

MAXIMATOR®

Operating Instructions

Air actuated valves 1500bars, 2500 bars, 4500 bars / 1/4", 3/8", 9/16"
and 7000 bars / 5/16"

1. Safety instructions:

Component operation and installation may only be carried out by skilled personnel. All statutory regulations of the BG [German Employers' Liability Insurance Associations] and other institutions must be complied with. Please, make sure to thoroughly study and observe these present Operating Instructions.

2. Function / Use:

MAXIMATOR® valves are exclusively designed for pressure-sealed shutting off of fluids and gases. Modifications of the valves are not permitted (e.g.: mechanical changes, welding, soldering, etc.). The valves are operated through pneumatic cylinders. 3/2-way pneumatic valves are recommended as drive units.

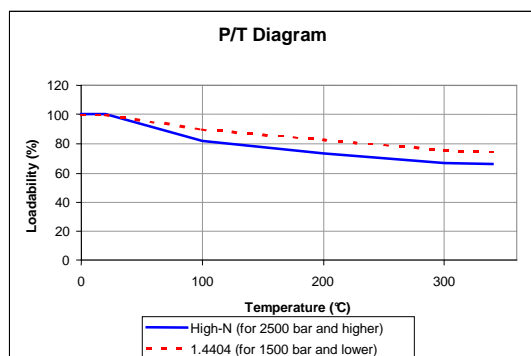
3. Technical parameters:

HP media: Only media included in our media resistance list may be employed. Any other media must be tested by us for compatibility with valve materials prior to use. Make sure to comply the respective statutory regulations when using inflammable, explosive or toxic media.

Drive media: Valve selection may only be performed with compressed air or an inert gas until a pressure of 10 bar.

Nature of load: MAXIMATOR® valves are designed for use under static loads. Use under dynamic loads will reduce the valves' life expectancy.

Media temperature: HP sealing: -50°C.....+150°C,
air drive: -30°C.....+80°C.
Max. pressure decreases with rising temperature. (cf. P/T Diagram)



4. Assembly:

Valve

The valves can be mounted at the body or air drive with fixing brackets. Fixing brackets for wall mounting are available as accessory parts.

Fixing brackets		
Actuator attachment	Material	Order No
KP 100	Steel galvanised	3770.2137
	Stainless steel	3770.2139
KP 160	Steel galvanised	3770.2138
	Stainless steel	3770.2140

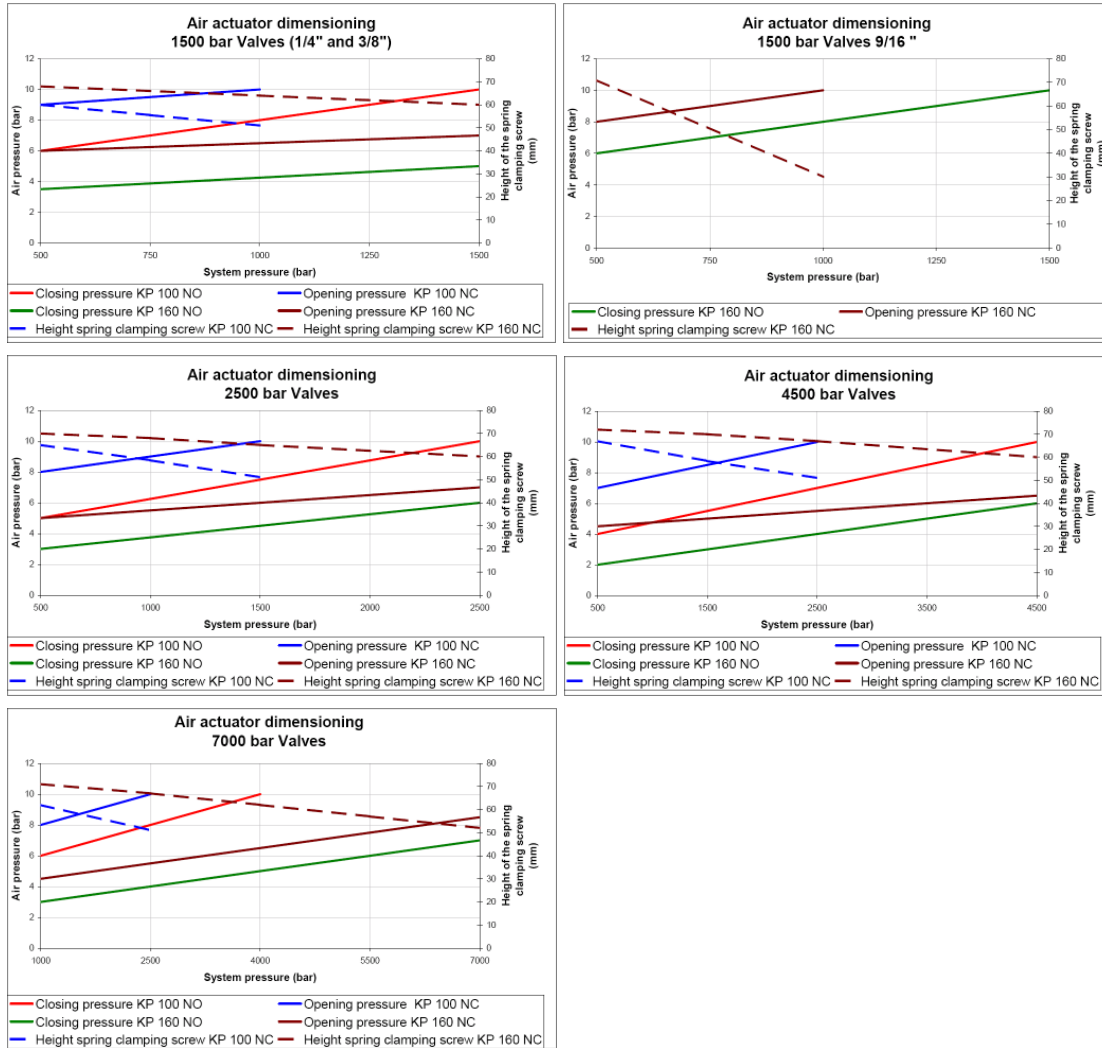
Note: Make sure to fasten the valve at the specified locations, otherwise the unions may become loose when the valve is actuated.

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The valve drive part can be rotated to facilitate assembly. With NO (normally open) valves it may only be turned in the non-actuated state, with NC (normally closed) valves it may only be turned in the actuated state. Otherwise the valve seat and the valve spindle. If the spring pre-tension in NC valves needs modification, make the change only in the actuated state. The follow graphs are showing the relations between System pressure, Air pressure and if so the spring biased.



Because a low working pressure at NO valves a bad open characteristic can happen. For this cases the valves has to be double acting controlled by 5/2 Way Valves.

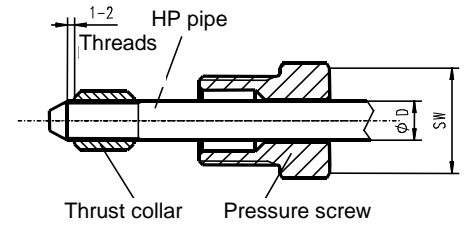
HP pipe:

1. Push the pressure screw over the HP pipe.
2. Screw the thrust collar up to the end of thread and reverse one turn (left-handed thread). Make sure that there are 1 to 2 threads free lying between lining cone and thrust collar.
3. Screw the pressure screw into the valve body assembly boring and tighten with the appropriate tightening moment indicated in the below table.

Note: If possible (i.e. if permitted by the medium), treat all threads and lining cones with an appropriate lubricant (e.g. copper paste) prior to assembly!

Tightening moments for pressure screws:

Pressure socket	Pipe connection dimensions	ØD	Pressure screw Wrench size (SW)	Tightening moment
Bars	Inches	mm	SW in mm	Nm
	1/4"	6.35	SW 13	30
1500	3/8"	9.53	SW 17	40
	9/16"	14.3	SW 24	75
2500 /	1/4"	6.35	SW 17	35
4500	3/8"	9.53	SW 22	70
	9/16"	14.3	SW 32	150
7000 /	5/16"	7,94	SW 19	100
10500				



5. Dismantling:

Dismantling of the valve is performed in reverse order as assembly.

Note: Make sure that the system is depressurised prior to dismantling!

6. Maintenance:

MAXIMATOR® valves are maintenance-free!

7. Servicing / Repair:

Servicing and repair work may only be performed by properly trained personnel.

Caution: NC valves contain a spring under tension, release the tension prior to opening the air drive. Tensioning and releasing of the tension should only be made when the valve is actuated (switching position: open).

Malfunctions:

Malfunction	Possible cause	Remedy
Valve does not close	Spindle and/or ball sealing defective	Replace spindle Replace ball sealing
Medium leaks via relief boring at pressure connections	Wrong assembly of pressure socket Cone surface damaged	Check proper assembly Re-machine cone surface with seat reamer or re-machine pipe
Medium leaks via relief boring at packing	Packing sealing insufficiently pre-tensioned Packing sealing and/or spindle destroyed	Readjust packing pressure screw, retighten with torque acc. to table below. Replace damaged components

Valve type	1500 bars			2500 bars			4500 bars			7000 bars	
	Socket	1/4"	3/8"	9/16"	1/4"	3/8"	9/16"	1/4"	3/8"	9/16"	5/16"
Packing pressure screw		30Nm	30Nm	80Nm	50Nm	50Nm	50Nm	40Nm	40Nm	40Nm	80Nm

All individual valve components can be obtained as spare parts from MAXIMATOR. Order Nos. can be gathered from the drawing enclosed to each valve. Typically there are more than one sealing component worn out, hence we put together several spare part kits. The contents of said spare part kits are indicated in the relevant drawing, as are the order numbers. When ordering spare parts, please, quote the Serial N°; Works N° and valve type as indicated on the valve body. We also offer valve repairs in our workshop by qualified service technicians.

8. Warranty:

We grant a warranty of twelve (12) months on the material quality and workmanship of all MAXIMATOR® valves, commencing with the valve shipment date. Faults that are caused by inappropriate handling of the valve or use of unauthorised media or by exceeding the indicated maximum operating pressures are not subject to warranty. Wear parts, such as sealings, are exempted from warranty.

9. Disposal:

Upon completion of their life cycles valves must be disposed of acc. to national regulations.