

Installation and Maintenance Manual

Model 3800-F & 3800-G

Flange & Grooved “Y” Strainer



I. General Introduction

Thank you for choosing our strainers.

Strainers are generally composed of strainer body, screen, bonnet, gasket, bolts and nuts. These are mainly applied before pressure reducing valves, pressure relief valves, atmospheric valves, hydraulic control valves as well as other equipment, serving to filter out the impurities in the flow medium, for protection of valves and equipment in the piping system. Medium through the strainer can be water, oil, or gas.

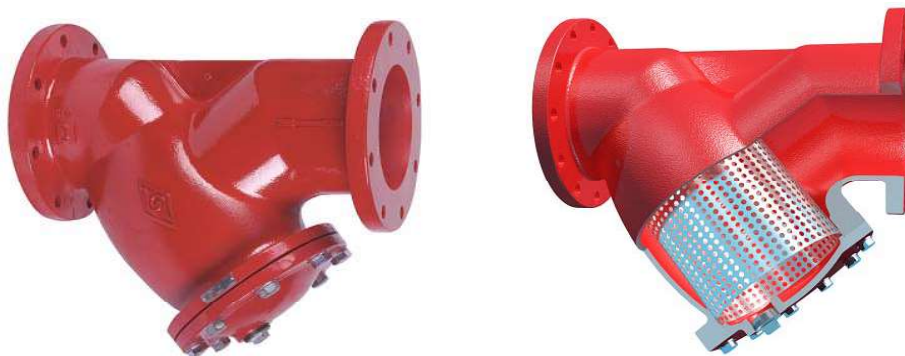
Solid impurities in the flow medium shall be screened out when pass through the strainer, in this way, it protects the equipment in the piping system from the corrosion, abrasion or wearing of impurities.

II. Property Specifications

Rated Working Pressure	300 PSI, 200PSI and 250PSI available upon request
Norminal Diameter(DN)	50~300mm
Test Pressure (Shell Test)	2 times o rated working pressure
Working Temperature	-10°C- 200°C Graphite Gasket 0°C- 100°C Rubber Gasket
Medium	Water, oil, or gas
Coating	Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

III. Structure Design & Product Feature

Illustration of the General Features of the Valve
(for reference only)



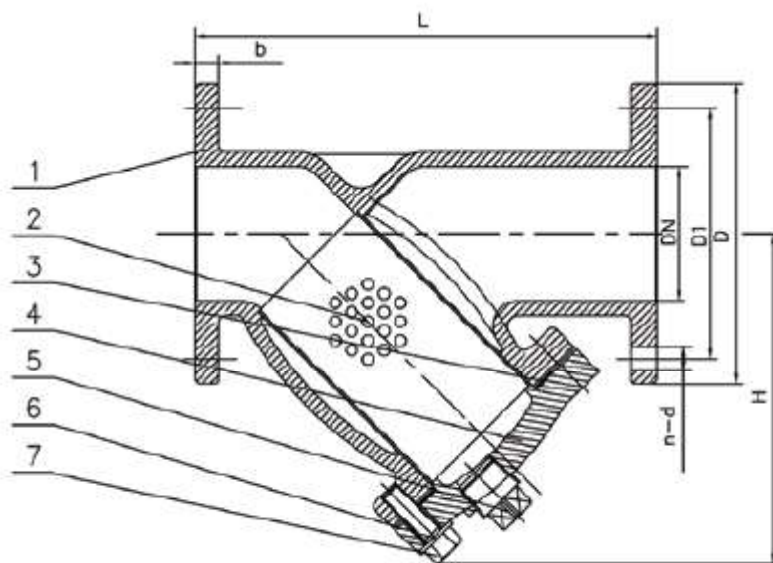
Product Features

- 1) Compact design and easier handling of installation;
- 2) High filtering quality and efficiency;
- 3) Low maintenance cost;
- 4) Large impurities storage capacity;
- 5) Small friction loss;

Flange Connection Options:

ANSI/ASME B16.1 CL125 or EN1092-2: PN10/16, depending on client request.

IV. Material Specification and Dimensions



Part No.	Part	Standard Specification	Options
1	Valve Body	ASTM A536 65-45-12	
2	Screen	AISI 304 (Perforated)	AISI 304, AISI 316 (Perforated, Knitted, Double Screen)
3	Gasket	Graphite + Acanthopore Plate	EPDM
4	Bonnet	ASTM A536 65-45-12	
5	Plug	Malleable Iron Galvanized	Bronze ASTM B584
6	Bolt	Carbon Steel Zinc Plated	AISI 304, AISI 316
7	Flat Washer	Carbon Steel Zinc Plated	AISI 304, AISI 316

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions (mm)					
Inch	mm	L	D	D1	b	n-Φd	H
2"	50	200	152	120.5	16	4-Φ19.1	155
2.5"	65	254	178	139.5	17.5	4-Φ19.1	165
3"	80	257	191	152.5	19	4-Φ19.1	180
4"	100	308	229	190.5	24	8-Φ19.1	229
5"	125	397	254	216	24	8-Φ22.2	285
6"	150	470	279	241.5	25.5	8-Φ22.2	311
8"	200	549	343	298.5	28.5	8-Φ22.2	394
10"	250	654	406	362	30.5	12-Φ25.4	487
12"	300	759	483	432	32	12-Φ25.4	547

V. Storage, Installation & Maintenance

- a) The strainers are to be stored in dry cool conditions in the warehouses with good ventilation. The ends of the strainers are to be properly protected with caps from the intrusion of dirt and other foreign stuff.
- b) Items should be checked regularly when storage for long time.
- c) Check the marking and the qualifications before installation of the strainer.
- d) Strainers are usually installed before pumps, feeding valves, control valves, meters, steam traps, turbine, air compressor, magnetic valve, pressure reducing valve, spout, stabilizer, combustion furnace, heating assembly and other sensing equipment. The screen (perforated screen or mesh screen) of the strainer filters out the impurities in the flow medium and thus protects the equipment.
- e) Before installation of the strainer, the threading connections in the piping system should be well cleaned, and the threading sealant or PTFE liner should be properly applied. The threading ends should not be applied with threading sealant or PTFE liner, in case that these will enter into the flow medium.
- f) Strainers can be installed horizontal or vertical.
- g) Strainers should be cleaned within 7days after the piping system starts to run, in order to get rid of the impurities deposited on the screen. Later, the strainers also need to be cleaned on a regular time schedule, frequency of which depends on the working condition.

Note: Before maintenance and cleaning of the strainer, it should be cut from the pressure system, and the sealing gasket should be replaced each time for maintenance. Screen of the strainer should be check once or twice a year.

VI. Common Problems and Proposed Solutions

Possible Problems	Possible Causes	Proposed Solutions
Leakage through the sealing surface	The seal face with sundries	Clear away the sundries
	Sealing surface damage	Change the wedge
	Seal ring damage	Seal ring damage
Valves blocked	Clapper arm crooked	Stop the medium, remove the valve and repair or replace the parts
	Joint wearing out	
	Arm distorted or broken	
Damage of valve body and bonnet	The water hammer broken valve	In the early fatigue defects, valve used beyond life expectancy should be replaced
	Fatigue damage	
	Frost crack	water medium should be ruled out in the winter when the valves are not used
Leakage through the jointing of valve body and bonnet	Bolts and nuts are not fully or evenly tightened	Tighten the bolts properly
	Seal ring damage	Change the seal ring

VII. Quality Assurance

1. The valve quality is guaranteed for 18 months since valves are shipped out of factory. Manufacturer is responsible for the material defects and quality issue happens in normal operation and using conditions and not for the improper installation, maintenance, and modification.
2. When quality problems are found, should inform manufacturers, manufacturers maintain the rights of investigating these issues.
3. What should the manufacturers ensure are limited to the following conditions:
 - material repair costs
 - replacing parts and material cost
 - to compensate users purchasing cost
4. Manufacturer is not liable of the damages caused by unexpected natural disasters such as earthquake, typhoon, etc. beyond the valve itself defects.
5. Beyond the limits of other guarantee, agreed by the user and the manufacturer.

VIII. Service

1. If stipulated in the contract, the factory can provide on-site installation and debugging.
2. Quality tracking should be provided by the manufacturer and other services should also be offered according to customers' requirements.