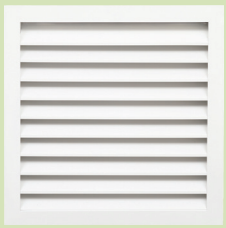
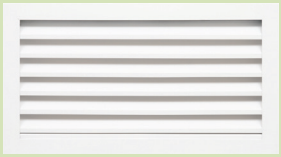
HPP

HAVA PANJURLARI
Air Louvre





TANIM
- **HPP-A:** Geniş Kanatlı Hava Panjuru
- **HPP-B:** Eğrisel Kanatlı Hava Panjuru
- **HPP-C:** Eğrisel Kanatlı Kol Kumandalı Hava Panjuru

MALZEME
Ürün çerçeve ve kanatlarının tamamı ekstrüzyon yöntemiyle üretilmiş alüminyum profilden imal edilmektedir.

UYGULAMA
HPP A-B Serisi Hava Panjurları genellikle dış ortamdan taze hava alımı ya da egzoz yapma amacıyla kullanılır. Kanat yapısından dolayı yağmur girişini engeller. Panjur arkasında tel kafes uygulamasıyla kuş yaprak vb. gibi yabancı madde girişini engeller. Özel üretilmiş kanat ve kasa yapısı sayesinde dış ortamın oluşturduğu olumsuz koşullara dayanıklıdır.

HPP-C Serisi kol kumandalı panjur genellikle banyo ve WC lerde kullanılır. Ortamın doğal olarak havalandırılmasını sağlar. Kol kumandası sayesinde kanatlar açılıp kapatılabilir. Kol kumandalı hava panjurunun arkasına sinek teli takılarak yabancı madde girişini engeller. Hava Panjurları kasa ve kanatları alüminyumdan mamul olup, 1. Sınıf alüminyum profil kullanılmaktadır.

YÜZEY KAPLAMA
- Elektrostatik toz boya (Standart renkler RAL9010 ve RAL9016)
- Alüminyum Eloksal
- İsteğe bağlı olarak RAL kodundaki diğer tüm renklerde temin edilmektedir.

MONTAJ
- Vidalı montaj

AKSESUARLAR
- **TK20:** 20 x 20 mm galvanizli tel kafes.
- **TK6:** 6 x 6 mm galvanizli tel kafes.
- **TKA:** 2 x 4 mm alüminyum sinek tel.

DESCRIPTION
- ***HPP-A:*** *Air Louvre with Wide Blades.*
- ***HPP-B:*** *Air Louvre with Curved Blades.*
- ***HPP-C:*** *Air Louvre with Handle Commanded Curved Blades.*

MATERIAL
All of the product frame and blades are manufactured from extruded aluminium profile.

APPLICATION
HPP-A-B Series louvres are generally used for supplying fresh air from the external environment or the evacuating the used air. The louvre construction prevents the entry of rain. Fly screens can be installed behind handle controlled air louvres to prevent entry of unwanted insects and dirt. The robust construction of the blades and the casing enables to be resistant to unfavourable external conditions

HPP-C Series handle command louvres are generally used in bathrooms and WCs. They provide natural ventilation to the environment. Thanks to the handle command the blades can be opened or closed. Fly screens can be installed behind handle controlled air louvres to prevent entry of unwanted insects and dirt. The frames and the blades of air louvres are manufactured from aluminium and only 1st class aluminium profiles are used.

SURFACE COATING
- *Electrostatic powder coating (Standard colours are RAL 9010 and RAL 9016)*
- *Aluminium anodized.*
- *As an option all the colours in other RAL codes can be provided.*

ASSEMBLY
- *Installation with screw*

ACCESSORIES
- ***TK20:*** *20x20 mm galvanized wire mesh*
- ***TK6:*** *6x6 mm galvanized wire mesh*
- ***TKA:*** *2x4 mm aluminium windscreen*

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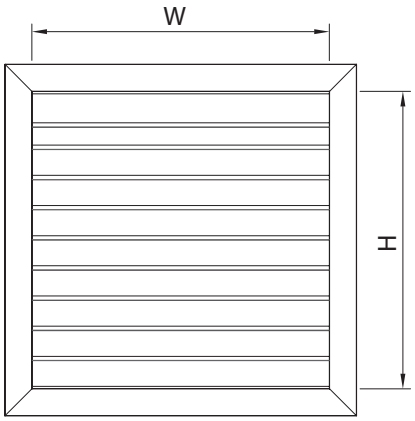
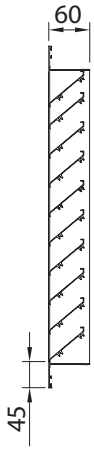
HAVA PANJURLARI ÖLÇÜLERİ ve EFEKTİF ALANLARI
AIR LOUVRE DIMENSIONS and EFFECTIVE AREAS

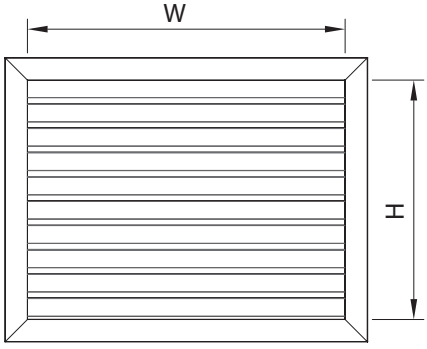
HPP-A



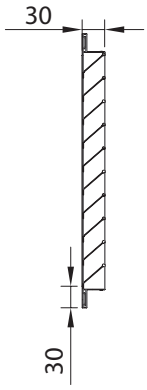
HPP-A



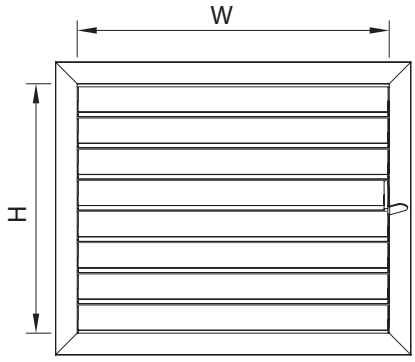
HPP-B



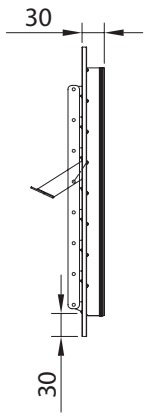
HPP-B



HPP-C



HPP-C



HPP-A

Aeff (m^2)		W (mm)																
		200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2500
H (mm)	200	0.012	0.019	0.025	0.031	0.037	0.043	0.050	0.056	0.062	0.068	0.074	0.087	0.099	0.112	0.124	0.136	0.155
	300	0.036	0.054	0.072	0.090	0.108	0.126	0.144	0.162	0.180	0.198	0.216	0.252	0.288	0.324	0.360	0.396	0.450
	400	0.048	0.072	0.096	0.120	0.144	0.168	0.192	0.216	0.240	0.264	0.288	0.336	0.384	0.432	0.480	0.528	0.600
	500	0.072	0.108	0.144	0.180	0.216	0.252	0.288	0.324	0.360	0.396	0.432	0.504	0.576	0.648	0.720	0.792	0.900
	600	0.084	0.126	0.168	0.210	0.252	0.294	0.336	0.378	0.420	0.462	0.504	0.588	0.672	0.756	0.840	0.924	1.050
	700	0.108	0.162	0.216	0.270	0.323	0.377	0.431	0.485	0.539	0.593	0.647	0.755	0.862	0.970	1.078	1.186	1.348
	800	0.120	0.179	0.239	0.299	0.359	0.418	0.478	0.538	0.598	0.657	0.717	0.837	0.956	1.076	1.195	1.315	1.494
	900	0.132	0.197	0.263	0.329	0.395	0.461	0.526	0.592	0.658	0.724	0.789	0.921	1.053	1.184	1.316	1.447	1.645
	1000	0.156	0.234	0.312	0.390	0.468	0.546	0.624	0.702	0.780	0.858	0.936	1.092	1.248	1.404	1.560	1.716	1.950
	1100	0.168	0.251	0.335	0.419	0.503	0.587	0.671	0.754	0.838	0.922	1.006	1.173	1.341	1.509	1.676	1.844	2.096
	1200	0.192	0.288	0.384	0.480	0.576	0.672	0.768	0.864	0.960	1.056	1.152	1.344	1.536	1.728	1.920	2.112	2.400
	1400	0.228	0.341	0.455	0.569	0.683	0.797	0.911	1.024	1.138	1.252	1.366	1.593	1.821	2.049	2.276	2.504	2.846
	1600	0.252	0.377	0.503	0.629	0.755	0.880	1.006	1.132	1.258	1.383	1.509	1.761	2.012	2.264	2.515	2.767	3.144
	1800	0.288	0.432	0.576	0.720	0.864	1.008	1.152	1.296	1.440	1.584	1.728	2.016	2.304	2.592	2.880	3.168	3.600
	2000	0.324	0.486	0.648	0.810	0.972	1.134	1.296	1.458	1.620	1.782	1.944	2.268	2.592	2.916	3.240	3.564	4.050
	2200	0.356	0.535	0.713	0.891	1.069	1.247	1.426	1.604	1.782	1.960	2.138	2.495	2.851	3.208	3.564	3.920	4.455
	2500	0.408	0.611	0.815	1.019	1.223	1.426	1.630	1.834	2.038	2.241	2.445	2.853	3.260	3.668	4.075	4.483	5.094

HPP-B / HPP-C

Aeff (m^2)		W (mm)										
		100	150	200	300	400	500	600	700	800	900	1000
H (mm)	100	0.007	0.010	0.014	0.020	0.025	0.032	0.038	0.044	0.050	0.057	0.063
	150	0.009	0.016	0.021	0.031	0.041	0.052	0.062	0.072	0.083	0.093	0.104
	200	0.016	0.025	0.033	0.051	0.068	0.085	0.102	0.119	0.136	0.153	0.170
	300	0.026	0.038	0.051	0.077	0.102	0.128	0.153	0.179	0.204	0.230	0.255
	400	0.036	0.054	0.072	0.108	0.144	0.180	0.216	0.252	0.288	0.324	0.360
	500	0.045	0.067	0.089	0.134	0.178	0.223	0.267	0.312	0.356	0.401	0.445
	600	0.055	0.083	0.110	0.166	0.221	0.276	0.331	0.386	0.442	0.497	0.552
	700	0.064	0.096	0.128	0.192	0.256	0.320	0.384	0.448	0.512	0.575	0.639
	800	0.074	0.112	0.149	0.223	0.298	0.372	0.446	0.521	0.595	0.670	0.744
	900	0.083	0.124	0.166	0.248	0.331	0.414	0.497	0.580	0.662	0.745	0.828
	1000	0.093	0.140	0.186	0.279	0.372	0.465	0.560	0.654	0.747	0.841	0.934

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HAVA PANJURLARI KOLAY SEÇİM TABLOSU
AIR LOUVRE QUICK SELECTION TABLE

Aeff (m^2): Efektif alan — *Effective area*
Ueff (m/s): Efektif hız — *Effective velocity*
V (m^3/h): Hava debisi — *Air flow rate*
ΔPüf (Pa): Üfleme halindeki basınç kaybı — *Pressure drop for supply condition*
ΔPem (Pa): Emiş halindeki basınç kaybı — *Pressure drop for exhaust condition*

Aeff (m^2)	ueff. (m/s)	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0
	ΔPüf (Pa)	6	28	49	70	91	113	134	176
	ΔPem (Pa)	16	40	64	88	112	136	160	208
0.010		72	90	108	126	144	162	180	216
0.015		108	135	162	189	216	243	270	324
0.020		144	180	216	252	288	324	360	432
0.030		216	270	324	378	432	486	540	648
0.040		288	360	432	504	576	648	720	864
0.050		360	450	540	630	720	810	900	1080
0.060		432	540	648	756	864	972	1080	1296
0.070		504	630	756	882	1008	1134	1260	1512
0.080		576	720	864	1008	1152	1296	1440	1728
0.090		648	810	972	1134	1296	1458	1620	1944
0.100		720	900	1080	1260	1440	1620	1800	2160
0.120		864	1080	1296	1512	1728	1944	2160	2592
0.140		1008	1260	1512	1764	2016	2268	2520	3024
0.160		1152	1440	1728	2016	2304	2592	2880	3456
0.180		1296	1620	1944	2268	2592	2916	3240	3888
0.200		1440	1800	2160	2520	2880	3240	3600	4320
0.250		1800	2250	2700	3150	3600	4050	4500	5400
0.300		2160	2700	3240	3780	4320	4860	5400	6480
0.350	V (m^3/h)	2520	3150	3780	4410	5040	5670	6300	7560
0.400		2880	3600	4320	5040	5760	6480	7200	8640
0.450		3240	4050	4860	5670	6480	7290	8100	9720
0.600		4320	5400	6480	7560	8640	9720	10800	12960
0.650		4680	5850	7020	8190	9360	10530	11700	14040
0.700		5040	6300	7560	8820	10080	11340	12600	15120
0.750		5400	6750	8100	9450	10800	12150	13500	16200
0.800		5760	7200	8640	10080	11520	12960	14400	17280
0.850		6120	7650	9180	10710	12240	13770	15300	18360
0.900		6480	8100	9720	11340	12960	14580	16200	19440
0.950		6840	8550	10260	11970	13680	15390	17100	20520
1.000		7200	9000	10800	12600	14400	16200	18000	21600
1.500		10800	13500	16200	18900	21600	24300	27000	32400
2.000		14400	18000	21600	25200	28800	32400	36000	43200
2.500		18000	22500	27000	31500	36000	40500	45000	54000
3.000		21600	27000	32400	37800	43200	48600	54000	64800
3.500		25200	31500	37800	44100	50400	56700	63000	75600
4.000		28800	36000	43200	50400	57600	64800	72000	86400
5.000		36000	45000	54000	63000	72000	81000	90000	108000