DGK

Door Gate Grille

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DOĞU

DGK

GENERAL FEATURES

DGK Door Gate Grille ensures efficient air transfer by effectively utilizing the pressure differential between adjacent spaces. With its structure designed to easily adapt to door and wall thicknesses ranging from 20 to 70 mm, it offers a practical and aesthetically pleasing solution for a wide range of interior applications.
DGK Door Gate Grille is a transfer grille with wings that offer low pressure loss with its aesthetic appearance. It has a double-sided structure. It is used in situations where air distribution is desired with pressure difference between spaces. Used for positioning on doors, since it consists of V-shaped wing group, it prevents visible light passage.

MATERIAL

Frame and blades made of aluminum 6063 extruded profile

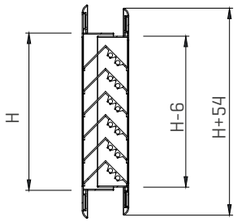
SURFACE COATING

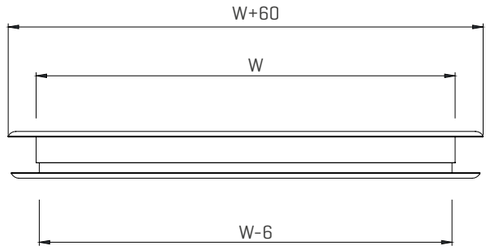
- RAL 9010 or RAL 9016 electrostatic powder paint as standard.
- Optional
  - Different RAL color codes
  - Matt Aluminum anodized finish for matte and metallic look
  - Unpainted manufacturing

MOUNTING OPTIONS

- Screw System
- Without Mounting Hole

STANDARD DIMENSIONS





W (mm) (Width)	200 - 300 - 400 - 500 - 600 - 700 - 800 - 900 - 1000 - 1100 - 1200
H (mm) (Height)	100 - 200 - 300 - 400 - 500 - 600 - 700 - 800 - 900

Table 1: Standard Sizes

PERFORMANCE DATA

This section summarizes the performance data and selection tables of the DGK Door Gate Grille, provided to facilitate accurate product selection under different operating conditions.

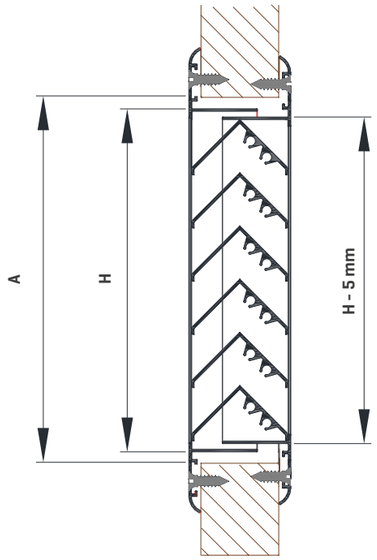
Effective Areas [m²]		H [mm]												
	WxH	100	150	200	250	300	350	400	450	500	600	700	800	900
W [mm]	200	0,020	0,029	0,039	0,048	0,056	0,065	0,074	0,083	0,091	0,108	0,125	0,142	0,158
	250	0,025	0,036	0,048	0,059	0,070	0,080	0,091	0,102	0,112	0,133	0,154	0,175	0,195
	300	0,029	0,043	0,056	0,070	0,083	0,095	0,108	0,121	0,133	0,158	0,183	0,207	0,231
	350	0,034	0,050	0,065	0,080	0,095	0,110	0,125	0,140	0,154	0,183	0,211	0,240	0,267
	400	0,039	0,056	0,074	0,091	0,108	0,125	0,142	0,158	0,175	0,207	0,240	0,271	0,303
	450	0,043	0,063	0,083	0,102	0,121	0,140	0,158	0,177	0,195	0,231	0,267	0,303	0,339
	500	0,048	0,070	0,091	0,112	0,133	0,154	0,175	0,195	0,215	0,256	0,295	0,335	0,374
	550	0,052	0,076	0,100	0,123	0,146	0,169	0,191	0,213	0,236	0,279	0,323	0,366	0,409
	600	0,056	0,083	0,108	0,133	0,158	0,183	0,207	0,231	0,256	0,303	0,350	0,397	0,443
	700	0,065	0,095	0,125	0,154	0,183	0,211	0,240	0,267	0,295	0,350	0,405	0,459	0,512
	800	0,074	0,108	0,142	0,175	0,207	0,240	0,271	0,303	0,335	0,397	0,459	0,520	0,581
	900	0,083	0,121	0,158	0,195	0,231	0,267	0,303	0,339	0,374	0,443	0,512	0,581	0,649
	1000	0,091	0,133	0,175	0,215	0,256	0,295	0,335	0,374	0,413	0,490	0,566	0,641	0,716
	1200	0,108	0,158	0,207	0,256	0,303	0,350	0,397	0,443	0,490	0,581	0,671	0,761	0,850

Table 2 : Effective Areas

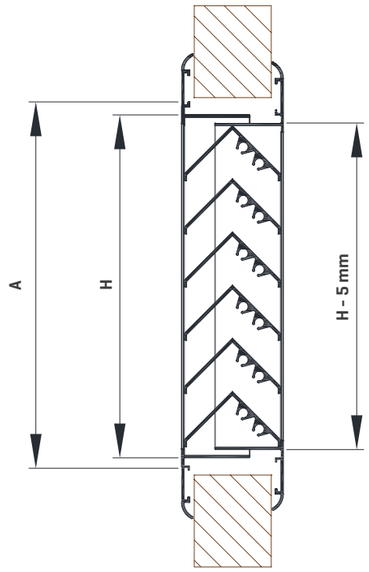
Flow Rate (m3 / h)		Effective Speed [m/s]					
		0.5	1.0	1.5	2.0	2.5	3.0
50	Effective Area [m²]	0,0278					
	Pressure Drop [Pa]	5					
	Sound Pressure Level [dB(A)]	<15					
100	Effective Area [m²]	0,0556	0,0278				
	Pressure Drop [Pa]	5	18				
	Sound Pressure Level [dB(A)]	<15	<15				
200	Effective Area [m²]	0,111	0,056	0,037	0,028	0,022	
	Pressure Drop [Pa]	4	18	40	71	112	
	Sound Pressure Level [dB(A)]	<15	16	26	34	40	
300	Effective Area [m²]	0,167	0,083	0,056	0,042	0,033	0,028
	Pressure Drop [Pa]	4	17	39	70	110	158
	Sound Pressure Level [dB(A)]	<15	17	28	35	41	46
400	Effective Area [m²]	0,222	0,111	0,074	0,056	0,044	0,037
	Pressure Drop [Pa]	4	17	39	69	108	156
	Sound Pressure Level [dB(A)]	<15	18	29	36	42	47
500	Effective Area [m²]	0,278	0,139	0,093	0,069	0,056	0,046
	Pressure Drop [Pa]	4	17	38	68	107	154
	Sound Pressure Level [dB(A)]	<15	19	30	37	43	48
600	Effective Area [m²]	0,333	0,167	0,111	0,083	0,067	0,056
	Pressure Drop [Pa]	4	17	38	67	106	153
	Sound Pressure Level [dB(A)]	<15	20	30	38	44	49
700	Effective Area [m²]	0,389	0,194	0,130	0,097	0,078	0,065
	Pressure Drop [Pa]	4	17	37	67	105	151
	Sound Pressure Level [dB(A)]	<15	20	31	38	44	49
800	Effective Area [m²]	0,444	0,222	0,148	0,111	0,089	0,074
	Pressure Drop [Pa]	4	16	37	66	104	150
	Sound Pressure Level [dB(A)]	<15	21	31	39	45	50
900	Effective Area [m²]	0,500	0,250	0,167	0,125	0,100	0,083
	Pressure Drop [Pa]	4	16	37	66	103	149
	Sound Pressure Level [dB(A)]	<15	21	32	39	45	50
1000	Effective Area [m²]	0,556	0,278	0,185	0,139	0,111	0,093
	Pressure Drop [Pa]	4	16	37	65	103	148
	Sound Pressure Level [dB(A)]	<15	22	32	40	46	50
1250	Effective Area [m²]	0,694	0,347	0,231	0,174	0,139	0,116
	Pressure Drop [Pa]	4	16	36	65	101	147
	Sound Pressure Level [dB(A)]	<15	22	33	41	46	51
1500	Effective Area [m²]	0,833	0,417	0,278	0,208	0,167	0,139
	Pressure Drop [Pa]	4	16	36	64	100	145
	Sound Pressure Level [dB(A)]	<15	23	34	41	47	52
1750	Effective Area [m²]		0,486	0,324	0,243	0,194	0,162
	Pressure Drop [Pa]		16	36	64	100	144
	Sound Pressure Level [dB(A)]		24	34	42	48	53
2000	Effective Area [m²]		0,556	0,370	0,278	0,222	0,185
	Pressure Drop [Pa]		16	35	63	99	143
	Sound Pressure Level [dB(A)]		24	35	42	48	53
2500	Effective Area [m²]		0,694	0,463	0,347	0,278	0,231
	Pressure Drop [Pa]		15	35	62	98	141
	Sound Pressure Level [dB(A)]		25	36	43	49	54
3000	Effective Area [m²]		0,833	0,556	0,417	0,333	0,278
	Pressure Drop [Pa]		15	35	62	97	140
	Sound Pressure Level [dB(A)]		26	36	44	50	55
4000	Effective Area [m²]			0,741	0,556	0,444	0,370
	Pressure Drop [Pa]			34	61	95	138
	Sound Pressure Level [dB(A)]			37	45	51	56
5000	Effective Area [m²]				0,694	0,556	0,4630
	Pressure Drop [Pa]				60	94	136
	Sound Pressure Level [dB(A)]				46	52	56

Table 3 : Performance Data

INSTALLATION



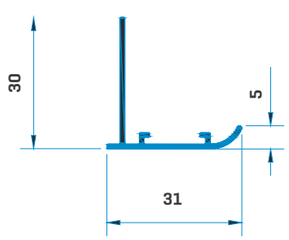
With Screw



Without Mounting Hole

A: Installation Opening (W+10 mm) x (H+10 mm)

FRAME TYPE

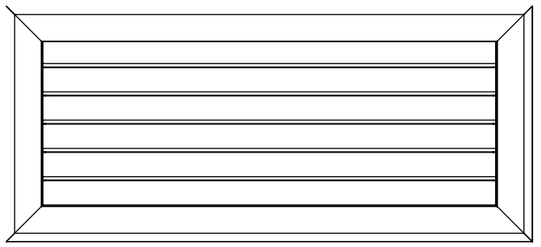


31 mm Frame

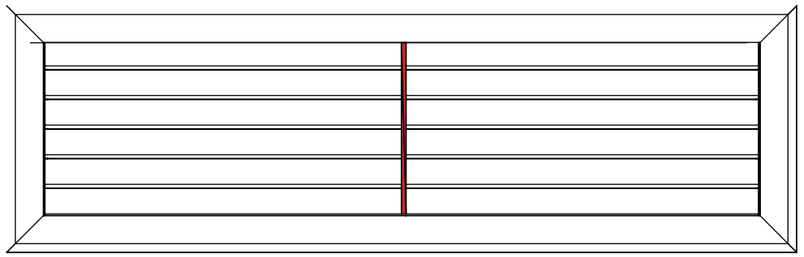
SIZE PARAMETERS

It has size limits of 200x100 mm and 1200x900 mm. Support is applied when the product width is longer than 600 mm.

If 0 < W ≤ 600, without support



If 600 < W ≤ 1200, with 1 support



PRODUCT SELECTION

Example: The air flow to be transferred from the door at the site has been determined as 500 m³/h. Pressure loss below 20 Pa is requested. 1 door passage grille will be used. Make your product selection.

Solution: For 500 m³/h air flow, effective areas corresponding to the appropriate pressure loss, throw distance and flow rate values are selected from the performance data table (Table 3).

For example, in an effective area of 0.139 m², the pressure loss is 17 Pa and the sound pressure is 19 dB(A). The appropriate grille size is selected from the effective area table (Table 2) as 800 mm x 200 mm, corresponding to the value of 0.139 m².

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PRODUCT ORDER CODES

You can place your orders according to the following coding format.

DGK.< A > . < B > . < C > . < D > . < E > . < F >

A	Raw Material Type	
	ALM	Aluminum
	EAL	Eloxal Aluminum
B	**Frame Type**	
	05	31 mm Frame
C	**Type of Mounting**	
	VD	Screw System
	MD	Without Mounting
D	**Width (W) (mm)**	
	0000	You can look at the standard sizes
E	**Height (H) (mm)**	
	0000	You can look at the standard sizes
F	**Paint**	
	00	Unpainted
	S1	Standard Painted - RAL 9010
	S2	Standard Painted - RAL 9016
	XX	Special Painted

Sample Coding; DGK.ALM.05.VD.1000.0900.S1

SUSTAINABILITY SOLUTIONS AT DOGU HVAC

3 GOOD HEALTH and WELL- BEING

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

4 QUALITY EDUCATION

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.

5 GENDER EQUALITY

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.

7 AFFORDABLE and CLEAN ENERGY

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.

8 DECENT WORK and ECONOMIC GROWTH

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.

11 SUSTAINABLE CITIES and COMMUNITIES

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

12 RESPONSIBLE CONSUMPTION and PRODUCTION

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

13 CLIMATE ACTION

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.

16 PEACE, JUSTICE and STRONG INSTITIONS

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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