Description

Multi-leaf dampers are used to regulate the air flow rate. The lamellas open oppositely.
Drive types:
- using a manual mechanism (PWR)
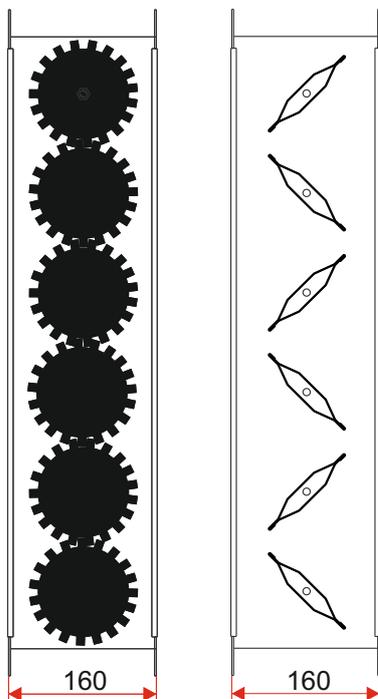- using an round actuator (PWE)

Dimensions and workmanship

The dimensions of the dampers are selected according to the size of the elements on which they are mounted.
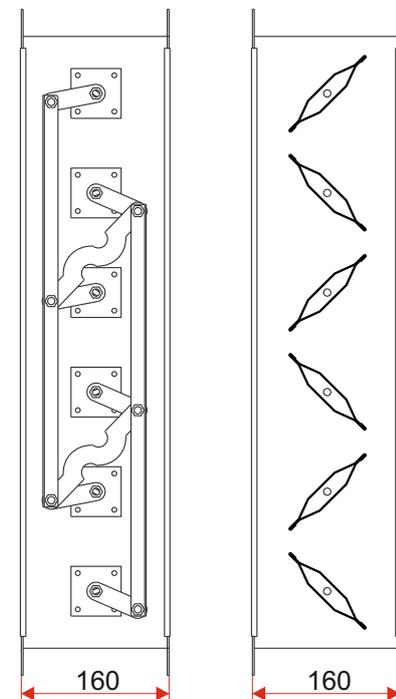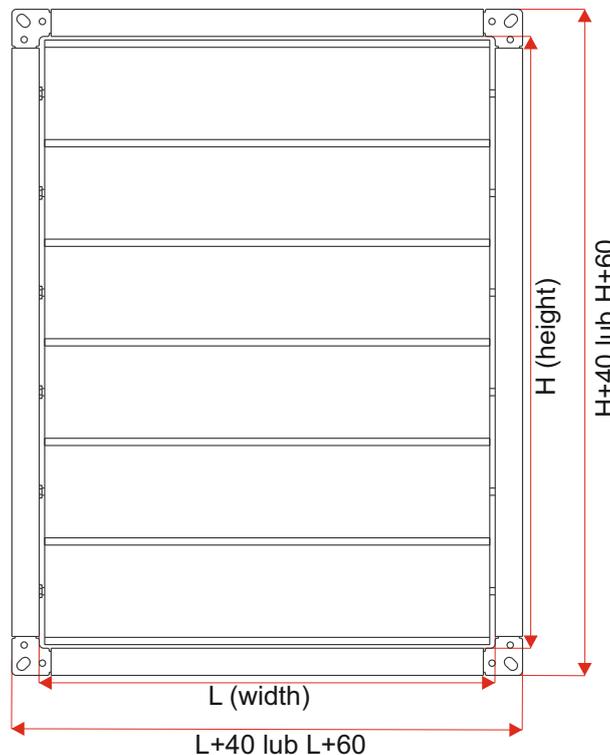Depending on the size, the dampers are made in two variants:

PWR - type A

When dimensions L<1000 and H<1000,
Drive - plastic gear wheels.

PWR - type B

When dimensions L≥1000 and H≥1000,
Drive - steel cables.

The PWR type A standard lamellas are an aluminum profile.
It can be made of galvanized or stainless steel sheet
(type 1.4301 or 1.4404).

The standard frame is galvanized duct profile type P-20 or P-30.
Upon special request can be used duct profile made of stainless steel
(type 1.4301 or 1.4404), type P-20 or P-30.

Due to the plastic elements used, the **PWR type A** damper operates
safely up to a temperature of max. 60°C

The width of the damper frame depends on the size of the ventilation duct:
- when L<1000 we assume L+40 and H+40
- when L≥1000 we assume L+60 and H+60

PWR type B dampers are made of
galvanized, aluminum or stainless steel sheet
(type 1.4301 or 1.4404).

PWR type B dampers due to the lack of
plastic elements, the PWR type B damper
can also be used for high temperatures.

Maximum dimensions:
L<2500 mm and H<2500 mm.

The damper with dimensions L≥1400
is divided internally.

How to adjust PWR

type PWR

manual mechanism

type PWE

electric actuator
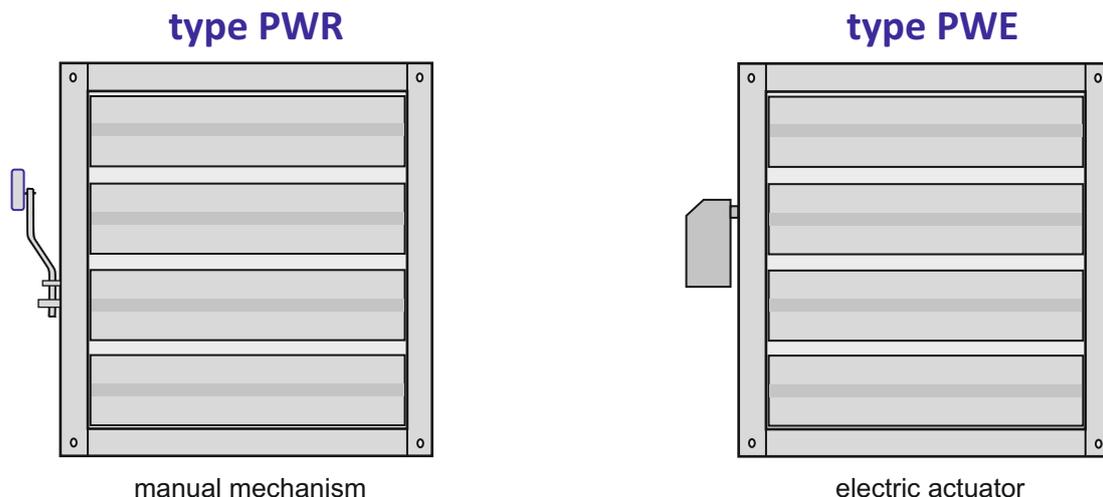
Technical data

Pressure loss and acoustic power depending on the performance and angle of the PWR damper

Markings for charts:
v [m/s] **-** air speed in the duct
LWA [dB(A)] - sound power level

Δ**P** [Pa]- pressure loss
A [m^2]- damper area LxH

EXAMPLE
• size of damper PWR (800x400)
• air volume flow Q=4000 m^3/h
• the angle of the damper 40˚

A=0,8x0,4=0,32 m^2
v=Q/(Ax3600)=4000/(0,32x3600)=3,47 m/s
Reading from the graph:
• air speed in the duct v=3,47 m/s
• pressure drop Δp=35 Pa
• acoustic power L$_{WA}$=57-5=52 dB
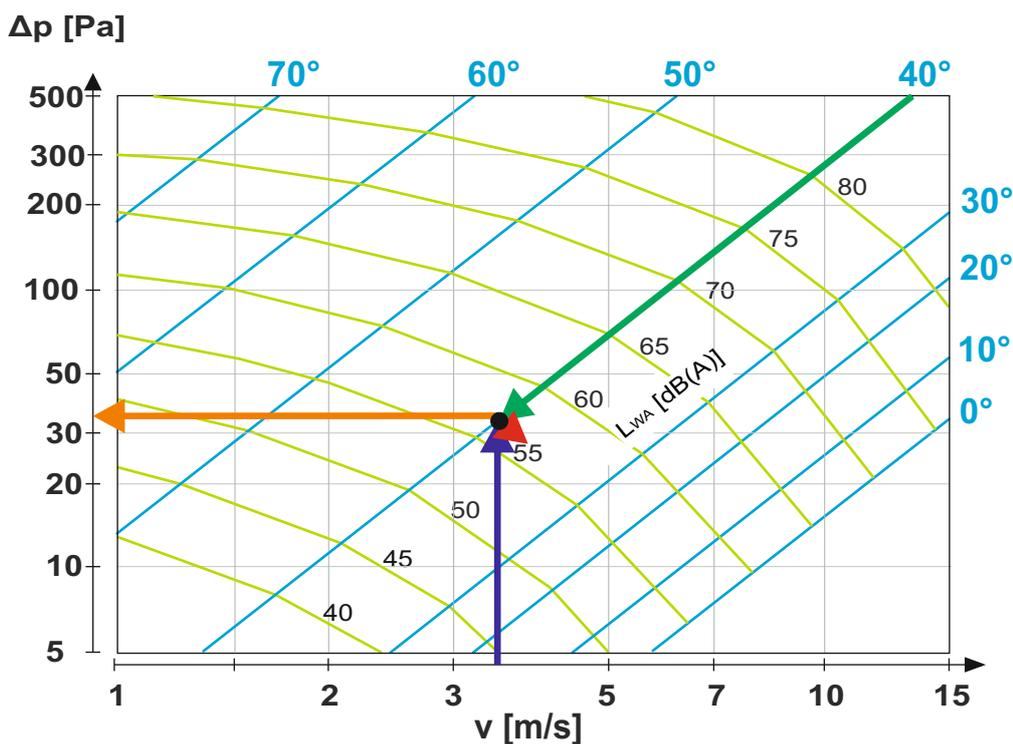
Effective area A[m^2]	A <0,1	0,1<A <0,3	0,3<A<1,0	A>1,0
L$_{WA}$ by correction [dB]	L$_{WA}$-15	L$_{WA}$-10	L$_{WA}$-5	L$_{WA}$

The method of placing an order

Please make orders according to the following formula:

Damper with manual control   **PWR / 'LxH' / 'RAL' / 'M'**

Damper with actuator control   **PWE / 'LxH' / 'RAL' / 'M'**

'LxH'   - damper dimensions (width x height) in mm
'RAL'   - damper color according to RAL palette (standard **no color***)
'M'   - material of frame:
         OC - galvanized steel*
         AL - aluminum
         KO - stainless steel / acid proof steel (type 1.4301 or 1.4404)

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