



Operating instructions and security regulations for putting into operation and maintenance of the non-return valves DSF

Please read carefully !

Security note

Only qualified skilled workers are permitted to install the armature. This should be staff that is well acquainted with setting up, fitting, putting into operation, operating and maintain the equipment. The staff must have a qualification at their disposal which corresponds with their function and occupation, such as:

- Instruction and commitment for the observance of all regional and internal regulations and commitments regarding operation.
- Education in accordance with the standards of security engineering, in application and maintenance of adequate equipments of security and labour protection.
- Training in first aid etc.

Proper maintenance

Inset in pipes for prevention of return flow of the media within the permissible limits of pressure and temperature, observing the chemical and corrosive influences on the valve.

The media-resistance of the valve must be tested for operating conditions.



Danger notes

During operation the valve is under pressure!

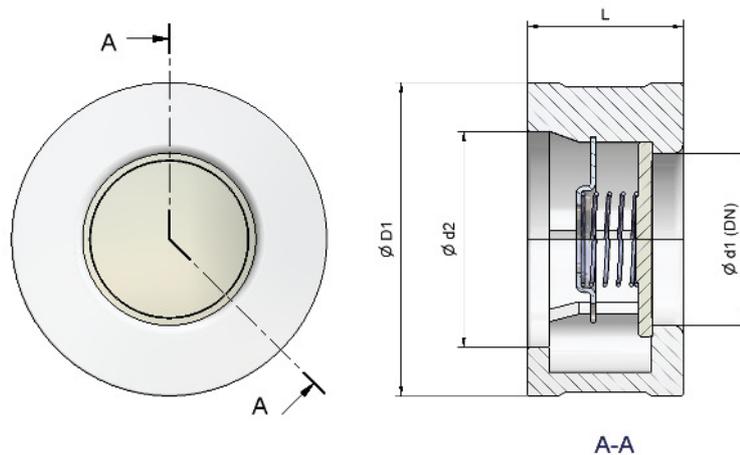
If flange connections or screw plugs are loosened, hot water, steam, corroding liquids or toxic gases will escape. Serious scalds and burns on the whole body are possible! Serious contaminations are possible!

- Work for assembly or maintenance to be done in pressure less condition only.
- During operation, the valve will be hot or extremely cold.
- Work for assembly or maintenance to be done at room temperature only.
- Sharp-edged interior parts can cause cuts on hands.
Wearing gloves for exchanging the valve is necessary!

Further measurements, materials and fields of application can be found in the correspondent Data Sheet.



Installation



Non-return valve Type DSF for installation between flanges according to the correspondent drawings

- Installation between flanges according to DIN EN 1092-1, PN 10/16/40/63/100 or ANSI B16.5 CL. 150/300/400/600 lbs. The centre ring between the flanges is executed at the body outside diameter by means of the flange connecting screws.. The centre ring ØD is for the nominal pressure classification interpreted. Installation between flanges of other norms on inquiry. The installation length corresponds to DIN EN 558-2 basic row 52. For special applications corresponding regulations have to be noted e.g. AD-leaflets (working group for pressure devices) or TRD-directives (technical rules for steam boilers).

Preparation for installation

- The assembly must be carried out according to the recognized rules of technology.
- The non-return valve assemble with two seals, a flange pair and at least two screws weld to the piping. Removing the non-return valve and seals and carry out the flange welding. The welding residue must be removed and the weld must be cleaned. The cleaned non-return valve can be reinstated with the seals.

Note direction of flow (direction of arrow on valve body)!

- The fitting position is horizontal. In vertical position direction of flow is only possible from bottom to top.
- For oscillatory systems (e.g. compressors, diaphragm pumps etc.) please pay attention that the standard execution corresponds with the operation.
- Non-return valves mustn't be built apart.
- Using only original spare parts.
- Functional test.


Product classification according to article 9 directive of pressure devices (DGRL)

Group 1 (Dangerous fluids)

Appendix II (Diagram 6)

Category with pressure PN40 + 100	Exception according to article 3.3	II
Nominal size DN	15-25	32-100
CE marking	no	CE1250
Type	all	all

Technical data non-return valves DSF (PN40, ANSI300) (application limits)

DSF6464M (PN40, ANSI300)							
DN015-100							
t (°C)	-200	RT	100	200	300	400	500
Ps (bar)	40	40	37.9	31.8	27.6	25.7	24.3

Application limits for soft sealing

Soft Sealing		Code
EPDM	-50 bis 130°C	E
NBR	-30 bis 120°C	P
VITON	-20 bis 200°C	V
PTFE	-200 bis 200°C	T

Technical data non-return valves DSF (PN63 - PN100, ANSI400-600) (application limits)

DSF6464M (PN63, ANSI400)							
DN015-100							
t (°C)	-200	RT	100	200	300	400	500
Ps (bar)	63	63	59.7	50.1	43.5	40.5	38.4

DSF6464M (PN100, ANS600)							
DN015-100							
t (°C)	-200	RT	100	200	300	400	500
Ps (bar)	100	100	94.7	79.5	69.0	64.2	60.9

Further materials possible for manufacturing. Please ask.

For further technical information please consult the correspondent Data Sheets.