DOĞU
İKLİMLENDİRME | HVAC SYSTEMS

DPK

Sand Trap Louvre

FOUR SEASONS®
Doğu İklimlendirme A.Ş. Markasıdır

Venues Breathe with DOGU HVAC Systems!

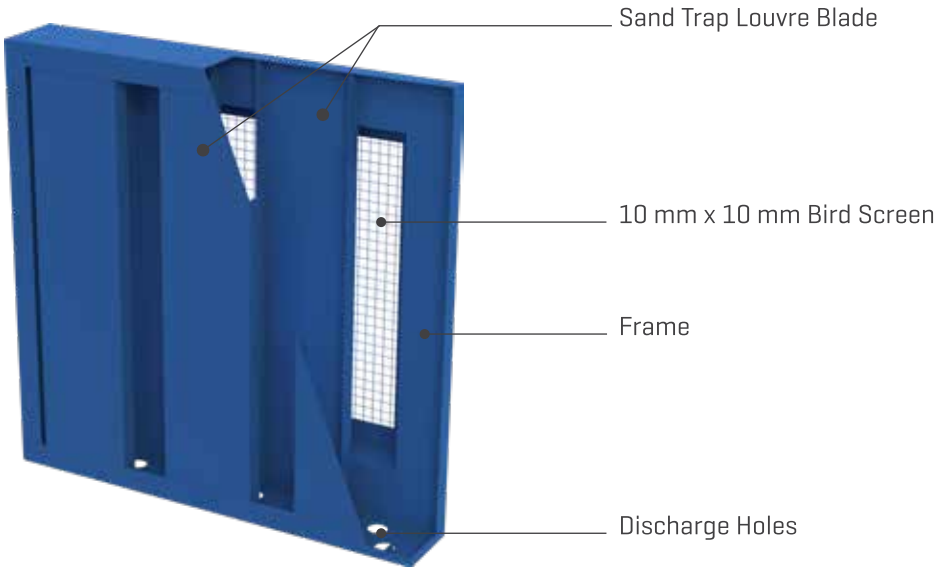
DOGU HVAC founded in 1999, and ever since has been manufacturing Energy-and Cost-Efficient products as Air Handling Units, Air Distribution & Management & Movement Systems [HVAC Components] and constantly enhancing to provide an integrated solution for well-being. DOGU HVAC's core business products which are subsumed under four 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 two 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 three 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.

- **DPK - Sand Trap Louvre** is used to prevent materials such as sand, dust, snow from entering the system at the fresh air entry points of ventilation systems.
- The blades are positioned vertically so that the captured parts can be easily taken from the holes under the shutter. In this way, the shutter is provided to clean itself.
- It can be produced in one piece from 150 mm x 150 mm to 1950 mm x 1950 mm. Modular assembly is made in higher sizes.
- The casing and blades are made of galvanized sheet.
- There is a standard 10 mm x 10 mm bird wire on the louvre throat.
- It is painted with RAL 9010 electrostatic powder paint as standard. It can also be painted in different RAL codes by demand. It has high corrosion resistance.

MATERIAL

The frame and blades of **DPK - Sand Trap Louvre** are made of 1.00 mm galvanized sheet. It can also be produced in stainless steel according to customer preferences. There is a standard 10 mm x 10 mm wire mesh made of galvanized steel in the louvre throat. It can be produced without wire mesh in line with customer preference.



SELECTION PARAMETERS

Table 1. Quick Selection According to 1 m/s Air Velocity

m³/h		H (mm)												
		150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950
W (mm)	150	81	162	243	324	405	486	567	648	729	810	891	972	1053
	300	162	324	486	648	810	972	1134	1296	1458	1620	1782	1944	2106
	450	243	486	729	972	1215	1458	1701	1944	2187	2430	2673	2916	3159
	600	324	648	972	1296	1620	1944	2268	2592	2916	3240	3564	3888	4212
	750	405	810	1215	1620	2025	2430	2835	3240	3645	4050	4455	4860	5265
	900	486	972	1458	1944	2430	2916	3402	3888	4374	4860	5346	5832	6318
	1050	567	1134	1701	2268	2835	3402	3969	4536	5103	5670	6237	6804	7371
	1200	648	1296	1944	2592	3240	3888	4536	5184	5832	6480	7128	7776	8424
	1350	729	1458	2187	2916	3645	4374	5103	5832	6561	7290	8019	8748	9477
	1500	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	8910	9720	10530
	1650	891	1782	2673	5564	4455	5346	6237	7128	8019	8910	9801	10692	11583
	1800	972	1944	2916	3888	4860	5832	6804	7776	8748	9720	10692	11664	12636
	1950	1053	2106	3159	4212	5265	6318	7371	8424	9477	10530	11583	12636	13689

Note:

Values in the table are given according to throat surface velocity.

Table 2. Weight Table

KG		H (mm)												
		150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950
W (mm)	150	2.3	3.3	4.3	5.3	6.4	7.4	8.4	9.4	10.4	11.4	12.4	13.4	14.4
	300	3.4	4.7	6.1	7.4	8.7	10.1	11.4	12.7	14.1	15.4	16.7	18.1	19.4
	450	4.5	6.1	7.8	9.4	11.1	12.8	14.4	16.1	17.7	19.4	21.0	22.7	24.4
	600	5.6	7.5	9.5	11.5	13.5	15.5	17.4	19.4	21.4	23.4	25.4	27.3	29.3
	750	6.6	8.9	11.2	13.5	15.9	18.2	20.5	22.8	25.1	27.4	29.7	32.0	34.3
	900	7.7	10.3	13.0	15.6	18.2	20.9	23.5	26.1	28.7	31.4	34.0	36.6	39.3
	1050	8.8	11.7	14.7	17.6	20.6	23.6	25.5	29.5	32.4	35.4	38.3	41.3	44.2
	1200	9.9	13.1	16.4	19.7	23.0	26.3	29.5	32.8	36.1	39.4	42.6	45.9	49.2
	1350	10.9	14.5	18.1	21.7	25.3	29.0	32.6	36.2	39,8	43.4	47.0	50.6	54.2
	1500	12.0	15.9	19.9	23.8	27.7	31.6	35.6	39.5	43.4	47.4	51.3	55.2	59.1
	1650	13.1	17.4	21.6	25.8	30.1	34.3	38.6	42.8	47.1	51.3	55.6	59.8	64.1
	1800	14.2	18.8	23.3	27.9	32.5	37.0	41.6	46.2	50.8	55.3	59.9	64.5	69.1
	1950	15.3	20.2	25.1	30.0	34,8	39.7	44.6	49.5	54.4	59.3	64.2	69.1	74.0

Note:

Weight values given are ± 10%

Table 3. Pressure Loss and Performance Value

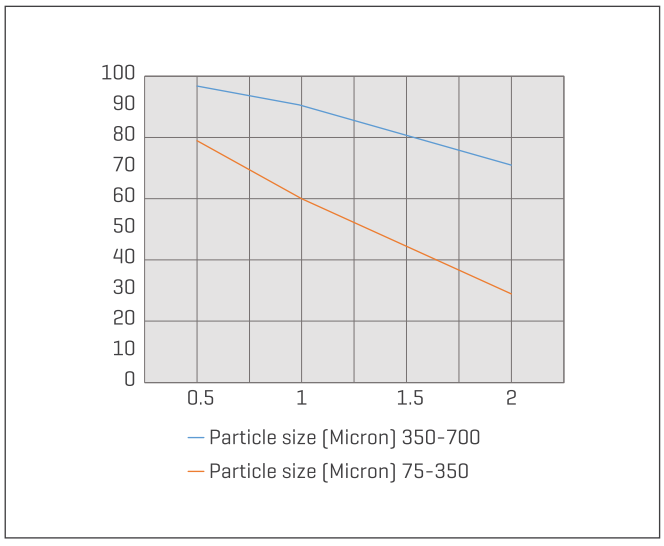


Chart 1. Efficiency percentage according to air velocity and particle size

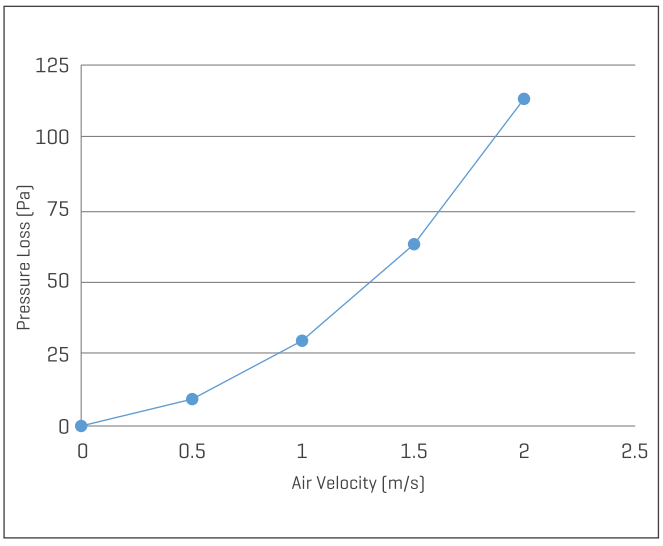
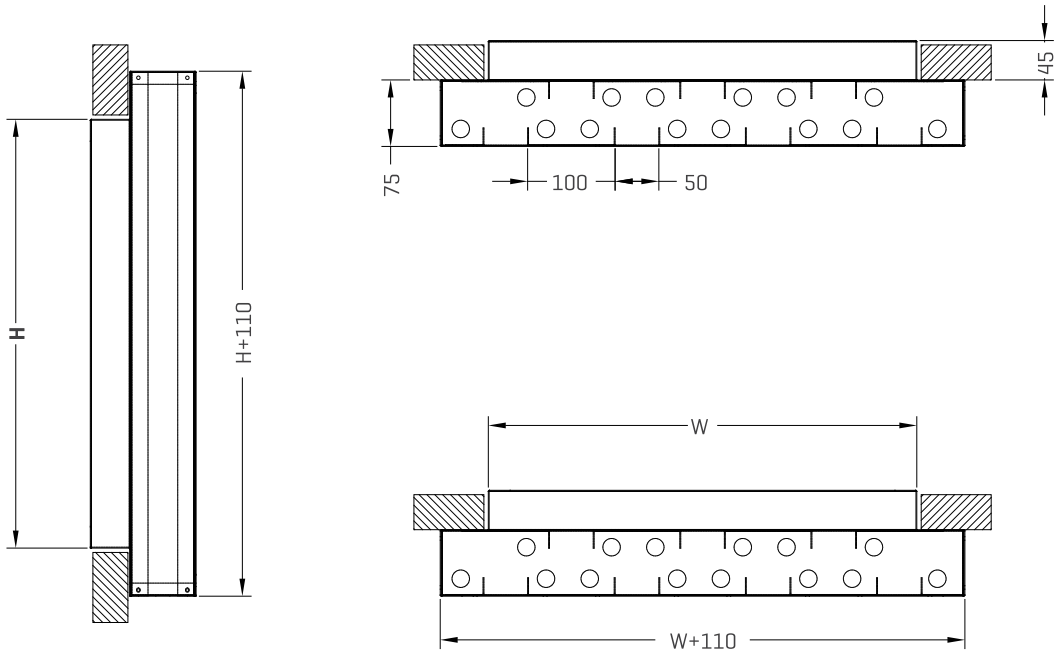


Chart 2. Pressure loss change according to air velocity

Note:

Air velocity is given according to throat surface velocity. It is not the velocity given with respect to the effective area.

DIMENSIONING



W(mm)	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950
H(mm)	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950

Note:

The horizontal dimension (W) increases by 50 mm. The vertical dimension (H) increases by 10 mm.

ASSEMBLY

The assembly of **DPK - Sand Trap Louvre** is done by screwing it to the wall or profile with mounting screws from the throat inner surface. (Fig.1) The assembled surface must be smooth, solid and flat. If these conditions are not met, mounting on the profile is required.

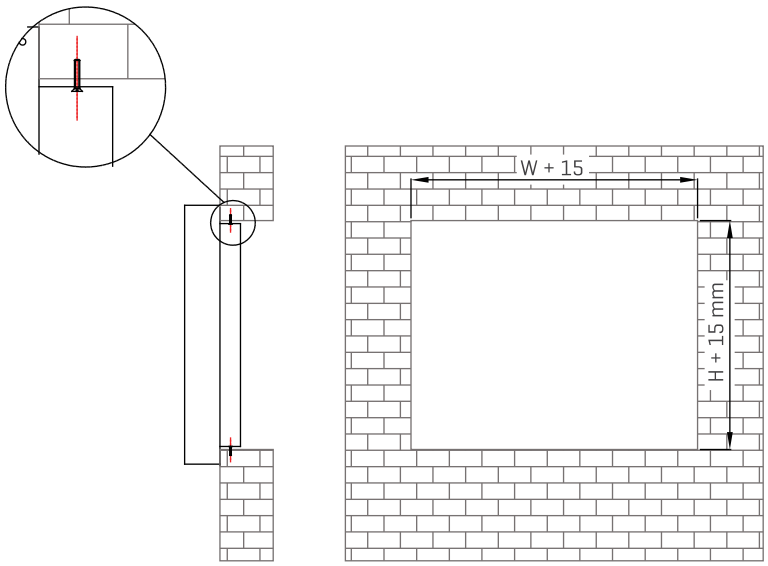


Figure 1

In case of **H>1950**, the louvre will be divided in H dimension and produced as modules. During the assembly, at least 160 mm space must be left between the module neck dimensions as shown in Figure 2. In this way, the foreign materials held by the louvre will be discharged.

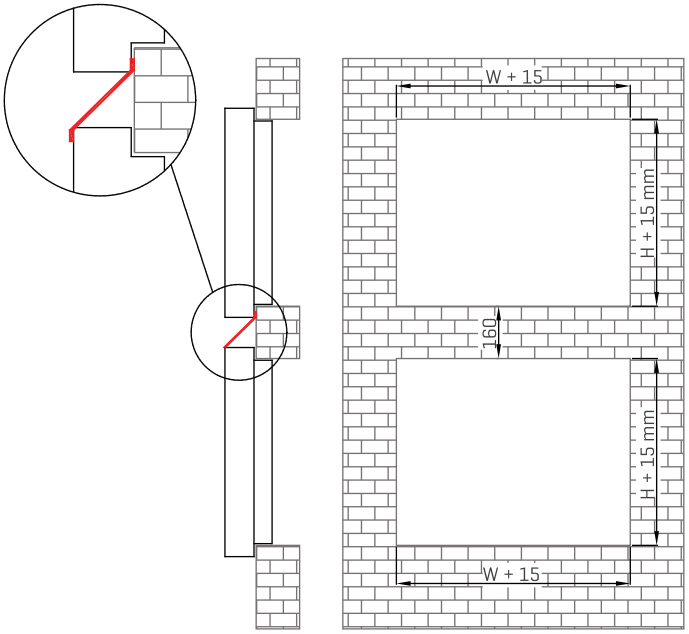


Figure 2

Note:

An inclined surface must be made between two shutters, as shown in Figure 2. This specified surface will be supplied by the customer.

In the case of **W>1950**, the louvre will be divided into W dimensions and produced as modules. During the assembly, a profile should be placed at the module junction as seen in Figure 3.

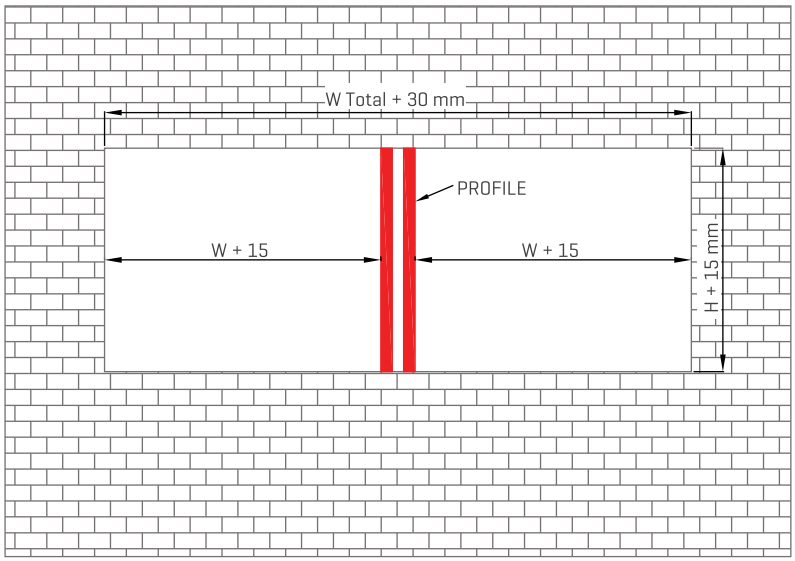


Figure 3

W Total=**W**x**n**+[**n**-1]x110

n: The Number of Module
W: Module's Horizontal Dimension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