



Model B-1 Pipe Line Strainer

General Description

The Model B-1 Pipe Line Strainers (Ref. Figures 1 and 2) are designed for installation in the water supply connection to automatic sprinkler, water spray deluge, foam-water deluge, or standpipe fire protection systems. The strainers 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 B-1 Pipe Line Strainer is a redesignation of the Gem Model B-1.

NOTICE

The Model B-1 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 (NFPA), in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the integrity 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.

Technical Data

Approvals

UL and C-UL Listed
FM Approved

Maximum Working Pressure

175 psi (12,1 bar)

Finish

Painted Red or Galvanized

IMPORTANT

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

Pipe Thread Connection

1/2 inch NPT

Friction Loss

Refer to Figure 3

Physical Characteristics

Body Cast Iron
Spool Piece Cast Iron or Steel
Inlet Connection Cast Iron
End Connection Cast Iron
Fasteners Zinc Plated, Carbon Steel
Gaskets SBR Rubber
Basket Assembly ... Stainless Steel or MONEL

Basket Screen Perforations

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

Design Criteria

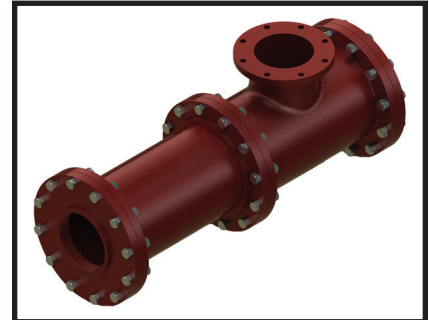
The Strainer is to be positioned horizontally as shown in Figures 1 or 2, and typically the outlet(s) are pointed vertically up as shown.

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 End Closure 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 (Ref. Figure 1 or 2) must be located underneath the center of the 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.



Strainer Figure Number	Nominal Inlet Pipe Size	Nominal Outlet Pipe Size† ANSI Inches (DN)	Dimensions inches (mm)							Bolt Size Inches	Nominal Weight, lb (kg)
			A	B	C	D	E	T/O	Nominal Size Support Saddle Required		
1262-1	3 NPT	2-1/2 (65)	7 (177,80)	11 (279,4)	8 (203,2)	13 (330,2)	5/8 (15,8)	3/16 (4,8)	8 (203,2)	3/4 x 3	152 (69)
1262-2*		3 (80)	7-1/2 (190,5)								152 (69)
1262-3		4 (100)	9 (228,6)								157 (71)
1262-5	4 NPT	3 (80)	7-1/2 (190,5)	13-1/2 (342,9)	9 (228,6)	15 (381,0)	1-3/8 (34,9)	1/4 (6,4)	10 (254,0)	3/4 x 3-1/4	232 (105)
1262-6*		4 (100)	9 (228,6)								235 (107)
1262-7		6 (150)	11 (279,4)								248 (113)
1262-8	6 NPT	4 (100)	9 (228,6)	19 (482,6)	12 (304,8)	21 (533,4)	3-1/2 (88,9)	3/8 (9,5)	14 (355,6)	7/8 x 3-1/2	521 (236)
1262-9*		6 (50)	11 (279,4)								580 (263)

* Classified as "Standard" when equipped with stainless steel baskets only.

† Refer to Table A for outlet flange connection specifications

T/O = Take Out for inlet pipe

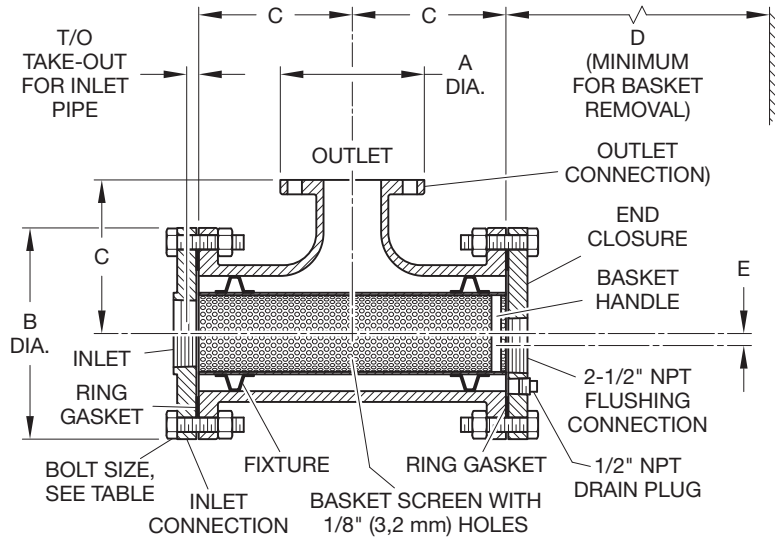


FIGURE 1
3, 4, AND 6 INCH MODEL B-1 PIPE LINE STRAINERS
ASSEMBLY AND DIMENSIONS

Strainer Figure Number	Nominal Outlet Pipe Size† ANSI inches (DN)		Nominal Weight lb (kg)
	Fitting A**	Figure B**	
1262-14	Spool Piece	6 (DN150)	885 (401)
1262-15	6 (DN150)	Spool Piece	885 (401)
1262-16	6 (DN150)	6 (DN150)	988 (448)
1262-19*	Spool Piece	8 (DN200)	892 (405)
1262-20	8 (DN200)	Spool Piece	892 (405)

* Classified as "Standard" when equipped with stainless steel baskets only.
 ** One nominal 14" (350) pipe saddle required for support of each strainer outlet
 † Refer to Table A for outlet flange connection specifications

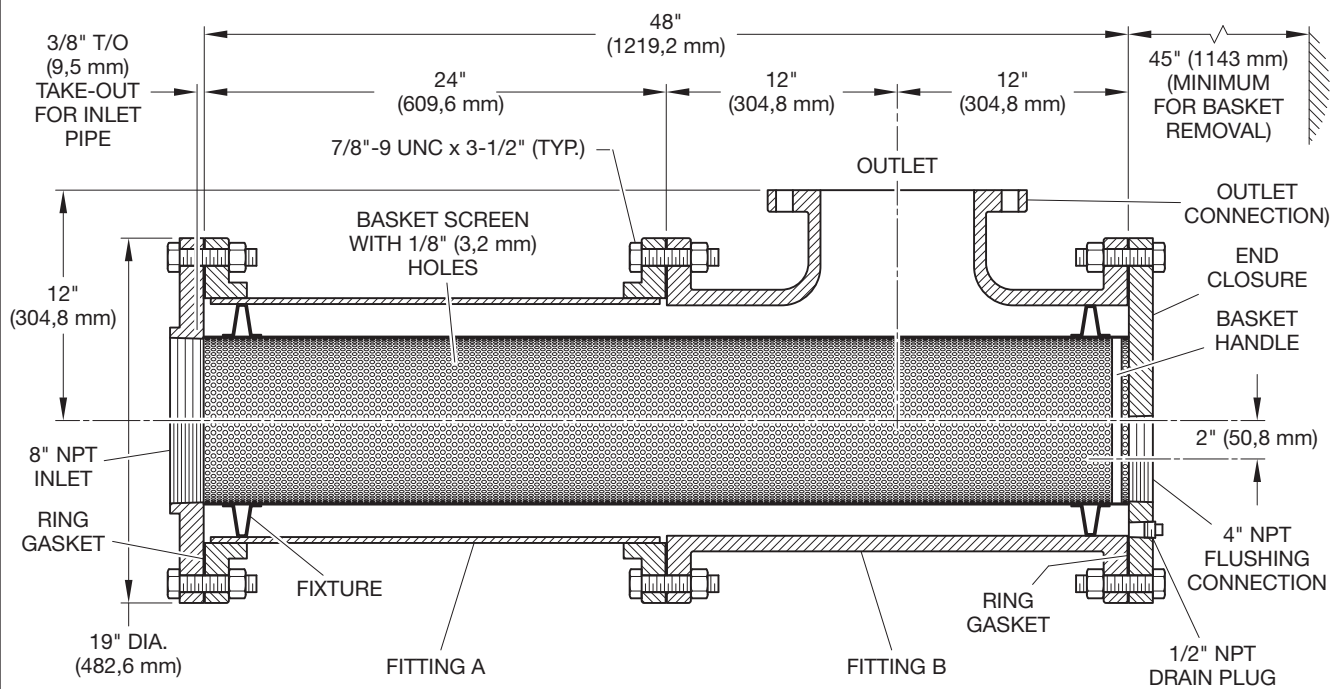
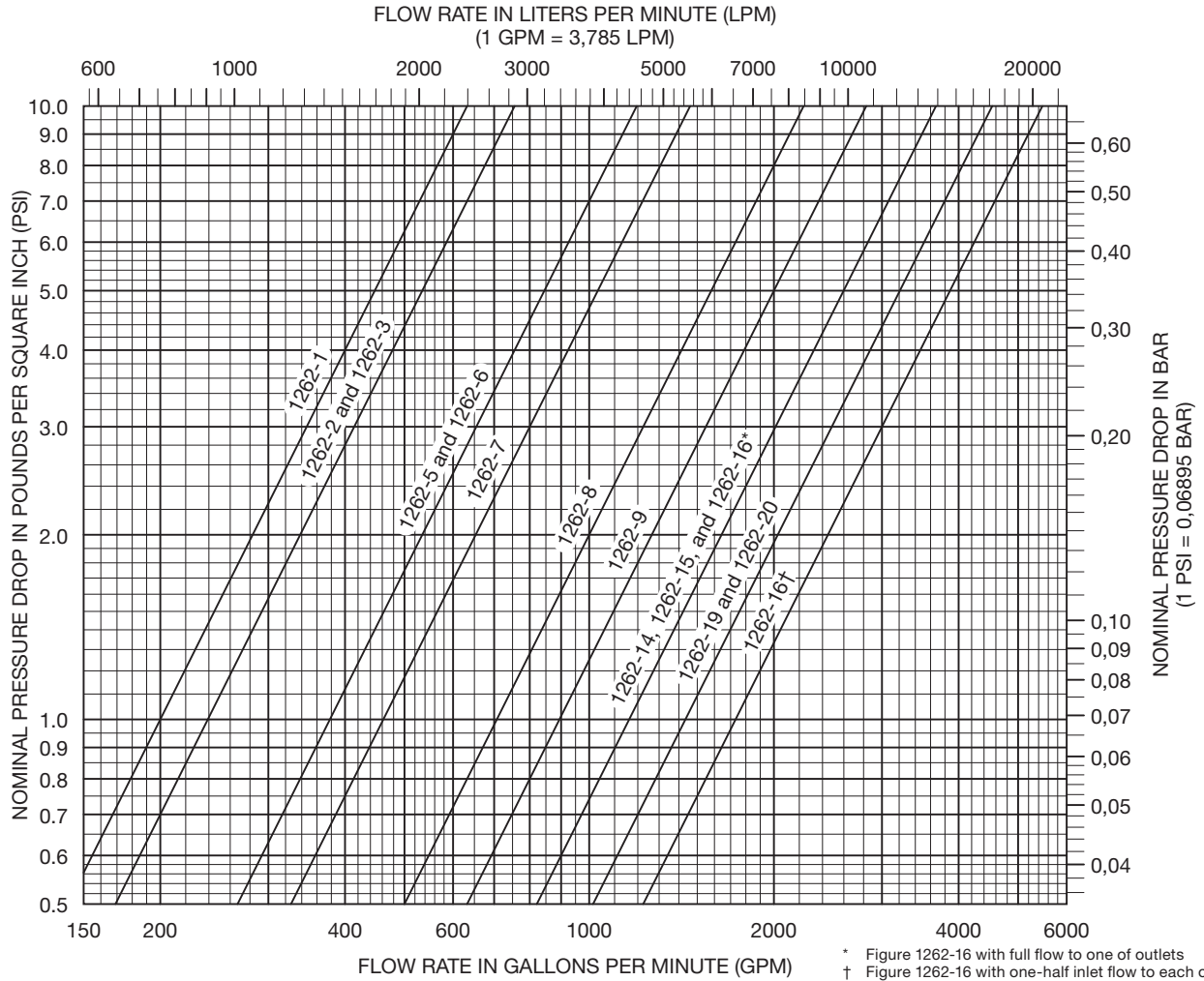


FIGURE 2
8 INCH MODEL B-1 PIPE LINE STRAINERS
ASSEMBLY AND DIMENSIONS



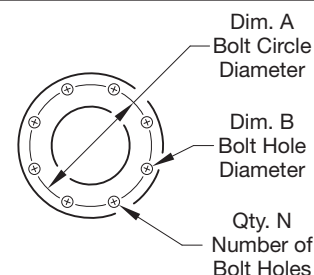
* Figure 1262-16 with full flow to one of outlets
 † Figure 1262-16 with one-half inlet flow to each outlet

Hazen and Williams Coefficient	Strainer Figure Number										
	Equivalent Length of Outlet Pipe, Feet (m)										
	1262-1	1262-2	1262-3	1262-5	1262-6	1262-7	1262-8	1262-9	1262-14 1262-15 1262-16*	1262-16†	1262-19 1262-20
C=100	5 (1,5)	11 (3,4)	45 (13,7)	4 (1,2)	18 (5,5)	97 (29,6)	5 (1,5)	27 (8,2)	16 (4,9)	27 (8,2)	45 (13,7)
C=120	7 (2,1)	15 (4,6)	63 (19,2)	6 (1,8)	26 (7,9)	135 (41,1)	7 (2,1)	37 (11,3)	22 (6,7)	37 (11,3)	60 (18,3)

* With full flow to one of outlets
 † With one-half inlet flow to each outlet
Note: The approximate friction losses are based on the Hazen and Williams formula and expressed in equivalent length of Schedule 40 pipe, calculated on the basis of flow rates typically used with each size strainer.

GRAPH A
MODEL B-1 PIPE LINE STRAINERS
NOMINAL PRESSURE LOSS VS. FLOW AND EQUIVALENT LENGTH OF PIPE

Dim.	Flange Connection Size				
	Nominal Dimensions*, Inches (mm)				
	2-1/2 Inch (DN65)	3 Inch (DN80)	4 Inch (DN100)	6 Inch (DN150)	8 Inch (DN200)
A	5.50 (139,7)	6.00 (152,4)	7.50 (190,5)	9.50 (241,3)	11.75 (298,5)
B	0.75 (19,0)	0.75 (19,0)	0.75 (19,0)	0.88 (22,2)	0.88 (22,2)
Qty. N	4	4	8	8	8



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

TABLE A
MODEL B-1 PIPE LINE STRAINERS
OUTLET CONNECTION FLANGE DRILLING DIMENSIONS

Installation

The Model B-1 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 maintenance procedure must be performed as indicated, in addition to any specific requirements of the NFPA. Any impairments must be immediately corrected.

The owner is responsible for the inspection, testing and maintenance of their fire protection systems 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. Contact the installing contractor or product manufacturer with 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-potable 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 valve in the flushing connection 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 and the Basket removed for cleaning. The Basket may be slid out after unbolting the End Closure.

Step 3. When removing the strainer Basket, withdraw it slowly to minimize the possibility of debris falling out the back. Clean out the inside of the housing before replacing the strainer Basket.

Step 4. When reinstalling the end closure, gradually cross tighten all bolts so that a uniform load is applied around the periphery.

Ordering Procedure

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

NOTE: Standard strainers have the same size inlet and outlet connection, a stainless steel basket assembly, and red painted external surfaces.

Standard Strainers

Specify: Standard (specify size) inch Inlet Figure (specify number) Model B-1 Strainer, P/N (specify):

1262-2	52-370-1-011
1262-6	52-370-1-013
1262-9	52-150-1-015
1262-19	52-150-1-016

Special Strainers

Specify: Special (specify size) inch Inlet Figure (specify number) Model B-1 Strainer with (specify stainless steel or MONEL) basket assembly and (specify red painted or galvanized)

Replacement Parts

Specify: (Description) for use with (specify Inlet size) Model B-1 Strainer, P/N (specify):

Stainless Steel Basket Assembly

3 inch.....	92-370-1-102
4 inch.....	92-370-1-104
6 inch.....	92-370-1-106
8 inch.....	92-370-1-108

MONEL Basket Assembly

3 inch.....	92-370-3-102
4 inch.....	92-370-3-104
6 inch.....	92-370-3-106
8 inch.....	92-370-3-108

Ring Gasket

3 inch.....	92-370-1-015
4 inch.....	92-370-1-016
6 or 8 inch.....	92-370-1-018

