ERGOVENT

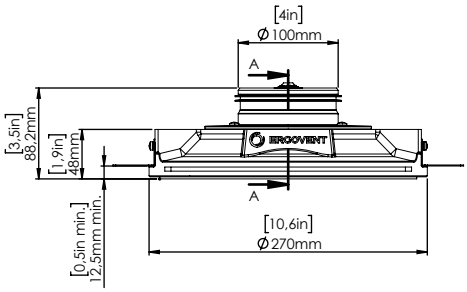
RONDO-COANDA 100

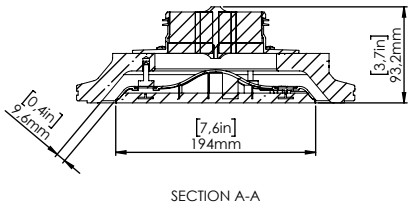
Hidden ventilation diffusers for ceilings and walls

The gypsum cover "armor" is a patented solution that protects against damage.

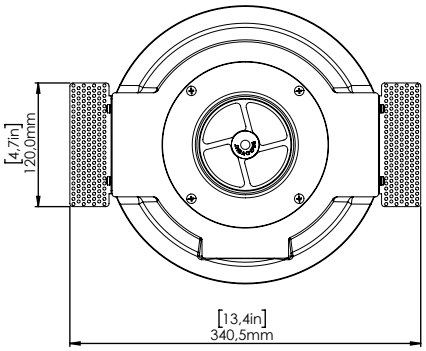
100mm connection / with damper

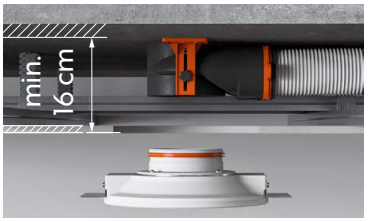
Round-shaped diffuser is a recessed ventilation diffuser designed to deliver air along the ceiling surface using the ***COANDA effect*** that ideal for modern interiors where airflow comfort and discretion are key. Ideally suited for spaces where people are often directly beneath the diffuser—air movement is virtually imperceptible while the room's microclimate remains balanced. High-quality gypsum body: robust, bubble-free casting with integrated mounting elements. Smooth, paint-ready surface finish.





SECTION A-A





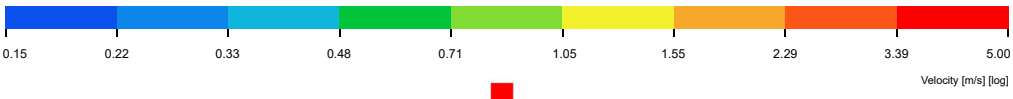
Minimum installation height: 160 mm ≈ 6,3"

A fiberglass liner is included with the product

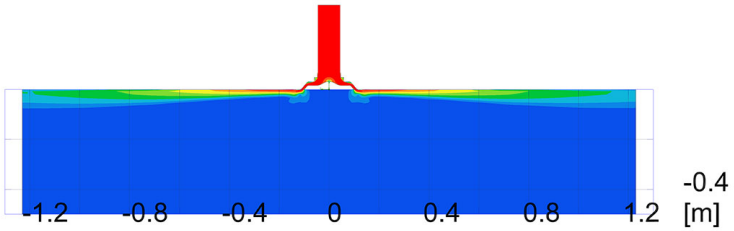
Easy and fast installation

Airflow damper is included with the product

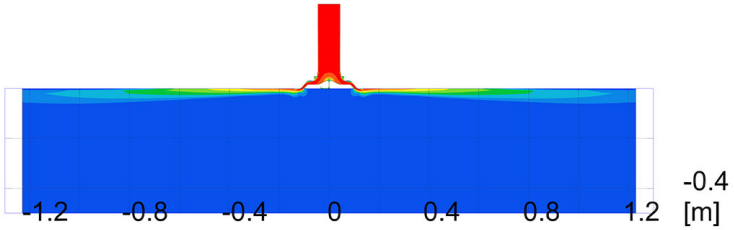
THROW DISTANCE



85 m³/h



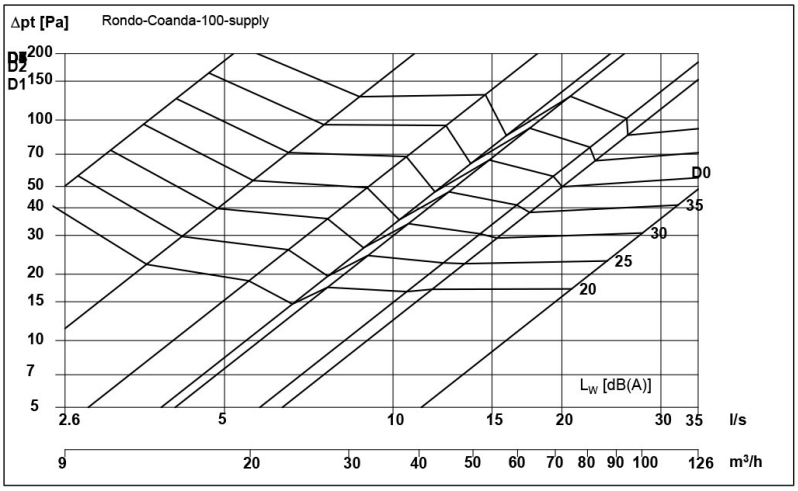
115 m³/h



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	0	-1	-4	-4	-8	-17	-19

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]

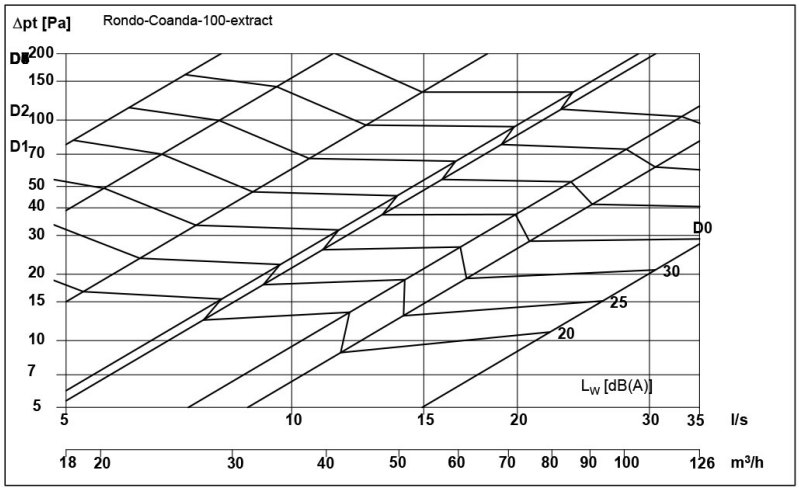
	Total p c_{ptot}	Balancing K-factor		LwA	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
D0	0.0397	Not measured	**k**	78.8	59.0	46.0	50.4	89.0	86.2	94.0	67.6	68.9
			Lo	-83.9	-53.0	-33.3	-39.1	-99.6	-102.0	-119.0	-85.2	-88.8
D1	0.1242	Not measured	**k**	85.8	53.0	84.0	77.0	63.1	79.6	98.9	85.9	86.9
			Lo	-71.7	-33.4	-67.9	-63.3	-48.6	-69.3	-93.1	-91.0	-93.5
D2	0.1493	Not measured	**k**	76.5	42.5	60.6	75.9	67.1	82.4	89.0	81.5	82.0
			Lo	-58.4	-13.6	-33.7	-56.7	-50.3	-70.3	-83.2	-81.1	-85.5
D3	0.2992	Not measured	**k**	69.3	45.7	51.7	50.0	53.2	71.7	84.2	85.1	85.7
			Lo	-41.1	-12.5	-19.5	-21.0	-27.5	-48.0	-64.9	-74.8	-78.6
D4	0.3354	Not measured	**k**	78.6	41.6	45.4	60.4	61.7	77.2	89.1	90.4	91.0
			Lo	-44.4	-12.6	-12.1	-27.4	-32.6	-48.1	-60.2	-75.6	-81.1
D5	0.6120	Not measured	**k**	71.1	39.7	49.6	69.2	68.9	74.3	68.5	76.5	77.2
			Lo	-32.8	-4.2	-11.7	-31.7	-35.4	-38.8	-40.0	-54.2	-57.9
D6	1.6808	Not measured	**k**	79.0	38.9	49.6	60.3	59.7	78.4	89.6	62.3	63.8
			Lo	-24.3	4.9	-7.6	-15.5	-16.1	-27.2	-38.2	-28.9	-31.6
D7	7.4162	Not measured	**k**	85.8	48.8	36.8	54.0	64.0	83.9	107.6	85.2	85.9
			Lo	-12.6	10.6	5.8	-1.6	-5.8	-14.6	-32.2	-25.3	-28.1

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	-1	-2	-2	-4	-9	-16	-21

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:

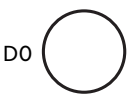
Sound effect: $L_{W(oct\ or\ A)} = k \cdot \log(q) + L_0$

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	0.0224	Not measured	**k**	71.1	40.5	38.5	89.0	62.0	75.0	66.7	86.5	87.3
			Lo	-75.5	-27.6	-24.0	-103.3	-64.3	-87.9	-75.0	-115.2	-124.6
D1	0.0655	Not measured	**k**	59.5	49.5	57.7	62.3	62.8	54.2	60.3	67.5	68.7
			Lo	-43.4	-32.5	-41.7	-48.1	-50.0	-41.2	-51.7	-69.7	-76.1
D2	0.0944	Not measured	**k**	67.7	55.1	54.8	55.1	54.0	81.3	69.8	73.0	74.0
			Lo	-52.9	-33.2	-37.8	-38.5	-37.0	-75.6	-63.5	-75.1	-82.5
D3	0.2137	Not measured	**k**	62.9	41.5	35.9	41.4	62.7	64.2	74.9	79.1	80.2
			Lo	-35.5	-17.9	-5.5	-13.6	-38.4	-40.6	-57.1	-69.7	-77.5
D4	0.2379	Not measured	**k**	64.0	52.2	42.6	43.8	54.0	71.5	73.0	56.0	56.3
			Lo	-38.0	-26.4	-16.9	-18.3	-28.9	-49.9	-58.2	-45.1	-48.3
D5	0.6006	Not measured	**k**	66.3	40.6	44.3	65.5	60.0	70.6	69.2	66.5	67.1
			Lo	-27.9	-5.0	-6.2	-28.6	-23.9	-35.2	-43.0	-44.4	-50.0
D6	1.5533	Not measured	**k**	65.3	41.8	46.7	57.2	56.2	73.1	63.0	64.5	65.2
			Lo	-19.0	5.8	-3.4	-14.9	-13.8	-28.7	-28.8	-33.7	-39.0
D7	3.0936	Not measured	**k**	67.2	42.2	42.0	41.9	58.9	74.4	62.1	49.9	50.6
			Lo	-12.6	8.1	-1.4	-1.4	-9.5	-20.0	-21.6	-16.6	-19.2


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