

**S.P. KINNEY**<sup>®</sup>



**automatic strainer**

**Model 'A-1' CAST**

**Bulletin 511**

# S.P. KINNEY MODEL "A-1" CAST STRAINER

## APPLICATIONS

The Model "A-1" is designed for continuous removal of suspended particles from all types of liquids. Applications are in industrial plants using river, lake, well, or sea water for cooling, descaling, bearing lubrication, spraying, quenching, and similar purposes.

Pipeline sizes: 2" - 42" or larger upon application. Liquids other than water, such as chemicals, acids, white water (paper mills), sewage, and ammonia flushing liquor (coke plants) can also be effectively strained.

## INSTALLATION

Installation is made on the discharge side of a pump or in any piping system operating under a positive pressure. The minimum working pressure required to effectively clean the straining media is 20 psi. The strainer is compact with small face-to-face, width, and height dimensions.

## DESIGN

The strainer consists of a conical drum with a number of threaded holes containing one of many types of straining media. The drum is supported on a rotating shaft fitted with bearings and is contained in a body having a vertical backwash slot opening adjacent to the drum surface.

## OPERATION

The liquid to be strained enters the inlet connection located in the lower portion of the body and flows around the outer surface of the drum. The suspended particles are retained in the media pockets, and the clean liquid passes through the media to the inside and bottom opening of the drum. The clean water can then continue through the outlet connection located diametrically opposite the inlet.

## BACKWASH

As each row of straining media passes the backwash slot, a reversal of flow occurs, flushing the suspended particles from the media pockets. This reversal of flow is caused by a pressure differential between the interior of the strainer and the atmosphere.

The backwash flow rate is exceptionally low and will vary, depending on the amount of suspended particles in the liquid.



## AUTOMATIC BACKWASH CONTROL

In lieu of a manually operated backwash valve, an automatic control can be furnished to permit intermittent backflushing. This control consists of an electric or pneumatically operated ball valve, actuated by a timer or a pressure differential switch (or both).

## ADJUSTMENT AND SHEARING ACTION

The clearance between the backwash slot and the drum is equal to or smaller than the opening presented in the media and can be adjusted easily by two locknuts on the threaded part of the top section of the shaft.



The backwash slot contains a knife-like edge which enables the strainer to shear debris such as wood, shells, fish, and other suspended materials which may extend beyond the surface of the drum - with no resultant damage to the drum, straining media, or drive unit.

## INSPECTION

The Kinney Model "A-1" strainer eliminates troublesome disassembly by providing an opening in the side of the strainer body. To inspect the straining media, simply remove the cover and manually rotate the drum.

As each row of media passes the inspection opening, easy access to the media is achieved.



## CUSTOM BUILT IN THE U.S.

All S.P. Kinney strainers are custom built to order in the United States using only the highest grade American steel.

## CALL TODAY

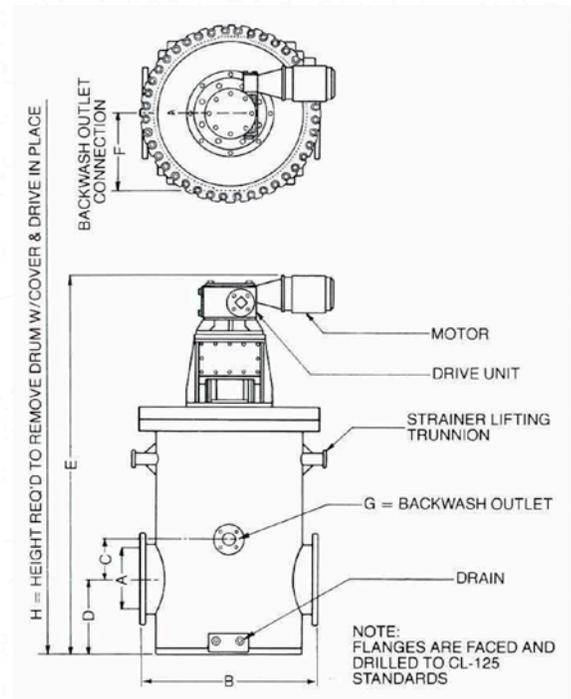
Call us today at 1-800-356-1118 or visit [www.spkinney.com](http://www.spkinney.com) to set up a free consultation.



MODEL "A-1" CAST/FABRICATED									
STRAINER SIZE-A1	DIMENSIONS (inches)							MOTOR H.P.	APPROX. SHIP WT. LBS
	B	C	D	E	F	G	H		
6	17	6.125	6.75	47	8.5	2	58	.5	1,000
8	15.5	7	9.5	56.5	9.75	2	69.5	.75	1,250
10	17	8.5	11	64.625	10.5	2	83	.75	1,750
12	24.5	8.25	11	65	13.125	3	86	.75	2,700
14	37.25	12.5	12	82	19	3	112	1	4,500
16	33	10.5	14.5	81	17.125	4	108	1	5,500
20	37	12.5	17.25	102	19.125	3	140	1.5	8,400
24	43.5	15	18	107	22.375	4	149	1.5	11,000
30	61	20.5	21	126	32.5	4	177	3	15,000
36	76.5	26.5	32.5	140.5	32.75	6	194.5	3	19,500

CONSTRUCTION				
PART	STANDARD	SEA WATER	WHITE WATER	AMMONIACAL LIQUOR
Body	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Drum	Cast Iron	Ni-Resist	Stainless Steel	Cast Iron
Media	As Specified	As Specified	As Specified	As Specified
Media Retainers	Delrin	Delrin	Delrin	Stainless Steel
Shaft	Steel	Stainless Steel	Stainless Steel	Stainless Steel

\*Dimensions provided above are for reference only. Actual dimensions shall be provided on certified drawings when order is placed.  
 \*\*Additional sizes and variations may be available for custom builds. Please call for information.





**S.P. KINNEY ENGINEERS, INC.**

143 FIRST AVE. P.O. BOX 445, CARNEGIE, PA 15106-0445, USA

**PHONE: 1-800-356-1118**

FAX: (412) 276-6890

[WWW.SP KinNEY.COM](http://WWW.SP KinNEY.COM)

[INFO@SP KinNEY.COM](mailto:INFO@SP KinNEY.COM)