DOĞU
İKLİMLENDİRME | HVAC SYSTEMS

DPS

Acoustic Louvre

FOUR SEASONS®

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 6 major groups as Air Handling Units, Rooftop Units, Heat/Energy Recovery Units, Air Purifiers, Air Distribution & Management Products and Kitchen Ventilation Equipments 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 32.000 sqm in which 17.500 sqm indoor space that enables DOGU HVAC manufactures 180 various type of products. Additionally, DOGU HVAC has a powerful sales network with 4 sales offices located in İstanbul, Ankara, Antalya and Adana 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 55 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 TSEK, CE and GOST-R quality certifications.

DPS ACOUSTIC LOUVRE

- DPS - Acoustic Louvres are used in places where acoustic insulation is required, such as air duct ends, generator rooms, engine rooms, to reduce the spread of sound to the environment and the sounds coming from the environment.
- In order to meet different performance requirements, there are 3 different model options: DPS-150, DPS-300 and DPS-600. (Table 1)
- Thanks to its wing structure, it also provides rain protection.

  It is painted with electrostatic powder paint. It has high corrosion resistance.
- It prevents foreign objects from entering the canal with mesh wire.

MODEL	DPS-150	DPS-300	DPS-600
			
Average Sound Reduction Index (Rw)	11	17	25

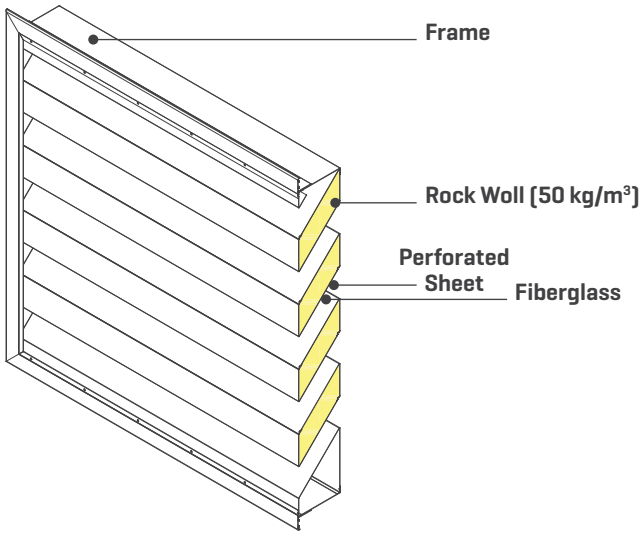
Table 1. Acoustic Louvre Models Sound Attenuation Comparison Table

MATERIAL

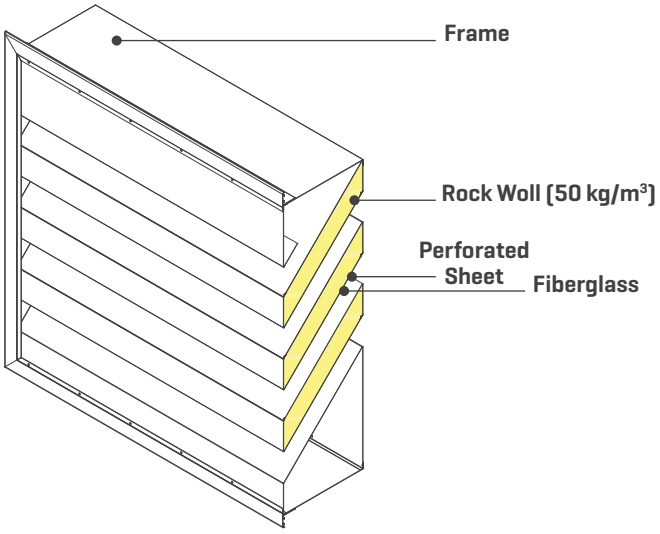
Frame and blades of all models of DPS – Acoustic Louvre are manufactured from galvanized sheet as standard. Rock wool insulation material with a density of 50 kg/m3 is used inside the blades. The surfaces of the rock wool that come into contact with the air are covered with fiber glass in order to protect them against particle abrasion. Frame and blades can also be made of stainless steel, if desired.

The product is painted in RAL9010 color with the "Electrostatic Powder Coating" process as standard. It can be painted in different RAL codes according to customer preferences. DPS is produced as standard unless specified in the order.

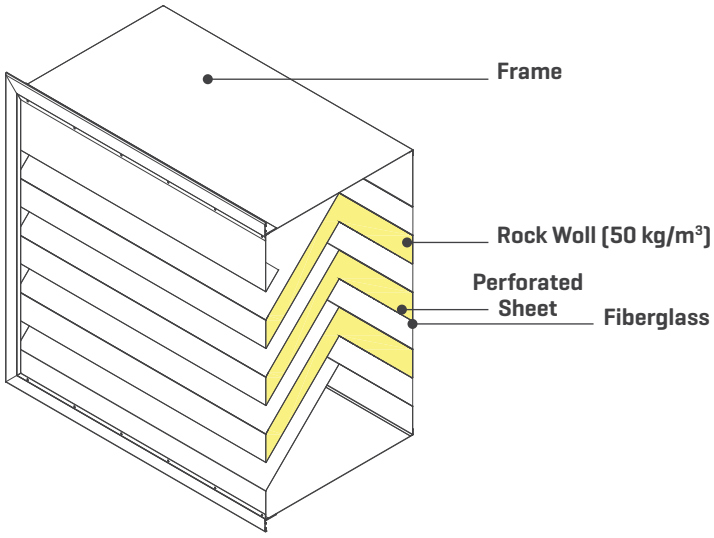
DPS-150



DPS-300



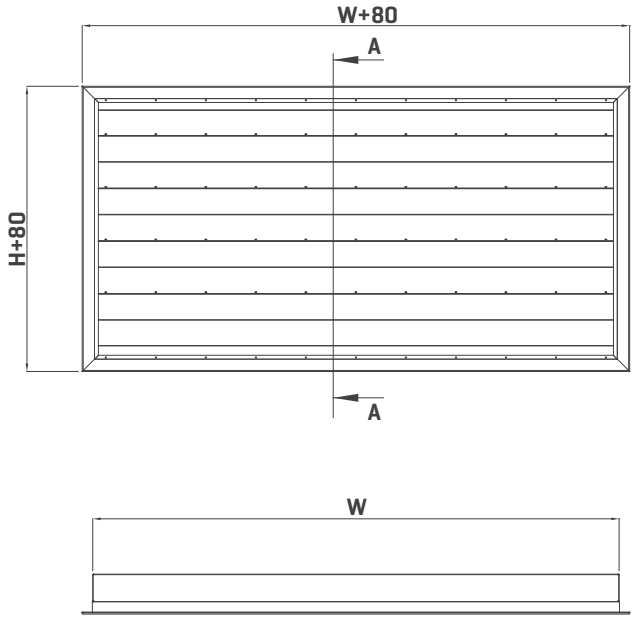
DPS-600

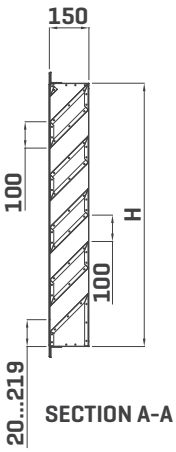


1. DPS-150

- It is possible to produce in the dimensions of Min 300 mm x 370 mm, Max 2000 mm x 1970 mm.
- It can be used in places where sound absorption is less desired.
- It is advantageous for places with narrow wall thickness.

DIMENSIONS





W (mm)	H (mm)
300	370
500	570
700	770
900	970
1100	1170
1300	1370
1500	1570
1700	1770
1900	1970
2000	

Note:

H dimension increases as the standard 200 mm. When intermediate values are requested, production is made by extending the length of the lower by-pass sheet.

Sizes larger than this range can be produced modularly.

SELECTION PARAMETERS

H (mm)	Number of Blades	Effective Area Rate (%)
370...569	1	19...12
570...769	2	25...18
770...969	3	28...22
970...1169	4	29...24
1170...1369	5	30...26
1370...1569	6	31...27
1570...1769	7	32...28
1770...1969	8	32...29
1970	9	32

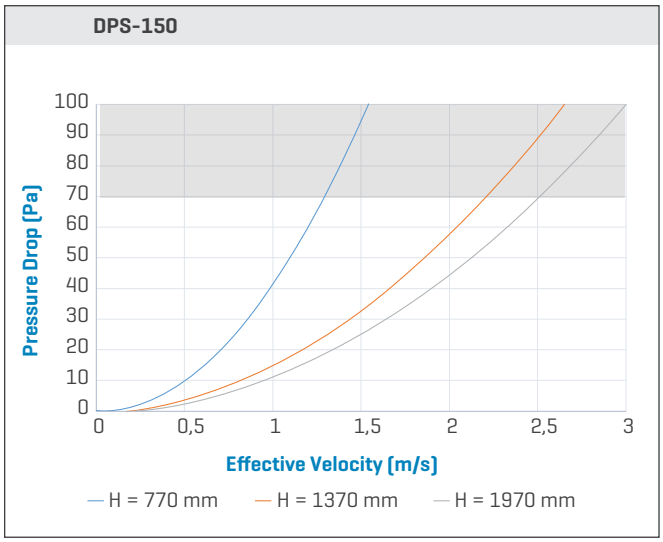


Chart 1. DPS-150 Pressure Drop Chart

Note:

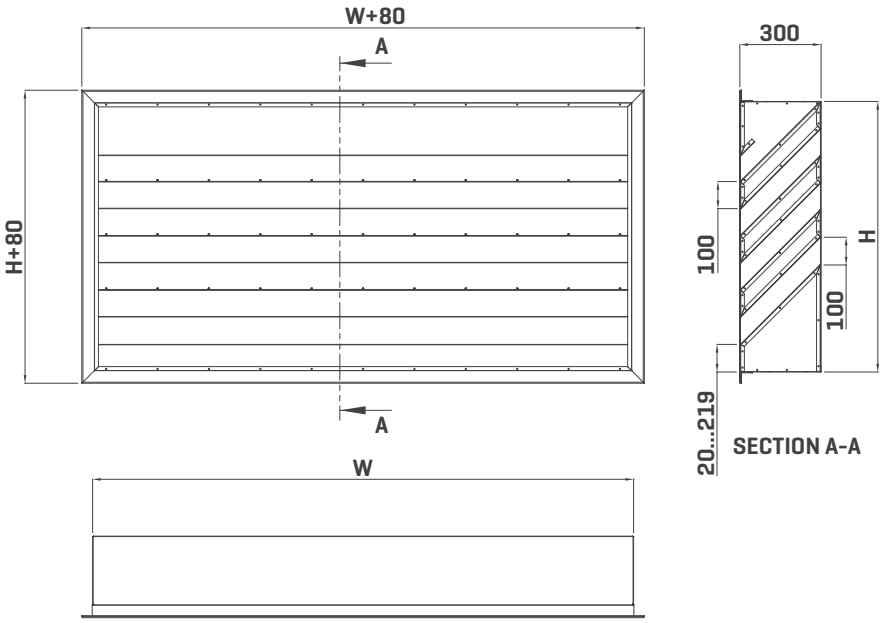
It is recommended that the pressure loss be below 70 Pa in DPS - Acoustic Louvre selections. It is also recommended that the selected effective air velocity should not exceed 2 - 2.5 m/s.

DPS - 150 Acoustic Louvre Performance Parameters								
Octave Band Center Frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
Sound Level Reduction Index (dB)	4	4	6	8	11	11	11	10
Sound Power Level Produced in Acoustic Louvre when Effective Velocity is 1 m/s (dB)	48	41	34	35	30	22	13	12
Sound Power Level Produced in Acoustic Louvre when Effective Velocity is 2 m/s (dB)	66	58	51	51	50	47	41	28

2. DPS-300

- It is possible to produce in the dimensions of Min 400 mm x 520 mm, Max 2000 mm x 2120 mm.
- It can also be used as an acoustic panel.
- It has a higher sound absorption feature than DPS-150.

DIMENSIONS



W (mm)	H (mm)
400	520
600	720
800	920
1000	1120
1200	1320
1400	1520
1600	1720
1800	1920
2000	2120

Note:

H dimension increases as the standard 200 mm. When intermediate values are requested, production is made by extending the length of the lower by-pass sheet.

Sizes larger than this range can be produced modularly.

SELECTION PARAMETERS

H (mm)	Number Of Blades	Effective Area Rate (%)
520...719	1	14...10
720...919	2	20...15
920...1119	3	23...19
1120...1319	4	25...22
1320...1519	5	27...23
1520...1719	6	28...25
1720...1919	7	29...26
1920...2119	8	30...27
2120	9	30

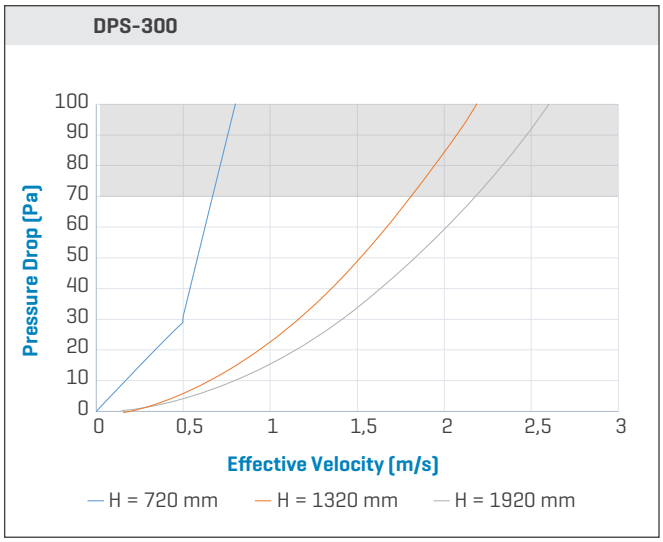


Chart 1. DPS-150 Pressure Drop Chart

Note:

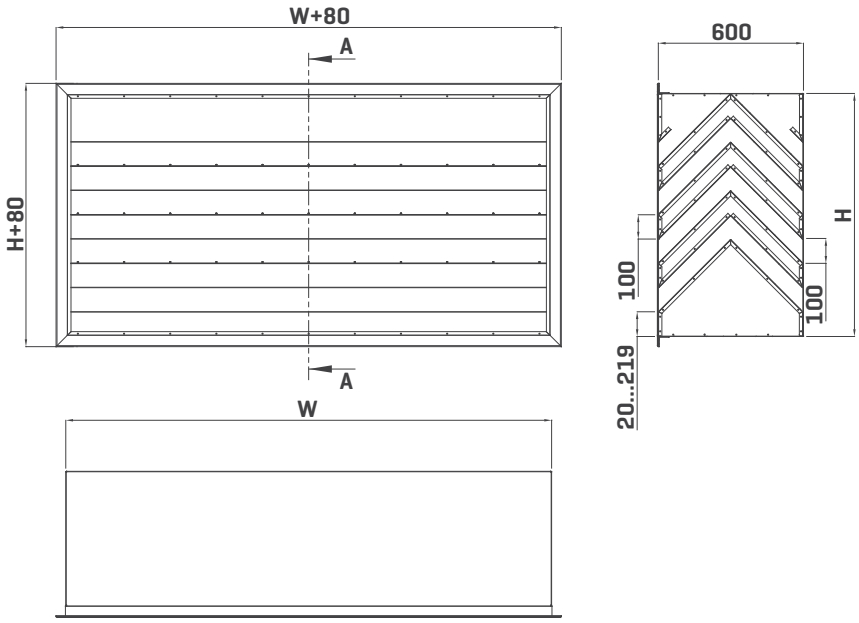
It is recommended that the pressure loss be below 70 Pa in DPS - Acoustic Louvre selections. It is also recommended that the selected effective air velocity should not exceed 2 - 2.5 m/s.

DPS - 300 Acoustic Louvre Performance Parameters								
Octave Band Center Frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
Sound Level Reduction Index (dB)	6	6	9	13	21	20	16	13
Sound Power Level Produced in Acoustic Louvre when Effective Velocity is 1 m/(dB)	48	41	34	30	25	20	13	12
Sound Power Level Produced in Acoustic Louvre when Effective Velocity is 2 m/s (dB)	66	58	51	47	45	43	39	28

3. DPS-600

- It is possible to produce in the dimensions of Min 400 mm x 520 mm, Max 2000 mm x 2120 mm.
- It is the louvre with the highest sound absorption feature among the acoustic louvre models.
- It is used in places with high noise values such as generator room.

DIMENSIONS



W (mm)	H (mm)
400	520
600	720
800	920
1000	1120
1200	1320
1400	1520
1600	1720
1800	1920
2000	2120

Note:

H dimension increases as the standard 200 mm. When intermediate values are requested, production is made by extending the length of the lower by-pass sheet.

Sizes larger than this range can be produced modularly.

SELECTION PARAMETERS

H (mm)	Number of Blades	Effective Area Rate (%)
520...719	1	14...10
720...919	2	20...15
920...1119	3	23...19
1120...1319	4	25...22
1320...1519	5	27...23
1520...1719	6	28...25
1720...1919	7	29...26
1920...2119	8	30...27
2120	9	30

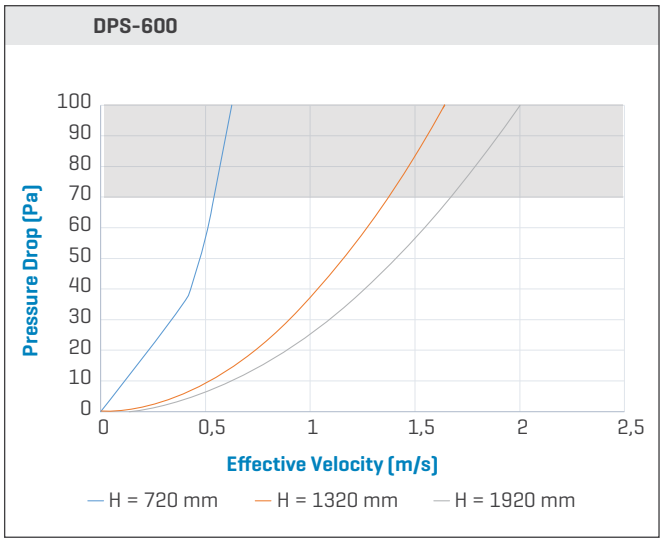


Chart 1. DPS-150 Pressure Drop Chart

Note:

It is recommended that the pressure loss be below 70 Pa in DPS - Acoustic Louvre selections. It is also recommended that the selected effective air velocity should not exceed 2 - 2.5 m/s.

DPS - 600 Acoustic Louvre Performance Parameters								
Octave Band Center Frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
Sound Level Reduction Index (dB)	7	8	13	23	37	33	29	29
Sound Power Level Produced in Acoustic Louvre when Effective Velocity is 1 m/s (dB)	54	46	37	32	28	24	15	12
Sound Power Level Produced in Acoustic Louvre when Effective Velocity is 2 m/s (dB)	71	66	57	50	47	46	41	30

INSTALLATION

Installation of DPS - Acoustic Louver is done by screwing it to the wall or blind frame with mounting screws from the sill surface. (Figure 1) The mounting surface must be smooth and flat.

In cases where the length of the overhanging part of the acoustic louver exceeds 150 mm, support profiles should be removed as seen in Figure 2.

It can also be used as an acoustic barrier around open machines or in cooling towers. (Figure 3). The products ordered for this purpose must be specified at the time of order.

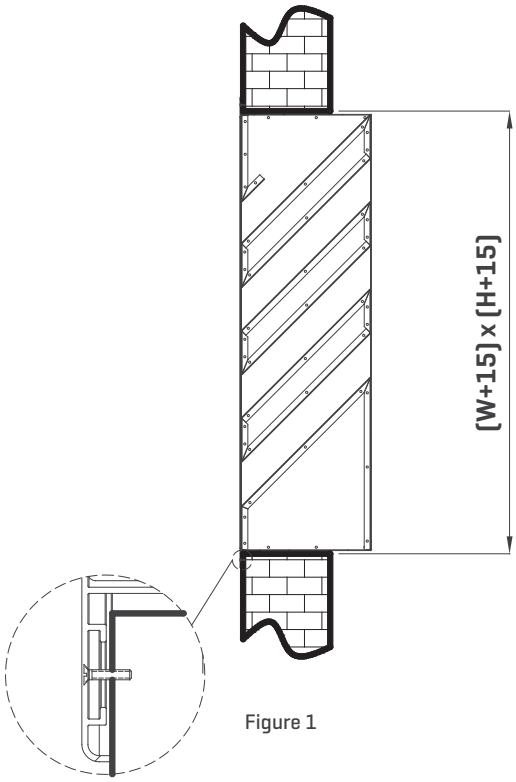


Figure 1

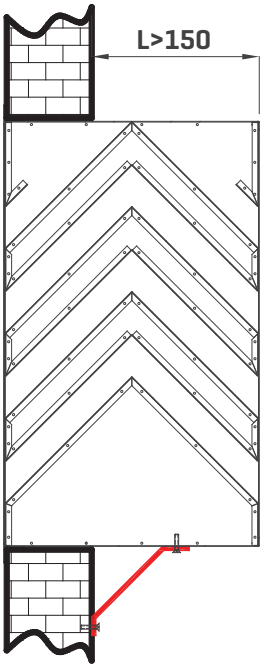


Figure 2

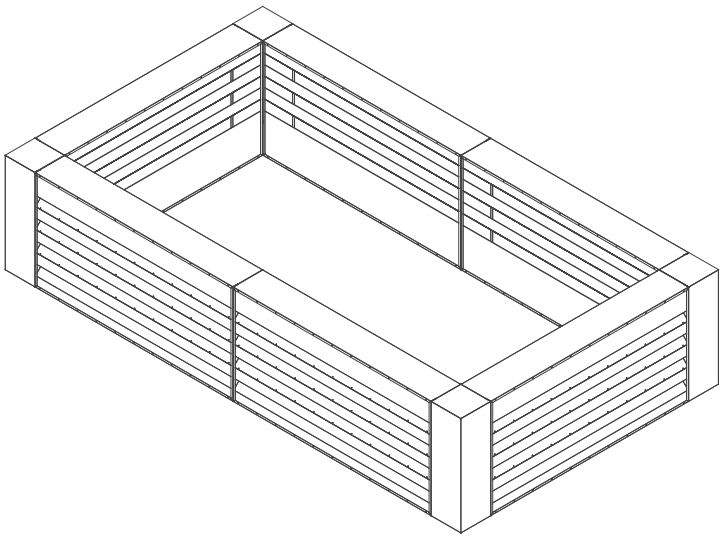


Figure 3

NOTES

NOTES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