

Model C Pipe Line Strainer 6, 8 & 10 Inch (DN150, DN200 & DN250) 250 psi (17,2)

General Description

The welded steel body Model C Pipe Line Strainers (Ref. Figures 1 and 2) are designed for installation in the water supply connections to automatic sprinkler, water spray deluge, foam-water deluge, or standpipe fire protection systems. They are used where it is necessary to protect spray nozzles, sprinklers, or other type discharge outlets from obstruction by debris that may be in the water supply.

The Model C Pipe Line Strainers feature:

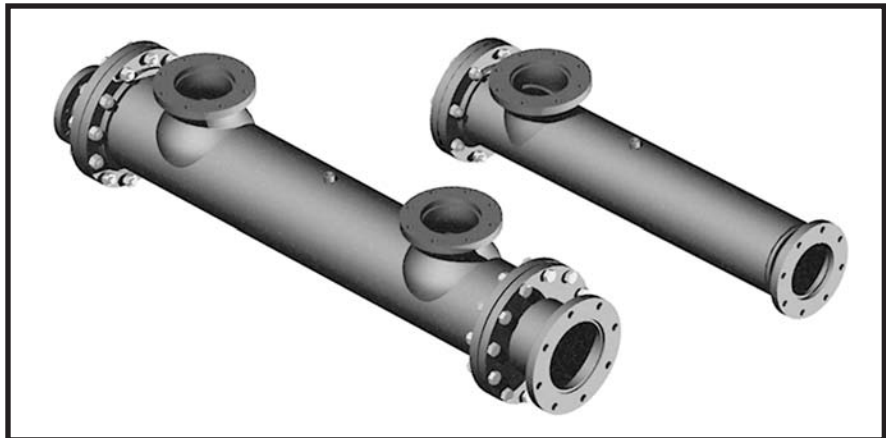
- Compact, lightweight, welded hot dipped galvanized assembly.
- Flanged inlet, outlet, and flushing connections.
- Corrosion resistant stainless steel screen.
- High pressure rating.
- Low pressure loss.
- Wide range of inlet and outlet sizes.

The Model C Pipe Line Strainer is a re-designation for the Gem Model C.

WARNING

The Model C Pipe Line Strainers described here in must be installed and maintained in compliance with this document, as well as with the applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the performance of these devices.

The owner is responsible for maintaining their fire protection system and devices in proper operating condition. The installing contractor or manufacturer should be contacted with any questions.



Technical Data

Approvals

UL and C-UL Listed. FM Approved.

Maximum Working Pressure

250 psi (17,2 bar)

Finish

Galvanized.

Friction Loss

Refer to Figures 3 and 4.

Physical Characteristics

Body Steel

Inlet Connection Steel

End Connection Steel

Gaskets Fiberglass and Arimid
with a Nitrile Binder

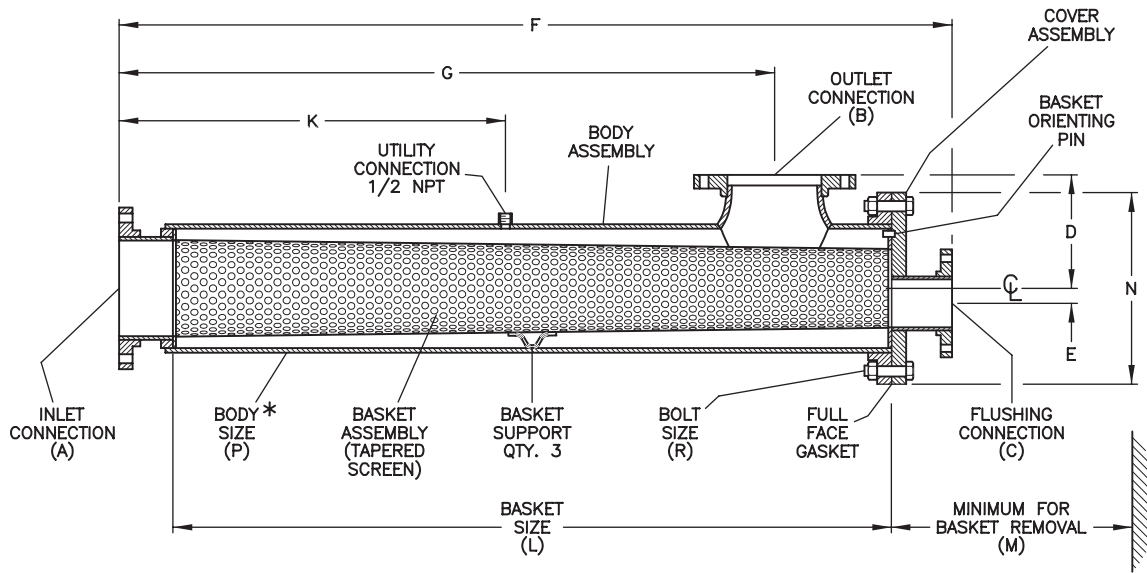
Basket Assembly Stainless Steel

Basket Screen Perforations

1/8 inch (3,2 mm) diameter holes spaced so as to provide 40 percent open area.

Patents

U.S.A. Patent No. 6,318,564

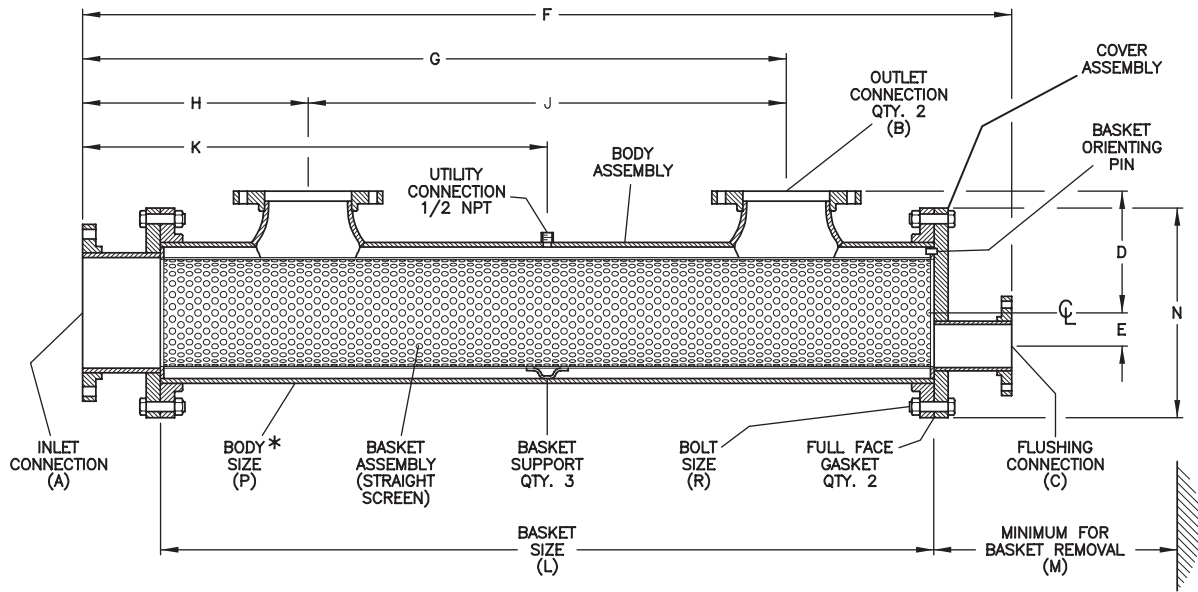


Nominal Size ANSI Inches DN	Nominal Flanged Connections ANSI Inches / DN			Dimensions in Inches (mm)			
	Inlet A	Outlet B	Flushing C	D	E	F	G
6 x 6 DN150 x DN150	6 DN150	6 DN150	2-1/2 DN65	7 (177,8)	1-1/16 (27,0)	52-1/2 (1333,5)	39-1/2 (1003,3)
8 x 8 DN200 x DN200	8 DN200	8 DN200	4 DN100	8-1/4 (209,6)	1-1/4 (31,8)	69-1/2 (1765,3)	54-3/4 (1390,7)

Nominal Size ANSI Inches DN	Dimensions in Inches (mm)				Body NPS / DN P	Bolt Size R	Nominal Weight Lbs (kg)
	K	L	M	N			
6 x 6 DN150 x DN150	25-3/4 (654,1)	44-7/8 (1139,8)	50 (1270,0)	13-1/2 (342,9)	8* DN200	3/4" 10 UNC x 3-1/2" QTY 8	260 (118)
8 x 8 DN200 x DN200	32-1/4 (819,2)	60 (1524,0)	65 (1651,0)	16 (406,4)	10* DN250	7/8" 9 UNC x 3-1/2" QTY 12	500 (227)

* Standard Wall Steel Pipe Per ATSM A53; Nominal Size Saddle Required For Support Of Strainer.

FIGURE 1
MODEL C SINGLE OUTLET PIPE LINE STRAINER



Nominal Size ANSI Inches DN	Nominal Flanged Connections ANSI Inches / DN			Dimensions in Inches (mm)				
	Inlet A	Outlet B	Flushing C	D	E	F	G	H
8 x 6 x 6 DN200 x DN150 x DN150	8 DN200	6 DN150	4 DN100	9-1/2 (241,3)	2 (50,8)	73-1/4 (1860,6)	54-3/4 (1390,7)	18-1/2 (469,9)
10 x 8 x 8 DN250 x DN200 x DN200	10 DN250	8 DN200	4 DN100	11 (279,4)	3 (76,2)	84 (2133,6)	64-1/2 (1638,3)	19-1/2 (495,3)

Nominal Size ANSI Inches DN	Dimensions in Inches (mm)					Body NPS / DN P	Bolt Size R	Nominal Weight Lbs. (kg)
	J	K	L	M	N			
8 x 6 x 6 DN200 x DN150 x DN150	36-1/4 (920,8)	36-5/8 (930,3)	59-1/4 (1505,0)	64 (1625,6)	16 (406,4)	10* DN250	7/8" 9 UNC x 3-1/2" QTY 24	510 (231)
10 x 8 x 8 DN250 x DN200 x DN200	45 (1143,0)	42 (1066,8)	70 (1778,0)	75 (1905,0)	19 (482,6)	12* DN300	7/8" 9 UNC x 3-1/2" QTY 24	855 (388)

* Standard Wall Steel Pipe Per ATSM A53; Nominal Size Saddle Required For Support Of Strainer.

FIGURE 2
MODEL C DUAL OUTLET PIPE LINE STRAINER

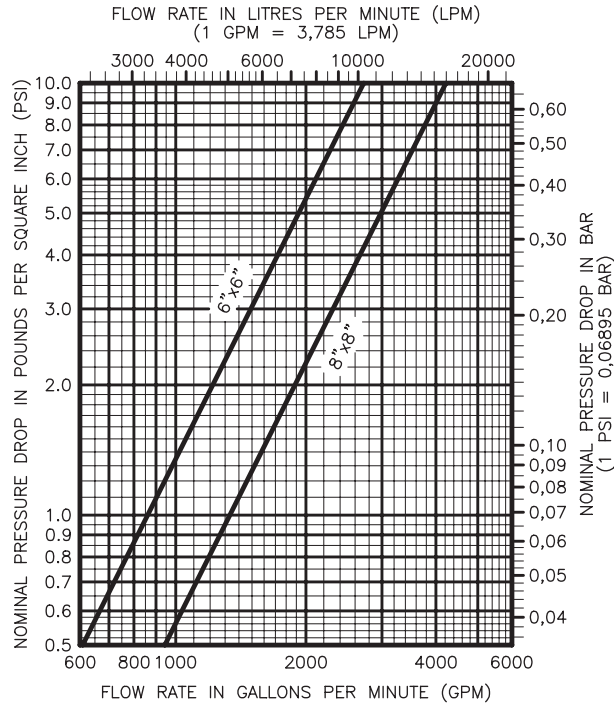


FIGURE 3
NOMINAL PRESSURE LOSS FOR 6 x 6 AND 8 x 8 MODEL C PIPE LINE STRAINERS

- (a) 100% Flow Through Either Outlet
(No Flow Through Either Outlet)
- (b) Outlet #1 With 50% Flow Through Each Outlet
- (c) Outlet #2 With 50% Flow Through Each Outlet

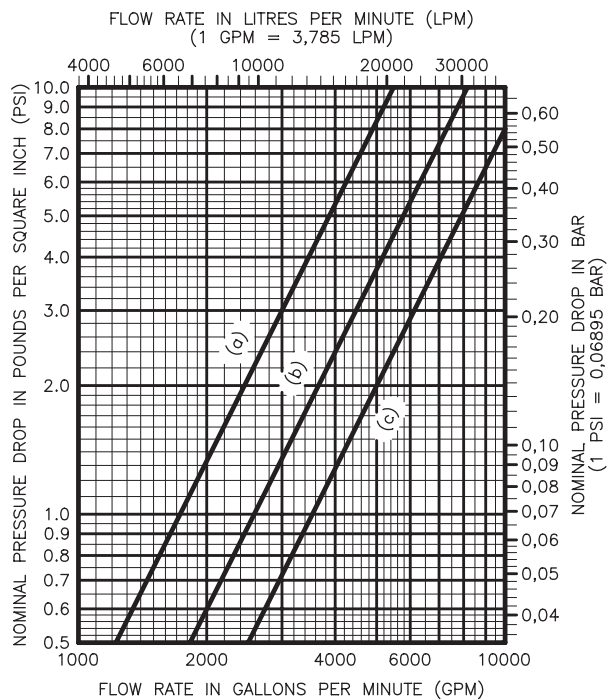
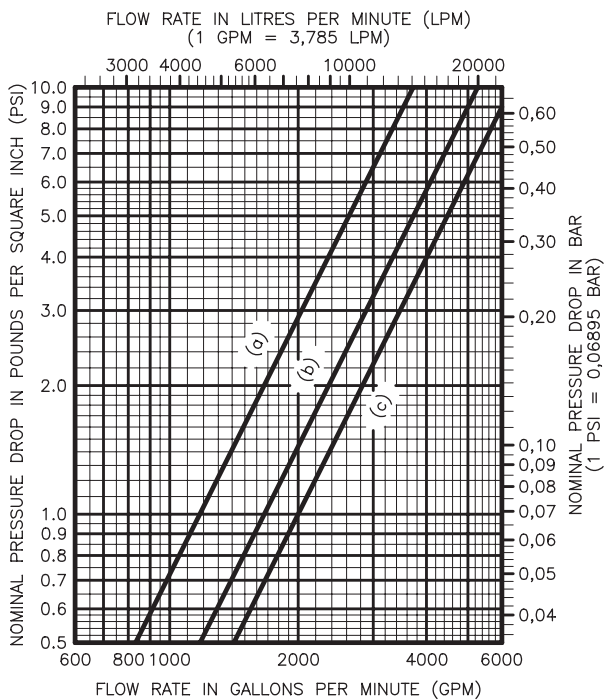
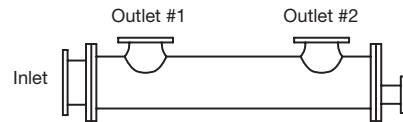


FIGURE 4
NOMINAL PRESSURE LOSS FOR 8 x 6 x 6 AND 10 x 8 x 8 MODEL C PIPE LINE STRAINERS

Design Criteria

The Strainer is to be positioned horizontally as shown in Figures 1 or 2, and typically the outlet(s) are pointed vertically up as shown.

The Strainer may be rotated axially to have the outlet(s) pointed from vertically to horizontally as viewed from the flushing connection end of the Strainer. In this case, the Cover Assembly with the flushing connection must be realigned, as applicable, to have the flushing connection at the lowest elevation of the Basket Assembly so as to permit complete flushing of the Basket Assembly.

A pipe saddle support sized to fit the Strainer Body (Dimension P, Figure 1 or 2) must be located underneath the center of each outlet. If the Strainer is rotated such that the outlet(s) are not pointed vertically up, additional provisions must be made for separate support of the outlet piping.

The Strainer must be located where there is adequate clearance for complete removal of the Basket Assembly to facilitate cleaning of the Basket Assembly.

In planning the installation, consideration must be given to disposal of flushing water since large quantities may be required to ensure thorough cleaning of the Basket Assembly. Typically, the flushing connection is fitted with an appropriately sized, normally closed, flushing connection valve and hose connection.

Installation

The Model C Pipe Line Strainer is shipped as an assembly. Inlet, outlet, and flushing connections are to be made in accordance with accepted piping practices. Provisions for the pipe saddle, basket removal clearances, and strainer flushing must be made in accordance with the requirements given in the Design Criteria Section.

Care and Maintenance

The following inspection procedure must be performed as indicated, in addition to any specific requirements of the NFPA. Any impairment must be immediately corrected.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the National Fire Protection Association (e.g., NFPA 25), in addition to the standards of any authority having jurisdiction. The installing contractor or product manufacturer should be contacted relative to any questions.

It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

NOTE

Before closing a fire protection system control valve for inspection or maintenance work on the fire protection system that it controls, permission to shut down the affected fire protection system must first be obtained from the proper authorities and all personnel who may be affected by this action must be notified.

After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

MAINTENANCE PROCEDURE

It is recommended that the Strainers be flushed at least annually. More frequent flushing may be necessary where water supplies are non portable and/or contain debris which could clog 1/3 or more of the basket open area.

NOTES

Never disassemble or remove any strainer component without verifying that the system is depressurized and drained.

Strainers should be thoroughly flushed clean after each system operation or flow test and during routine inspections, as follows:

Step 1. Open the flushing connection valve and continue flow until the water runs clear.

Step 2. If heavy sediment in the water persists, or there are indications that all debris such as large stones may not have been removed, the system must be shut down, the Strainer drained, and the Basket Assembly removed for cleaning.

Step 3. Remove the Cover Assembly and the Basket Assembly. When removing the Basket Assembly, with draw it slowly to minimize the possibility of debris falling out the back.

Step 4. Clean out the Basket Assembly, as well as the inside of the Strainer Body.

Step 5. When reinstalling the Basket Assembly, make certain that the Basket Assembly End Ring with the "basket orienting pin hole" is at the Cover Assembly end of the Strainer, and that the "basket orienting pinhole" is at the top as shown in Figure 5.

Step 6. When reinstalling the Cover Assembly, make certain that the Basket Assembly is fully inserted into the Strainer Body, and that the Basket Orienting Pin will engage with the Basket Assembly End Ring (Fig. 5). Gradually cross tighten all bolts so that a uniform load is applied around the periphery of the Cover Assembly.

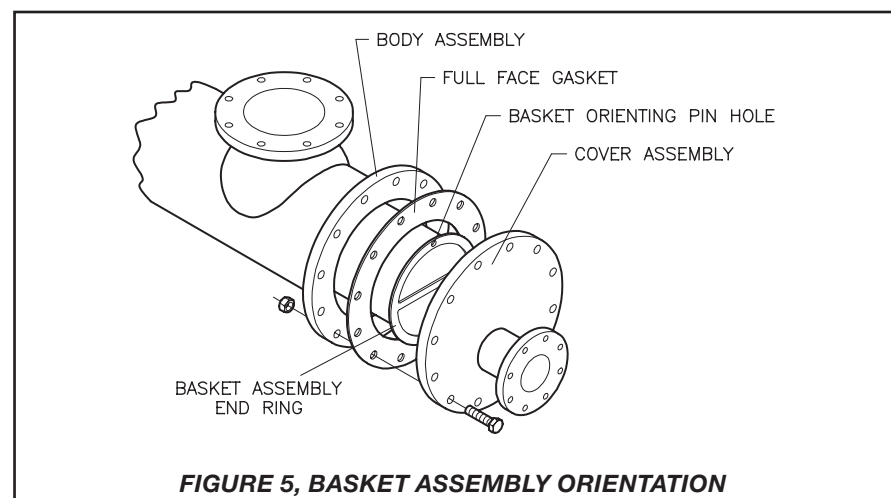


FIGURE 5, BASKET ASSEMBLY ORIENTATION

Limited Warranty

Products manufactured by Tyco Fire & Building Products (TFBP) are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by TFBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFBP or for products and components which have been subject to misuse, improper installation, corrosion, or which have not been installed, maintained, modified or repaired in accordance with applicable Standards of the National Fire Protection Association, and/or the standards of any other Authorities Having Jurisdiction. Materials found by TFBP to be defective shall be either repaired or replaced, at TFBP's sole option. TFBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFBP shall not be responsible for sprinkler system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

In no event shall TFBP be liable, in contract, tort, strict liability or under any other legal theory, for incidental, indirect, special or consequential damages, including but not limited to labor charges, regardless of whether TFBP was informed about the possibility of such damages, and in no event shall TFBP's liability exceed an amount equal to the sales price.

The foregoing warranty is made in lieu of any and all other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose.

This limited warranty sets forth the exclusive remedy for claims based on failure of or defect in products, materials or components, whether the claim is made in contract, tort, strict liability or any other legal theory.

This warranty will apply to the full extent permitted by law. The invalidity, in whole or part, of any portion of this warranty will not affect the remainder.

Ordering Procedure

Orders must include the description and Part Number (P/N). Contact your local distributor for availability.

Strainers:

Specify: (Specify size) Model C Pipe Line Strainer, P/N (specify).

6"x 6"	P/N 52-390-1-013
8"x 8"	P/N 52-390-1-016
8"x 6"x 6"	P/N 52-390-1-017
10"x 8"x 8"	P/N 52-390-1-019

Replacement Parts:

Specify: (Specify description) for (specify size) Model C Pipe Line Strainer, P/N (specify).

Stainless Steel Basket Assembly

6"x 6"	P/N 92-390-1-113
8"x 8"	P/N 92-390-1-116
8"x 6"x 6"	P/N 92-390-1-117
10"x 8"x 8"	P/N 92-390-1-119

Full Face Gasket

6"x 6"	P/N 92-390-1-313
8"x 8"	P/N 92-390-1-316
8"x 6"x 6"	P/N 92-390-1-316
10"x 8"x 8"	P/N 92-390-1-319