

**PARTS & ACCESSORIES:  
BASKET-TYPE LINE STRAINERS**  
VIKING LID-EASE® SIMPLEX STRAINERS

Section	1986
Page	1986.1
Issue	A

**TABLE OF CONTENTS**

Related Products ..... 1  
 Series Description ..... 1  
 Features & Benefits ..... 1  
 Model Number Key ..... 2  
 Magnetic Inserts (Optional) ..... 2  
 Pressure Differential Indicators - PDI (Optional) ..... 2  
 Features ..... 3  
 Available Mesh Sizes ..... 3  
 Specifications – Strainers ..... 3  
 Construction – Cast Iron ..... 4  
 Specifications – Cast Iron ..... 4  
 Construction – Stainless Steel ..... 4  
 Specifications – Stainless Steel ..... 4  
 Dimensions – Strainers With Tapped Ports ..... 5  
 Dimensions – Strainers With Flanged Ports ..... 5  
 Pressure Drop Information ..... 6  
 O-Ring Kit Offerings ..... 7

**RELATED PRODUCTS**

Parts & Accessories, Bolted-Lid Simplex Strainers:  
 Catalog Section 1987

**SERIES DESCRIPTION**

Viking Lid-Ease® Simplex Strainers provide protection for your pumping system with low pressure drop. The inclined position of the strainer basket adjacent to the porting provides smooth flow patterns not found in conventional basket-type strainers.

Viking's Lid-Ease Simplex Strainers reduce cleaning problems encountered with conventional strainers. Simple lid rotation disengages the breech lock type lid permitting easy removal of the basket. Basket is removed from the top of the strainer, possibly eliminating the need to completely drain the system or allowing foreign matter to drop back into the line when the strainer is cleaned. The relatively small port-to-port dimensions of the strainer allow easy installation.

Viking Lid-Ease Simplex Strainers are designed with a weatherseal lid to protect the breech lock area from exterior elements and prevent air infiltration into the pump suction. Strainers are also equipped with a drain plug for complete draining of strainer if needed.

Tapped or flanged end ports available.

**FEATURES & BENEFITS**

- Quarter-turn, easy opening breech-lock lid simplifies routine cleaning with no special tools required
- Inclined basket design provides low pressure drop for high system efficiency and allows for smooth flow patterns
- Simple Cleaning: When basket requires cleaning simply vent system pressure, remove lid and withdraw basket from top (foreign matter contained in basket will not drop back into system)
- Top basket removal eliminates the need to drain the strainer and minimizes product loss
- Small in overall dimension and light in weight
- Viking quality construction in cast iron or stainless steel
- Optional magnetic inserts are available for trapping ferrous particles
- Optional differential pressure indicators optimize cleaning intervals



F-1060-FIRN



F-1030-FSST



F-1007-IIRN

Section	1986
Page	1986.2
Issue	A

**PARTS & ACCESSORIES:  
BASKET-TYPE LINE STRAINERS  
VIKING LID-EASE® SIMPLEX STRAINERS**

**MODEL NUMBER KEY**

**F - 1 0 2 0 - I I R N - 0 1 3**

**Product:**  
F = Strainer

**Port Sizes:**  
007 = ¾"    020 = 2"    060 = 6"  
010 = 1"    030 = 3"    080 = 8"  
015 = 1½"    040 = 4"

**Material:**  
IRN = Cast Iron  
SST = Stainless Steel

**Basket Mesh:**  
0 = No Mesh    4 = 60 Mesh  
1 = 10 Mesh    5 = 80 Mesh  
2 = 20 Mesh    6 = 100 Mesh  
3 = 40 Mesh

**Product Type:**  
1 = Simplex Type

**Port Types:**  
I = Internal Tapped Threads (NPT)  
F = Flanged

**Elastomer Seal:**  
01 = Buna-N — Cast Iron  
02 = Fluoroelastomer (FKM) — Stainless Steel

**Example:**

**F-1020-IIRN-013**

A cast iron simplex strainer with 2" NPT ports, Buna-N O-Ring seal, 40 mesh basket.

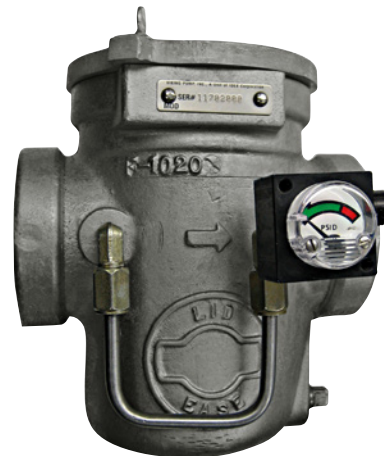
**MAGNETIC INSERTS (OPTIONAL)**



Magnetic inserts are available for trapping ferrous particles too small for the basket straining media. The inserts are secured to basket handle using a spring clip which makes removal for cleaning a simple task.

Part Number	Strainer Port Size	Number of Inserts
3-490-032-999-00	¾" & 1"	1
3-490-030-999-00	1½" & 2"	1
3-490-029-999-00	3"	2
3-490-031-999-00	4"	2
3-490-031-999-00	6"	3

**PRESSURE DIFFERENTIAL INDICATORS - PDI (OPTIONAL)**



Pressure differential indicators are available as an option to indicate when basket needs to be cleaned. Consult Factory.

Part Number	Material	Pressure Range	Strainer Location
2-318-012-999-00	Aluminum	0-5 PSI	Suction
2-318-007-999-00	Stainless Steel	0-5 PSI	Suction
2-318-013-999-00	Aluminum	0-50 PSI	Discharge
2-318-008-999-00	Stainless Steel	0-50 PSI	Discharge

# PARTS & ACCESSORIES: BASKET-TYPE LINE STRAINERS

## VIKING LID-EASE® SIMPLEX STRAINERS

Section	1986
Page	1986.3
Issue	A

### FEATURES

Strainer bodies are available in cast iron or stainless steel materials. For normal use, baskets of double wall construction are recommended. The inner stainless steel screen (10, 20, 40, 60, 80 or 100 mesh) is rigidly supported by a perforated stainless steel basket having maximum hoop strength so that a high differential pressure over the basket will not burst or distort the basket to the extent that it cannot be withdrawn from the body.

Stainless steel construction can also be used for steel requirements in the chemical, petrochemical and pharmaceutical industries.

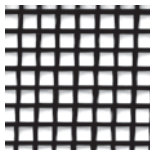
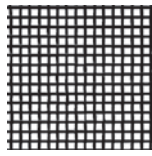
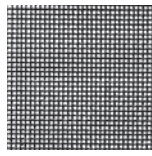
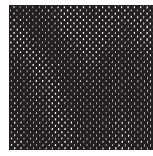
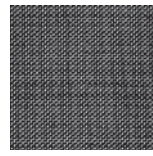
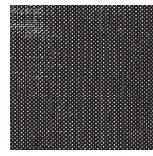


**Tapped Ports**  
3/4", 1", 1½", 2" & 3"



**Flanged Ports**  
2", 3", 4", 6" & 8"

### AVAILABLE MESH SIZES

						
Mesh	10	20	40	60	80	100
Opening (Inches)	.075	.034	.015	.0092	.007	.0055
Opening (Microns)	1910	860	380	230	190	140

### SPECIFICATIONS – STRAINERS

Model Number	Port Size	Nominal Pipe Area	① Standard Basket Perforation	Basket Surface Area	Basket Free Area	Ratio Free Area / Port Area	Maximum Basket Differential Pressure
	Inches	Inches <sup>2</sup>	Inches	Inches <sup>2</sup>	Inches <sup>2</sup>		PSID
F-1007	3/4	.53	.156	8.6	5.4	10.2	150
F-1010	1	.86	.156	8.6	5.4	6.3	150
F-1015	1½	2.04	.156	17.9	11.3	5.5	150
F-1020	2	3.36	.188	33	16.8	5.0	150
F-1030	3	7.39	.188	66	33.7	4.6	125
F-1040	4	12.73	.188	113	57.6	4.5	125
F-1060	6	28.9	.188	233	118.8	4.1	75
F-1080	8	50.0	.188	636	324.7	6.5	50

① For other basket perforations, consult the factory.

Section	1986
Page	1986.4
Issue	A

## PARTS & ACCESSORIES: BASKET-TYPE LINE STRAINERS VIKING LID-EASE® SIMPLEX STRAINERS

### CONSTRUCTION – CAST IRON

Body & Lid	O-Ring for Lid	Basket Material
Cast Iron	① Buna-N	316 Stainless Steel

① Buna-N O-Ring standard, Fluoroelastomer (FKM) and PTFE (Derivative) Encapsulated optional. For other materials consult factory.

### SPECIFICATIONS – CAST IRON

Model Numbers	Port Size	① Nominal Capacity Suction Rating	Rated System Pressure	② Temperature Range	Approximate Shipping Weight
	Inches				
F-1007-IIRN	③ ¾"	20	200	-40 to 400	7
F-1010-IIRN	③ 1"	30	200	-40 to 400	7
F-1015-IIRN	③ 1½"	50	200	-40 to 400	9
F-1020-FIRN	④ 2"	100	200	-40 to 400	16
F-1020-IIRN	③ 2"				13
F-1030-FIRN	④ 3"	200	⑤ 125	-40 to 400	40
F-1030-IIRN	③ 3"				30
F-1040-FIRN	④ 4"	400	⑤ 125	-40 to 400	73
F-1060-FIRN	④ 6"	800	⑤ 125	-40 to 400	120
F-1080-FIRN	④ 8"	1500	⑤ 125	-40 to 400	300



1½" Port Size  
Cast Iron  
Tapped Ports

- ① Capacity based on approx. 1 PSI pressure drop with 40 mesh basket and 38 SSU liquid.
- ② Elastomers suitable for temperature must be used.
- ③ Tapped ports compatible with standard pipe. (NPT Threads)
- ④ Flanged ports suitable for use with 125# ANSI cast iron or 150# ANSI steel companion flanges or flanged fittings.
- ⑤ 175 PSI on liquid temperature below 150° F.



4" Port Size  
Stainless Steel  
Flanged Ports

- ① Capacity based on approx. 1 PSI pressure drop with 40 mesh basket and 38 SSU liquid.
- ② Elastomers suitable for temperature must be used.
- ③ Tapped ports compatible with standard pipe. (NPT Threads)
- ④ Flanged ports suitable for use with 125# ANSI cast iron or 150# ANSI steel companion flanges or flanged fittings.
- ⑤ 175 PSI on liquid temperature below 150° F.

### CONSTRUCTION – STAINLESS STEEL

Body & Lid	O-Ring for Lid	Basket Material
316 Stainless Steel	① FKM	316 Stainless Steel

① FKM O-Ring standard, Buna-N and PTFE (Derivative) Encapsulated optional. For other materials consult factory.

### SPECIFICATIONS – STAINLESS STEEL

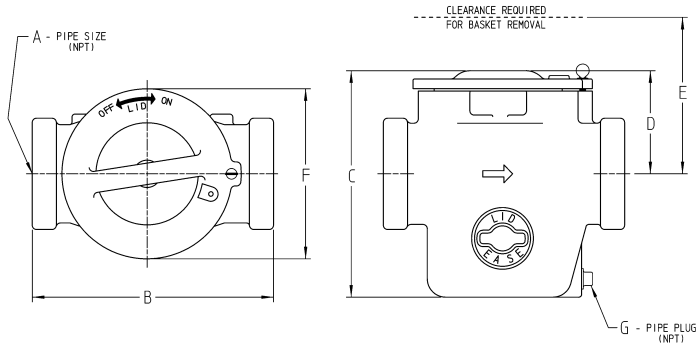
Model Numbers	Port Size	① Nominal Capacity Suction Rating	Rated System Pressure	② Temperature Range	Approximate Shipping Weight
	Inches				
F-1007-ISST	③ ¾"	20	200	-100 to 400	7
F-1010-ISST	③ 1"	30	200	-100 to 400	7
F-1015-ISST	③ 1½"	50	200	-100 to 400	10
F-1020-FSST	④ 2"	100	200	-100 to 400	20
F-1020-ISST	③ 2"				14
F-1030-FSST	④ 3"	200	⑤ 125	-100 to 400	44
F-1040-FSST	④ 4"	400	⑤ 125	-100 to 400	77
F-1060-FSST	④ 6"	800	⑤ 125	-100 to 400	128

# PARTS & ACCESSORIES: BASKET-TYPE LINE STRAINERS

## VIKING LID-EASE® SIMPLEX STRAINERS

Section	1986
Page	1986.5
Issue	A

### DIMENSIONS – STRAINERS WITH TAPPED PORTS

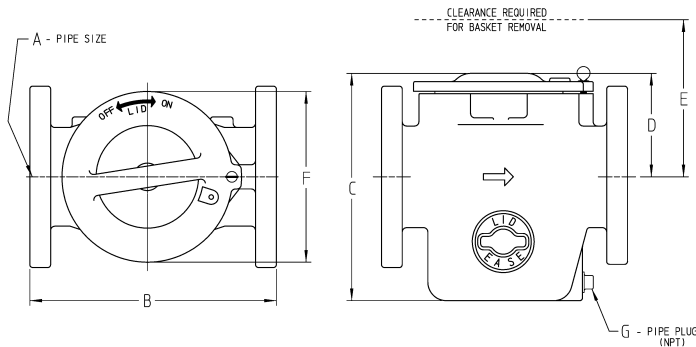


MODEL	② A		B	C	D	E	F	G
F-1007-I ①	¾	in	4.40	5.36	2.46	7.00	3.25	⅛
		mm	112	136	63	178	83	
F-1010-I ①	1	in	4.40	5.36	2.46	7.00	3.25	⅛
		mm	112	136	63	178	83	
F-1015-I ①	1½	in	5.00	6.36	2.74	8.00	4.00	⅛
		mm	127	162	70	203	102	
F-1020-I ①	2	in	6.38	7.12	3.32	7.50	4.60	¼
		mm	162	181	84	191	117	
F-1030-I ①	3	in	10.00	9.31	4.18	9.50	7.06	½
		mm	254	236	106	241	179	

① IRN—Iron, SST—Stainless Steel. (See specifications tables for available materials of construction).

② Tapped ports compatible with standard pipe. (NPT Threads)

### DIMENSIONS – STRAINERS WITH FLANGED PORTS



MODEL	② A		B	C	D	E	F	G
F-1020-F ①	2	in	7.30	7.12	3.32	7.50	4.60	¼
		mm	185	181	84	191	117	
F-1030-F ①	3	in	10.00	9.31	4.18	9.50	7.06	½
		mm	254	236	106	241	179	
F-1040-F ①	4	in	12.25	10.88	4.44	11.75	8.31	½
		mm	311	276	113	298	211	
F-1060-F ①	6	in	16.25	15.12	6.12	16.50	11.44	½
		mm	413	384	155	419	291	
F-1080-F ①	8	in	24.50	22.38	7.50	24.50	17.00	1
		mm	622	568	191	622	432	

① IRN—Iron, SST—Stainless Steel (See specifications tables for available materials of construction).

② Flanged ports suitable for use with 125# ANSI cast Iron or 150# ANSI steel or stainless steel companion flanges or flanged fittings.

These dimensions are average and not for construction purposes. Certified prints on request.



Section	1986
Page	1986.6
Issue	A

# PARTS & ACCESSORIES: BASKET-TYPE LINE STRAINERS

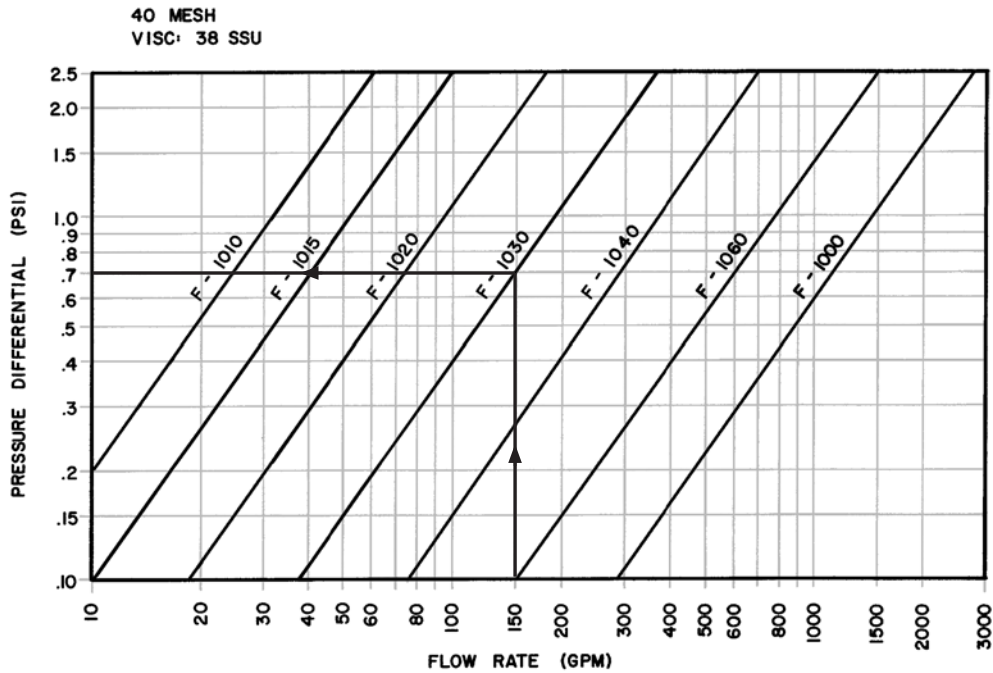
## VIKING LID-EASE® SIMPLEX STRAINERS

### PRESSURE DROP INFORMATION

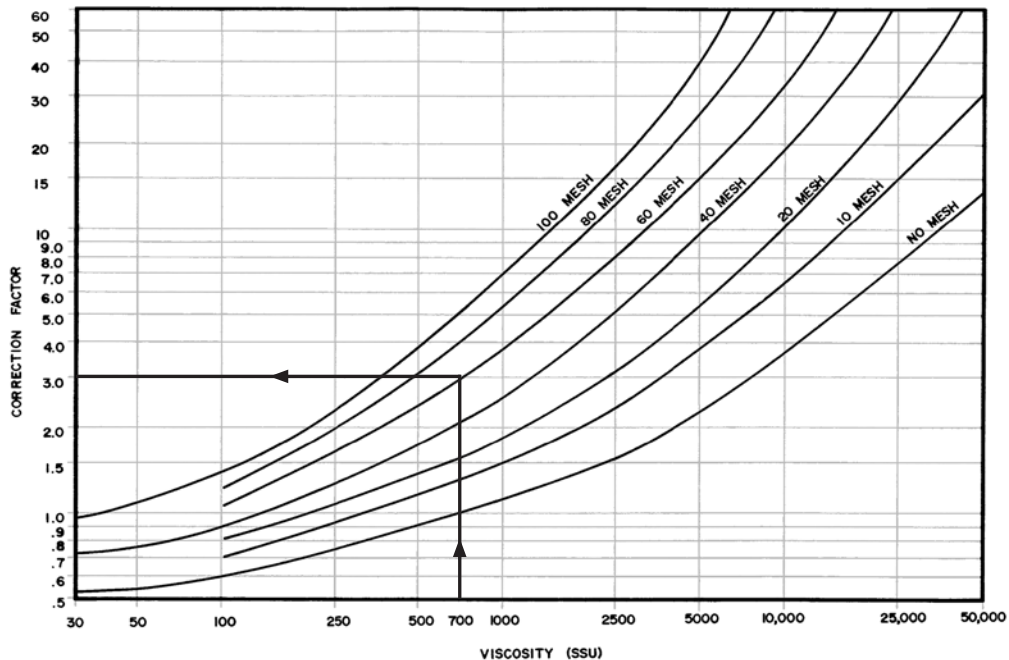
**Example:** To determine the pressure drop across a strainer for a pump with 3" ports producing a flow rate of 150 GPM, with a viscosity of 700 SSU; first, determine the nominal pressure differential for the 3" strainer (F-1030) by following 150 GPM vertically until it intersects the F-1030 curve then read horizontally on the Pressure Drop Curve the nominal

pressure differential (.7 psi). Using the Correction Curves, enter vertically at 700 SSU and proceed until intersecting the 60 mesh curve, then read the correction factor horizontally (3.0). Therefore, the actual pressure drop will be  $3.0 \times .7 = 2.1$  psi (4.28" of Hg.)

### Pressure Drop Curves



### Correction Curves



**PARTS & ACCESSORIES:**  
**BASKET-TYPE LINE STRAINERS**  
**VIKING LID-EASE® SIMPLEX STRAINERS**

Section	1986
Page	1986.7
Issue	A

**O-RING KIT OFFERINGS**

Kit Part Number	Size	Description
3-464-ORG-860-K100	3/4" & 1"	Buna O-Rings
3-464-ORG-860-K101	1.5"	Buna O-Rings
3-464-ORG-860-K102	2"	Buna O-Rings
3-464-ORG-860-K103	3'	Buna O-Rings
3-464-ORG-860-K104	4"	Buna O-Rings
3-464-ORG-860-K105	6"	Buna O-Rings
3-464-ORG-860-K106	8"	Buna O-Rings
3-464-ORG-867-K200	3/4" & 1"	Fluoroelastomer (FKM) O-Rings
3-464-ORG-867-K201	1.5"	FKM O-Rings
3-464-ORG-867-K202	2"	FKM O-Rings
3-464-ORG-867-K203	3'	FKM O-Rings
3-464-ORG-867-K204	4"	FKM O-Rings
3-464-ORG-867-K205	6"	FKM O-Rings
3-464-ORG-867-K206	8"	FKM O-Rings
3-464-ORG-875-K300	3/4" & 1"	PTFE O-Rings
3-464-ORG-875-K301	1.5"	PTFE O-Rings
3-464-ORG-875-K302	2"	PTFE O-Rings
3-464-ORG-875-K303	3'	PTFE O-Rings
3-464-ORG-875-K304	4"	PTFE O-Rings
3-464-ORG-875-K305	6"	PTFE O-Rings