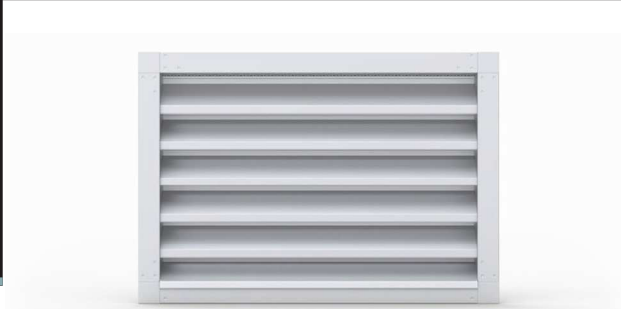


ZS

RECTANGULAR WALL AIR-INTAKE/EXHAUST VENTILATOR



Description:

ZS rectangular roof air-intake/exhaust ventilator with fixed louvres with a bird guard netting.

Intended use

ZS units are used as terminal units in low- and medium-pressure ventilation systems, as air-intake or exhaust ventilators. These air-intake/exhaust ventilators protect ventilation duct interiors against birds due to a wire net with which they are equipped. ZS units can be installed in the building structure or on the ends of ventilation ducts.

Design

ZS units have fixed louvres and additional ventilation installation system interior protection in a form of steel bird guard netting. ZS units are normally made of galvanised steel. Other RAL colour-painted versions and a stainless steel version are available upon special request.



Dimensions

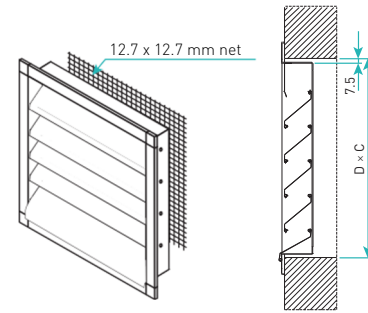


Figure 1. Diagram of the ZS unit.

Dimension range of ZS units as follows:

- Width C = 200–3000 mm,
- Height D = 200–2000 mm.

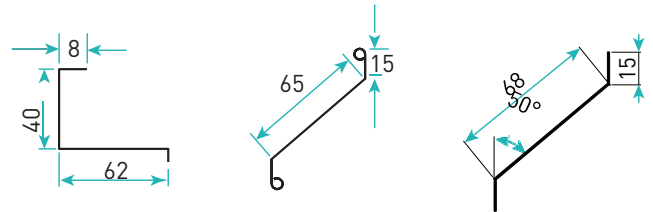


Figure 2. (1) Dimensions of the ZS frame, (2) dimensions of the ZS louvres in -SO and -SL versions, (3) dimensions of ZS louvres in the -SN version

Effective area

Table 1. Effective area of ZS in m².

	C – Mounting hole width																		
	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
200	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.13	0.15	0.17	0.19	0.21	0.23	0.25	0.27	0.29
300	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.17	0.20	0.23	0.26	0.29	0.32	0.35	0.37	0.40	0.43
400	0.04	0.06	0.08	0.10	0.12	0.13	0.15	0.17	0.19	0.23	0.27	0.31	0.35	0.38	0.42	0.46	0.50	0.54	0.58
500	0.05	0.07	0.10	0.12	0.14	0.17	0.19	0.22	0.24	0.29	0.34	0.38	0.43	0.48	0.53	0.58	0.62	0.67	0.72
600	0.06	0.09	0.12	0.16	0.19	0.22	0.25	0.28	0.31	0.37	0.44	0.50	0.56	0.62	0.69	0.75	0.81	0.87	0.94
700	0.07	0.11	0.15	0.18	0.22	0.25	0.29	0.33	0.36	0.44	0.51	0.58	0.66	0.73	0.80	0.87	0.95	1.02	1.09
800	0.08	0.12	0.17	0.21	0.25	0.29	0.33	0.37	0.42	0.50	0.58	0.67	0.75	0.83	0.92	1.00	1.08	1.16	1.25
900	0.09	0.14	0.19	0.23	0.28	0.33	0.37	0.42	0.47	0.56	0.66	0.75	0.84	0.94	1.03	1.12	1.22	1.31	1.40
1000	0.10	0.16	0.21	0.26	0.31	0.36	0.42	0.47	0.52	0.62	0.73	0.83	0.94	1.04	1.14	1.25	1.35	1.46	1.56
1200	0.13	0.19	0.25	0.32	0.38	0.45	0.51	0.57	0.64	0.76	0.89	1.02	1.14	1.27	1.40	1.53	1.65	1.78	1.91
1400	0.15	0.22	0.30	0.37	0.45	0.52	0.59	0.67	0.74	0.89	1.04	1.19	1.34	1.48	1.63	1.78	1.93	2.08	2.23
1600	0.17	0.25	0.34	0.42	0.51	0.59	0.68	0.76	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04	2.20	2.37	2.54
1800	0.19	0.29	0.38	0.48	0.57	0.67	0.76	0.86	0.95	1.14	1.34	1.53	1.72	1.91	2.10	2.29	2.48	2.67	2.86
2000	0.21	0.32	0.42	0.53	0.64	0.74	0.85	0.95	1.06	1.27	1.48	1.70	1.91	2.12	2.33	2.54	2.76	2.97	3.18

SO

SL

SN

RAL



Pressure loss

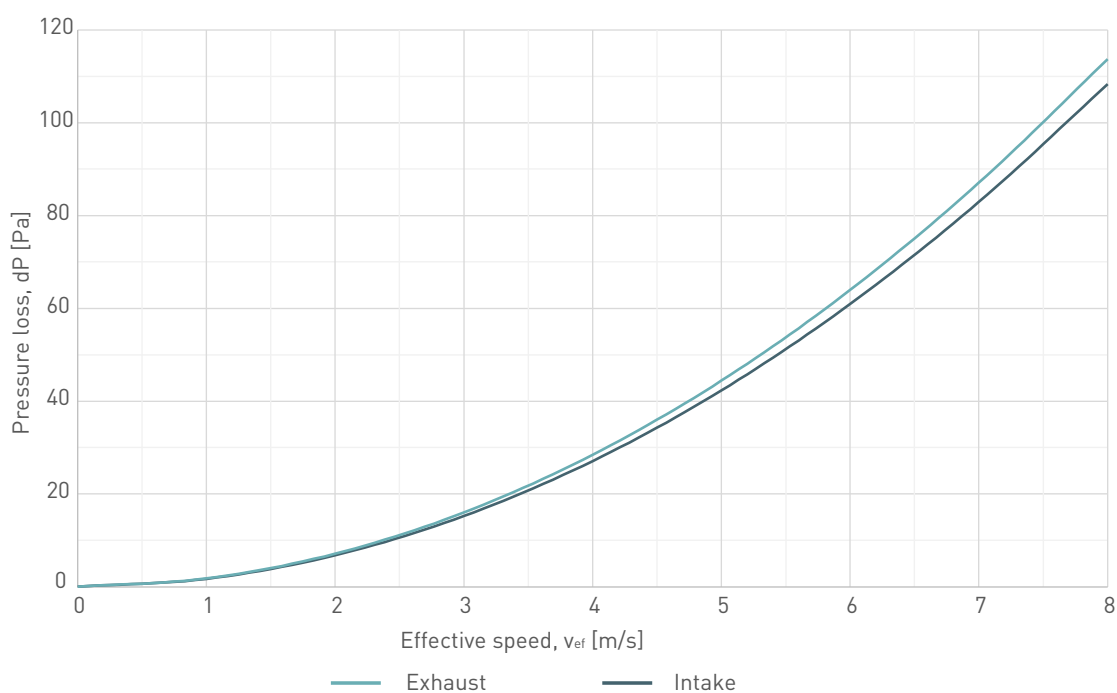


Diagram 1. Pressure loss for the ZS exhaust ventilator.

Weight

Table 2. ZS weight.

		C – Mounting hole width																		
		200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
D – Mounting hole height	200	1.9	2.5	3.1	3.7	4.2	4.8	5.4	6.0	6.5	7.7	8.9	10.0	11.2	12.3	13.6	14.7	15.8	17.0	18.1
	300	2.4	3.2	3.9	4.7	5.4	6.2	6.9	7.6	8.3	9.8	11.2	12.7	14.1	15.6	17.1	18.5	19.9	21.5	22.9
	400	3.0	3.9	4.8	5.7	6.5	7.4	8.3	9.2	10.0	11.8	13.6	15.3	17.1	18.8	20.6	22.3	24.1	25.9	27.6
	500	3.6	4.7	5.7	6.7	7.7	8.8	9.8	10.8	11.8	13.9	15.9	17.9	20.0	22.0	24.1	26.2	28.2	30.3	32.3
	600	4.1	5.3	6.5	7.7	8.8	10.0	11.2	12.3	13.5	15.9	18.2	20.6	22.9	25.3	27.6	30.0	32.3	34.7	37.0
	700	4.8	6.1	7.4	8.7	10.0	11.3	12.7	14.0	15.3	18.0	20.6	23.2	25.9	28.5	31.1	33.8	36.5	39.1	41.8
	800	5.2	6.7	8.2	9.6	11.1	12.6	14.1	15.6	17.0	20.0	22.9	25.9	28.8	31.8	34.7	37.6	40.6	43.5	46.5
	900	5.8	7.5	9.1	10.7	12.3	13.9	15.6	17.2	18.8	22.0	25.3	28.5	31.7	35.0	38.1	41.5	44.7	48.0	51.2
	1000	6.4	8.2	9.9	11.7	13.5	15.3	17.0	18.8	20.5	24.1	27.6	31.1	34.7	38.2	41.8	45.3	48.8	52.4	55.9
	1200	7.5	9.6	11.6	13.7	15.8	17.9	19.9	21.9	24.0	28.2	32.3	36.4	40.6	44.7	48.8	53.0	57.1	61.2	65.3
	1400	8.5	10.9	13.3	15.7	18.1	20.5	22.8	25.1	27.5	32.2	37.0	41.7	46.4	51.2	55.9	60.6	65.3	70.1	74.8
1600	9.9	12.5	15.1	17.8	20.4	23.0	25.7	28.4	31.0	36.3	41.7	47.0	52.3	57.6	63.0	68.3	73.6	78.9	84.2	
1800	10.9	13.9	16.8	19.8	22.7	25.6	28.6	31.6	34.5	40.4	46.3	52.3	58.2	64.1	70.0	75.9	81.8	87.7	93.6	
2000	12.0	15.3	18.5	21.8	25.0	28.3	31.5	34.8	38.0	44.5	51.0	57.5	64.0	70.5	77.1	83.6	90.1	96.6	103.1	

Installation

ZS units are mounted in the building structure with screws through holes in a louvre frame (holes to be prepared on site). Examples of installation are shown below.

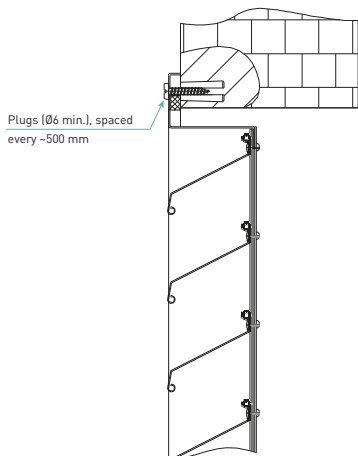


Figure 3. Installation in brickwork or a concrete wall.

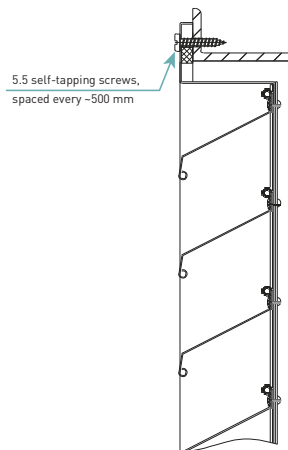


Figure 4. Installation in a steel structure.

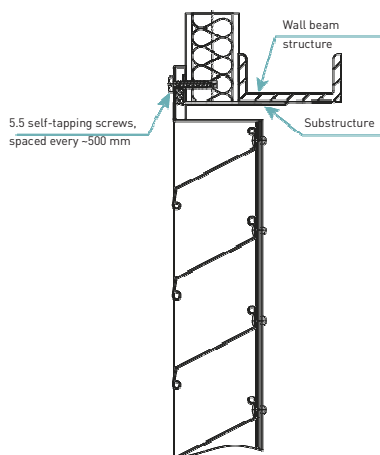


Figure 5. Installation in a wall made of composite panels.

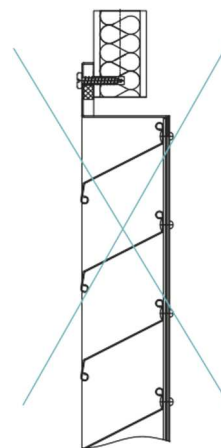


Figure 6. Incorrect steel composite panels wall installation.

In the case of mounting the ZS unit in a wall in composite panels, an additional steel substructure is required to fix the unit to the wall structural components.

ZS – Rectangular wall air-intake/exhaust ventilator

When ordering, please provide information according to the following pattern:

ZS - <C> x <D> - W<W> - <P> <RAL>

Where:

C	Mounting hole width in mm
D	Mounting hole height in mm
W	Number of stiffening crossbars: W = 0 for C < 1500; W = 1 for C ≥ 1500mm; W = 2 for C ≥ 2250 mm
P	Finish*
	SL – Painted steel
	SO – Galvanised steel
	SN – Stainless steel, quality 1.4301 (304 according to AISI, 0H18N9 according to PN)
RAL	Colour as per RAL (for SL finish)

*Optional values – if blank, default values will be used Example product marking: **ZS – 1000 x 1000 – SL9010**