

# Style BA7

## Y-Strainer

Nickel Aluminum Bronze

(ASTM B 148, C95800)

Class 150 & 300 FF Flanged



# Cast Nickel Aluminum Bronze

## Y-Strainer

### APPLICATIONS

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

### CONSTRUCTION

The Keckley Style BA7 strainers are constructed from rugged nickel aluminum bronze castings and are machined to exacting specifications. These bodies have drilled flanges that are in accordance with ASME B16.24. All flanges come standard with back-faced bolt holes.

### FEATURES

The Keckley Style BA7 strainer features a machined groove in both the body and cover for proper screen alignment and to ensure accurate reseating when servicing is required. The gasket is spiral wound 316 stainless steel and is compressed between the body and cover (for maximum strength and durability) and designed for high pressure and high temperature service. All Keckley Style BA7 strainers have cap screws and can be furnished with a brass blow-off plug upon request.

### SCREENS

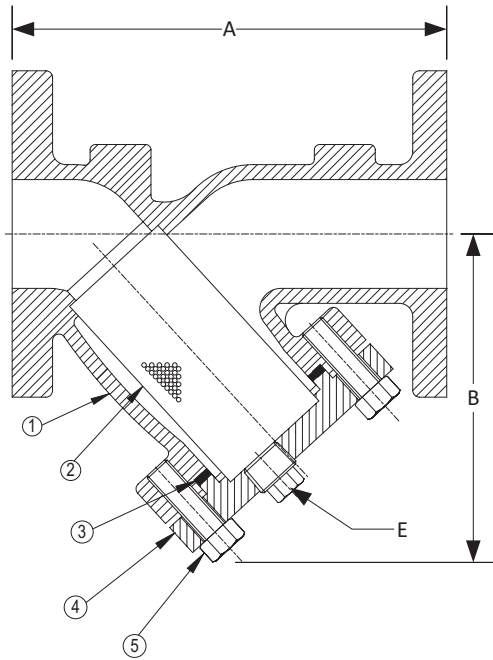
Standard perforated 304 stainless steel screens are spot welded along the seam for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements. If media is not indicated, screens for *water* will be supplied.

### 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	1/2" to 12"	15 mm to 300 mm
CLASS 150	STEAM	150 PSI @ 225°F	1034 KPa @ 107°C
	W.O.G.	195 PSI @ 100°F	1344 KPa @ 38°C
NOM. RATING	MEDIA	1/2" to 12"	15 mm to 300 mm
CLASS 300	STEAM	360 PSI @ 500°F	2482 KPa @ 260°C
	W.O.G.	515 PSI @ 100°F	3551 KPa @ 38°C



## Style BA7

Y-Strainer, Class 150 & 300 FF Flanged

Cast Nickel Aluminum Bronze (ASTM B 148, C95800)

### PARTS LIST

ITEM	DESCRIPTION	MATERIAL
1	Body	Nickel Aluminum Bronze (ASTM B 148, C95800)
2	Screen	Stainless Steel (304)
3	Gasket	Spiral Wound Stainless Steel (304)
4	Cover	Nickel Aluminum Bronze (ASTM B 148, C95800)
5	Cap Screw	Stainless Steel (ASTM A 193, Grade B8)

Optional: Blow-off Plug, Brass.

### STANDARD SCREENS SUPPLIED

SIZE		SCREEN PERFORMANCE					
		FOR LIQUID		OPEN AREA	FOR STEAM		OPEN AREA
in	mm	in	mm		in	mm	
1/2 to 4	15 to 100	1/16	1.6	30%	3/64	1.2	33%
5 to 10	125 to 250	1/8	3.2	43%	3/64	1.2	33%
12	300	1/8	3.2	43%	1/16	1.6	30%

Standard screens supplied are for **liquid service**, unless otherwise specified.

Options: Other perforations, meshes, and screen materials are available.

SIZE		DIMENSIONS										WEIGHTS			
		A				B				E					
		Class 150		Class 300		Class 150		Class 300		Class 150 & 300		Class 150		Class 300	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kgs	lbs	kgs
1/2	15	5-7/8	149	6	152	3-1/4	83	3-1/4	83	3/8	10	7	3.18	12	5.4
3/4	20	7-3/8	187	7-13/16	198	3-3/4	95	3-3/4	95	1/2	15	11	4.99	18	8.1
1	25	7-3/8	187	7-13/16	198	4-5/16	110	3-5/8	92	1/2	15	11	4.99	18	8.1
1-1/4	32	6-5/8	168	8	203	4-5/16	110	4-1/2	114	1/2	15	12	5.44	26	11
1-1/2	40	6-11/16	170	8-1/8	206	4-5/16	110	4-3/4	121	1/2	15	14	6.00	26	11
2	50	7-7/8	200	9	229	5-1/4	133	6	152	1/2	15	18	8.16	28	12.7
2-1/2	65	9-3/4	248	10-5/8	270	6-1/2	165	7-3/8	187	1	20	37	16.34	48	21
3	80	10	254	12-1/2	318	7	178	9-1/16	230	1-1/4	32	40	18.06	75	34
4	100	12-1/8	308	15-1/8	384	8-1/4	210	10-7/8	276	1-1/2	40	67	30.20	110	50
5	125	15-1/2	394	18-5/8	479	11-1/4	286	13-9/16	344	2	50	99	44.52	164	74
6	150	18-1/2	470	19-1/8	486	13-1/2	343	15-7/8	403	2	50	134	60.48	212	96
8	200	24	610	25-3/16	640	16-1/2	413	16-1/2	413	2	50	229	103.45	359	163
10	250	27-5/8	702	29-1/8	740	19-3/8	492	19-3/8	492	2	50	397	180.03	493	224
12	300	32-1/2	826	34	864	22-5/8	575	22-5/8	575	2	50	532	240.89	938	425

<sup>†</sup>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 B16.24.

### TOTAL SCREEN AREA

Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )
1/2"	--	1-1/2"	18.66	4"	88.15	10"	564.46
3/4"	--	2"	26.90	5"	159.01	12"	665.70
1"	--	2-1/2"	46.88	6"	235.95	(Total screen area listed for 150 lb. class only)	
1-1/4"	--	3"	59.16	8"	360.05		

\*See DETERMINING RATIOS on page S5 of the Strainer Information

Section for calculating NET FREE AREA of the screen to inside pipe area.

## PRESSURE DROP CHART

### Flanged “Y” Pattern Strainers (Styles A, BA, BA7, SA, SA7, SSA and SSA7)

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”.

#### 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

