# Lindab **Isol**

Product overview

# For a better climate

Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

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ISOL is a complete pre-insulated duct system intended for both indoor and outdoor use, specially suitable when risk of condensation is present. The system is based on sheet steel inner and outer casing with intermediate mineral wool insulation.

The nominal size ø 100-500 always refers to the inner duct diameter. There are two types to choose from, type 25 and type 50. Due to different norms and regulations the program can differ a bit between countries.

Please contact your local Lindab store for correct information and availability in your country.

# lindQST – Lindab Quick Selection Tool

lindQST is an advanced web tool that makes the selection of our solutions quick and simple.

With lindQST all documentation is made available directly on the web. That means consultants, installers and architects always have access to the latest documentation, installation instructions and product images etc. lindQST is a unique online tool were you can simulate your room in the Indoor Climate Designer, keep track of your projects and share it with your business partners etc. lindQST provides a simple shortcut to Lindab's material and is a tool that speeds up and simplifies the daily work. All information is just a mouse-click away.

# Product overview

## Lindab Isol

### Circular duct



SRI

Click on the product for link to detailed technical information and accessories, or visit www.lindab.com

### Bends



BFUI



BUI

### Reducers



RCFLUI



RCLUI

### T-piece



TCPUI



TCUI

### Coupling and female coupling



MFI



NPUI

## Lindab Isol

### End caps



EPFUI



ESUI

### Damper



DRUI



DSUI

### Access door



EPFHUI



ESHUI



TRUI

### Sealing clamp



MFK



SVK

### Take-off



ILUI

# General information

ISOL is a complete pre-insulated duct system intended for both indoor and outdoor use, specially suitable when risk of condensation is present. The system is based on sheet steel inner and outer casing with intermediate mineral wool insulation.

### Insulation

Insulation thickness is 25 or 50 mm.
The system can be delivered in other insulation thicknesses.

### Inner casing

Consists of hot dip galvanized steel sheet Z275.
Inner joints are with provided with Safe-gaskets which ensures a fast and airtight assembly without any need of extra treatment.

### Outer casing

Consists of hot dip galvanized steel sheet Z275. It can also be made in powder coated galvanized steel sheet, aluminium, aluminiumzinc or stainless steel.

### Thermal insulation

Inner and outer casing with intermediate insulation ensures an efficient insulation against heat losses and a rigid strong duct system. It is an universal solution to prevent condensation as each of the two casings perform as moisture barriers, dependent of the field of application.

### Joints

When installation is done outdoors, it is important to have a diffusion-proof outer casing. For this reason, use the special sealing clamp SVK or MFK, which gives good mechanical strength and good sealing at the joints. The sealing material consists of long-life EPDM rubber.

### Duct fixing

The ISOL-system is normally mounted on suspension rings, in the same way as other duct systems.

### Assembly

The assembly should be done according to the Assembly instructions.

### Heat/cold

See next page for graphs of theoretically estimated power loss in a straight duct.

Click **here** to see the assembly instructions for Lindab Isol

For recommended suspension of ventilation systems, click **here**

# General information

## Prerequisites

Transported air $t_i$ = 20 [°C]

Heat transfer coefficient between outer casing and surrounding air at 10 [m/s] $\alpha_y$ = 30–40 [W/(m²·°C)]

Ambient temperature $t_y$ = -20 to + 20 [°C]

## Do like this:

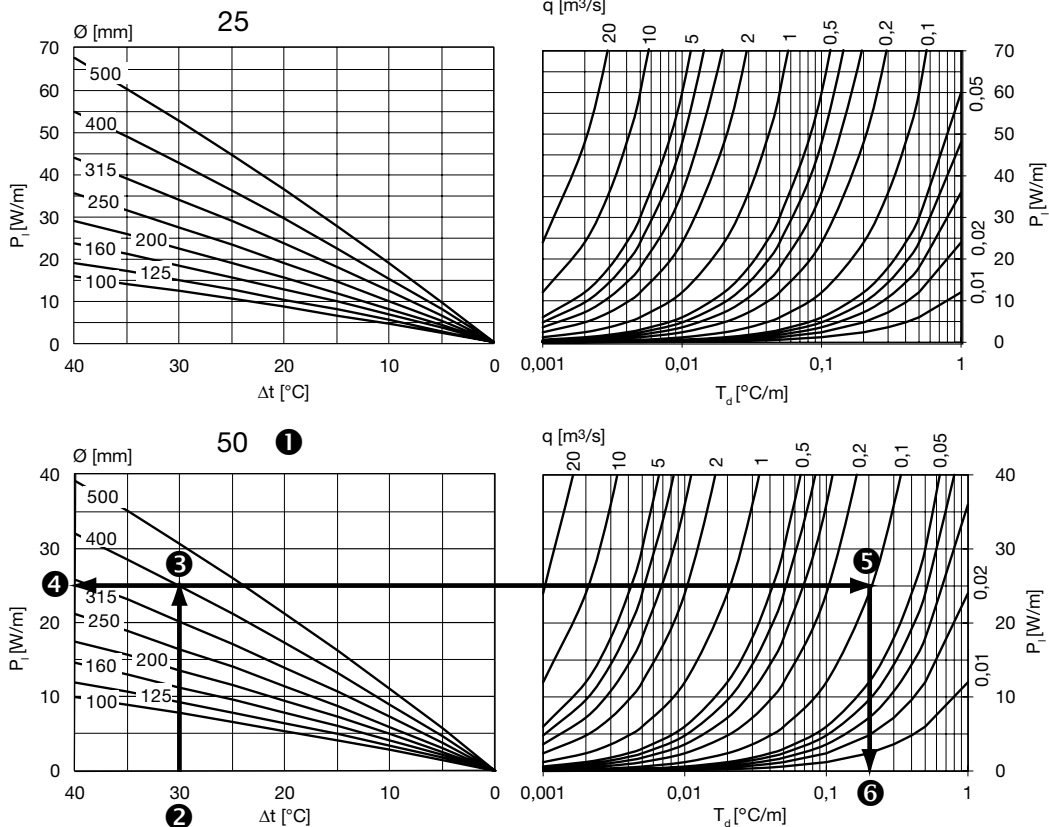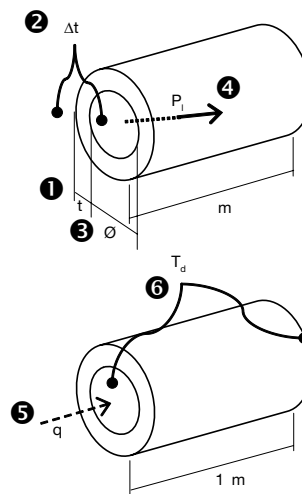1. Start with the insulation thickness t [mm]

2. Continue with the temperature difference, Δt [°C], between the air in the duct and the surrounding.

3. Go to the duct diameter, Ø [mm].

4. Find the specific power loss, $P_l$ [W/m].

5. Continue to the air flow, q [m³/s].

Find the specific temperature drop, $T_d$ [°C/m].

## Example:

1. t = 50 mm and

2. Δt = 30°C and

3. Ø = 400mm yields

4. $P_l$ = 25 W/m

5. q = 0,1 m³/s yields

6. $T_d$ = 0,208°C/m

## Explanations:

Δt = temperature difference, [°C]

Ø = duct diameter, [mm]

$P_l$ = specific power loss, [W/m]

q = air flow, [m³/s]

$T_d$ = specific temperature drop, [°C/m]

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