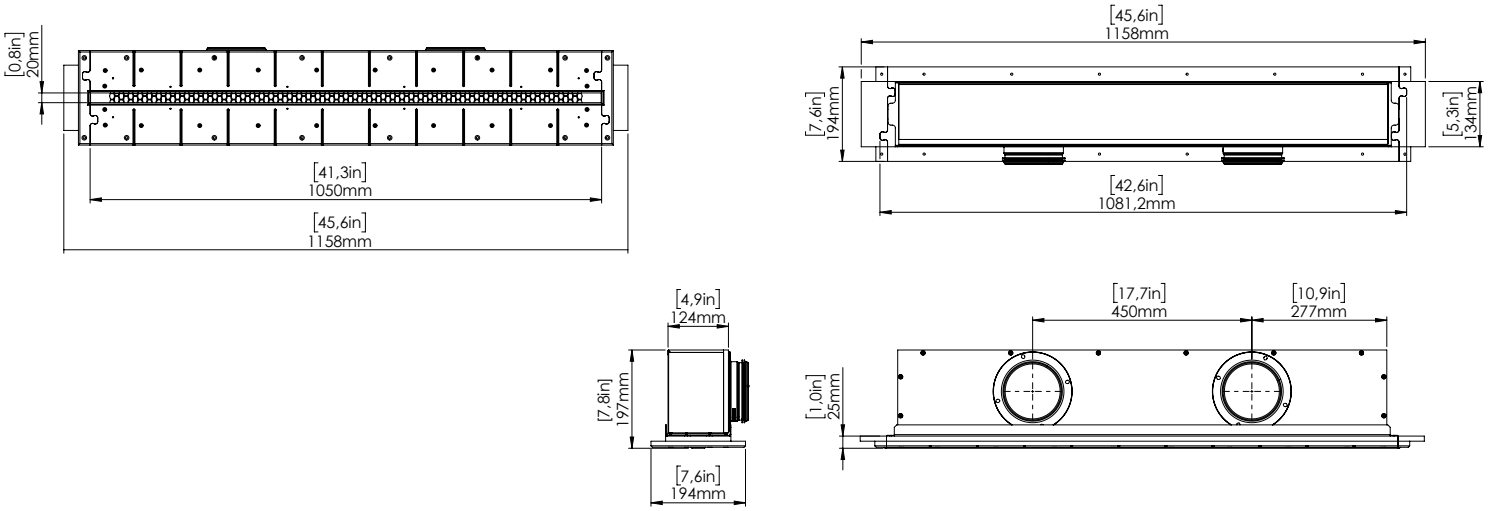
ERGOVENT

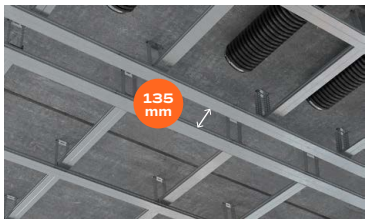
LINEO PRO PUZZLE 125

Hidden linear diffuser is suitable for air-conditioning applications

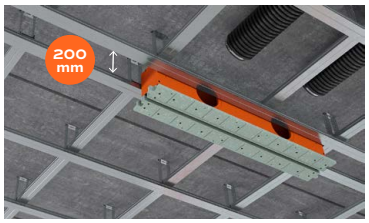
125 mm connections / 1 slot × 1050 mm × 20 mm

Hidden linear **ventilation/air-conditioning diffuser** for installation in gypsum board (drywall) ceilings. After installation, the diffuser is plastered flush and painted the same color as the ceiling or wall. Only a minimalist slot remains visible, serving as a discreet interior design detail. Units can be linked in a continuous line with other PUZZLE diffusers featuring 75 mm or 90 mm duct connections. The pressurized plenum/connection box is made from 10 mm PVC sheet, which provides good thermal-insulation properties. As a result, the diffuser is suitable not only for ventilation but also for air-conditioning.

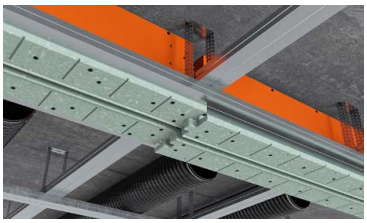




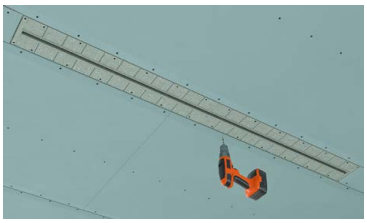
Installation width between profiles: 135 mm / ≈ 5,31 in



Minimum installation height: 200 mm / ≈ 7,87 in

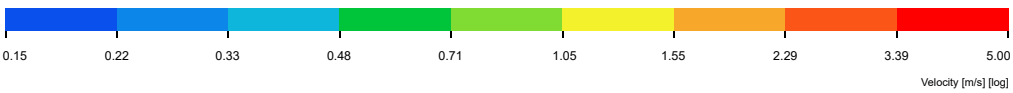


Patented technical solution: the PUZZLE LOCK system allows diffusers to be connected.

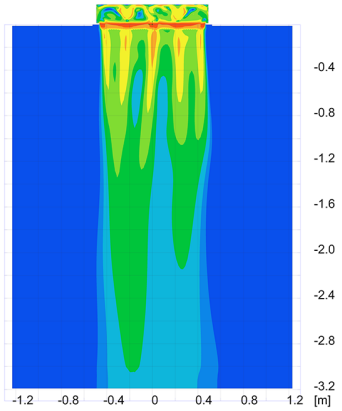


Important: During installation, **all fixing screws** must be fully tightened.

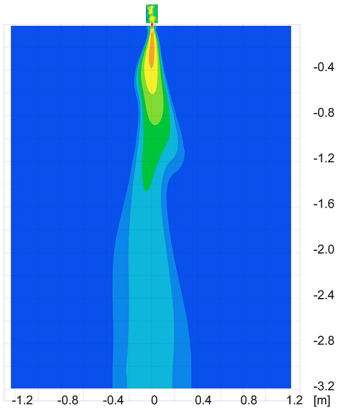
THROW DISTANCE



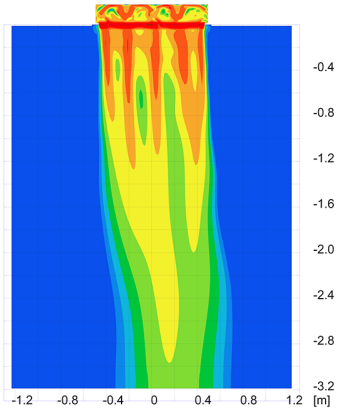
140 m³/h



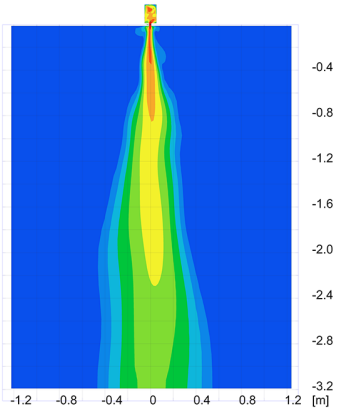
140 m³/h



280 m³/h



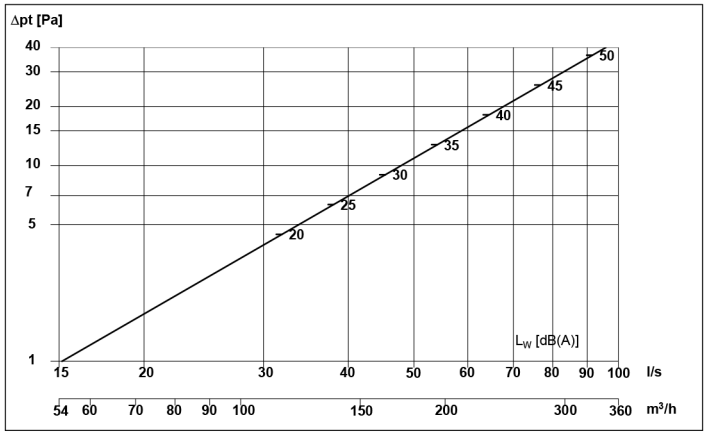
280 m³/h



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}	-38	-2	0	1	-6	-20	-27	-24

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

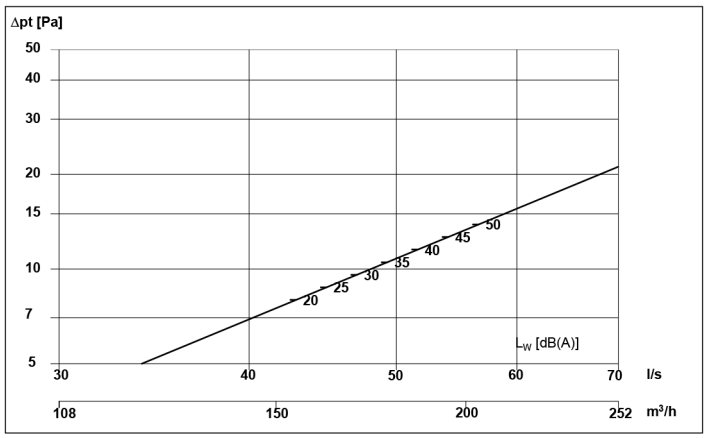
Balancing: $q = K_{factor} \cdot \sqrt{p_i}$

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
	0.0044	Not measured	k	65.6	16.9	56.4	66.7	69.5	99.5	89.0	14.6	14.8
			Lo	-78.7	6.6	-58.4	-75.1	-86.3	-151.3	-140.8	-11.3	-6.6

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}	2	0	8	-11	-23	-24	-19	-14

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
	0.0043	Not measured	k	249.8	0.0	-61.4	290.8	144.3	88.6	8.2	-1.5	-0.4
			Lo	-387.9	34.7	135.7	-449.5	-221.2	-139.6	-5.0	16.1	19.5