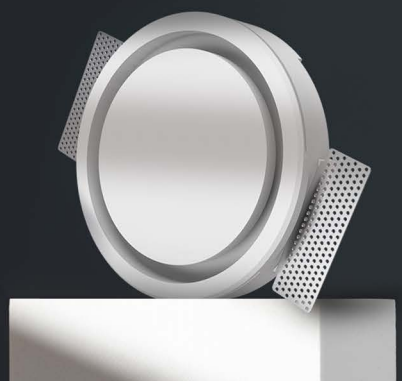
ERGOVENT

RONDO 100

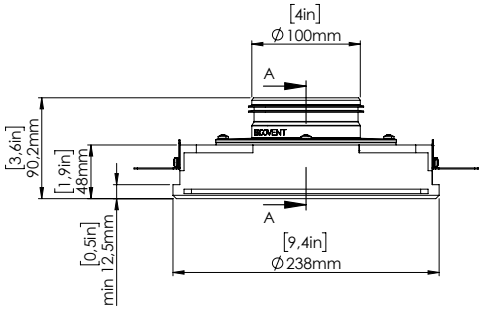
Hidden ventilation diffusers for ceilings and walls

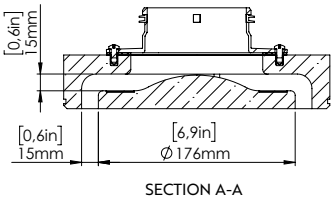


Aerodynamic convex cap shape to reduce air vortices.

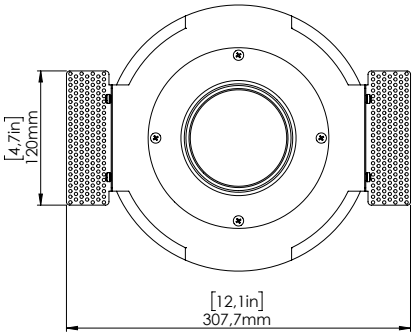
100 mm connection / with damper

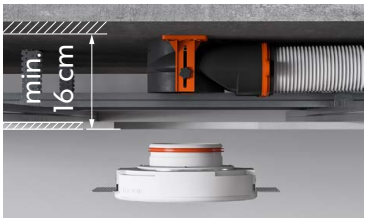
- Completely painted in the same color and paint as the ceilings/walls.
- Dirt rings do not form around the diffusers.
- Easy, fast, simple installation.
- Suitable for single layer, double layer or custom thickness of plasterboard.
- Universal - A/C, ventilation, recuperation. suitable for both supply & exhaust.
- Safely packed (never gets damaged during transportation).





SECTION A-A





Minimum installation height: 160 mm ≈ 6.3"

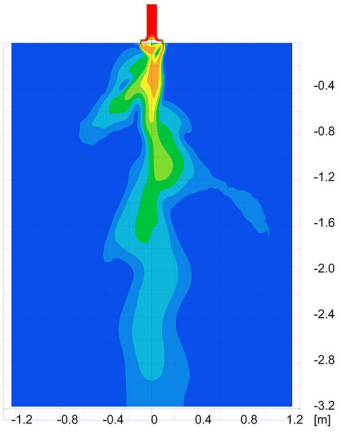
We recommend reinforcing the entire diffuser area with thin fiberglass mesh

Quick and easy installation

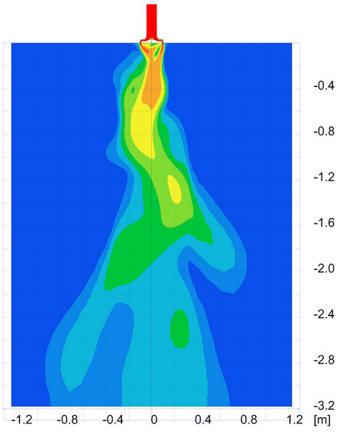
Airflow damper is included

THROW DISTANCE

80 m³/h



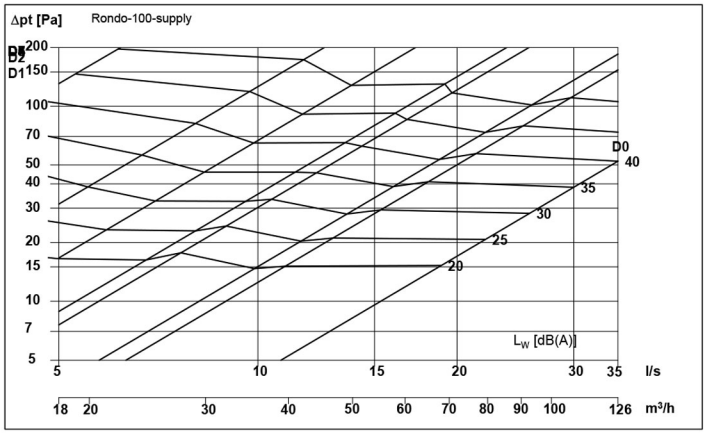
110 m³/h



FLOW NOISE (in accordance with ISO 3741) and PRESSURE DROP test report

SUPPLY

Diagram for pressure and flow noise:



$$L_{Woct}\ [dB] = L_{WA} + K_{oct}$$

q [l/s]	Dp_t [Pa]	L_{WA} [dBA]			63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
-	-	33		K_{oct}	1	2	0	-3	-4	-10	-17	-20

Octave correction factors to the diagram are calculated at the listed value of either q, Δp_t or L_{WA}/L_{pA}

Calculation of pressure and sound effect according to flow:

Sound effect: $L_{W(oct\ or\ A)} = k \cdot \log(q) + L_0$

Total pressuredrop: $\Delta p_t = c_{pt} \cdot q^2$

Balancing: $q = K_{factor} \cdot \sqrt{p_i}$

L_W - sound effect [dB]
k - factor, sound effect [-]
L_0 - addend, sound effect [-]
Δp_t - total pressuredrop [Pa]
c_{pt} - factor, total pressuredrop [Pa·s²/l²]
q - flow [l/s]
K_{factor} - factor, balancing [l/(s·√Pa)]
p_i - pressuredifference, balancing [Pa]

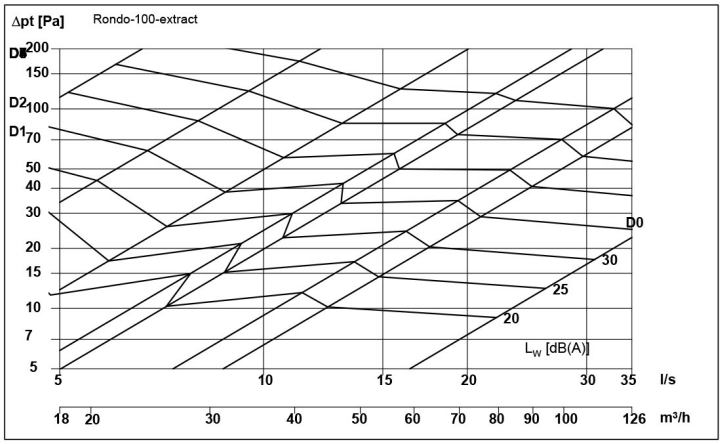
	Total p c_{ptot}	Balancing K-factor		LwA	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
D0	0.0427	Not measured	**k**	74.9	51.0	36.1	74.2	74.5	84.8	95.5	57.7	58.2
			Lo	-75.6	-33.5	-14.9	-72.2	-76.4	-97.1	-117.1	-69.8	-68.8
D1	0.1253	Not measured	**k**	69.4	42.7	58.5	71.2	61.7	69.3	87.1	72.4	72.8
			Lo	-52.3	-14.3	-34.2	-53.9	-45.4	-57.1	-83.5	-73.5	-76.9
D2	0.1512	Not measured	**k**	71.7	131.4	68.2	51.4	75.7	74.4	85.9	83.9	84.3
			Lo	-51.3	-126.7	-43.0	-25.6	-59.2	-59.1	-78.1	-84.7	-89.4
D3	0.3036	Not measured	**k**	73.2	40.7	58.1	80.8	69.9	67.2	85.6	87.1	87.7
			Lo	-44.6	-13.7	-24.0	-53.3	-45.0	-42.0	-66.8	-76.7	-82.9
D4	0.3551	Not measured	**k**	66.4	57.7	40.8	66.7	50.4	67.4	85.5	74.0	74.9
			Lo	-35.2	-27.5	-8.2	-34.8	-21.5	-39.8	-65.4	-60.5	-65.9
D5	0.6687	Not measured	**k**	67.6	40.3	39.0	63.4	65.1	69.5	81.4	70.7	71.2
			Lo	-27.1	-1.4	1.0	-23.1	-29.0	-31.9	-51.0	-47.5	-51.4
D6	1.2624	Not measured	**k**	61.3	55.3	55.8	60.5	58.2	56.7	85.5	62.0	62.9
			Lo	-15.6	-9.0	-12.5	-16.3	-17.8	-14.4	-45.3	-32.7	-35.0
D7	5.2126	Not measured	**k**	77.3	40.0	41.5	62.5	48.0	75.3	111.4	77.6	78.2
			Lo	-11.0	11.5	3.2	-8.7	0.3	-11.9	-39.9	-27.5	-30.2

no damper | 1 segment | 2 segments | 3 segments | 4 segments / full open | 4 segments / 75% open | 4 segments / 50% open | 4 segments / 25% open

FLOW NOISE (in accordance with ISO 3741) and PRESSURE DROP test report

EXTRACT

Diagram for pressure and flow noise:



L_{Woct} [dB] = L_{WA} + K_{oct}

q [l/s]	Dp_t [Pa]	L_{WA} [dBA]			63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
-	-	33		K_{oct}	1	0	-3	-2	-4	-9	-17	-22

Octave correction factors to the diagram are calculated at the listed value of either q, Δp_t or L_{WA}/L_{pA}

Calculation of pressure and sound effect according to flow:

Sound effect: $L_{W(oct\ or\ A)} = k \cdot \log(q) + L_0$

Total pressuredrop: $\Delta p_t = c_{pt} \cdot q^2$

Balancing: $q = K_{factor} \cdot \sqrt{p_i}$

L_W - sound effect [dB]
k - factor, sound effect [-]
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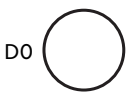
Δp_t - total pressuredrop [Pa]
c_{pt} - factor, total pressuredrop [Pa·s²/l²]
q - flow [l/s]
K_{factor} - factor, balancing [l/(s·√Pa)]
p_i - pressuredifference, balancing [Pa]

	Total p c_{ptot}	Balancing K-factor		LwA	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
D0	0.0185	Not measured	**k**	68.6	46.1	46.5	91.8	60.3	74.2	84.0	66.6	66.9
			Lo	-72.2	-31.8	-30.1	-105.2	-61.3	-88.4	-108.6	-87.3	-89.1
D1	0.0659	Not measured	**k**	66.3	55.3	65.2	57.2	55.6	67.0	73.2	82.2	83.1
			Lo	-52.6	-38.5	-51.7	-43.4	-41.1	-58.3	-68.3	-89.5	-98.1
D2	0.0926	Not measured	**k**	65.2	40.7	59.6	53.2	51.9	67.6	71.9	80.0	80.9
			Lo	-48.9	-18.2	-41.2	-36.9	-35.0	-56.5	-64.3	-83.5	-92.7
D3	0.1987	Not measured	**k**	58.1	41.4	33.4	44.9	51.1	59.0	67.5	77.3	78.0
			Lo	-29.8	-7.1	-3.5	-17.3	-24.7	-34.2	-49.2	-69.2	-77.5
D4	0.2464	Not measured	**k**	66.5	40.3	32.2	41.3	51.9	72.8	80.3	72.0	72.5
			Lo	-39.3	-12.4	-4.4	-15.2	-25.2	-50.0	-63.5	-61.9	-66.9
D5	0.4967	Not measured	**k**	58.1	41.6	41.8	56.6	54.1	57.3	67.6	73.7	74.3
			Lo	-19.8	-6.3	-6.0	-21.6	-19.0	-21.6	-39.9	-52.8	-58.3
D6	1.3594	Not measured	**k**	67.0	40.8	72.4	61.9	61.3	68.5	69.0	80.1	80.6
			Lo	-20.5	-0.6	-28.8	-20.2	-19.3	-24.7	-31.4	-46.6	-51.7
D7	4.5747	Not measured	**k**	71.5	50.1	53.8	65.4	50.7	80.5	73.9	61.3	61.9
			Lo	-10.8	3.8	-6.1	-15.6	-0.9	-18.9	-22.6	-21.2	-22.9


D0 no damper


D1 1 segment


D2 2 segments


D3 3 segments


D4 4 segments / full open


D5 4 segments / 75% open


D6 4 segments / 50% open


D7 4 segments / 25% open