

S.P. KINNEY MODEL "A" STRAINER

APPLICATIONS

The Model "A" 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



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" 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.



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DIMENSIONS (inches)									1.5
STRAINER SIZE-A	в	с	D	E	F	G	н	MOTOR H.P.	APPROX. SHIP WT. LBS
2	18	11	4	38	6.75	1.25	42	.5	460
3	18.5	1	4.5	39.5	6.75	1.5	45.5	.5	525
4	18.5	1.25	5	39	6.75	2	49	.5	625
6	21	5	9	54.75	8.625	2	60.75	.75	1,200
8	26	6.125	9.5	60.25	10.75	2	80.25	.75	1,800
10	31	8.25	11	65	13.125	3	89.375	.75	2,500
12	36	9.75	12.5	79.875	15	3	111.875	1	4,860
14	41	10.5	14.5	81	17.125	4	115	1	5,500
16	45	10.5	19.25	102	19.125	3*	139.75	1.5	8,300
20	52	13	20	107	22.375	4*	148	1.5	11,000
24	62	17.5	17.75	119.75	28.5	4*	174.75	3	14,700
30	72	23.5	21.5	134.5	32.25	6*	169.75	3	18,300
36	86	25.5	25	155.625	39	6*	224.25	5	27,000
42	90	27.5	27	175	42.75	6*	259.25	5	35,000

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					

"Two backwash openings "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 MODEL "AP" 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



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.



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2.2.1	DIMENSIONS (inches)												
STRAINER SIZE-AP	в	с	D	E	F	G	н	J	к	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					

*Two backwash openings. **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 MODEL "AFW-1" STRAINER

APPLICATIONS

The "Model AFW-1" is a 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 size: 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 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. Installation can be made in a horizontal or vertical pipeline.

DESIGN

Similar to many of the automatic strainers on the market, the Model "AFW-1" consists of a one-piece stainless steel cylindrical well screen drum with slotted openings ranging from .005"

through .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, and the clean water can then continue through the outlet connection located diametrically opposite the inlet.

BACKWASH

As the rotor sweeps over the drum. 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 the atmosphere. The backwash flow rate is exceptionally low and will vary, depending on the amount of the 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 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).

	MODEL "AFW-1" STRAINERS									
	DIMENSIONS (inches)									
STRAINER SIZE-A	в	с	D	E	F	G	н	MOTOR H.P.	APPROX. SHIP WT. LBS	
2	18	*	4	27	*	1.25	34	.33	370	
3	18.5	*	4.5	29.5	*	1.5	39	.33	420	
4	18.5	*	5	32.875	*	2	46	.33	560	
6	21	2	6	40.5	8.5	2	55.5	.33	950	
8	24	3	7.25	48.75	9.5	2	68	.33	1,200	
10	26	2.5	8.5	51.25	11	3	72.5	.33	1,560	
12	31	3.5	10.5	57.125	13	3	78.875	.33	2,000	
14	38	4.5	14.5	70.625	15.75	3	99.375	.33	3,570	
16	38	5.5	13.5	70.625	15.75	3	99.375	.50	3,620	
18	45	4	18.25	90.25	19.125	4	130	.50	5,520	
20	45	5	17.25	89.25	19.125	4	129	.50	5,775	
24	56	7	17.5	99.5	25.75	4	142.5	.50	7,200	
30	62	9.75	20	112.125	29	4	163.125	.50	9,540	
36	72	6.75	27	130.5	33.5	6	181	.50	16,000	

CONSTRUCTION								
PART	STANDARD	SEA WATER	WHITE WATER	AMMONIACAL LIQUOR				
Body	Cst Iron or Fab Stl	Cast Iron	Cast Iron/Stn. Stl	Cast Iron				
Drum-Wedge Wire	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel				
Media (Str. Opening)	As Specified	As Specified	As Specified	As Specified				
Rotor	Cast Iron	Stainless Steel	Stainless Steel	Cast Iron				
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*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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S.P. KINNEY MODEL "AM" STRAINER

APPLICATIONS

The Model "AM" is a manual strainer designed for 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"- 4." 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 straight drum with a number of threaded holes containing one of many types of straining media. The drum is supported on a rotating shaft which can be turned manually with a hand crank 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

The drum is manually turned, and 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.

BACKWASH CONTROL

A manually operated valve is supplied for installation on the backwash outlet line to permit intermittent backflushing.

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



INSPECTION

The Kinney Model "AM" strainer eliminates troublesome disassembly for cleaning and inspection 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.





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S.P. KINNEY MODEL "FF" AND CUSTOM STRAINERS

APPLICATIONS

S.P. Kinney offers a wide range of custom manual and automatic designs to meet any dimensional, pressure, or temperature requirements that a customer may have.

If your custom needs fall outside our standard product offerings, please contact us directly so our engineering team may put together a custom water filtration package designed specifically for you.

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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.SPKINNEY.COM INFO@SPKINNEY.COM