

Operating instructions

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

1. Safety advice:

Operation and installation of the component parts may only be performed by trained persons. The statutory provisions of the German Employers' Liability Insurance Association (BG) and other institutions must be complied with. In addition, these Operating Instructions have to be studied thoroughly and fully adhered to.

2. Method of functioning / Use:

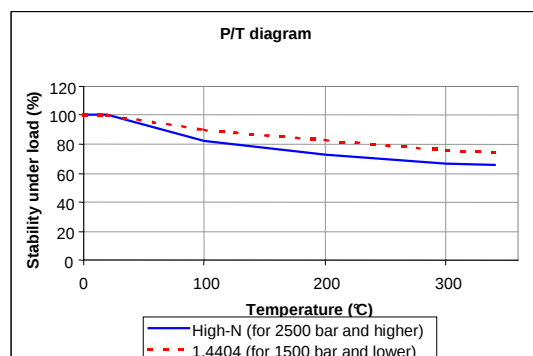
MAXIMATOR® Valves may only be used for pressure-sealed shutting off of liquids and gases. The valves must not be subjected to any modifications (e.g.: mechanical alterations, welding, soldering, etc.).

3. Technical information:

Media: Only media included in our media endurance list may be used. All other media have to be checked by us for their compatibility with valve materials prior to use. In addition, the respective statutory provisions must be absolutely complied with when inflammable, explosive or toxic substances are used.

Type of load: MAXIMATOR® Valves are designed for static loads. Life expectancy of the valves is reduced under dynamic load conditions.

Media temperature: -50°C +150°C
Max. pressure drops with rising temperature. (confer P/T diagram)



4. Assembly:

Valve (with front-panel mounting):

1. Loosen headless pin, withdraw operating handle from spindle.
2. Dismantle cylinder head screw and safety plate.
3. The manually actuated valve can only be fastened to the front panel with the cylinder head screw. The mounting position can be freely chosen (if need be, use a longer cylinder head screw for thicker front plates).
4. Put operating handle back onto spindle bolt and tighten headless pin with max. 10 Nm at 1/4" and 3/8", 15 Nm at 9/16" and 5/16".

Remark: Locking of the manually actuated valve at the two provided fastening bores is generally advisable (except with front-panel mounting), otherwise the bolted connection may come loose upon valve actuation.

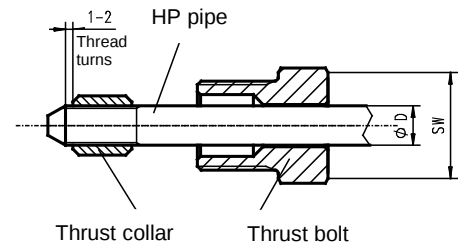
HP pipe:

1. Push thrust bolt over the HP pipe.
2. Screw on thrust collar till to end of thread and turn back by one turn (left-handed thread). Make sure that 1-2 threads are free between sealing cone and thrust collar.
3. Screw thrust bolt into the body connecting bore and tighten with tightening moment as indicated in the below table.

Remark: Prior to assembly (and if the medium permits such) all threads and sealing cones should be treated with a suitable lubricant (e.g. copper paste)!

Tightening moment for thrust bolts:

Pressure connection	Pipe connection dimensions	ØD	Thrust bolt Width across flats (SW)	Tightening moment
bar	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 is performed in reverse order as assembly.

Remark: Make sure that the system is depressurised before start of dismantling!

6. Maintenance:

MAXIMATOR® Manually actuated valves are maintenance-free!

7. Servicing / Repair:

Any servicing work may only be performed by trained persons.

Malfunctions:

Malfunction	Possible cause	Remedy
Valve does not shut	Spindle and/or seat defective	Replace spindle Replace seat or body
Medium escapes via relief bore at pressure connections	Faulty assembly of pressure connection Cone surface is damaged	Check for proper assembly Re-machine cone surface with a seat reaming tool or rework pipe
Medium escapes via relief bore at packing	Packing density insufficiently preloaded Packing and/or spindle destroyed	Readjust packing thrust bolt: retighten with a torque as indicated in the below table. Replace defective/damaged components

Valve type	1500 bar			2500 bar			4500 bar			7000 bar
Connection	1/4"	3/8"	9/16"	1/4"	3/8"	9/16"	1/4"	3/8"	9/16"	5/16"
Packing thrust bolt	30Nm	30Nm	80Nm	50Nm	50Nm	50Nm	40Nm	40Nm	40Nm	80Nm

All component parts of manually actuated valves can be obtained from us as spares. For the respective order numbers, please, refer to the drawing we enclose to each manually actuated valve. Typically, more than one sealing or component part will be worn out, hence we have compiled several spare part packages. The contents of those individual packages are indicated in the respective drawings, as are the correct order numbers. Please, indicate in your spare part order the respective serial number, item number and valve type, provided on the manually actuated valve's body. We also offer repair services in our workshop, performed by our qualified service technicians.

8. Warranty:

We grant for MAXIMATOR® Valves a warranty of twelve (12) months on material quality and workmanship, commencing with the valve shipment date. Any deficiencies that are due to improper handling, use of inadmissible media or exceeding of maximum operating pressures are not subject to our warranty obligation. Wear parts, such as gaskets and washers, are exempted from warranty.

9. Disposal:

Valves are to be disposed of in compliance with national regulations upon the end of their useful lives.