



DID-E2 NORDIC EDITION

ACTIVE CHILLED BEAM

- Low air velocity in the occupied zone results in high comfort levels
- High heating and cooling capacity at lower air flow rates and sound levels.
- Fixing points for various types of suspension and secondary air grille fastened with magnets

APPLICATION

DID-E2 Nordic Edition is a chilled beam made especially for bulkhead applications, such as hospitals and hotel rooms. The beam is made for rooms up to 4 m high.

DESIGN

The coil for waterborne cooling and heating is delivered with two options: standard cooling and combined heating and cooling with two circuits. A suspendable perforated underplate simplifies the cleaning of the coil. The connection for primary air is Ø125 mm or Ø160 mm spiral duct. Connection to water with a Ø12 mm copper pipe. DID-E2 NE has a 50 mm telescopic frame for the secondary grille, and a 150 mm telescopic frame for the frontal grille. The secondary grille is mounted with magnets to simplify the process of cleaning and maintenance of the coil.

DESCRIPTION

MATERIALS AND SURFACES

DID-E2 Nordic Edition is manufactured using galvanized steel, corrosion grade C3. Heat/cooling coil consists of copper and aluminium, corrosion grade C3. The secondary grille is manufactured using galvanized steel and coated in our standard RAL 9003, gloss 30, corrosion grade C3. The frontal grille is manufactured using aluminium, coated in our standard RAL 9003, gloss 30, corrosion grade C3. Other colors available upon request.

INSTALLATION

IMPORTANT. To mount the beam in the roof, the telescopic frame for the front grille has to be taken out, and the secondary grille must be unmounted from the beam.

DID-E2 NE has four mounting brackets for threaded rod. It is recommended to use impact anchors or similar when mounting in concrete. Secondary grille is mounted using four screws, one in each corner. The telescopic frame is pushed into the baffle from the room side until it rests against the wall.

Mounting. When the baffle is secured to the ceiling with threaded rods, the frame for the secondary grille can be fastened back to the rim using four screws. The grille is clamped up to the suspended ceiling and the screws are tightened. Click secondary grille in place. Telescopic frame for front grille is attached to the short sides of the frame with mounting screws, key width 10 mm.

To open the secondary grille, you can use a hook or similar. Gently pull down until the magnets release. The front grille is easily mounted in the telescopic frame. Screws in each short side of the front grille lock against slot grooves in the telescopic frame.

TECHNICAL INFORMATION

DID-E2-NE-4-S1-BH-A1-1000x512x123-B-0

1 2 3 4 5 6 7 8

- 1. Type**
DID-E2-Nordic Edition
Active chilled beam
- 2. Heating and cooling coil**
2 = 2-pipe connection, cooling
4 = 4-pipe connection, heating/cooling
- 3. Nozzle size**
S1 = Medium
S2 = Large
HP = Extra large
- 4. Water connection placing**
BH = Water connected on right side of the back plate*
BL = Water connected on left side of back plate*
* When duct are side connected, the water connection will always be on opposite side of air connection
- 5. Water connections**
0 = Plain pipe Ø12 mm
A1 = With ½" external threads
A2 = With ½" internal threads
- 6. Dimension:**
Nominal width x coil depth x duct connection [mm]
1000x512x123
1000x512x158
1250x512x123
1250x512x158
- 7. Duct connection**
B = Rear connection
SH = Right side*
SV = Left side*
* When duct are side connected, the water connection will always be on opposite side of air connection
- 8. Surface of secondary air grille**
0 = RAL 9003, gloss 30
SL = Special finish

* IMPORTANT: When selecting a side connection, the water connection will be on the opposite side.

If duct connection is chosen to be on RIGHT SIDE, the water connection will be on LEFT SIDE of back plate. If duct connection is chosen to be on the LEFT SIDE, the water connection will be on the RIGHT SIDE of back plate. When rear duct connection are chosen, the water connection can be chosen.

QUICK SELECTION, DID-E2 NORDIC EDITION Ø125

L _u	Primary air										Cooling						Heating						Basis values		
	Primary air				Cooling						Heating						Parameter	Cooling	Heating						
	V _n	V _R	Δp _f	L _{wa}	2- and 4 pipe system		4 pipe system		2- and 4 pipe system		4 pipe system		t _l	t _n	t _w	V _w									
l/s	m ³ /h	Pa	dB(A)	Q _{l,w}	Q _{h,w}	Δt _w	Δp _w	Q _{l,w}	Q _{h,w}	Δt _w	Δp _w	Q _{l,w}	Q _{h,w}	Δt _w	Δp _w	°C	°C	°C	l/h						
1000	S1	13	47	60	<15	642	485	3,8	3,6	616	10,6	0,2					26 °C	22 °C							
		15	54	80	16	720	539	4,2	3,6	664	11,4	0,2					16 °C	22 °C							
		17	61	100	19	791	586	4,6	3,6	704	12,1	0,2					16 °C	50 °C	110 l/h	50 l/h					
	S2	19	69	60	<15	774	543	4,2	3,6	648	11,2	0,2													
		22	80	80	19	871	603	4,7	3,6	702	12,1	0,2													
		25	89	100	22	942	644	5,0	3,6	739	12,7	0,2													
	HP	28	100	60	23	904	570	4,5	3,6	708	12,2	0,2													
		32	115	80	27	1011	626	4,9	3,6	757	13,0	0,2													
		36	129	100	31	1101	669	5,2	3,6	795	13,7	0,2													
		16	59	60	<15	777	579	4,5	4,5	737	12,7	0,2													
1250	S1	19	68	80	19	873	645	5,0	4,5	792	13,6	0,2													
		21	76	100	22	946	692	5,4	4,5	834	14,3	0,2													
		24	85	60	17	923	638	5,0	4,5	766	13,2	0,2													
	S2	27	98	80	21	1031	703	5,5	4,5	824	14,2	0,2													
		30	109	100	24	1114	749	5,9	4,5	866	14,9	0,2													
		35	125	60	28	1093	675	5,3	4,5	840	14,4	0,2													
	HP	40	145	80	32	1227	741	5,8	4,5	897	15,4	0,2													
		45	161	100	35	1324	785	6,1	4,5	936	16,1	0,2													

Table 4. ① Nozzle variant ② Noise generated

Active chilled beams carries high cooling (or heating) capabilities by supplying primary (fresh) air from the ventilation system, and inducing air passing through a coil. The mixed air is then supplied to the room via the diffuser front and ensures comfort and low sound levels. By circulating cold water in the coil, cooling is supplied. By circulating hot water in the coil, warm air is supplied.