

ABC-TREND CH

COMBINATION ROOF HOOD



- Combined outdoor and exhaust air roof hood with exhaust air direction upwards and protected air intake
- Very low pressure drops
- Manufactured in patented color-coated steel and also available in other materials
- Integrated lifting points are standard from size 800
- For other colors and materials, contact sales

USE

ABC-TREND CH is a combination roof hood designed for low pressure drop and high performance.

DESIGN

A rectangular combination roof hood for comfort ventilation. Exhaust air is discharged upwards. The outdoor air section is protected beneath the hood and equipped with a small-animal-proof wire mesh.

It is typically manufactured in patented, colour-coated steel and follows standard building steel colours, but is also available in other materials.

- Pre-coated steel in standard colours
- Zinc magnesium ZM310
- Zinc magnesium ZM120
- Aluzinc
- Stainless steel
- Acid-resistant stainless steel
- Titanium zinc
- Copper
- Aluminium

TESTING OF EXHAUST AIR / OUTDOOR AIR TRANSFER

The roof hood has been tested by RISE (report no. O100222-1214225) to measure unintended internal and

external transfer between exhaust air and outdoor air under real operating conditions.

The result showed only 0.8% transfer or lower, depending on the operating case.

INSTALLATION

During installation, first ensure that the roof hood has no visible external damage.

Make sure the roof hood is properly fastened according to the installation instructions and consider any need for storm protection.

It is recommended to carry out an annual inspection to identify any damage and the need for cleaning, such as removal of debris or leaves from inlet and outlet sections, especially drainage holes. Carry-over of aerosols, powder snow, or ice formation cannot be ruled out under adverse conditions. Before the system is put into operation, the roof hood must be covered to prevent condensation issues.

EXAMPLE SPECIFICATION TEXT

Combination roof hood ABC-TREND CH by Swegon. Size 800. Black, manufactured in pre-coated steel.

ACCESSORIES



Roof duct ABC-TGC with internal mineral wool insulation, 50 or 100 mm, with high density and a cleanable surface layer. Standard length is 800 mm..



Sound attenuating roof duct ABC-TGCLD with internal mineral wool insulation, 50 or 100 mm, with high density and a cleanable surface layer. Standard length is 800 mm.



Backdraft damper
ABC-BSC



Bottom connection
circular ABC-ÖGC



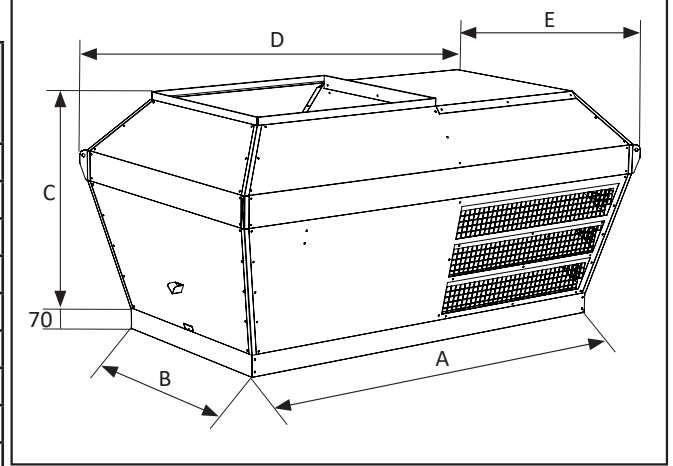
Bottom connection
rectangular
ABC-BANSC



Accessories for
increased throw
length

MEASUREMENTS/SIZE

Size TREND CH	Weight kg ²	A mm	B mm	C mm	D mm	E mm	Size ABC-TGC ¹
200	16	800	400	425	950	550	200
300	27	1000	500	525	1200	700	300
400	35	1200	600	625	1400	800	400
500	45	1400	700	725	1600	900	500
600	59	1600	800	825	1850	1050	600
700	74	1800	900	925	2125	1225	700
800	86	2000	1000	1025	2300	1300	800
1000	138	2400	1200	1225	2750	1550	1000
1200	183	2800	1400	1425	3200	1800	1200
1400	226	3200	1600	1625	3650	2050	1400
1600	293	3600	1800	1825	4100	2300	1600
1800	-	4000	2000	2025	4600	2600	1800
2000	-	4400	2200	2225	5000	2800	2000

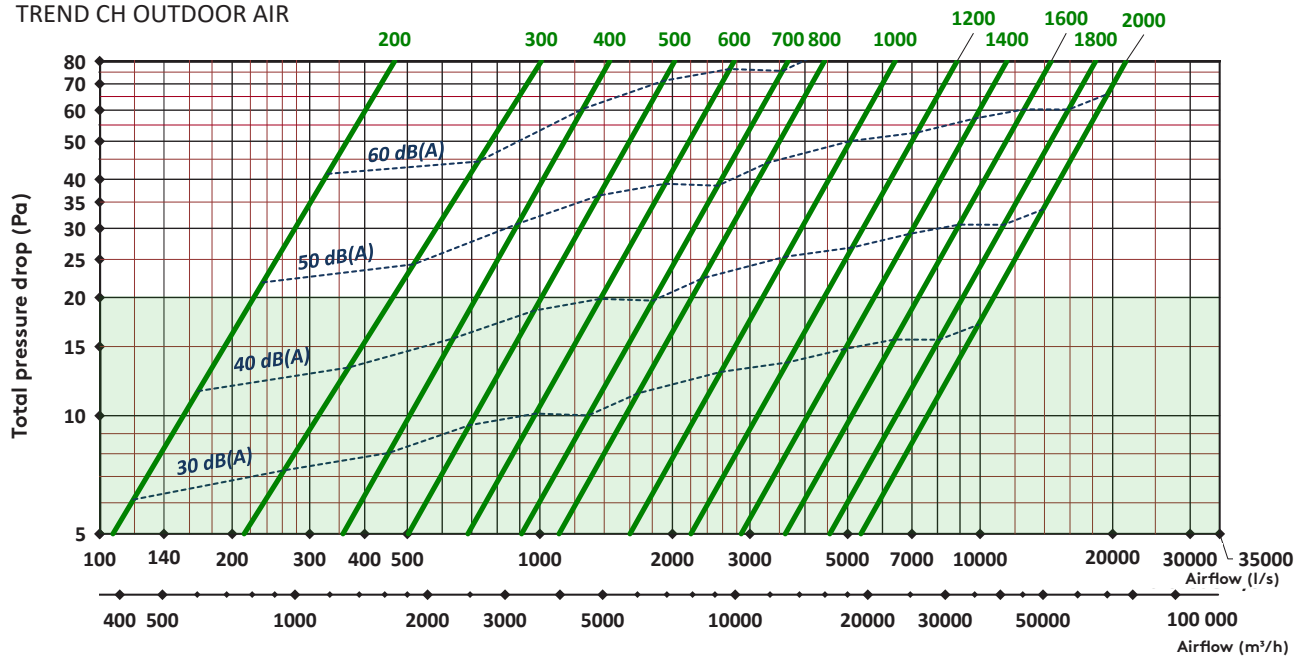


Green highlighted area indicates a good energy choice for low SFP values.

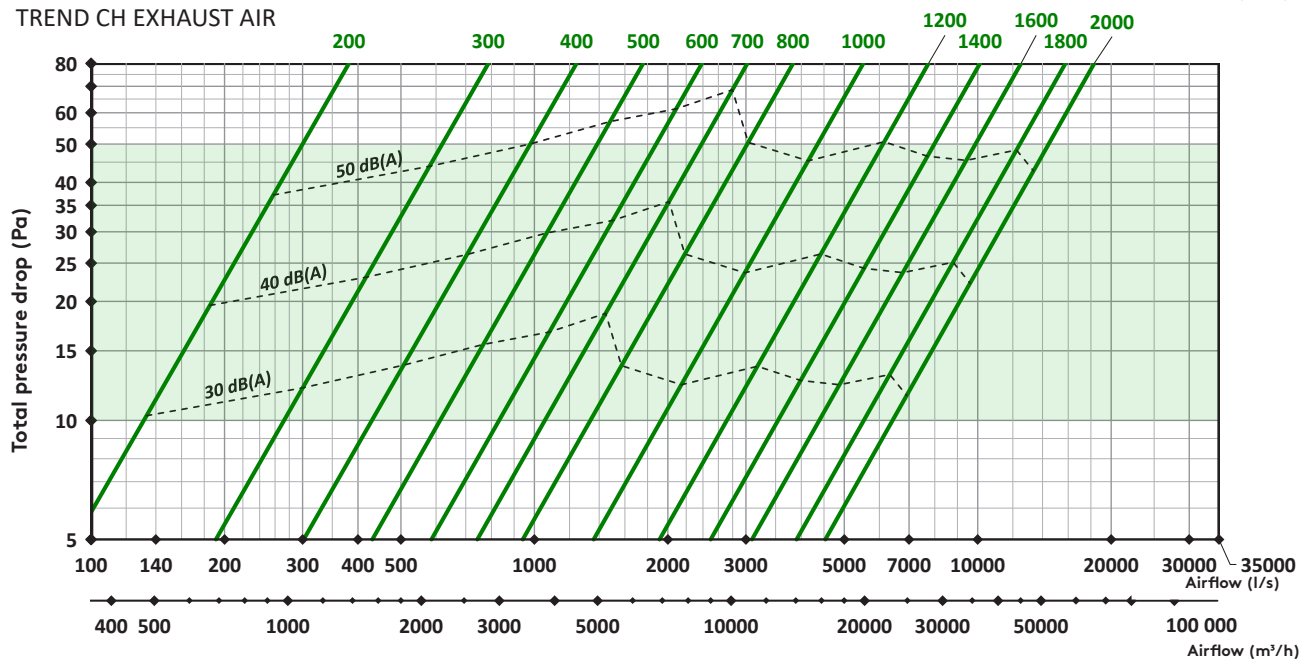
1 Available with internal mineral wool insulation, 50 or 100 mm

2 Weight applies to version in pre-coated steel

TREND CH OUTDOOR AIR



TREND CH EXHAUST AIR



ABC - Trend CH Outdoor air								
Octave band	63	125	250	500	1000	2000	4000	8000
K _{ok}	2	1	-2	-1	-5	-11	-19	-20

ABC - Trend CH Exhaust air								
Octave band	63	125	250	500	1000	2000	4000	8000
K _{ok}	13	9	2	-4	-9	-13	-18	-19

ABC-TREND CH EXHAUST AIR, SIMULATED THROW LENGTH

In addition to testing of exhaust/outdoor air transfer at RISE, we present below a simulated throw length in metres from the outlet to the point in the air plume where the velocity decreases to 2 m/s under calm (no-wind) conditions.

ABC-TREND CH Exhaust air, simulated throw length				
Size	Duct velocity [m/s]	Flow [l/s]	Outlet velocity [m/s]	Throw length [m]
200	1,5	60	0,9	0,5
	2,0	80	1,2	0,7
	2,5	100	1,4	0,9
	3,0	120	1,7	1,0
	4,0	160	2,3	1,4
	5,0	200	2,9	1,7
	6,0	240	3,5	2,1
300	1,5	135	1,2	0,6
	2,0	180	1,5	0,8
	2,5	225	1,9	1,2
	3,0	270	2,3	1,8
	4,0	360	3,1	2,4
	5,0	450	3,8	3,0
	6,0	540	4,6	3,6
400	1,5	240	1,2	0,6
	2,0	320	1,7	1,0
	2,5	400	2,1	1,5
	3,0	480	2,5	2,0
	4,0	640	3,5	3,3
	5,0	800	4,2	3,6
	6,0	960	5,1	4,4
500	1,5	375	1,4	0,8
	2,0	500	1,9	1,7
	2,5	625	2,4	2,4
	3,0	750	3,0	3,1
	4,0	1000	3,9	4,5
	5,0	1250	4,7	5,3
	6,0	1500	5,6	6,5
600	1,5	540	1,6	1,0
	2,0	720	2,0	2,5
	2,5	900	2,6	3,3
	3,0	1080	3,1	4,1
	4,0	1440	4,2	5,6
	5,0	1800	5,2	7,0
	6,0	2160	6,3	8,5

ABC-TREND CH Exhaust air, simulated throw length				
Size	Duct velocity [m/s]	Flow [l/s]	Outlet velocity [m/s]	Throw length [m]
700	1,5	735	1,7	1,6
	2,0	980	2,2	3,0
	2,5	1225	2,8	4,0
	3,0	1470	3,4	4,9
	4,0	1960	4,5	6,7
	5,0	2450	5,6	8,6
	6,0	2940	6,6	10,4
800	1,5	960	1,8	2,1
	2,0	1280	2,4	3,5
	2,5	1600	2,9	4,6
	3,0	1920	3,6	5,6
	4,0	2560	4,8	7,7
	5,0	3200	5,9	9,8
	6,0	3840	7,1	11,8
900	1,5	1215	1,9	2,7
	2,0	1620	2,5	4,0
	2,5	2025	3,1	5,3
	3,0	2430	3,8	6,4
	4,0	3240	5,0	8,8
	5,0	4050	6,3	11,1
	6,0	4860	7,6	13,5
1000	1,5	1500	2,0	3,2
	2,0	2000	2,7	4,6
	2,5	2500	3,3	5,9
	3,0	3000	4,0	7,1
	4,0	4000	5,3	9,8
	5,0	5000	6,7	12,5
	6,0	6000	8,0	15,1
1100	1,5	1815	2,1	3,9
	2,0	2420	2,8	5,5
	2,5	3025	3,5	7,1
	3,0	3630	4,3	8,6
	4,0	4840	5,7	11,9
	5,0	6050	7,1	15,1
	6,0	7260	8,5	18,6

ABC-TREND CH Exhaust air, simulated throw length				
Size	Duct velocity [m/s]	Flow [l/s]	Outlet velocity [m/s]	Throw length [m]
1200	1,5	2160	2,3	4,5
	2,0	2880	3,0	6,5
	2,5	3600	3,8	8,2
	3,0	4320	4,5	10,1
	4,0	5760	6,0	13,9
	5,0	7200	7,5	17,8
	6,0	8640	9,0	22,0
1300	1,5	2535	2,3	5,1
	2,0	3380	3,1	7,1
	2,5	4225	3,9	9,0
	3,0	5070	4,6	11,0
	4,0	6760	6,2	15,0
	5,0	8450	7,8	19,1
	6,0	10140	9,3	24,0
1400	1,5	2940	2,4	5,7
	2,0	3920	3,2	7,7
	2,5	4900	4,0	9,8
	3,0	5880	4,8	11,9
	4,0	7840	6,3	16,2
	5,0	9800	8,0	20,5
	6,0	11760	9,5	25,9
1500	1,5	3375	2,4	6,3
	2,0	4500	3,2	8,7
	2,5	5625	4,0	11,0
	3,0	6750	4,8	13,3
	4,0	9000	6,4	18,1
	5,0	11250	8,0	22,8
	6,0	13500	9,6	28,5
1600	1,5	3840	2,4	7,0
	2,0	5120	3,2	9,6
	2,5	6400	4,0	12,1
	3,0	7680	4,8	14,6
	4,0	10240	6,4	20,0
	5,0	12800	8,1	25,0
	6,0	15360	9,7	31,0

ABC-TREND CH Exhaust air, simulated throw length				
Size	Duct velocity [m/s]	Flow [l/s]	Outlet velocity [m/s]	Throw length [m]
1700	1,5	4335	2,4	7,7
	2,0	5780	3,3	10,1
	2,5	7225	4,1	12,8
	3,0	8670	4,9	15,4
	4,0	11560	6,5	21,2
	5,0	14450	8,1	27,5
	6,0	17340	9,8	33,0
1800	1,5	4860	2,4	8,4
	2,0	6480	3,3	10,6
	2,5	8100	4,1	13,5
	3,0	9720	5,0	16,2
	4,0	12960	6,6	22,4
	5,0	16200	8,2	30,0
	6,0	19440	9,9	35,0
1900	1,5	5415	2,4	9,1
	2,0	7220	3,3	12,0
	2,5	9025	4,1	15,3
	3,0	10830	5,0	18,4
	4,0	14440	6,4	25,1
	5,0	18050	8,3	30,6
	6,0	21660	9,9	39,4
2000	1,5	6000	2,5	9,7
	2,0	8000	3,3	13,4
	2,5	10000	4,1	17,0
	3,0	12000	5,0	20,5
	4,0	16000	6,2	27,7
	5,0	20000	8,4	31,3
	6,0	24000	9,9	43,8

Installation

1. ABC hoods are designed for installation on a roof duct, such as ABC-TG, TGC, TGLD, or on an existing roof duct. As an accessory for exhaust air hoods, a non-return damper, ABC-BS, is available and is installed between the roof hood and the roof duct. The non-return damper is placed in the opening of the roof duct and is attached with metal screw above the stop ledge against the roof duct.

2. ABC's square / rectangular hoods, exhaust / intake air and combi roof hoods are designed with an edge that is placed outside the roof duct.

When installing combi hoods, make sure that the hood is placed the right way - exhaust air and intake air over the right duct in the roof duct.

3. Once the hood is positioned so that its flange covers the roof duct, it shall be securely fastened, preferably using M8 bolts and nuts (depending on size). Fix the hood to the roof duct and drill the required number of holes through both the roof duct and the roof hood.

For larger roof hoods, it's recommended to attach them to the roof with metal wires.

