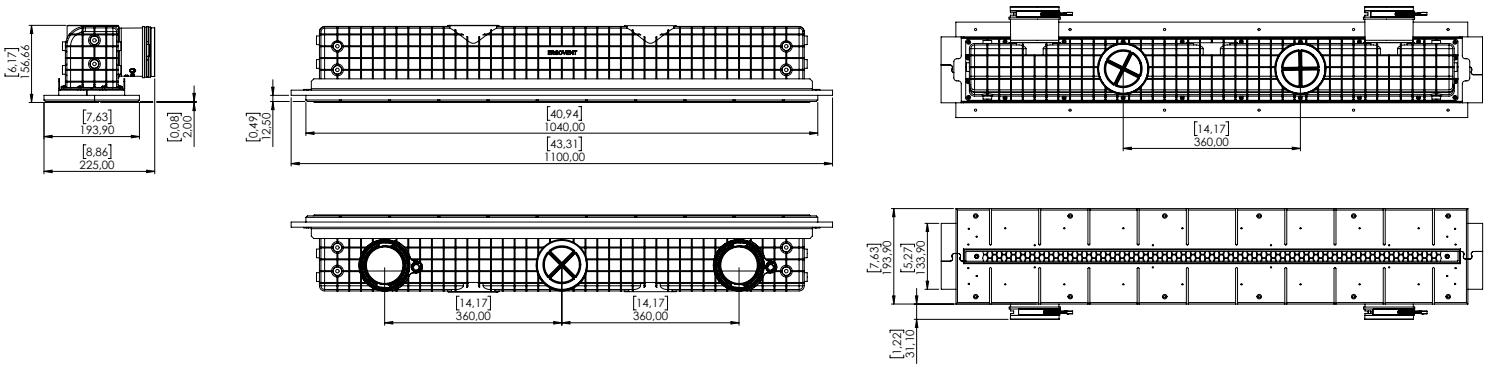
ERGOVENT

LINEO PRO PROFILE 90

Hidden linear ventilation diffuser

90 mm connections / 1 slot × 1000 mm × 20 mm / with damper

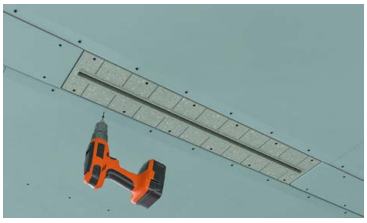
Hidden linear diffuser featuring innovative PUZZLE LOCK technology for quick, precise assembly on gypsum profiles. Its minimal slot profile integrates seamlessly into plasterboard ceilings and walls, delivering efficient airflow control with a clean, discreet finish. Modular puzzle-lock design connects 1 m diffuser segments for multi-metre runs, installable by one person.



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

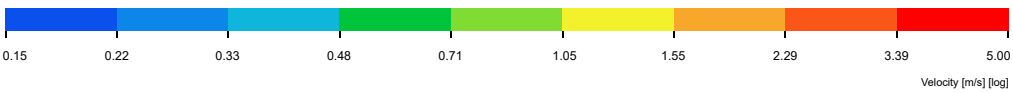
Minimum installation height: 160 mm / ≈ 6,3".

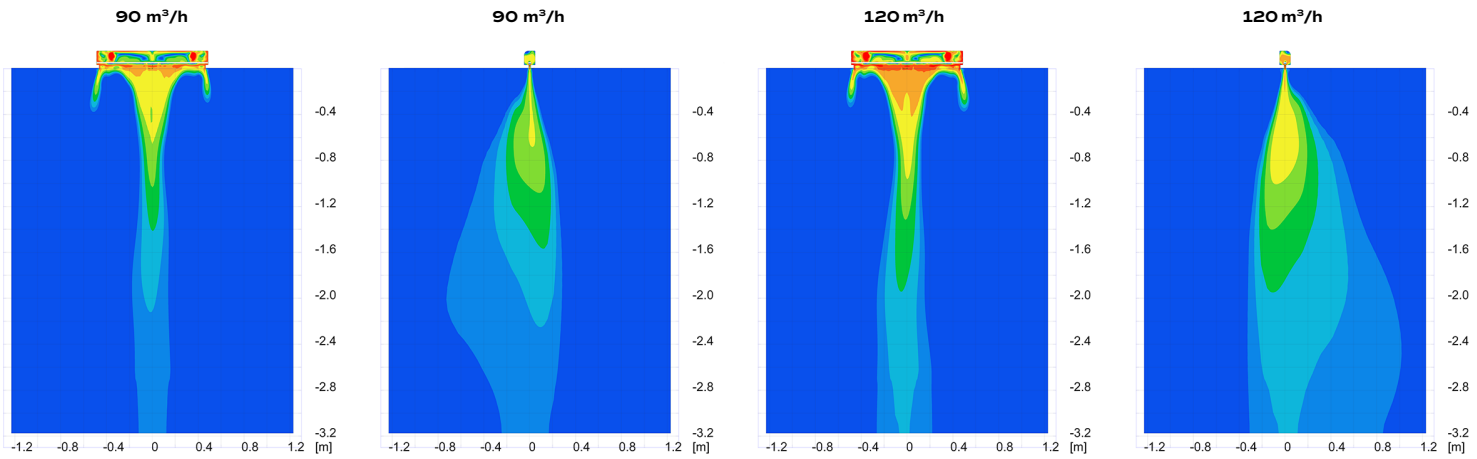
Quick, secure connections for **90 mm** flexible ducts.



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

THROW DISTANCE

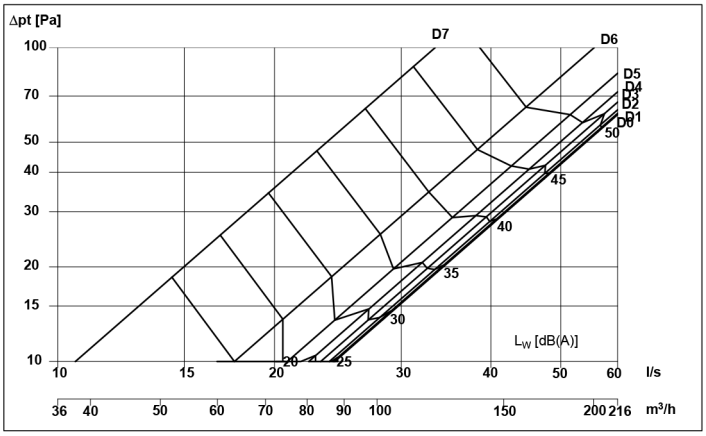




FLOW NOISE (in accordance with ISO 3741) and PRESSURE DROP test report

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}	-37	-6	-4	1	-6	-17	-25	-25

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	0.0170	Not measured	**k**	67.2	26.7	104.6	38.2	87.8	92.7	105.0	45.2	45.6
			Lo	-67.6	-9.2	-126.1	-16.6	-100.6	-119.7	-146.9	-56.9	-54.2
D1	0.0172	Not measured	**k**	68.2	20.9	62.7	68.7	62.4	90.1	103.0	48.7	48.7
			Lo	-69.7	3.9	-59.5	-65.9	-60.8	-115.6	-143.8	-62.5	-61.3
D2	0.0176	Not measured	**k**	65.2	39.0	67.9	62.8	64.8	82.6	101.5	40.5	40.5
			Lo	-64.4	-25.7	-68.2	-55.6	-64.2	-103.5	-141.4	-48.8	-47.9
D3	0.0186	Not measured	**k**	60.9	38.2	81.0	53.9	60.4	83.9	100.0	42.6	43.8
			Lo	-57.2	-26.1	-87.6	-41.0	-57.0	-104.9	-138.0	-51.6	-53.0
D4	0.0201	Not measured	**k**	67.4	14.4	53.9	56.8	77.4	78.2	99.4	50.3	51.2
			Lo	-66.5	11.0	-43.1	-44.3	-83.5	-94.5	-135.2	-63.1	-64.9
D5	0.0230	Not measured	**k**	61.2	37.1	47.3	62.2	62.2	73.0	89.9	62.5	62.5
			Lo	-54.7	-21.3	-31.2	-50.0	-58.2	-84.8	-117.8	-80.7	-82.2
D6	0.0323	Not measured	**k**	74.0	32.2	70.6	70.0	75.1	79.4	104.3	56.5	57.2
			Lo	-72.2	-13.9	-64.5	-60.6	-75.5	-90.6	-133.7	-66.8	-69.0
D7	0.0893	Not measured	**k**	74.5	29.4	52.9	63.7	72.8	69.8	92.5	104.2	105.9
			Lo	-66.3	-10.3	-38.7	-47.7	-66.5	-66.9	-100.7	-121.5	-130.4

AIRFLOW BALANCING

The diffuser is equipped with an airflow balancing damper. The **aerodynamic damper** is located inside the diffuser and is conveniently adjustable from the outside.

Setting the damper position with the gauge*:

- Insert the gauge through the diffuser grille until it contacts the balancing damper.
- Take the reading relative to the ceiling line.
- Damper positions are indicated on the gauge.

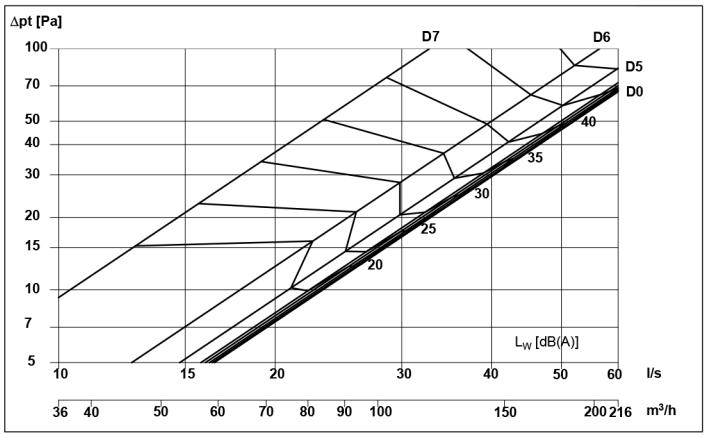
* The damper-position gauge is supplied with the diffuser.

D0 – damper fully open.
D7 – damper fully closed.

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}	-28	-2	0	1	-7	-18	-24	-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]
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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**	67.4	54.9	74.8	67.0	66.3	74.6	75.4	9.4	9.9
			Lo	-75.7	-51.8	-83.3	-69.5	-75.7	-102.2	-108.1	-1.3	2.0
D1	0.0187	Not measured	**k**	109.2	47.2	53.0	122.7	91.1	70.4	73.2	28.3	28.8
			Lo	-141.9	-37.5	-47.5	-157.0	-116.1	-95.5	-104.2	-33.2	-29.4
D2	0.0190	Not measured	**k**	67.3	49.0	70.7	65.6	69.7	76.2	74.1	9.4	9.5
			Lo	-74.8	-43.6	-76.8	-66.0	-81.0	-104.6	-106.1	-1.5	3.2
D3	0.0195	Not measured	**k**	68.9	23.1	54.6	69.1	79.1	86.1	70.8	11.0	11.7
			Lo	-76.7	-0.7	-49.6	-71.1	-95.1	-118.8	-100.5	-4.2	-0.4
D4	0.0201	Not measured	**k**	61.5	30.0	45.4	58.8	72.2	74.2	58.5	17.0	18.0
			Lo	-62.8	-11.0	-33.7	-52.7	-81.3	-98.0	-80.0	-13.7	-10.3
D5	0.0230	Not measured	**k**	66.1	20.5	79.7	66.6	69.9	81.5	76.3	1.9	2.2
			Lo	-67.5	4.2	-85.9	-62.1	-75.4	-105.6	-105.3	10.8	15.4
D6	0.0313	Not measured	**k**	82.4	66.4	74.2	85.5	76.7	107.4	106.1	41.3	41.7
			Lo	-91.5	-65.1	-78.0	-90.7	-84.1	-141.6	-147.8	-49.9	-47.0
D7	0.0930	Not measured	**k**	57.3	37.2	34.7	35.7	36.9	34.9	94.1	81.3	81.3
			Lo	-43.5	-18.6	-20.2	-16.0	-18.5	-16.8	-101.1	-95.1	-98.7

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