it is easier to assemble parts of the system on the floor before they are lifted in place.

If ducts and fittings are round it will make the mounting much easier. Lindab has at construction and production made big efforts and demands for roundness but especially big heavy fittings have a tendency by its own weight to be slightly oval. These are normally round again at suspension. Therefore please use the suspensions to get the fittings round again and by that making the mounting easier.

A gentle slap with the hand on the surface of the duct normally makes the mounting easier since the friction between the duct and the fitting will be less and that the fitting goes to the right side by burrs and irregularities.

Remove all burrs after that you have cut the duct.

By big dimensions Lindab has moved the rubber gasket backwards, which will make the mounting much easier.

If you have to remount a fitting you must carefully tighten all old screw- and poprivet holes as they otherwise will cause leakage and noise in the system.

## Products with special tightening

Some fittings, like collar saddle PSU, T-pieces, TSTCU, TSTU and take-offs ILRU, ILU, ILF, also have a different connection than Lindab Safe. These connections shall be tightened as the non-Lindab Safe products described in next paragraph.

## Usage of other products than Lindab Safe

Products that not formally fulfil the requirements for tightness class D can only be used to a minor extent. If they occur they must be specially checked regarding tightness and strength. They shall be sealed off so they with margin fulfil the requirements of air tightness class D. Sealing material used shall have good durability and stay permanent elastic.

