

Metering system components require protection against the damage potential of dirt and debris. Smith Meter® **Pipeline Strainers** provide this protection for 4" and larger turbine and positive displacement meter applications.

## Standard Features

- 304 Stainless Steel Perforated Plate Basket
- Blind Flange-Type Cover with Lifting Lug
- ½" NPT Differential Pressure Taps
- NPT Vent and Drain Taps
- Basket Seal

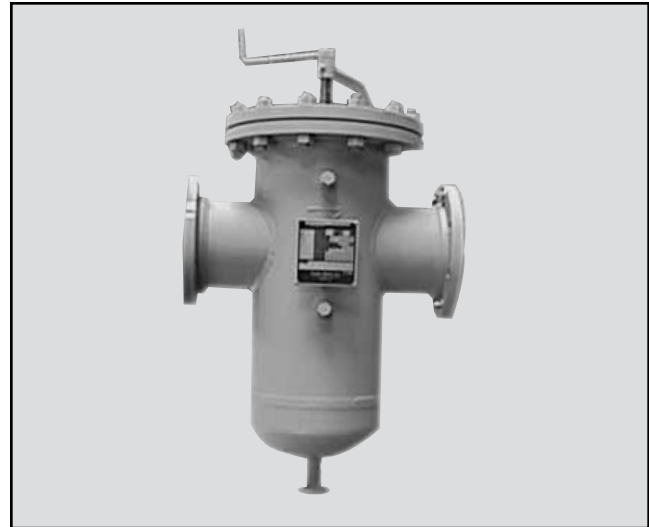
## Options

- 304 Stainless Steel Basket Liners in 10, 20, or 40 mesh.
- Air Release Kit for static air elimination.
- Basket Differential Pressure Gauge Kit with isolation valves to monitor basket cleanliness. Also available with reed **Switch Kit** adjustable from 0 – 30 psi (0 – 207 kPa) for remote indication.
- Quick Closure style covers.
- ASME Section VIII design and fabrication.
- NACE Compliance. Pressure containing components in compliance with the material requirements of the latest revision of NACE standard MR-01-75 for hydrogen sulfide applications.

## Operating Specifications

### Maximum Working Pressure

Flange Class	Working Pressure @ 100°F (93.3°C) PSI (kPa)
ANSI B16.5, 150 RF	285 (1965)
ANSI B16.5, 300 RF	740 (5102)
ANSI B16.5, 600 RF	1480 (10,204)



8" – 300 lb Strainer with Optional Quick Closure, Davit Style and Flanged Drain

### Temperature Range

Elastomer	Range
<b>Non-Asbestos</b> Build Flange Cover Fiber Gasket	-20°F to 500°F (-29°C to 260°C)
<b>Optional Cover Seals</b>	C/F
<b>Buna-N</b> (Optional RB Air Release Head)	-20°F to 225°F (-29°C to 107°C)
<b>Viton</b> (Optional RB/UB Air Release Head)	0°F to 400°F (-18°C to 205°C)
<b>PTFE<sup>1</sup></b> (Optional UB Air Release Head)	-20°F to 450°F (-29°C to 232°C)

### Baskets

Perforation/Mesh	Opening Size	Open Area
304 SS Perforated Plate (Standard)	1/8" holes on 3/16" Centers	40%
10 Mesh Liner	0.075"	56%
20 Mesh Liner	0.034"	46%
40 Mesh Liner	0.015"	36%

\*Open area for liner only, not a combination of liner and perforate plate.

<sup>1</sup> Polytetrafluoroethylene (PTFE).

## Standard Materials of Construction

### Strainer Body/Internals

Housing	Carbon Steel
Flanges	Carbon Steel
Basket	304 Stainless Steel
Optional Mesh Liners	304 Stainless Steel
Cover and Basket Seal	Non-Asbestos Gasket (Blind Flange-Type Cover); Buna-N Quick Closures
Seal	Non-Asbestos Gasket

### Optional Air Release Kits

Kit	Pressure Ratings	Seals	Materials
RB-Type	Up to 300 psi (2068 kPa)	Buna-N, Viton	Housing: Carbon Steel; Float: Stainless Steel; Internal Parts: Aluminum, Stainless Steel
UB-Type	Up to 720 psi (4964 kPa)	Viton, PTFE <sup>1</sup> , Chemraz	Housing: Carbon Steel; Float: Stainless Steel; Internal Parts: Stainless Steel
HP-Type	For 1480 psi (9929 kPa)	Buna-N	Housing: Cast Iron; Float: Stainless Steel; Internal Parts: Stainless Steel

### Pressure Drop

Base Model	Flow Units <sup>2</sup>	Reference Flow Rate	Pressure Drop at Reference Flow Rate	
			psi	Kg/cm <sup>3</sup>
03_-6-B	GPM	500	C/F	C/F
	BPH	720		
	m <sup>3</sup> h	115		
04_-10-B	GPM	720	2.5	0.18
	BPH	1,030		
	m <sup>3</sup> h	163		
06_-12-B	GPM	1,200	2.0	0.14
	BPH	1,714		
	m <sup>3</sup> h	273		
06_-18-B	GPM	2,800	1.25	0.09
	BPH	4,000		
	m <sup>3</sup> h	635		
08_-14-B	GPM	1,750	1.5	0.11
	BPH	2,500		
	m <sup>3</sup> h	400		
08_-20-B	GPM	6,440	8.0	0.56
	BPH	9,200		
	m <sup>3</sup> h	1,460		
10_-16-B	GPM	2,450	1.5	0.11
	BPH	3,500		
	m <sup>3</sup> h	550		

Base Model	Flow Units <sup>2</sup>	Reference Flow Rate	Pressure Drop at Reference Flow Rate	
			psi	Kg/cm <sup>3</sup>
10_-18-B	GPM	3,290	2.0	0.14
	BPH	4,700		
	m <sup>3</sup> h	740		
10_-24-B	GPM	11,200	10.0	0.70
	BPH	16,000		
	m <sup>3</sup> h	2,540		
12_-18-B	GPM	5,040	3.5	0.25
	BPH	7,200		
	m <sup>3</sup> h	1,140		
12_-20-B	GPM	5,040	2.5	0.18
	BPH	7,200		
	m <sup>3</sup> h	1,140		
12_-26-B	GPM	15,050	9.0	0.63
	BPH	21,500		
	m <sup>3</sup> h	3,400		
16_-24-B	GPM	8,750	3.0	0.21
	BPH	12,500		
	m <sup>3</sup> h	2,000		
16_-36-B	GPM	23,450	9.3	0.65
	BPH	33,500		
	m <sup>3</sup> h	5,325		

<sup>1</sup> Polytetrafluoroethylene (PTFE).

<sup>2</sup> Metric Units are nominal and may not convert precisely.

<sup>3</sup> Estimated Pressure Drop based upon 0.8 s.g., 2.0 cP liquid, clean perforated plate basket with 1/8" holes on 3/16" centers. For pressure drop with liners, multiply by the following factors: 10 mesh: x 1.25; 20 mesh: x 1.30; 40 mesh: x 1.35.

## Modeling\*

Example: 10 - 1 - 18 - B - 8 - PP - N - PL - T - 0

### Flange Size

04 - 4" 10 - 10"

06 - 6" 12 - 12"

08 - 8" 16 - 16"

### ANSI Flange Class/Max. Working Pressure @ 100° F (38° C)

1 - Class 150 RF / 285 psi

3 - Class 300 RF / 740 psi

6 - Class 600 RF / 1480 psi

### Body Diameter (Inches)

### Closure Style

**B** - Blind Flange  
(Standard - All Ratings)

**S** - Swing Bolt  
(Optional for 150# Only)

**D** - Davit  
(Optional for 300# / 600# Only)

### Design

**8** - ASME Sect VIII

### Special Features

**0** - None

**D** - Dye Penetrant

**M** - Mag Particle

**N** - Nace

**S** - Special

**X** - 100% X-ray

### Differential Pressure Gauge/Switch

**T** - None - Pressure Taps Only (Standard)

**G** - Differential Pressure Gauge

**S** - Differential Pressure Gauge and Switch Kit

### Vent / Air Release

**PL** - Plugged NPT Vent Port (Standard)

**R1** - RB Head w/ Buna-N, 300 psig

**R2** - RB Head w/ Viton, 300 psig

**U1** - UB Head w/ Viton, 720 psig

**U2** - UB Head w/ PTFE<sup>1</sup>, 720 psig

**U3** - UB Head w/ Viton, 300 psig

**U4** - UB Head w/ Chemraz, 300 psig

**HP** - High Pressure Type w/ Buna-N, 1480 psig w.p.

### Cover Seals

**N** - Non-Asbestos Fiber Gasket (Standard with Blind Flange and Davit Closures)

**B** - Buna-N (Swing Bolt Style Closures)

**S** - Special

### Basket

**PP** - 304 SS Perforated Plate - No Liner (Standard)

**10** - Basket + 10 Mesh 304 SS Permanent Liner

**20** - Basket + 20 Mesh 304 SS Permanent Liner

**40** - Basket + 40 Mesh 304 SS Permanent Liner

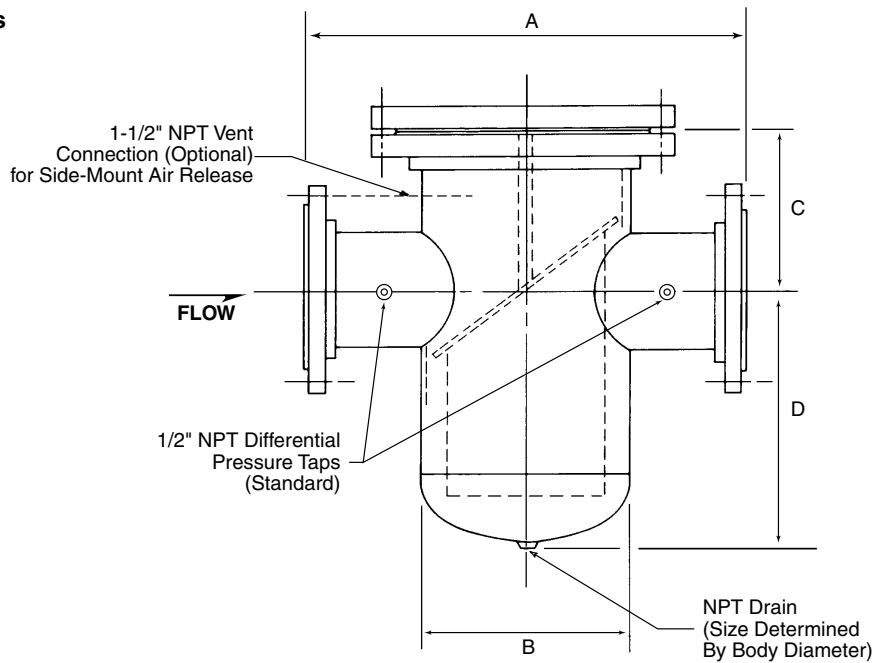
**SP** - Special

\* Standard Design Includes Carbon Steel Body, Blind Flange-Type Cover w/ Lifting Lug & Non-Asbestos Fiber Gasket, 304 SS Perforated Plate Basket, NPT Differential Pressure, Vent and Drain Taps, Fabrication in Accordance with ASME B31.3

<sup>1</sup> Polytetrafluoroethylene (PTFE).

## Dimensions and Weights

Inches  
(mm)



**Note:** Dimensions are for reference only. Actual certified dimensions available after order placement and pending acceptance of approval drawings.

ANSI Flange Class	A			B	C *†	D †	Estimated Net Weight Lbs. (kg)			NPT Drain Size inches (mm)
	150	300	600	150/300/600			150	300	600	150/300/600
<b>03_-6-B</b>	13.5 (343)	20.9 (531)	23 (584)	6 (152)	7.5 (190)	11.6 (295)	130 (59)	190 (86)	300 (136)	.75 (19)
<b>04_-10-B</b>	18 (457)	20 (508)	23 (584)	10 (254)	11 (279)	16 (406)	315 (143)	500 (227)	750 (340)	1.25 (32)
<b>06_-12-B</b>	25 (635)	25 (635)	30 (762)	12 (305)	11 (279)	21 (533)	420 (190)	675 (306)	1,000 (453)	1.5 (38)
<b>06_-18-B</b>	46 (1,168)	46 (1,168)	50 (1,270)	18 (457)	15 (381)	23 (584)	790 (358)	1,225 (556)	2,150 (975)	1.5 (38)
<b>08_-14-B</b>	28 (711)	28 (711)	34.5 (876)	14 (356)	13 (330)	21 (533)	590 (268)	850 (385)	1,400 (635)	1.5 (38)
<b>08_-20-B</b>	48 (1,219)	48 (1,219)	52 (1,321)	20 (508)	16 (406)	33 (838)	700 (317)	1,600 (726)	2,800 (1,270)	2 (51)
<b>10_-16-B</b>	32 (813)	34 (864)	36 (914)	16 (406)	16 (406)	25 (635)	725 (329)	1,100 (499)	1,900 (862)	1.5 (38)
<b>10_-18-B</b>	36 (914)	36 (914)	42 (1,067)	18 (457)	16 (406)	30 (772)	870 (395)	1,350 (612)	2,350 (1,066)	1.5 (38)
<b>10_-24-B</b>	57 (1,448)	57 (1,448)	62 (1,575)	24 (610)	18 (457)	30 (772)	1,200 (544)	2,475 (1,123)	4,100 (1,860)	1.5 (38)
<b>12_-18-B</b>	36 (914)	36 (914)	42 (1,067)	18 (457)	16 (406)	27 (686)	950 (431)	1,525 (692)	2,500 (1,134)	1.5 (38)
<b>12_-20-B</b>	48 (1,219)	48 (1,219)	54 (1,372)	20 (508)	16 (406)	33 (838)	1,120 (508)	1,950 (884)	3,100 (1,406)	1.5 (38)
<b>12_-26-B</b>	57 (1,448)	57 (1,448)	62 (1,575)	26 (660)	20 (508)	33 (838)	1,600 (725)	2,850 (1,293)	4,100 (1,860)	1.5 (38)
<b>16_-24-B</b>	44 (1,118)	44 (1,118)	62 (1,575)	24 (610)	21 (533)	35 (889)	1,600 (725)	2,950 (1,338)	5,000 (2,268)	2 (51)
<b>16_-36-B</b>	68 (1,727)	68 (1,727)	62 (1,575)	36 (914)	24 (610)	46 (1,168)	2,285 (1,037)	C/F	C/F	2 (51)

**Note:** Dimensions – Inches to the nearest tenth (millimetres to the nearest whole mm), each independently dimensioned from respective engineering drawings.

\* Not Applicable to Class 600 lb.

† Approximate dimensions.



Revisions included in SS03038 Issue/Rev. 0.5 (6/12):  
Page 3: Design corrected to "8" on Example.  
Page 4: Base Model 10\_-18-B, D corrected to 30 inches (772 mm).

**Editorial Change:** 11/13 - Elastomers and Seals reference was changed to PTFE.

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