

Shutter Valve for the Difficult Applications

MH Koltek Valve

Application

MH Koltek valve is a manually or pneumatically operated valve, designed for use in the food, chemical, pharmaceutical and other industries where valves of sanitary design are needed.

Working principle

A PTFE shutter is operated by means of a handle or an actuator. A spring system presses the shutter against the inside cylindrical surface of the valve body thus ensuring complete tightness.

The air actuated valve can be fitted with *ThinkTop*[®] or a laterally fitted indication unit for remote indication of the valve position.

The manually operated valve can be fitted with laterally indication units (used for LKLA actuators).

The actuator for the valve comes in two versions, single acting or double acting. The single acting actuator operates with one main piston whereas the double acting actuator operates with two main pistons.

Standard design

The valve consists of a rigid body with an internal cylindrical bore and 2 or 3 ports for pipe connection. The two lids have guide rings or bearings for an internal shaft which supports and positions the shutter. The stainless steel handle or the actuator is fitted to turn the shaft.

The actuator consists of a system of cylinders and one or two main pistons interconnected with a toothed bar which interacts with a gear wheel on the valve shaft. The system is insensitive to pressure shocks in the valve.

The valve has welding ends as standard.

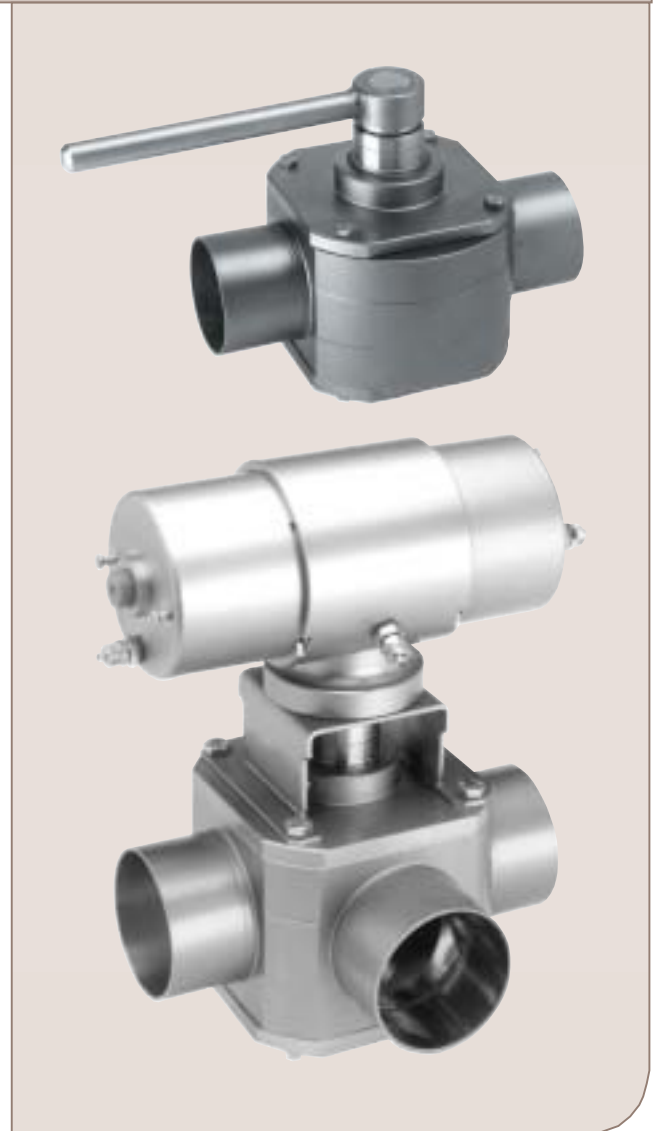


Fig. 1. MH52 with handle.

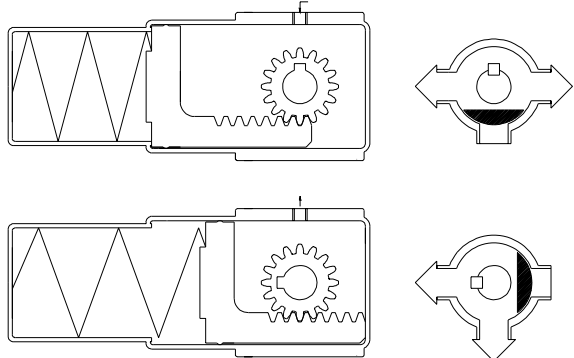
Fig. 2. MH53 with actuator, type KH631.

Actuator functions

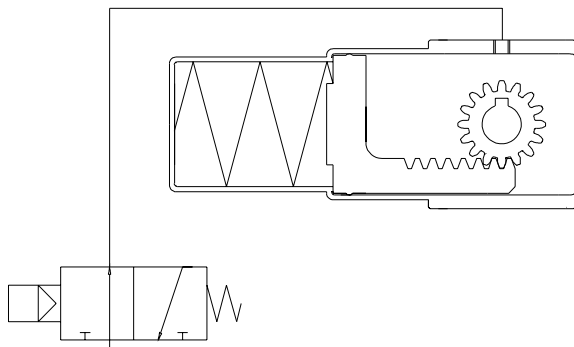
Actuator type 630:

- for 25 mm to 76.1 mm valves only
- two positions
- spring/air
- turning angle 1x90°

Sizes 25-51mm/DN25-50:

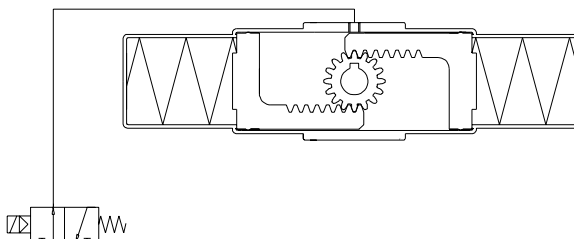
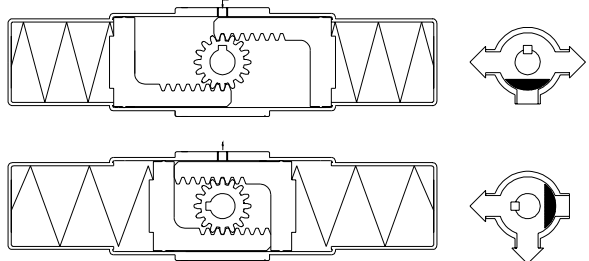


Pneumatic connections



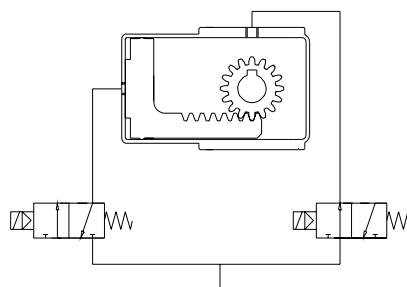
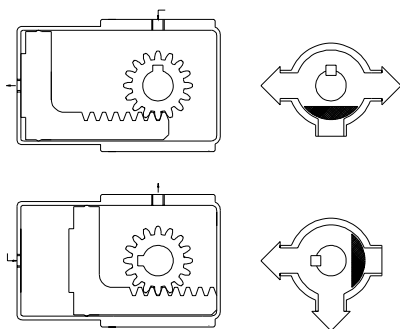
Sizes 63.5-76.1mm/DN65:

Double acting actuator



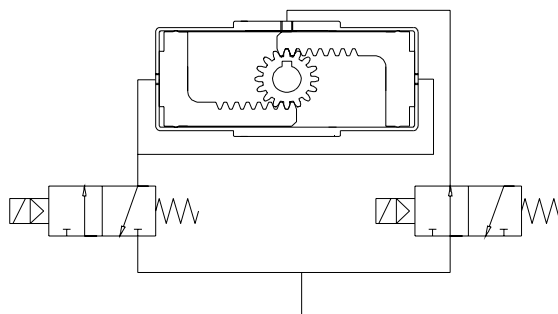
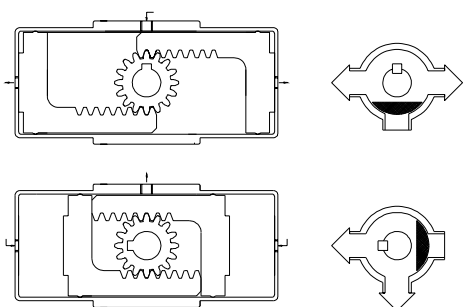
Actuator type 631:

- two positions
- air/air
- turning angle 1x90°



Sizes 89-101.6mm/DN80-100:

Double acting actuator

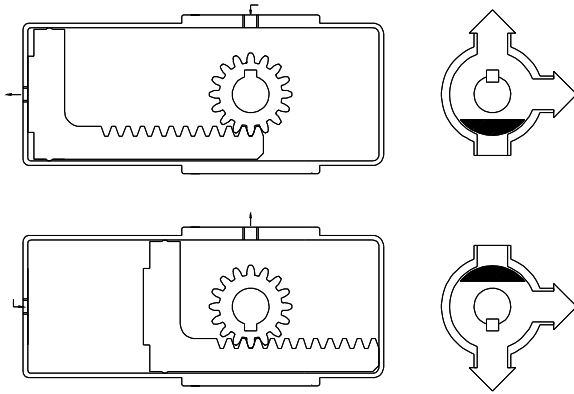


Actuator functions

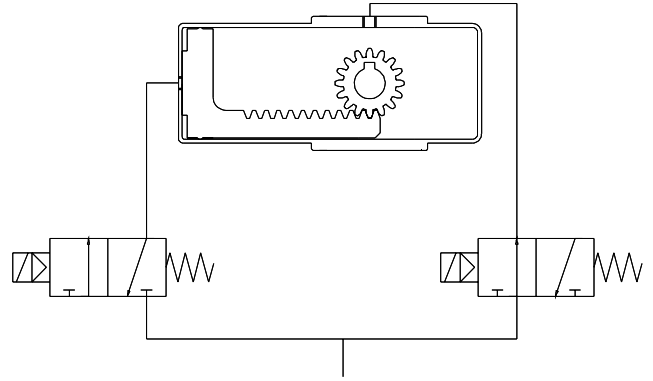
Actuator type 632:

- two positions
- air/air
- turning angle 1x180°

Sizes 25-76.1mm/DN25-65:



Pneumatic connections

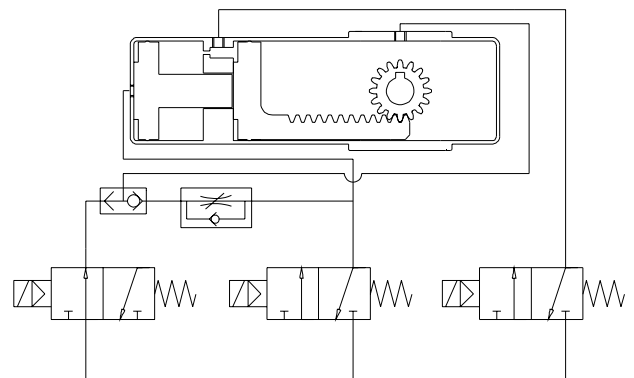
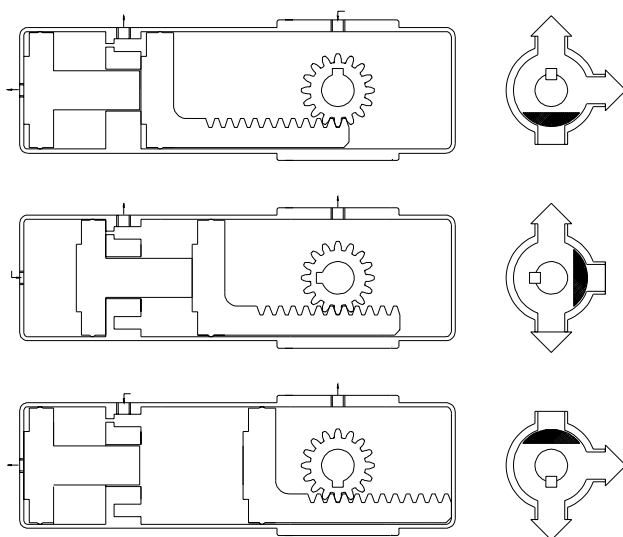


Sizes 89-101.6mm/DN80-100:

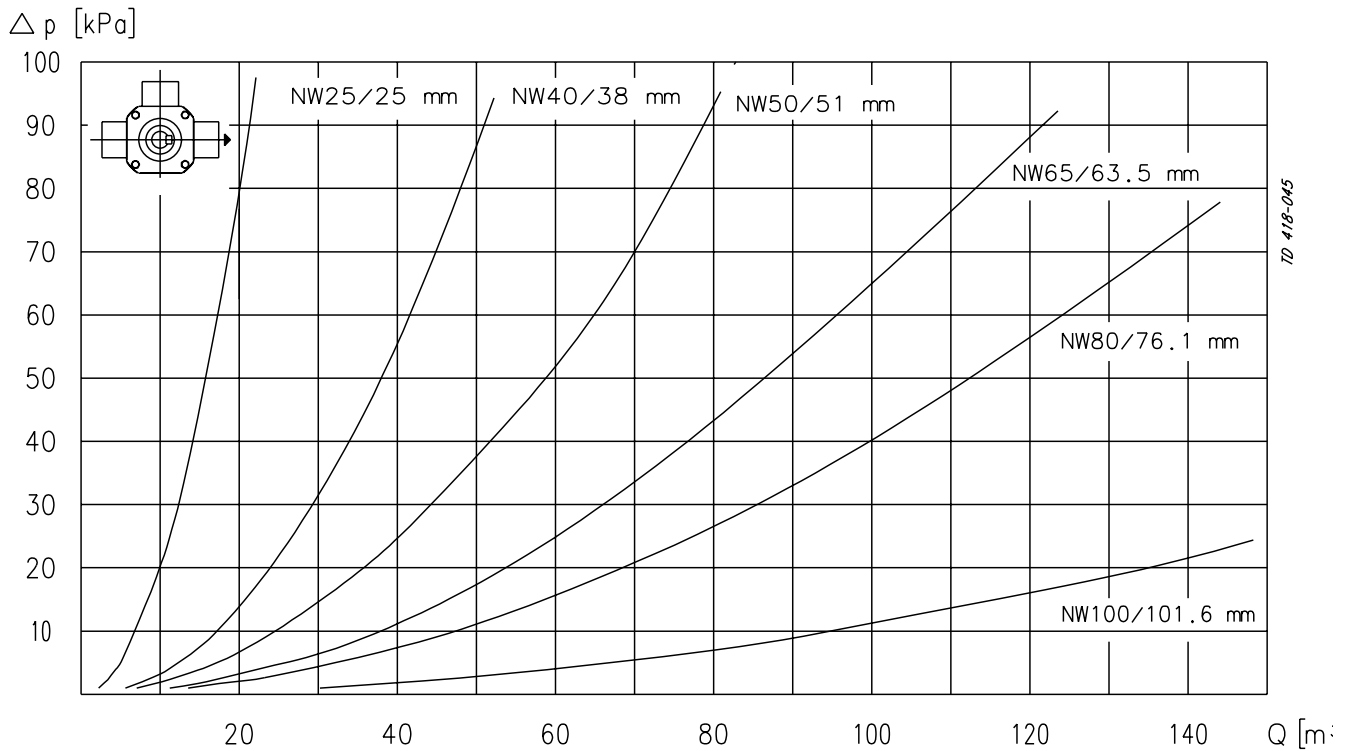
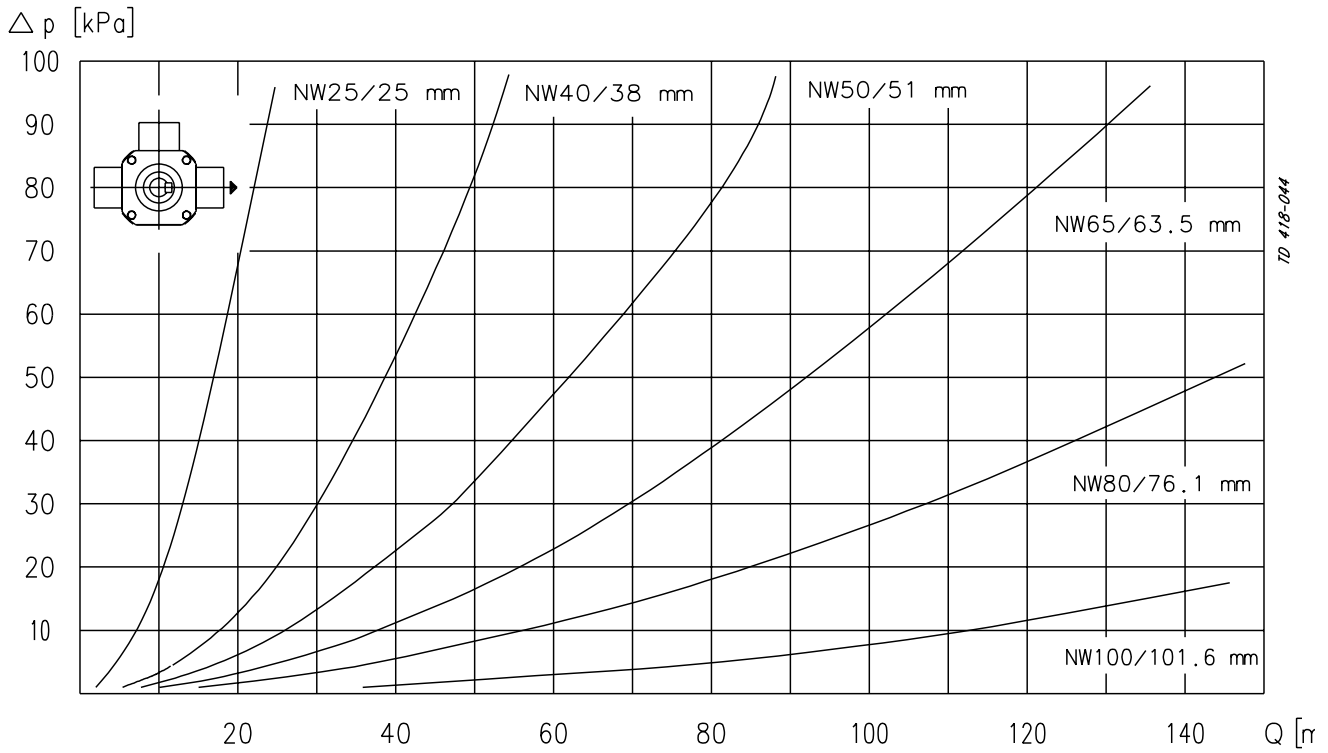
Double acting actuator.

Actuator type 633:

- three positions
- air/air
- turning angles 2x90°



Pressure drop/capacity diagrams



NOTE! For the diagram the following applies:
 Medium: Water (20°C).
 Measurement: In accordance with VDI 2173.

Dimensions (mm)

MH valves:

Size	25	38	51	63.5	76.1	101.6	25	40	50	65	80	100
	mm	mm	mm	mm	mm	mm	DN	DN	DN	DN	DN	DN
A ₁	116	149	161	179	204	292	116	150	161	204	272	292
B	65	90	102	118	137	195	65	90	102	137	174	195
OD	25.4	38.1	50.8	63.5	76	101.6	29	41	53	70	85	104
ID	22.1	34.8	47.5	60.2	72	97.6	26	38	50	66	81	100
t	1.65	1.65	1.65	1.65	2	2	1.5	1.5	1.5	2	2	2
E	42	56	62	70	80	117	42	56	62	80	107	117
G	55	70	82	105	110	155	64.5	80	82.5	100.5	115.5	130.5
K	130	130	180	180	235	330	130	130	180	235	330	330
M/DIN male							22	22	23	25	25	30
M/SMS male	15	20	20	24	24	35						
Weight (kg)	1.8	3.3	4.8	6.9	10.5	25.0	1.8	3.3	4.8	10.5	22.0	25.0

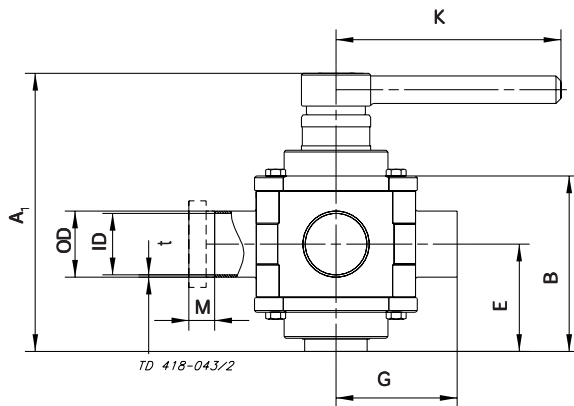
Actuators

Size	25mm	38mm	51mm	63.5mm	76.1mm	89mm	101.6mm
	DN25	DN40	DN50		DN65	DN80	DN100
A ₂	170	170	170	172	178	194	194
A ₃	233	260	273	290	315	369	389
H ₁ KH630	57	57	57	285	285		
H ₁ KH631	57	57	57	57	57	119	119
H ₁ KH632	95	95	95	95	95	194	194
H ₁ KH633	95	95	95	95	95	281	281
H ₂ KH630	326	326	326	285	285		
H ₂ KH631	119	119	119	119	119	119	119
H ₂ KH632	157	157	157	157	157	194	194
H ₂ KH633	243	243	243	243	243	281	281
H ₃	43	43	43	43	43	43	43

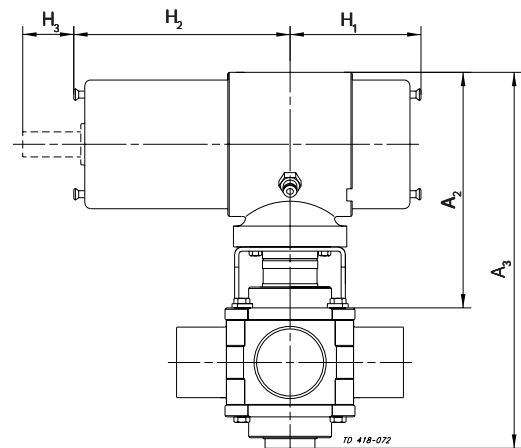
Caution, opening/closing time:

Opening/closing time will be affected by the following:

- The air supply (air pressure).
- The length and dimensions of the air hoses.
- Number of valves connected to the same air hose.
- Use of single solenoid valve for serial connected air actuator functions.
- Product pressure.



a. MH53 with handle.
Fig. 3. Dimensions.



b. MH53 with actuator, type KH631.

