

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 or directly on the duct. The special shape of the louvres / blades protects air intake hole before the precipitation. Opening and closing louvre is possible through the manual regulation- type ZSR-R or by using actuator -type ZSR-S. On special request it is also possible protective mesh that protects against the birds, rodents and larger impurities (like the leaves) inside the installation.

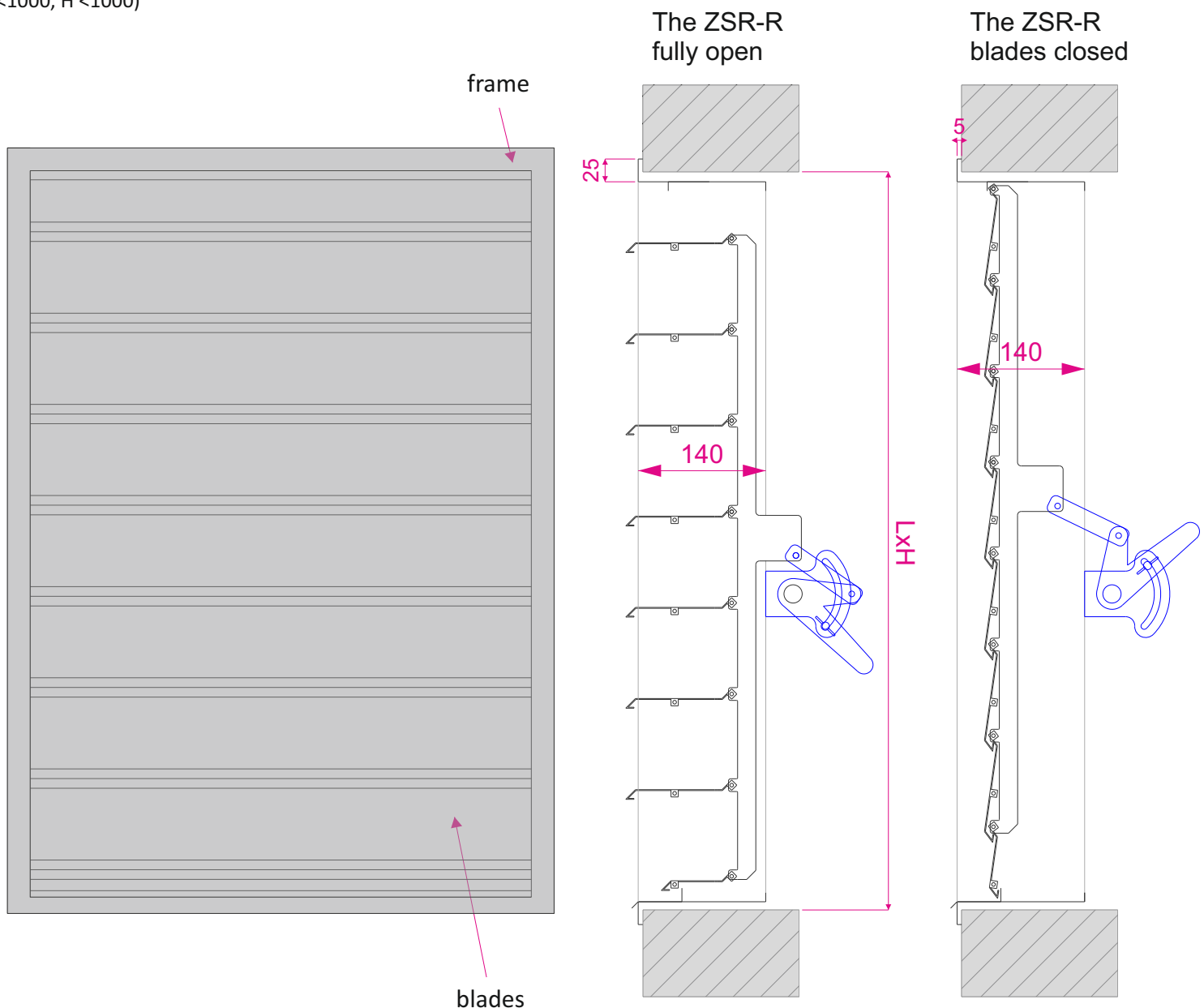
Material and workmanship

Louvre is available in three material variants: galvanized steel, aluminum - powder coated or stainless steel (type 1.4301 or 1.4404). On customer request powder coated to any color from the RAL palette (standard RAL9006). The manual mechanism allows you to set any opening angle. In the case of electrical control, the mechanism is adjusted to the Belimo Round 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. The manufacturer reserves the right to make production changes.

Size

Louvres are manufactured to order. Louvre dimension by the customer request.

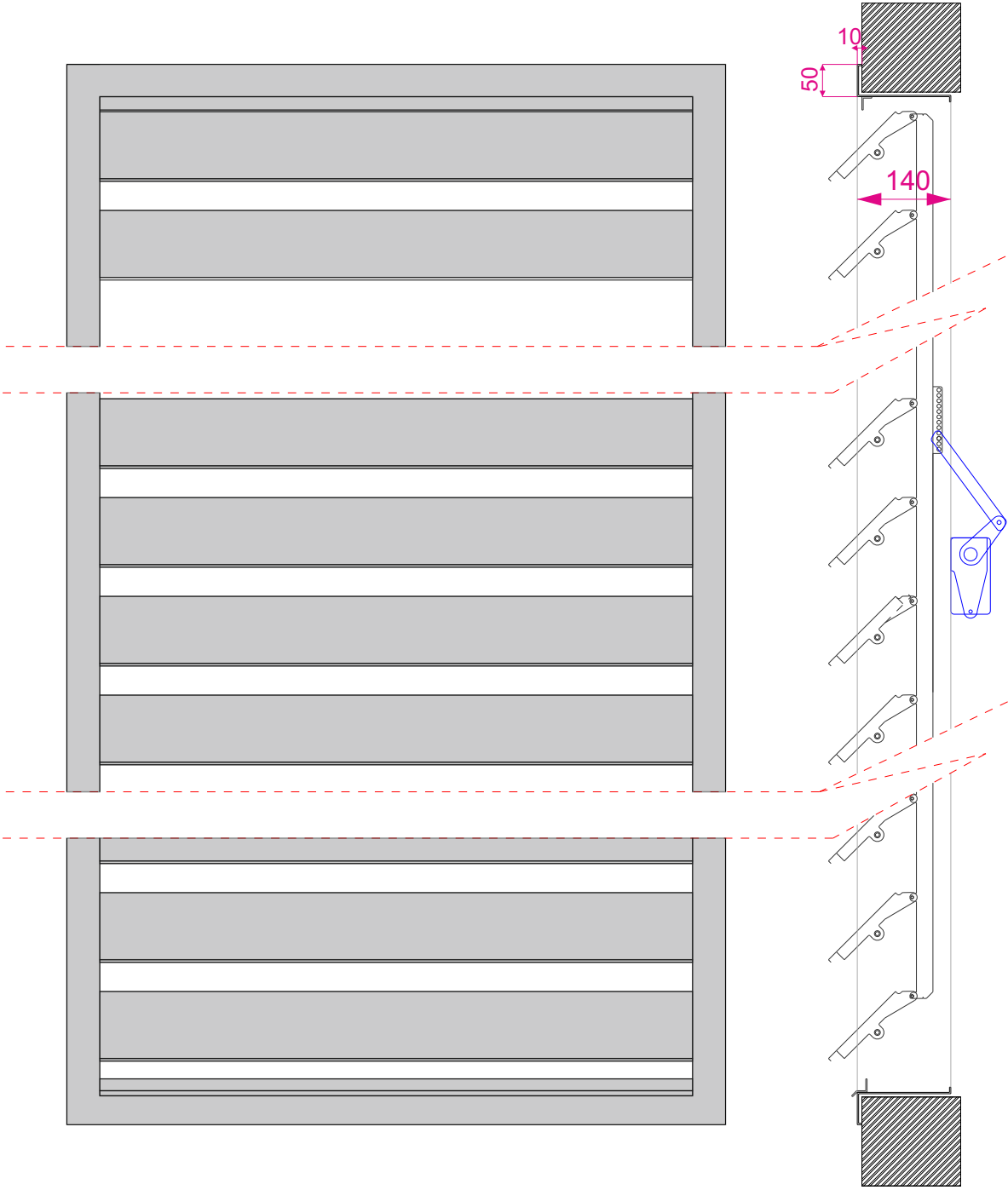
Frame R1, 25mm
(L <1000, H <1000)



Frame R1, 50mm

L ≥ 1000, H ≥ 1000

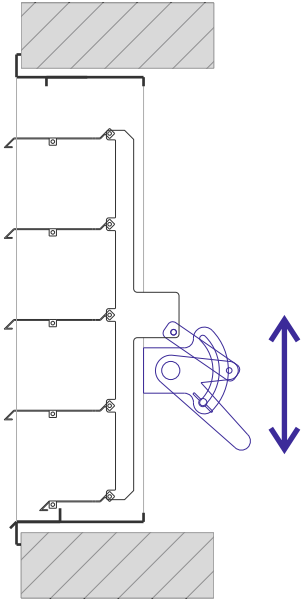
ZSR-S blades set at an angle of 45°



Options adjusting louvre

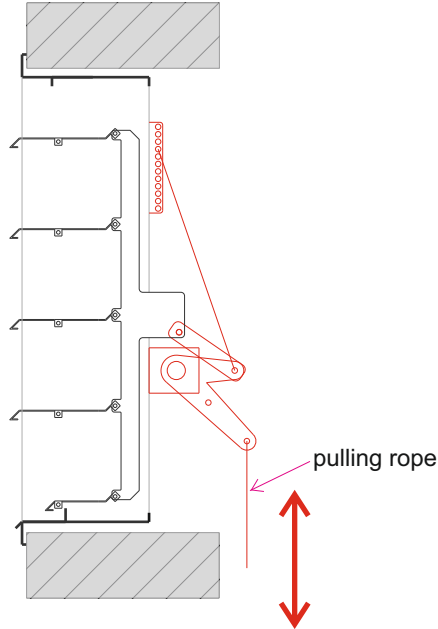
Louvre ZSR can be adjusted manually, using pull rope or by using an electric actuator:

ZSR-R



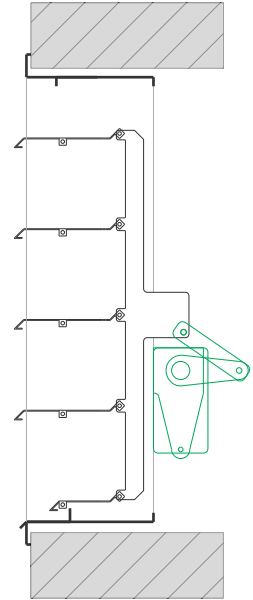
The shutter is adjusted manually using a common guide located behind the blades

ZSR-C



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

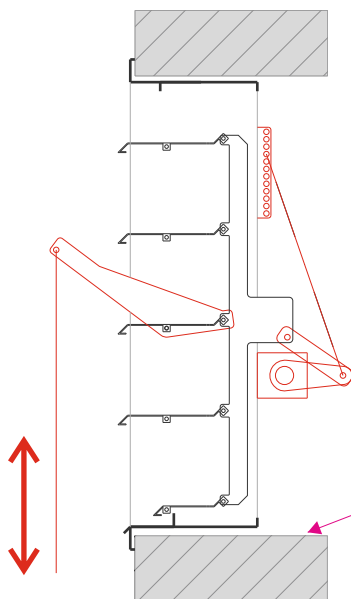
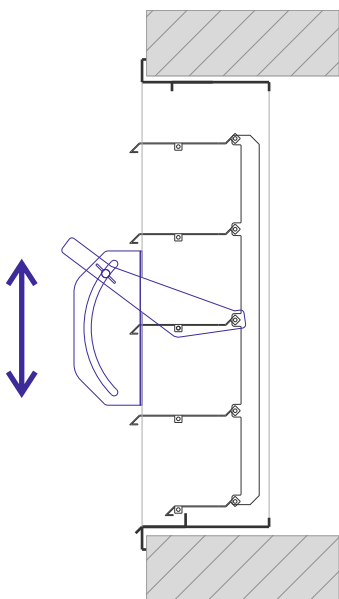
ZSR-S



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



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



When placing an order please specify the depth of the wall in which the shutter will be mounted, to adjust the mechanism to the existing window sill and the length of the pulling rope.

Variants execution - division

If the width of the louvre (blade length) **exceeds 1450mm**, ZSR is divided.

We offer two variants of wall louvre shared

1) entirely frame + shared intake louvre - for dimensions to max. L=2350mm and H=1500mm

VIEW FROM ABOVE

the regulating mechanism can be separate for each ZSR module or combining two modules, depending on the dimensions of the blinds and the type and power of the actuator.



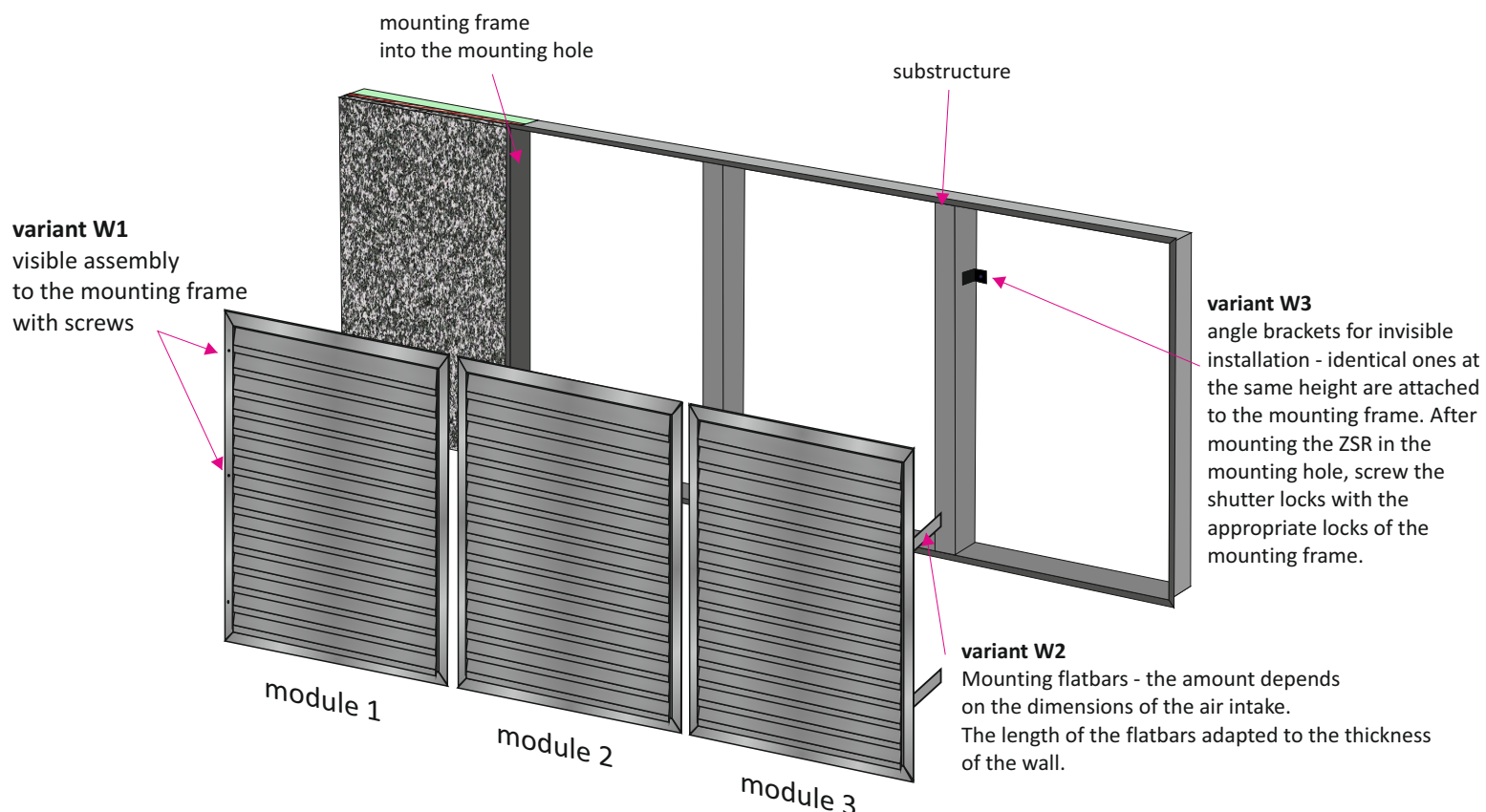
frame 50mm

module ZSR

division louvre

2) louvre ZSR + mounting frame - for sizes above L=2350mm and H=1500mm

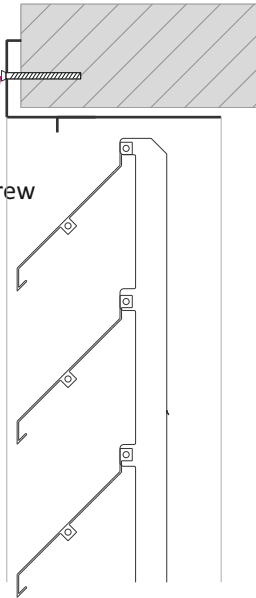
(the amount of intake louvre adapted to the overall dimension of the mounting hole)



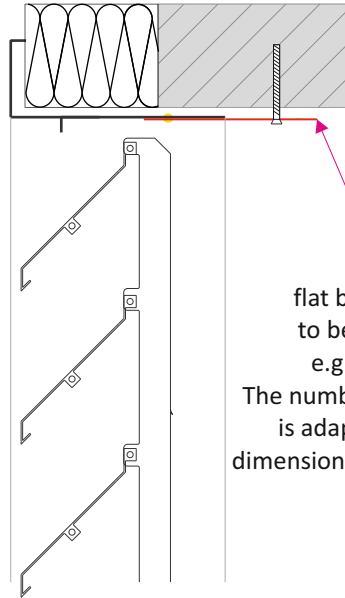
Assembly methods

Mounting variants are common for each frame width.

W1

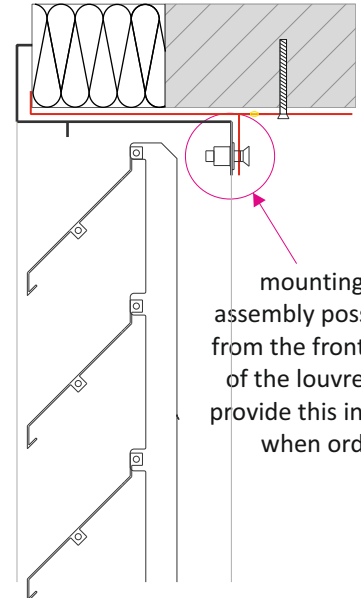


W2



flat bar length to be agreed, e.g. L=200.
The number of flat bars is adapted to the dimensions of the louvre.

W3



mounting lock-assembly possible both from the front and back of the louvre - please provide this information when ordering

Installation visible via screws and mounting holes in the louvre frame.

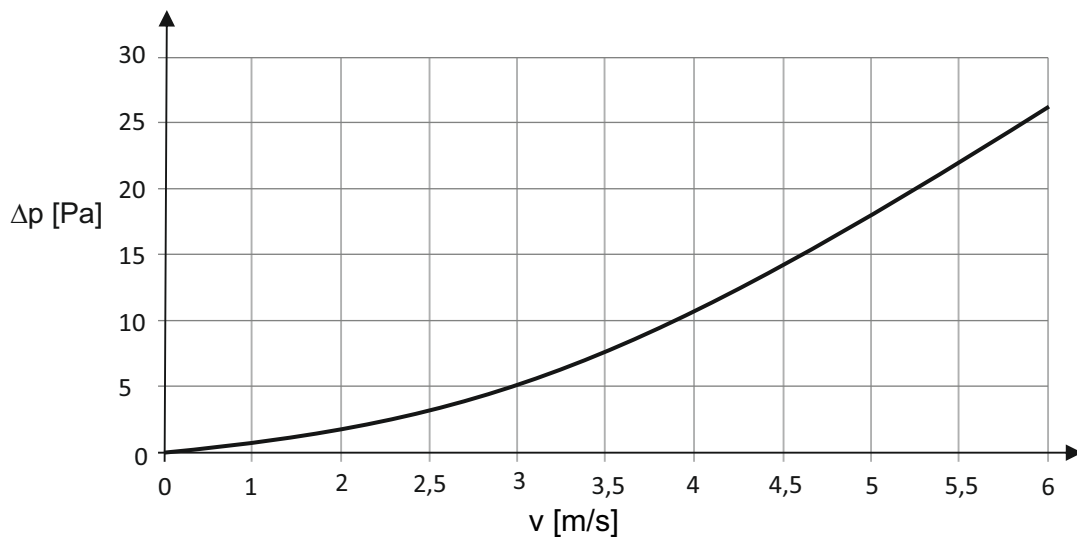
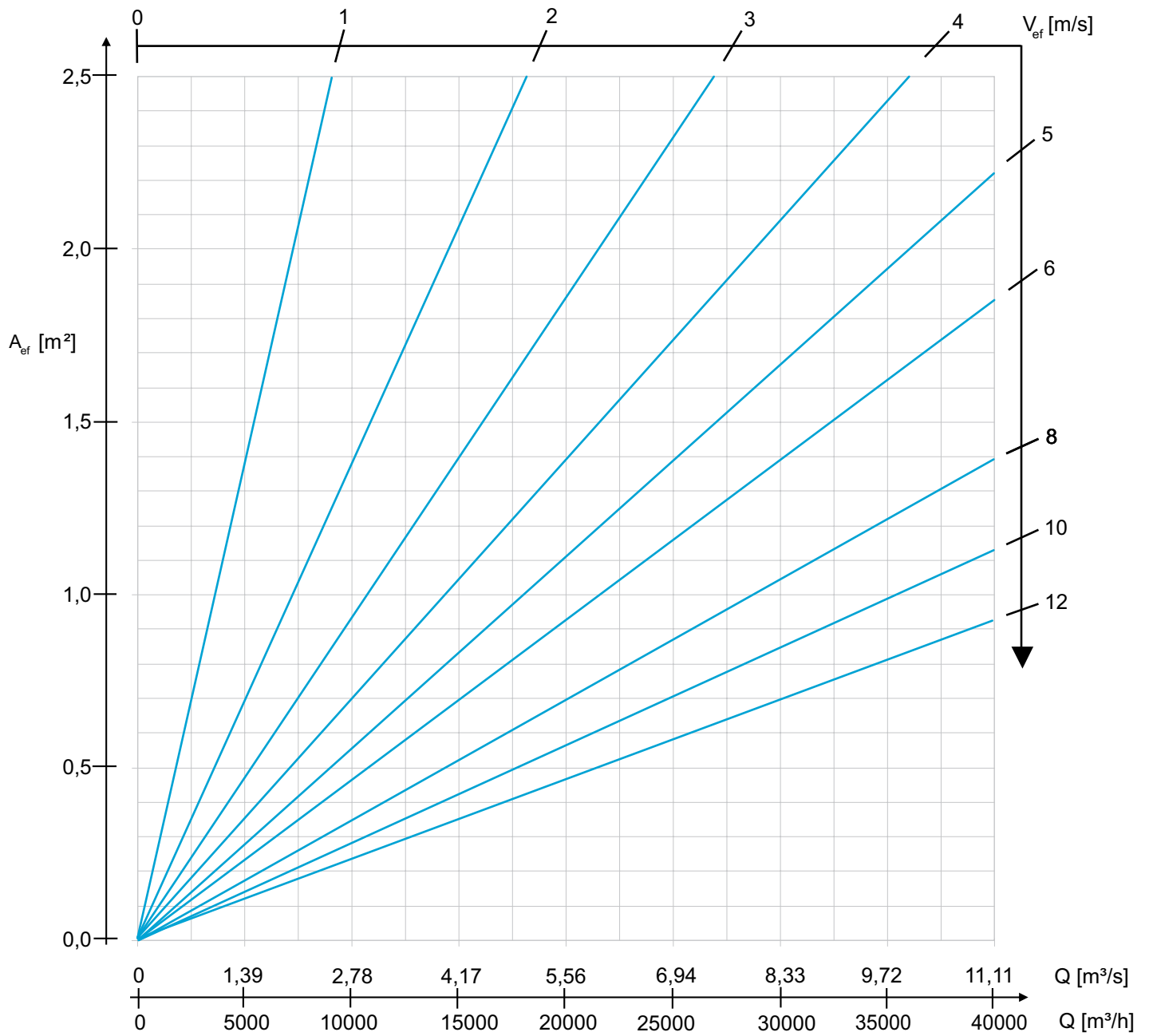
Invisible installation using additional mounting flats. Installation possible from the room side.

Invisible installation using screws and mounting locks in the RM frame - a variant recommended for louvre divided with a substructure.

TECHNICAL DATA - data for fully open louvre

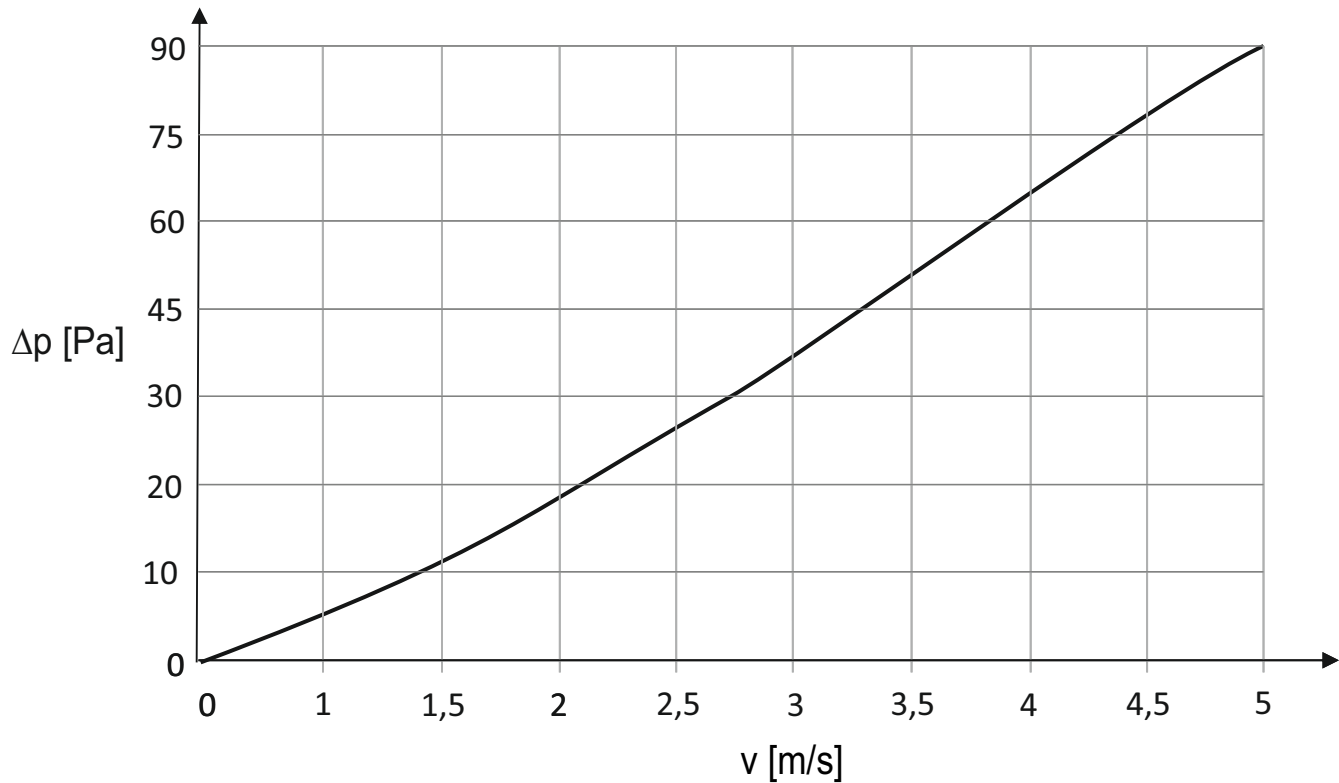
H _[mm] \ L _[mm]	600	800	1000	1200	1400	1600	1800	2000
Net free area A (m ²) of ZSR wall blinds when fully open								
600	0,32	0,43	0,54	0,65	0,76	0,86	0,97	1,08
800	0,43	0,58	0,72	0,86	1,01	1,15	1,30	1,44
1000	0,54	0,72	0,90	1,08	1,26	1,44	1,62	1,80
1200	0,65	0,86	1,08	1,30	1,51	1,73	1,94	2,16
1400	0,76	1,01	1,26	1,51	1,76	2,02	2,27	2,52
1600	0,86	1,15	1,44	1,73	2,02	2,30	2,59	2,88
1800	0,97	1,30	1,62	1,94	2,27	2,59	2,92	3,24
2000	1,08	1,44	1,80	2,16	2,52	2,88	3,24	3,60

TECHNICAL DATA - louvre fully open

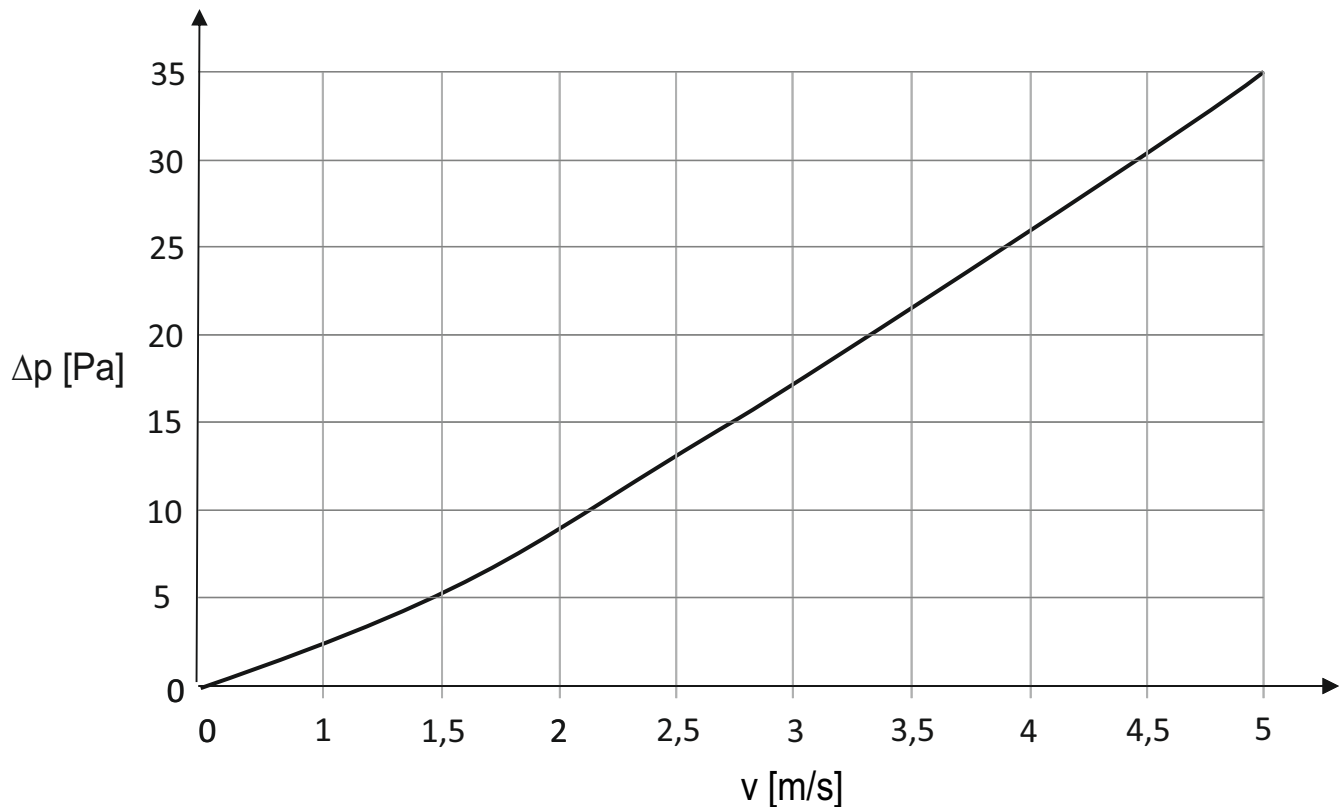


TECHNICAL DATA - pressure loss for lamellas open at 45° and 60°

Opening angle: 45°



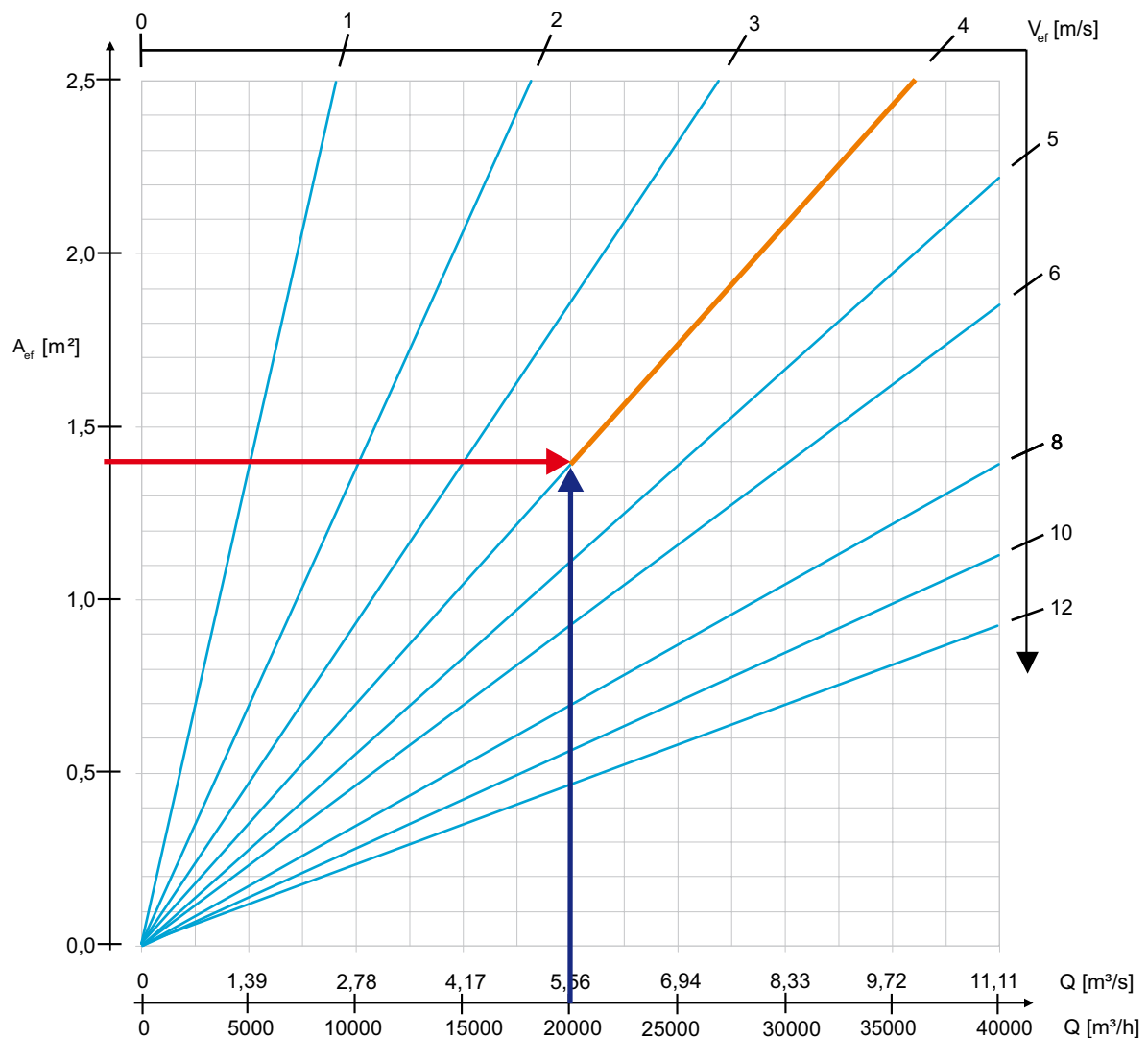
Opening angle: 60°



EXAMPLE

- air volume flow $Q=20000 \text{ m}^3/\text{h}$
- size of wall louvre: 1000×1800

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The method of placing an order

Please make orders according to the following formula:

ZSR / 'R' / 'PM' / 'LxH' / 'RAL' / 'M' / 'W'

'R'	- method of adjusting louvre: R - manual C - manual control with pull rope S - adjustment using the round actuator Belimo (standard actuator is not equipped with louvre)
'PM'	- position of the control mechanism t - on back of the adjusting louvre* p. - on front of the adjusting louvre
'LxH'	- mounting hole size (width x height) in mm
'RAL'	- louvre color according to RAL palette (standard RAL9006*)
'M'	- material: OC -galvanized steel AL - aluminum KO - stainless steel (gat. 1.4301 or 1.4404)
'W'	- mounting option: W1 - visible assembly with screws through the holes in louvre front frame * W2 - invisible assembly with mounting brackets W3 - invisible assembly using screws, and an additional mounting frame (please specify the direction of the louvre's final installation: from the back or front between the slats)

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