

# KINNEY AUTOMATIC SELF-CLEANING STRAINER

## FOR LIGHTER DUTY APPLICATIONS

### APPLICATIONS

Light duty strainer, 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"–48"

Liquids other than water, such as chemicals, acids, white water (paper mills), sewage plants, and ammonia flushing liquor (coke plants) can also be 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. Installation can be made in a horizontal or vertical pipeline.

### DESIGN

Similar to many of the automatic strainers on the market, this design consists of a one-piece stainless steel cylindrical well screen drum with slotted openings ranging from .005" thru .075". Within the drum is contained a rotor, which is essentially a hollow rotating shaft—supporting two pads extended on each side. These pads are flush with the inside of the drum surface.

### OPERATION

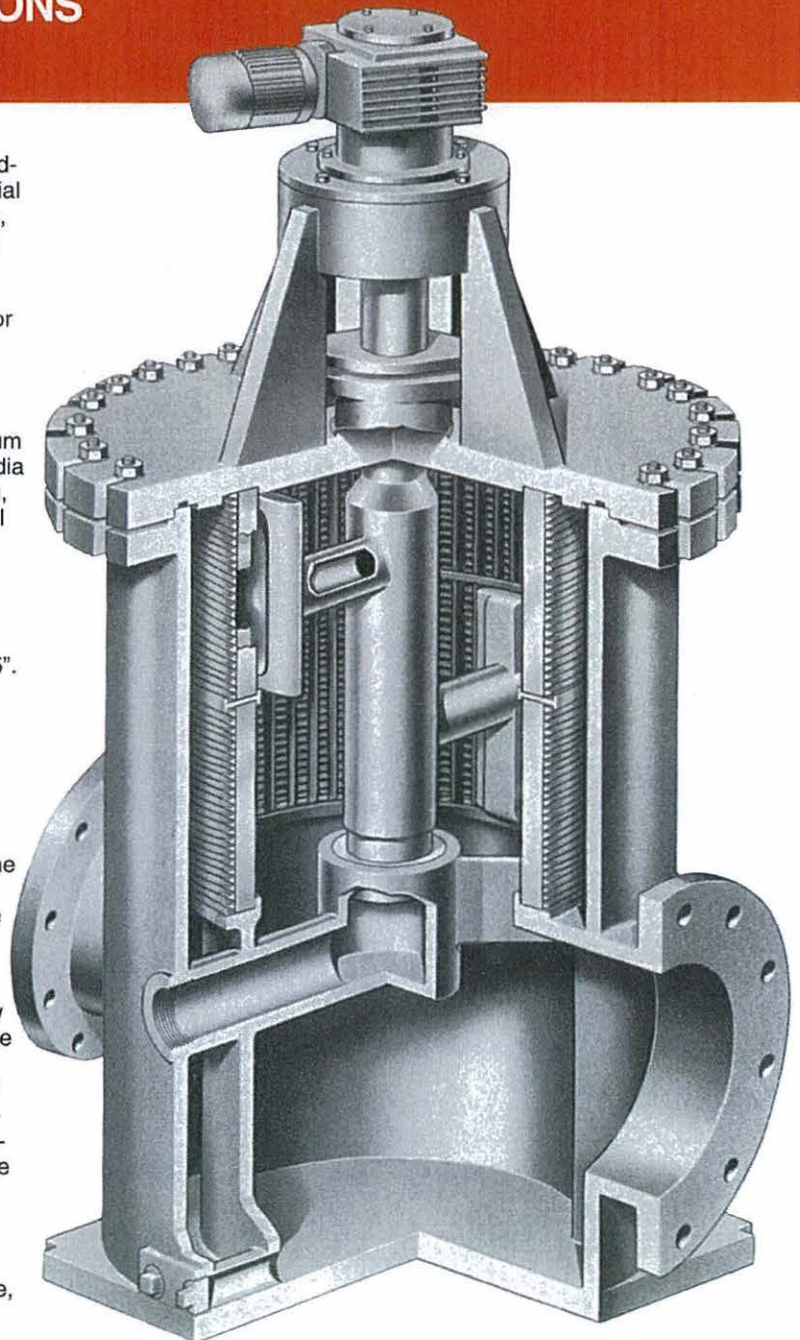
The liquid to be strained enters the inlet connection located in the lower portion of the body and flows upward into the inner surface of the drum. The suspended particles are retained in the media and the clean liquid passes through the media—leaving the body at the outlet connection located diametrically opposite the inlet.

### BACKWASH

As the rotor sweeps past the straining media, a reversal of flow occurs, flushing the suspended particles from the media into the rotor and out through the backwash opening. 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 downward 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).



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MODEL AFW-1

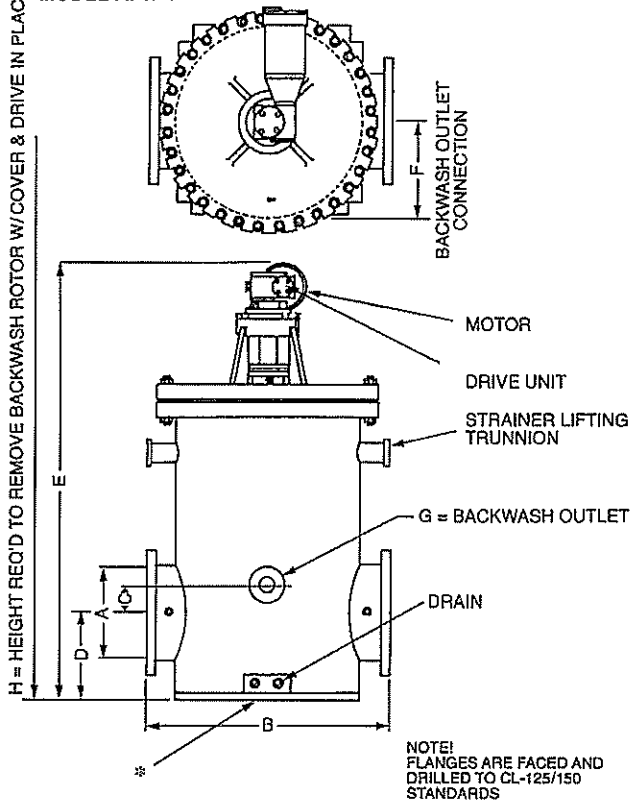
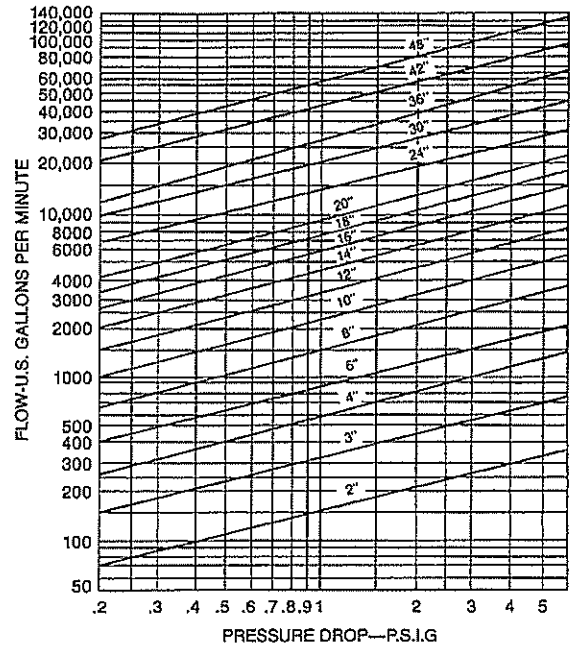


CHART INDICATING FLOW VS. PRESSURE DROP WITH STRAINING MEDIA IN A CLEAN CONDITION



The above chart is typical and may vary upon specific application

MODEL AFW-1 STRAINERS									
STRAINER SIZE - A	DIMENSIONS (INCHES)								APPROX SHIP. WT. LBS.
	B	C	D	E	F	G	H	HP	
2▲	18	*	4	27	*	1½▲	34	½	370
3▲	18½	*	4½	29½	*	1½▲	39	½	420
4	18½	*	5	32½	*	2 ▲	46	½	560
6	21	2	6	40½	8½	2 ▲	55½	½	950
8	24	3	7¼	48¾	9½	2 ▲	68	½	1,200
10	26	2½	8½	51½	11	3 ▲	72½	½	1,560
12	31	3½	10½	57½	13	3 ▲	78¾	½	2,000
14	38	4½	14½	70¾	15¾	3 ▲	99¾	½	3,570
16	38	5½	13½	70¾	15¾	3 ▲	99¾	½	3,620
18	45	4	18¼	90¼	19¾	4	130	½	5,520
20	45	5	17¼	89¼	19¾	4	129	½	5,775
24	56	7	17½	99½	25¾	4	142½	½	7,200
30	62	9¾	20	112¾	29	4	163¾	½	9,540
36	72	6¾	27	130½	33½	6	181	½	16,000

▲ Pipe tap Do not use for construction—certified prints will be furnished  
 \* Bottom discharge

PART	CONSTRUCTION			
	STANDARD	SEA WATER	WHITE WATER	AMMONIACAL LIQUOR
BODY	Cast Iron or Fab. Stl.	Cast Iron	Cast Iron/Stainless Steel	Cast Iron
DRUM - Wedge Wire	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
MEDIA (Straining Opening)	As Specified	As Specified	As Specified	As Specified
ROTOR	Cast Iron	Stainless Steel	Stainless Steel	Cast Iron

NOTE: Dimensions for larger units available upon request.

