

## Description and application

Louvre with movable blades used in ventilation installation intake and exhaust as the end of air intake pipes and ventilation holes in the walls of buildings, adapted for assembling in a door or window profile.

The special shape of the louvres / blades protects air intake hole before the precipitation. Additionally, on request it is possible to install protective mesh that protects before the bird, rodent and larger impurities (like the leaves) inside the installation.

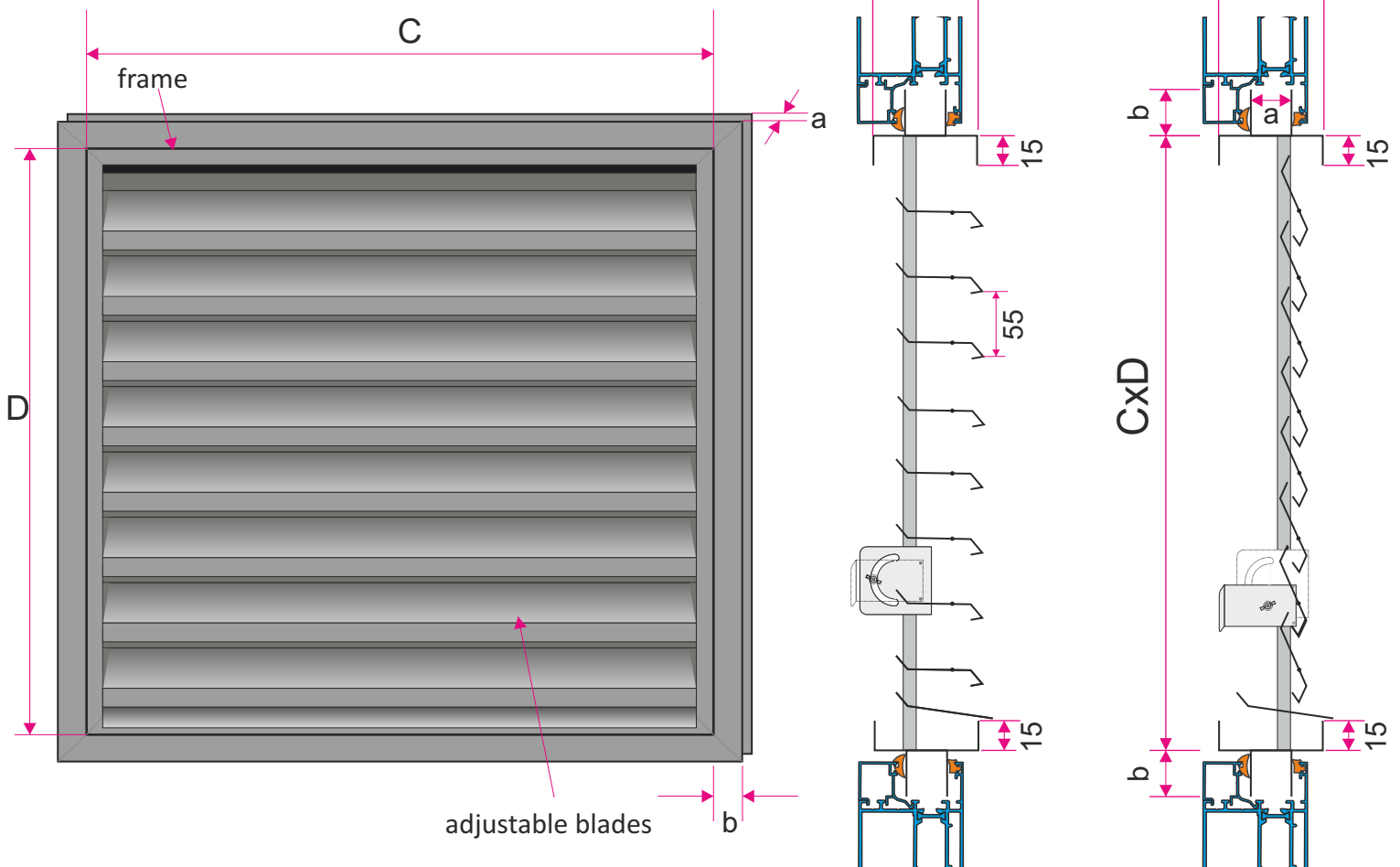
Louvres has Hygienic Certificate HK/K/0522/02/2016

## Material and workmanship

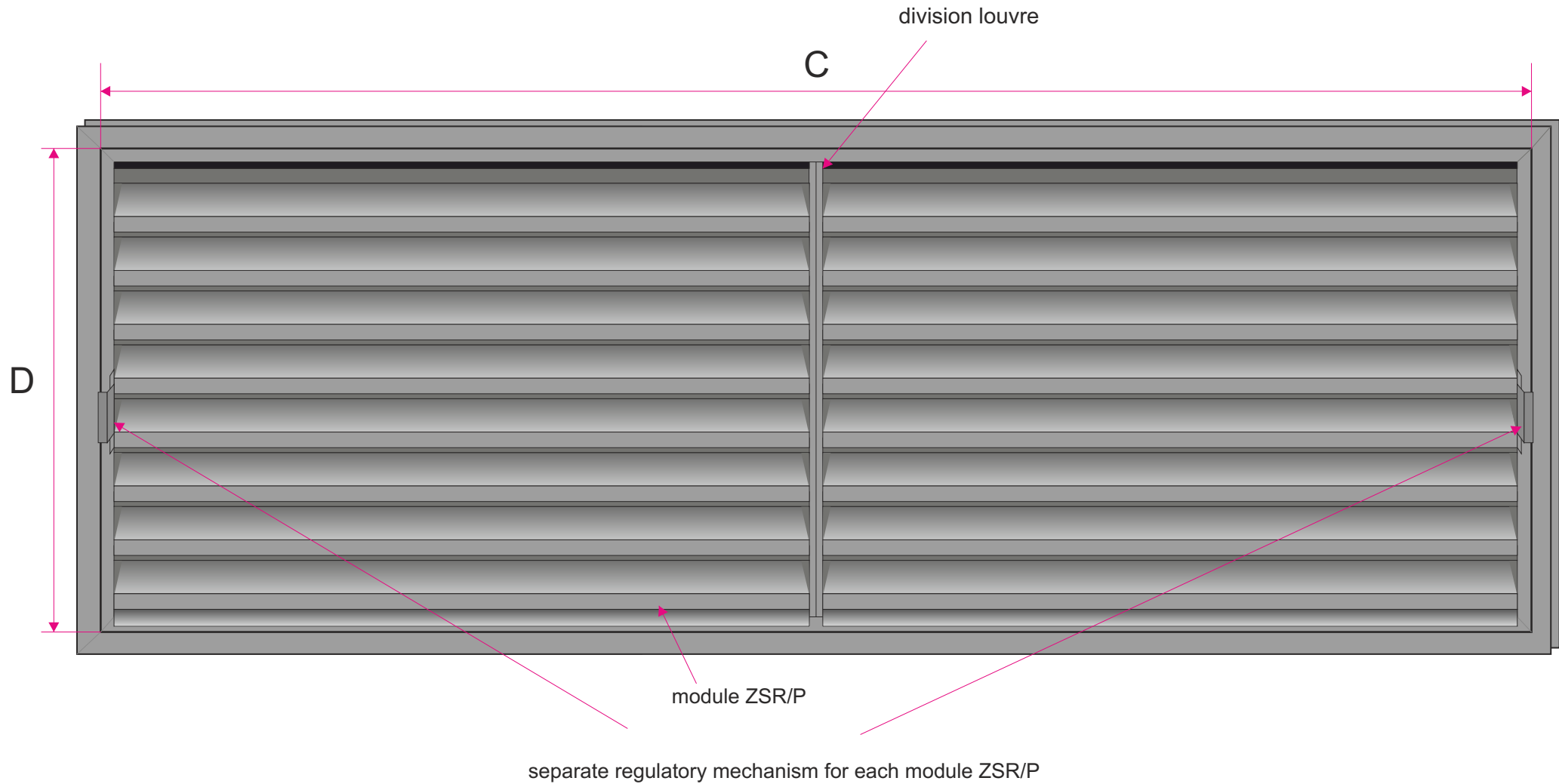
The frame and the louvre blades are made of galvanized steel powder coated in standard gray color RAL9006 or in any RAL color. On request it is possible to make louvre from aluminum or stainless steel. The manual mechanism allows you to set any opening angle. In the case of electrical control, the mechanism is adjusted to the Belimo Linear Actuator. It is possible to use your own type of actuator. In this case, please send the technical data sheet of the model. The amount of actuators is dependent on the size of the louvre.

## Size

Intakes louvres for installation in a door or window profile  
made on order are in adapted sizes  
to individual customer needs.

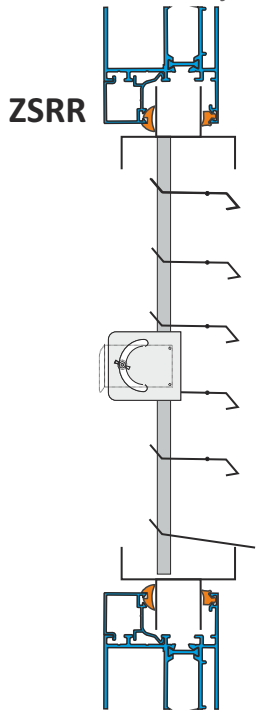


In case dimension C > 1500 mm the manufacturer may propose sharing the intake (agreed with the client).

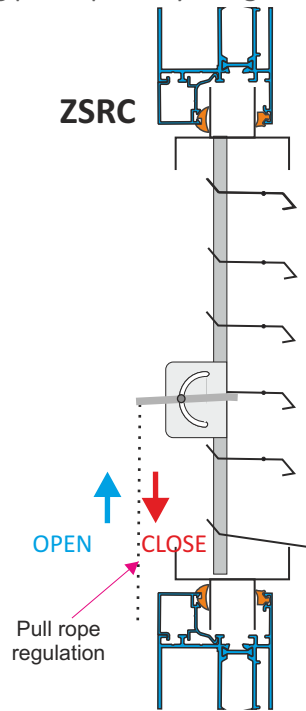


## Options adjusting louvre

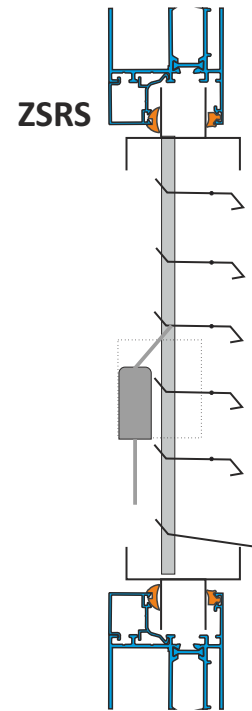
Louvre ZSR can be adjusted manually, using pull rope or by using an electric actuator:



The shutter is adjusted manually using a common guide located behind the blades

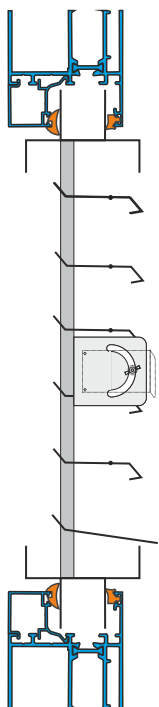


Louvre is controlled manually using pull rope (recommended for blinds installed for hard to reach heights)

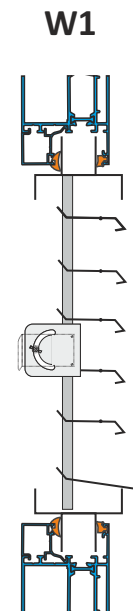


Louvre is controlled by Belimo electric actuator (way to open blades depends from the type of actuator)

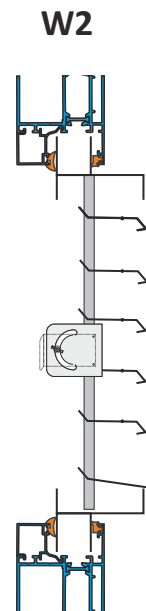
Adjusted manually and with pull rope, are also available with the option of adjusting from the front.



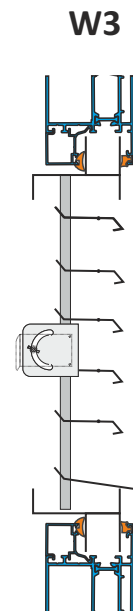
## Methods of mounting



Central



left-sided matching for a ± 12 mm



right-sided matching for a ± 12 mm

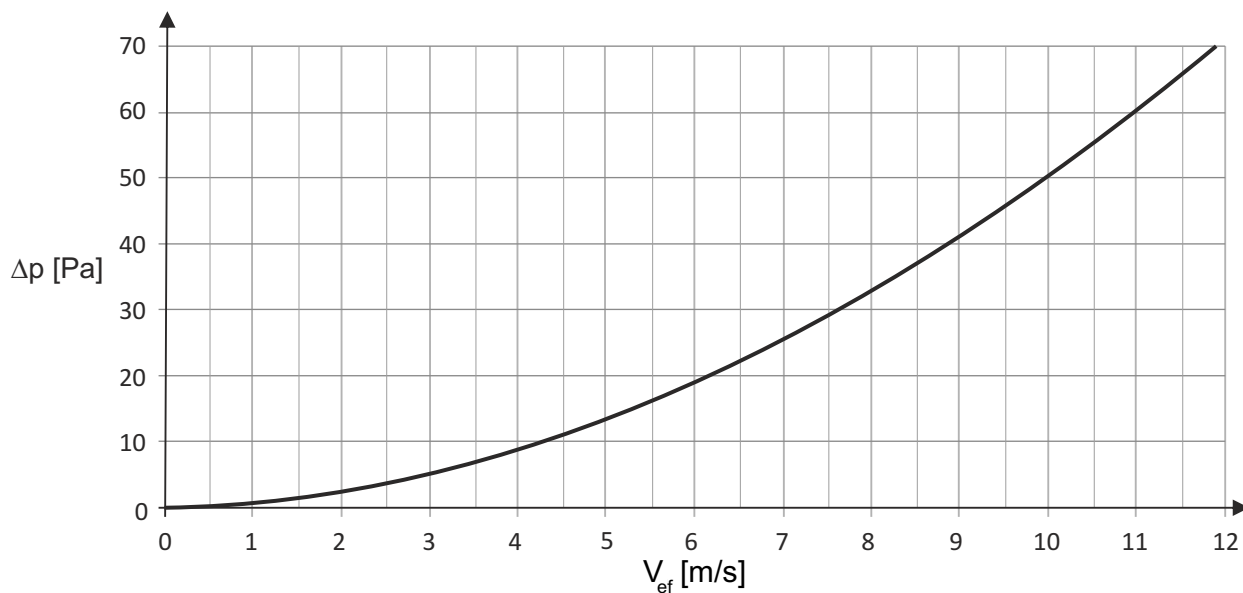
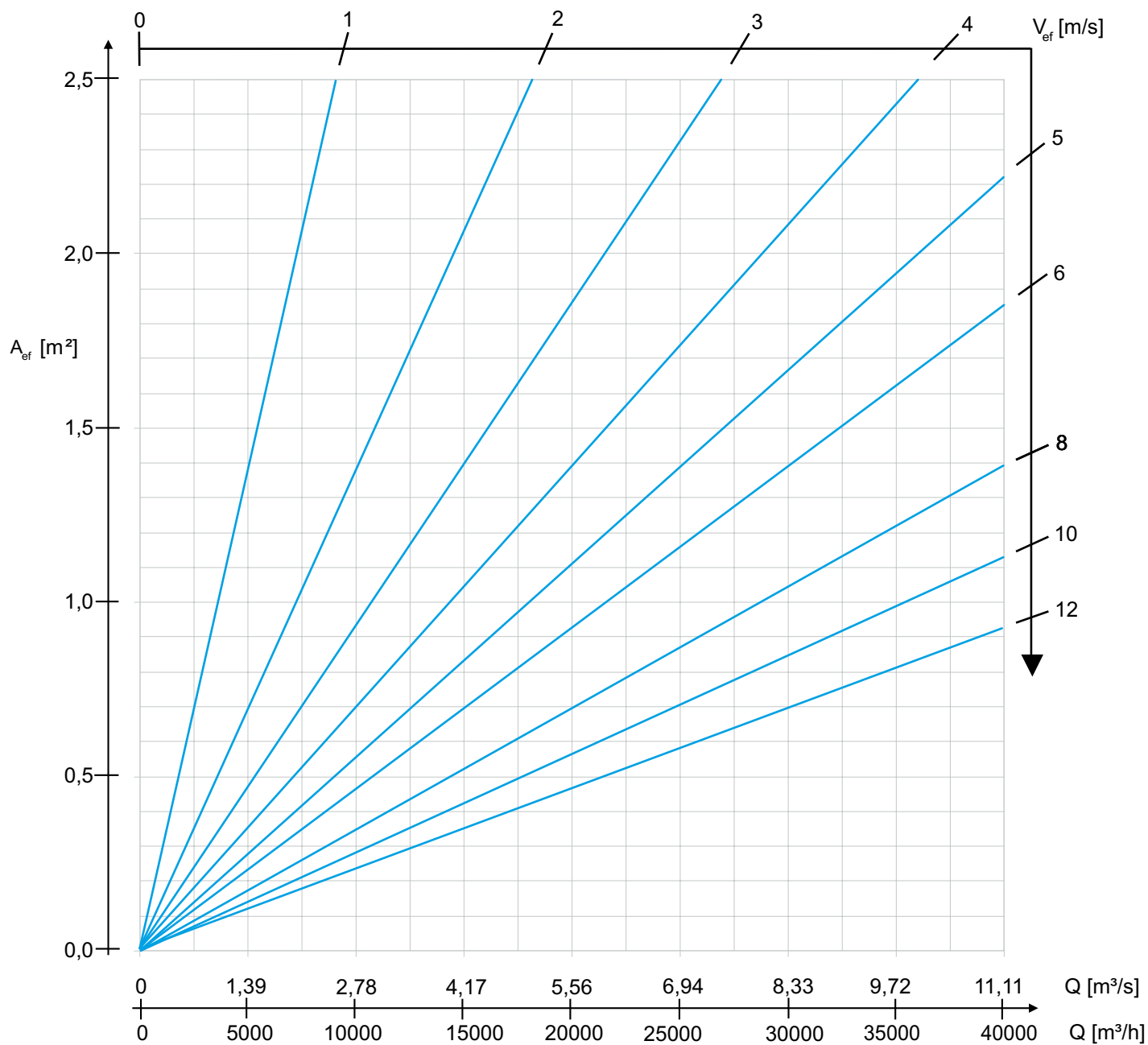
## TECHNICAL DATA - data for louvre fully open

$D_{[mm]} \backslash C_{[mm]}$	300	400	500	600	800	1000	1200	1400	1600	1800	2000
	<b><math>A_{ef} (m^2)</math> powierzchnia efektywna żaluzji ściennych ZSR</b>										
300	0,06	0,08	0,10	0,13	0,15	0,22	0,27	0,30	0,34	0,37	0,45
400	0,08	0,10	0,12	0,17	0,20	0,29	0,34	0,40	0,47	0,51	0,58
500	0,10	0,12	0,15	0,20	0,27	0,36	0,43	0,50	0,58	0,64	0,72
600	0,13	0,17	0,20	0,25	0,32	0,43	0,51	0,59	0,68	0,77	0,86
800	0,15	0,20	0,27	0,32	0,43	0,55	0,68	0,78	0,91	1,00	1,14
1000	0,22	0,29	0,36	0,43	0,55	0,70	0,87	0,98	1,13	1,26	1,44
1200	0,27	0,34	0,43	0,51	0,68	0,87	1,04	1,17	1,37	1,51	1,71
1400	0,30	0,40	0,50	0,59	0,78	0,98	1,17	1,38	1,60	1,76	2,02
1600	0,34	0,47	0,58	0,68	0,91	1,13	1,37	1,60	1,83	2,01	2,31
1800	0,37	0,51	0,64	0,77	1,00	1,26	1,51	1,76	2,01	2,27	2,62
2000	0,45	0,58	0,72	0,86	1,14	1,44	1,71	2,02	2,31	2,62	2,93
2400	0,47	0,60	0,75	0,95	1,22	1,65	2,08	2,39	2,79	3,04	3,44
2800	0,51	0,67	0,81	1,14	1,45	1,97	2,45	2,78	3,23	3,57	4,02
3000	0,53	0,70	0,87	1,22	1,53	2,09	2,63	2,97	3,52	3,87	4,38

$D_{[mm]} \backslash C_{[mm]}$	300	400	500	600	800	1000	1200	1400	1600	1800	2000
	<b>Approximate weight wall louvre ZSR (kg)</b>										
300	4	5	6	6	8	9	10	12	13	14	16
400	5	6	6	7	9	10	12	13	15	16	18
500	6	6	7	8	10	11	13	15	16	18	20
600	6	7	8	9	11	12	14	16	18	20	22
800	7	8	9	10	12	14	17	19	21	23	26
1000	8	10	11	12	14	17	19	21	23	26	29
1200	9	11	12	13	16	19	21	24	26	29	32
1400	9	12	13	14	17	20	23	27	29	33	36
1600	10	13	14	15	20	23	28	31	35	38	42
1800	11	14	15	17	21	25	30	34	38	42	46
2000	12	15	16	19	23	28	32	37	42	46	50
2400	14	17	19	22	28	33	38	43	48	53	58
2800	16	19	22	25	31	37	44	49	55	61	67
3000	18	21	24	27	33	39	46	53	60	65	71

± 2 kg

Data for louvre fully open



$A_{ef}$  (m<sup>2</sup>) effective area of wall louvre ZSR

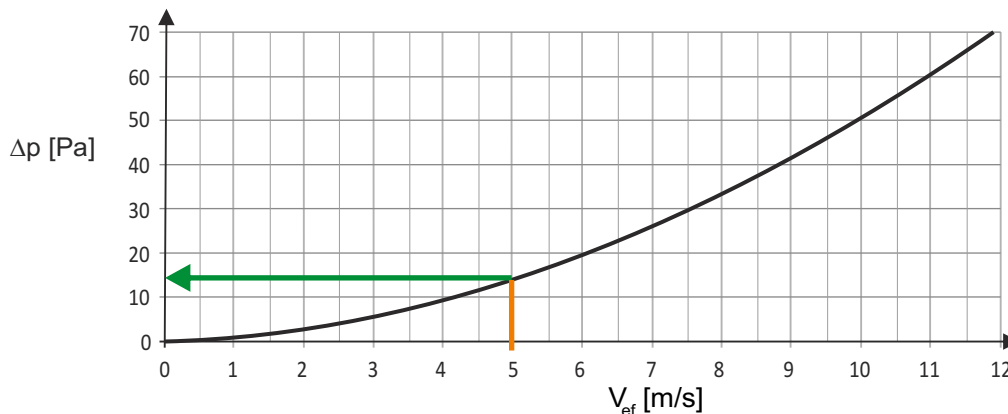
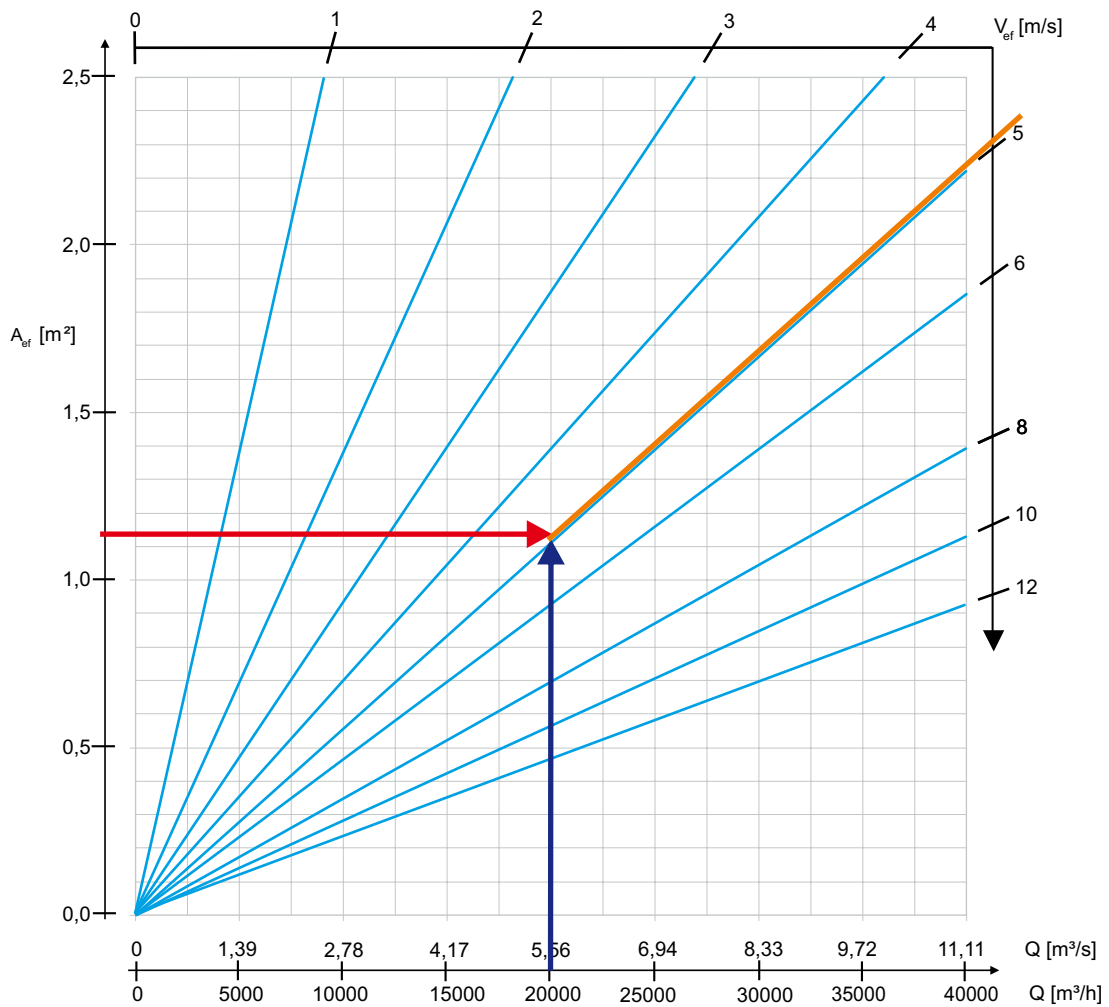
H [mm] \ L [mm]	300	400	500	600	800	1000	1200
300	0,06	0,08	0,10	0,13	0,15	0,22	0,27
400	0,08	0,10	0,12	0,17	0,20	0,29	0,34
500	0,10	0,12	0,15	0,20	0,27	0,36	0,43
600	0,13	0,17	0,20	0,25	0,32	0,43	0,51
800	0,15	0,20	0,27	0,32	0,43	0,55	0,68
1000	0,22	0,29	0,36	0,43	0,55	0,70	0,87
1200	0,27	0,34	0,43	0,51	0,68	0,87	1,04
1400	0,30	0,40	0,50	0,59	0,78	0,98	1,17
1600	0,34	0,47	0,58	0,68	0,91	<b>1,13</b>	1,37
1800	0,37	0,51	0,64	0,77	1,00	1,26	1,51

**EXAMPLE**

- air volume flow  $Q=20000 \text{ m}^3/\text{h}$
- size of wall louvre: 1000x1600

**Reading from tables and graphs:**

- effective area  $A_{ef}= 1,13 \text{ m}^2$
- approximate weight 23 kg
- effective speed:  $v_{ef}= 5 \text{ m/s}$
- pressure drop on louvre 15 Pa



**The method of placing an order**

---

Please make orders according to the following formula:

**ZSR/P / 'R' / 'CxD' / 'a' / 'b' / RAL' / 'M' / 'W'**

<b>'R'</b>	- method of adjusting louvre: <b>RR</b> - manual <b>RC</b> - manual control with pull rope <b>RS</b> - adjustment using the actuator Belimo (standard actuator is not equipped with louvre)
<b>'PM'</b>	- position of the control mechanism <b>t</b> - on back of the adjusting louvre <b>p</b> - on front of the adjusting louvre
<b>'CxD'</b>	- size (width x height) in mm
<b>'a'</b>	- depth of the frame
<b>'b'</b>	- frame width
<b>'s'</b>	- mesh <b>BS</b> - without protective mesh* <b>ZS</b> - with protective mesh
<b>'RAL'</b>	- louvre color according to RAL palette (standard RAL9006*)
<b>'M'</b>	- material: <b>OC</b> - powder coated steel* <b>AL</b> - aluminum <b>KO</b> - stainless steel / acid proof steel (type 1.4301 or 1.4404)
<b>'W'</b>	- methods of mounting in a panel: <b>W1</b> - central * <b>W2</b> - left-sided matching <b>W3</b> - right-sided matching

\* - If you don't give the information will be used standard parameters.