CDH-B

RECTANGULAR WALL AIR INTAKE/EXHAUST VENTILATOR FOR GENERAL VENTILATION

Characteristics:
CDH-B are ventilators with actuator-operated or manually adjustable movable louvres used for air intake or exhaust in general ventilation systems.

AA | AL | RAL

version: 23/06/25

Design

CDH-B ventilators are fitted with actuator-operated or manually adjustable movable louvres.

The louvres are made of anodised aluminium profiles and an insert mounted between profiles and secured with a glazing gasket. In the S version, the louvre insert is made of a multichamber polycarbonate plate (colour – clear) with thickness of 20 mm. In the A version, the louvre insert is made of 20 mm thick mineral wool with fibreglass on the inside and aluminium sheet on the outside. The frame is made of coated aluminium (in RAL 9006 mat colour as standard).

Louvre Control

The CDH-B louvres can be controlled manually or by means of an electric actuator. Manual control – in this version, the louvres are positioned by means of a lever, which is locked in the desired position. Electrical control – in this version, the CDH and CDH– B louvres are controlled by means of an electric actuator (Belimo), open/close type, with a return spring, 24 V AC/DC or a 230 V AC power supply.

Connection diagram, power supply and control parameters depend on the type of electric actuator and control – see data sheet of the specific actuator

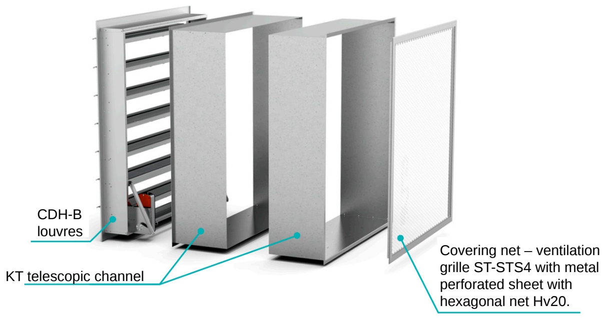

Figure 1. CDH/ KT, ST-STS4 design.

Dimensions

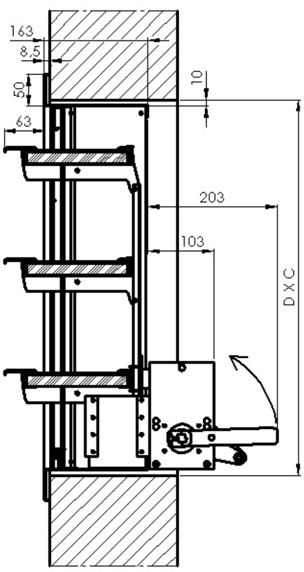

Figure 2. CDH-B dimensions with manual mechanism.

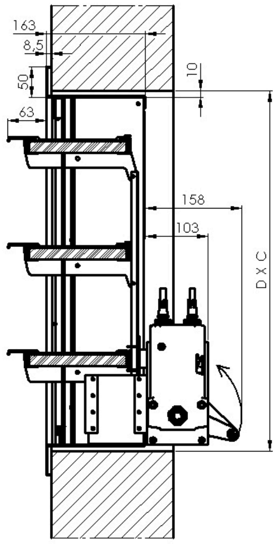

Figure 3. CDH-B dimensions with an electric actuator.

Possible dimension range of CDH-B units is as follows:

- Width C = 400–2100 mm
- Height D = 415–2900 mm

For heights other than standard (as shown in Table 1), a taller grille plate is used at the top of the CDH-B. The effective area of such an intake/exhaust ventilator will be equal to that of a smaller ventilator of standard height.

Technical Parameters

Sound absorption value for a fully closed blades R'w = 20 dB.

Table 1. CDH-B effective area, Aef [m^2].

CDH-B		Number of louvres in a shutter [unit]	Mounting hole width [mm]																	
			400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
Mounting hole height [mm]	415	2	0,10	0,13	0,16	0,18	0,21	0,24	0,26	0,29	0,32	0,34	0,37	0,40	0,43	0,45	0,48	0,51	0,53	0,56
	590	3	0,16	0,20	0,24	0,28	0,32	0,37	0,41	0,45	0,49	0,53	0,57	0,62	0,66	0,70	0,74	0,78	0,83	0,87
	765	4	0,21	0,27	0,32	0,38	0,44	0,49	0,55	0,61	0,66	0,72	0,78	0,83	0,89	0,95	1,00	1,06	1,12	1,17
	940	5	0,27	0,34	0,41	0,48	0,55	0,62	0,70	0,77	0,84	0,91	0,98	1,05	1,12	1,20	1,27	1,34	1,41	1,48
	1115	6	0,32	0,41	0,49	0,58	0,67	0,75	0,84	0,93	1,01	1,10	1,18	1,27	1,36	1,44	1,53	1,62	1,70	1,79
	1290	7	0,38	0,48	0,58	0,68	0,78	0,88	0,98	1,08	1,19	1,29	1,39	1,49	1,59	1,69	1,79	1,89	1,99	2,09
	1465	8	0,43	0,55	0,66	0,78	0,90	1,01	1,13	1,24	1,36	1,47	1,59	1,71	1,82	1,94	2,05	2,17	2,29	2,40
	1640	9	0,49	0,62	0,75	0,88	1,01	1,14	1,27	1,40	1,53	1,66	1,79	1,92	2,05	2,19	2,32	2,45	2,58	2,71
	1815	10	0,54	0,69	0,83	0,98	1,12	1,27	1,41	1,56	1,71	1,85	2,00	2,14	2,29	2,43	2,58	2,72	2,87	3,01
	1990	11	0,60	0,76	0,92	1,08	1,24	1,40	1,56	1,72	1,88	2,04	2,20	2,36	2,52	2,68	2,84	3,00	3,16	3,32
	2165	12	0,65	0,83	1,00	1,18	1,35	1,53	1,70	1,88	2,05	2,23	2,40	2,58	2,75	2,93	3,10	3,28	3,45	3,63
	2340	13	0,71	0,90	1,09	1,28	1,47	1,66	1,85	2,04	2,23	2,42	2,61	2,80	2,99	3,17	3,36	3,55	3,74	3,93
	2515	14	0,76	0,97	1,17	1,38	1,58	1,79	1,99	2,19	2,40	2,60	2,81	3,01	3,22	3,42	3,63	3,83	4,04	4,24
	2690	15	0,82	1,04	1,26	1,48	1,70	1,91	2,13	2,35	2,57	2,79	3,01	3,23	3,45	3,67	3,89	4,11	4,33	4,55
	2865	16	0,87	1,11	1,34	1,58	1,81	2,04	2,28	2,51	2,75	2,98	3,21	3,45	3,68	3,92	4,15	4,39	4,62	4,85
	2900	16	0,87	1,11	1,34	1,58	1,81	2,04	2,28	2,51	2,75	2,98	3,21	3,45	3,68	3,92	4,15	4,39	4,62	4,85

LEGENDE

0.123 - NM, NF actuator: [(C – 20) x (D - 20)] ≤ 1,4 m^2

0.123 - SM, SF actuator: 1,4 m^2 < [(C – 20) x (D - 20)] ≤ 3,0 m^2

0.123 - GM, EF actuator: [(C – 20) x (D - 20)] > 3,0 m^2

CDH-B opening angle impact on the effective area given in Table 2:

- for angle 60° = 85% of the CDH-B fully open area
- for angle 45° = 65% of the CDH-B fully open area
- for angle 30° = 42% of the CDH-B fully open area

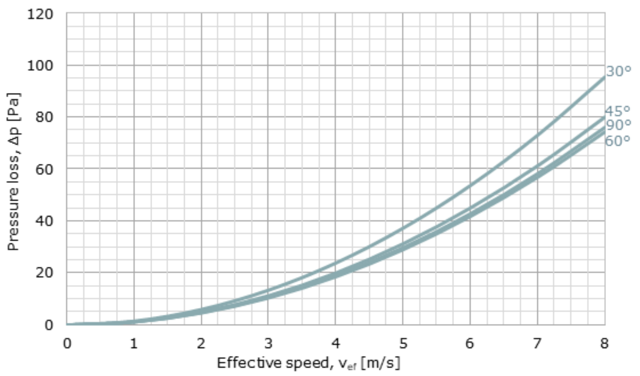

Chart 1. Pressure loss of the CDH-B air intake.

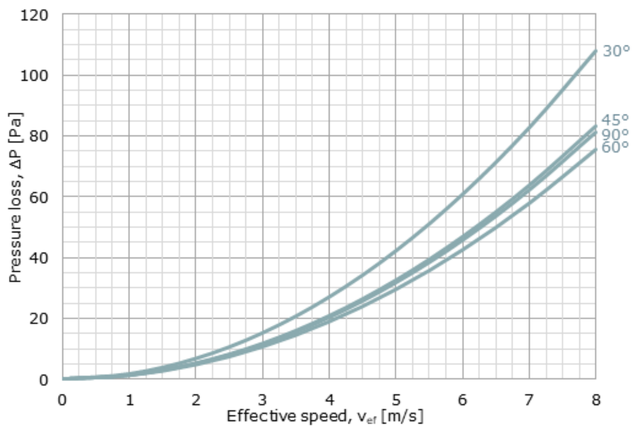

Chart 2. Pressure loss for CDH-B exhaust ventilator.

Table 2. CDH-B weight [kg].

Number of louvres in a shutter [pcs.] [szt.]	Mounting hole height [mm]	Mounting hole width [mm]																	
		400	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**
2	**415**	4,6	5,2	6,2	7,1	7,8	8,4	9,0	9,6	10,2	10,8	11,4	12,0	12,6	13,2	13,8	14,4	15,0	15,6
3	**590**	6,0	6,7	8,3	9,1	9,9	10,7	11,5	12,3	13,1	13,9	14,7	15,5	16,3	17,1	17,9	18,7	19,5	20,3
4	**765**	7,2	8,1	9,8	10,7	11,6	12,5	13,4	14,3	15,2	16,1	17,0	17,9	18,8	19,7	20,6	21,5	22,4	23,3
5	**940**	8,4	9,4	11,0	12,1	13,2	14,3	15,4	16,5	17,6	18,7	19,8	20,9	22,0	23,1	24,2	25,3	26,4	27,5
6	**1115**	9,5	10,7	12,5	13,7	14,9	16,1	17,3	18,5	19,7	20,9	22,1	23,3	24,5	25,7	26,9	28,1	29,3	30,5
7	**1290**	10,6	11,9	13,9	15,2	16,5	17,8	19,1	20,4	21,7	23,0	24,3	25,6	26,9	28,2	29,5	30,8	32,1	33,4
8	**1465**	11,8	13,2	15,3	16,7	18,1	19,5	20,9	22,3	23,7	25,1	26,5	27,9	29,3	30,7	32,1	33,5	34,9	36,3
9	**1640**	12,9	14,5	16,7	18,3	19,9	21,5	23,1	24,7	26,3	27,9	29,5	31,1	32,7	34,3	35,9	37,5	39,1	40,7
10	**1815**	14,1	15,8	18,2	19,9	21,6	23,3	25,0	26,7	28,4	30,1	31,8	33,5	35,2	36,9	38,6	40,3	42,0	43,7
11	**1990**	15,4	17,2	19,6	21,5	23,4	25,3	27,2	29,1	31,0	32,9	34,8	36,7	38,6	40,5	42,4	44,3	46,2	48,1
12	**2165**	16,6	18,6	21,0	23,0	25,0	27,0	29,0	31,0	33,0	35,0	37,0	39,0	41,0	43,0	45,0	47,0	49,0	51,0
13	**2340**	17,8	20,0	22,5	24,6	26,7	28,8	30,9	33,0	35,1	37,2	39,3	41,4	43,5	5,6	47,7	49,8	51,9	54,0
14	**2515**	19,0	21,4	23,9	26,2	28,5	30,8	33,1	35,4	37,7	40,0	42,3	44,6	46,9	49,2	51,5	53,8	56,1	58,4
15	**2690**	20,2	22,8	25,3	27,7	30,1	32,5	34,9	37,3	39,7	42,1	44,5	46,9	49,3	51,7	54,1	56,5	58,9	61,3
16	**2865**	21,6	24,2	26,7	29,3	32,0	34,7	37,4	40,1	42,8	45,5	48,2	50,9	53,6	56,3	59,0	61,7	64,4	67,1

CDH-B - Rectangular wall air intake/exhaust ventilator for general ventilation

When ordering, please provide information according to the following pattern:

CDH - B - <C> x <D> - <W> - <K> – <P> <RAL> - <N> - <PN> / <ADD>

Where:

C	Mounting hole width in mm	
D	Mounting hole height in mm	
W	Louvre insert*	
	S	**- louvre insert made of 20 mm thick, multi-chamber polycarbonate**
	A	- louvre insert made of 20 mm thick mineral wool with fibreglass inside and aluminium sheet outside
K	Atmosphere corrosivity category in acc. with PN-EN ISO 12944-2*	
	none	**- corrosivity category C3**
	C4	- corrosivity category C4 (for AL finish)
	C5	- corrosivity category C5 (for AL finish)
P	Finish*	
	AA	**- louvre profiles made of anodised aluminium; frame made of aluminium painted in RAL 9006 matt**
	AL	- frame and louvre profiles made of painted aluminium
RAL	Colour as per RAL code (for AL finish)	
N	Drive type	
	NF24A	– With return spring, 24 V
	NF230A	– With return spring, 230 V
	SF24A	– With return spring, 24 V
	SF230A	– With return spring, 230 V
	EF24A	– With return spring, 24 V
	EF230A	– With return spring, 230 V
	NM24A	– Without spring, 24 V
	NM230A	– Without spring, 230 V
	SM24A	– Without spring, 24 V
	SM230A	– Without spring, 230 V
	GM24A	– Without spring, 24 V
	GM230A	– Without spring, 230 V
	MR	– Manual mechanism

PN	Normal (safe) position of louvres (applies to the drives with a return spring only)*	
	none	**– actuator without a return spring**
	O	– normally closed, after a power failure the spring opens the louvres
	Z	– normally open, after loss of voltage the spring closes the louvres
ADD	Accessories: (locked when N = MR)	
	KT	– KT telescopic channel**
	ST STS4 <RAL>	– ST-STS4 grille with a perforated steel sheet with a Hv20 hexagonal net, powder-painted in colour from RAL palettes**

* Optional values, if they are not provided, the default values will be used

** KT and ST-STS4 optional accessories maximum dimensions may be 1500 x 2000 or 2000 x 1500; mounting hole for CDH.../KT, ST-STS4 according to the data from Table 1 should be enlarged in accordance with the following formula: (C+15) x (D+15); KT telescopic channel an normally be mounted in a baffle of thickness T = 350÷650; for the baffles outside of this range we can make a channel upon request.

Order example: **CDH-B-1000x940-A-AL9006-NF24A-O**