

Shut off Damper

air tight to DIN 1946, Part 4

Type AK



TROX[®] TECHNİK

Contents · Description

Description	2	Trox shut off damper type AK sizes 100 to 400 are used to shut off volume flows in air conditioning systems. The damper blade with its plastic seal gives air-tight shut off to DIN 1946, Part 4. Available with pneumatic or electrical actuators or manual operation.
Construction and Dimensions	3	
Nomenclature	5	
Aerodynamic data	5	
Order details	6	

Basic construction, optional lip seal



Raised edge both ends



Push over spigot on one end



Flange both ends



Construction · Dimensions

Design Features

Damper Blade

- For shut off of volume flows
- Air-tight to DIN 1946, Part 4
- Operation either pneumatic, electrical (available with spring return) or manual
- Maximum duct pressure 1500 Pa
- Maintenance free
- Operating temperature range 10 – 50 °C

Casing

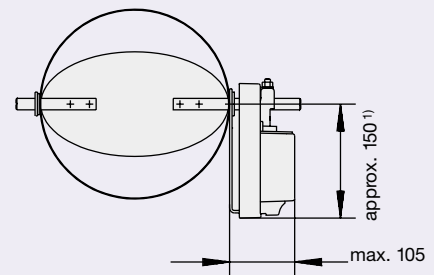
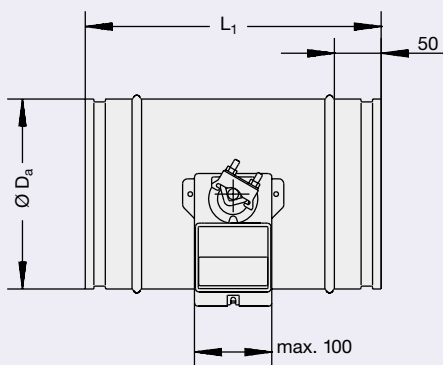
- Circular construction in 7 sizes
- Suitable for circular ducts to DIN 24 145 or DIN 24 146 with connection spigot for lip seal (lip seal can be fitted at the factory or on site)

- Optionally available with push over spigot one end, flange both ends to DIN 24 145, Part 1 or raised edge for quick locking system (clamping)
- Leakage flow rate to Class II, VDI 3803 or DIN V 24 194, Part 2

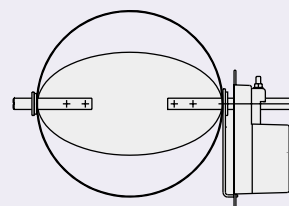
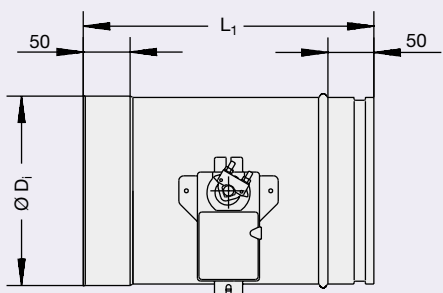
Materials

- Casing and attachments in galvanized sheet steel
- Plain polyurethane bearings
- Damper blade in galvanized sheet steel with thermo-plastic elastomer seal, TPE

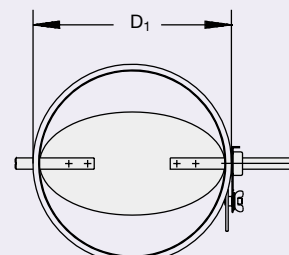
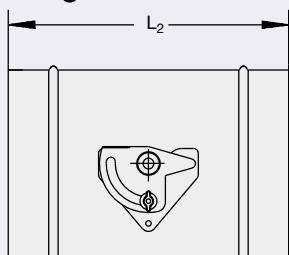
Basic construction, electric actuator



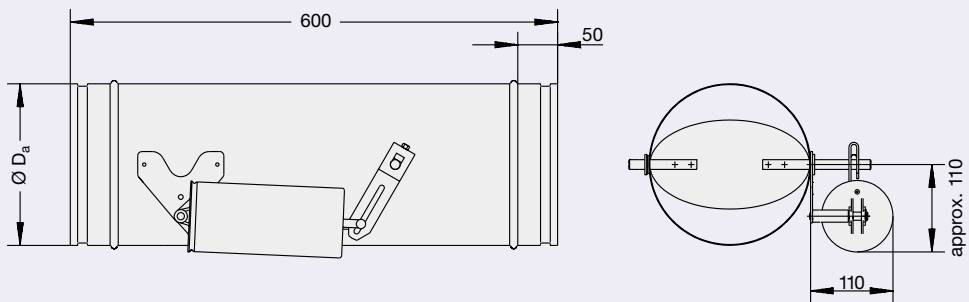
Push over spigot one end



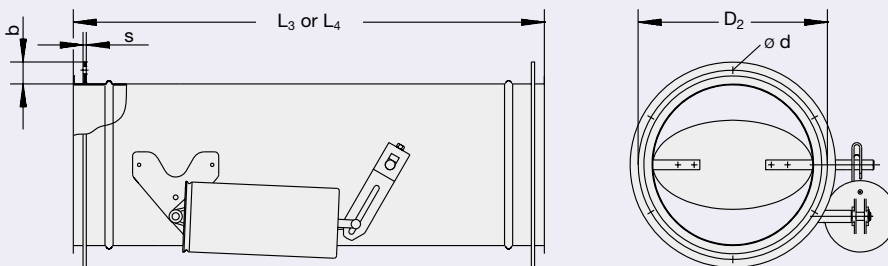
Raised edge both ends



Basic construction, pneumatic actuator



Flange both ends



- 1) For spring return actuator maximum 195
- 2) For electric or manual control
- 3) For pneumatic control
- 4) n = number of flange holes

Table 1: Dimensions in mm

Size	ØD _a	ØD _i	ØD ₁	ØD ₂	L ₁	L ₂	L ₃ ²⁾	L ₄ ³⁾	b	s	Ød	n ⁴⁾
100	99	100	111	132	310	298	290	580	25	3	9.5	4
125	124	125	136	157	310	298	290	580	25	3	9.5	4
160	159	160	171	192	310	298	290	580	25	4	9.5	6
200	199	200	211	233	310	298	290	580	25	4	9.5	6
250	249	250	261	283	400	388	380	580	25	4	9.5	6
315	314	315	326	352	400	388	380	580	30	4	9.5	8
400	399	400	411	438	400	388	380	580	30	4	9.5	8

Table 2: Weight in kg

Size	AK without -FL/-BK			AK with -FL/-BK		
	elec.	man.	pneu.	elec.	man.	pneu.
100	2.7	1.2	3.3	3.3	1.8	3.9
125	3.0	1.5	3.6	3.6	2.1	4.2
160	3.4	1.9	4.2	4.5	3.0	5.3
200	4.1	2.6	5.1	5.5	4.0	6.5
250	5.1	3.6	6.1	6.8	5.3	7.8
315	6.6	5.1	7.2	9.7	8.2	10.3
400	8.6	7.1	9.4	12.5	11.0	13.3

Nomenclature · Aerodynamic Data

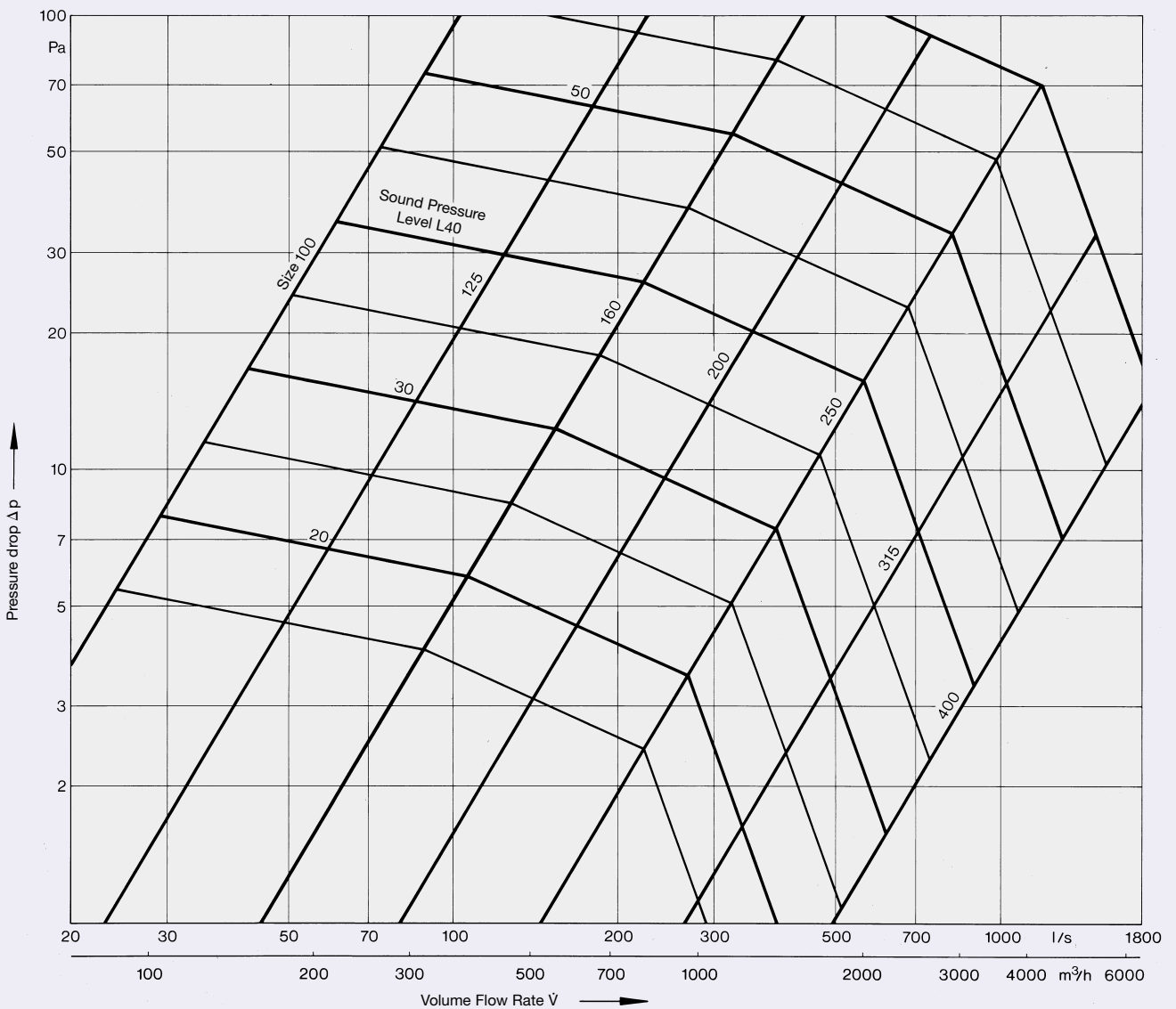
Nomenclature

L in dB(A): Flow regenerated noise: A weighted sound pressure level (re $20 \mu\text{Pa}$) determined for discharge air side, in a reverberant room less 8 dB room attenuation, (damper blade open)

\dot{V} in l/s or m^3/h : Volume flow rate

Δp in Pa: Pressure drop

1 Pressure drop and flow regenerated noise, damper blade open



Order Details

Specification

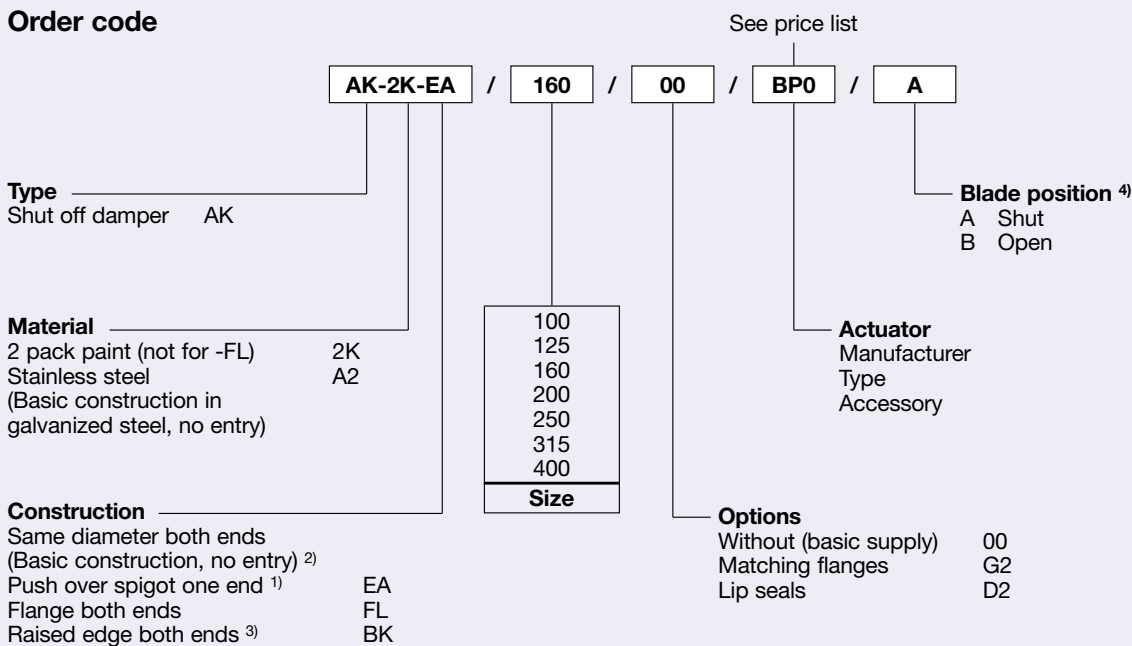
Circular construction damper for shut off of volume flows in air conditioning systems, can be used for duct pressures of up to 1500 Pa. Comprising casing with damper blade air-tight to DIN 1946, Part 4 and factory fitted actuators. Suitable for circular ducts to DIN 24 145 or DIN 24 146 with same spigot diameter both ends, with inlet spigot for lip seal or push over spigot one end. Available with raised edge both ends for quick locking system-clamping (by others), or with flanges to DIN 24 154, Part 1.

Casing-leakage flow rate to Class 11, VDI 3803 or DIN V 24 194, Part 2. Damper control either pneumatic, electric or manual.

Materials:

Casing and attachments in galvanized sheet steel. Damper blade with thermoplastic elastomer seal, plain polyurethane bearings.

Order code



- 1) With spigot opposite end
- 2) With spigots having lip suitable for sealing system
- 3) For quick locking system-clamping
- 4) Blade position on failure of control signal
(no entry for manual control, and drive open, drive shut actuators)
pneumatic: without compressed air
electric: without voltage (spring return)
modulating control actuators: Control voltage 0VDC (24AV AC available)

Order example

Make: TROX
Type: AK - 2K - EA / 160 / 00 / BP0 / A