

Periodic Flushing

Flushing may be required if the pressure drop through the strainer become excessive.

With the strainer isolated, unscrew the cover plug and allow the water to freely discharge into a suitable receptacle. This should allow debris which has settled inside the screen to be flushed out.

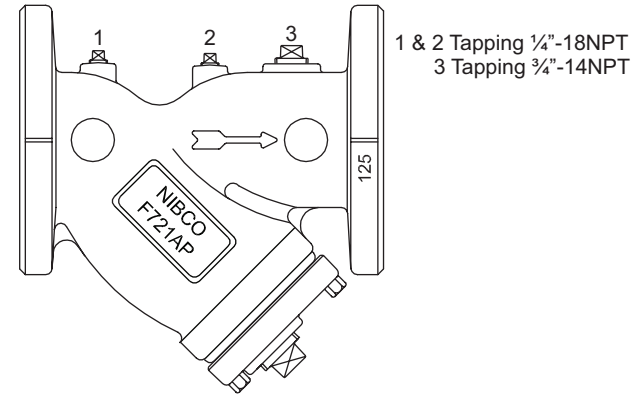
If a blow down valve is fitted instead of the plug, it is not necessary to isolate the strainer and the flushing operation may be carried out under pressure provided the discharge flow is managed safely to an appropriate discharge/drain facility.

Cleaning the Screen and Gasket Replacement

The strainer has a bolted cover which must be removed to allow withdrawal of the screen.

- Isolate the strainer from the system pressure. De-pressurize the strainer and drain the body by removing the cover plug or opening the blow down valve (if fitted).
- Make alignment marks on the body and cover to ensure the cover is re-fitted in the correct orientation.
- Loosen all bolts gradually and remove sequentially taking care to support the weight of the cover as the final bolt is removed.
- Carefully slide the screen out from the body and clean with a brush or water jet. A water jet should generally be applied to the outer surface of the screen to dislodge any remaining particles. Any blocked perforations should be cleared using a sharp instrument.
- Examine the cover gasket and replace if necessary. If the strainer has been in service for a long period, it is recommended that the gasket is replaced.
- Apply a brush or water jet to the internal surfaces of the body to dislodge any debris.
- Ensure the body and cover sealing faces are clean.
- Re-insert the screen into the body ensuring that it fits correctly into the shallow counterbore in the body.
- Re-fit the cover ensuring that the screen correctly locates in the shallow counterbore in the cover and that the orientation of the cover is correct by aligning the previously applied marks. Ensure large, heavy covers are safely supported during the re-fitting operation.
- Apply lubricant to the cover bolts and fit loosely into each hole. Tighten the bolts finger tight then further tighten in an opposing diagonal sequence.
- Re-fit the drain plug using a PTFE tape on the threads or other suitable jointing material.

F721AP Cast Iron 'Y' Strainer



Cast Iron 'Y' Strainer

The strainer has a 'Y' configuration which allows the strainer screen to be removed without removing the strainer body from the pipework.

The strainer should be handled, installed and used with care as detailed in these instructions

Models

- Fig. F721AP has flanged end connections as ASME/ANSI B16.1 Class 125. (suitable for connecting to steel flanges - ASME/ANSI B16.5 Class 150).
- Size range 2" through 16".

Description

A stainless steel screen is located in the body which is retained by a bolted cover.

The cover is provided with a tapped drain hole which is sealed by a removeable plug with square drive.

The plugged hole is offset from the center of the cover to ensure it is at the lowest point for optimum draining. The plug may be replaced by a blow down valve at the discretion of the user.

3-body plugs, 1-cover plug and extended PT Test Port are supplied loose in an Accessory Bag to avoid damage during shipping

Screen perforation sizes are:

- 2" to 5" Ø1/16"
- 6" to 16" Ø1/8"

3 tapping points are provided on the top of the body as shown in the diagram above

Thread details for the drain plug

- 2" 1/2" – 14 NPT
- 2 1/2" & 3" 1" – 11.5 NPT
- 4" 1 1/2" – 11.5 NPT
- 5" to 16" 2" – 11.5 NPT

NIBCO INC. WORLD HEADQUARTERS WEB: www.nibco.com	1516 MIDDLEBURY STREET ELKHART, IN 46516-4740 USA	DOMESTIC CUSTOMER SERVICE PHONE: 800.234.0227 FAX: 800.234.0557	TECHNICAL SERVICE PHONE: 888.446.4226 FAX: 888.336.4226	INTERNATIONAL OFFICE PHONE: +1/574.295.3221 FAX: +1/574.295.3455
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Limits of Use

The rating for the Y-strainer is shown in the table below and it must be installed in a system where the normal pressure and temperature does not exceed this rating.

The strainer is intended for non-shock operating conditions.

Water hammer, impacts, corrosive or erosive external environmental elements and the transport of fluids with abrasive properties should be avoided.

Strainer Sizes	Non-Shock Pressure at Temperature Range	Non-Shock Pressure at Max Temperature
2" to 12"	200 psi from -20°F(*) to 150°F	175 psi at 250°F
14" & 16"	150 psi from -20°F(*) to 150°F	125 psi at 250°F

(*) = temperatures apply only when glycol additives used.

Layout and Orientation

Prior to installation, it should be considered where the strainer will be located to allow access for screen removal and the insertion of test probes. The strainer must be installed with the flow direction arrow on the body coincident with the direction of flow in the pipeline.

The strainer may be mounted in horizontal, vertical or inclined pipework. When installed in horizontal pipework the orientation of the body should be such that the cover is immediately below. At low level pipe runs, the gap between the ground and the strainer must be sufficient to allow for the withdrawal of the strainer screen.

In vertical or inclined pipework the flow direction shall be downwards only.

Remove any protective end caps and check that the bores are clean and free from foreign material

Check that the mating pipeline flange faces are clean and undamaged, and the pipe bores are clean and free from debris.

It is preferable to have isolating valves upstream and downstream of the strainer to allow for servicing in line. These valves should be close to the strainer to avoid significant water loss during servicing.

Installation

Flange gaskets should be suitable for the operating conditions and maximum pressure/temperature ratings.

Care should be taken to provide correct alignment of the of the pipework flanges before assembly.

If connecting up to a rubber lined butterfly valve, a gasket must not be used between the strainer flange and the valve.

Bolting should be checked for correct size, length and material. Suitable lubricant should be applied to the threads. All the connection flange bolt holes must be used.

Installation Continued

Bolts are tightened sequentially to make the initial contact of flanges flat and parallel.

If a butterfly valve is close coupled to the strainer, operate the valve carefully into the full open position to ensure the disc does not interfere with the strainer.

Then continue with gradual and uniform tightening in an opposite bolting sequence to avoid bending on flange relative to the other. Excessive tightening of the strainer to a butterfly valve should be avoided to prevent localised extrusion of the rubber joint face.

For strainers fitted in horizontal pipework, carefully open the isolating valves to allow the strainer to fill with water and to discharge through the three tapped holes which will purge the air from the strainer body.

Immediately close the isolating valves and fit the blank plugs or other accessories such as a P/T test port.

Strainers installed in vertical or inclined pipework may be filled with the plugs or other accessories in place.

Maintenance

The strainer is a self-functioning product and requires no routine operation. The strainer screen will require cleaning after the initial flushing procedure and prior to commissioning and periodically thereafter.

Information regarding screen cleaning is provided under **Cleaning the Screen and Gasket Replacement**

The strainer should be inspected at regular intervals to check for leakage at flange joints, cover joint and threaded tapping points.

The strainer should be at zero pressure and ambient temperature prior to any maintenance being undertaken.

Operators are reminded to wear appropriate protective clothing including gloves, eye protection and face masks. Correct tools and equipment should always be used.

