

PJB

CIRCULAR SINGLE-BLADE DAMPER



Description:

A circular single-blade damper used for airflow control or closing. Controlled manually or by an electric actuator.

Intended Use

Single-blade dampers are used for airflow control or closing in circular ventilation ducts. Operating temperature: -20 °C to +90 °C, (+50 °C for the actuator version).

Design

Damper: galvanised sheet steel S0 or sheet stainless steel (1.4301) SN

Mechanism elements: moulded from galvanised steel or stainless steel.

Normally – no flanges, adjusted for connection with SPIRO ducts.

Upon special request, we can manufacture the following dampers:

- Adjusted to other types of connection in a version including external insulation
- In a version with a rubber gasket at the connection
- In an airtight damper version (a gasket on the baffle).

The device holds hygiene certificate no. HK/B/1514/01/2012.

Manufacturing versions

Type:

- **PJB** – Control damper (a baffle without a gasket),
- **PJB-U** – Shut-off damper (a baffle with a gasket).

Drive:

- **T1** – Damper with an actuator,
- **T2** – Damper with a manual mechanism
- **T3** – Damper with an extended axle (for the actuator installation)

Dimensions

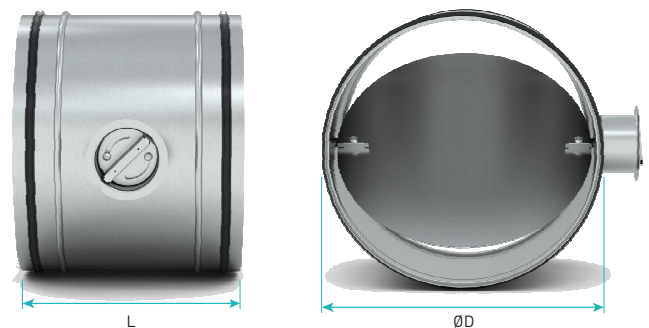


Figure 1. PJB damper dimensions.

Table 1. Types of actuators and the net surface area for the PJB damper in a fully open position.

DN [m m]	øD [mm]	L [mm]		A [m ²]	Weight [kg]
		M. manual	Actuator		
80*	78	170	260	0.004	0.7
100	98	170	260	0.007	0.9
125	123	180	260	0.011	1.1
160	158	180	260	0.019	1.4
200	198	220	285	0.03	1.8
250	248	220	285	0.048	2.3
315	313	240	320	0.077	3.1
355	353	300	380	0.098	4.3
400	398	300	380	0.124	4.9
500	498	400	410	0.195	6.6

* Available in a galvanised steel version only

Note: the parameters given in the table apply to the version -U (a baffle with a gasket)

Actuator minimum: **4 Nm**, e.g. Belimo LM24A (without a spring) or LF24 (with a spring)

Actuator minimum: **10 Nm**, e.g. Belimo NM24A (without a spring) or NF24A (with a spring)

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AIRFLOW CONTROL AND DISTRIBUTION

SO

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Technical Data

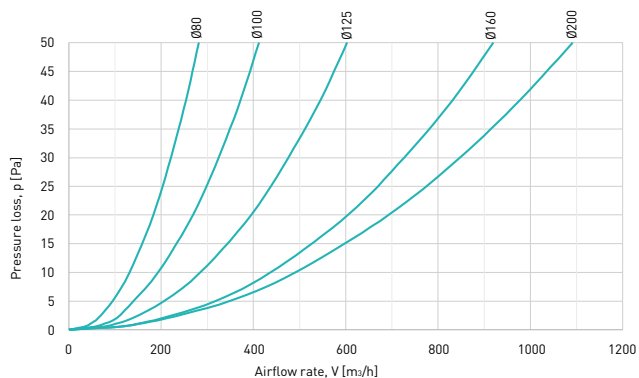


Chart 1. Pressure loss in PJB damper (in a fully open position).

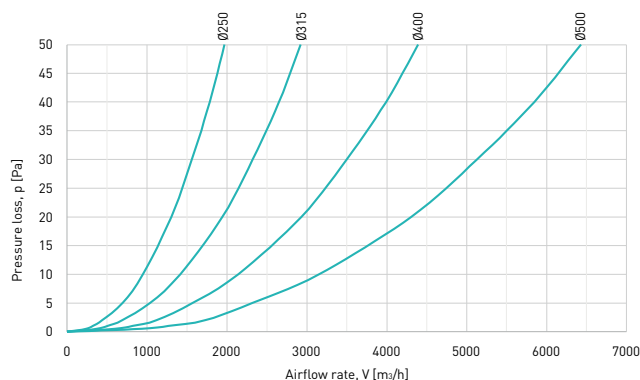


Chart 2. Pressure loss in the PJB damper (in a fully open position).

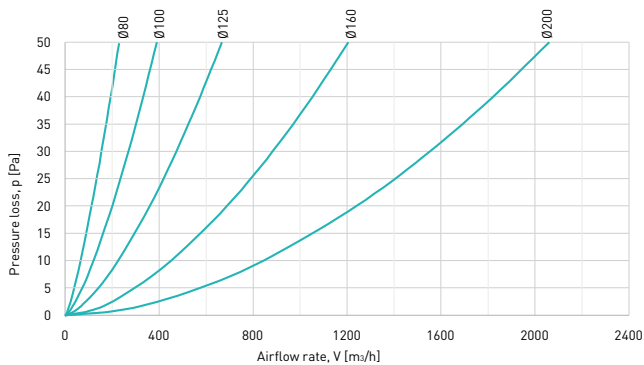


Chart 3. Pressure loss for the PJB-U damper (in a fully open position).

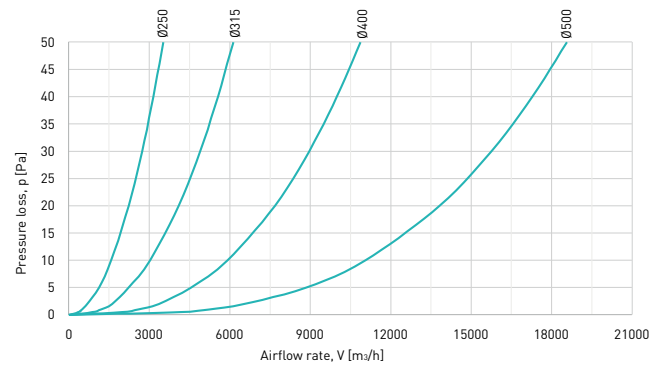


Chart 4. Pressure loss for the PJB-U damper (in a fully open position).

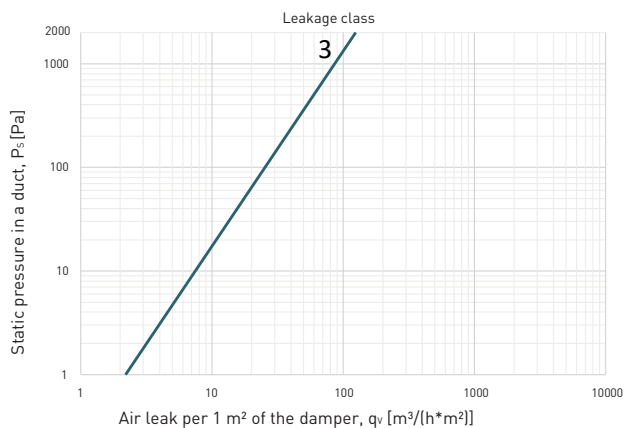


Chart 5. Air leaks through the PJB-U damper baffle (in a fully closed position).

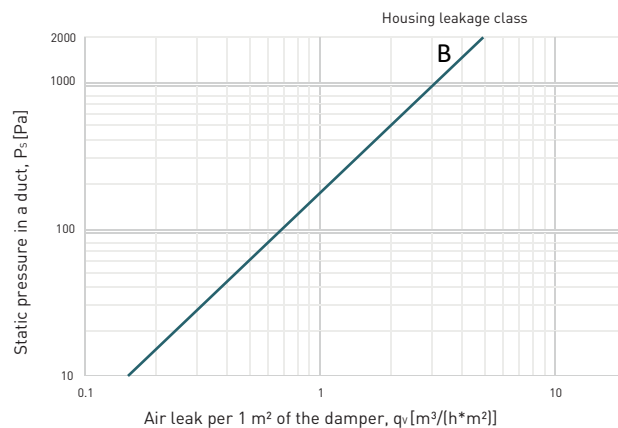


Chart 6. Air leaks through the PJB-U damper housing (in a fully closed position).

PJB – Single-blade dampers

When ordering, please provide information as follows:

PJB - <S> - <D> - T<N> - <P> - <G> - <KL>

Where:

S	Seal*
	<p>None – A baffle without a gasket</p> <p>U – A baffle with a gasket</p>
D	Damper diameter [mm]
N	Drive type*
	<p>1 – With an actuator</p> <p>2 – Manual mechanism</p> <p>3 – For an actuator</p>
P	Material*
	<p>S0 – Galvanised steel</p> <p>SN – Stainless steel</p>
G	Connection seal*
	<p>None – No gaskets</p> <p>UP – Gaskets on the connections</p>
KL	EN 1751 leakage class*
	<p>CX – Housing: C, baffle: none (a baffle without a gasket)</p> <p>C4 – Housing: C, baffle: 4 (a baffle with a gasket)</p>

* Optional values – if not specified, the default values will be used

Example of product marking: **PJB-200-T2-CX**