

**DESCRIPTION:**

Louvered Return Grille is a non-adjustable return grille made with louvered blades for limited vision or exterior applications. The blades are reinforced from the rear on approximate 30cm centers.

PP : Stainless Steel Louvered supply and Return Grilles, with fixed horizontal or vertical blades.

PP - Y : Stainless Steel Louvered Return Grilles, with fixed horizontal blades.

PP - D : Stainless Steel Louvered Return Grilles, with fixed vertical blades.

**MATERIAL:**

All Type 304 Stainless Steel Construction. Optional Upgrades; Type 316 Stainless, Satin Finish

**FUNCTION :**

It is used as outdoor air supply and return in air ventilation systems.

**FINISHING:**

- Standard Finishes Polished Stainless Steel
- Optional Anti-microbial White Powder Coat Finish
- Optional Powder Coat Finishes

**INSTALLATION :**

- System with screws is standard.
- System with clips and plate spring is used if no hole is requested on the frame.

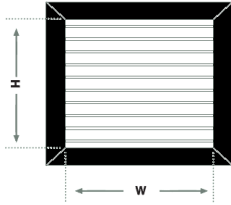
**ACCESSORIES:**

If desired, it is possible to add a damper to adjust the amount of air to be collected.

- PKD: Stainless Steel Parallel Blade Damper
- PK: Stainless Steel Plenum Box



**STANDARD SIZES (mm) :**

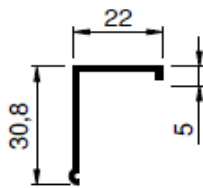


W : 100-150-200-250-300-350-400-450-500-550-600-650-700-750-800-900-1000-1100-1200

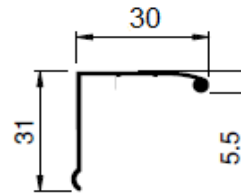
H : 100-150-200-250-300-350-400-450-500-550-600-650-700-750-800-900-1000

\* Any combination of these sizes

**FRAME TYPES:**

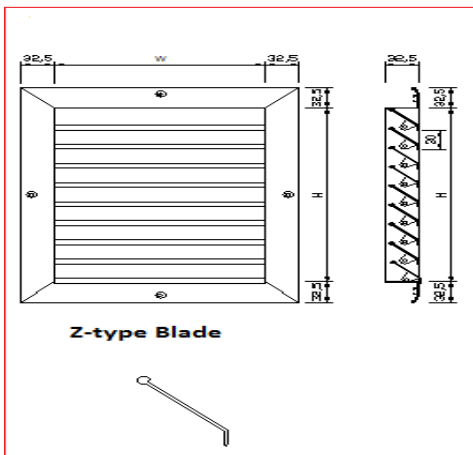


22mm frame



30mm frame

**DRAWINGS:**



\* Frame and wing metrics may vary.



DATA DIAGRAMS

PRESSURE LOSS AND NOISE LEVELS

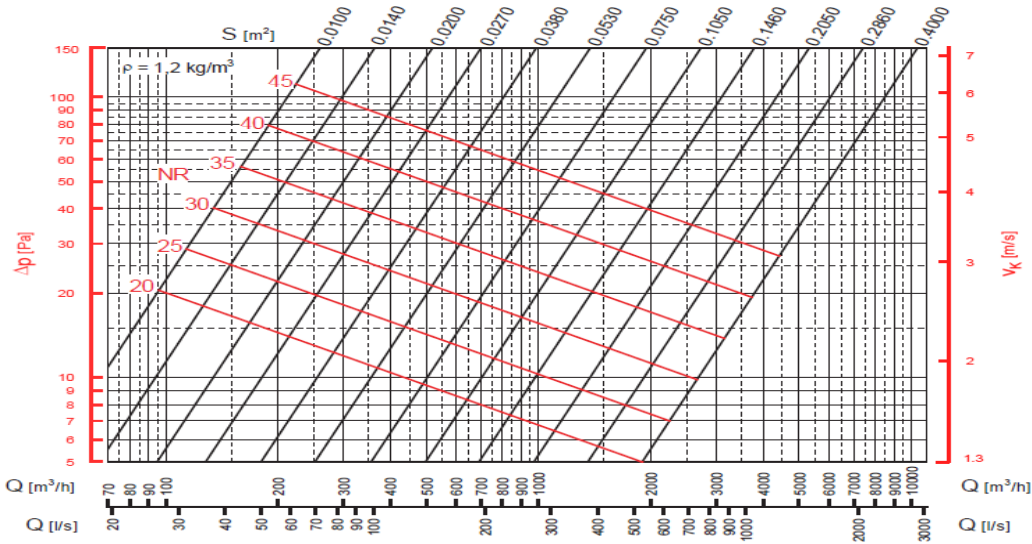


Diagram-1

- Q [m³/h]                    supply air flow rate
- S [m²]                     effective outlet area
- v<sub>k</sub> [m/s]                 velocity relating to the effective outlet area S
- Δp [Pa]                    total pressure loss
- NR                         noise rating (ISO standard, in relation to 10-12 W)

EFFECTIVE AREA SELECTION TABLE

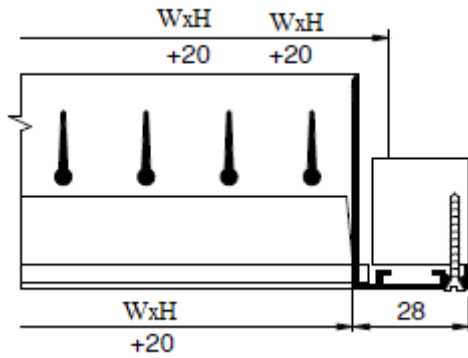
		H (mm)												
		100	150	200	250	300	350	400	450	500	600	700	800	900
W (mm)	100	0,0049	0,0092	0,0128	0,0171	0,0207	0,0236	0,0279	0,0315	0,0351	0,0430	0,0509	0,0581	0,0660
	150	0,0074	0,0138	0,0192	0,0257	0,0311	0,0354	0,0419	0,0473	0,0527	0,0645	0,0764	0,0872	0,0990
	200	0,0098	0,0184	0,0256	0,0342	0,0414	0,0472	0,0558	0,0630	0,0702	0,0860	0,1018	0,1162	0,1320
	250	0,0123	0,0230	0,0320	0,0428	0,0518	0,0590	0,0698	0,0788	0,0878	0,1075	0,1273	0,1453	0,1650
	300	0,0147	0,0276	0,0384	0,0513	0,0621	0,0708	0,0837	0,0945	0,1053	0,1290	0,1527	0,1743	0,1980
	400	0,0172	0,0322	0,0448	0,0599	0,0725	0,0826	0,0977	0,1103	0,1229	0,1505	0,1782	0,2034	0,2310
	450	0,0196	0,0368	0,0512	0,0684	0,0828	0,0944	0,1116	0,1260	0,1404	0,1720	0,2036	0,2324	1,2640
	500	0,0221	0,0414	0,0576	0,0770	0,0932	0,1062	0,1256	0,1418	0,1580	0,1935	0,2291	0,2615	0,2970
	600	0,0245	0,0460	0,0640	0,0855	0,1035	0,1180	0,1395	0,1575	0,1755	0,2150	0,2545	0,2905	0,3300
	700	0,0294	0,0552	0,0768	0,1026	0,1242	0,1416	0,1674	0,1890	0,2106	0,2580	0,3054	0,3486	0,3960
	800	0,0343	0,0644	0,0896	0,1197	0,1449	0,1652	0,1953	0,2205	0,2457	0,3010	0,3563	0,4067	0,4620
	900	0,0392	0,0736	0,1024	0,1368	0,1656	0,1888	0,2232	0,2520	0,2808	0,3440	0,4072	0,4648	0,5280
	1000	0,0441	0,0828	0,1152	0,1539	0,1863	0,2124	0,2511	0,2835	0,3159	0,3870	0,4581	0,5229	0,5940
1100	0,0490	0,0920	0,1280	0,1710	0,2070	0,2360	0,2790	0,3150	0,3510	0,4300	0,5090	0,5810	0,6600	
1200	0,0539	0,1012	0,1408	0,1881	0,2277	0,2596	0,3039	0,3465	0,3861	0,4730	0,5599	0,6391	0,7260	
		0,0588	0,1104	0,1536	0,2052	0,2484	0,2832	0,3348	0,3780	0,4212	0,5160	0,6108	0,6972	0,7920

Table-1

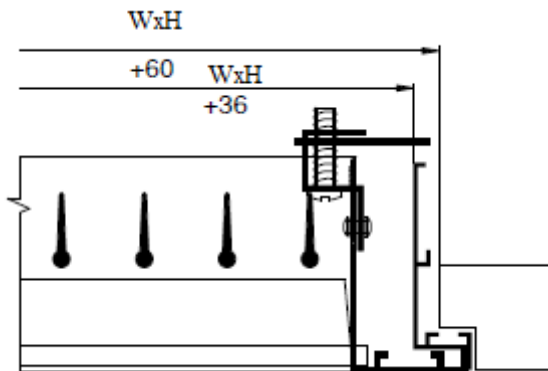


## MOUNTING DETAILS

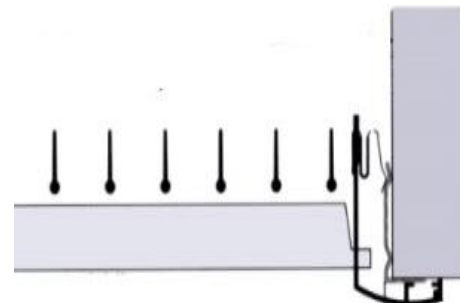
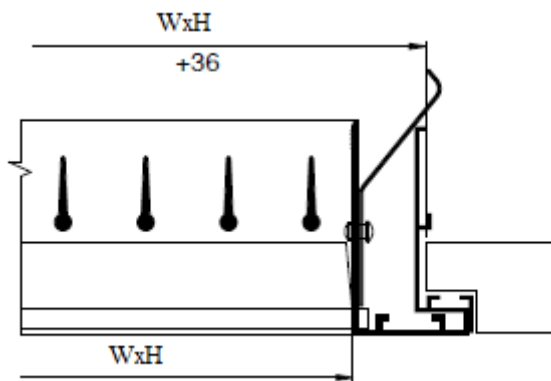
### 1. Screw Mounting Details



### 2. Clips Mounting Details



### 3. Spring Mounting Details





**ORDER CODES**

PP	Y	30	PKD	PSS-304	VD	W 300X200
PP-Y: Horizontal Blade PP-D: Vertical Blade						W: Neck Size C: Frame Size
22: Frame=22mm 30: Frame=30mm						00: without Mounting VD: Screw Mounting  KL: Clips Mounting ST: Spring Mounting
00: without Damper PKD: Parallel Blade Damper						PSS: Polished Stainless Steel APC: Anti-microbial White Powder Coat Finish OPC -: Optional Powder Coat Finishes - Standart 304 Stainless Steel Construction - Opsiyonel 316 Stainless Steel Construction