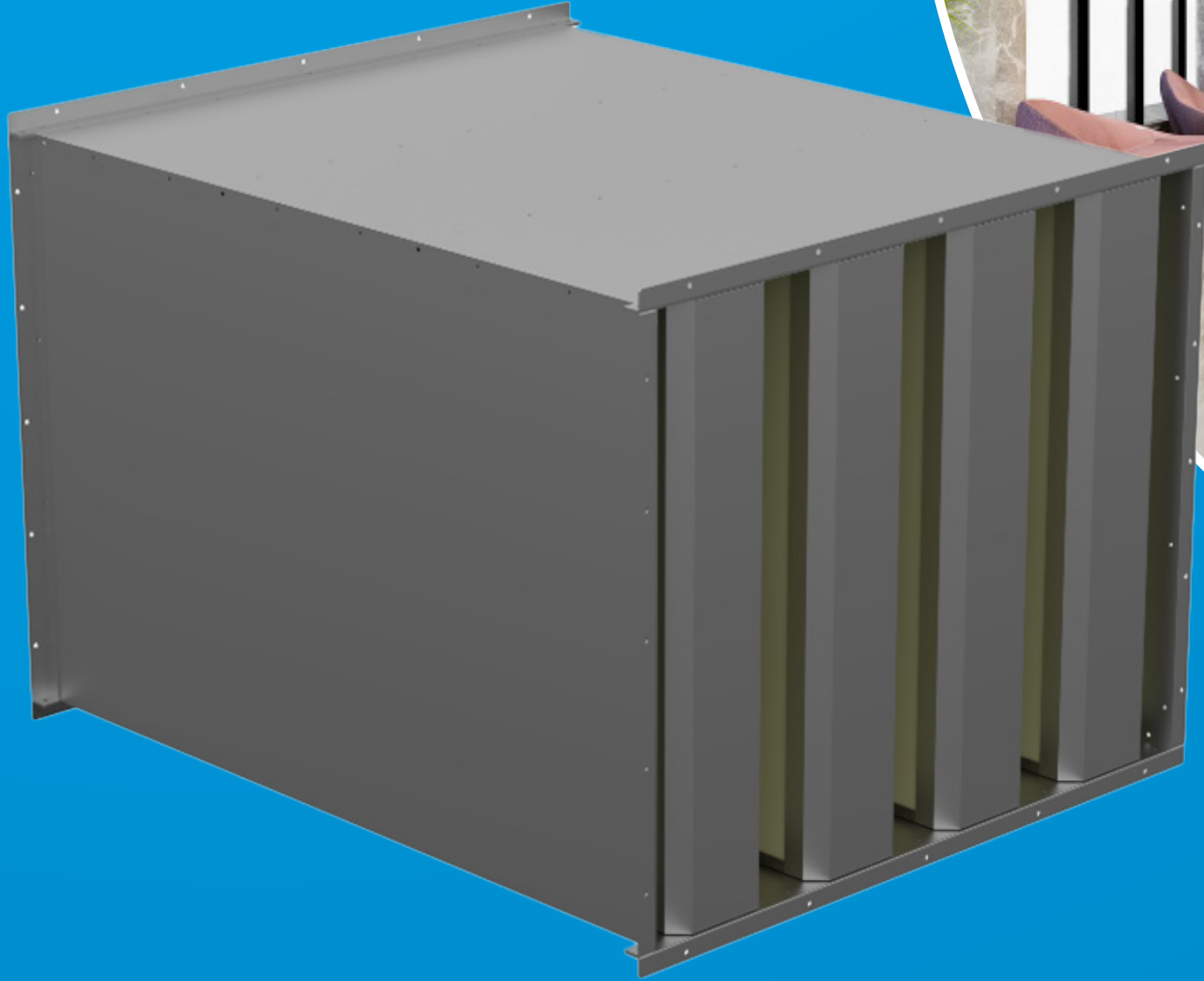


GSK

Prismatic Silencer



GSK PRISMATIC SILENCER

GSK Prismatic Silencers are engineered for HVAC ductwork applications to achieve effective airborne noise attenuation while maintaining high system efficiency with minimal pressure loss.

GENERAL FEATURES

- Provides effective noise attenuation at both broadband and low frequencies thanks to the prismatic silencer bodies installed inside the duct.
- Its aerodynamic structure minimizes pressure losses while increasing energy efficiency.

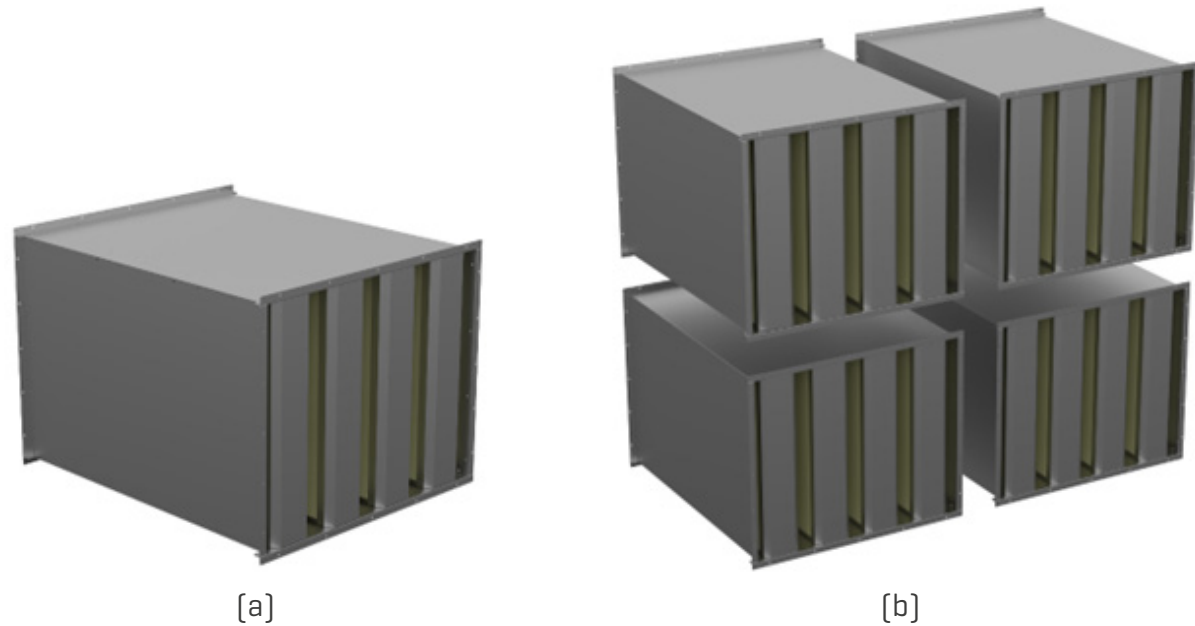


Figure 1. Duct type prismatic silencer, [a] single module, [b] multi-module divided by width and height

MATERIAL

- Casing: Galvanized steel sheet, optional stainless steel
- Silencer internal filling: Mineral wool with high biosolubility and fire resistance class A1 according to EN 13501
- Surface covering: Covered with glass fiber fabric. Perforated sheet metal protection can be applied optionally.

SURFACE FINISH

- Galvanized coating is applied as standard.
- Stainless steel surface, powder coating in RAL color options, or anodized coating options are available upon request.

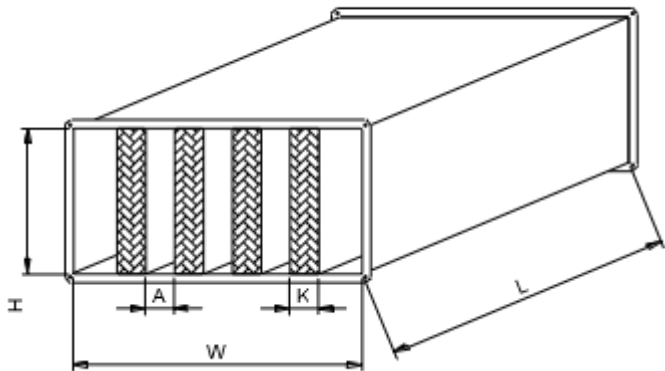
INSTALLATION

GSK prismatic silencers are mounted to the duct system with flange connections. Two different installation types are available:

- 30 mm standard flange:** Standard connection type manufactured from galvanized steel and used in general applications.
- 35 × 35 × 3 mm angle flange:** A more durable installation solution preferred in cases where the silencer is manufactured in divided width or height sections.

Both installation options are designed to meet airtightness class and pressure resistance standards. Silencers can be applied to both horizontal and vertical duct systems.

STANDARD DIMENSIONS



Symbol	Description	Unit	Dimension Range
K	Cassette Thickness	[mm]	100-200
W	Silencer Width	[mm]	150-2400
H	Silencer Height	[mm]	150-1800
L	Silencer Length	[mm]	500-1500
A	Air Passage	[mm]	40-400

DIVISION DIMENSIONS

Cassette Thickness = 100 mm			
	Min	Max	Modular Production
W [mm]	150	2400	2401-4800
H [mm]	150	1800	1801-3600
L [mm]	500	1500	1501-3000

Cassette Thickness = 200 mm			
	Min	Max	Modular Production
W [mm]	250	2400	2401-4800
H [mm]	150	1800	1801-3600
L [mm]	500	1500	1501-3000

QUICK SELECTION

Quick selection tables are prepared for silencers with a height of 1 m.
Net Sound Attenuation [dB] and Pressure Drop [Pa] Table [S = 100 mm]

L [mm]	Air Passage Gap A [mm]	Net Sound Attenuation [Insertion Loss] [dB]								Pressure Drop [Pa]		
		Frequency f [Hz]								V [m/s]		
		63	125	250	500	1000	2000	4000	8000	5	10	15
500	50	3	5	9	16	19	16	13	10	10	39	89
	80	2	3	7	13	15	15	11	8	7	29	65
	100	2	2	6	11	13	12	8	7	6	25	57
1000	50	5	9	17	28	32	28	23	19	12	49	111
	80	4	5	12	22	26	27	19	14	8	34	76
	100	3	5	11	20	23	21	15	11	7	29	66
1500	50	6	12	26	36	41	37	31	26	15	59	133
	80	5	8	17	29	35	34	24	17	10	39	88
	100	4	7	15	25	31	27	19	14	8	33	75
2000	50	8	16	31	39	44	41	37	32	17	69	155
	80	6	11	23	33	38	38	29	21	11	44	99
	100	5	9	21	30	35	31	23	18	9	37	83
2500	50	9	19	35	42	47	46	44	39	20	78	177
	80	7	15	30	38	42	41	33	26	12	49	111
	100	6	12	26	35	40	35	27	22	10	41	92

Net Sound Attenuation [dB] and Pressure Drop [Pa] Table [S = 200 mm]

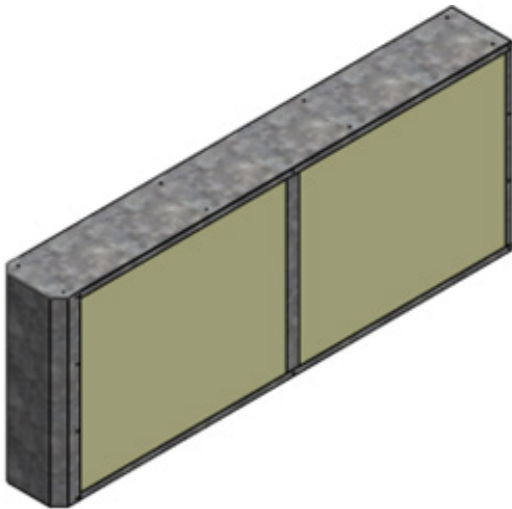
L [mm]	Air Passage Gap A [mm]	Net Sound Attenuation [Insertion Loss] [dB]								Pressure Drop [Pa]		
		Frequency f [Hz]								V [m/s]		
		63	125	250	500	1000	2000	4000	8000	5	10	15
500	50	3	7	17	20	24	22	16	13	15	60	142
	80	2	6	14	15	18	15	11	10	12	47	112
	100	2	5	11	12	14	10	7	8	10	39	93
1000	50	5	13	33	38	43	41	30	23	17	67	159
	80	4	11	26	29	33	27	19	17	13	53	125
	100	3	9	22	23	27	18	13	14	11	43	103
1500	50	6	19	47	50	50	50	39	28	19	74	177
	80	5	15	38	41	46	37	26	22	14	58	138
	100	4	13	32	33	38	24	16	18	12	47	112
2000	50	9	23	>50	>50	>50	>50	49	35	21	83	190
	80	7	19	46	>50	>50	44	31	27	16	63	143
	100	6	16	41	42	47	29	20	21	12	49	112
2500	50	11	28	>50	>50	>50	>50	>50	41	23	93	241
	80	9	22	>50	>50	>50	>50	37	31	17	68	177
	100	7	19	>50	>50	>50	34	23	24	13	52	134

Net Sound Attenuation [dB] and Pressure Drop [Pa] Table [S = 200 mm]

Pressure drops in the quick selection tables are calculated for the use of 2 cassettes [n=2].
Silencer width can be calculated using the following formula:

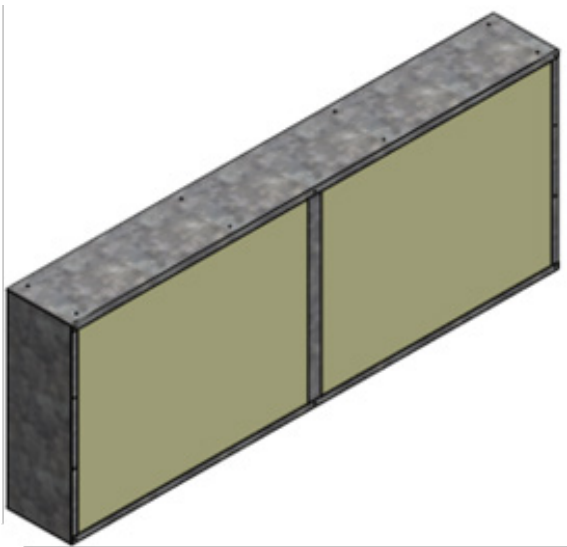
Width [W]= [n x A]+[(n-1) x K+K]

Hat-Type Cassette



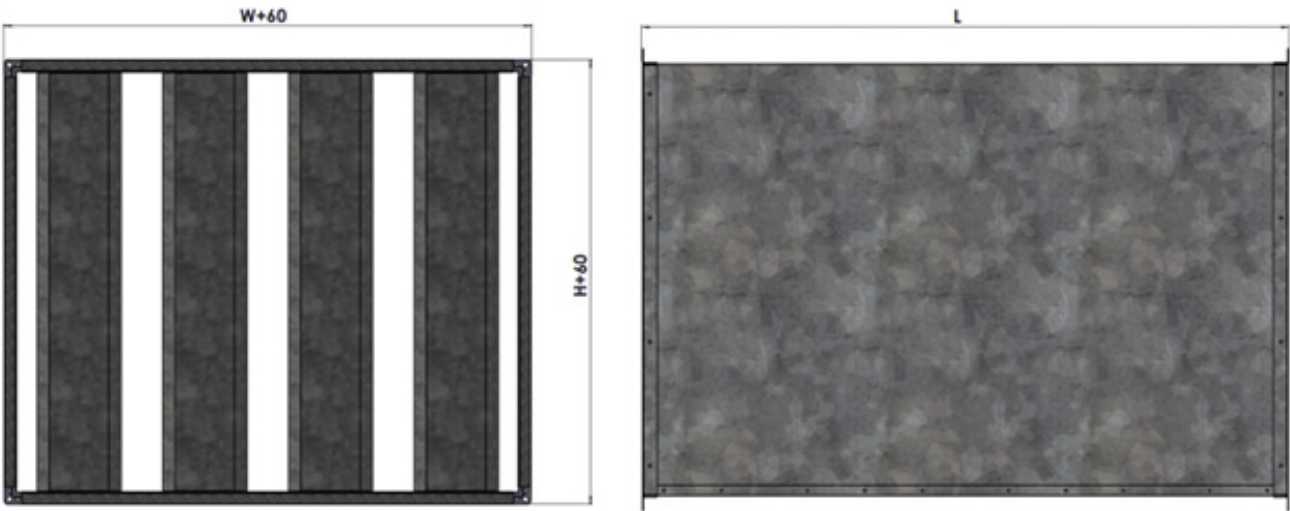
Hatless Cassette

When the silencer length [L] > 1500 mm



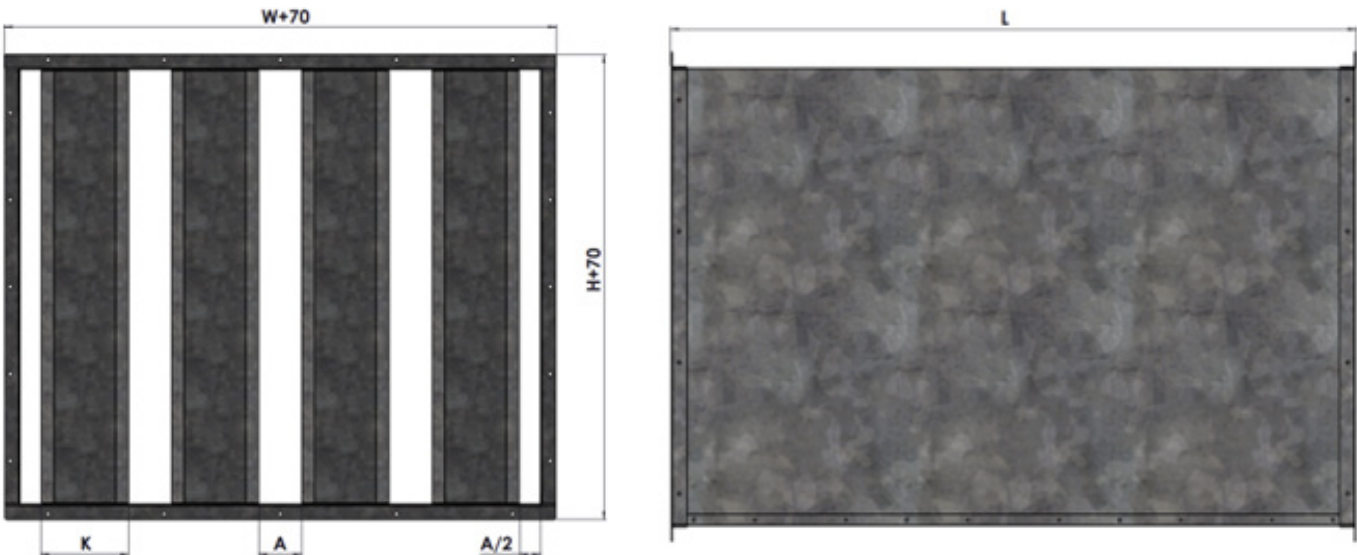
30 mm Standard Flange

A 30 mm standard flange is used for dimensions up to 2400 × 1800 × 1500 mm [single module].

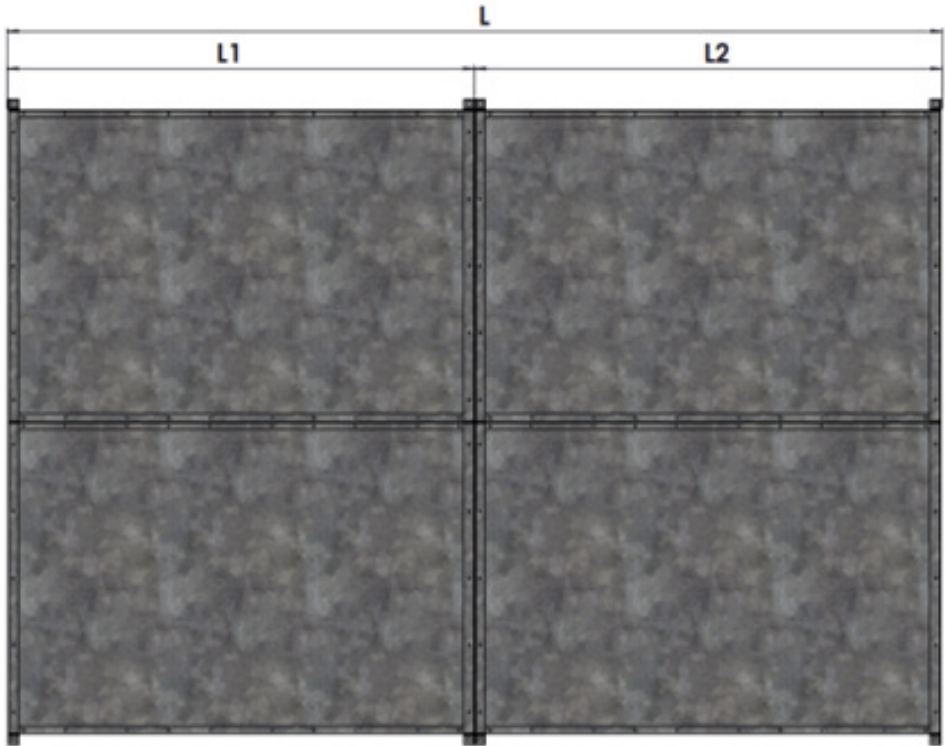
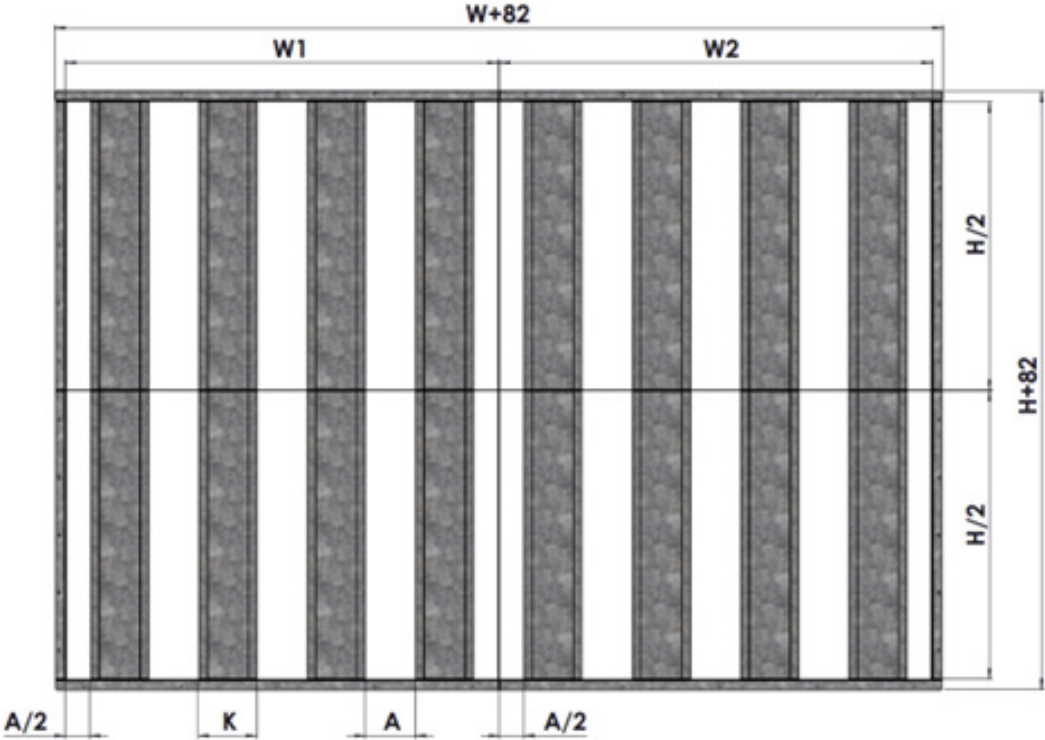


35 × 35 × 3 mm Flange

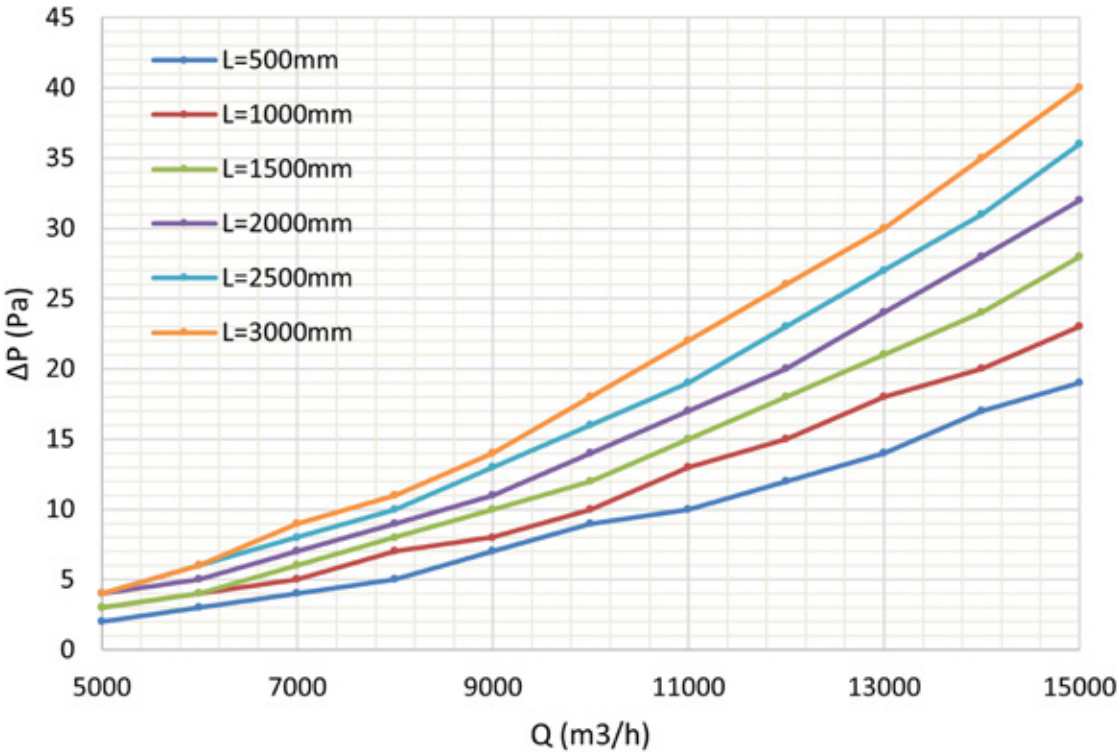
A 35 × 35 × 3 mm flange is used for dimensions larger than 2400 × 1800 × 1500 mm [multi-module].



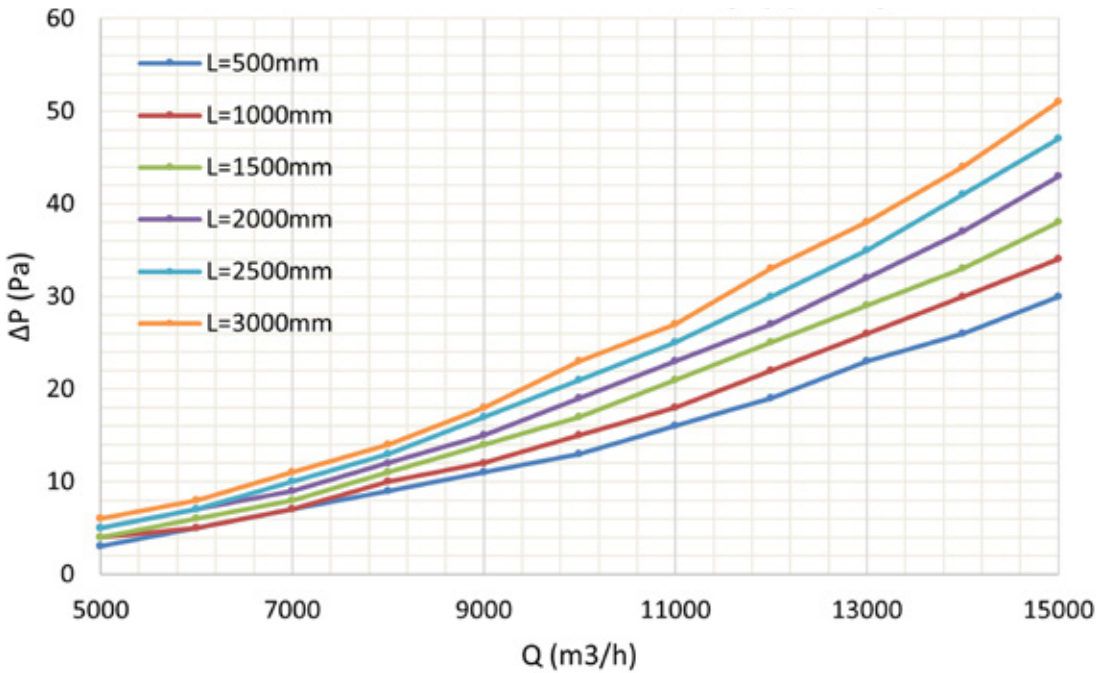
DIVISION



Cassette Thickness = 100 mm
Air Passage Gap = 100 mm



Cassette Thickness = 200 mm
Air Passage Gap = 100 mm



SUSTAINABILITY SOLUTIONS AT DOGU HVAC



We offer supplementary health insurance to our employees to promote healthy living. We also plan health-focused initiatives such as smoking cessation programs.



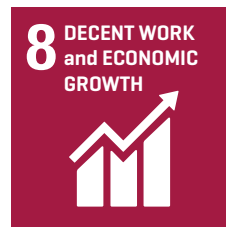
Through the DOGU HVAC CLUB project, we organize technical tours of our factory, participate in career events, and provide sponsorships to support the skill development of university and technical high school students.



In 2024, we increased female employment in our administrative and production departments. This step aims to contribute to gender equality by offering a workplace with equal rights for all employees.



Our R&D center's 2,500 m² solar panels and 0.6 MW annual capacity solar energy systems reduce our carbon footprint. We generate our electricity, ensuring a reliable, sustainable, and accessible clean energy source.



Decent Work and Economic Growth: As an employer brand, our primary goal is to protect our employees' rights and create a workplace founded on equality and justice for all employees.



We enhance indoor air quality with environmentally friendly and energy-efficient products, ensuring adherence to European standards.



We minimize waste through lean production policies and emphasize recycling, simultaneously increasing efficiency in our production processes.



We support environmental protection through our eco-friendly, sustainable, energy-efficient product lines and R&D efforts focused on reducing waste that could contribute to climate change.



We value transparency and accountability, working with associations like ISKAV to prevent corruption and unfair competition, aligning with sectoral ethical values.



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