

Shut-off damper - square



Type
HF - AK-E-LD
Hermetic according to
DIN EN 1751, class 4
DIN 1946, part 4



HF - Shut-off damper | square



Advantages

- Tight closing in accordance with DIN EN 1751 – class 4 and DIN 1946-4 | airtight shut-off
- Wear-resistant spindle bearing is airtight
- Damper can be adjusted either electrically, pneumatically or manually
- Excellent suitability for chemically contaminated exhaust air

Application

- Shut-off, throttling, control of air flows in ventilation systems

Design

- Operating range max. +/- 2.000 Pa at 30 °C
- Nominal sizes from 100 x 200 to 2.450 x 2.015 mm
- Made of PPs as standard, PP / PP-EL-s / PVC / PE and other materials optionally available
- No metal parts in the air flow
- Damper blades in flow-optimized design, rotatably mounted in plastic bushings
- Damper housing on both sides with flange connection
- Manual or actuator operation
- Depending on the operation purpose, an "OPEN/CLOSED" function or a stepless adjustment in the range from 0 ° to 90 ° can be realized

Article code

AK-E-LD-.....-.....-.....

Shut-off damper square

Wide [mm]

Height [mm]

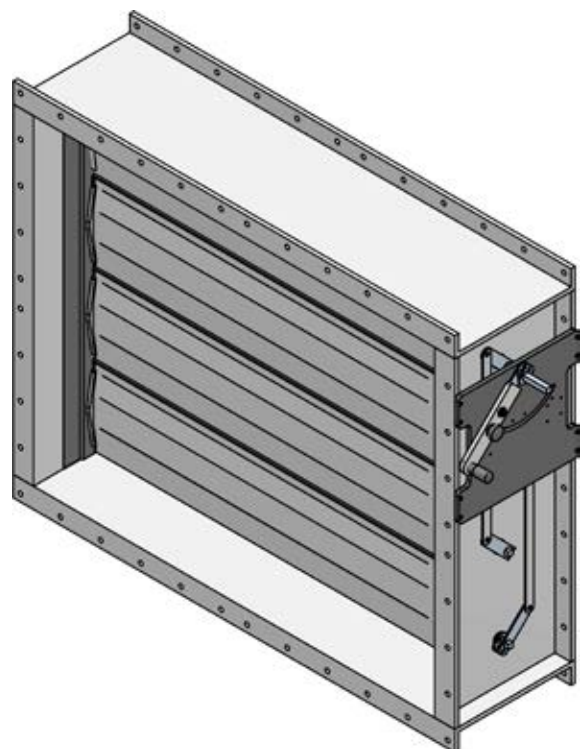
Material

Version:

KO = Console

MB = Motor operation

HB = Manual operation





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Specification

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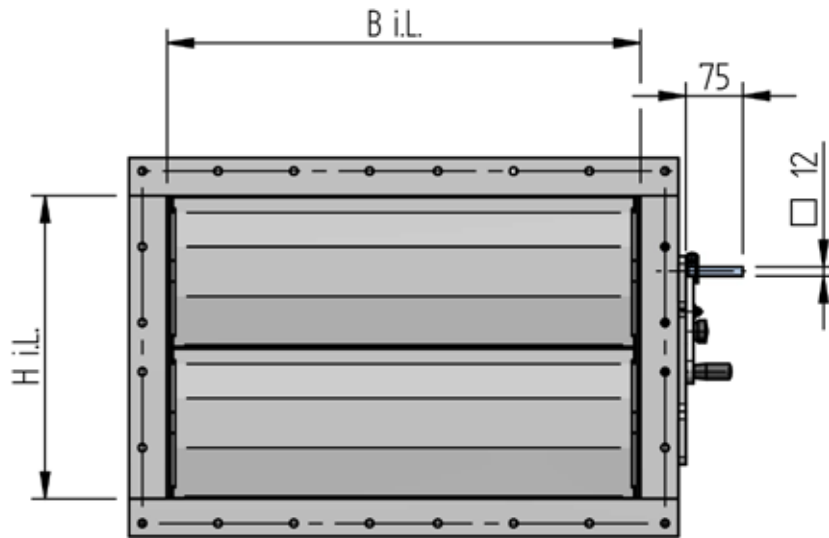
tight closing in accordance with DIN EN 1751 – class 4 and DIN 1946-4

Manufacturer	: HLU	
Type	: HF-AK-E-LD - ... - ... - ... - ..	
Drive type	: Manual operation, electric or pneumatic	
Material	: Housing	: ...
	Transmission shafts	: Stainless steel
	Drive linkage	: Stainless steel
Inside housing dimensions B / H	: ...	mm
Outside housing dimensions B / H	: ...	mm
Outside flange dimension B / H	: ...	mm
Flange version	: Thickness 10 mm	
Installation length	: 300 mm	
Number of fields	: ...	
	(For each field a damper actuator is required)	
Torque per field	: ...	Nm
Drive shaft	: square 12 x 12, 75 mm long	
Actuator	: Fabrication	: ...
	: Type	: ...

Construction characteristics:

Stable frame versions. Rigid , flow-optimised hollow body lamellas with profile seal. Made of flexible, specific thermoplastic material HF-TSP. The lamellas are controlled by external twist-secured rods in the opposite rotating direction. The shaft bearing is smoothly and wear-resistant in maintenance-free plastic sliding bearings.

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Dimensions / torques									
Height H i.L. [mm]	Quantity Blades	Width B i.L. [mm]						Quantity Blades	
		100 to 1200			1201 to 2450				
		100 - 400	401 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2450		
Separating plate		1 Field			2 Field				
	200	1	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	2
	400	2	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	4
	600	3	10 Nm	10 Nm	20 Nm	10 Nm	20 Nm	20 Nm	6
	800	4	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	8
	1000	5	20 Nm	20 Nm	30 Nm	20 Nm	30 Nm	30 Nm	10
	1200	6	20 Nm	20 Nm	30 Nm	20 Nm	30 Nm	30 Nm	12
	1400	7	20 Nm	30 Nm	40 Nm	30 Nm	40 Nm	40 Nm	14
1600	8	20 Nm	30 Nm	40 Nm	30 Nm	40 Nm	40 Nm	16	
		2 Field			4 Field				
1815	9 (5/4)	20 Nm	20 Nm	30 Nm	20 Nm	20 Nm	30 Nm	18	
		10 Nm	20 Nm	20 Nm	10 Nm	20 Nm	20 Nm	2*(5/4)	
2015	10 (5/5)	20 Nm	20 Nm	30 Nm	20 Nm	20 Nm	30 Nm	10	
		20 Nm	20 Nm	30 Nm	20 Nm	20 Nm	30 Nm	2*(5/5)	
		Divider							

Height or width dimensions > 2450 mm deviating from the grid are available on request.

Information for motor / manual operation:

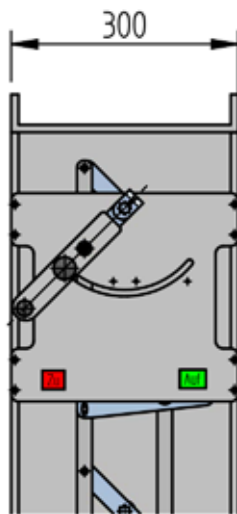
One actuator or manual adjustment device is required for each damper field. (Torques as mentioned in the grid)

Subject to change of dimensions and construction

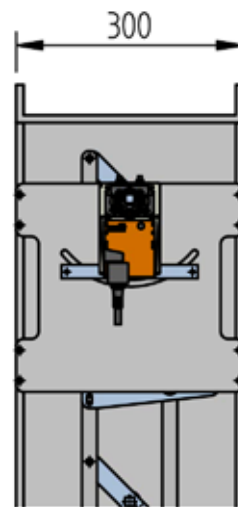


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Manual adjustment device | Actuator

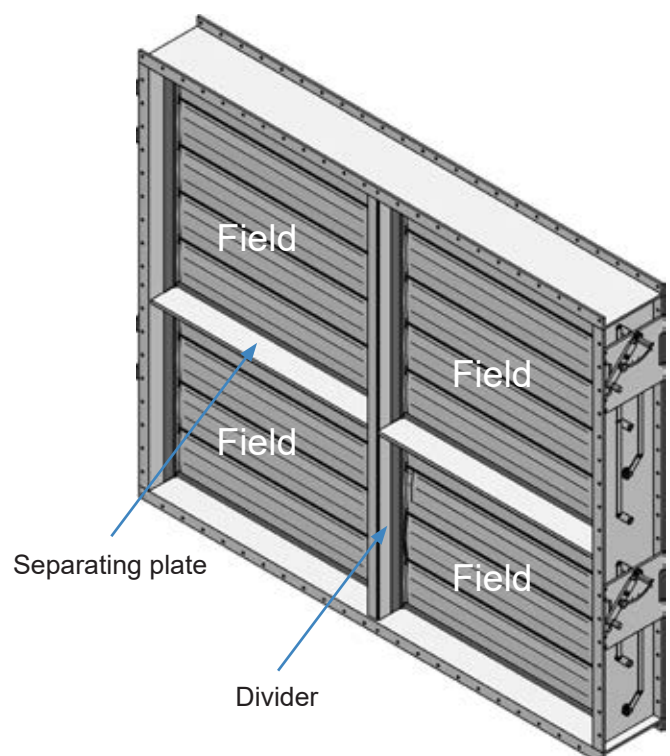


Manual operation



Motor operation

All commercially available actuator types can be supplied according to customer requirements. Belimo actuators are used as standard.



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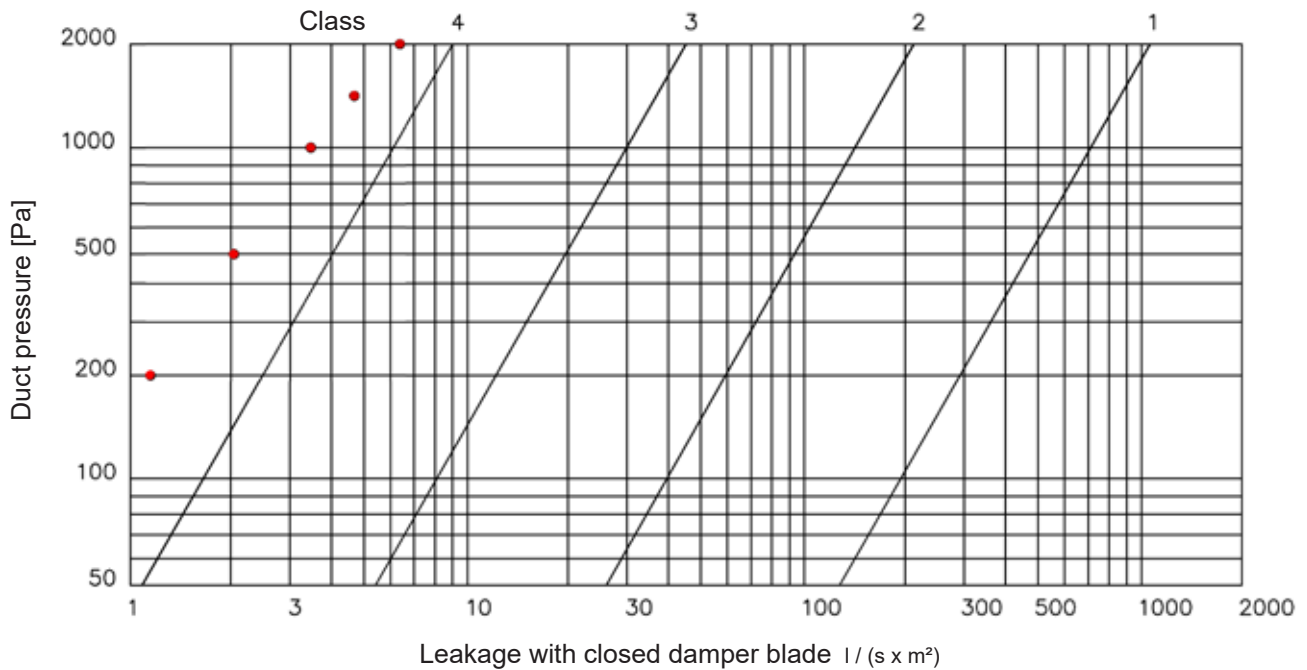

Leakage test shut-off damper

Test report according to DIN EN 1751

Type: shut-off damper square HF-AK-E-LD-625-400-PPs-HB		
Test pressure	Leakage volume flow	Leakage
200 Pa	18 l/min	1,2 l / (s x m ²)
500 Pa	32 l/min	2,1 l / (s x m ²)
1000 Pa	52 l/min	3,5 l / (s x m ²)
1500 Pa	70 l/min	4,7 l / (s x m ²)
2000 Pa	81 l/min	5,4 l / (s x m ²)

 Test surface: 0,25 m²

Classification of leakage with closed damper blade according to DIN EN 1751

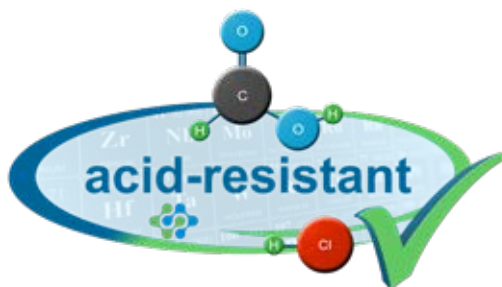


• = Measured values from HLU leakage test

Why plastic?

- Durable
- Corrosion-resistant
- Resistant to chemicals
- High ductility
- Wide spectrum of materials

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