

# Style B7

Y-Strainer

Cast Iron (ASTM A 126, Class B)

250 lb. Threaded



## Cast Iron Y-Strainer

### APPLICATIONS

Steam, water, oil or gas where protection from foreign matter in a pipeline is required.

### CONSTRUCTION

The Keckley Style B7 strainers are constructed from rugged cast iron castings that are machined to exacting specifications.

### FEATURES

The Keckley Style B7 strainer features a straight thread bushing in sizes 1/4" thru 3". All Keckley Style B7 strainers are furnished standard with a NPT blow-off connection and can be supplied with a cast iron blow-off plug upon request.

### SCREENS

Standard screens are 20 mesh 304 stainless steel through size 2". Sizes 2-1/2" and 3" are furnished with 1/16" perforated 304 stainless steel screens. All screens are spot welded for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements. If media is not indicated, screens for *water* will be supplied.

### SELF CLEANING

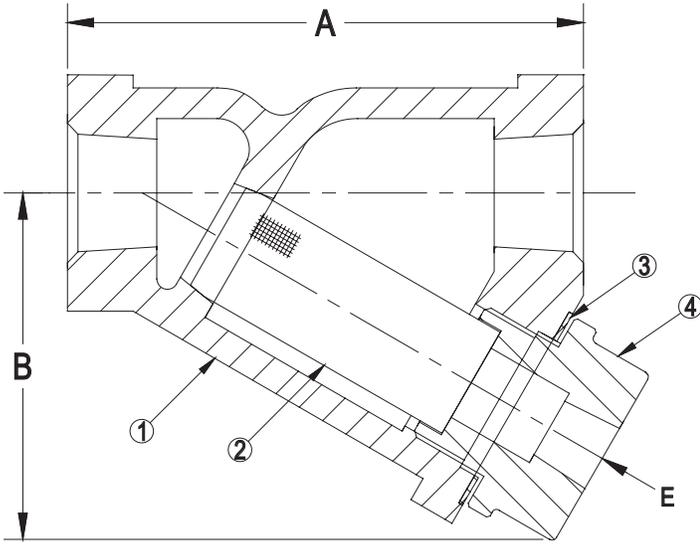
Self cleaning is accomplished by opening the valve or drain plug connected to the blow-off port. **Warning:** See Maintenance Instructions on page **S6** of the Strainer Information Section for additional precautions and detailed information on servicing the strainer.

### WORKING PRESSURES - NON SHOCK

NOM. RATING	MEDIA	1/4" to 3"	8 mm to 80 mm
250# (Threaded)	STEAM	250 PSI @ 406°F	1724 KPa @ 208°C
	W.O.G.	400 PSI @ 150°F	2759 KPa @ 66°C

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**PARTS LIST**

ITEM	DESCRIPTION	MATERIAL
1	Body	Cast Iron (ASTM A 126, Class B)
2	Screen	Stainless Steel (304)
3	Gasket	Graphite
4	Bushing	Cast Iron (ASTM A 126, Class B)

Optional: Blow-off Plug, Malleable Iron

**STANDARD SCREENS SUPPLIED**

SIZE		SCREEN PERFORATION					
in	mm	FOR LIQUID		FOR STEAM		OPEN AREA	
		in	mm	AREA	in		mm
1/4 to 2	8 to 50	20 MESH STAINLESS STEEL				49%	
2-1/2 to 3	65 to 80	1/16	1.6	30%	3/64	1.2	33%

Standard screens supplied are for **liquid service**, unless otherwise specified.  
Options: Other meshes, perforations, and screen materials are available.

SIZE		DIMENSIONS						WEIGHTS	
in	mm	A		B		E		lbs	kgs
		in	mm	in	mm	in	mm		
1/4	8	3-3/16	81	2-1/16	52	1/4	8	2	0.7
3/8	10	3-3/16	81	2-1/16	52	1/4	8	2	0.7
1/2	15	3-3/16	81	2-1/16	52	1/4	8	2	0.7
3/4	20	3-3/4	95	2-7/16	61	3/8	10	3	1.0
1	25	4	102	2-5/8	66	3/8	10	3	1.4
1-1/4	32	5	127	3-3/8	85	3/4	20	5	2.3
1-1/2	40	5-3/4	146	3-7/8	98	3/4	20	7	3.0
2	50	7-	177	4-3/4	121	1	25	13	5.7
2-1/2	65	9-1/4	235	5-7/8	149	1-1/2	40	26	11.4
3	80	10	254	6	152	1-1/2	40	30	13.6

\*This table reflects only the nearest metric equivalents.  
Dimensions and weights are for reference only. When required, request certified drawings.  
Face to face values have a tolerance in compliance with ASME B16.4.

**FLOW COEFFICIENTS**

Size	C <sub>v</sub>	Size	C <sub>v</sub>	Size	C <sub>v</sub>
1/4"	0.7	1"	22	2-1/2"	110
3/8"	2	1-1/4"	38	3"	160
1/2"	8	1-1/2"	42		
3/4"	15	2"	71		

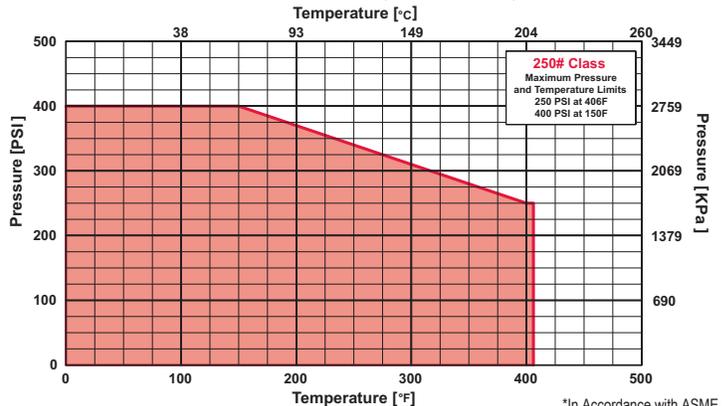
**TOTAL SCREEN AREA**

Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )
1/4"	3.57	1"	8.06	2-1/2"	47.12
3/8"	3.57	1-1/4"	12.94	3"	47.12
1/2"	3.57	1-1/2"	18.85		
3/4"	6.05	2"	27.44		

\*See DETERMINING RATIOS on page S5 of the Strainer Information Section for calculating NET FREE AREA of the screen to inside pipe area.

**PRESSURE vs. TEMPERATURE CHART**

250# Threaded Cast Iron (ASTM A 126, Class B)



\*In Accordance with ASME B16.4

# PRESSURE DROP CHART

## Threaded “Y” Pattern Strainers (Styles B7)

This pressure drop chart is based on the flow of clean water through the Keckley “Y” strainers listed above with screen perforations ranging from 3/64” through 1/8” and is additionally for use with those units equipped with a 20 mesh screen as standard.

### TO USE CHARTS:

Find your desired rate of flow (GPM) on the left hand side of the chart. Follow its corresponding horizontal line to the point where it intersects the diagonal line indicating the strainer pipe size. From this point of intersection, follow the vertical line down to the bottom of the chart to determine the approximate pressure drop.

### CORRECTION FACTORS:

For finer mesh screens that are backed with a perforated sheet, multiply the pressure drops shown at right by the following:

- 40 mesh        x 1.2
- 60 mesh        x 1.4
- 80 mesh        x 1.6
- 100 mesh       x 1.7

