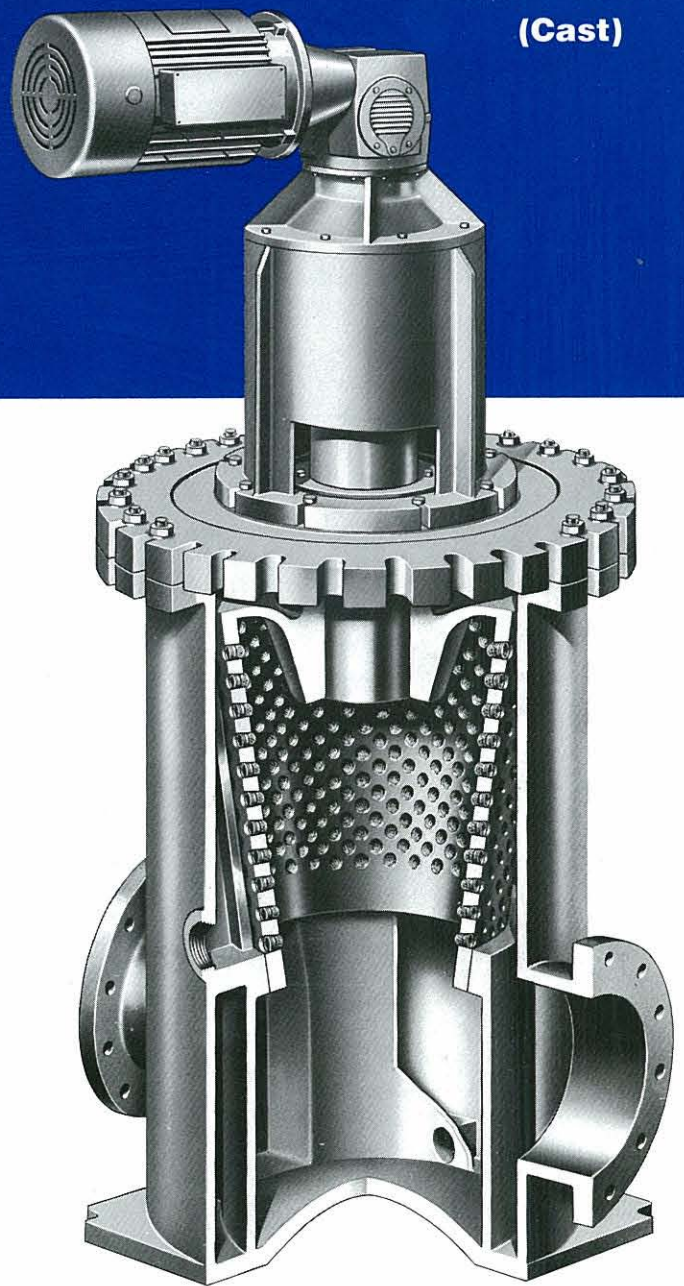


KINNEY AUTOMATIC SELF-CLEANING STRAINER



APPLICATION

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. Pipe-line 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 cylindrical 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—leaving the body at 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 atmosphere. The backwash flow rate is exceptionally low and will vary, depending on the amount of suspended particles in the liquid. The backwash piping should discharge into an open funnel immediately after the backwash valve.

AUTOMATIC BACKWASH CONTROL

In lieu of a manually operated valve on the backwash outlet line, an automatic control can be furnished to permit intermittent backflushing. This control consists of a motor or pneumatic cylinder operated ball valve, actuated by a timer or a pressure differential switch (or both).

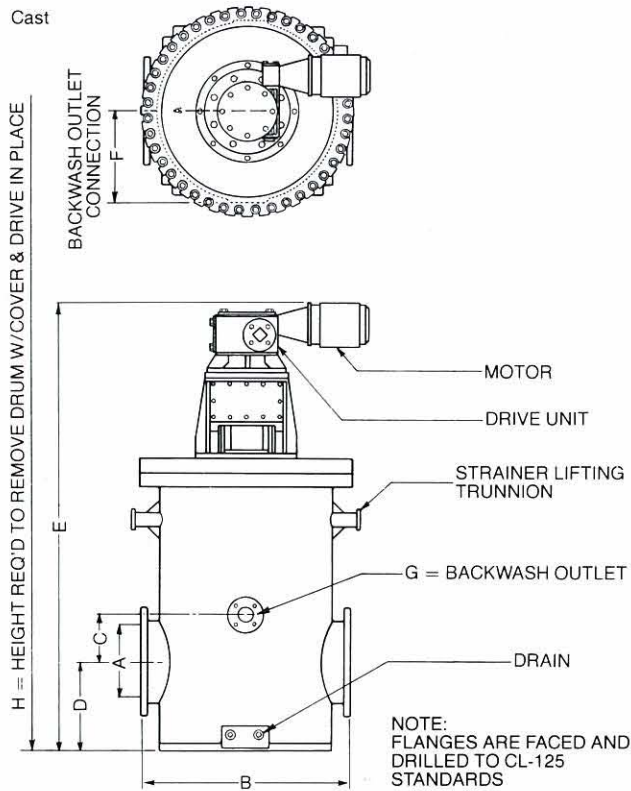
ADJUSTMENT AND SHEARING ACTION

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.

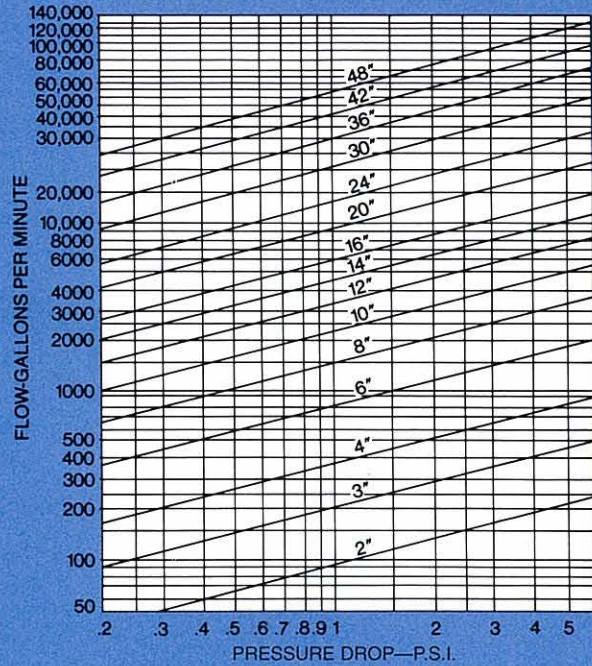
INSPECTION

The Kinney 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—optional on sizes 2", 3", 4" and 6".

Cast



TYPICAL CHART INDICATING FLOW VS. PRESSURE DROP WITH STRAINING MEDIA IN A CLEAN CONDITION ACTUAL SIZE VS. DP UPON APPLICATION



STRAINER SIZE-A	DIMENSIONS (INCHES)								APPROX. SHIP. WT. LBS.
	B	C	D	E	F	G	H		
2▲	18	1	4	36	6¾	1¼▲	42	457	
3▲	18½	1	4½	38½	6¾	1½▲	45½	522	
4	18½	1¼	5	37	6¾	2▲	49	625	
6	21	5	9	49	8½	2▲	60¾	1,100	
8	26	6½	9½	58½	10½	2▲	80¾	1,800	
10	31	8¼	11	65½	13	3▲	89¾	2,500	
12	36	9¾	12½	81½	14¾	3▲	111¾	4,500	
14	41	10½	14½	83¾	17¾	4	115	6,100	
16	45	10½	19¼	101¾	19½	3*	139¾	8,300	
20	52	13	20	106½	22¾	4*	148	11,200	
24	62	11¾	23¾	120¾	26¾	4*	174¾	16,800	
30	72	12½	20	115¾	31	6*	169¾	23,250	
36	86	32½	25	165¼	37½	6*	224¼	38,500	
42	100	36	27	189¼	39½	6*	259¼	46,750	

*Two backwash openings ▲ Pipe tap Do not use for construction—certified prints will be furnished.

PART	CONSTRUCTION			
	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



S. P. KINNEY ENGINEERS, INC.

143 FIRST AVE. • CARNEGIE, PENNSYLVANIA 15106 U.S.A.

PHONE: (412) 276-4600 • FAX: (412) 276-6890

www.spkinney.com

info@spkinney.com