



GFL
Leaf Filter Unit

Venues Breathe with DOGU HVAC Systems!

DOGU HVAC founded in 1999, and ever since has been manufacturing Energy-and Cost-Efficient products as Air Handling Units, Air Distribution & Management & Movement Systems [HVAC Components] and constantly enhancing to provide an integrated solution for well-being. DOGU HVAC's core business products which are subsumed under 4 major groups as Air Handling Units, Heat/Energy Recovery Units, Air Distribution & Management Products and Kitchen Ventilation Equipment are all produced under the compliance with EU standarts. Particularly AHU and HRU-ER units are entitled under the "FOUR SEASONS" brand name for domestic and foreign markets. DOGU HVAC's, headquarter in Izmir/Turkey, operates in a large-sized plant spread over 2 factories, in total area of 45,000 sqm. in which 25,000 sqm. indoor space that enables DOGU HVAC manufactures 140 various type of products. Additionally, DOGU HVAC has a powerful sales network with 3 sales offices located in Istanbul, Ankara and Antalya in Turkey as well as authorized dealers in many other countries for sales and after sales operations. DOGU HVAC has been exporting to more than 50 countries.

Thanks to our "Customer Satisfaction", "Zero-Defect Policy" motto and reinforced by complete certified products, more than 250 employees. DOGU HVAC R&D center developed exclusive products, such as Double Skin Make-Up Kitchen Hood, Recirculated Laminar Airflow Unit, Single Piece Square Ceiling Diffuser and Ecology Units, for the first time have brought to the sector. DOGU HVAC R&D has the ability to make customized production which can meet the requirement of the customers by means of special software such as "ANSYS FLUENT". DOGU HVAC guaranteed its quality of management by having advantages of ISO 9001, ISO 14001, ISO 18001 certifications. Air Handling Units have EUROVENT, TUV Hygiene [in accordance with DIN1946-4, VDI 6022-1, DIN EN 13053 standarts], CE, TSEK, GOST-R certifications; Fire Dampers have EN 1366-2 and EN 13501-3 CE certifications; Smoke Control Dampers have EN 1366-10 and 12101-8 CE certifications; Kitchen Ventilation Products have TSE, CE and GOST-R quality certifications.



- ☞ GFL – Leaf Filter Unit is an extract grille designed for sterile environments.
- ☞ It is used to prevent fibers and particles in the exhausted air from entering the ventilation system.



MATERIAL

- ☞ Made of AISI 304 quality stainless steel
- ☞ Porous chrome mesh filter

SURFACE COATING

- ☞ It is produced from stainless steel as standard.
- ☞ Optional
 - Different RAL color codes

MOUNTING OPTIONS

- ☞ Internally screwed

STANDARD DIMENSIONS

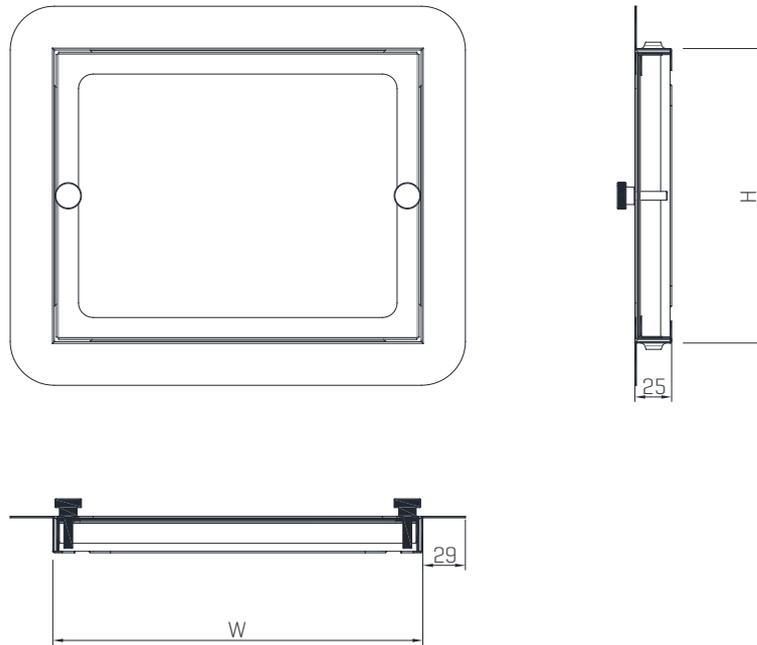


Table 1. Standard Dimensions

W (mm) (Width)	100 - 150 - 200 - 250 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700
H (mm) (Height)	100 - 150 - 200 - 250 - 300 - 350 - 400 - 450 - 500

PERFORMANCE DATA

EFFECTIVE AREA TABLE

Table 2. Effective Area

Effective Area (mm ²)	H (Height) (mm)									
	100	150	200	250	300	350	400	450	500	
W (Width) (mm)	100	0.006	0.010	0.015	0.020	0.025	0.030	0.035	0.039	0.044
	150	0.010	0.018	0.025	0.032	0.039	0.047	0.054	0.061	0.068
	200	0.015	0.025	0.035	0.044	0.054	0.064	0.073	0.083	0.092
	250	0.020	0.032	0.044	0.056	0.068	0.080	0.092	0.105	0.117
	300	0.025	0.039	0.054	0.068	0.083	0.097	0.112	0.126	0.141
	350	0.030	0.047	0.064	0.080	0.097	0.114	0.131	0.148	0.165
	400	0.035	0.054	0.073	0.092	0.112	0.131	0.150	0.170	0.189
	450	0.039	0.061	0.083	0.105	0.126	0.148	0.170	0.192	0.213
	500	0.044	0.068	0.092	0.117	0.141	0.165	0.189	0.213	0.237
	550	0.049	0.076	0.102	0.129	0.155	0.182	0.208	0.235	0.262
	600	0.054	0.083	0.112	0.141	0.170	0.199	0.228	0.257	0.286
	650	0.059	0.090	0.121	0.153	0.184	0.216	0.247	0.279	0.310
700	0.064	0.097	0.131	0.165	0.199	0.233	0.266	0.300	0.334	

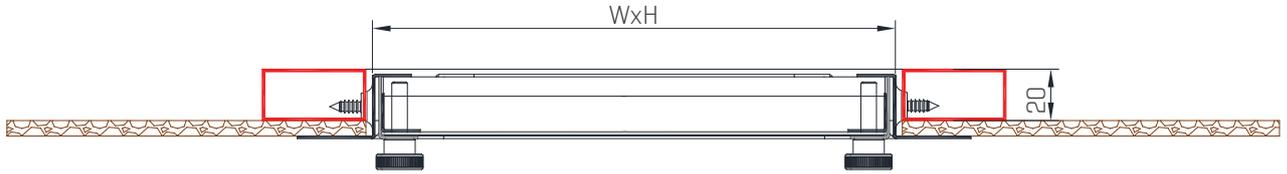
EXTRACT AIR DATA TABLE

Table 3. Extract Air Data

Flow Rate [m ³ / h]		Effective Speed (m/s)					
		0.5	1.0	1.5	2.0	2.5	3.0
50	Effective Area [m ²]	0.028	0.0139	0.0093	0.0069	0.006	
	Pressure Drop [Pa]	18	50	90	136	188	
	Sound Pressure Level [db(A)]	<15	21	29	35	39	
100	Effective Area [m ²]	0.0556	0.0278	0.019	0.014	0.011	
	Pressure Drop [Pa]	17	46	84	127	176	
	Sound Pressure Level [db(A)]	<15	23	31	37	41	
200	Effective Area [m ²]	0.111	0.056	0.037	0.028	0.022	
	Pressure Drop [Pa]	16	43	78	119	164	
	Sound Pressure Level [db(A)]	<15	25	33	39	44	
300	Effective Area [m ²]	0.167	0.083	0.056	0.042	0.033	
	Pressure Drop [Pa]	15	42	75	114	158	
	Sound Pressure Level [db(A)]	<15	27	35	41	45	
400	Effective Area [m ²]	0.222	0.111	0.074	0.056	0.044	0.037
	Pressure Drop [Pa]	15	41	73	111	153	200
	Sound Pressure Level [db(A)]	<15	28	36	42	46	50
500	Effective Area [m ²]	0.278	0.139	0.093	0.069	0.056	0.046
	Pressure Drop [Pa]	15	40	71	108	150	195
	Sound Pressure Level [db(A)]	<15	28	36	42	47	50
600	Effective Area [m ²]	0.333	0.167	0.111	0.083	0.067	0.056
	Pressure Drop [Pa]	14	39	70	107	147	192
	Sound Pressure Level [db(A)]	<15	29	37	43	47	51
700	Effective Area [m ²]		0.194	0.130	0.097	0.078	0.065
	Pressure Drop [Pa]		38	69	105	145	189
	Sound Pressure Level [db(A)]		29	38	43	48	52
800	Effective Area [m ²]		0.222	0.148	0.111	0.089	0.074
	Pressure Drop [Pa]		38	68	104	143	187
	Sound Pressure Level [db(A)]		30	38	44	48	52
900	Effective Area [m ²]		0.250	0.167	0.125	0.100	0.083
	Pressure Drop [Pa]		37	67	102	142	184
	Sound Pressure Level [db(A)]		30	38	44	49	52
1000	Effective Area [m ²]		0.278	0.185	0.139	0.111	0.093
	Pressure Drop [Pa]		37	67	101	140	183
	Sound Pressure Level [db(A)]		31	39	45	49	53
1250	Effective Area [m ²]			0.231	0.174	0.139	0.116
	Pressure Drop [Pa]			65	99	137	179
	Sound Pressure Level [db(A)]			39	45	50	53
1500	Effective Area [m ²]			0.278	0.208	0.167	0.139
	Pressure Drop [Pa]			64	97	135	175
	Sound Pressure Level [db(A)]			40	46	50	54
1750	Effective Area [m ²]			0.324	0.243	0.194	0.162
	Pressure Drop [Pa]			63	96	133	173
	Sound Pressure Level [db(A)]			41	46	51	55
2000	Effective Area [m ²]				0.278	0.222	0.185
	Pressure Drop [Pa]				95	131	171
	Sound Pressure Level [db(A)]				47	51	55
2500	Effective Area [m ²]					0.278	0.231
	Pressure Drop [Pa]					128	167
	Sound Pressure Level [db(A)]					52	56
3000	Effective Area [m ²]					0.333	0.278
	Pressure Drop [Pa]					126	164
	Sound Pressure Level [db(A)]					53	56

INSTALLATION

1. INTERNALLY SCREWED



PRODUCT SELECTION

Example: The total exhaust flow rate in the operating room has been determined as 2000 m³/h. 4 Leaf Filter Unit will be used. Make your product selection.

Solution: There is an air flow of 2000/4=500 m³/h for one grille.

For 500 m³/h air flow, effective areas corresponding to appropriate pressure loss and flow rate values are selected from the extract air data table.

For example, in an effective area of 0.139 m², the effective speed is 1 m/s, pressure loss is 40 Pa and sound pressure is 28 dB(A). The appropriate grille size is selected from the effective area table [Table 2] as 600 mm x 250 mm corresponding to the value of 0.139 m².

PRODUCT ORDER CODES

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

GFL.< A > . DZ . < B > . < C > . < D > . < E >

A	Raw Material Type	
	PAS	Stainless-Steel
B	Installation Method	
	IC	Internally Screwed
C	Width [W] [mm]	
	0000	You can look at the standard sizes.
D	Height [H] [mm]	
	0000	You can look at the standard sizes.
E	Paint	
	00	Unpainted

Sample Coding: GFL.PAS.DZ.VD.0400.0400.00



We make the difference with
140 different types of products.



Headquarter

ITOB Organize Sanayi Bölgesi 10010 Sk.
No: 4 35477 Tekeli, Menderes, İzmir/TURKEY
Tel: +90 232 799 02 40 | Fax: +90 232 799 02 44

Istanbul Sales Office

Barbaros Mah. Ciğdem Sk. No: 1 Ağaoğlu My Office
Kat: 4/18 Ataşehir, İstanbul/TURKEY
Tel: +90 216 250 55 45 | Fax: +90 216 250 55 56

info@doguhvac.com | www.doguhvac.com

FOUR
SEASONS®

 **DOĞU**
İKLİMLENDİRME | HVAC SYSTEMS

