Air through perfection

Exterior grille
WPL-S-T

ACP
Smoke evacuation grilles

Exterior grille
WPL-S-T

Description

WPL-S-T is a rectangular ventilation grille used for the introduction or evacuation of air.

The WPL-S-T louvre is weather-resistant and equipped with bird protection mesh.

Technical specifications

Characteristics

The grille is equipped with fixed anti-rain blades, positioned at 45°, parallel to the “L” (length).

WPL-S-T has a galvanized steel wire mesh with 16x16 mm.

The product is manufactured standard with mounting holes and is supplied complete with fastening screws for installation.

The standard finish is natural galvanized steel.

Dimensional limits:

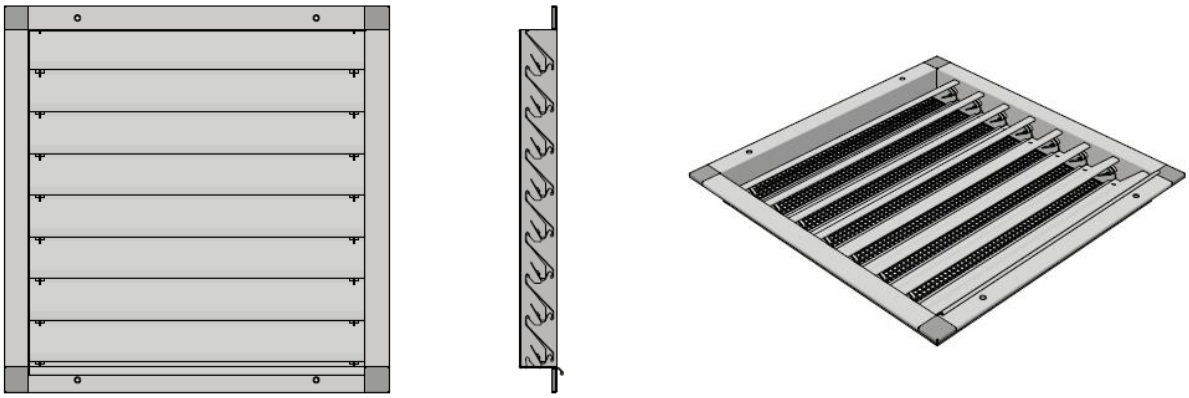
- minimum: 300 x 160 mm
- maximum: 3000 x 3000 mm for natural finish / 3000 x 2400 mm for painted finish

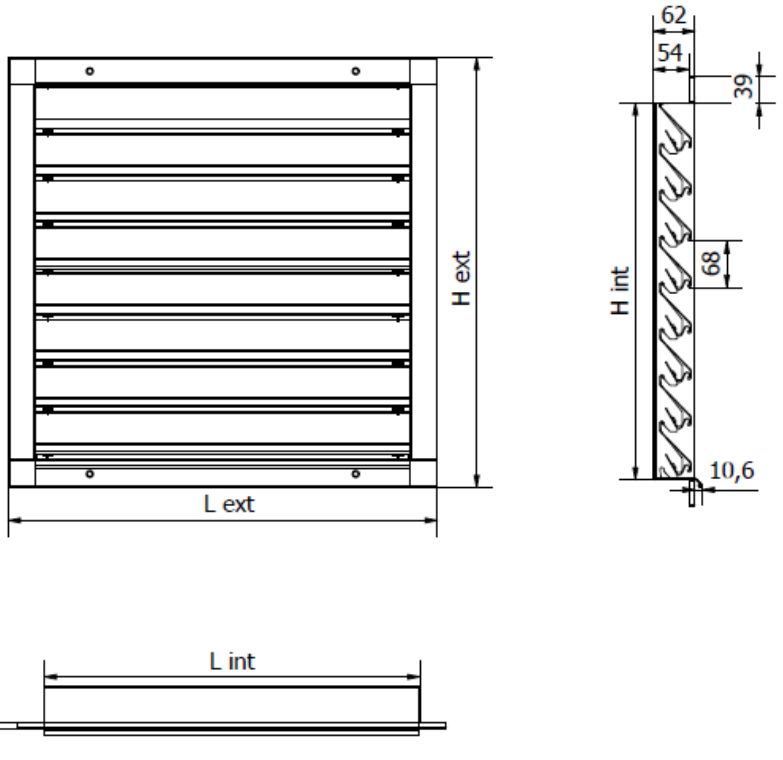
Materials

The grille is made of galvanized steel with natural finishing.

On request, the product can be painted in electrostatic field in any shade from the RAL palette.

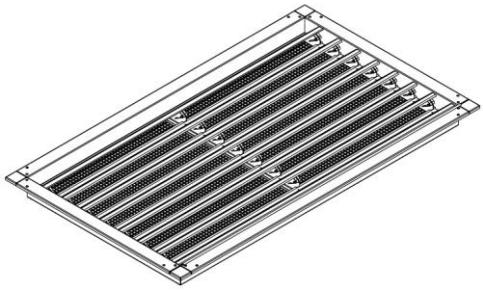
Technical drawing

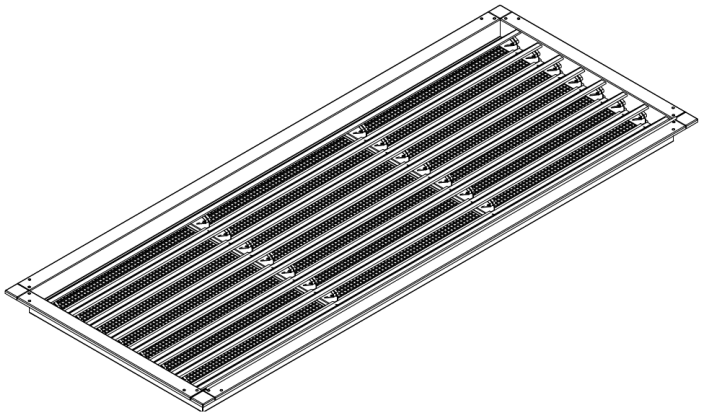




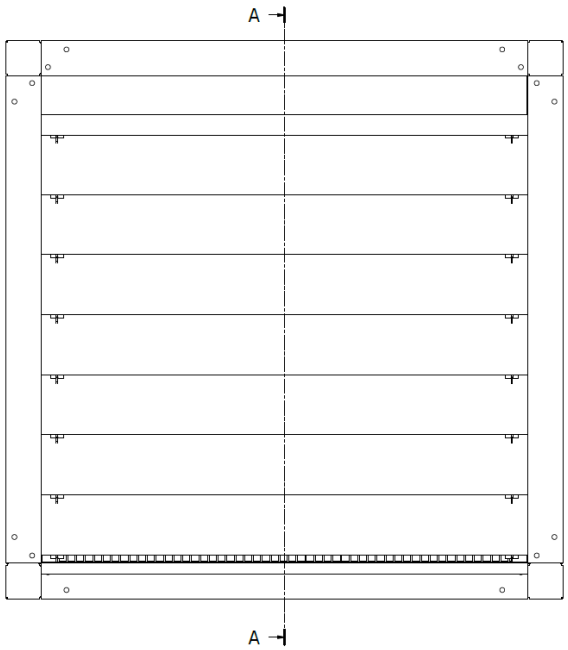
Product specifications

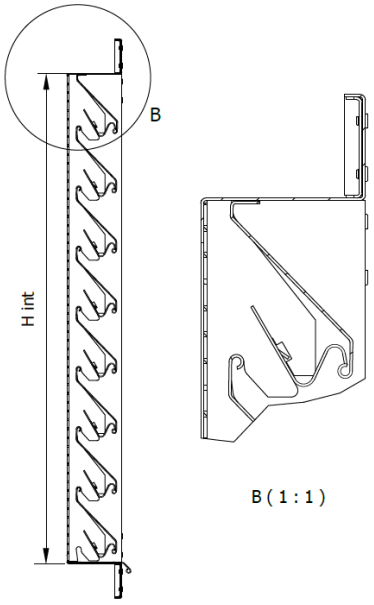
To ensure structural integrity, large grilles feature supplementary support elements for the blades.





The top blade is configured based on the product height (Hint).

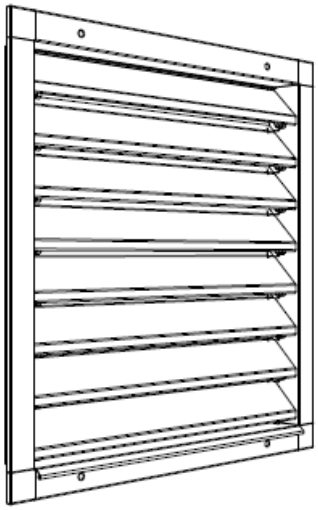




As standard, the grille is supplied with mounting holes on the frame. The number of holes is determined by the size of the product.

L x H	Number of holes																	
[mm]	300	400	500	600	800	1000	1200	1400	1500	1600	1800	2000	2200	2400	2500	2600	2800	3000
160	2	2	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
200	2	2	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
300	4	4	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
400	4	4	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
500	4	4	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
600	4	4	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
800	4	4	4	4	4	6	6	6	6	6	6	8	8	8	10	10	10	10
1000	6	6	6	6	6	8	8	8	8	8	8	10	10	10	12	12	12	12
1200	6	6	6	6	6	8	8	8	8	8	8	10	10	10	12	12	12	12
1400	6	6	6	6	6	8	8	8	8	8	8	10	10	10	12	12	12	12
1500	6	6	6	6	6	8	8	8	8	8	8	10	10	10	12	12	12	12
1600	6	6	6	6	6	8	8	8	8	8	8	10	10	10	12	12	12	12
1800	6	6	6	6	6	8	8	8	8	8	8	10	10	10	12	12	12	12
2000	8	8	8	8	8	10	10	10	10	10	10	12	12	12	14	14	14	14
2200	8	8	8	8	8	10	10	10	10	10	10	12	12	12	14	14	14	14
2400	8	8	8	8	8	10	10	10	10	10	10	12	12	12	14	14	14	14
2500	8	8	8	8	8	10	10	10	10	10	10	12	12	12	14	14	14	14
2600	8	8	8	8	8	10	10	10	10	10	10	12	12	12	14	14	14	14
2800	10	10	10	10	10	12	12	12	12	12	12	14	14	14	16	16	16	16
3000	10	10	10	10	10	12	12	12	12	12	12	14	14	14	16	16	16	16

Products with natural finish, galvanized steel



Functional parameters

Air flow [m³/h]	Ak [m²]	0.1	0.15	0.2	0.25	0.3	0.4	0.5	0.6	0.8	1	1.5	2	2.5
1000	Veff [m/s]	2.8												
	△Pt asp [Pa]	29.4												
	△Pt ref [Pa]	24.2												
2000	Veff [m/s]	5.6	3.7	2.8	2.2									
	△Pt asp [Pa]	105.0	50.4	33.6	18.9									
	△Pt ref [Pa]	84.0	42.0	24.2	12.6									
3000	Veff [m/s]	8.3	5.6	4.2	3.3	2.8	2.1							
	△Pt asp [Pa]	199.5	115.5	68.3	47.3	33.6	17.9							
	△Pt ref [Pa]	168.0	89.3	57.8	36.8	24.2	8.4							
4000	Veff [m/s]		7.4	5.6	4.4	3.7	2.8	2.2						
	△Pt asp [Pa]		178.5	126.0	81.9	63.0	36.8	23.1						
	△Pt ref [Pa]		147.0	94.5	66.2	47.3	23.1	14.7						
5000	Veff [m/s]			6.9	5.6	4.6	3.5	2.8	2.3					
	△Pt asp [Pa]			173.3	123.9	86.1	51.5	36.8	27.3					
	△Pt ref [Pa]			141.8	90.3	71.4	43.1	24.2	17.9					
6000	Veff [m/s]			8.3	6.7	5.6	4.2	3.3	2.8	2.1				
	△Pt asp [Pa]			199.5	157.5	126.0	73.5	47.3	39.9	16.8				
	△Pt ref [Pa]			157.5	131.3	94.5	57.8	36.8	29.4	8.4				
7000	Veff [m/s]			9.7	7.8	6.5	4.9	3.9	3.2	2.4				
	△Pt asp [Pa]			231.0	189.0	157.5	89.3	54.6	44.1	23.1				
	△Pt ref [Pa]			210.0	152.3	131.3	68.3	45.2	36.8	18.9				
8000	Veff [m/s]				8.9	7.4	5.6	4.4	3.7	2.8	2.2			
	△Pt asp [Pa]				231.0	189.0	131.3	81.9	57.8	29.4	18.9			
	△Pt ref [Pa]				210.0	152.3	96.6	63.0	47.3	23.1	8.4			
9000	Veff [m/s]					8.3	6.3	5.0	4.2	3.1	2.5			
	△Pt asp [Pa]					231.0	147.0	94.5	68.3	39.9	24.2			
	△Pt ref [Pa]					189.0	126.0	78.8	57.8	27.3	15.8			
10000	Veff [m/s]						6.9	5.6	4.6	3.5	2.8			
	△Pt asp [Pa]						183.8	131.3	89.3	47.3	33.6			
	△Pt ref [Pa]						147.0	99.8	73.5	39.9	23.1			
12000	Veff [m/s]						8.3	6.7	5.6	4.2	3.3	2.2		
	△Pt asp [Pa]						220.5	168.0	134.4	68.3	43.1	18.9		
	△Pt ref [Pa]						178.5	141.8	99.8	55.7	29.4	13.7		
16000	Veff [m/s]								7.4	5.6	4.4	3.0	2.2	
	△Pt asp [Pa]								210.0	136.5	78.8	39.9	21.0	
	△Pt ref [Pa]								168.0	105.0	63.0	29.4	13.7	
20000	Veff [m/s]									6.9	5.6	3.7	2.8	2.2
	△Pt asp [Pa]									178.5	136.5	68.3	36.8	23.1
	△Pt ref [Pa]									147.0	105.0	50.4	26.3	13.7
25000	Veff [m/s]										6.9	4.6	3.5	2.8
	△Pt asp [Pa]										178.5	105.0	54.6	39.9
	△Pt ref [Pa]										147.0	81.9	45.2	28.4
30000	Veff [m/s]										8.3	5.6	4.2	3.3
	△Pt asp [Pa]										210.0	136.5	70.4	52.5
	△Pt ref [Pa]										168.0	105.0	60.9	45.2
40000	Veff [m/s]											7.4	5.6	4.4
	△Pt asp [Pa]											189.0	115.5	73.5
	△Pt ref [Pa]											152.3	89.3	63.0
50000	Veff [m/s]												6.9	5.6
	△Pt asp [Pa]												173.3	126.0
	△Pt ref [Pa]												141.8	94.5

Note: For different discharge areas than those listed in the tables, the velocity and pressure drop values will be result by interpolation.

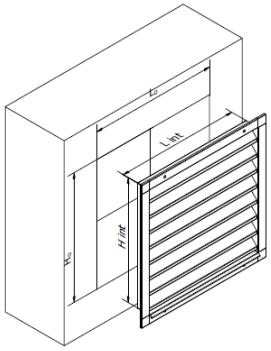
The legend
Ak [m²] - The free surface
Veff [m/s] – Air velocity in the grille
ΔPt [Pa] - Pressure loss

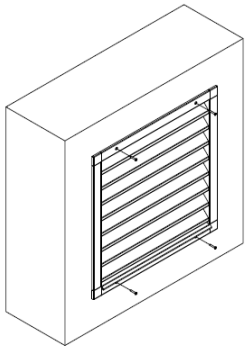
L x H [mm]	Discharge area Ak [m²]																	
	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
200	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16
300	0.04	0.05	0.06	0.08	0.09	0.10	0.11	0.13	0.14	0.15	0.17	0.18	0.19	0.21	0.22	0.23	0.25	0.26
400	0.05	0.07	0.09	0.11	0.13	0.14	0.16	0.18	0.20	0.22	0.23	0.25	0.27	0.29	0.31	0.32	0.34	0.36
500	0.07	0.09	0.11	0.14	0.16	0.18	0.20	0.23	0.25	0.27	0.29	0.32	0.34	0.36	0.38	0.41	0.43	0.45
600	0.08	0.11	0.14	0.16	0.19	0.22	0.24	0.27	0.30	0.32	0.35	0.38	0.41	0.43	0.46	0.49	0.51	0.54
700	0.09	0.13	0.16	0.19	0.22	0.25	0.28	0.32	0.35	0.38	0.41	0.44	0.47	0.50	0.54	0.57	0.60	0.63
800	0.11	0.14	0.18	0.22	0.25	0.29	0.32	0.36	0.40	0.43	0.47	0.50	0.54	0.58	0.61	0.65	0.68	0.72
900	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.41	0.45	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.81
1000	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	1.00
1100	0.17	0.22	0.28	0.33	0.39	0.44	0.50	0.55	0.61	0.66	0.72	0.77	0.83	0.88	0.94	0.99	1.05	1.10
1200	0.18	0.24	0.30	0.36	0.42	0.48	0.54	0.60	0.66	0.72	0.78	0.84	0.90	0.96	1.02	1.08	1.14	1.20
1300	0.20	0.26	0.33	0.39	0.46	0.52	0.59	0.65	0.72	0.78	0.85	0.91	0.98	1.04	1.11	1.17	1.24	1.30
1400	0.21	0.28	0.35	0.42	0.49	0.56	0.63	0.70	0.77	0.84	0.91	0.98	1.05	1.12	1.19	1.26	1.33	1.40
1500	0.23	0.31	0.38	0.46	0.54	0.61	0.69	0.77	0.84	0.92	0.99	1.07	1.15	1.22	1.30	1.38	1.45	1.53
1600	0.24	0.33	0.41	0.49	0.57	0.65	0.73	0.82	0.90	0.98	1.06	1.14	1.22	1.31	1.39	1.47	1.55	1.63
1700	0.26	0.35	0.43	0.52	0.61	0.69	0.78	0.87	0.95	1.04	1.13	1.21	1.30	1.39	1.47	1.56	1.65	1.73
1800	0.28	0.37	0.46	0.55	0.64	0.73	0.83	0.92	1.01	1.10	1.19	1.29	1.38	1.47	1.56	1.65	1.74	1.84
1900	0.29	0.39	0.48	0.58	0.68	0.78	0.87	0.97	1.07	1.16	1.26	1.36	1.45	1.55	1.65	1.74	1.84	1.94
2000	0.31	0.42	0.52	0.62	0.73	0.83	0.94	1.04	1.14	1.25	1.35	1.46	1.56	1.66	1.77	1.87	1.98	2.08

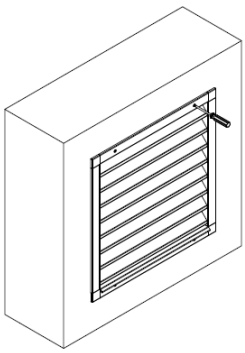
Installation

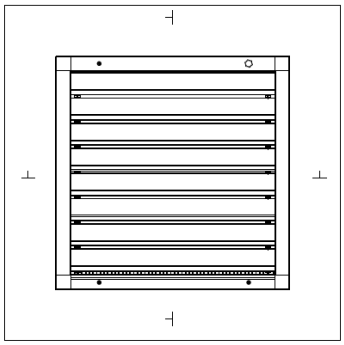
The mounting/fixing of the grille is done with screws.

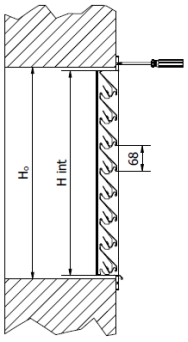
Wall mounting

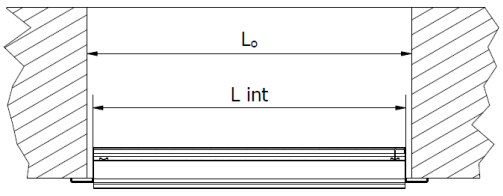




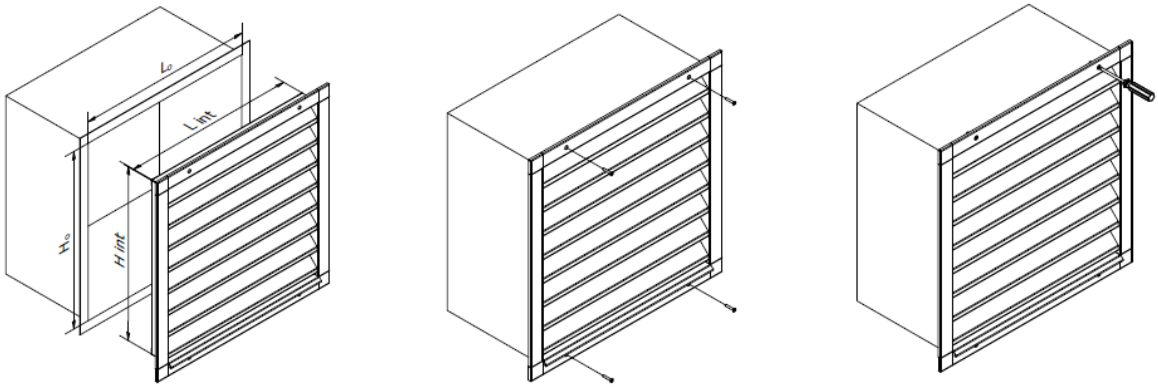


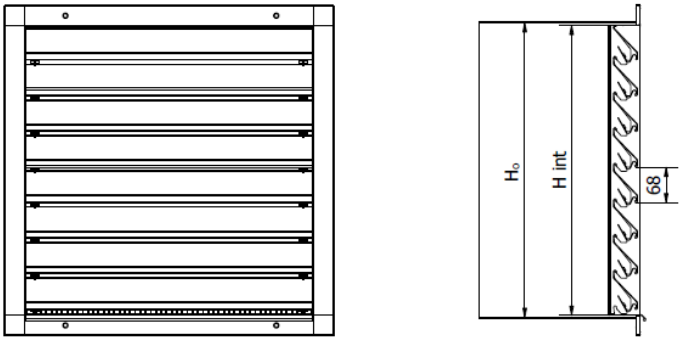


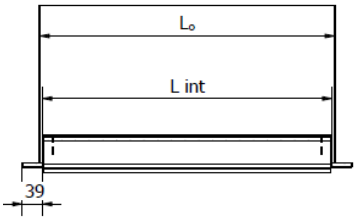




Rectangular duct mounting







Order code

Example on how to place an order

Type	Dimensions	Finish
WPL-S-T		
	On request	
		Natural
		RAL..- Other RAL colors on request