

**S.P. KINNEY**<sup>®</sup>



**automatic strainer**

**Model 'AP' CAST**

**Bulletin 512**

# S.P. KINNEY MODEL “AP” CAST STRAINER

## APPLICATIONS

The Model “AP” 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

Used when working pressure is low. The strainer is compact - with small face-to-face, width, and height dimensions.

## DESIGN

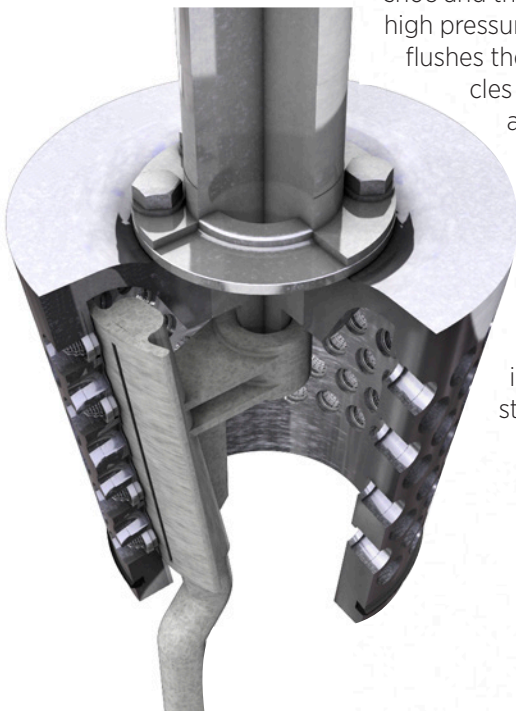
The Model “AP” strainer consists of a conical drum with a number of threaded holes containing one of many types of straining media. The drum is supported on a rotating shaft fitted with bearings and is contained in a body having a vertical backwash slot opening. A pressure backwash shoe is inserted inside the drum, directly opposite the backwash slot.

## 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

High pressure liquid from the discharge side of the pump or from some other source is diverted to the backwash shoe. As each row of straining media passes between the backwash shoe and the backwash slot, the high pressure liquid



flushes the suspended particles from the media. The amount of high pressure liquid needed to effect proper backflushing is low and will vary, depending on the amount of suspended particles in the liquid being strained.

## AUTOMATIC BACKWASH CONTROL

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

## ADJUSTMENT AND SHEARING ACTION

The clearance between the backwash slot and the drum and the clearance between the drum and the backwash shoe is



equal to or smaller than the opening presented in the media. Adjustment of the clearance between the backwash slot and the drum is accomplished by two locknuts on the threaded part of the top section of the shaft. The clearance between the drum and the backwash shoe is adjusted at the bottom of the backwash shoe.

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 “AP” 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.

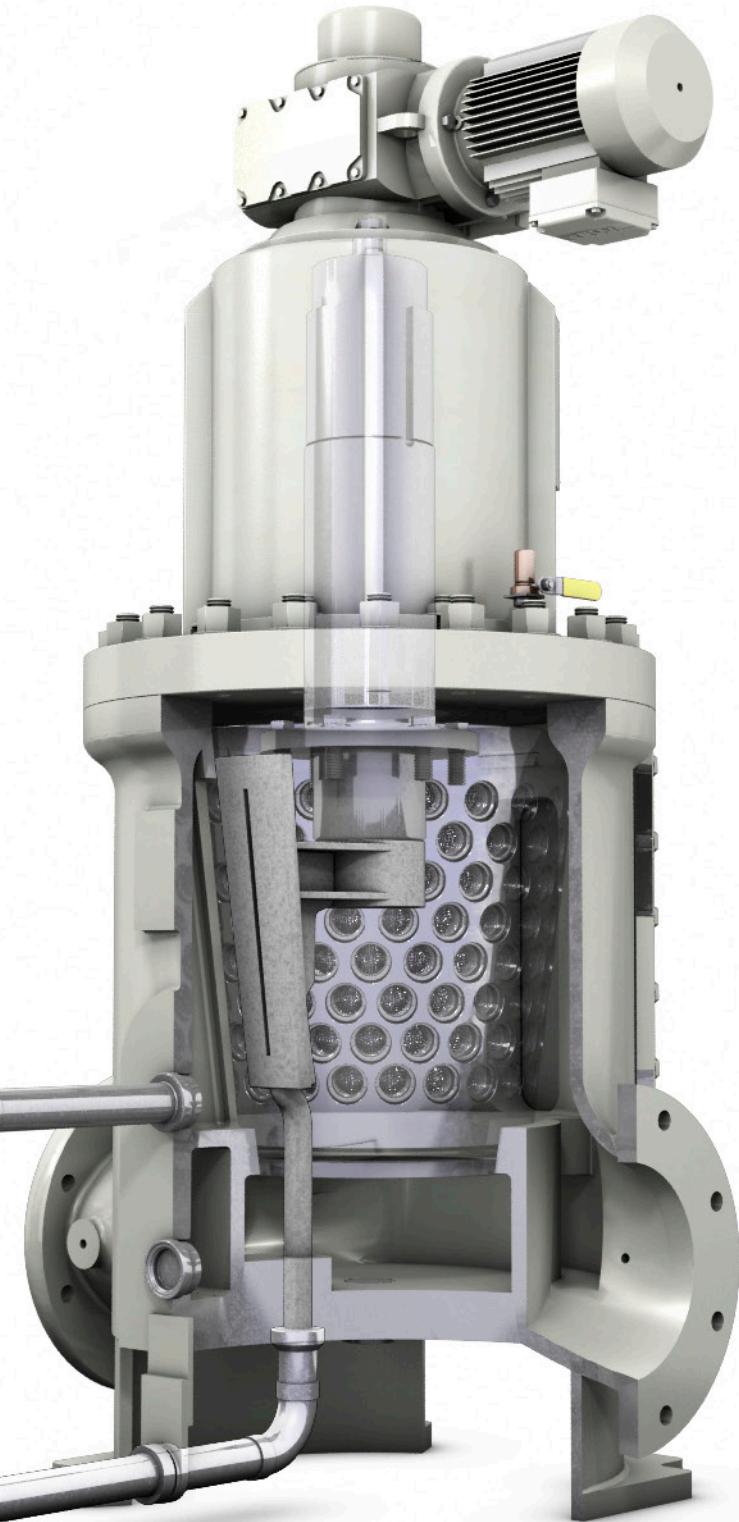


## CUSTOM BUILT IN THE U.S.

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

## CALL TODAY

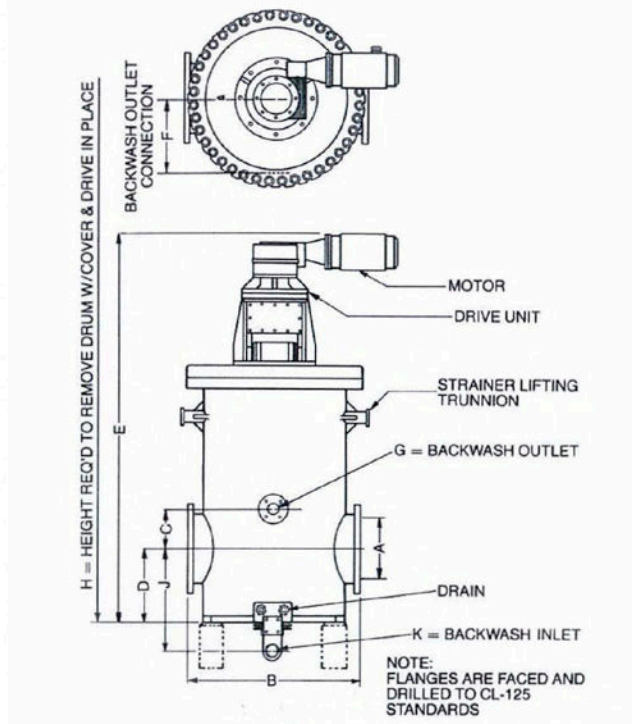
Call us today at 1-800-356-1118 or visit [www.spkinney.com](http://www.spkinney.com) to set up a free consultation.



MODEL "AP" CAST											
DIMENSIONS (inches)											
STRAINER SIZE-AP	B	C	D	E	F	G	H	J	K	MOTOR H.P.	APPROX. SHIP WT. LBS.
2	18	1.25	5	39	6.75	2	49	7	1.5	.5	645
3	18.5	1.25	5	39	6.75	2	49	7	1.5	.5	645
4	18.5	1.25	5	39	6.75	2	49	7	1.5	.5	645
6	21	5	9	54.75	8.625	2	67.875	6.625	1.5	.75	1,240
8	26	6.125	9.5	58.25	10.75	2	97.25	8.125	1.5	.75	1,890
10	31	8.25	11	65	13.125	3	108.125	8.25	2	.75	2,600
12	36	9.75	12.5	79.875	15	3	128.375	9.5	2	1	4,600
14	41	10.5	14.5	81	17.125	4	140	9.625	2.5	1	5,650
16	45	10.5	19.25	102	19.125	3*	169.25	26.5	3	1.5	8,900
20	52	13	20	107	22.375	4*	192.5	28.75	4	1.5	11,650
24	62	17.5	35	134	28.375	4*	209.5	32	4	3	13,950
30	72	23.5	43.5	156.5	32.75	6*	210.4375	35.5	6	3	19,850
36	86	25.5	48	180	40	6*	281.25	37.625	6	5	25,500
42	90	27.5	49.5	193.5	44	6*	305.25	3	6	5	31,000

CONSTRUCTION				
PART	STANDARD	SEA WATER	WHITE WATER	AMMONIACAL LIQUOR
Body	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Drum	Cast Iron	Aluminum Bronze	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
Backwash Shoe	Cast Iron	Aluminum Bronze	Stainless Steel	Cast Iron

\*\*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.





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