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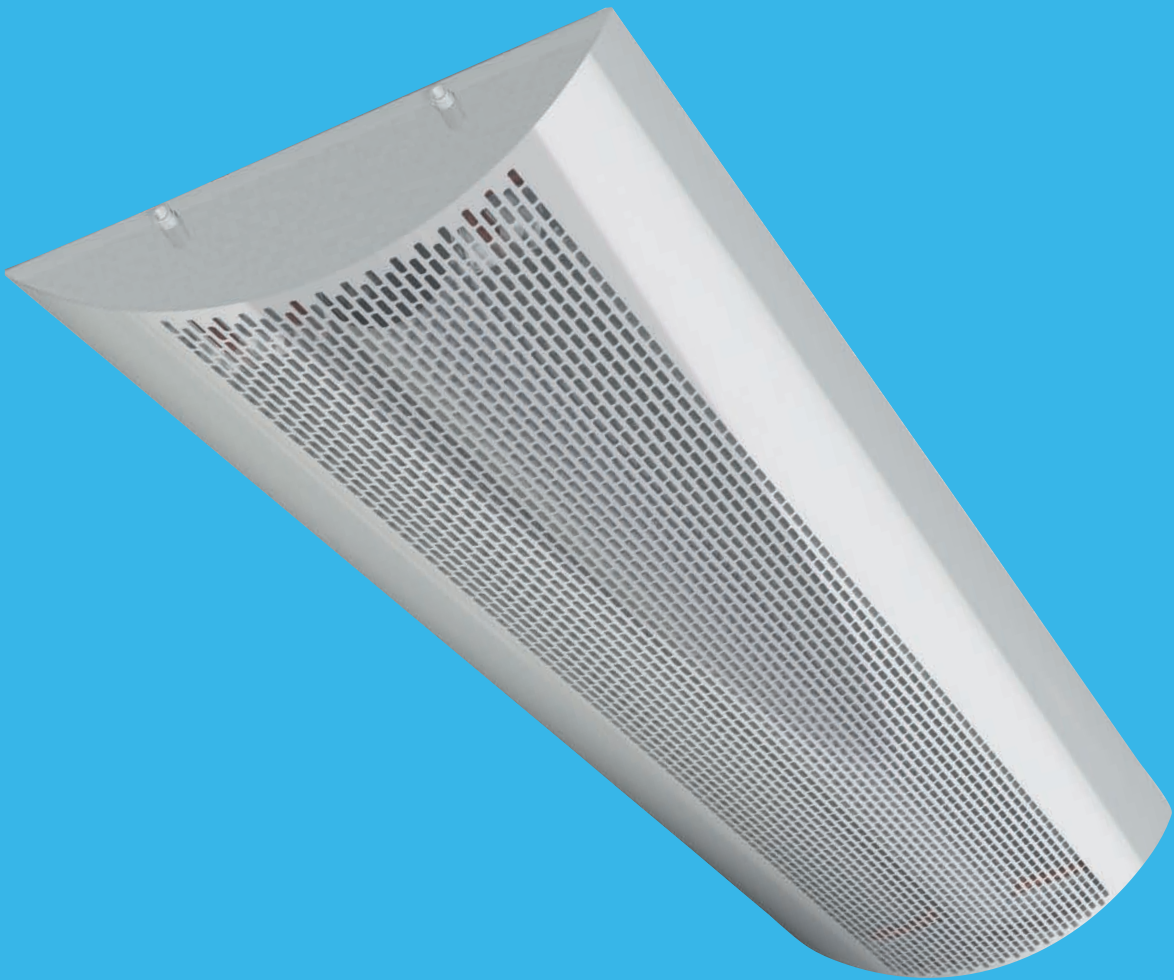

Lindab Architect

Supply air beam

Supply air beam Architect

Use

Lindab's supply air beam Architect provides great freedom of choice in design. A large number of predefined design solutions can be easily applied, in terms of technology, to create customised design solutions with great flexibility, but without affecting the function and performance. One of the advantages is that planning can be done without having to decide on a design. It is also simple to renew the design, if necessary in the future.

Architect is equipped with divergent nozzles to ensure a draft-free indoor climate.

Architect can be equipped with the following features cooling, heating, ventilation, Regula Secura condensation guard, built-in valves and actuators and built-in lighting.

Installation

Architect is a supply air beam for visible installation, which can be mounted on to the ceiling, a wall or suspended. Architect can be supplied with horizontal or vertical connections.

Worth noting

Architect provides great architectonic freedom and has small dimensions, which results in a wide range of applications for the product.

The beam can be easily integrated/used in a Pascal water system to enable VAV/DCV.

Lindabs active chilled beams are Eurovent-certified and tested according to EN-15116.

Key figures

Length:	1200 - 3600 mm (steps of 100 mm)
Width:	350 - 490 mm (design specific)
Height:	111 - 151 mm (design specific)
Capacity:	1630 W

Calculation setup

Room temp: 25°C, Water temp: 14-17°C, Air temp: 18°C, Nozzle air pressure: 80 Pa, Air flow: 15 l/s/m

Supply air beam Architect

Design

Form and technology working together, without affecting one another.

The Architect concept is unique. The shape and appearance of the product can be varied without any adverse effect on the technology. A unique Architect form can be created for each individual environment. Architect is based on the same technology, irrespective of the model you choose; what distinguishes the models is the design and shape of the product. Lindab offers seven different standard designs, products that should appeal to different tastes and suit different interior environments.

The Architect models make it possible to use different perforations and geometric shapes in the products. The perforations can be slots, or round or oval shapes. The standard perforation is called Slot; other variants can be ordered as plus features. As long as it is technologically possible, your imagination is the only limit to the shapes and models that can be created (see picture 1).

From idea to reality

The technical design of Architect, with its extremely small dimensions, allows you to change its look easily so as to match different interiors. The design and shape, of course, must be within certain basic technical limits for the supply air beam to function properly.

Picture 1. Example of how different types of perforations can be used. The model on the far left is the standard design for Architect Moon. The other perforations can be ordered as plus features.

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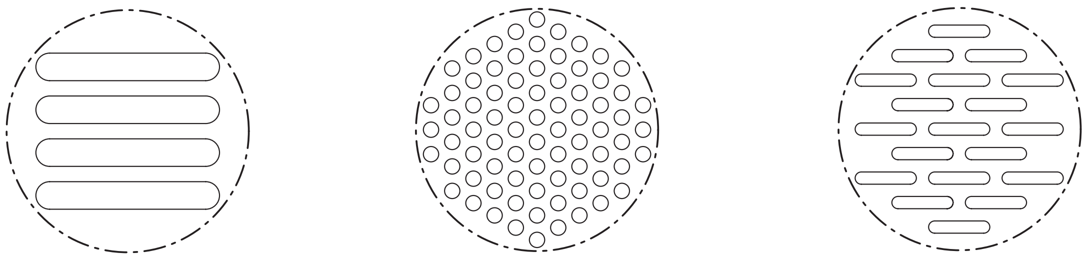
Supply air beam Architect

Design options



Line, 9 × 60 mm *Dot, Ø 5 mm* *Slot, 4 × 20 mm, standard*

Picture 2. Perforation line, dot and slot.

Beam model	Perforation, mm	Open area*, %	Width, perforated surface, mm
Architect Oval	Slot 4 × 20 Line 9 × 60 Dot Ø 5	50 33 33	2 × 116 2 × 136 340
Architect Wave	Slot 4 × 20	50	230
Architect Moon/Wing	Slot 4 × 20 Slot 4 × 20 Line 9 × 60 Dot Ø 5	50 33 33 33	2 × 116 340 330 340
Architect Square	Slot 4 × 20 Slot 4 × 20 Line 9 × 60	50 33 33	2 × 116 330 2 × 136
Architect Facet	Slot 4 × 20 Line 9 × 60	50 33	2 × 52 + 170 4 × 60

** % of perforated surface*
Table 1. Architect's perforation options.

Supply air beam Architect

Design options


Architect Wave


Architect Oval


Architect Square


Architect Box


Architect Facet


Architect Wing

Picture 3. Architect provides great freedom of choice in design. Architect Moon is shown on Picture 1, 4, 6, 7 and 8.

Supply air beam Architect

Function

Powerful function in an extremely small format

Architect is based on the induction principle. Ventilation air with a given dynamic pressure is discharged through specially formed nozzles into a dispersal zone, thereby creating a low static pressure. The low static pressure causes the warm air from the room to be drawn through the battery. The volume of the warm indoor air is 4 to 5 times that of the ventilation air. The air is cooled as it passes through the battery, which consists of aluminium ribs with copper pipes filled with cold running water. The heat of the room is absorbed through the aluminium ribs and then transferred through the copper pipe to the water circuit and goes further to a central cooling unit (see picture 4).

Despite the product's small external dimensions, the design allows for large volumes of air and highly efficient cooling. The nozzles, which discharge the ventilation air, are designed to obtain the Coanda effect. Due to the design, the air starts to adhere to the duct in the nozzle, which means that the Coanda effect is maintained close to the ceiling. Since the air is directed slightly upwards, this important aero-technical function is also achieved in the suspended models.

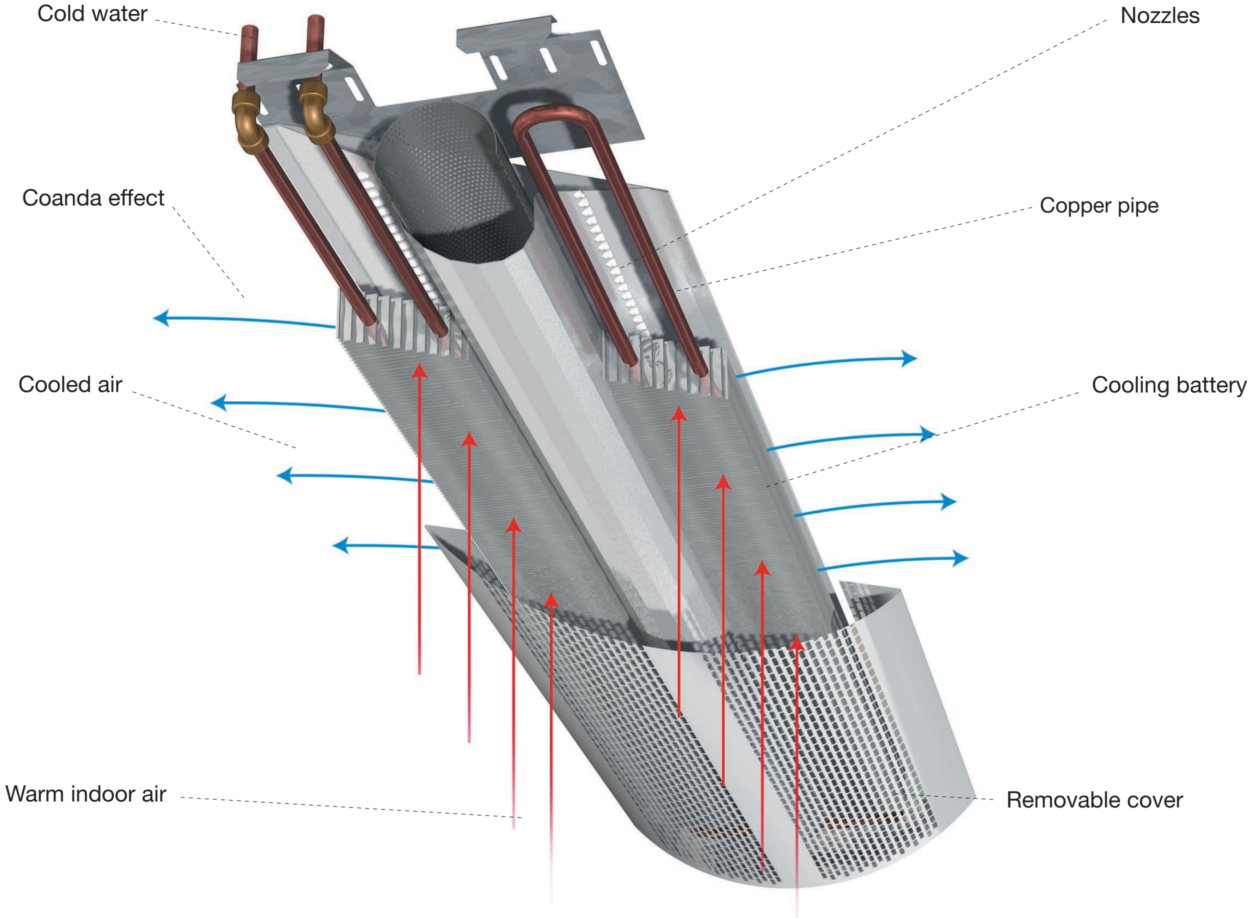
The water pipes are made of copper. Nevertheless the water should be oxygen-free, to prevent corrosion.
A heating function can also be obtained from an additional heating pipe in the battery.

Lindab Pascal Water Solution

VAV/DCV combined with active chilled beams

For an extra energy- and cost saving and environmentally friendly ventilation and cooling system, the Lindab Pascal Water solution should be applied. The Pascal solution will optimize the ventilation, cooling, heating and even lighting for a perfect indoor climate at the lowest running cost by combining the active chilled beam with VAV (Variable Air Volume) or DCV (Demand Controlled Ventilation) technique.

Please refer to: Pascal Water Solutions



Picture 4. Architect is based on the induction principle. The Picture shows Architect Moon.

Supply air beam

Architect

Installation examples

Productive indoor climate in different interiors

The principle behind Architect is that the cooled or heated air spreads along the ceiling. Through induction, the air from the room is drawn back into the central part of the beam, to be cooled or heated. This feature keeps the room well ventilated. Architect is equipped with angled nozzles that distribute the air over a wide area. This results in considerably lower air velocities in the room than with traditional nozzle technology.

Architect's flexible shape and appearance allows the supply air beams to be fitted easily in to a variety of interiors and to appeal to different styles and tastes. This chapter includes several different suggestions for interiors. When installed with a horizontal air and water connection, the cover of the product can be extended to conceal the connection pipes. The cover can be manufactured in lengths of up to 3.6 m.

Where the installation is directly on to the ceiling, the smallest separation between the beam and the nearest wall is 100 mm for all models except Architect Box, which requires 500 mm. For suspended installation, if the beam is placed less than 1000 mm from the wall, some of the air from the side facing the wall will flow back over the beam and in towards the room.

The technology used in Architect also enables installation on to the wall. Pictures 6 and 7 show several different wall installations. The technology and function work regardless of whether the installation is vertical or horizontal. If vertical installation is required, this should be specified in the product specification.

Picture 5. Architect Moon installed on a ceiling.

Picture 6. Architect Moon installed vertically on a wall.

Picture 7. Architect Moon installed horizontally on a wall.

Supply air beam Architect

Installation examples

Picture 8. Architect Moon in a restaurant environment.

Picture 9. Architect Facet in a waiting room / lobby.

Picture 10. Architect Win in a conference room.

Supply air beam Architect

Data

Variants

Architect is an exposed, 2-way active chilled beam for direct installation on to a ceiling, a wall or suspended. Available in 7 different designs: Moon, Wing, Wave, Oval, Box, Facet and Square and is standardly prepared for ventilation and cooling (2-Pipe connection).

Lengths: Architect is available in lengths from 1.2 m to 3.6 m in steps of 0.1 m.

Width: According to type between 350 and 490 mm (see table 16).

Height: According to type and connection size between 111 and 151 mm (see table 17).

Water connection: The water connection is horizontal or vertical, with outer diameter of 12 mm.

Air connection: The air connection is horizontal or vertical, Ø100 mm or Ø125 mm (only: Moon, Facet and Oval).

Nozzle angle: The nozzles can be ordered with different angles: 0°, 16° or 30°. The standard angle is 30°.

Design: Architect can be supplied in different shapes and with different cover perforations (see table 1).

Surface treatment: Architect is manufactured as standard from enamelled sheet metal.

Airflow control: The product has a preset pressure drop value, so on-site adjustment is not necessary. A prerequisite is that the building's duct system has a relatively low-pressure drop compared to that of the product. Where a damper is desired, you can order a balancing damper.

Colour

The product is available as standard, in signal white RAL 9003 or in pure white RAL 9010, gloss value 30. Other RAL colours on request.

Pascal Water Solution

The beam can be easily integrated/used in a Pascal water system to enable VAV/DCV.

Please refer to: Pascal Water Solution documentation.

Plus features

Factory preinstalled.

Heating: The product can be equipped with an additional water circuit, with 12 mm connections, in the batteries to provide a heating function.

Integrated valve and actuator: A control valve, with variable Kv value, and an actuator can be pre-installed in the product.

Integrated Regula Secura: There is an option to have Lindab's Regula Secura condensation guard installed in the product

Integrated Regula Connect: The product can be equipped with the Regula Connect connection card. Refer to the chapter Regula.

Design: Other perforations are available on request.

Air connection: The beam is available with aditional Ø100 or 125 mm (only: Moon, Facet and Oval) connection on the opposite side.

Air boost: Additional nozzles and plugs for future flexibility.

Lighting: The product can be equipped with type-approved light fittings. Refer to the chapter Lighting.

Extended cover: Where it is installed with a horizontal air and water connection, the product's cover can be extended to conceal the connection pipes (see figure 11, 12). The cover can be produced in lengths of up to 3.6 m.

Cover plate: It is delivered in two versions. With ceiling attachment or with attachment for both ceiling and wall (see figures 13 to 14).

Accessories

Delivered separately.

Control: Refer to the chapter Regula.

Hangers: For recommended installation principles (see: "Architect Installation Instruction").

All these different hangers are available at Lindab:
-pendulum hangers (in different sizes)
-threaded rods M8
-Lindab FH-system (Gripple®) - hang fast system

For additional accessories please refer to the "Accessories" document on www.lindQST.com.

Supply air beam Architect

Dimensioning

Cooling capacity air P_a

1. Start by calculating the capacity required for the room, to keep a certain temperature. Lindab's TEKNOsim is an excellent tool for this.
2. Calculate which cooling capacity, or read in diagram 1, that is supplied by the ventilation air
3. Remaining cooling capacity needs to be cooled by the water circuit in Architect.

The formula for calculating the capacity of the air:
$P_a = q_{ma} \times c_{pa} \times \Delta t_{ra}$

Size comparison by t_r = 25°C with:
q_a = Primary air flow rate
P_a [W] = q_a [l/s] x 1.2 Δt_{ra} [K] and
P_a [W] = q_a [m³/h] x 0.33 Δt_{ra} [K]

Minimum flow

Please note that flows below the recommended minimum water flow q_{wmin}, can result in unwanted air in the water pipes. Exceeding the nominal flows is not recommended as the capacity gains will only be minimal.

Pipe diameter	q_{wmin}	q_{wnom}
12 mm	0.025 l/s	0.038 l/s

Definitions:
P_a = Cooling capacity air [W]
P_w = Cooling capacity water [W]
P_{tot} = Cooling capacity total [W]
q_{ma} = Air mass flow rate [kg/s]
q_a = Primary air flow rate [l/s]
q_w = Water flow rate [l/s]
q_{wmin} = Minimal water flow rate [l/s]
q_{wnom} = Nominal water flow rate [l/s]
c_{pa} = Specific heat capacity air [1,004 kJ/kg K]
t_r = Room air temperature [°C]
t_{wi} = Water inlet temperature [°C]
t_{wo} = Water outlet temperature [°C]
Δt_{ra} = Temp. diff., room air and primary air temp. [K]
Δt_{rw} = Temp. diff., room air and mean water temp. [K]
Δt_w = Temp. diff. water circuit [K]
$\varepsilon_{\Delta tw}$ = Capacity correction for temperature
ε_{qw} = Capacity correction for water flow
P_{Lt} = Specific cooling capacity [W/(m K)]

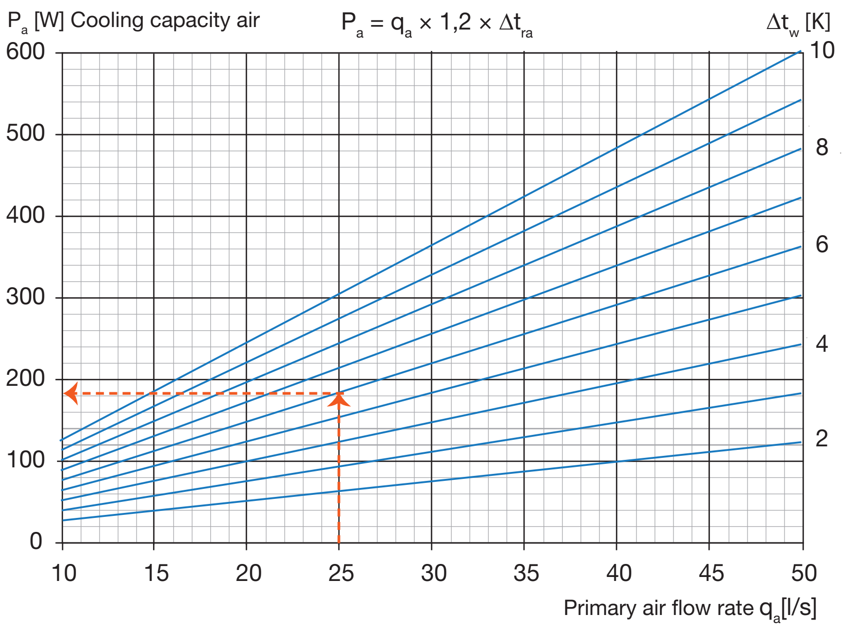


Diagram 1. Cooling capacity air P_a as function of the primary air flow rate q_a. If the air supply flow is 25 l/s and the temperature difference of the room air and the supply air is Δt_{ra} = 6 K, then the Cooling capacity air of the air is 180 W.

Supply air beam Architect

Dimensioning

Cooling capacity water P_w

Follow the instructions below to read off the effect from the diagram.

1. Calculate Δt_{rw} .
2. Product length L minus 0.4 m, to obtain the active length L_{act}.
3. Divide the primary airflow rate q_a by the active length L_{act}. Enter the result on the lower axis of diagram 2.
4. Follow the flow line to the right pressure, and then read off the specific cooling capacity P_{Lt} per active metre.
5. Multiply the specific cooling capacity that was read off by Δt_{rw} and active length L_{act}.

Example 1 Cooling:
What is the cooling capacity of a 2.4 m Architect with 20 l/s and pressure of 60 Pa?

The room's summer temperature is assumed to be t_r = 24.5°C The cooling water temperature in/out of the Architect is 14/17°C.

Answer:
Temperature difference:
$\Delta t_{rw} = t_r - (t_{wi} + t_{wo})/2$
Δt_{rw} = 24.5°C - (14°C +17°C) / 2 = 9 K

Active length:
L_{act} = 2.4 m - 0.4 m = 2 m
q_a / L_{act} = 20 l/s / 2 m = 10 l/(s m)

Read off, from diagram 2: P_{Lt} = 31.3 W/(m K).

Cooling capacity: P_w = 31.3 W/(m K) × 9 K × 2 m = 563 W

NB! The capacity diagram applies for the nominal water flow of q_{wnom} = 0.038 l/s. To obtain the right cooling capacity P_w for other flows, read off the capacity correction factor ε_{qw} from diagram 3, and then multiply the capacity, which is read off, by this factor as shown in example 2 for heating.

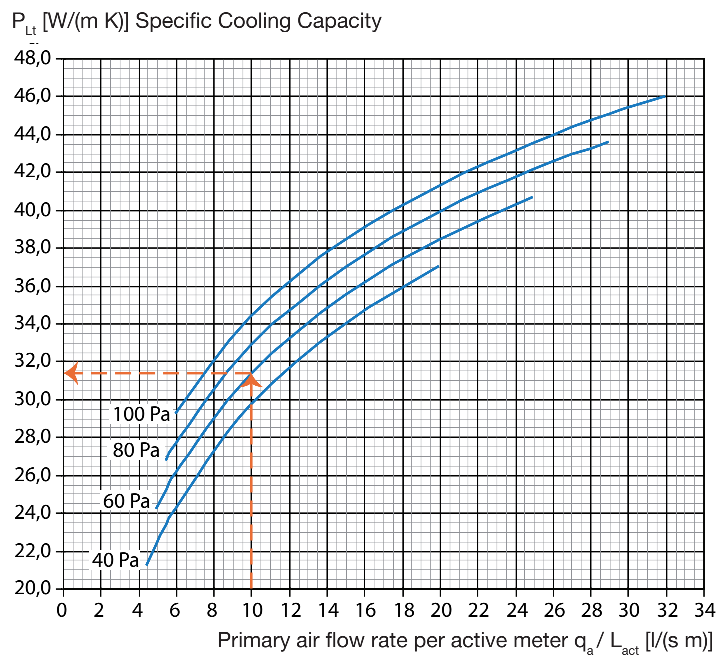


Diagram 2. Specific cooling capacity P_{Lt} as a function of airflow per active metre at nozzle pressures of 40, 60, 80 and 100 Pa.

Supply air beam Architect

Dimensioning

Capacity correction for water flow ε_{qw}

Example 2 Heating:
What is the heating capacity of a 2.4 m Architect with 20 l/s and pressure of 60 Pa?

The room winter temperature is assumed to be t_r = 21° C.
The hot water temperature in/out of Architect is 55/47° C.

Answer:
Temperature difference:
$\Delta t_{rw} = (t_{wi} + t_{wo})/2 - t_r$
Δt_{rw} = (55°C +47°C) / 2 - 21°C = 30 K

Active length:
L_{act} = 2.4 m - 0.4 m = 2 m
q_a / L_{act} = 20 l/s / 2 m = 10 l/(s·m)

Read off, from diagram 2: P_{Lt} = 31.3 W/(m K).

Water capacity: P_w = 31.3 W/(m K) × 30 K × 2 m = 1878 W

Use the calculated water capacity and calculate the water flow: $q_w = P_w / (c_{pw} \times \Delta t_w)$
q_w = 1878 W / (4200 Ws/(kg K) × 8 K) = 0.056 l/s

The capacity correction ε_{qw} will then be 0.743 (see diagram 3) and the new capacity:
P_w = 1878 W x 0.743 = 1395 W

Using the new heating capacity, a new water flow is calculated: q_w = 1395 W / (4200 Ws/(kg K) × 8 K) = 0.042 l/s

Read off the capacity correction ε_{qw} at 0.74 and calculate the capacity: P_w = 1878 W x 0.74 = 1390 W

Using the new heating capacity, a new water flow is calculated: q_w = 1390 W / (4200 Ws/(kg K) × 8 K) = 0.041 l/s

Seeing that the flow is near stabile at this point in the calculation, the heating capacity is calculated to be 1390 W.

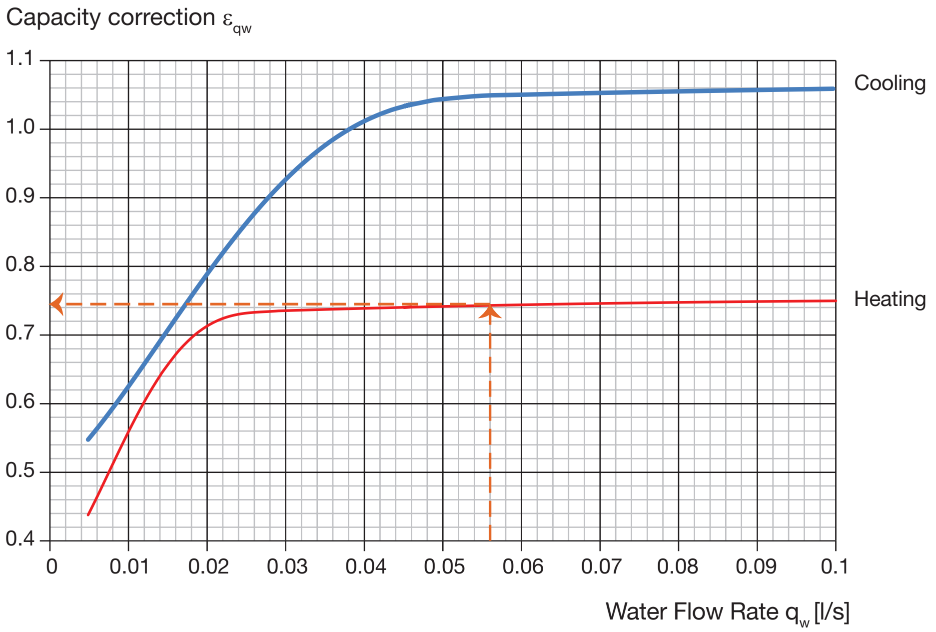


Diagram 3. Capacity correction ε_{qw} for water flow for both cooling and heating.

Supply air beam Architect

Pressure drop in water circuit, cooling/heating

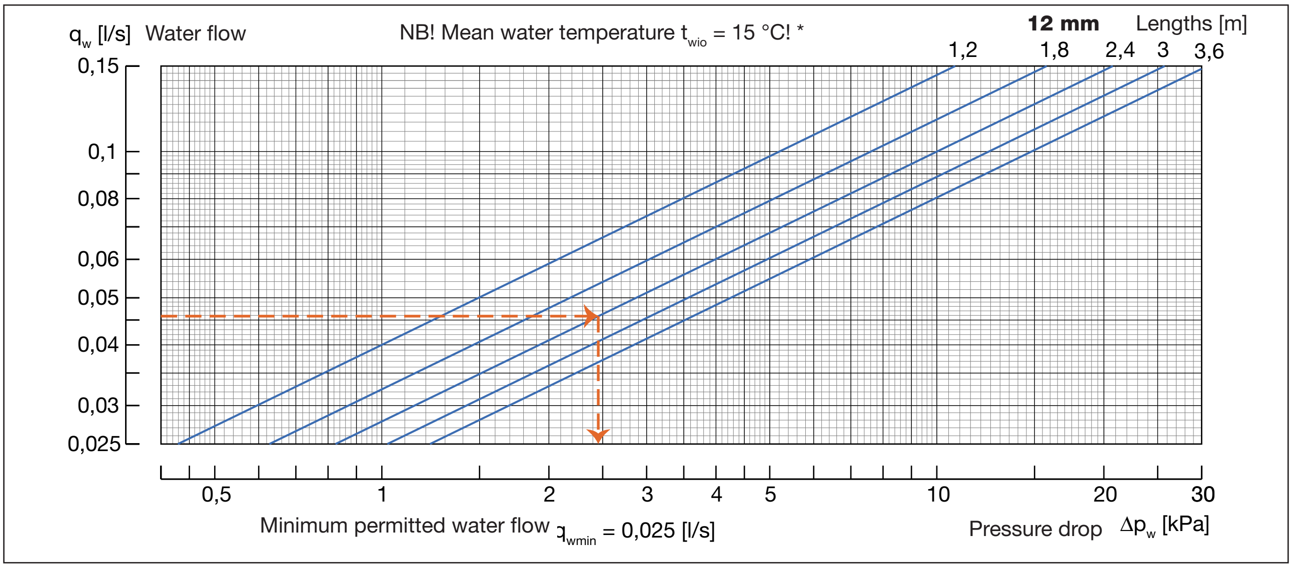


Diagram 4. Pressure drop in water circuit, cooling.

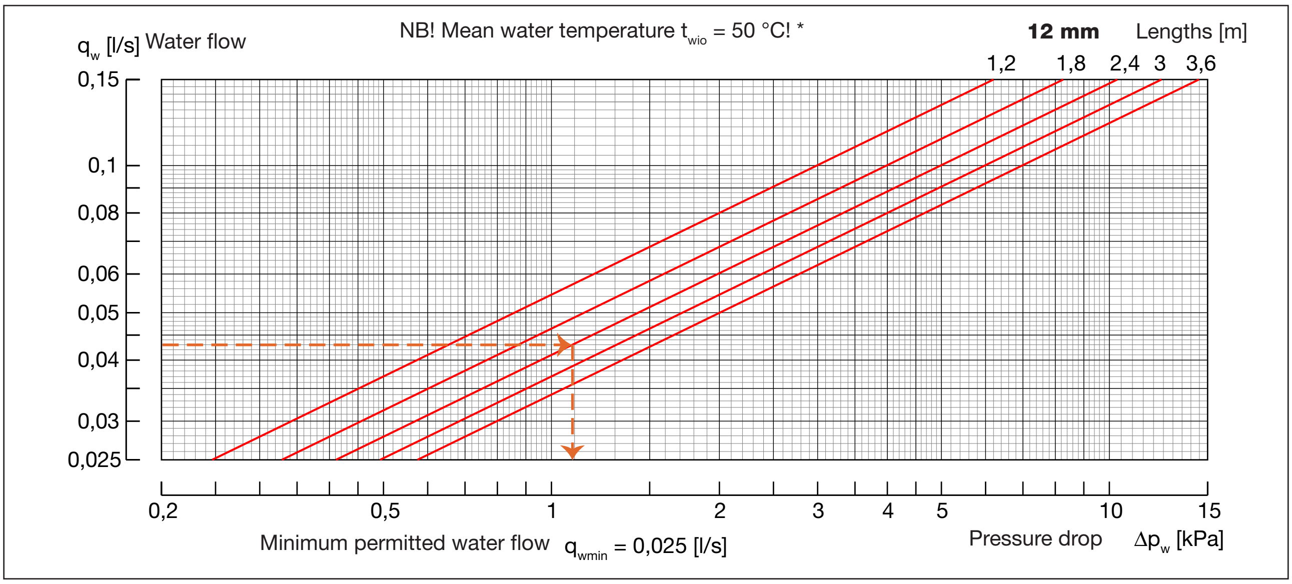


Diagram 5. Pressure drop in water circuit, heating.

Example 3 Cooling:
Architect 2.4 m, which provides an output of 583 W.
$\Delta t_w = 3$ K
$q_w = P_w / (c_{pw} \times \Delta t_w)$
q_w = 583 W / (4200 Ws/(kg K) x 3 K) = 0.046 l/s
The pressure drop in the water circuit in diagram 4 is read off as Δp_w = 2.45 kPa.

Example 4 Heating:
Architect 2.4 m, which provides an output of 1390 W.
$\Delta t_w = 8$ K
$q_w = P_w / (c_{pw} \times \Delta t_w)$
q_w = 1390 W / (4200 Ws/(kg K) × 8 K) = 0.041 l/s
The pressure drop in the water circuit in diagram 5 is read off as Δp_w = 1.09 kPa.

Definitions:
- q_w = Water flow rate [l/s]
- P_w = Cooling capacity water [W]
- c_{pw} = Specific heat capacity water [4200 Ws/(kg K)]
- Δt_w = Temperature difference water circuit [K]
- t_{wio} = Mean water temperature [°C]

* Diagrams are for a certain mean water temperature t_{wio}. For other temperatures please do your calculations in our waterborne calculator in www.lindQST.com!

Supply air beam

Architect

Dimensioning

For dimensioning of chilled beams please refer to our waterborne calculator on www.lindQST.com.

Pressure drop in air connection

Table 2, below, shows the pressure drop in the connection. After calculating the necessary pressure for the supply air beam, add it to the selected static pressure in the nozzles.

Example 5:
Architect Moon-12-100-A1 with 20 l/s and a static nozzle pressure of 60 Pa. This provides a necessary total pressure in the duct of 60 Pa + 4 Pa = 64 Pa.

Pressure drop Δp_a in air connection							
Air flow (l/s)	10	15	20	25	30	35	40
Architect ø100	2	3	4	6	7	8	9
Air flow (l/s)	40	45	50	55	60	65	
Architect ø125	3	4	5	6	7	9	

Table 1. Air pressure drop in the connection to Architect ø100 and ø125.

Material data

Type	**Architect Ø100 / Ø125**
Weight, kg/m	10.5
Water content, cooling l/m	0.65
Water content, heating l/m	0.33
Copper pipes, quality	SS/EN 12449
Pressure class	PN10

Table 2. Architect material data.

Lindabs active chilled beams are Eurovent-certified and tested according to EN-15116.

Supply air beam Architect

Couplings & connections

Architect is supplied in lengths from 1.2m to 3.6 m, in steps of 0.1 m. The connection dimension is 12 mm for the water and 100 mm and 125 mm for the air for Architect Moon, Wing and Facet.

Architect is available with a large number of coupling options. This is how to find the designation, for the coupling option you require for Architect:

Step 1.
Indicate the position for the ventilation connection.

Step 2.
Indicate the position for the pipe connection.

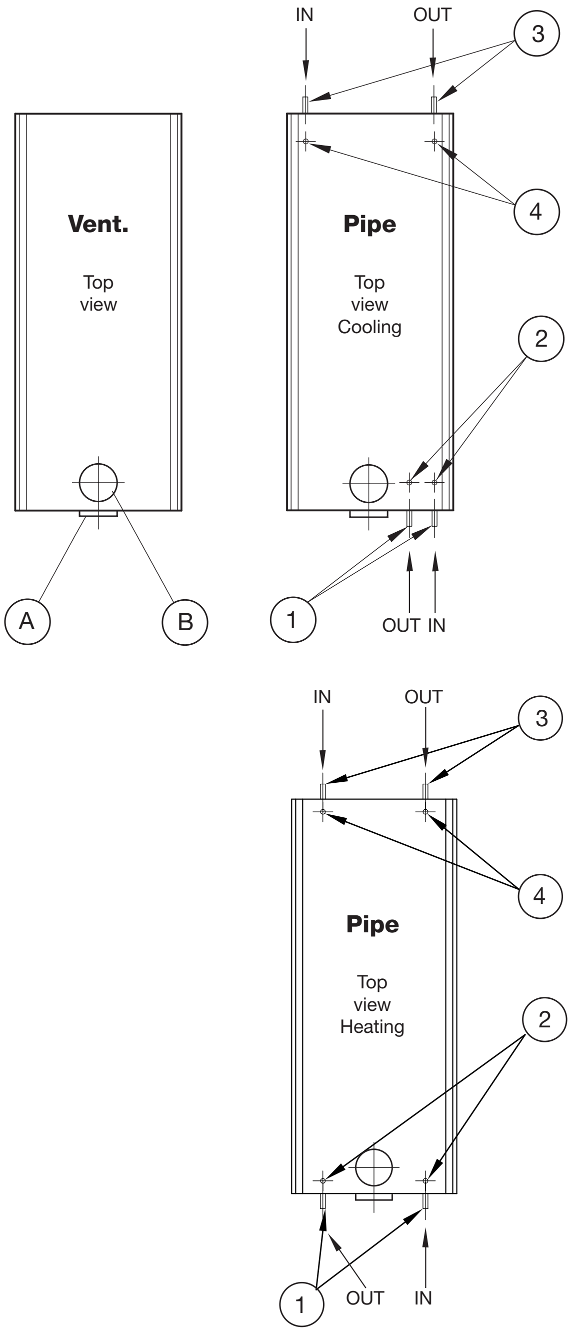


Figure 1. Coupling and connection options.

Examples of designations

Below are examples of common coupling options: Type A1 has a horizontal air connection at the end, and a horizontal pipe connection at the same end of the beam.

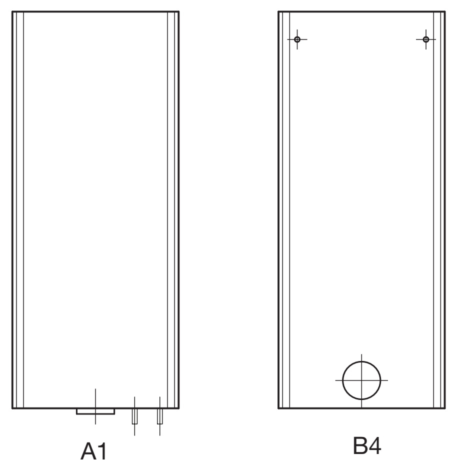


Figure 2. Coupling options A1 and B4.

Supply air beam Architect

Connection dimensions, Ø100 mm cooling

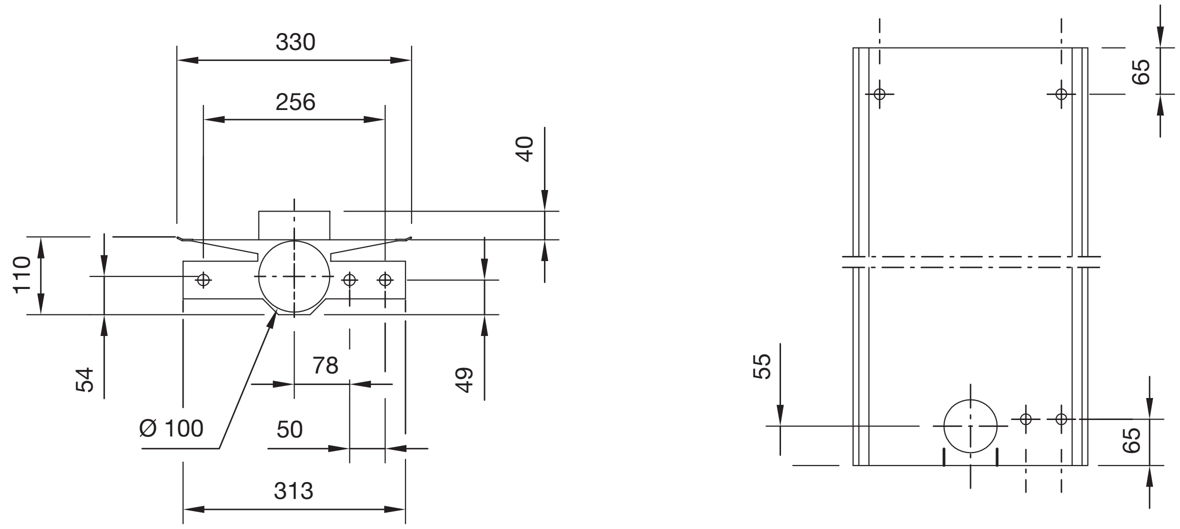


Figure 3. Architect Ø100 mm, cooling. Dimensions for the parts. Total width and length for the respective models vary (see table 16).

Connection dimensions, Ø100 mm heating

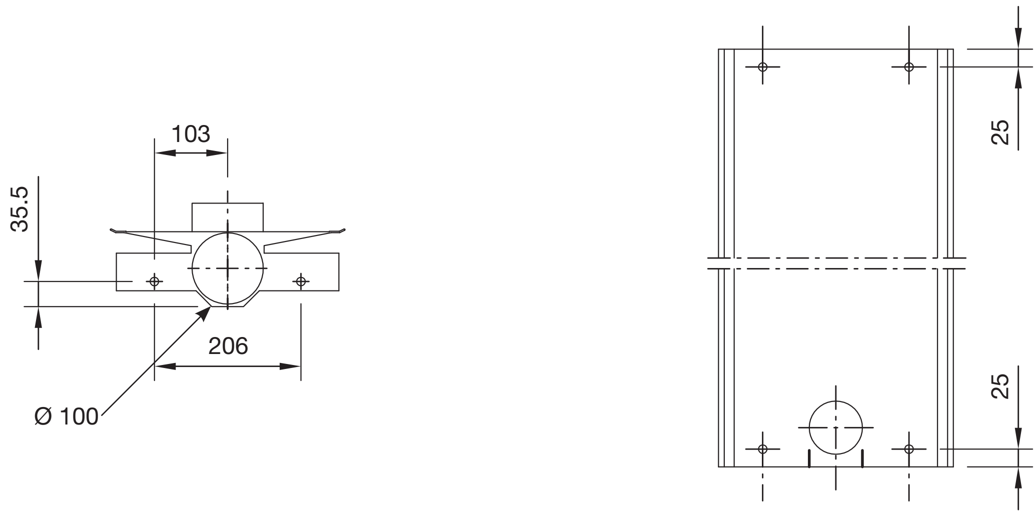
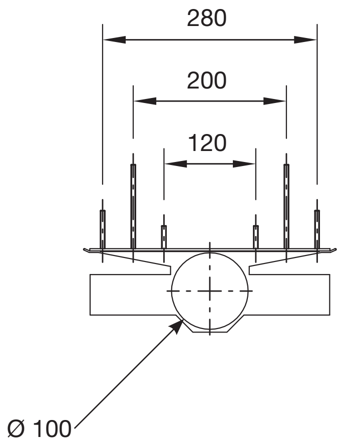


Figure 4. Architect Ø100 mm, heating. Dimensions for the parts. Total width and length for the respective models vary (see table 16).

Supply air beam Architect

Suspension, Ø100 mm connection



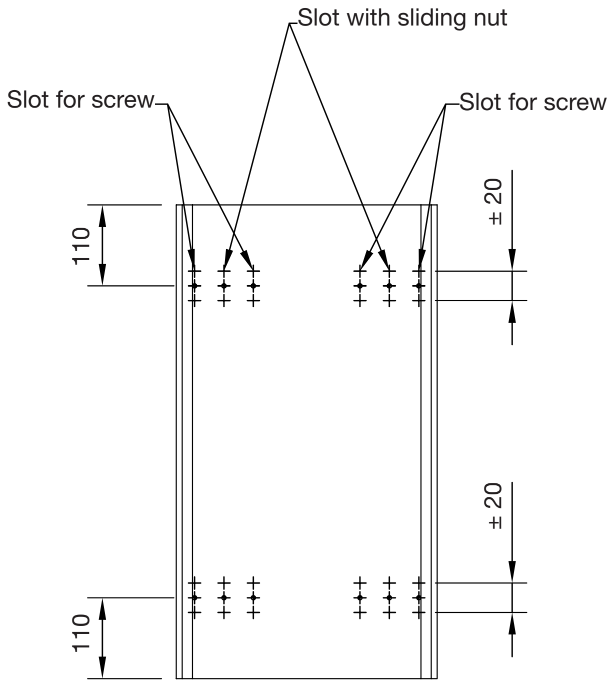


Figure 5. Architect Ø100 mm, suspension / dimensions.

Supply air beam

Architect

Connection dimensions, Ø125 mm cooling

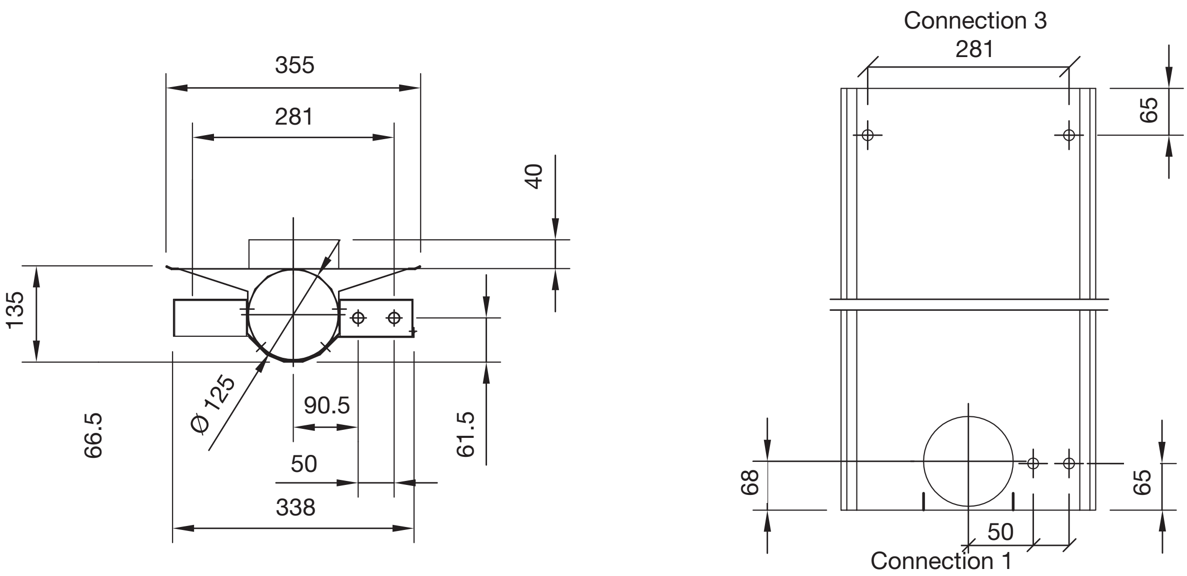


Figure 6. Architect Ø125 mm, cooling. Dimensions for the parts. Total width and length for the respective models vary (see table 16).

Connection dimensions, Ø125 mm heating

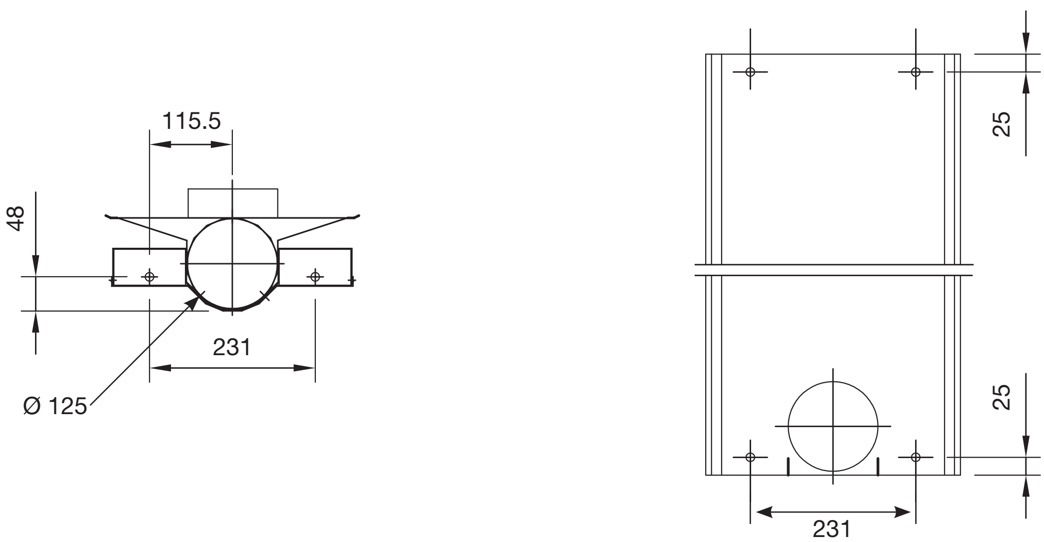


Figure 7. Architect Ø125 mm, heating. Dimensions for the parts. Total width and length for the respective models vary (see table 16).

Supply air beam

Architect

Suspension, Ø125 mm connection

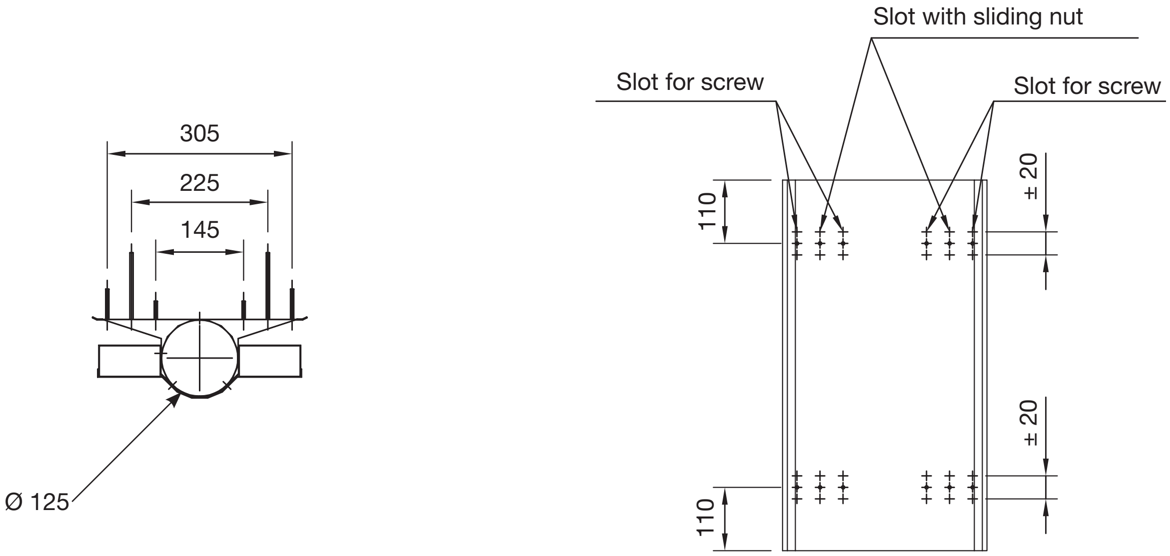


Figure 8. Architect Ø125 mm, suspension / dimensions.

Supply air beam Architect

Dimensions, weight & water content

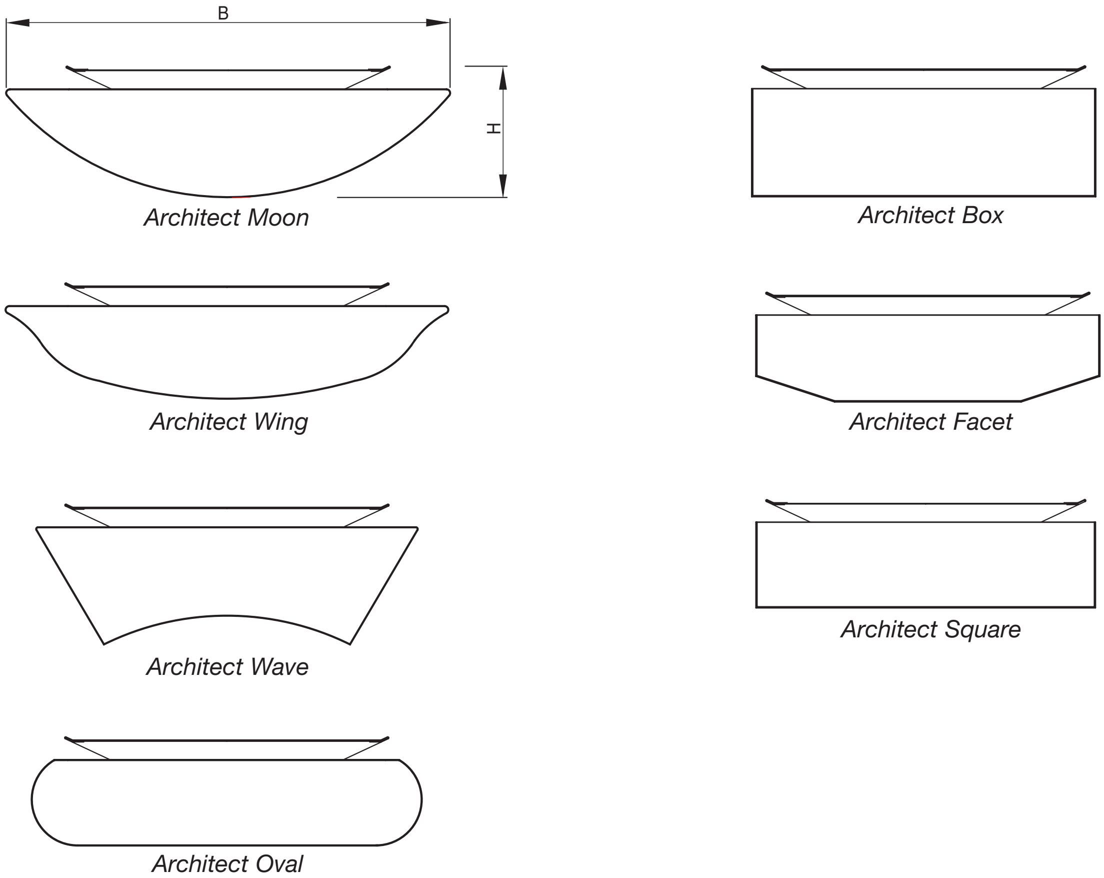


Figure 9. Architect's different versions.

Model	Ø	Width, mm	Height, mm	Product length undersize, mm	Weight, kg/m	Water content, l/m
Moon	100	452	133	0*	10.5	0.65
Moon	125	490	151	0*	10.5	0.65
Wing	100	452	118	0*	10.5	0.65
Wave	100	389	143	0*	10.5	0.65
Oval	100	398	111	0*	10.5	0.65
Oval	125	446	138	0*	10.5	0.65
Box	100	350	133	- 8**	10.5	0.65
Facet	100	350	111	- 8**	10.5	0.65
Facet	125	375	137	- 8**	10.5	0.65
Square	100	350	111	- 8**	10.5	0.65

** The outer cover extends 4 mm beyond the end edges on each side. ** The end edges are folded over the cover.*

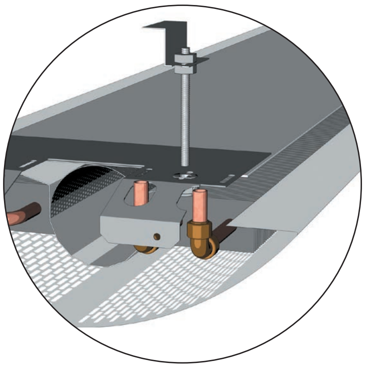
Table 16. Dimensions, weight and water content of the outer cover. Architect's total length is the ordered length minus undersize.

Supply air beam Architect

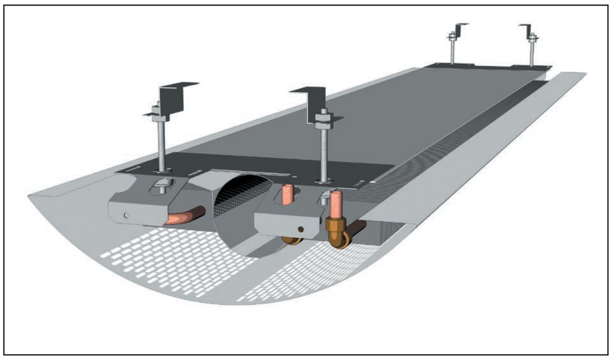
Installation examples

Architect is usually installed with brackets directly on to the ceiling or suspended from it. Pictures 11 and 13 show the beam during installation. Pictures 12 and 14 show a complete installation.

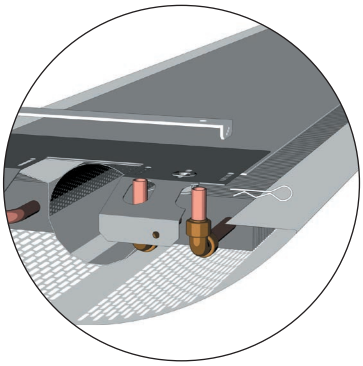
Available accessories include M6 threaded rods, which can slide lengthwise, on the Architect mounting plate. Brackets for direct-to-ceiling mounting are also available. Mounting accessories will be delivered upon request.



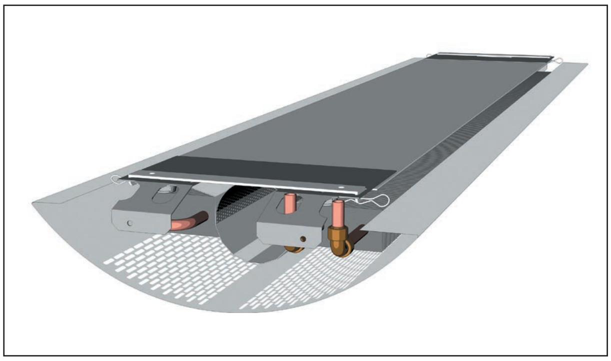
Picture 11. Suspension with threaded rods.



Picture 12. Architect installed with threaded rods.



Picture 13. Direct to ceiling bracket.



Picture 14. Architect installed with cotter pins that are inserted into brackets attached to the ceiling.

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Supply air beam Architect

Extended cover / Cover

For installation with horizontal air and water connections, the connection pipes can be concealed, using one of four alternative options, depending on the placement and attachment options.

Options:
1. Extended cover with wall attachments (see fig. 11). Maximum length: 3.6 m.
2. Extended cover with ceiling attachments (see fig. 12). Maximum length: 3.6 m.
3. Cover with ceiling attachments (see fig. 13).

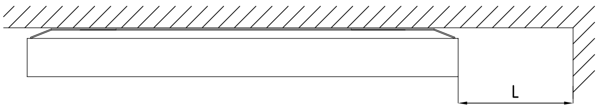

Figure 10. Ordered length.

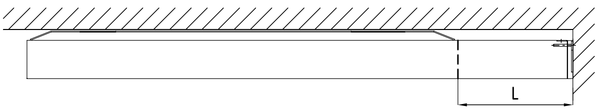

Figure 11. Extended cover with wall attachments.

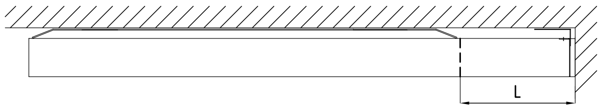

Figure 12. Extended cover with ceiling attachments.

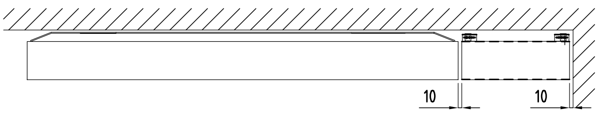

Figure 13. Cover with ceiling attachments.

Supply air beam Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8° C. All heat supplied through the walls (the V test method).

For distribution diagrams, where the nozzles have an angle of 30°, the short ends of the beams should not be closer than 1.2 m from each other, if the air velocities given below are to apply.

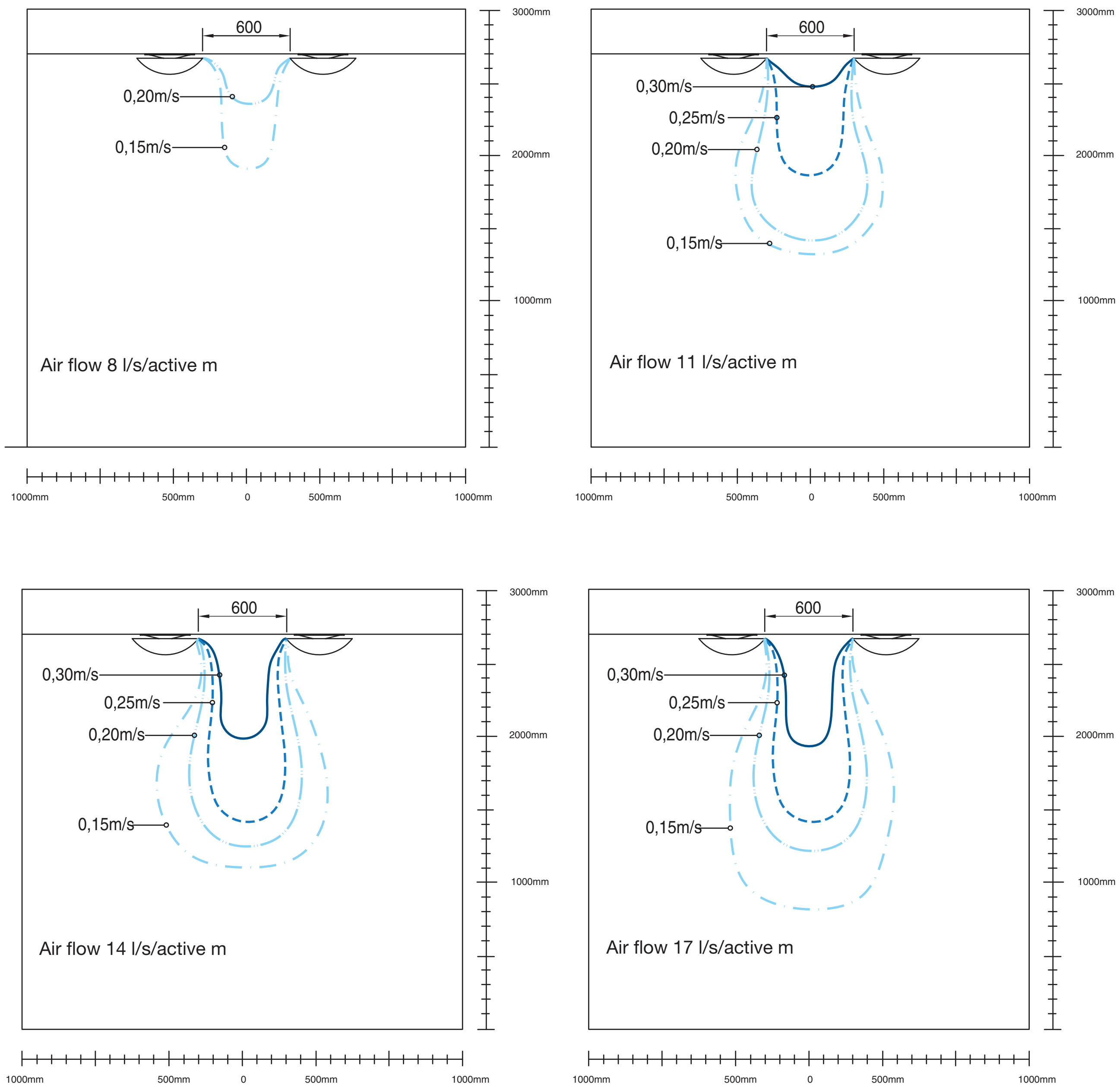

Figure 15-18. Air velocities between supply air beams at a separation of 600 mm. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa. If additional rows of beams are installed closer than 1.2 m from each other, the distribution patterns shown above will change.

Supply air beam

Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8° C. All heat supplied through the walls (the V test method).

For distribution diagrams, where the nozzles have an angle of 30°, the short ends of the beams should not be closer than 1.2 m from each other, if the air velocities given below are to apply.

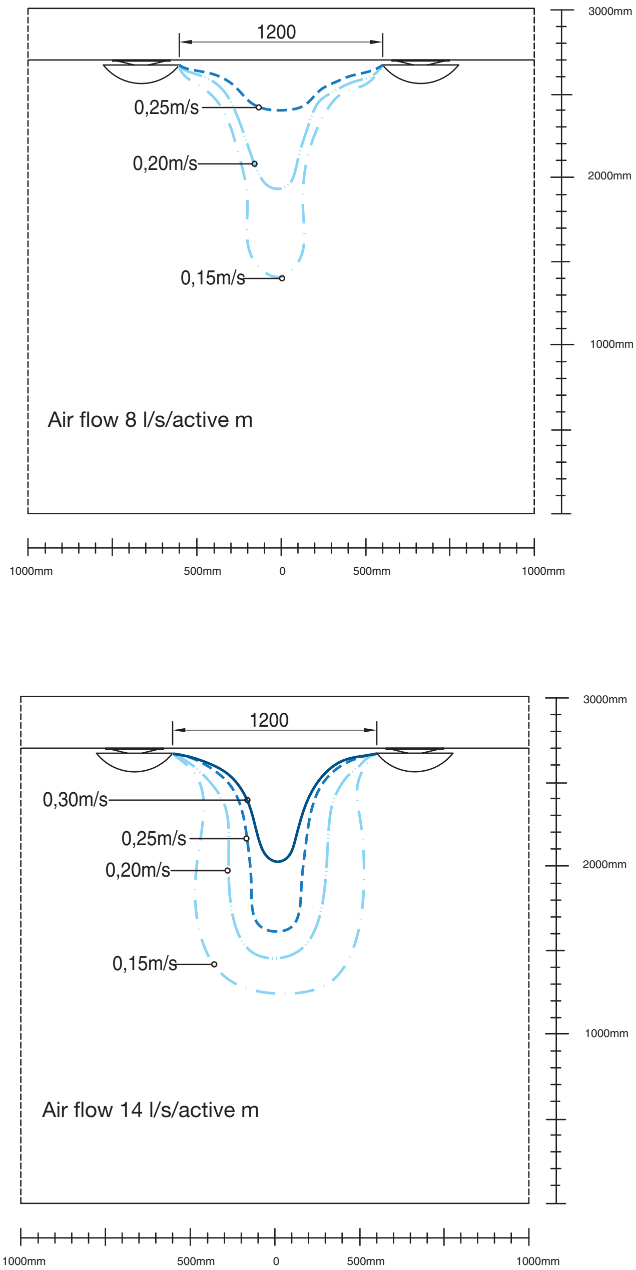

Figure 19-22. Air velocities between supply air beams at a separation of 1200 mm. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa.

Supply air beam Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8° C. All heat supplied through the walls (the V test method).

For distribution diagrams, where the nozzles have an angle of 30°, the short ends of the beams should not be closer than 1.2 m from each other, if the air velocities given below are to apply.

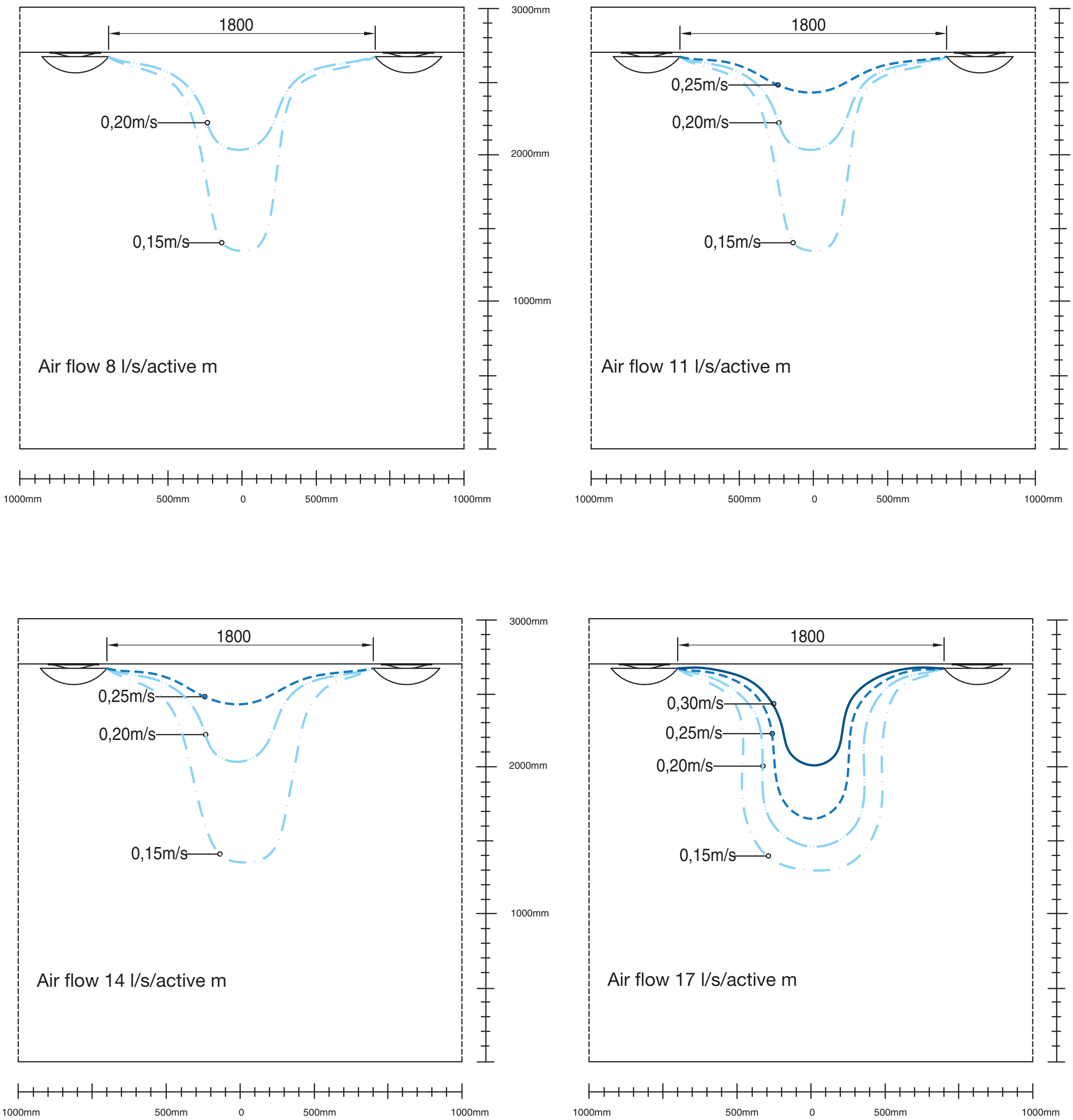

Figure 23-26. Air velocities between supply air beams at a separation of 1800 mm. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa.

Supply air beam

Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8.5° C. All heat supplied through the walls (the V test method).

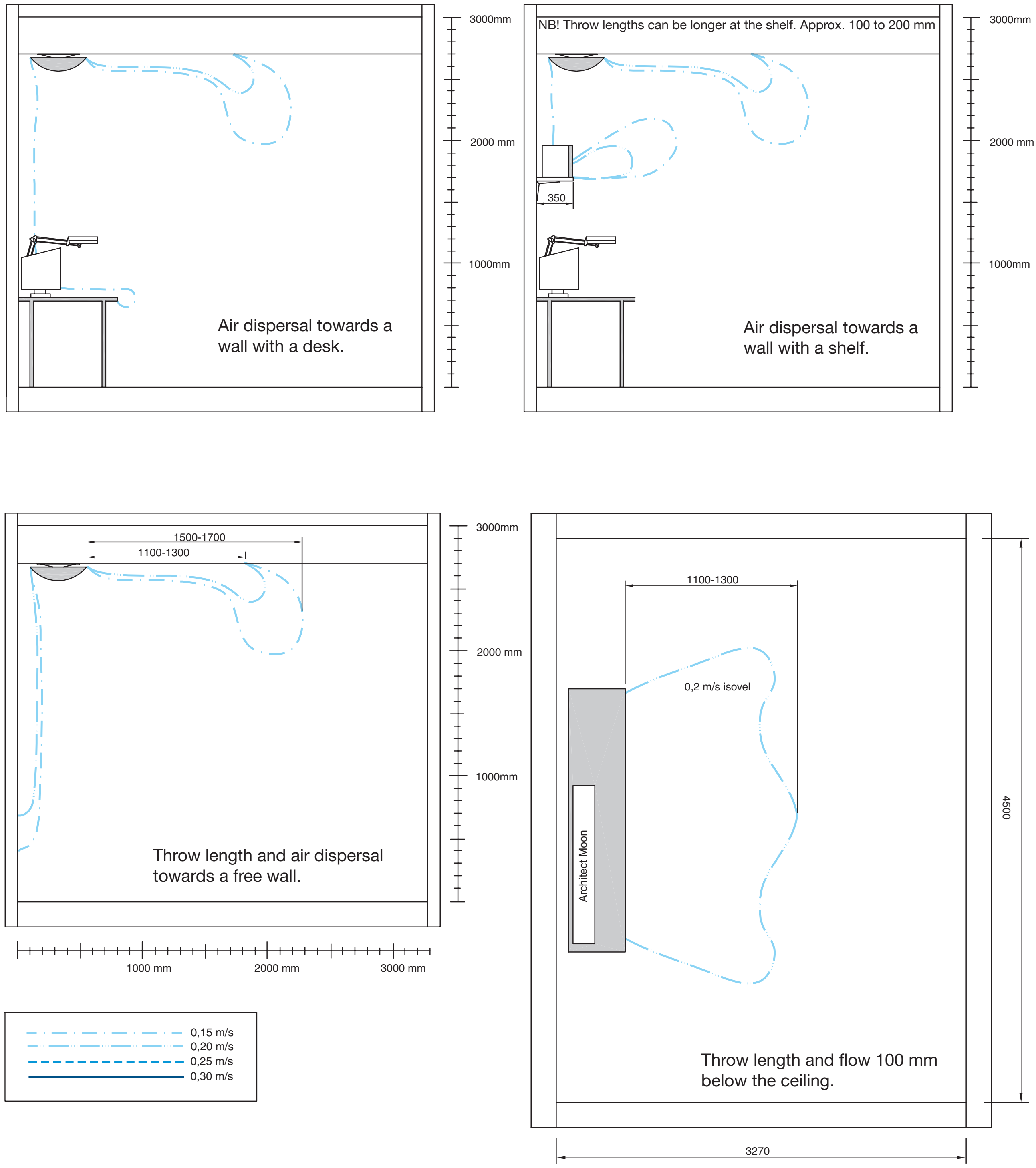

Figure 27-30. Air velocities below the supply air beam, when the airflow is 8 l/s per active metre. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa.

Supply air beam Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8° C. All heat supplied through the walls (the V test method).

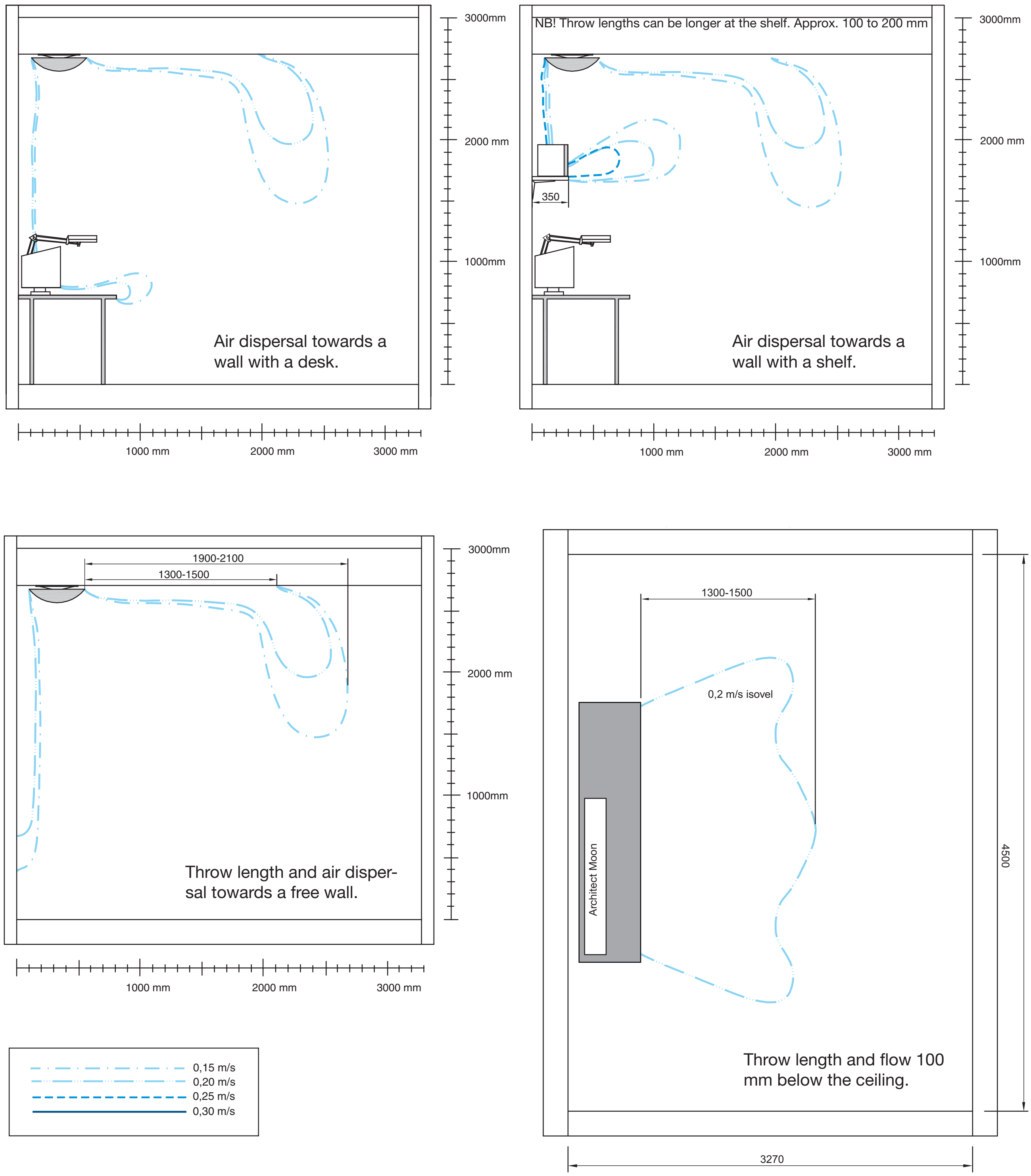

Figure 31-34. Air velocities below the supply air beam, when the airflow is 11 l/s per active metre. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa.

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Supply air beam

Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8° C. All heat supplied through the walls (the V test method).

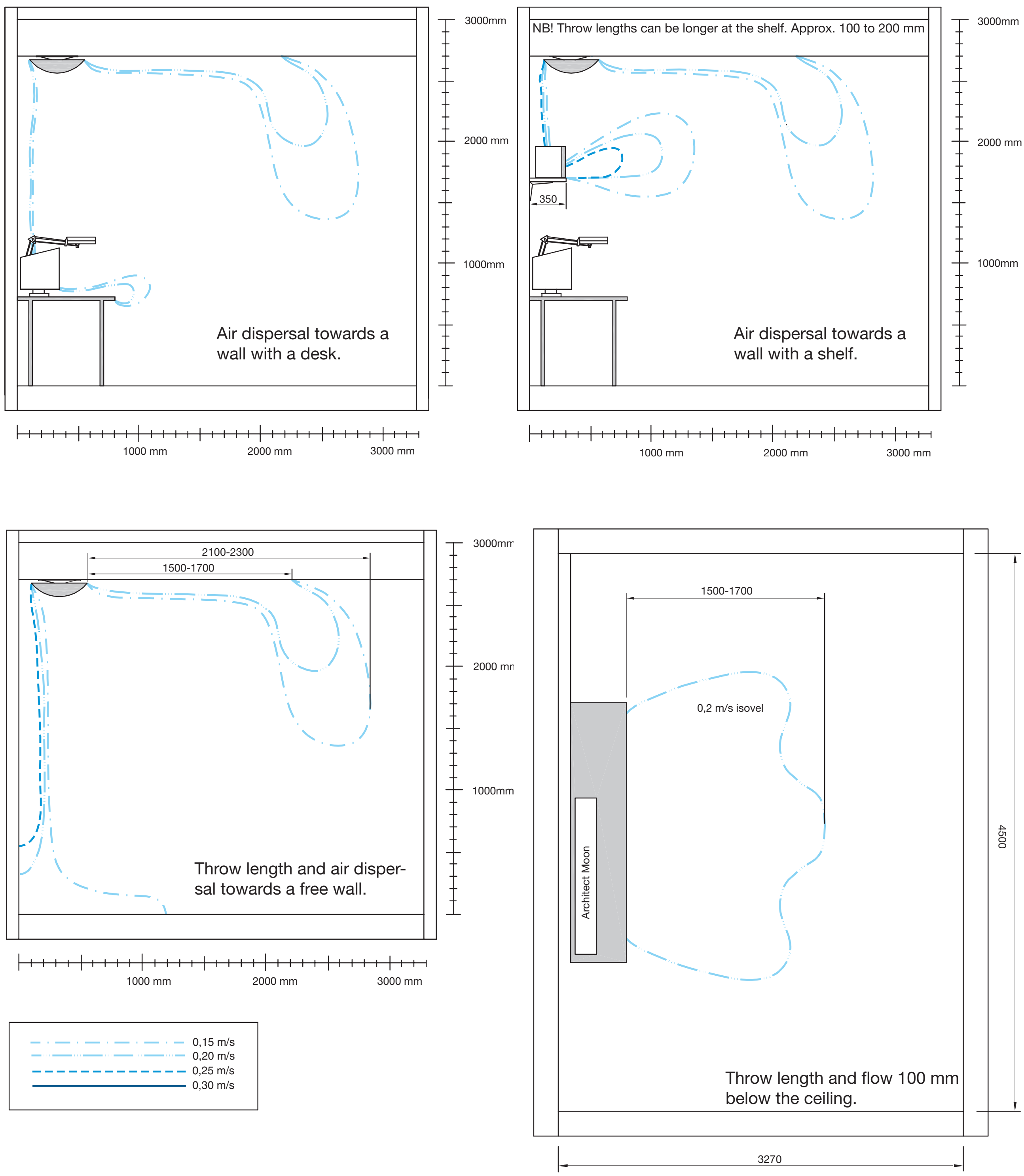

Figure 35-38. Air velocities below the supply air beam, when the airflow is 14 l/s per active metre. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa.

Supply air beam Architect

Distribution diagrams, Architect

The measurements are performed with cooled air supply (Δt room air – supply air) of 5° C and cooling in the water circuit (Δt – room air – average water temperature) of 8.5° C. All heat supplied through the walls (the V test method).

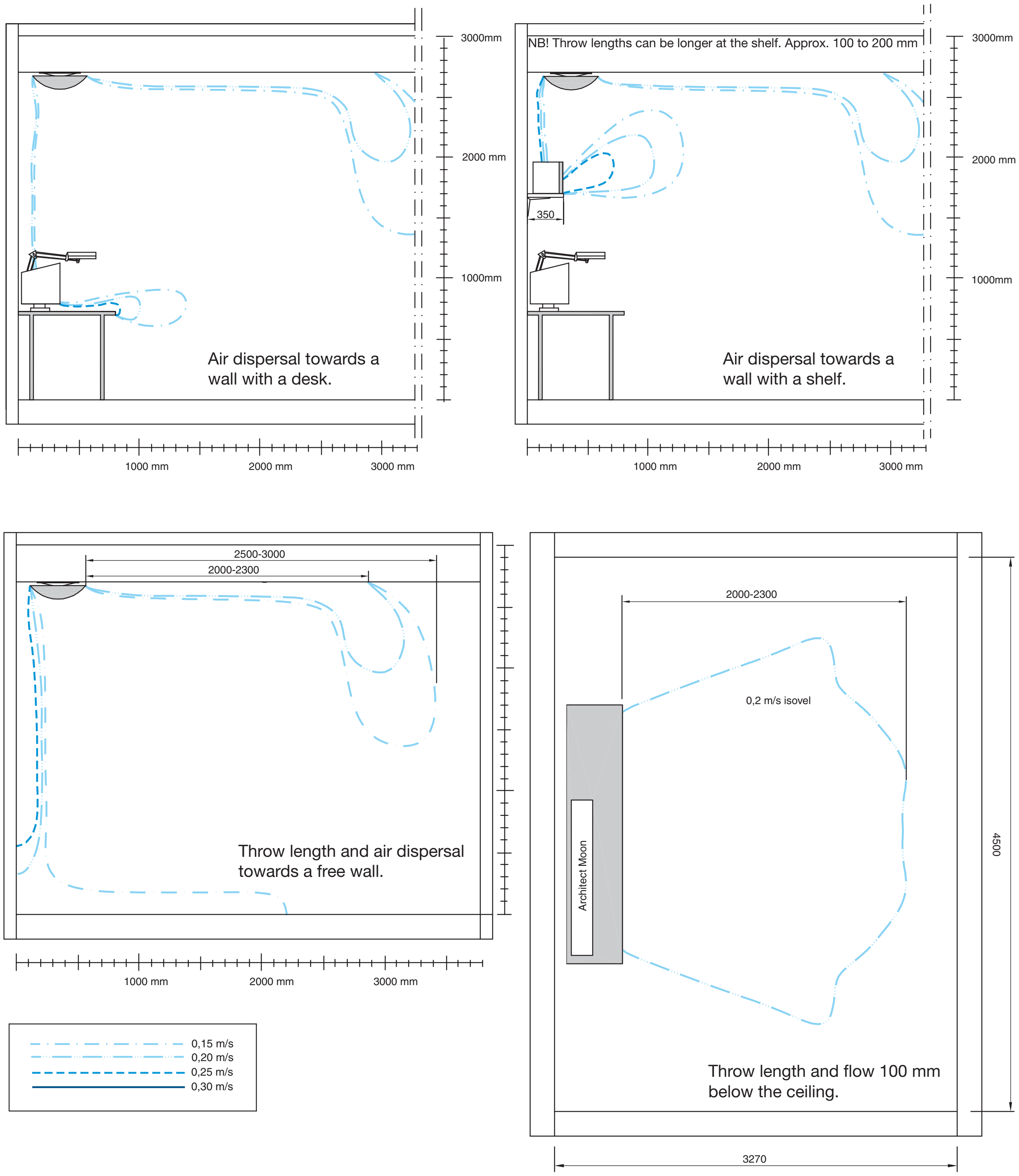

Figure 39-42. Air velocities below the supply air beam, when the airflow is 17 l/s per active metre. Standard distribution profile (nozzles at a 30° angle). Nozzle pressure of 60 Pa.

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Supply air beam Architect

Control

Lindab offers control equipment that is very simple to use. To avoid the heating and cooling being activated at the same time, the system is controlled sequentially (Regula Combi). For the technical data, refer to the chapter Regula.

Designations

Product/Version:	Architect Moon, etc.
Connection diam. water, [mm]:	12
Connection diam. air, [mm]:	100, 125*
Coupling options:	Air: A, B Water: 1, 2, 3, 4
Length, [m]:	Length in metres
Air quantity, [l/s]:	Must always be specified
Nozzle pressure, [Pa]:	Must always be specified
Distribution profile:	Standard (30°) Medium (16°) Long (0°)
Plus features:	See page 10

* Only Moon, Facet, Oval.

Programme text

Supply air beams from Lindab	**Qty**
Product:	
Architect Moon-12-100-A1-1.8 m	40
Air quantity:	15 l/s
Nozzle pressure:	60 Pa
Distribution profile:	Medium (16°)
Plus features:	
Drypac	
Regula Secura	
Cooling control valve	
Cooling actuator	
Accessories:	
Regula Combi:	40
Product:	
Architect Box-12-100-B2-2.4 m	20
Air quantity:	20 l/s
Nozzle pressure:	60 Pa
Distribution profile:	Short (30°)
Plus features:	
Drypac	
Heating	
Regula Secura	
Cooling control valve	
Cooling actuator	
Heating control valve	
Heating actuator	
Air vent	
Accessories:	
Regula Combi:	20

Order code

Product Architect Box 12 100 B2 2.4 60 20

Type:
Moon, Wave, Oval, Square
Box, Facet, Wing, Body

Water connection:
12 mm

Air connection:
100, 2x100 (opposite end),
125, 2x125 (opposite end)

Connection type:
A1, A2, A3, A4
B1, B2, B3, B4

Product length:
1.2 m - 3.6 m (In steps of 0.1 m)

Static nozzle pressure (Pa):

Air volume (l/s):

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.