

DESCRIPTION

Mutli-blade dampers PS with the backward blades are designed for use in ventilation and air conditioning systems. They can be mounted in the air-conditioning centers, in the walls or in the channels in order to adjust precisely the air flow. Due to the construction, which allows for high tightness, the dampers are perfect as closing devices.

The dampers meets the requirements of protection class 2 according to EN-1751.

They can be used in the systems with special requirements: cooperation with the recuperators, [multi-section dampers], protecting the heaters in the centre against frost, smoke during the fire.

Working temperature [-40°C to +90 °C].

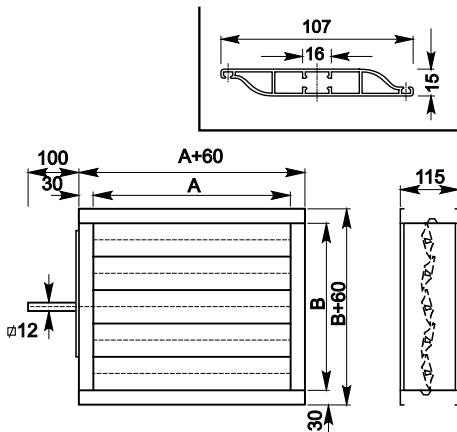
The PS dampers is recommended especially for the air-handling units.

**Material**

The shutter dampers is made of 4 types of profiles of the hardened aluminium extrusions: vertical frame, horizontal frame, blades, and an actuator brackets. The blades are joined with polypropylene bearings and gears. The drive mechanism is built into the profile (vertical frame). The plasticized PVC seals provide an airtight joint between blades. All the damper parts meet environmental class requirements. The materials from which the damper is constructed can be separated for recycling.

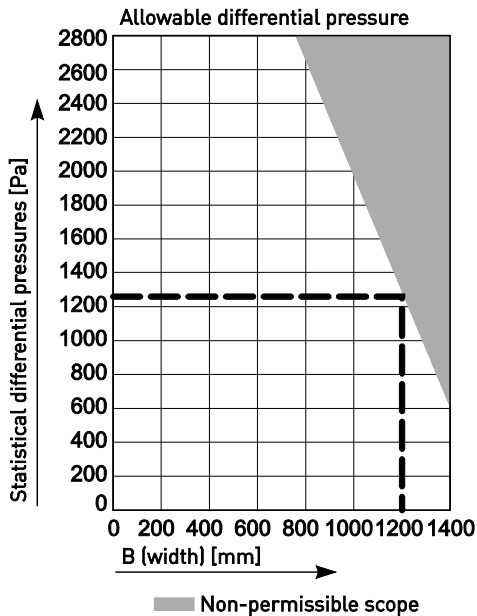
Finishing

Aluminum extrusions makes it possible to achieve a high level of precision workmanship and assembly, thus ensuring good air tightness in the fully closed position and a small resistance to flow in the open position. The built-in drive system enables the damper to be completely isolated. In addition, a dedicated aluminum bracket allows a manual control mechanism or an actuator to be mounted. Thanks to the special AL profile the damper can be divided into vertical sections and extended horizontally up to the following dimensions: A - max. 3000 mm; B - max. 2510 mm.

DIMENSIONS

Typical dimensions

B height [mm]	A width [mm]								
	300	400	500	600	700	800	1000	1200	1400
	Approximate weight [kg]								
310	3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0
410	3.5	4.0	5.0	5.5	6.0	7.0	8.0	10.0	11.0
510	4.0	5.0	6.0	6.5	7.0	8.0	9.0	12.0	13.0
610	5.0	5.5	6.5	7.5	8.0	9.0	11.0	13.0	15.0
710	5.5	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0
810	6.0	7.0	8.0	9.0	10.0	11.0	13.0	16.0	18.0
1010	7.0	8.0	10.0	11.0	12.0	13.0	16.0	19.0	22.0
1210	8.0	10.0	11.0	13.0	14.0	16.0	19.0	22.0	25.0
1410	9.0	11.0	13.0	15.0	16.0	18.0	22.0	25.0	29.0

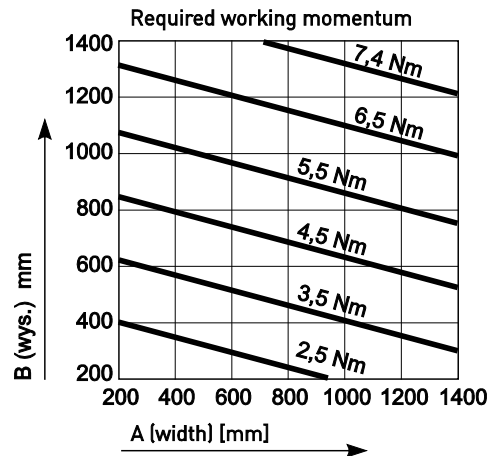
Dampers in larger sizes are made with the division into smaller fields.

General information

Symbols

- V [m/s] airflow velocity
P [Pa] air pressure
α [°] opening angle

Drive

- 1 - damper with an actuator
- 2 - damper with manual control mechanism
- 3 - damper adapter for use with actuator



Other sizes as well as multi-section unit are available on request, which has to be indicated in your order.

Note: The design of the aluminum blades was registered as a property of producer at the Polish Patent Office in 1995.

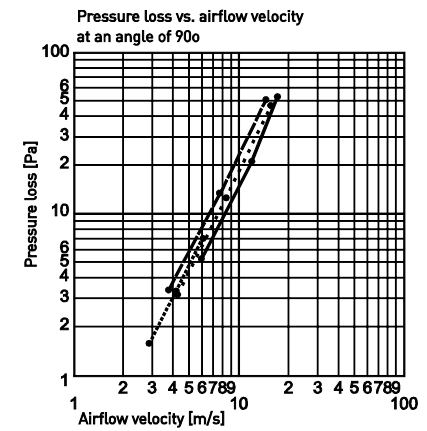
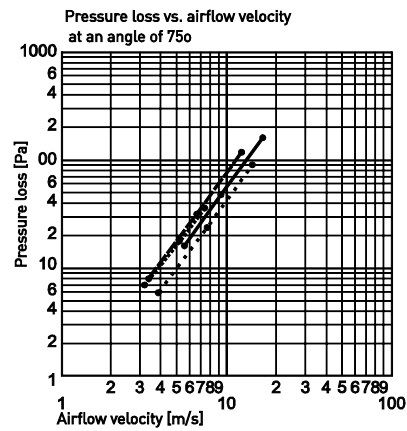
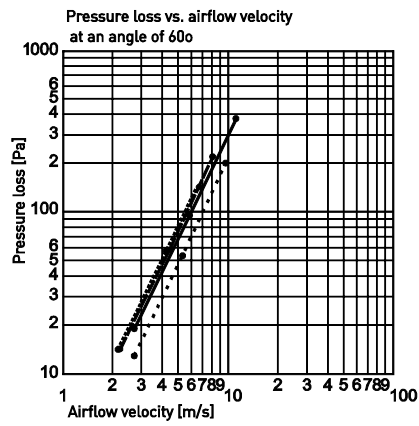
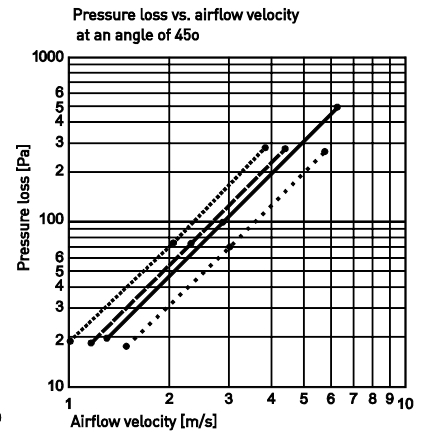
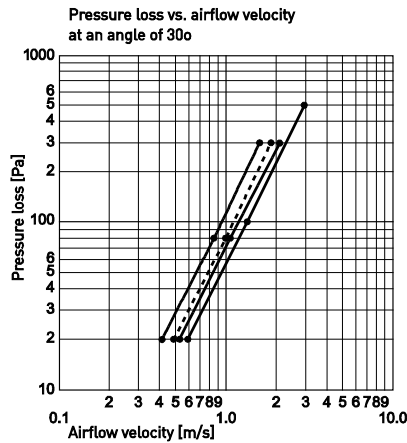
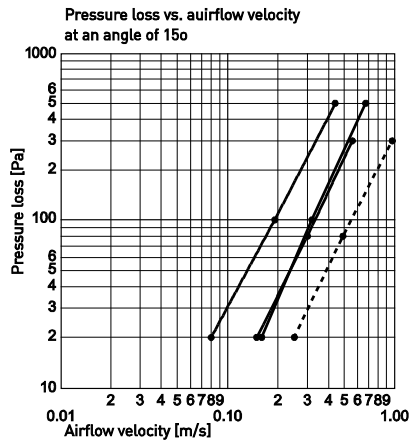
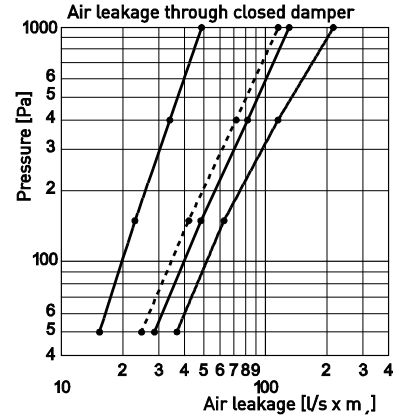
We can make each dimension A in the range **200 - 2000 [mm]**.

Due to the width of the blade **100 [mm]** recommended height is: **$B = n \times 100 + 10$ [mm]**.

Exemplary data

- damper 1200x1200
- damper 800x800
- damper 500x500
- damper 300x300

* refers to the angle of the lamels opening (shutters) in the throttling valve



**PRODUCT SYMBOLIC DESCRIPTION - HOW TO ORDER****PSI - A × B - WW - TN - KL**

example:

PSt-400×410-W0-T2-A2

- I** insulation of damper's blades*
 - **without insulation foam**
 - t insulated by insulation foam
- A** width (internal) [mm]
- B** height (internal) [mm]
- W** number of damper's partitions per width (0-none)*
- N** damper's drive
 - 1 - with actuator
 - 2 - manual operator**
 - 3 - prepared for actuator using
- KL** tightness class acc. to EN 1751*
 - A2 - casing: A, blades: 2**
 - B2 - casing: B, blades: 2

** optional values - lack of them causes application of default values*