4.5 Louver Valves

BerlinerLuft.

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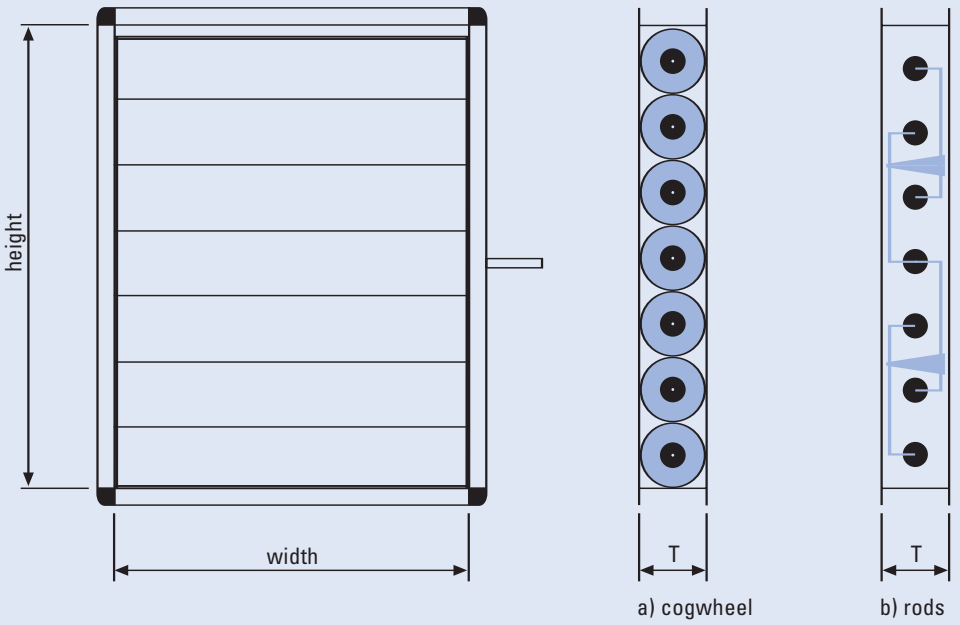
Louver valve JK

Product description

Louver valves are used for pressure or volume flow adjustment. Alternatively, they serve as end piece of an air duct, in order to avoid for instance cold air inflow when there is a system standstill. The louver valves are actuated by manual adjuster (HV) or by powered final control element (M). Depending on purpose steady or „open/close“ adjustment is possible within the range of 0° and 90°. The valve blades are connected to each other via cogwheel or rods. The valve blades move in the opposite direction from each other. The drive shaft is nearly centered. Above a valve height of 1,100 mm two shafts connected to each other are attached at a height of about one third of the actual height respectively. Arrangements varying from those mentioned above can be agreed upon. Building depth (T) depends on the type of louver valve and is 120 mm for a valve blade width of 100mm and 180 mm for a valve blade width of 165 mm. For available material combinations please refer to type overview and price lists. Except from the HT design there is a working temperature upper limit of 80°C.

Main dimensions and drive options



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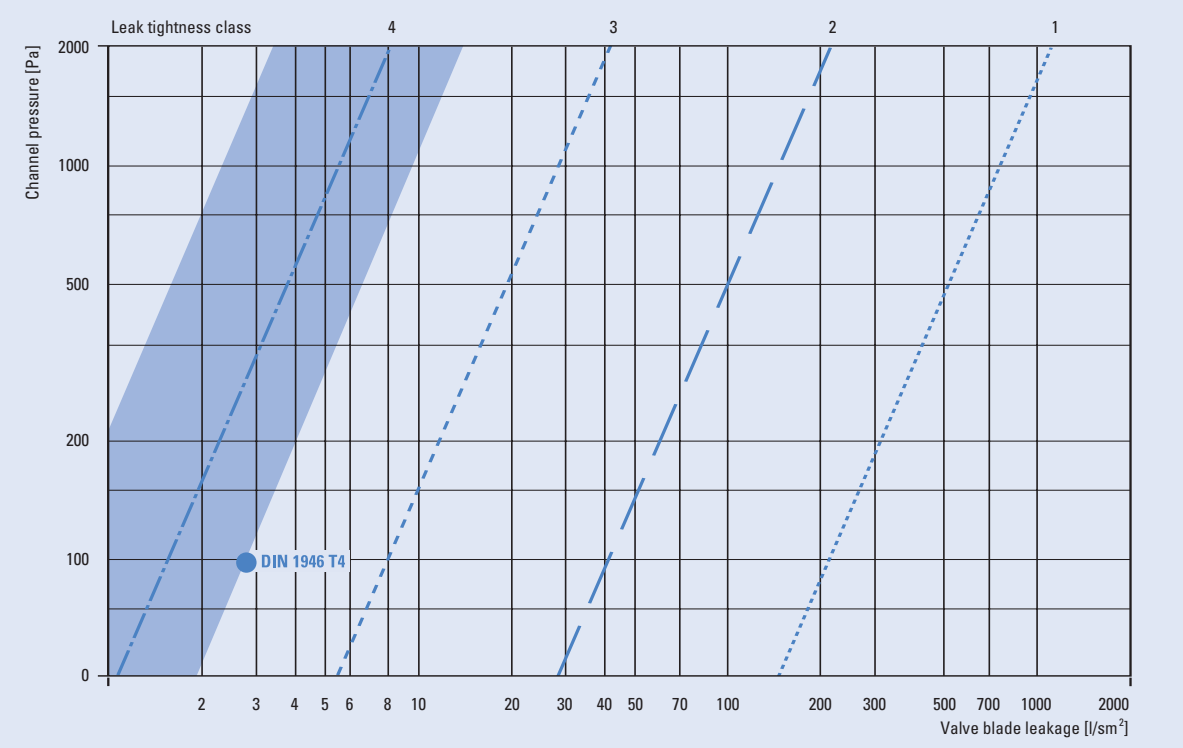
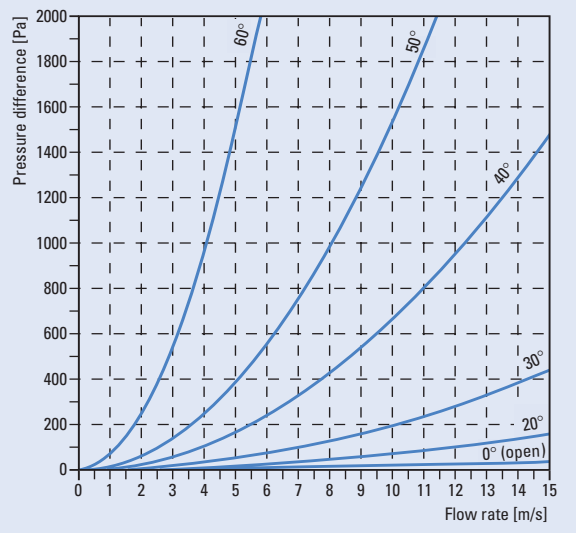
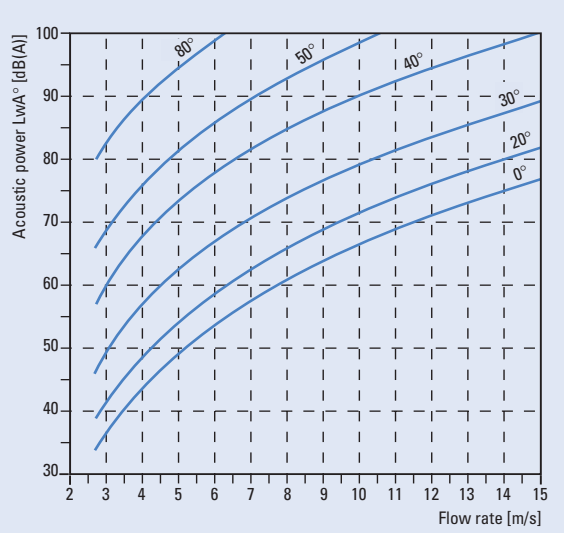
Leak tightness requirement according to EN 1751 and DIN 1946 T4



Pressure loss and flow noise [1)]





1) Approximate values valid for nominal sizes (refer to price tables), diagrams according to VDI 2081, unfavourable installation conditions tend to increase pressure loss and flow noise.

Correction: LwA = LwA° + K

w x h [m²]	0,04	0,06	0,1	0,2	0,4	0,6	1	2	4	8
K [db]	-14	-12	-10	-7	-4	-2	0	3	6	9

subject to modifications

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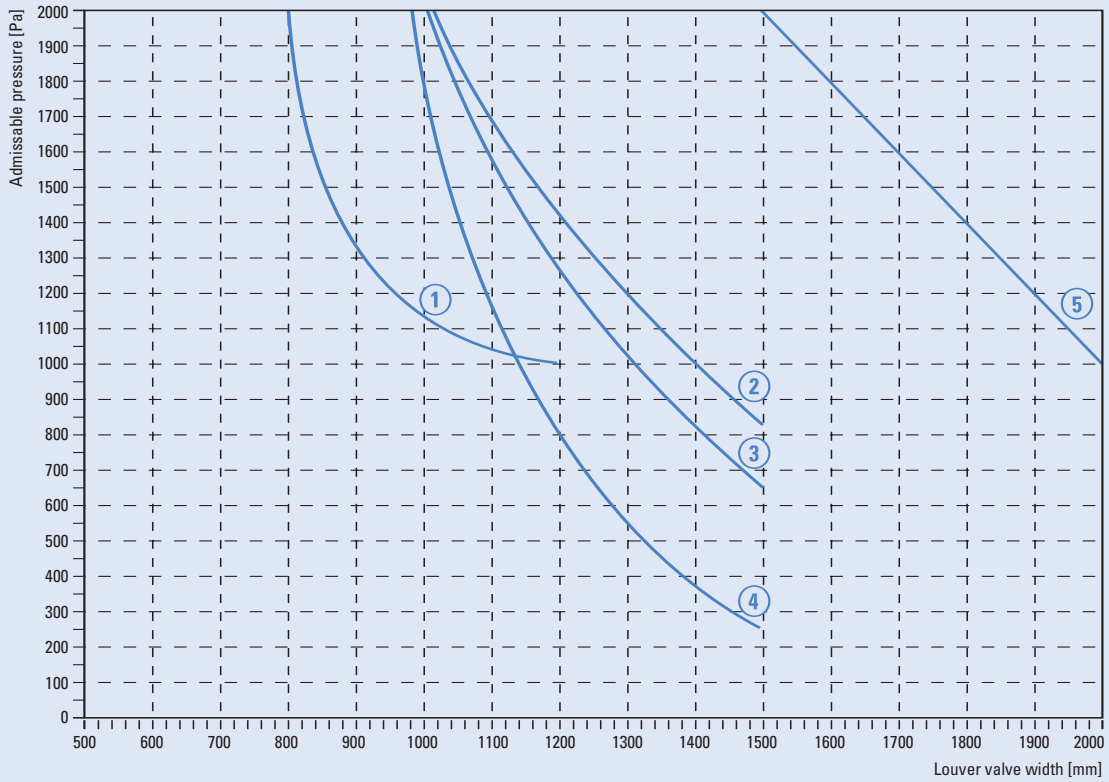
Maximum pressure load admissable depending on valve width



1) JK-A-SS 120
   JK-I- SS 120
2) JK-A-AA 120
3) JK-I- SA 120
   JK-I- AA 120
4) JK-A-SA 120 T4
   JK-A-AA 120 T4
5) JK-A-SS 180 T4
   JK-A-EE 180 T4

For JK-A-SS 180, JK-A-EE 180, JK-I-SS 180, JK-I-EE 180 applies:
pmax = 2000 Pa up to a width of 2000 mm.

4.5 Louver Valves

Overview of types, installation sizes and valve drives (as option)

louver valve	location of cogwheels/rods [1]	material combination frame/valve blade [2]	building depth in mm [3]	leak tightness class/heat resistance [4]	flange width in mm [5]	width x height (nominal sizes)	max. width (undivided) in mm [6]	max. height (undivided) in mm [6]	adjustment device attached (as option) for choice refer to [7] [8]	operating voltage in V [9]	torsional voltage in Nm [10]	drivedesigns [11]
JK	A	SS	120	4)	20	1200	1210	HV	M	230	5	F [11]	SR
		SS	180			2000	2490				10		
		AA	120			1500	1410				15		
		EE	180			2000	2490				20		
	I	SS	120		30	1200	1210			24	25		
		SS	180			2000	2490				30		
		SA	120			1500	1410				40		
		AA	120			1500	1410						
		EE	180			2000	2490						
	A	SS	180	T4		2000	2490						
		SA	120			1500	1410						
		AA	120			1500	1410						
		EE	180			2000	2490						
	G	SS	180			2000	2490						
		SS	180	4)		2000	2490						
		SS	180	HT		2000	2490						

JK- A- SA 120 T4- 30/ 1000 x 1210- HV ordering example

1) A: cogwheels external
I: cogwheels internal
G: rods (external)

2) S: Steel
A: aluminium
E: stainless steel

3) component depth 120 mm ⌗ lamella width 100 mm
component depth 180 mm ⌗ lamella width 165 mm

4) normal leak tightness requirements:
class 2 according to EN 1751
T4: increased leak tightness requirements
(must be stated!)
meet T4 according to DIN 1946 and class 3/4
according to EN 1751

HT: hight temperature
(range of application -40° bis 200°C)

5) flange width 20 mm or 30 mm

6) max. width / height (as information)

7) manual adjuster with locking device
alternatively

8) powered final control element

9) alternatively 24V or 230V

10) refer to type specific diagrams for
torsional moment required

11) F: spring return motor
(max. 15 Nm, SR available with 24V only)

SR: steadily adjustable

no data for „open/close“ mechanics

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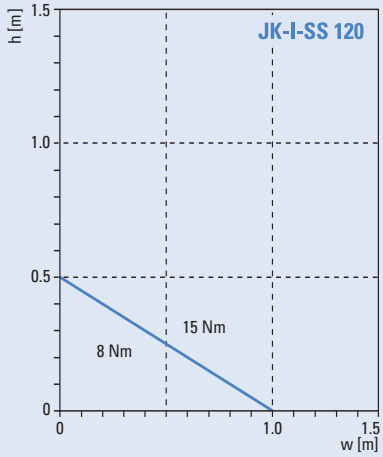
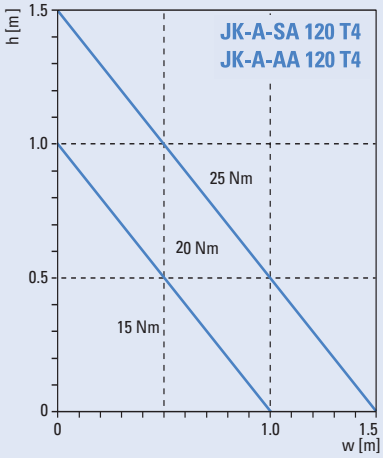
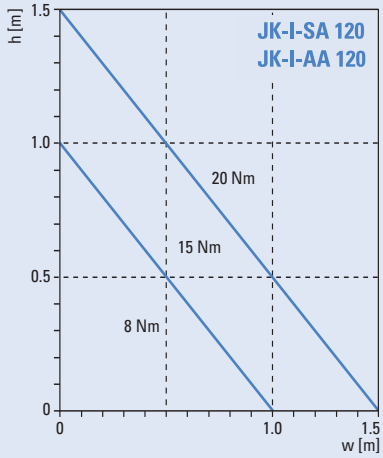
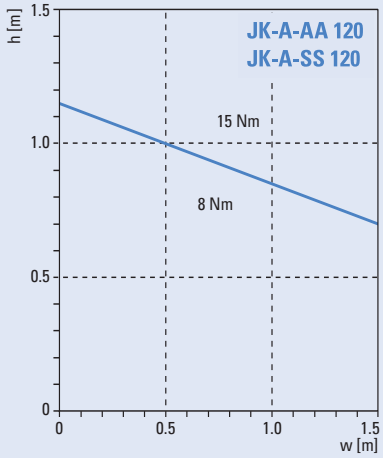
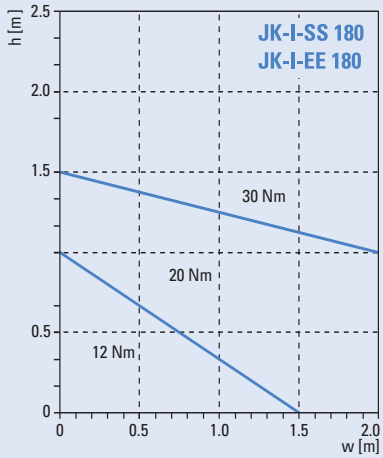
Torsional moment required (actuating force diagrams)

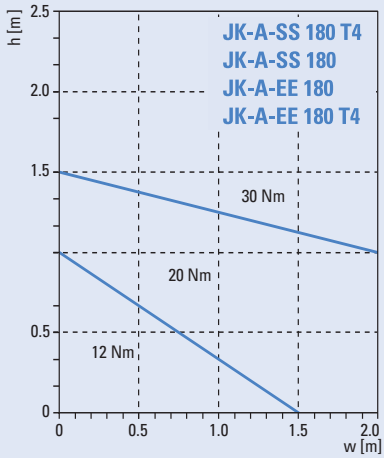












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