

Model C Pipe Line Strainer

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.

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
- Single and double outlet models

The Model C Pipe Line Strainer is a redesignation for the Gem Model C.

NOTICE

The Model C Pipe Line Strainers described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), 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. Contact the installing contractor or product manufacturer with any questions.

IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Technical Data

Approvals

UL and C-UL Listed
FM Approved

Maximum Working Pressure

250 psi (7,2 bar)

Finish

Galvanized

Friction Loss

Refer to Graphs A and B

Physical Characteristics

Body	Steel
Inlet Connection	Steel
End Connection	Steel
Basket Assembly	Stainless Steel
Gaskets	Fiberglass and Aramid with Nitrile Binder

Basket Screen Perforations

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

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 beneath 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.

Nominal Strainer Size ANSI Inches (DN)	Nominal Flange Connection Sizes ¹ ANSI Inches (DN)			Nominal Dimensions Inches (mm)			
	A Inlet	B Outlet	C Flushing	D	E	F	G
6 x 6 (150 x 150)	6 (150)	6 (150)	2-1/2 (65)	7 (177,8)	1-1/16 (27,0)	52-1/2 (1333,5)	39-1/2 (1003,3)
8 x 8 (200 x 200)	8 (200)	8 (200)	4 (100)	8-1/4 (209,6)	1-1/4 (31,8)	69-1/2 (1765,3)	54-3/4 (1390,7)

Notes:
 1. Refer to Table A for Inlet, Outlet and Flushing flange connection specifications

Nominal Strainer Size ANSI Inches (DN)	Nominal Dimensions Inches (mm)				Body ² NPS (DN)	Bolt Size Inch	Nominal Weight lb (kg)
	K	L	M	N			
6 x 6 (150 x 150)	25-3/4 (654,1)	44-7/8 (1139,8)	50 (1270,0)	13-1/2 (342,9)	8 (200)	3/4 x 3-1/2	260 (118)
8 x 8 (200 x 200)	32-1/4 (819,2)	60 (1524,0)	65 (1651,0)	16 (406,4)	10 (250)	7/8 x 3-1/2	500 (227)

Notes:
 2. Standard wall steel pipe per ASTM A53; Nominal size pipe saddle required for support of Strainer

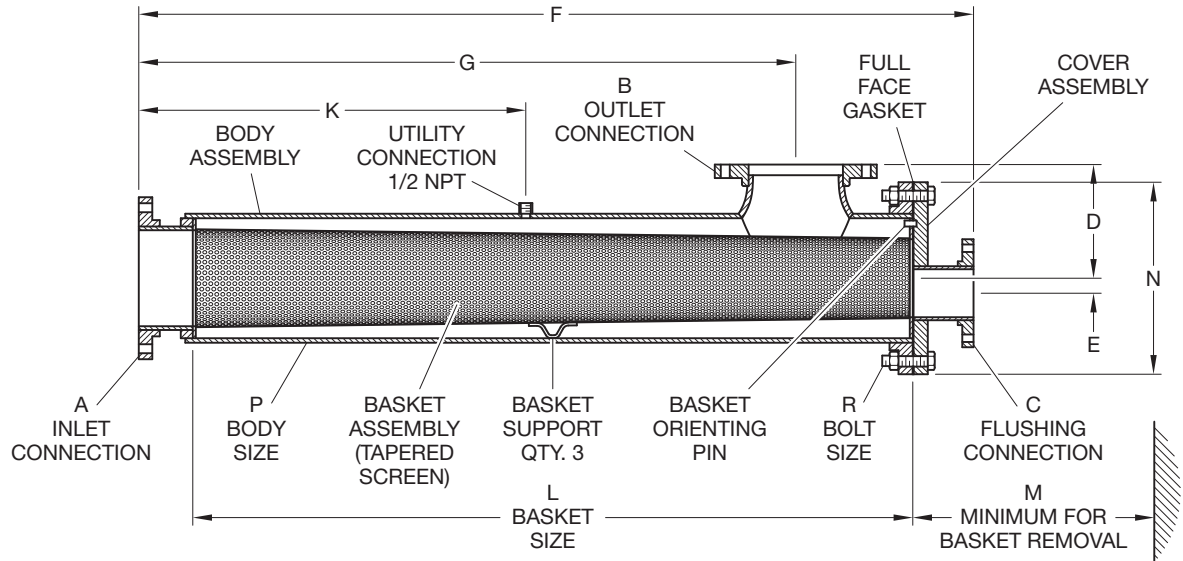


FIGURE 1
SINGLE OUTLET MODEL C PIPE LINE STRAINERS
ASSEMBLY AND DIMENSIONS

Nominal Strainer Size ANSI Inches (DN)	Nominal Flange Connection Sizes ¹ ANSI Inches (DN)			Nominal Dimensions Inches (mm)				
	A Inlet	B Outlet	C Flushing	D	E	F	G	H
8 x 6 x 6 (200 x 150 x 150)	8 (200)	6 (150)	4 (100)	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 (250 x 200 x 200)	10 (250)	8 (200)	4 (100)	11 (279,4)	3 (76,2)	84 (2133,6)	64-1/2 (1638,3)	19-1/2 (495,3)

Notes:

1. Refer to Table A for Inlet, Outlet and Flushing flange connection specifications

Nominal Strainer Size ANSI Inches (DN)	Nominal Dimensions Inches (mm)					Body ² NPS (DN)	Bolt Size Inch	Nominal Weight lb (kg)
	J	K	L	M	N			
8 x 6 x 6 (200 x 150 x 150)	36-1/4 (920,8)	36-5/8 (930,3)	59-1/4 (1505,0)	64 (1625,6)	16 (406,4)	10 (250)	7/8 x 3-1/2	510 (231)
10 x 8 x 8 (250 x 200 x 200)	45 (1143,0)	42 (1066,8)	70 (1778,0)	75 (1905,0)	19 (482,6)	12 (300)	7/8 x 3-1/2	855 (388)

Notes:

2. Standard wall steel pipe per ASTM A53; Nominal size pipe saddle required for support of Strainer

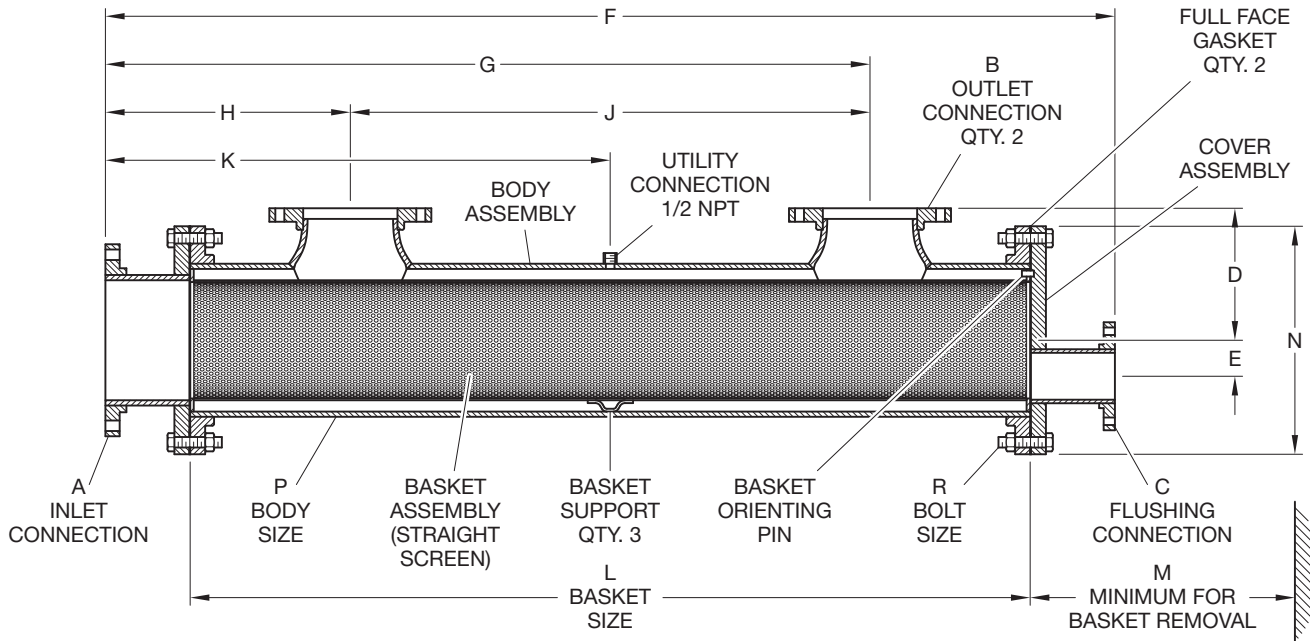
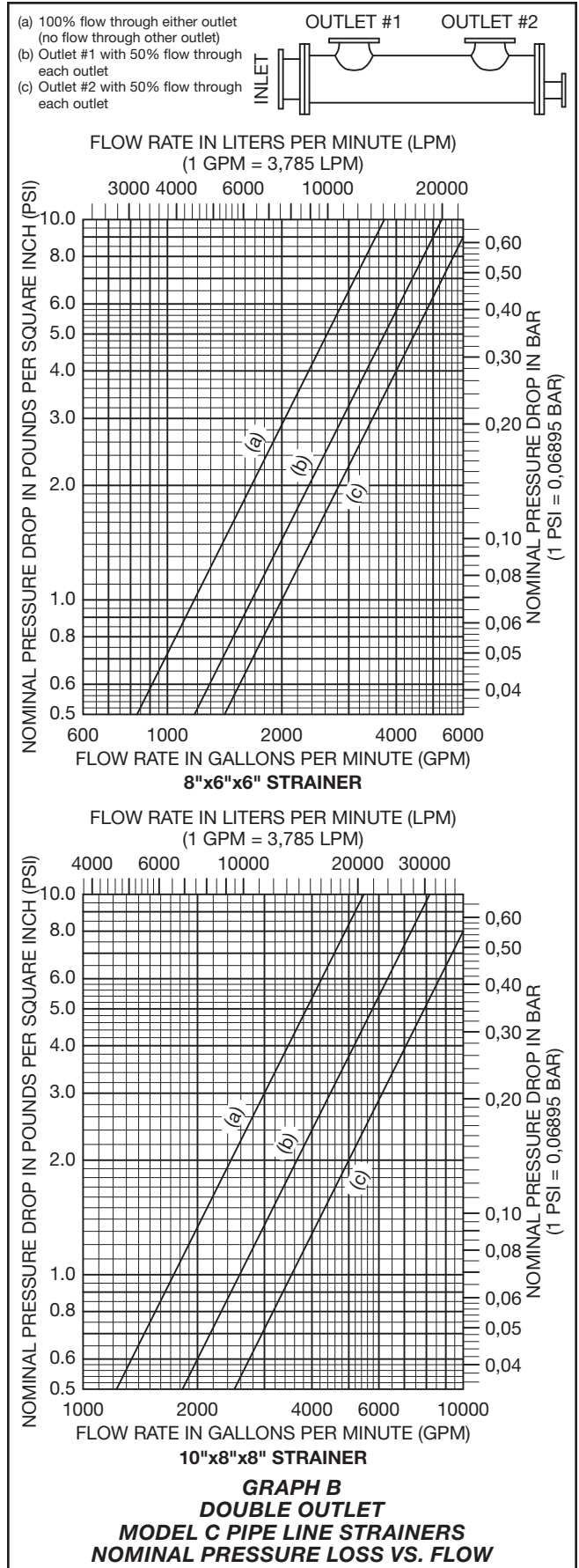
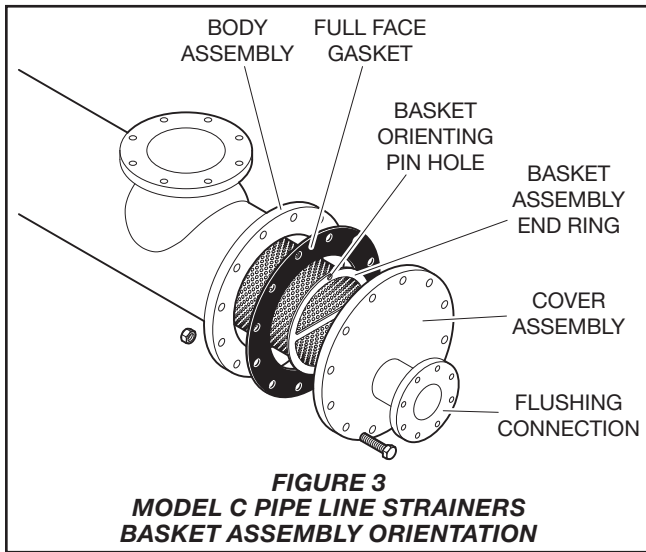
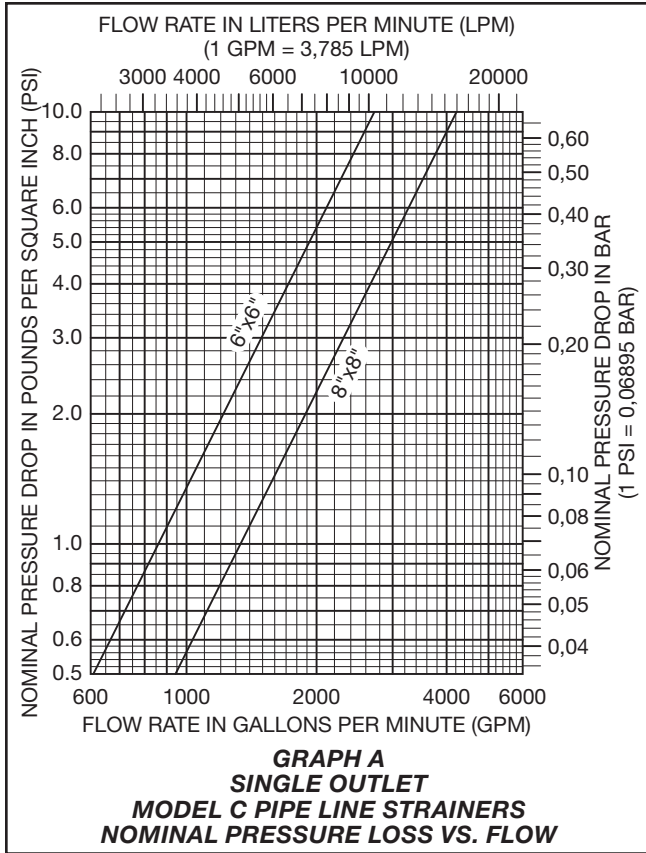


FIGURE 2
DOUBLE OUTLET MODEL C PIPE LINE STRAINERS
ASSEMBLY AND DIMENSIONS



Dim.	Flange Connection Size				
	Nominal Dimensions*, Inches (mm)				
	2-1/2 Inch (DN65)	4 Inch (DN100)	6 Inch (DN150)	8 Inch (DN200)	10 Inch (DN250)
A	5.50 (139,7)	7.50 (190,5)	9.50 (241,3)	11.75 (298,5)	14.25 (362,0)
B	0.75 (19,0)	0.75 (19,0)	0.88 (22,2)	0.88 (22,2)	1.00 (25,4)
Qty. N	4	8	8	8	12

* Flange drilling per ANSI B16.5 (Class 150)

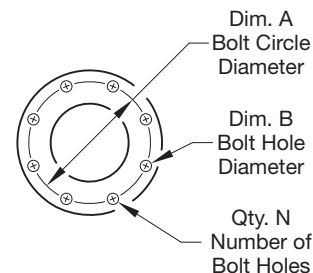


TABLE A
MODEL C PIPE LINE STRAINERS
OUTLET CONNECTION FLANGE DRILLING DIMENSIONS

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.

NOTE: 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 3.

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 (Ref. Figure 3). Gradually cross tighten all bolts so that a uniform load is applied around the periphery of the Cover Assembly.

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

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 in. x 6 in.	52-390-1-013
8 in. x 8 in.	52-390-1-016
8 in. x 6 in. x 6 in.	52-390-1-017
10 in. x 8 in. x 8 in.	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 in. x 6 in.	92-390-1-113
8 in. x 8 in.	92-390-1-116
8 in. x 6 in. x 6 in.	92-390-1-117
10 in. x 8 in. x 8 in.	92-390-1-019

Full Face Gasket

6 in. x 6 in.	92-390-1-313
8 in. x 8 in.	92-390-1-316
8 in. x 6 in. x 6 in.	92-390-1-316
10 in. x 8 in. x 8 in.	92-390-1-319

