

# MAXIMATOR®

## Operating instructions

Non-return valves 1500 bar, 4500 bar / 1/4", 3/8", 9/16"

### 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® Non-return valves may only be used to shut off flow in one direction and for pressure-sealed conveyance of liquids and gases. The non-return valves must not be subjected to any modifications (e.g.: mechanical alterations, welding, soldering, etc.). If the valves are employed for any other than the intended use all risks shall be solely borne by the user.

### 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® Non-return valves are designed for static loads. Life expectancy of the valves is reduced under dynamic load conditions.

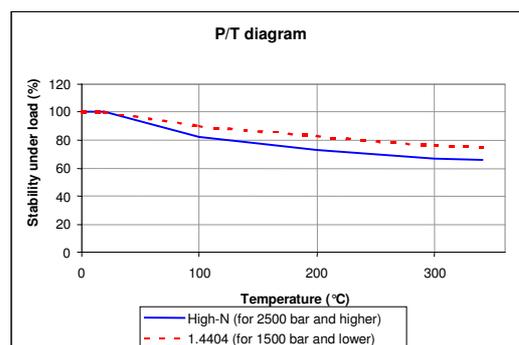
Media temperature: O-ring non-return valve:

Viton O-ring:  
-20 °C ..... +150 °C  
NBR O-ring:  
-50 °C ..... +100 °C

Caution: Selection of the O-ring depends on the media to be used!

Ball-type non-return valve:  
-50 °C ..... +350 °C

Max. pressure drops with rising temperature. (confer P/T diagram)



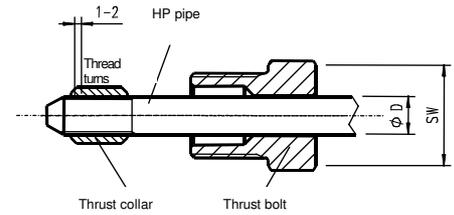
### 4. Assembly:

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 valve body connecting bore and tighten with tightening moment as indicated in the below table.

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



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)!

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® Non-return valves are maintenance-free!

7. Servicing / Repair:

Any servicing work may only be performed by trained persons.

Malfunctions:

Malfunction	Possible cause	Remedy
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
Medium flows into shut-off direction	Sealing is defective	Replace sealing

All component parts of non-return valves can only be obtained from us as spares. Please, indicate in your spare part order the respective serial number, item number and valve type, provided on the non-return valve body. We also offer repair services in our workshop, performed by our qualified service technicians.

8. Warranty:

We grant for MAXIMATOR® Non-return 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:

Non-return valves are to be disposed of in compliance with national regulations upon the end of their useful lives.