CONDOR

Supply air ceiling

QUICK FACTS

- 100% flexible spread pattern
- High induction rate
- Can be cleaned
- Diffuser modules
- VariZon® air distribution system
- Standard colour White RAL 9003
  - 5 alternative standard colours
  - Other colours upon request

AIR FLOW - SOUND PRESSURE ROOM (Lp10A) *)		
CONDOR Size	30 dB(A)	
	l/s	m³/h
1200-600-250	140	504
1800-600-315	200	720
2400-600-315	245	882
3000-600-400x250	310	1116
1200-1200-315	260	936
1800-1200-600x200	360	1296
2400-1200-600x300	490	1764
3000-1200-800x250	570	2052

**) L_{p10A} = Sound pressure incl. A-filter with 4 dB room attenuation and 10 m² room absorption area.*

Swegon

Technical description

Design
The supply air ceiling consists of a number of diffuser modules, equipped with nozzles, which are installed in a common backing box. The air diffuser modules are also equipped with the VariZon air distribution system to distribute air uniformly.

Materials and surface treatment
The supply air ceiling is manufactured in galvanised sheet steel. The nozzles and distribution plates are made of plastic (PP Polypropylene). The entire unit is painted.

- Standard colour:
  - White semi-gloss, lustre 40, RAL 9003/NCS S 0500-N
- Alternative standard colours:
  - Silver gloss, lustre 80, RAL 9006
  - Grey aluminium gloss, lustre 80, RAL 9007
  - Blanc semi-brillant, lustre 40, RAL 9010
  - Black semi-gloss, lustre 35, RAL 9005
  - Grey semi-gloss, lustre 30, RAL 7037
- Non-painted finish and other colours available on request.

Special version
In addition to the standard sizes, this unit can be supplied in special dimensions and with different numbers of nozzles, etc. CONDOR is also available in galvanized finish. Please contact your nearest sales office for information.

Accessories
Commissioning damper with measuring unit.

Planning
The unit can be installed freely suspended or integrated in a suspended ceiling. It is well-suited for environments such as institutional kitchens, clean rooms, laboratories and environments that require large air volumes discharged from a small face surface.

The recommended maximum under-temperature is 5°C. The recommended minimum installation height above the floor is 2.7 m.

Take into consideration that the air diffuser does not fit directly into suspended ceiling systems, as the dimensions of the air diffuser are 600x600, 600x1200, 1200x1200 etc.

Installation
The backing box has a number of M8 pop nuts on top and a number of attachment eyes along the sides for suspended installation. The backing box can also be bolted directly to the building structure from inside the box. The diffuser panels are inserted into the backing box at an angle, with the VariZon® distribution plates facing the airflow, then laid on the grid. See Figure 1.

The profiled sections of the modular ceiling system can be fastened directly to the edges of the backing box. Use blind rivets as fasteners.

Commissioning
The air flow is commissioned with an adjustable measurement unit which is placed in the connecting duct. Use for example CRM, or SIRI.

Maintenance
Clean when necessary with lukewarm water and detergent or vacuum-clean with a brush nozzle. Access can be gained to the duct system without tools. The diffuser section is removed in the same way as a normal cassette ceiling.

Environment
Declaration of construction materials is available at www.swegon.com.

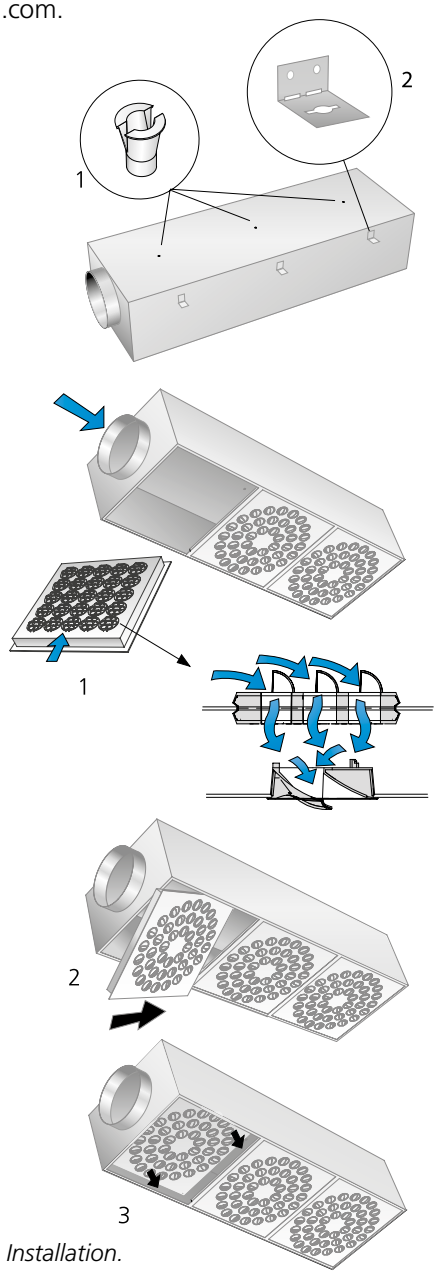


Figure 1. Installation.

Sizing

- Sound pressure level dB(A) applies to rooms with 10 m^2 equivalent sound absorption area.
- Sound attenuation (ΔL) below is shown in the octave band. Orifice attenuation is included in the values.
- The recommended maximum under-temperature with a standard nozzles installation is 5°C.
- To calculate the width of the airstream, air velocities in the occupied zone or sound levels in rooms with other dimensions, contact the nearest sales office for information.
- For calculating the width of the air stream, air velocities in the occupied zone or sound levels in rooms with other dimensions, please refer to our web calculation softwares available for download at www.swegon.com

L_W = Sound power level

L_{p10A} = Sound pressure level dB (A)

K_{ok} = Correction for producing the L_W value in the octave band

$L_W = L_{p10A} + K_{OK}$ gives the frequency divided octave band

Sound data – CONDOR – Supply air

Sound power level L_w(dB) (10 m^2 Sabine)
Table K_{OK}

CONDOR	Mid-frequency (octave band) Hz							
Size (mm)	63	125	250	500	1000	2000	4000	8000
1200-600-250	5	9	7	3	-4	-16	-19	-13
1800-600-315	6	10	7	4	-5	-17	-18	-13
2400-600-315	5	11	8	2	-5	-16	-17	-12
3000-600-400x250	2	12	7	3	-6	-17	-20	-15
1200-1200-315	6	9	8	3	-4	-15	-16	-11
1800-1200-600x200	5	11	8	3	-6	-15	-16	-10
2400-1200-600x300	6	9	8	3	-6	-17	-14	-9
3000-1200-800x250	4	12	9	2	-7	-20	-13	-7
Tolerance ±	2	2	2	2	2	2	2	2

Sound attenuation ΔL (dB) (10 m^2 Sabine)
Table ΔL

CONDOR	Mid-frequency (octave band) Hz							
Size (mm)	63	125	250	500	1000	2000	4000	8000
1200-600-250	15	10	5	2	2	3	4	5
1800-600-315	14	9	4	1	0	1	2	2
2400-600-315	14	9	4	1	0	1	2	2
3000-600-400x250	10	6	4	1	1	1	1	1
1200-1200-315	14	9	4	1	0	1	2	2
1800-1200-600x200	10	6	4	1	1	1	1	1
2400-1200-600x300	8	4	3	1	1	1	1	1
3000-1200-800x250	6	3	1	0	0	0	0	0
Tolerance ±	2	2	2	2	2	2	2	2

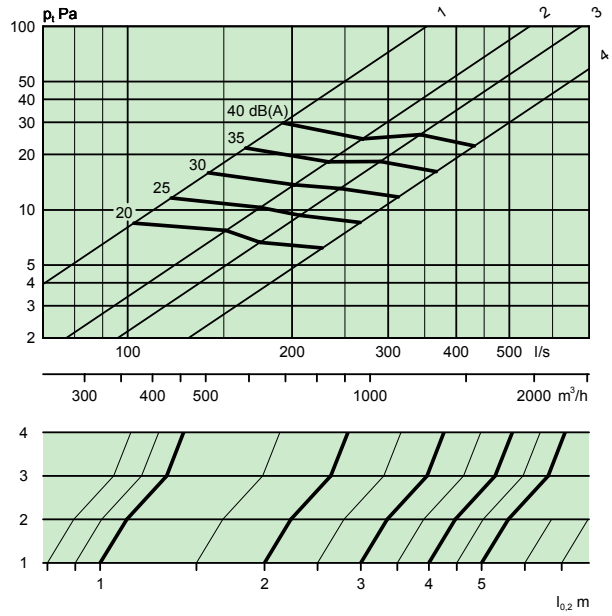
Engineering graphs

CONDOR – Supply air

Airflow – Pressure drop – Sound level – Affected area

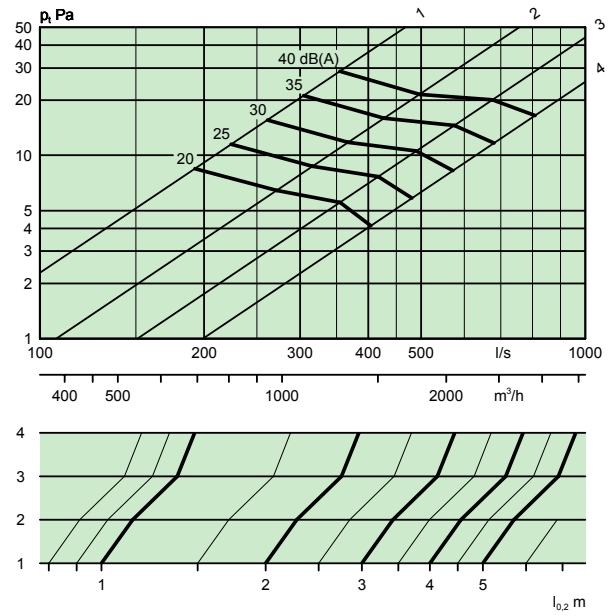
- The graphs must not be used for commissioning.
- The dB(A) values are for rooms with normal acoustic absorption of 4 dB.
- The dB(C) value is normally 6-9 dB's higher than the dB(A) value. For more accurate calculations, see the calculation template in the chapter on Acoustics in the Technical Information section of this catalogue.

CONDOR – Single



Size designation:
1. 1200-600-250
2. 1800-600-315
3. 2400-600-315
4. 3000-600-400x250

CONDOR – Double



Size designation:
1. 1200-1200-315
2. 1800-1200-600x200
3. 2400-1200-600x300
4. 3000-1200-800x250

Dimensions and weights

Size (mm)	Weight (kg)
1200-600-250	27,0
1800-600-315	41,0
2400-600-315	54,0
3000-600-400x250	68,0
1200-1200-315	46,0
1800-1200-600x200	69,0
2400-1200-600x300	92,0
3000-1200-800x250	115,0

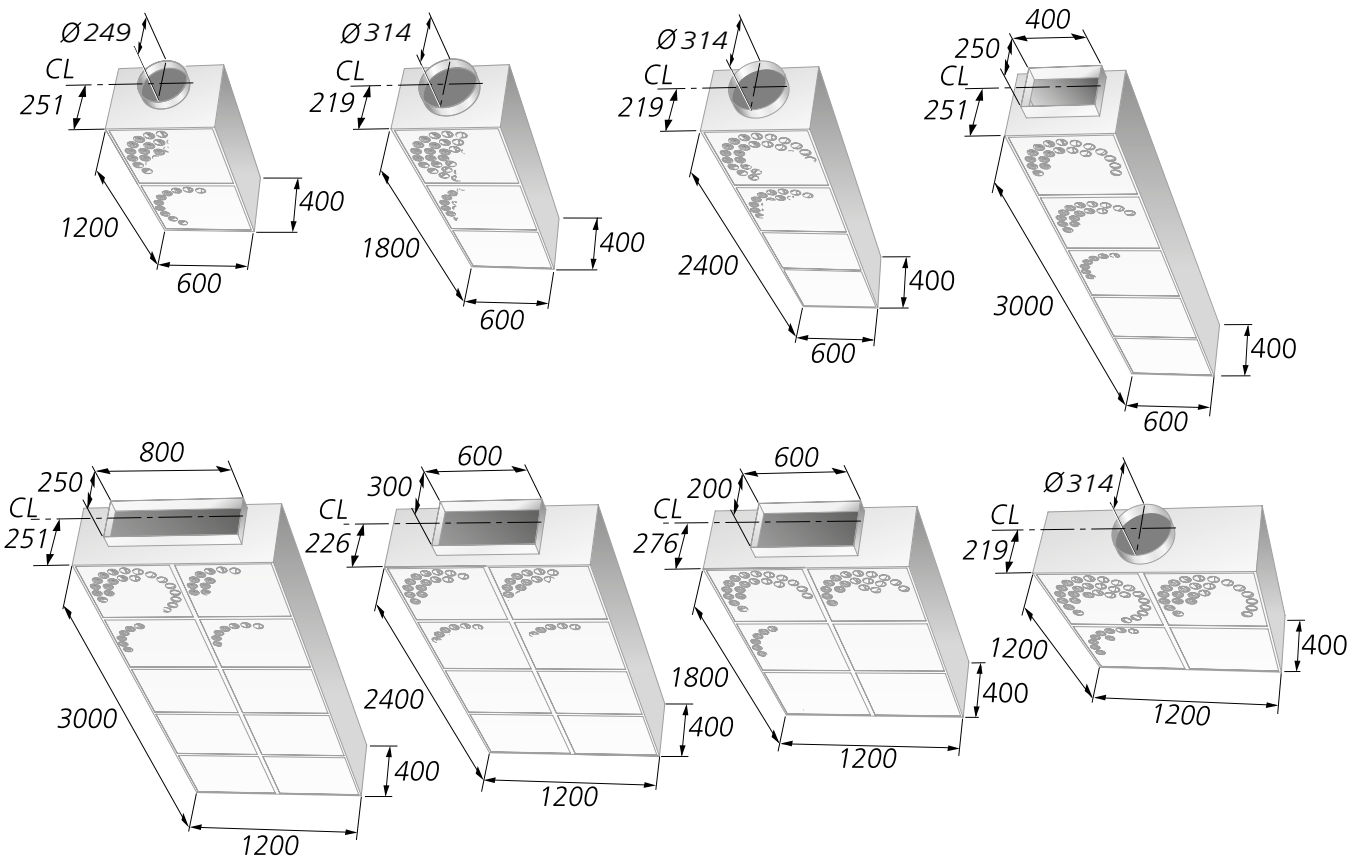


Figure 2. CONDOR, dimensions. CL = Centerline.

Order key

Product

Supply air ceiling system	CONDOR	a	-aaaa	-bbb	-ccc
Version:					
Nom. length (mm): 1200, 1800, 2400, 3000					
Nom. width (mm): 600, 1200					
Nom. connection diam. (mm): Ø 250, 315					
Rectangular dimensions (mm): 400x250, 600x200, 600x300, 800x250					

Standard range:	1200-600-250
	1800-600-315
	2400-600-315
	3000-600-400x250
	1200-1200-315
	1800-1200-600x200
	2400-1200-600x300
	3000-1200-800x250

Specification example

Swegon's supply air ceiling system, type CONDOR, with the following functions:

- Diffuser modules, equipped with nozzles
- 100% flexible spread pattern
- Individually adjustable nozzles (55 mm) made from recyclable PP (Polypropylene) plastic
- VariZon® air distribution system
- Can be cleaned
- Powder coated in white
- Backing box that can be cleaned

Size:	CONDORa - aaaa - bbb - ccc	xx items