FNW1241/FNW1242
CHECK VALVES

BRONZE SWING CHECK VALVES

The FNW Swing Check Valves listed and covered in these instructions are bronze valves made of ASTM B62 material for class 150 valves with PTFE seat types. Check Valves are used in systems that need flow to move in one direction. An arrow on the side of the valve indicates the flow direction. If the flow reverses, the disc in the valve will swing shut, blocking the back-flow. Swing check valves produce the lowest pressure drop compared to other check valves of the same size. They have a leakage rate of 40ml per inch of diameter per hour, in accordance with MSS-SP-80.

Fig. 1241

Fig. 1242

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Model	Size Range	Description
Fig. 1241	1/2"–3"	Class 150 PTFE Disc NPT end
Fig. 1242	1/2"–2"	Class 150 PTFE Disc Solder end

We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

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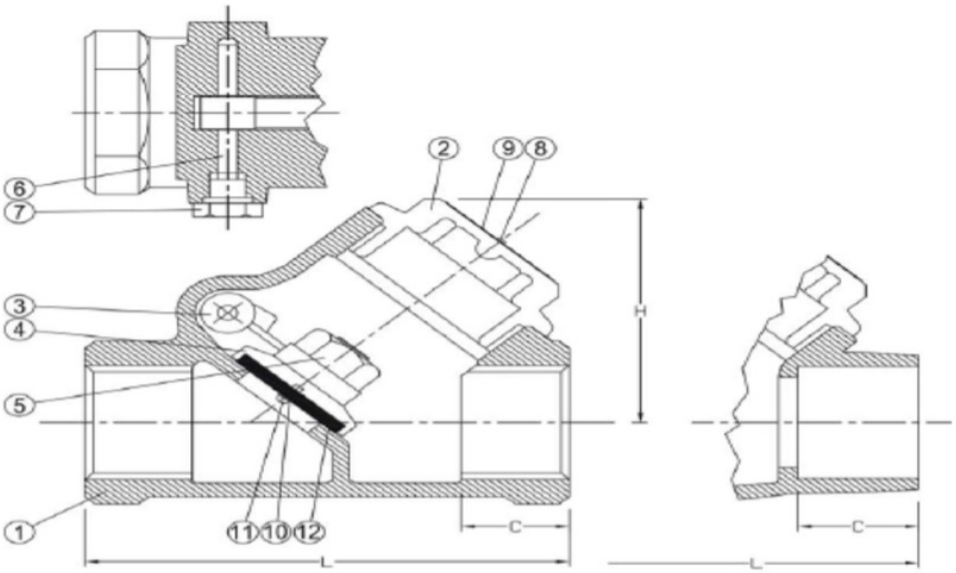

FIG. 1241 - NPT

FIG. 1242 - SWEAT

STANDARD MATERIALS
REFERENCE TABLE

Ref. No	Description	Material
1	Body	Bronze ASTM B62 C83600
2	Cap	Bronze ASTM B62 C83600
3	Hanger	Bronze ASTM B62 C83600
4	Disc	Bronze ASTM B62 C83600
5	Hanger Nut	Brass ASTM B16 C36000
6	Hanger Pin	Brass ASTM B16 C36000
7	Side Plug	Brass ASTM B16 C36000
8	Rivert	Mild Steel
9	Name Plate	Aluminum
10	Washer	Brass ASTM B16 C36000
11	Screw	Brass ASTM B16 C36000
12	Disc	PTFE

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PRESSURE RATING

These ratings are the maximum allowable, non-shock pressures at the temperatures shown in the table below. All valves are 100% shell and seat tested at an air pressure of 80 psi in accordance with MSS-SP-80 requirements.

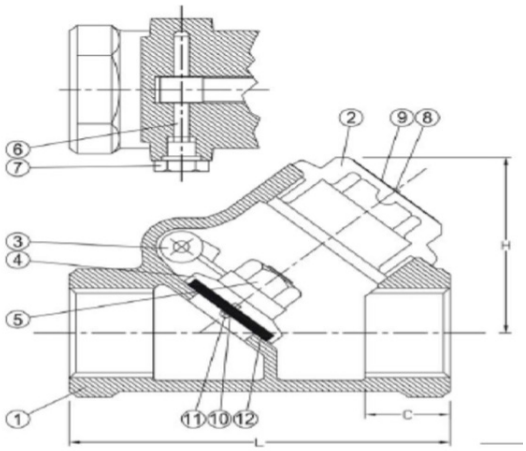

Fig. 1241

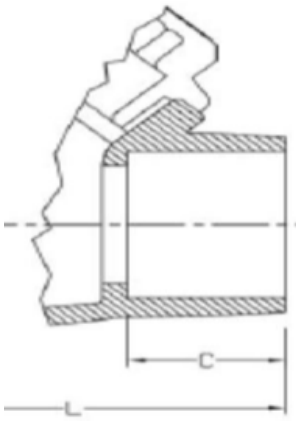

Fig. 1242

FIG. 1241-NPT END CONNECTION

Working Pressure							
Working Pressure Non-Shock (psi)		Test Pressure (psi)		Working Pressure Non-shock (kPA)		Test Pressure (kPa)	
Saturated Steam	Cold Water, Oil, Gas	Shell (Air)	Seat (Water)	Saturated Steam	Cold Water, Oil, Gas	Shell (Air)	Seat (Water)
150	300	80	50	1034	2068	551	344

FIG. 1242-SOLDER END CONNECTION

Working Pressure									
Service Temperature		Working Pressure Non-Shock (psi)		Test Pressure (psi)		Working Pressure Non-shock (kPA)		Test Pressure (kPa)	
Fahrenheit	Celcius	1/2" ~ 1"	1-1/2" ~ 2"	Shell (Air)	Seat (Water)	1/2" ~ 1"	1-1/2" ~ 2"	Shell (Air)	Seat (Water)
100	38	500	400	80	50	3447	2757	550	345
150	65	400	350	80	50	2757	2413	550	345
200	93	300	250	80	50	2068	1723	550	345
250	121	200	175	80	50	1379	1206	550	345

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INSTALLATION

Preparation
- Make sure the valve is suitable for the pressure, temperature and service conditions.
- Make sure the threads of the mating pipe are clean and machined to the appropriate ANSI/ASME specifications.
- Make sure the ends of the mating pipe are free of burrs.
- Use a cloth to clean and remove grease before soldering.
- Make sure the sealing surfaces of the valve are clean.

Installation
The swing check valve should be installed in a horizontal position with the flow arrow in the direction of flow and covered on the top. It is not suggested installation occurs close to reciprocating pumps or compressors as the constant fluctuations shorten the life of the valve.

NPT End Connection
- Gently thread the swing check valve (in the closed position) to the mating pipe by hand until resistance is felt.
- Use a wrench to tighten the valve end at the mating joint. Do not tighten the screws opposite the mating joint through the valve body.

WARNING:
Ensure that the valve is not overtightened to cause valve malfunction or leakage at the joint. Shut off all operating lines to the valve site.

Solder End Connection
- Install the check valve with disc in the open position.
- Do not overheat the valve or allow solder to flow into the valve opening.
- Direct flame away from the valve body, concentrating on the solder cup and heating it evenly.

WARNING:
Excessive heat input will damage the body seal resulting in leaks at the valve body joint.

WARNING:
Do not use Swing Check Valve as foot valve on a pump or pressure regulation devices.

MAINTENANCE
If this valve leaks, check the end connection at the mating joint. This valve should be replaced if leaking, instead of attempting to repair.

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