SP50 X4-X6

Gravity light-duty backdraft damper for wall mounting, 50 mm pitch, in stainless steel AISI 304 or AISI 316L

OVERPRESSURE

Description and application:
Rectangular wall-mounted gravity backdraft damper with single flange, multi-blade type, light-duty version, equipped with noise-reducing seals.
Designed for overpressure relief, allowing automatic air discharge while preventing reverse airflow into the ductwork or conditioned space of the HVAC systems, it is suitable for installation in wall/duct openings or external air openings, whether main, secondary or terminal, in ventilation and air conditioning applications, for both civil and industrial environments.

Construction:
- Execution made of of stainless steel AISI 304 finishing 2B;
- Frame thickness 1 mm, clinched, variable depth;
- Flange 40mm drilled Ø8, pitch 300mm, offset with $BM_{internal}$=23mm / $BM_{external}$=17mm;
- Blades thickness 0,7 mm, with adhesive expanded polyethylene noise-reducing seals;
- Blade pitch 50 mm, independently without linkage;
- Internal extruded "C" profile for bushing and blade support;
- Nylon bushings with integrated anti-tilting system;
- Stub shafts Ø6 mm in nylon;
- External "Z" profile on vertical sides, for shaft retention;
- Silicone free.

Available execution:
- Configured for air exhaust (Right version = **D**);
- Configured for air intake (Left version = **S**);
- Anti-bird mesh, square pattern Q=25x19 (**R** version);
- Anti-insect mesh, diamond pattern size 3x2,2 in AISI 304;
- Made of stainless steel AISI 316L finishing 2B (**X6** version).

Operating limits:
- Dimensions WxH: min 200x150 mm / max 1050x1050mm;
- Temperature range: from -20* to +60 °C;
- Configuration version variants: page 3;
- Dimensional drawing and drilling pattern: page 4;
- V_{max} recommended: 6 m/s (see table page 4);
- Max back pressure: 100 Pa;
- Weights: page 5.

** Negative temperature is achievable only if ice formation is prevented.*

Certifications and Testing:
- Pressure drop tests carried out in accordance with UNI CTI 8728 at Istituto Giordano (test report no. 136363).

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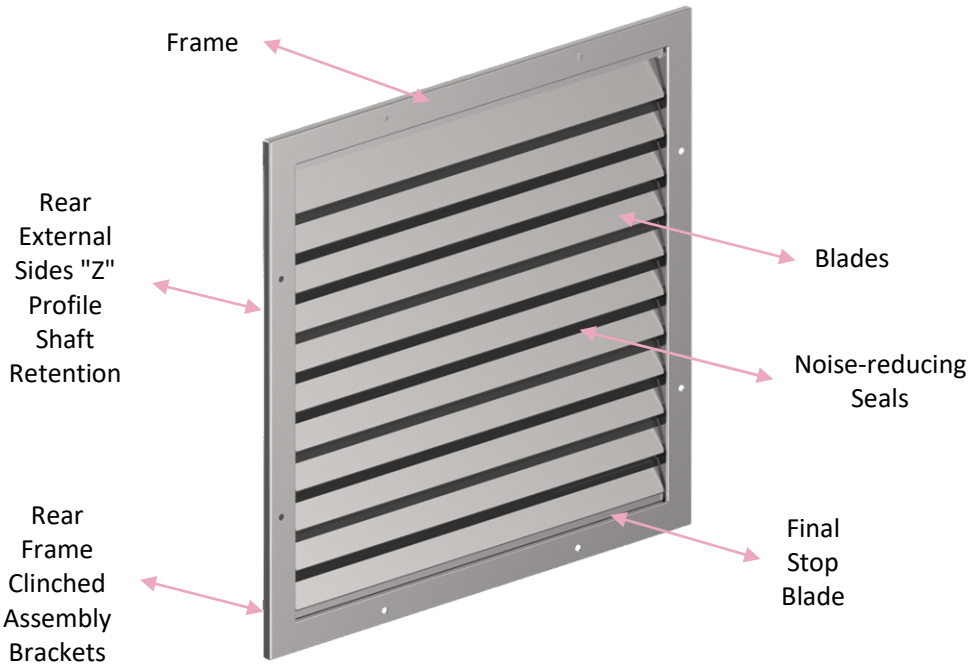
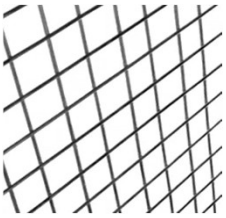
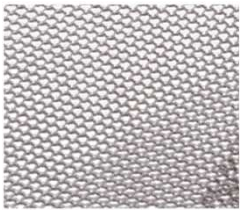
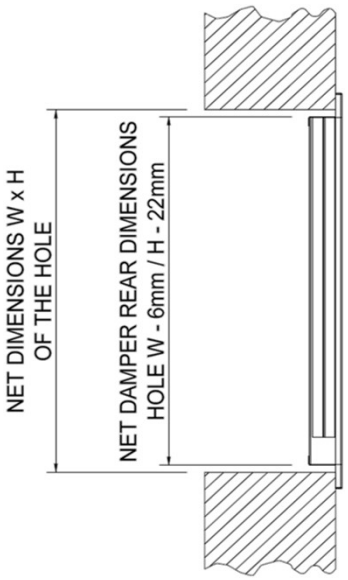
Additional Construction Details SP50 X



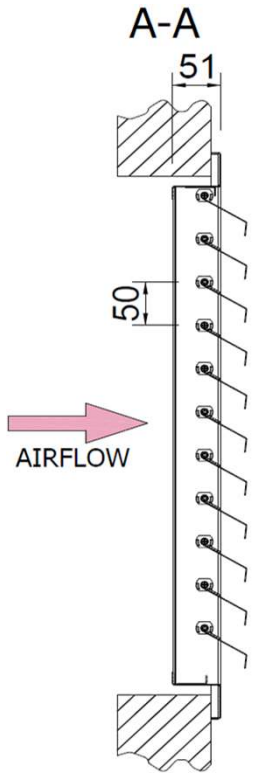
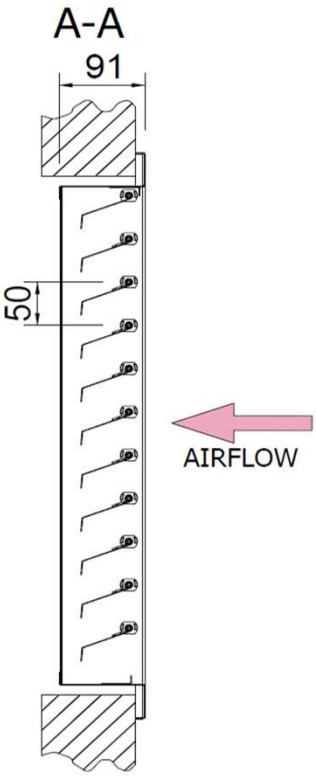
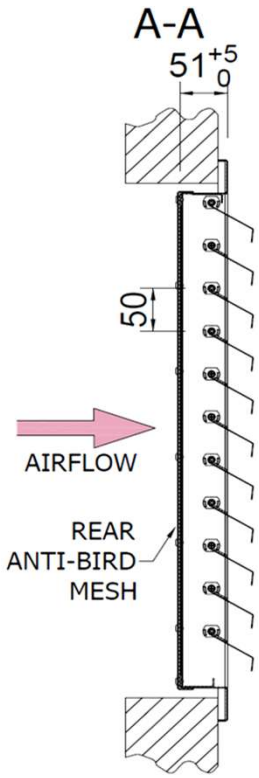
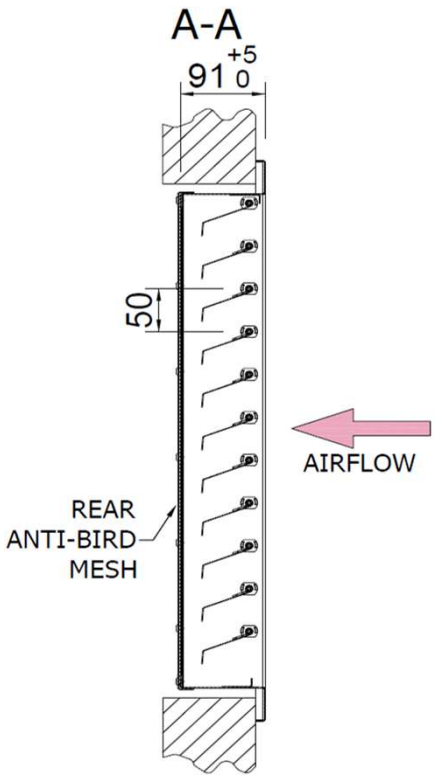
Available Options

Protection Mesh (always on the rear)	
Anti-bird mesh with square pattern Q = 20x15	Anti-insect mesh with diamond pattern size R = 3x2,2 (AISI 304)
	

Overpressure Damper SP Installation Type



SP50 X Overpressure Damper Configuration Variants

Air Exhaust	Air Intake
Right Version SP50 D	Left Version SP50 S
	
Right Version with Mesh SP50 RD	Left Version with Mesh SP50 RS
	

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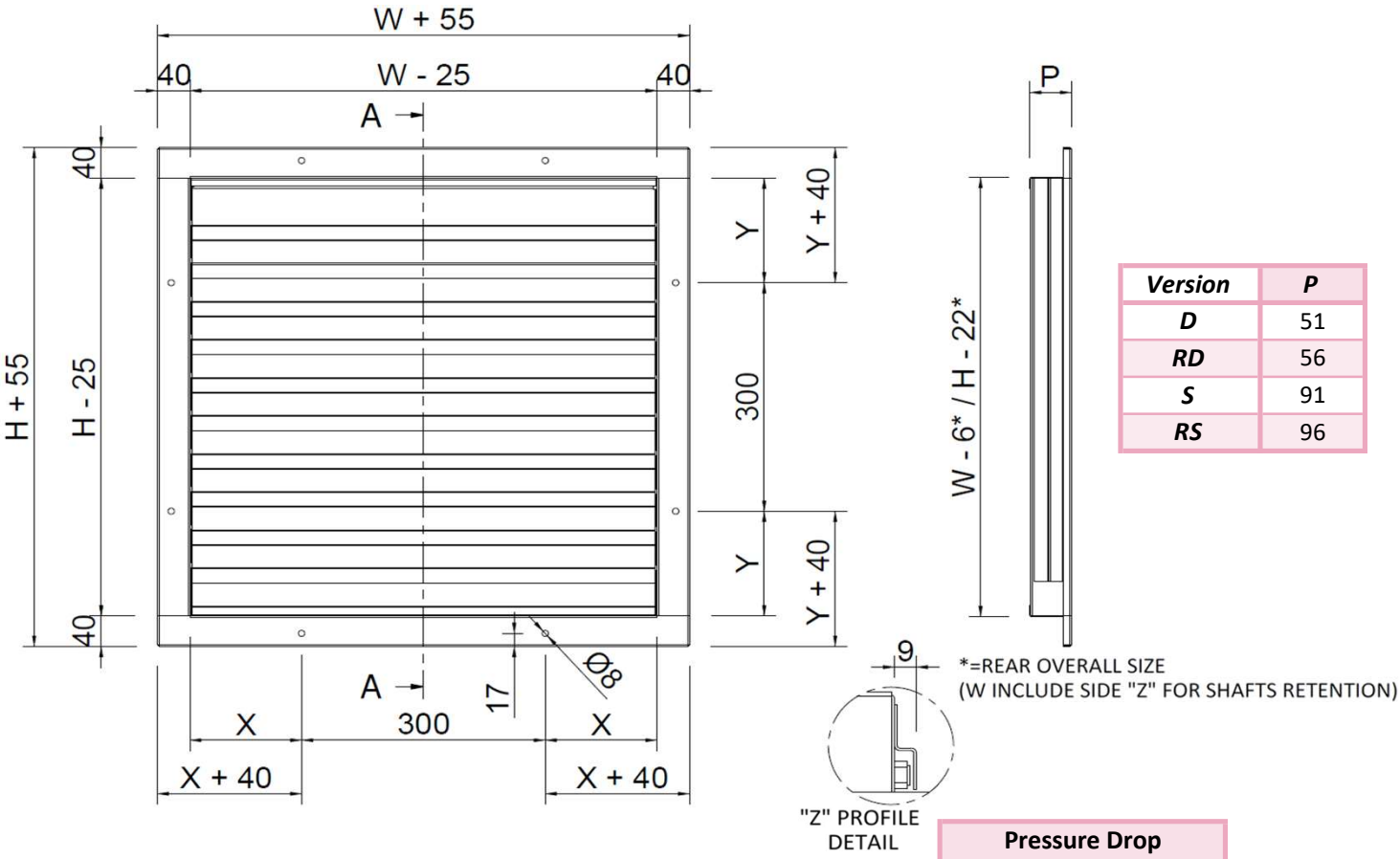
Dimensional Drawing and Standard Drilling Pattern (size in mm, always referred to the wall hole)



Version	P
D	51
RD	56
S	91
RS	96

WIDTH AND HEIGHT DRILLING (STD LIMITS)					
W \ H	N°HOLES	X \ Y	W \ H	N°HOLES	X \ Y
150	1	62,5	650	2	162,5
200	1	87,5	700	2	187,5
250	1	112,5	750	3	62,5
300	1	137,5	800	3	87,5
350	1	162,5	850	3	112,5
400	1	187,5	900	3	137,5
450	2	62,5	950	3	162,5
500	2	87,5	1000	3	187,5
550	2	112,5	1050	4	62,5
600	2	137,5			

***Note** : For sizes not listed in the table, the number of holes and the starting position X or Y (Width or Height) are determined by referring to the next lower standard dimension.*

Pressure Drop SP50	
V [m/s]	Δp_t [Pa]
0,5	5
1	10
1,5	13
2	15
2,5	18
3	20
3,5	23
4	25
4,5	28
5	30
5,5	39
6	45

V = face velocity referred to the section (W-45)x(H-35);
Δpt = total pressure drop;

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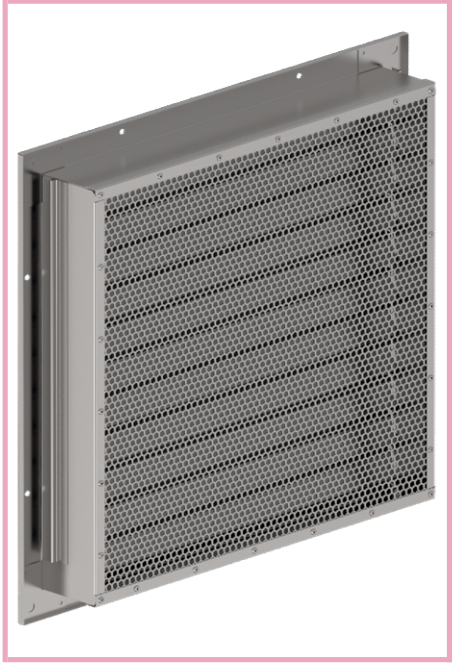
mm	General Weight Table SP50 X [Kg]																		
W \ H	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
200	1,8	1,9	2,1	2,3	2,4	2,6	2,7	2,9	3,1	3,2	3,4	3,6	3,7	3,9	4,0	4,2	4,4	4,5	4,7
250	2,0	2,1	2,3	2,5	2,6	2,8	3,0	3,1	3,3	3,5	3,7	3,8	4,0	4,2	4,3	4,5	4,7	4,9	5,0
300	2,1	2,3	2,5	2,7	2,8	3,0	3,2	3,4	3,6	3,7	3,9	4,1	4,3	4,5	4,7	4,8	5,0	5,2	5,4
350	2,3	2,5	2,7	2,9	3,1	3,2	3,4	3,6	3,8	4,0	4,2	4,4	4,6	4,8	5,0	5,2	5,3	5,5	5,7
400	2,5	2,7	2,9	3,1	3,3	3,5	3,7	3,9	4,1	4,3	4,5	4,7	4,9	5,1	5,3	5,5	5,7	5,9	6,1
450	2,6	2,8	3,1	3,3	3,5	3,7	3,9	4,1	4,3	4,5	4,7	5,0	5,2	5,4	5,6	5,8	6,0	6,2	6,4
500	2,8	3,0	3,2	3,5	3,7	3,9	4,1	4,3	4,6	4,8	5,0	5,2	5,5	5,7	5,9	6,1	6,3	6,6	6,8
550	3,0	3,2	3,4	3,7	3,9	4,1	4,4	4,6	4,8	5,0	5,3	5,5	5,7	6,0	6,2	6,4	6,7	6,9	7,1
600	3,1	3,4	3,6	3,9	4,1	4,3	4,6	4,8	5,1	5,3	5,6	5,8	6,0	6,3	6,5	6,8	7,0	7,2	7,5
650	3,3	3,6	3,8	4,1	4,3	4,6	4,8	5,1	5,3	5,6	5,8	6,1	6,3	6,6	6,8	7,1	7,3	7,6	7,8
700	3,5	3,7	4,0	4,3	4,5	4,8	5,0	5,3	5,6	5,8	6,1	6,4	6,6	6,9	7,1	7,4	7,7	7,9	8,2
750	3,7	3,9	4,2	4,5	4,7	5,0	5,3	5,5	5,8	6,1	6,4	6,6	6,9	7,2	7,4	7,7	8,0	8,3	8,5
800	3,8	4,1	4,4	4,7	4,9	5,2	5,5	5,8	6,1	6,3	6,6	6,9	7,2	7,5	7,8	8,0	8,3	8,6	8,9
850	4,0	4,3	4,6	4,9	5,2	5,4	5,7	6,0	6,3	6,6	6,9	7,2	7,5	7,8	8,1	8,4	8,6	8,9	9,2
900	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2	7,5	7,8	8,1	8,4	8,7	9,0	9,3	9,6
950	4,3	4,6	5,0	5,3	5,6	5,9	6,2	6,5	6,8	7,1	7,4	7,8	8,1	8,4	8,7	9,0	9,3	9,6	9,9
1000	4,5	4,8	5,1	5,5	5,8	6,1	6,4	6,7	7,1	7,4	7,7	8,0	8,4	8,7	9,0	9,3	9,6	10,0	10,3
1050	4,7	5,0	5,3	5,7	6,0	6,3	6,7	7,0	7,3	7,6	8,0	8,3	8,6	9,0	9,3	9,6	10,0	10,3	10,6

***Note** : If the damper is configurated for Air Intake, S version, increase the table values by 20%.*
If the damper is equipped with the optional rear anti-volatile mesh square pattern 20x15, 75% open area ratio), increase the table values by 10%.
If the damper is equipped with rear anti-insect mesh (diamond pattern 3x2.2, 60% open area ratio), increase the table values by 30%.

Additional Product Images

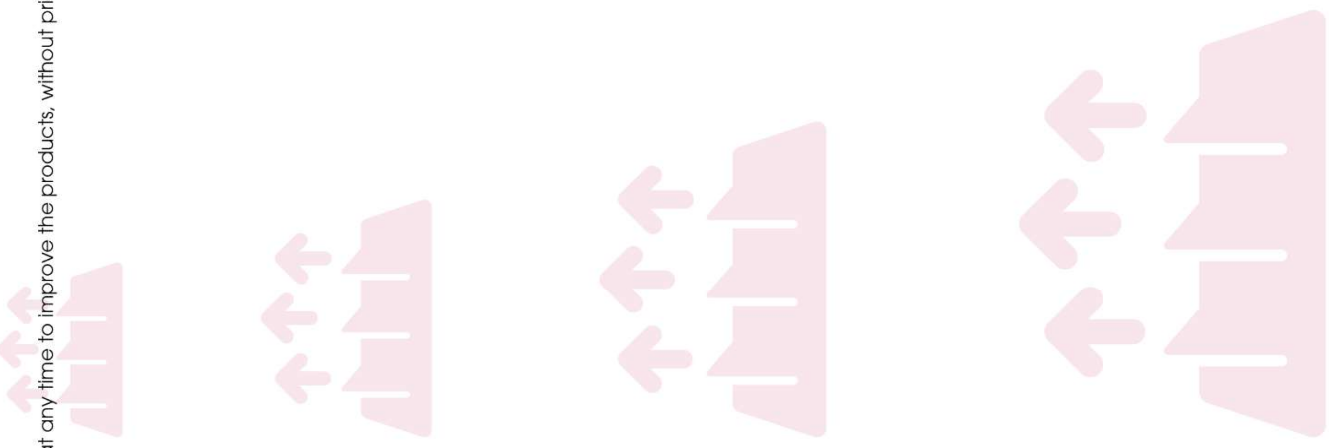
Left Version (SP50 S)

Left Version with Mesh (SP50 RS)



***Note** : Rear view (mesh pattern shown for illustrative purposes only).*

Made in Italy



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OVERPRESSURE