

Lindab **Plafond XD Bodies**


Quick installations guide



Quick installations guide

Plafond XD Bodies

Symbols

 Hot water



Heavy Load - 2 man job -
It is recommended to use
a "lift" for mounting.

 Cold water



Hand-pull



Magnets



Lock / unlock

Tools



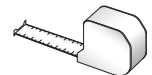
Knife



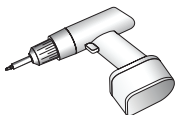
Gloves



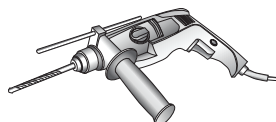
Shoes with soft soles



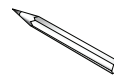
Tape measure



Drill machine



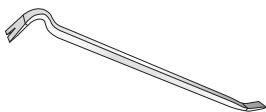
Percussion drill



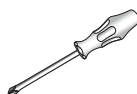
Pencil



Spanner



Crowbar



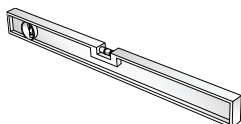
Screwdriver



Vacuum cleaner



Dust-cleaner

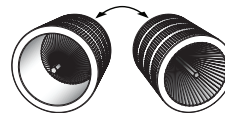


Spirit level*

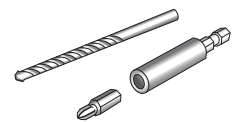
*Laser
alignment tool
recommended



Lindab PC410
(Order no: 103344)



Deburring tool

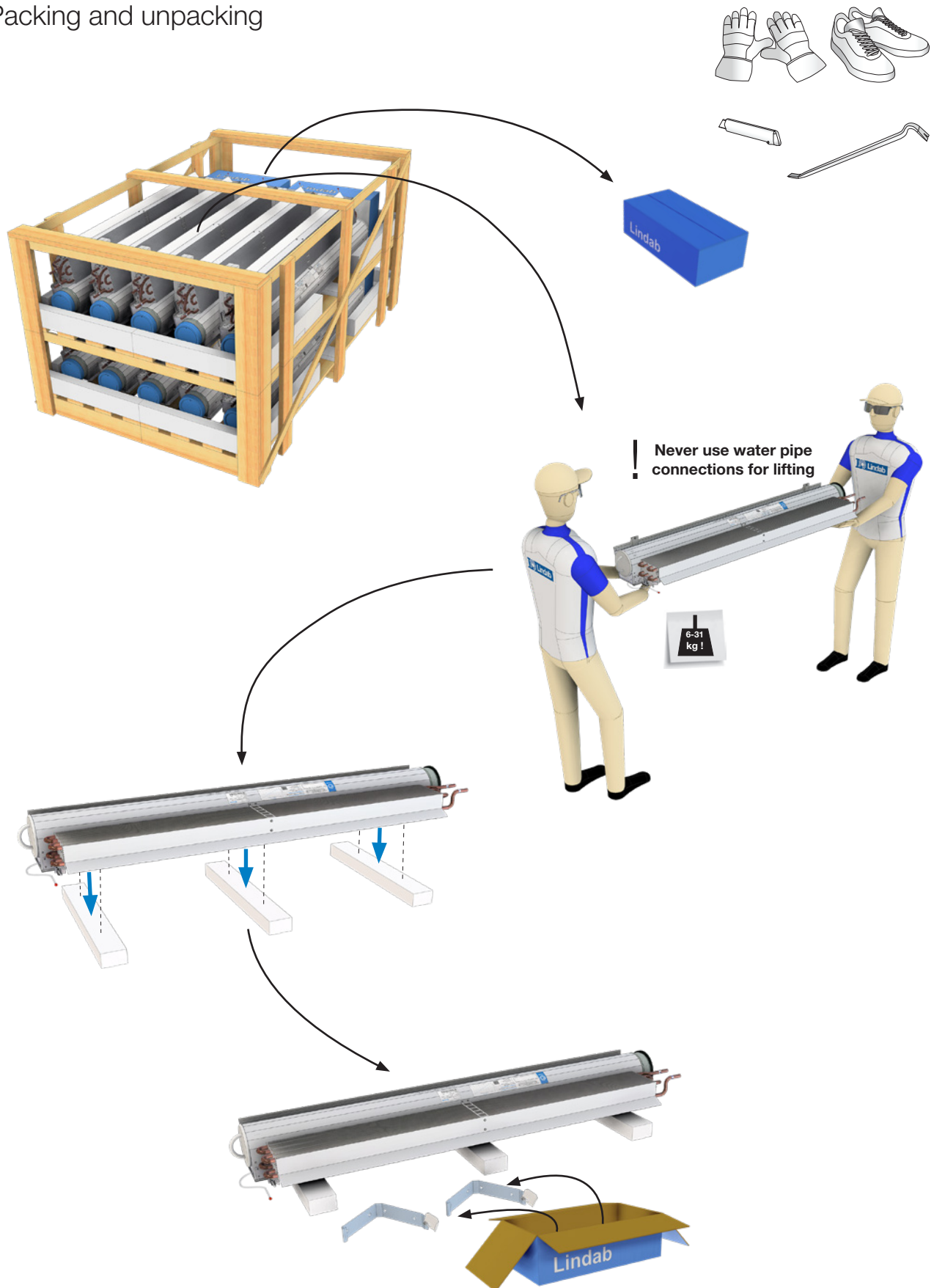


Bits and drills

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Plafond XD Bodies

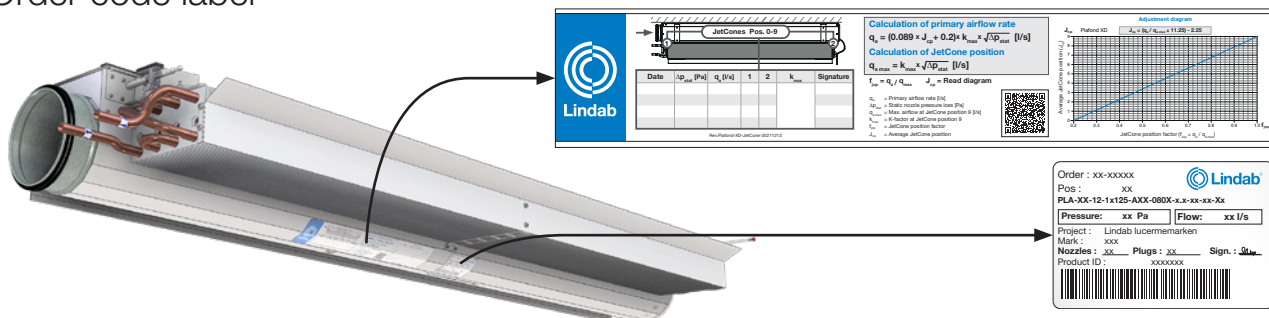
Packing and unpacking



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Plafond XD Bodies

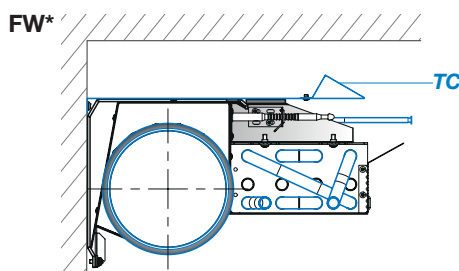
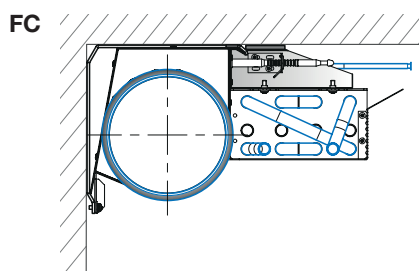
Order code label



Order code

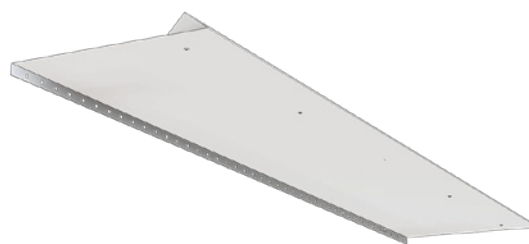
PLA	XX	12	1x125	XXX	XXXX	X.X	XX	XX	XX
Type	Water connection	Air connection	Connection type	Battery code	Nominal product length	Static nozzle pressure	Primary air flow rate	JetCone position	
FC FW*	ø12 mm	1x125 mm	A1L A3L A1R A3R	0800, 804 0800: Cooling 2-pipe. 0804: Cooling and heating 4-pipe.	0.8 m - 3.2 m in steps of 0.1 m.	30-120 Pa	1-90 l/s	P0, P1, P2, P3, P4, P5, P6, P7, P8, P9 or NR	

* inklusiv. Top Cover PLA-TC



Top Cover order code when ordered separately

PLA-TC	XX
	Nominal Body length [m]



Material data

Material data

Type	Plafond XD
Copper pipes, quality	EN-12735-2 CU-DHP
Pressure class	PN10

Specific measures for the water circuit

Performance value	Function	Battery type CC HH	PLA-FC Dry weight [kg/m]	PLA-FW Dry weight [kg/m]	Water content cooling [l/m]	Water content heating [l/m]	Water content total [l/m]
Maximal cooling or heating	2-pipe	08 00	8.0	9.5	1.0		1.0
Maximal cooling and maximal heating	4-pipe	08 04	9.5	11.0	1.0	0.5	1.5

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Plafond XD Bodies

Plafond XD Body dimensions

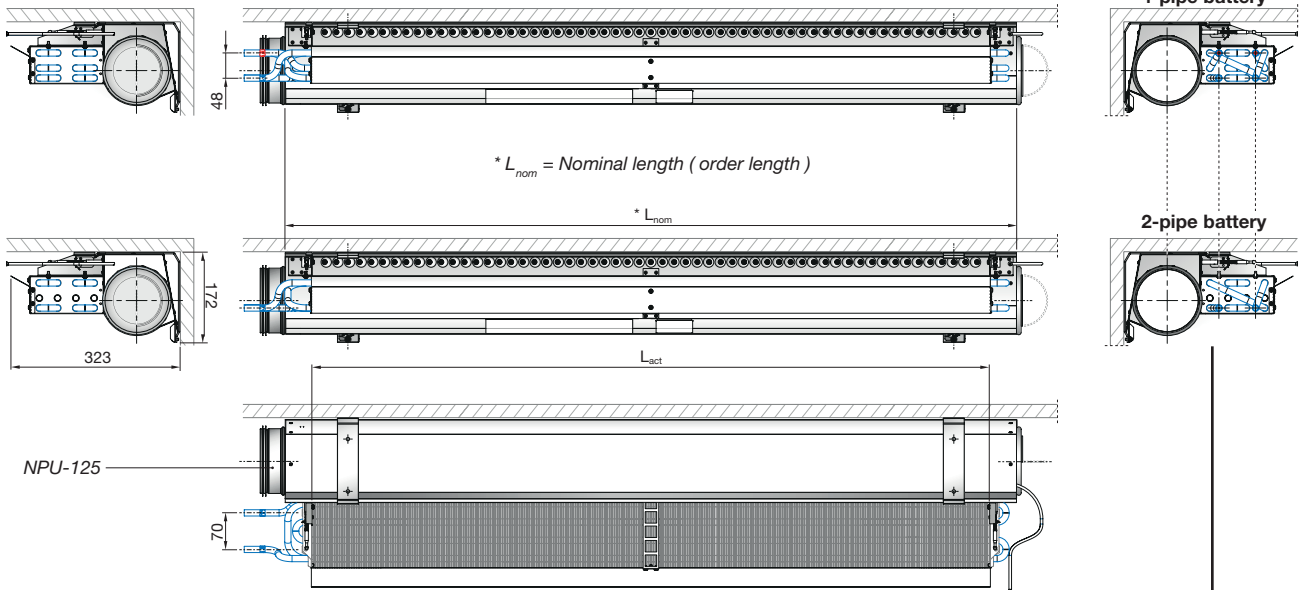
L_{nom} = nominal length (ordering length) = 800 to 3.200 mm

L_{act} = the active length of the battery

$$L_{act} = L_{nom} - 100 \text{ mm}$$

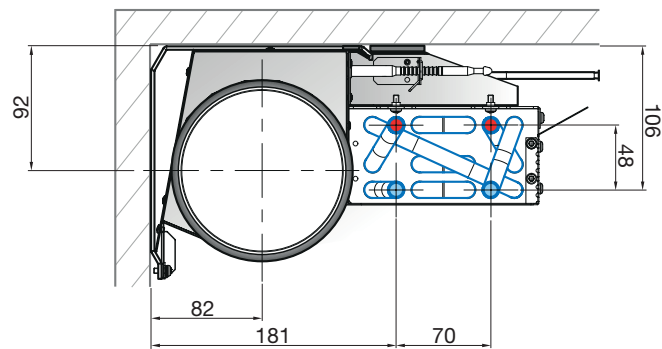
A1R

Dimensions valid for all Plafond XD Bodies.

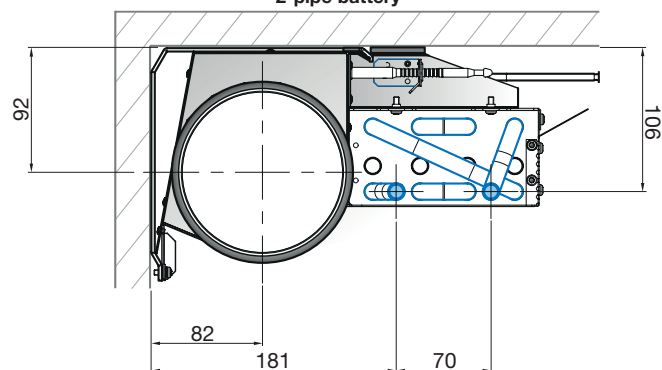


All water-pipes $\varnothing = 12 \text{ mm}$.

4-pipe battery



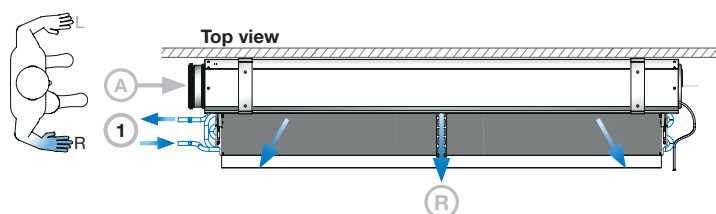
2-pipe battery



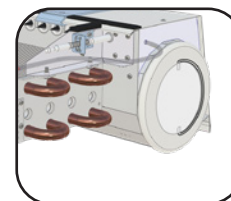
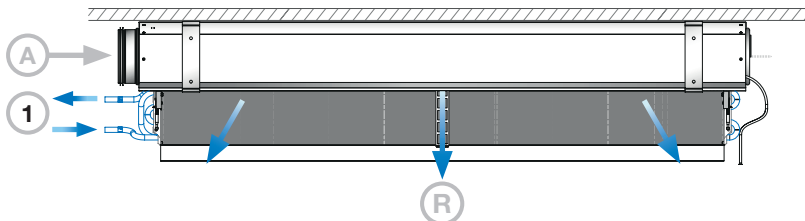
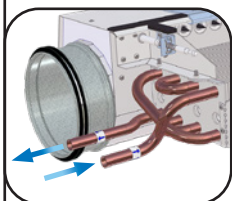
Quick installations guide

Plafond XD Bodies

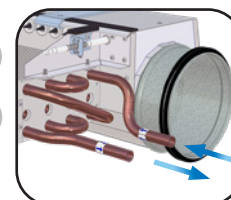
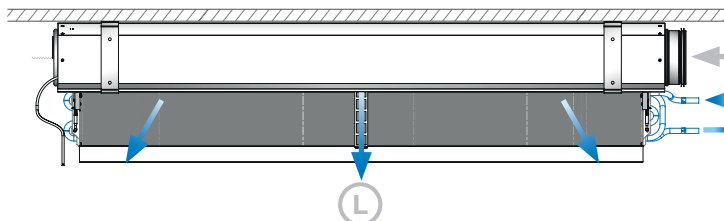
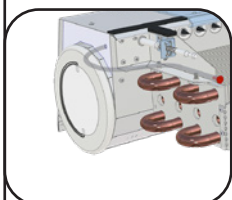
Possible connections, water cooling or heating (2-pipe)



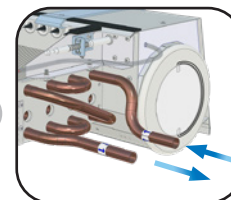
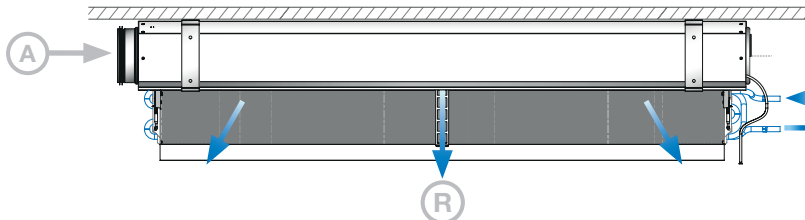
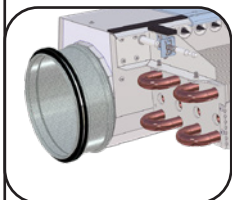
A1R



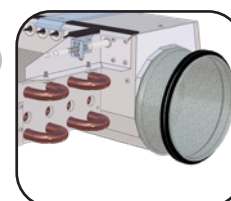
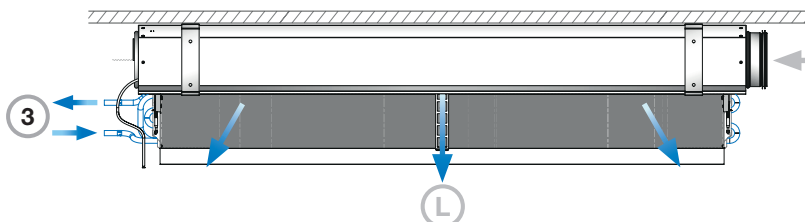
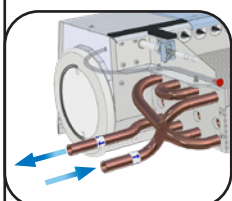
A1L



A3R



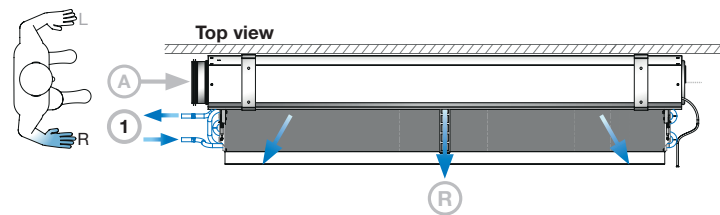
A3L



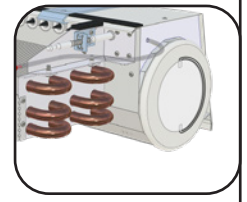
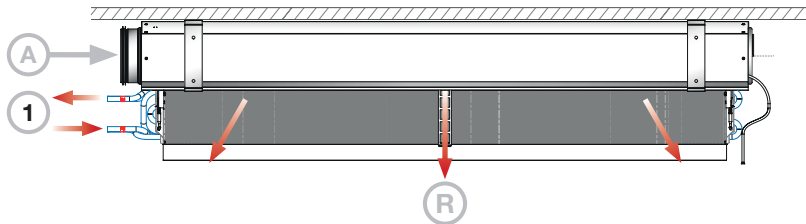
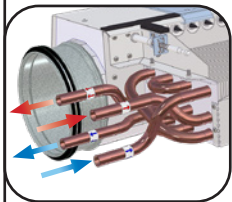
Quick installations guide

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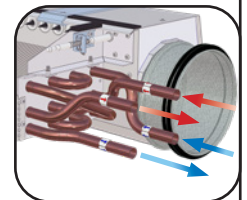
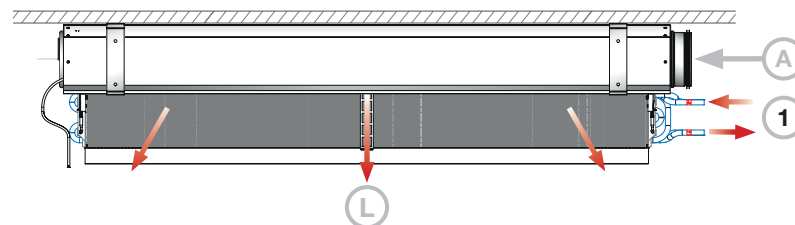
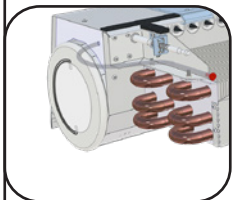
Possible connections, water cooling and heating (4-pipe)



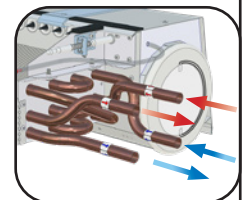
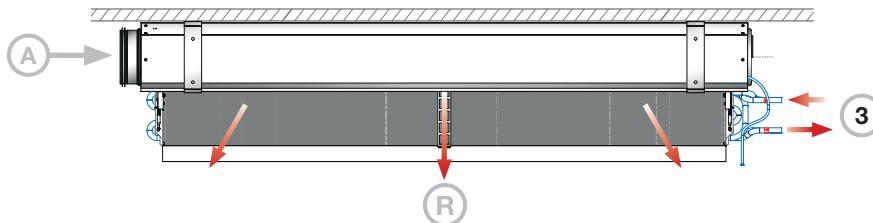
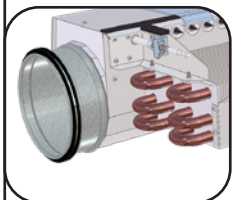
A1R



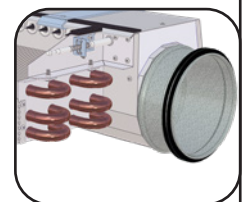
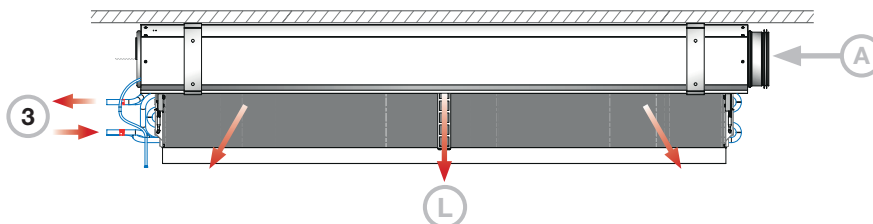
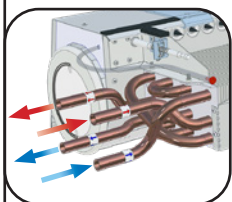
A1L



A3R



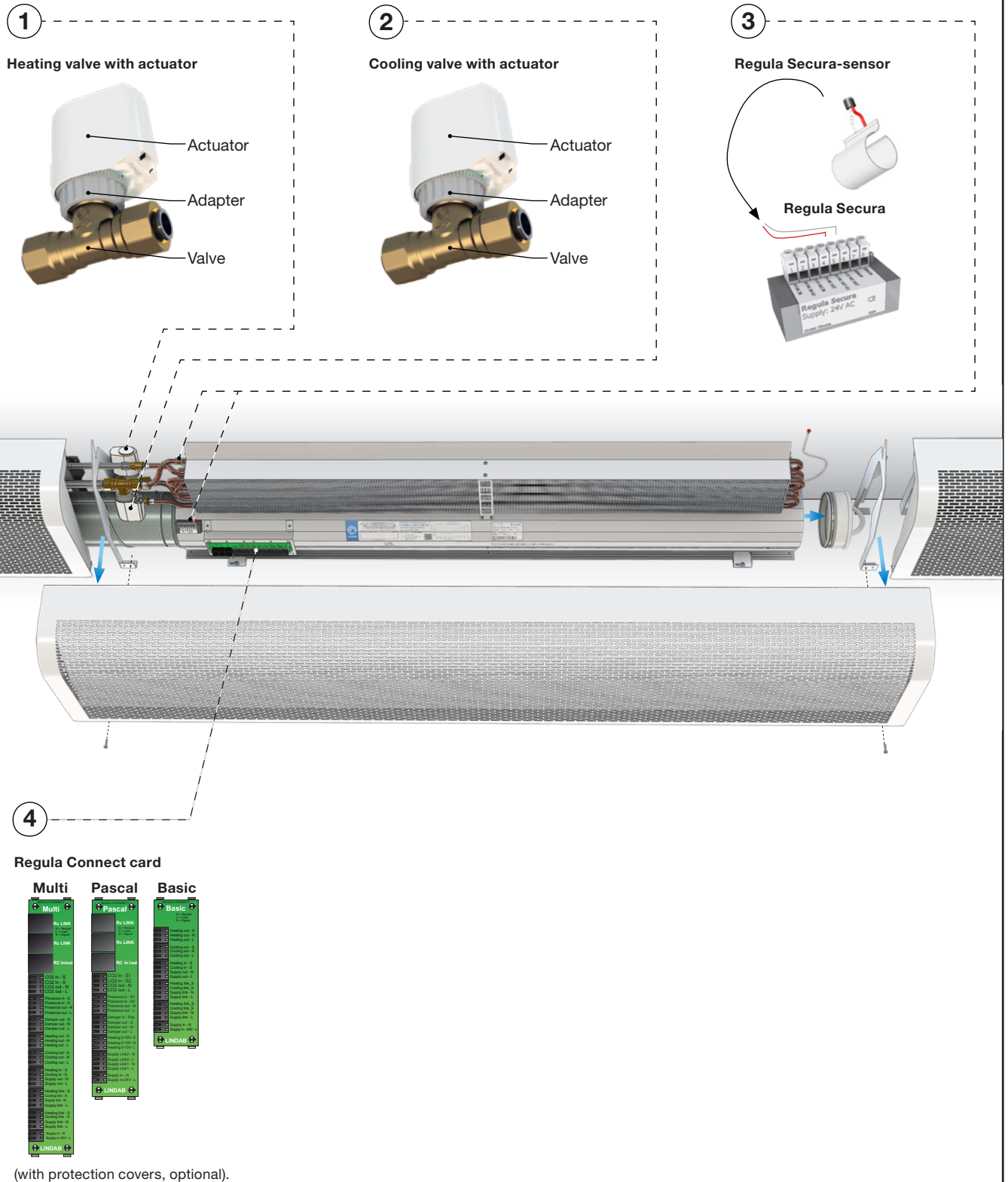
A3L



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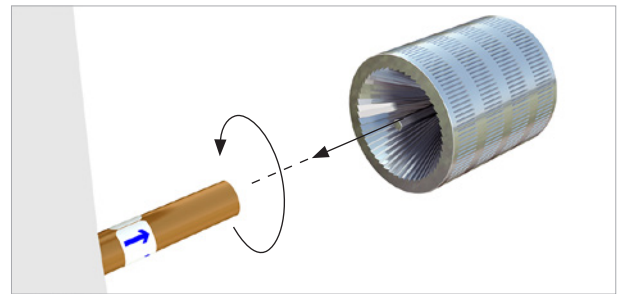
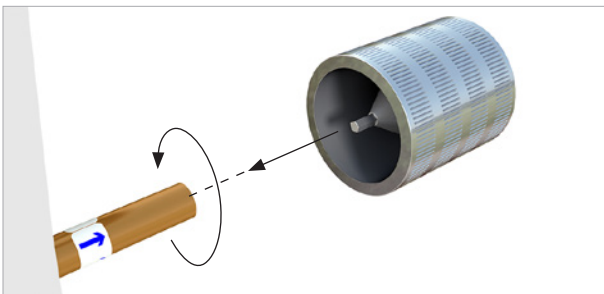
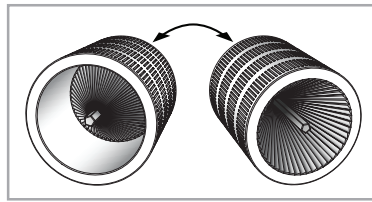
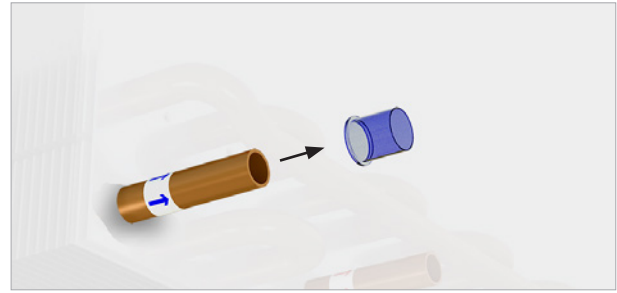
Regula components and valves



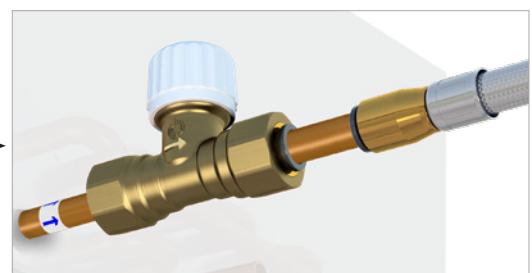
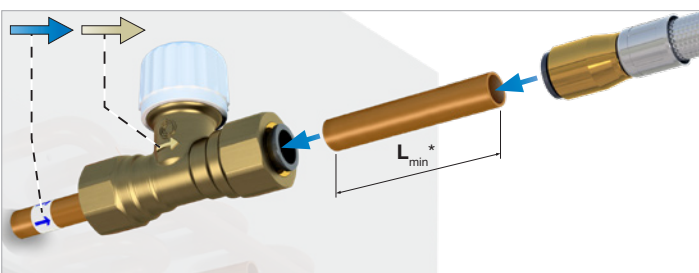
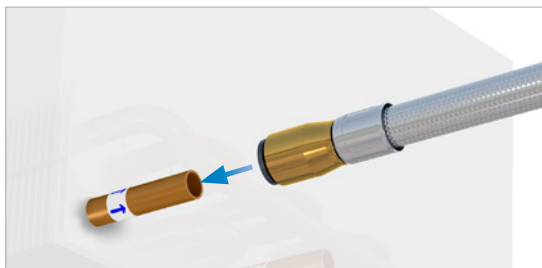
Quick installations guide

Plafond XD Bodies

Before installation



Flexible hoses and Push-on valves



* $L_{min} = 70 \text{ mm}$ (to ensure you can open the couplings again).

Lindab flexible hoses are available with straight end (male) for direct connection to Lindab valves also.

Quick installations guide

Plafond XD Bodies

Preparation for installation of the product

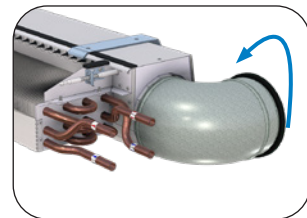
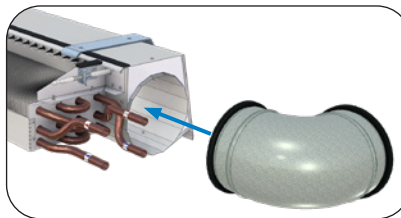
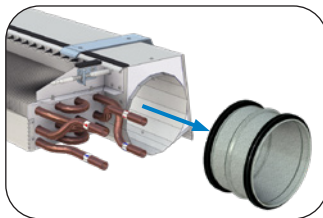
Check you got everything you need for your project!

Go to [Plafond-XD installation](#) chapter 5.4 for full preparation guide.

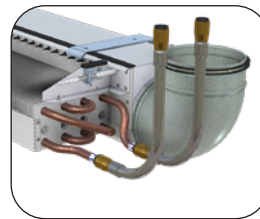
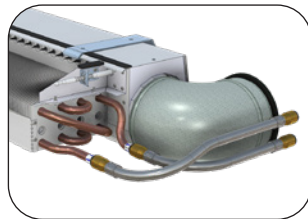
Length of		Min. [mm]	Max. [mm]
Body	L_{nom}	800	3.200
Cover	L_{Cov}	1.200	3.600
Connection Cover	L_{Cov}	200	3.600

Supply air connection = NPU-125 (standard).

Replace NPU-125 with BKU-125-90 for vertical or side air supply connection.



Lindab recommends our flexible hoses and fitting range for water in- and outlet pipe connections.

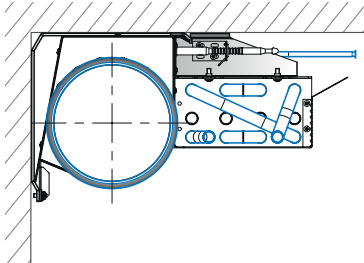


Quick installations guide

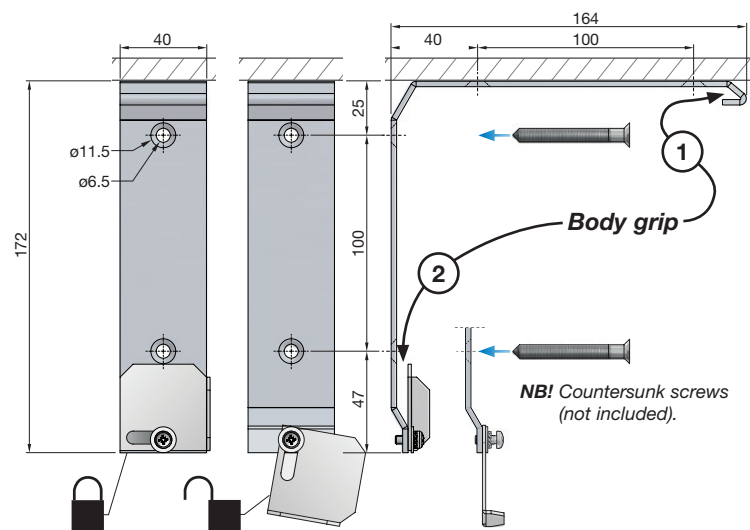
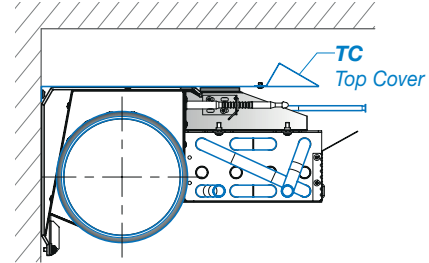
Plafond XD Bodies

Installation

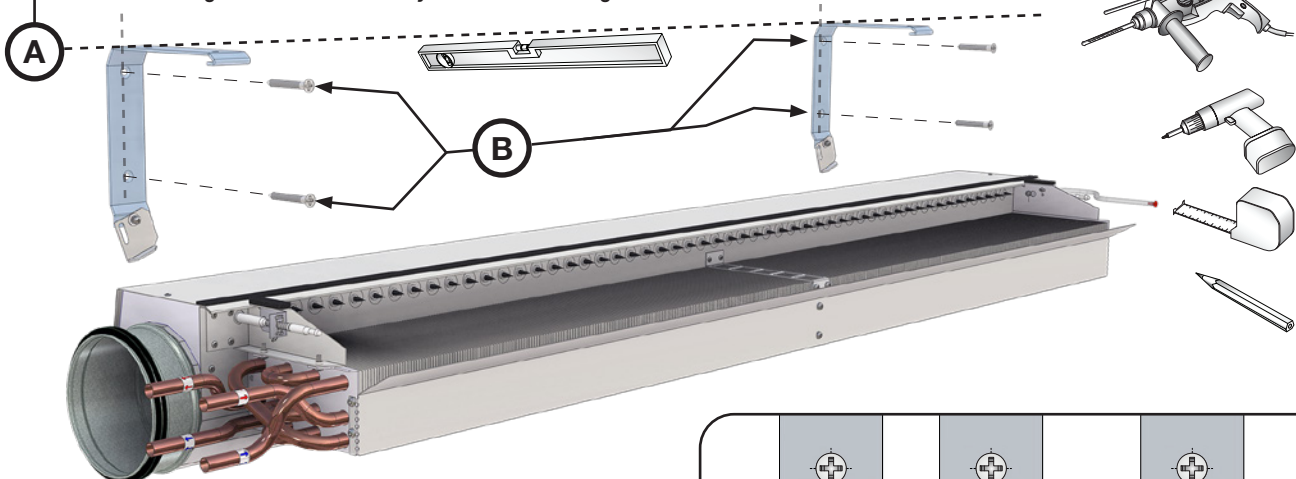
FC Installation on the wall, sealed to the ceiling.



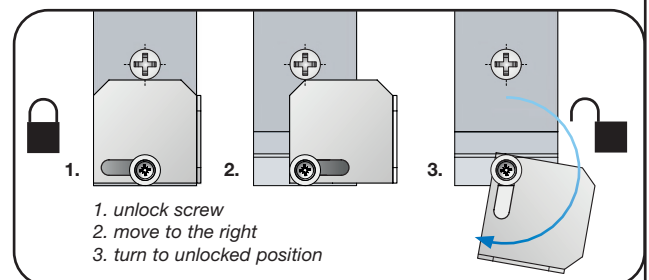
FW Installation on the wall, with distance to the ceiling.



Exact leveling of brackets necessary! Use of a laser alignment tool is recommended.



NB! Make sure that both Body brackets are in "Unlocked" position before "clicking in" the Body to the "Body grips" of the brackets! (Step C-D, see next page).

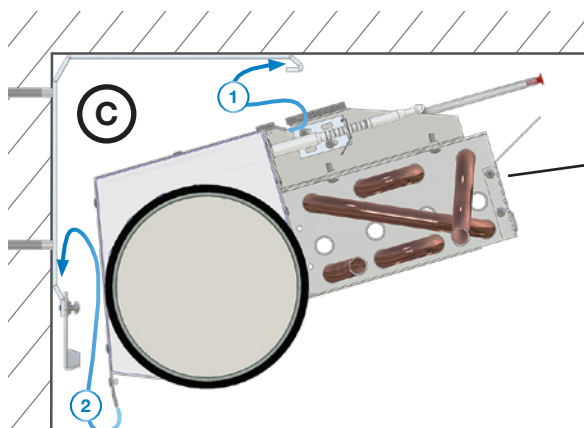


Quick installations guide

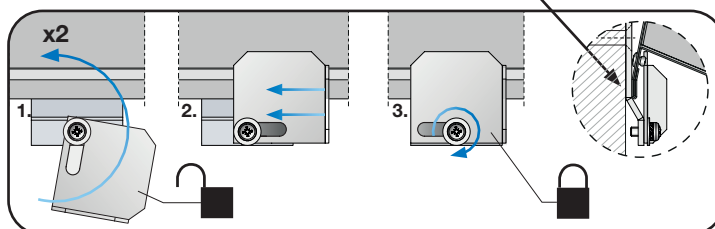
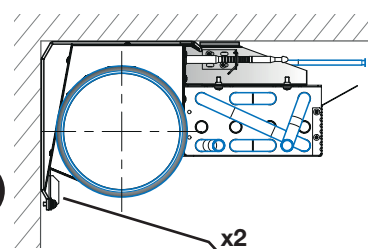
Plafond XD Bodies

FC

Installation on the wall, sealed to the ceiling.

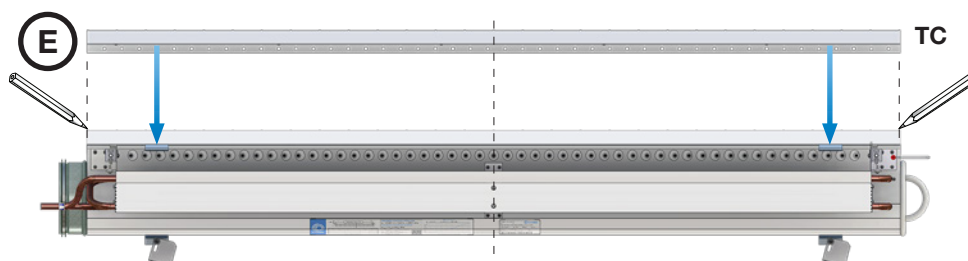


Basic general steps to click in/out the Body
Reverse step C-D to de-install Body



FW

Installation on the wall, with distance to the ceiling.



NB! The FW installation demands a Top Cover (TC) to obtain correct airflow.
The TC **MUST** be centered over the Body.

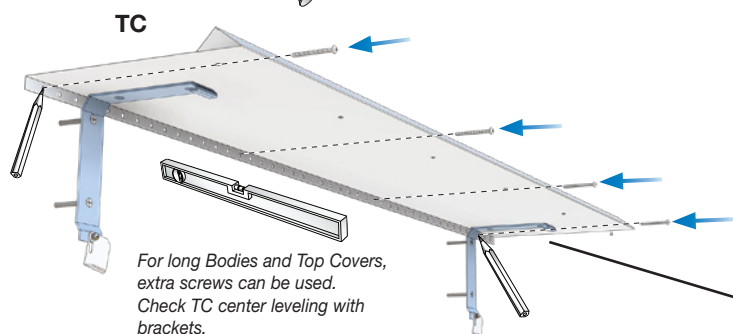
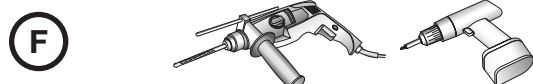
C-D Follow basic steps above to Snap your Body into place and lock it.

E Test fit the TC, placing it on the top of the Body brackets carefully aligning it with the body. Mark up the placement.

D-C Reverse step C-D above to de-install the Body again.

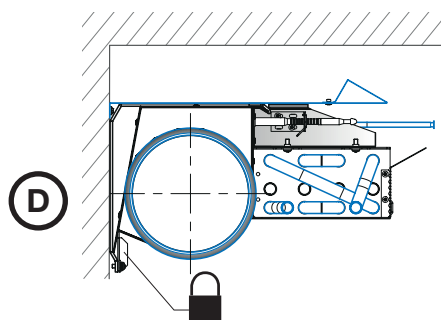
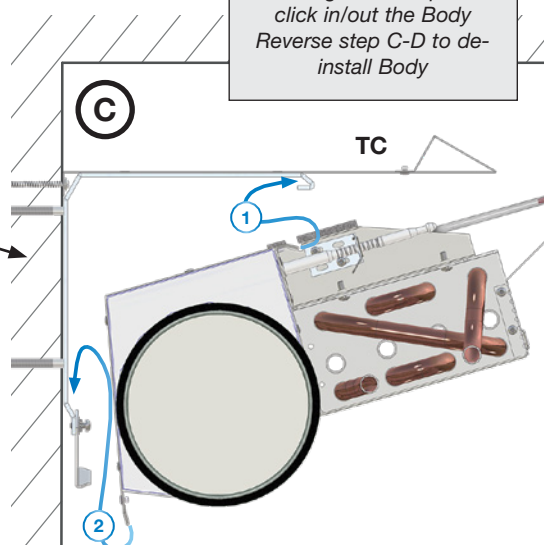
F Mark up holes for screws and install the TC.

C-D Follow basic steps above to Snap your Body into place and lock it.



For long Bodies and Top Covers, extra screws can be used. Check TC center leveling with brackets.

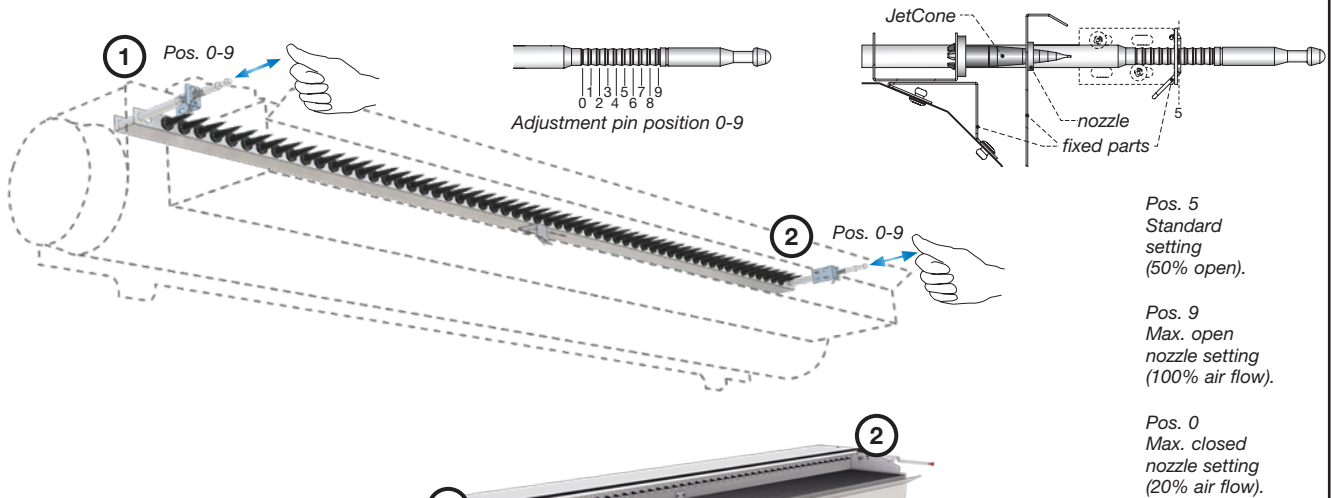
Basic general steps to click in/out the Body
Reverse step C-D to de-install Body



Quick installations guide

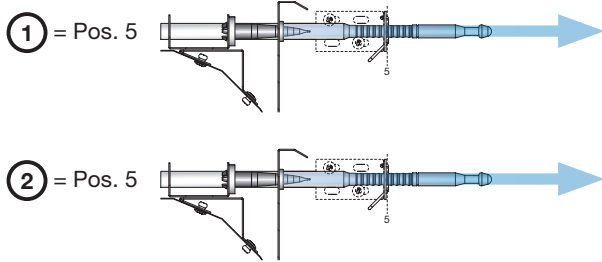
Plafond XD Bodies

IndstillJetCone adjustment



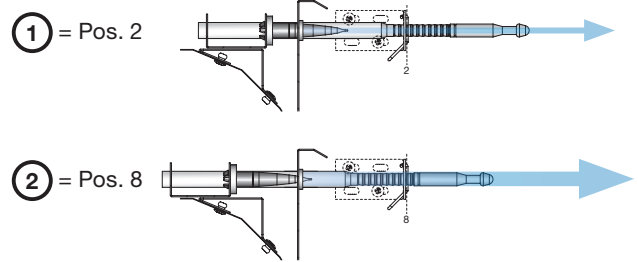
Symmetric adjustment

$$J_{cp} = 5 = \frac{5 + 5}{2} = \frac{10}{2}$$

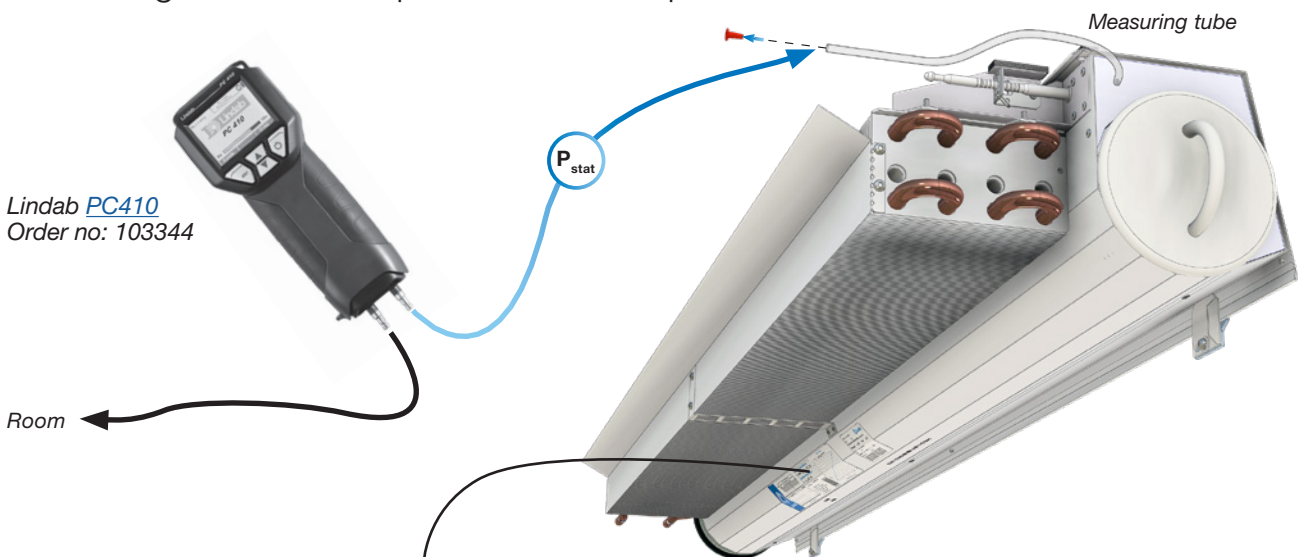


Asymmetric adjustment

$$J_{cp} = 5 = \frac{8 + 2}{2} = \frac{10}{2}$$



Measuring static nozzle pressure and air pressure



Date	Δp_{stat} [Pa]	q_v [l/s]	1	2	k_{cp}	Signature

Ref: Plafond XD - JetCone 20211010

Calculation of primary airflow rate
 $q_{p1} = (0.089 \times J_{cp} + 0.2) \times k_{cp} \times \sqrt{\Delta p_{stat}}$ [l/s]
Calculation of JetCone position
 $q_{p1} = k_{cp} \times \sqrt{\Delta p_{stat}}$ [l/s]
 $J_{cp} = q_{p1} / k_{cp} = J_{cp}$ = Read diagram

q_{p1} = Primary airflow rate [l/s]
 Δp_{stat} = Static nozzle pressure loss [Pa]
 k_{cp} = Max. airflow at JetCone position 9 [l/s]
 J_{cp} = J-factor at JetCone position 9
 J_{cp} = JetCone position factor
 J_{cp} = Average JetCone position

Adjustment diagram
 $J_{cp} = 8.5 / \sqrt{q_{p1} - 11.28} - 2.25$

Average JetCone position (J)

JetCone position factor ($J_{cp} = q_{p1} / k_{cp}$)

Go to Plafond XD [installation instruction](#) chapter "6. Adjustment and commissioning" for details and examples

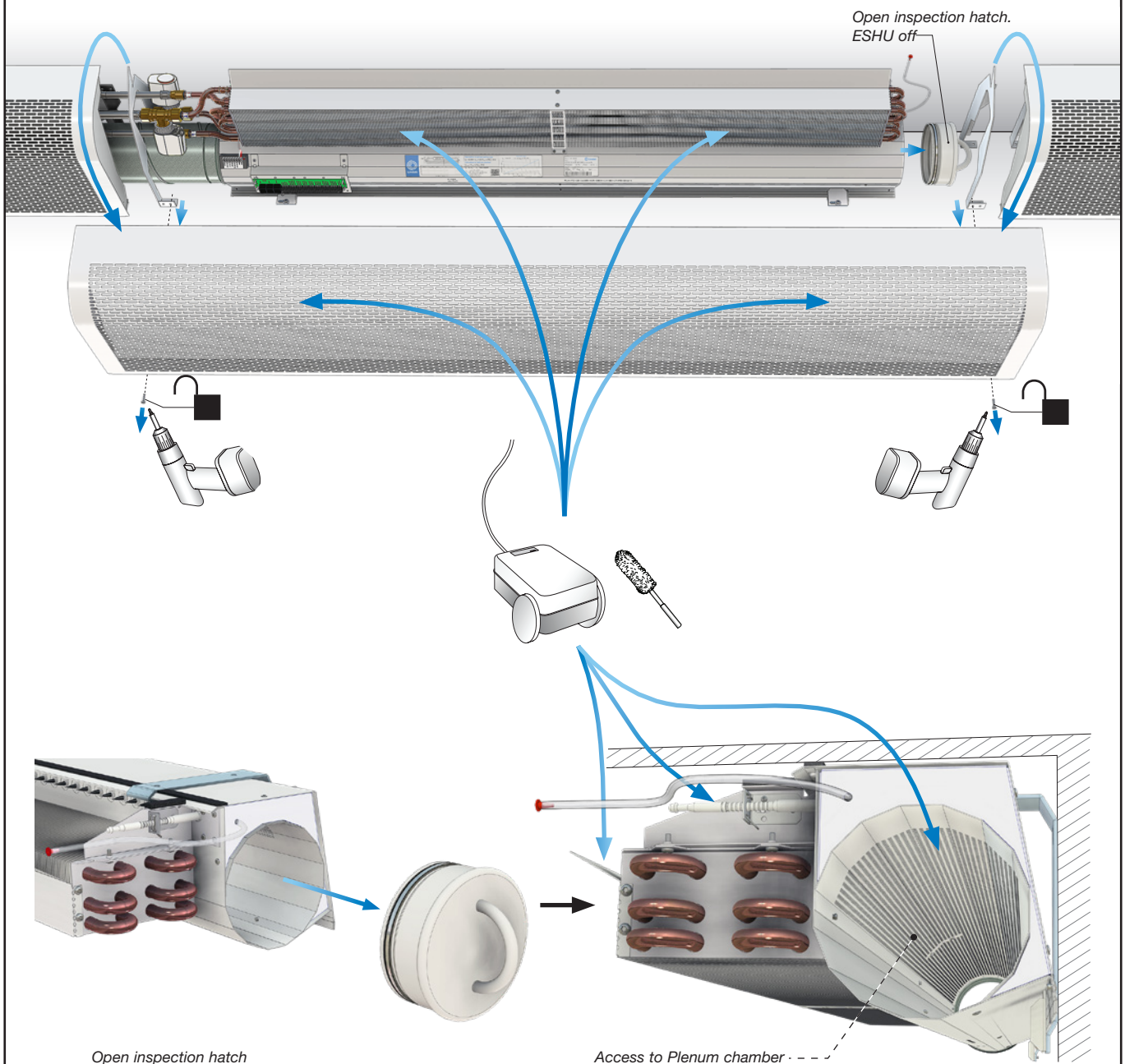
Quick installations guide

Plafond XD Bodies

Maintenance

The interval of cleaning depends on the indoor environment where the beam is placed. Under optimal conditions the beams only need cleaning every 5 years.

- Open Cover.
- Clean the Body battery and the Cover's inner parts with a dust cleaner / vacuum cleaner.
- Only use lukewarm water and a mild detergent and a piece of wet cloth to clean the inlet face plate.
- Open the inspection hatch.
- Clean the air plenum chamber and air connection with a vacuum cleaner.
- Clean the top side of the battery, nozzle plate, JetCones and the plenum chamber with a dust cleaner / vacuum cleaner.





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.

[Lindab](#) | For a better climate