

# Style SA-7

Y-Strainer

Carbon Steel (ASTM A 216, Grade WCB)

150 lb. & 300 lb. Flanged



## Cast Carbon Steel Y-Strainer

### APPLICATIONS

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

### CONSTRUCTION

The Keckley Style SA-7 strainers are constructed from rugged carbon steel castings and are machined to exacting specifications. These bodies have drilled flanges that are in accordance with ASME B16.5. All flanges come standard with back-faced bolt holes.

### FEATURES

The Keckley Style SA-7 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 304 stainless steel spiral wound 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 SA-7 strainers have cap screws and can be furnished with a steel blow-off plug upon request.

Blind covers are available upon request.

### SCREENS

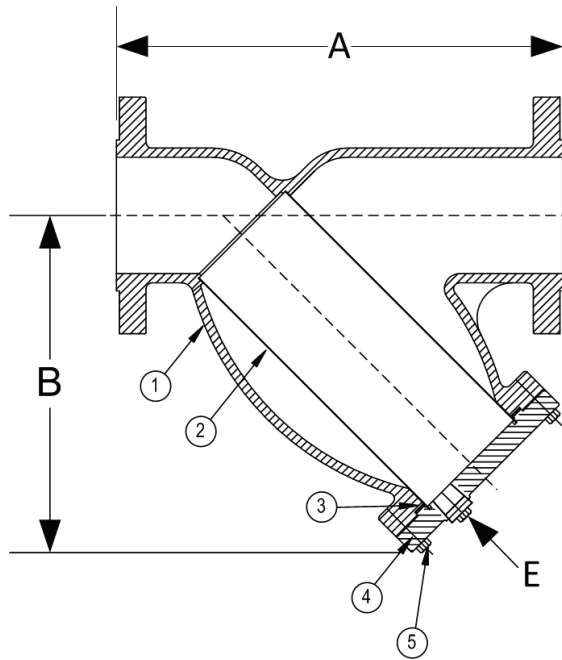
Standard perforated 304 stainless steel screens are spot welded along the seam for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements. If media is not indicated, screens for *steam* will be supplied.

### 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 14"	15 mm to 350 mm
150# R.F. & D. (STANDARD FLANGE)	STEAM	150 PSI @ 565°F	1035 KPa @ 296°C
	W.O.G.	285 PSI @ 100°F	1966 KPa @ 38°C
NOM. RATING	MEDIA	1/2" to 14"	15 mm to 350 mm
300# R.F. & D. (EX. HEAVY FLANGE)	STEAM	300 PSI @ 838°F	2069 KPa @ 448°C
	W.O.G.	740 PSI @ 100°F	5104 KPa @ 38°C



## Style SA-7

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**Carbon Steel (ASTM A 216, Grade WCB)**

### PARTS LIST

ITEM	DESCRIPTION	MATERIAL
1*	Body	Carbon Steel (ASTM A 216, Grade WCB)
2	Screen	Stainless Steel (304)
3	Gasket	Spiral Wound Stainless Steel (304)
4	Cover	Carbon Steel (ASTM A 216, Grade WCB)
5	Hex Head Cap Screw	Carbon Steel (ASTM A 193, Grade B7)

Optional: Blow-off Plug, Carbon Steel.

\*Optional Body Materials Available in LCB, WC6, and WC9.

### STANDARD SCREENS SUPPLIED

SIZE		SCREEN GAGE	SCREEN PERFORATION					
			FOR STEAM		OPEN AREA		FOR LIQUID	
in	mm		in	mm			in	mm
1/2 to 4	15 to 100	28	3/64	1.2	33%		1/16	1.6
5 to 10	125 to 250	22	3/64	1.2	33%		1/8	3.2
12 & 14	300 & 350	22	1/16	1.6	30%		1/8	3.2

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

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

SIZE		DIMENSIONS										WEIGHTS			
		A				B				E					
		150#		300#		150#		300#		150# & 300#		150#		300#	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kgs	lbs	kgs
1/2	15	6-1/2	165	6-1/8	156	3-3/4	95	3-3/4	95	3/8	10	7	3	6	3
3/4	20	7-3/8	187	7-3/4	197	4-1/4	108	4-1/4	108	1/2	15	11	5	13	6
1	25	7-3/8	187	7-7/8	200	4-1/4	108	4-1/4	108	1/2	15	11	5	13	6
1-1/4	32	7	178	8-1/8	206	5-1/8	130	5-1/8	130	1/2	15	12	5	19	9
1-1/2	40	7-1/8	181	8-1/4	210	5-1/8	130	5-1/8	130	1/2	15	14	6	19	9
2	50	7-7/8	200	9-1/2	241	6	152	6	152	1/2	15	22	10	33	15
2-1/2	65	9-3/4	248	10-3/8	264	7	178	7	178	1	25	32	15	44	20
3	80	10-1/16	256	12	305	7-7/16	189	7-5/16	186	1	25	41	19	58	26
4	100	12-1/8	308	14-1/2	368	8-15/16	227	8-15/16	227	1-1/2	40	63	29	90	41
5	125	15-1/2	394	19-5/16	491	13-1/32	331	13-1/32	331	2	50	111	50	180	82
6	150	18-1/2	470	19-5/16	491	13-1/4	337	13-1/4	337	2	50	136	62	180	82
8	200	21-3/8	543	23-3/8	594	15-1/2	394	15-1/2	394	2	50	212	96	304	138
10	250	26	660	27-3/8	695	18-7/16	468	18-7/16	468	2	50	280	127	470	213
12	300	29-7/8	759	32	813	21-5/8	549	21-5/8	549	2	50	460	209	709	322
14	350	34-1/2	876	36	914	25	635	25	635	2	50	980	445	1300	590

Certified dimensional drawings are available upon request.

†This table reflects only the nearest metric equivalents.

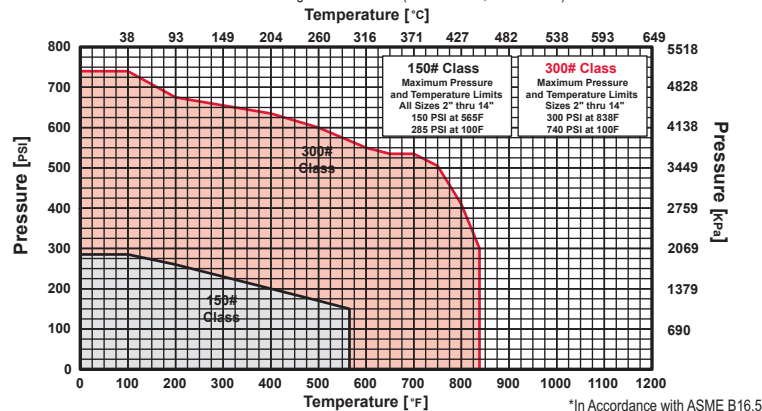
### TOTAL SCREEN AREA

Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )	Size	(in <sup>2</sup> )
1/2"	6.46	1-1/2"	18.68	4"	91.89	10"	532.80
3/4"	12.32	2"	30.28	5"	209.41	12"	600.71
1"	12.32	2-1/2"	46.91	6"	241.18	(Total screen area listed for 150 lb. class only)	
1-1/4"	18.68	3"	57.62	8"	342.86		

\*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

150# & 300# Flanged Carbon Steel (ASTM A 216, Grade WCB)



\*In Accordance with ASME B16.5



# PRESSURE DROP CHART

## Flanged “Y” Pattern Strainers (Styles A, BA, BA-7, SA, SA-7, SSA and SSA-7)

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

