ERGOVENT

reddot winner 2023

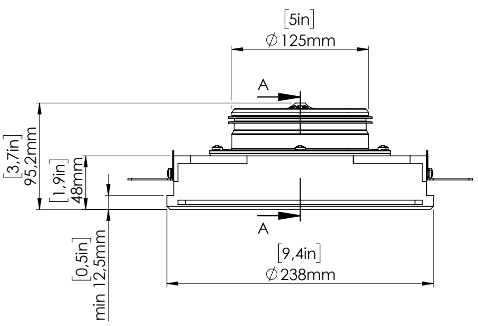
RONDO 125

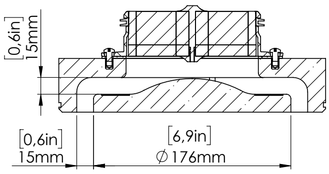
Hidden ventilation diffusers for ceilings and walls

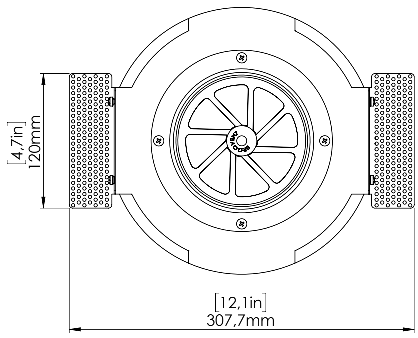
Aerodynamic convex cap shape to reduce air vortices.

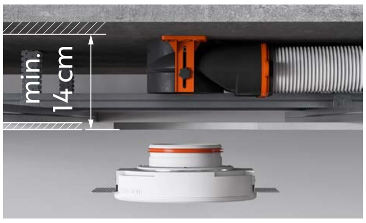
125 mm connection / with damper

- Can be painted with the same paint as walls / ceilings.
- 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).

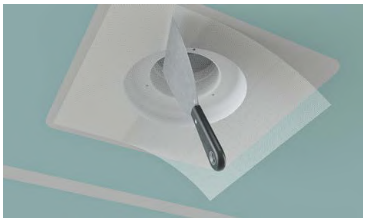








Minimum installation height: 140 mm ≈ 5,51"

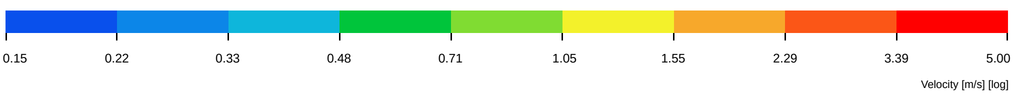


We recommend reinforcing the entire diffuser area with thin fiberglass mesh

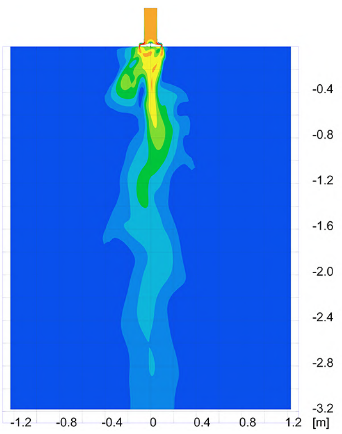
Quick and easy installation

Airflow damper is included

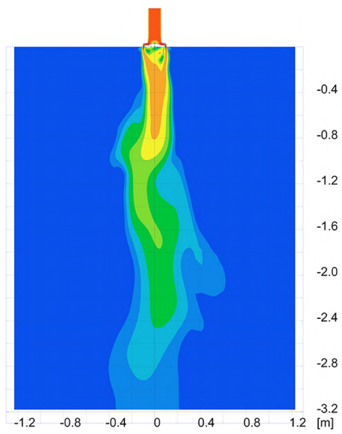
THROW DISTANCE



65 m³/h



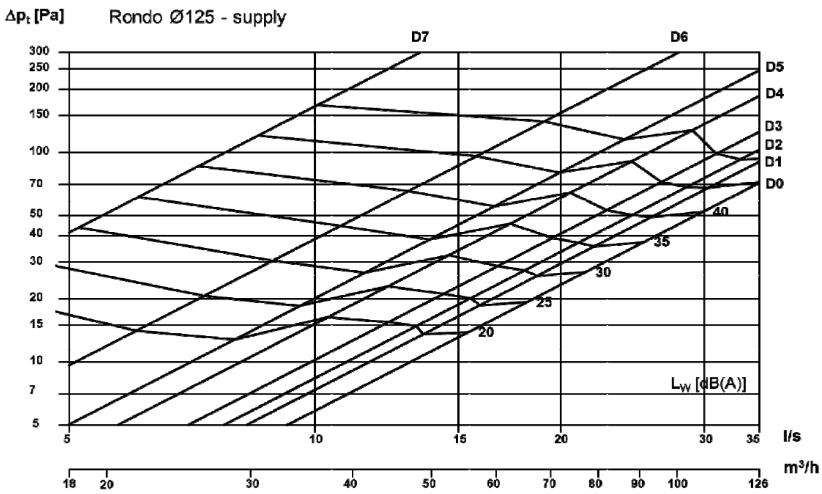
90 m³/h



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}	-2	-1	0	-2	-5	-9	-17	-23

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

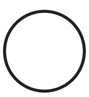
Total pressuredrop: $\Delta p_t = c_{pt} \cdot q^2$

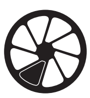
Balancing: $q = K_{factor} \cdot \sqrt{p_i}$

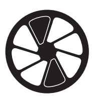
L_W - sound effect [dB]
k - factor, sound effect [-]
L_0 - addend, sound effect [-]
Δp_t - total pressuredrop [Pa]
c_{pt} - factor, total pressuredrop [Pa·s²/l²]

q - flow [l/s]
K_{factor} - factor, balancing [l/(s·√Pa)]
p_i - pressuredifference, balancing [Pa]

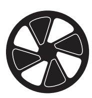
	Total p c_{ptot}	Balancing K-factor		LwA	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
D0	0.0584	Not measured	**k**	69.5	67.8	58.1	73.8	62.4	71.9	98.5	48.6	49.1
			Lo	-62.5	-58.9	-43.0	-66.4	-53.5	-72.9	-114.9	-52.0	-53.4
D1	0.0735	Not measured	**k**	71.5	44.8	48.7	59.8	63.9	78.5	85.2	97.2	98.6
			Lo	-61.0	-28.1	-29.3	-43.9	-52.0	-76.2	-88.8	-114.6	-121.6
D2	0.0837	Not measured	**k**	75.4	58.3	40.5	71.1	61.3	83.2	91.4	88.9	89.3
			Lo	-64.8	-44.8	-17.8	-58.7	-47.2	-81.0	-94.7	-99.7	-106.0
D3	0.1023	Not measured	**k**	74.6	41.9	48.6	48.6	71.0	78.6	89.5	84.0	84.8
			Lo	-61.3	-21.0	-28.4	-27.5	-58.6	-71.9	-88.6	-89.8	-95.4
D4	0.1520	Not measured	**k**	67.0	54.7	42.1	50.3	53.9	70.1	73.6	92.4	92.5
			Lo	-48.0	-31.7	-20.6	-28.4	-34.6	-56.7	-62.9	-95.8	-104.9
D5	0.2014	Not measured	**k**	62.8	70.8	45.8	50.2	51.7	64.4	71.6	76.6	76.6
			Lo	-36.6	-53.8	-20.9	-24.1	-26.8	-43.0	-53.7	-67.8	-74.3
D6	0.3848	Not measured	**k**	60.0	42.0	41.3	53.7	45.8	63.6	76.6	79.5	79.6
			Lo	-26.9	-11.6	-9.3	-20.6	-14.0	-35.6	-52.6	-63.3	-68.9
D7	1.6575	Not measured	**k**	68.3	58.8	38.7	50.2	49.2	71.6	71.7	84.4	85.1
			Lo	-18.5	-11.2	-4.2	-8.0	-7.9	-24.6	-28.2	-44.9	-52.9

D0 
no damper

D1 
1 segment

D2 
2 segments

D3 
3 segments

D4 
4 segments / full open

D5 
4 segments / 75% open

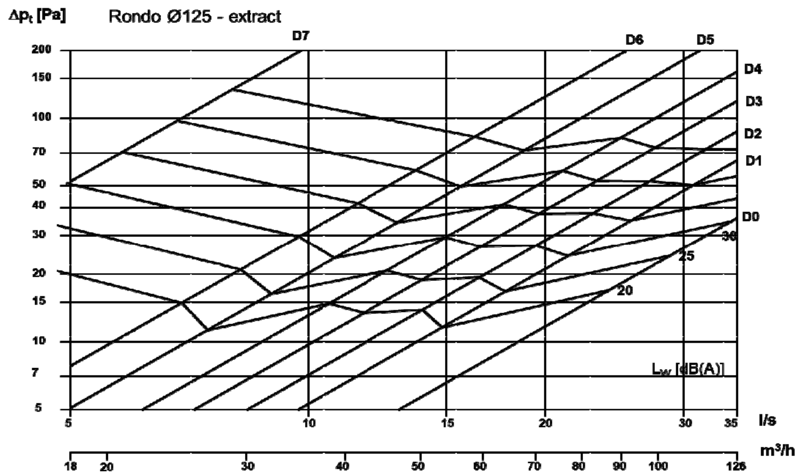
D6 
4 segments / 50% open

D7 
4 segments / 25% open

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}	-3	-1	-3	-3	-5	-7	-15	-23

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

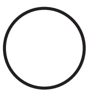
Total pressuredrop: $\Delta p_t = c_{pt} \cdot q^2$

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·s^2/l^2]

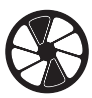
q - flow [l/s]
K_{factor} - factor, balancing [l/(s·√Pa)]
p_i - pressuredifference, balancing [Pa]

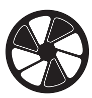
	Total p c_{ptot}	Balancing K-factor		LwA	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
D0	0.0293	Not measured	**k** **Lo**	64.7 -69.3	49.1 -42.1	69.7 -78.4	66.0 -70.8	41.8 -32.5	71.5 -86.5	82.8 -108.5	84.1 -116.5	86.0 -125.6
D1	0.0529	Not measured	**k** **Lo**	62.7 -53.4	54.8 -48.6	49.2 -31.8	51.1 -39.1	63.5 -57.7	58.0 -53.2	65.9 -63.5	78.0 -88.7	78.0 -97.9
D2	0.0712	Not measured	**k** **Lo**	69.7 -59.8	45.0 -24.9	54.8 -39.9	56.4 -45.8	62.7 -54.9	65.1 -60.3	73.8 -70.1	87.5 -96.6	88.2 -108.2
D3	0.0971	Not measured	**k** **Lo**	67.7 -52.5	70.6 -63.0	46.3 -26.7	57.3 -44.6	48.2 -32.1	55.0 -41.8	77.9 -70.4	80.4 -82.2	81.0 -93.3
D4	0.1312	Not measured	**k** **Lo**	67.3 -49.1	66.6 -52.4	35.8 -9.6	60.0 -43.0	56.2 -38.4	67.3 -54.8	74.0 -63.2	81.9 -81.4	82.1 -89.2
D5	0.2028	Not measured	**k** **Lo**	62.2 -34.2	38.1 -14.7	43.0 -16.6	45.7 -18.1	53.2 -27.0	58.5 -34.2	70.3 -50.5	83.4 -73.0	83.6 -81.5
D6	0.3115	Not measured	**k** **Lo**	67.2 -36.5	40.0 -11.6	45.0 -16.8	59.7 -32.4	63.3 -35.6	62.3 -35.3	75.5 -52.4	90.4 -75.7	90.7 -83.9
D7	2.0921	Not measured	**k** **Lo**	71.7 -19.8	41.4 1.4	40.4 -2.6	46.2 -4.3	73.2 -23.7	70.0 -23.0	75.0 -29.1	89.2 -46.7	90.2 -56.7

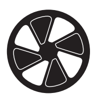
D0

no damper

D1

1 segment

D2

2 segments

D3

3 segments

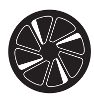
D4

4 segments / full open

D5

4 segments / 75% open

D6

4 segments / 50% open

D7

4 segments / 25% open