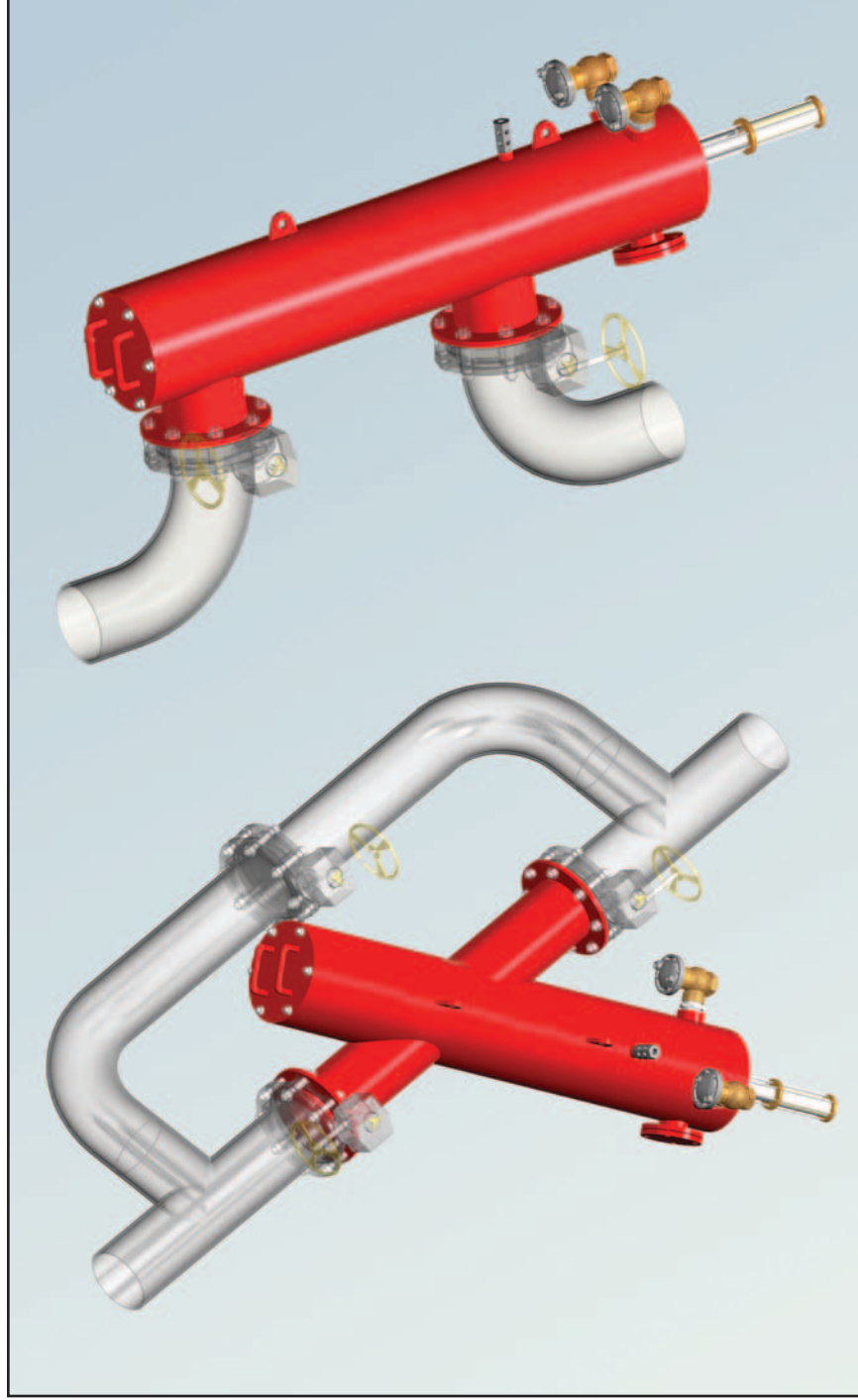


SERIES H AUTOMATIC SELF-CLEANING FILTER SYSTEM

www.elwood.com



ISO 9001:2000
CERTIFIED COMPANY

Features

ADVANTAGES OF PROPER FILTRATION

- **Increase production** by reducing downtime for maintenance.
- **Reduction in capital equipment budget** by increasing the life of equipment, nozzles, pumps and valves.
- **Improve product quality** by reducing friction losses in piping that robs pressure from critical systems such as descaling.

THEORY OF OPERATION

The unit consists of two stages of filtration, a coarse pre-filter and a stainless steel fine screen.

The unwanted solids accumulate on the inner surface of the fine screen, building up a filter cake, which filters out even finer particles, creating a pressure differential. Once the pressure drop reaches a preset level, a rinse cycle is activated by the factory supplied control system.

The solids are removed from the fine screen using a spot backwashing method, which aggressively sucks the dirt off the screen, the solids are then carried to the drain via the rinse valve. The dirt collector rotates and slowly moves linearly, ensuring the entire screen is cleaned each cycle.

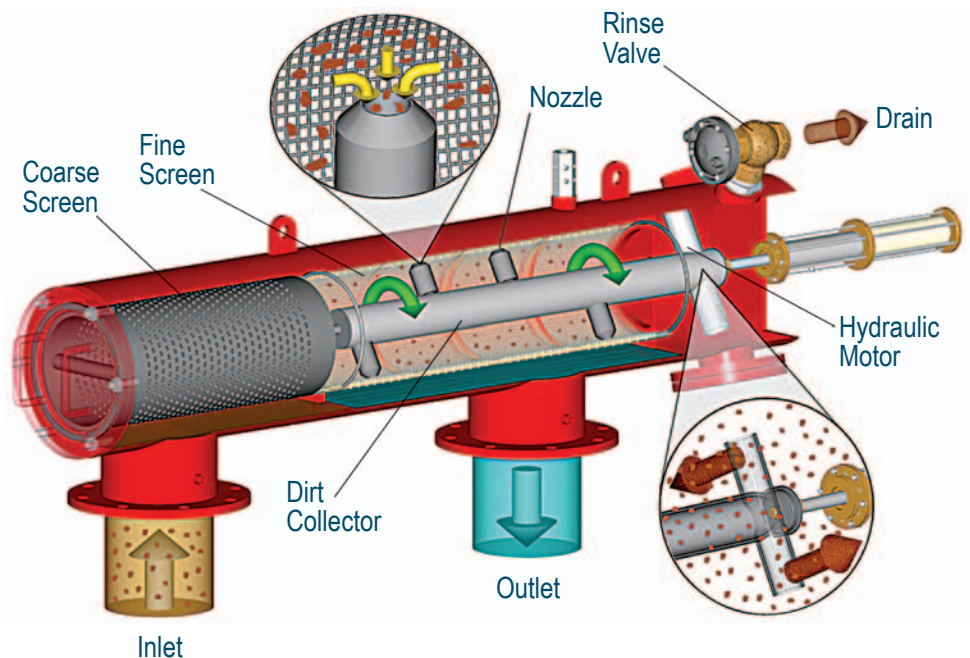
The process takes a matter of seconds, without interruption of system flow.

APPLICATIONS

Blast Furnace
Continuous Casting
Cold Rolling Mill
Hot Rolling Mill
River & Lake Water Intake
Descaling Pumps
Cooling Towers
Mold Tube
Tube Mill
Welder Cooling Water

REMOVES

Sand
Pipe Scale
Metal Scale
Rust Flakes
Metal Chips
Weld Balls
Algae
Zebra Mussels
Bacterial Slime



Features and Benefits of Filtration

FEATURES

BENEFITS

Fully automatic backwash system

Virtually maintenance free operation
Very low operating cost

High efficient backwashing technology

100 % of filter area cleaned
Increased filter life
Minimize water usage

Continuous filtration during backwash operation

No production downtime
Redundant units not necessary

Uses 90% less water than conventional self cleaning system

Save money on energy
Environmentally friendly

Multiple screen patterns, materials and sizes available

Customize filter to your exact requirements

Standard modular, in-line, on-line and bypass configurations

Standard configurations provide excellent value, commonality of replacement parts and quick installation

Low pressure drop across filter (0.5 to 7 PSI)

Maintain required pressure in system

Common filter body for all screen types for both organic and inorganic particles.

Reduce installation and maintenance time. Reduce number of maintenance SKUs in stock.

Elwood can customize the product to meet your exact requirements

Minimize changes to piping. Reduce cost of installation.

ISO 9001: 2000 Certified

High quality products and service

Technical Data

Maximum Operating Pressure	Standard: 150 PSI (10 bar) For higher pressures contact factory
Minimum Operating Pressure	30 PSI (2 bar)
Maximum Flow Rate	See Table 1 (opposite page)
Effective Screen Area	See Table 1 (opposite page)
Operating Fluid Temperature	Standard: 150° F (65° C) For higher temperatures contact factory
Compatible Fluids	Water Based
Body Construction Options	Two Standard Materials Available (1) Carbon steel with polyester epoxy coating (2) Stainless steel (Other options available, consult factory)
Screen Pattern Options	Three Technologies Available (1) Weave-Wire mesh with PVC support (2) Multilayer stainless steel (3) Wedge-Wire
Screen Apertures	Standard: 10 to 3000 microns (Other options available, consult factory)
pH Range	Standard: 4-9 Optional: 1-12
Power	120/240 VAC, 1/2 AMP, 9/12 VDC
Enclosure	NEMA 4X
Backwash Activation	DP, Timer, Manual

Screen Data

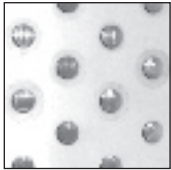
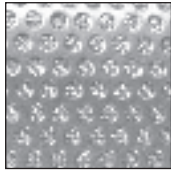
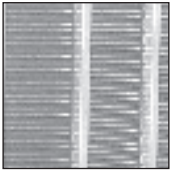
Screen Patterns	Weave-Wire Mesh PVC Support 	Multilayer Stainless Steel 	Wedge-Wire 
Screen Apertures	10 - 3000 Mic	10 - 3000 Mic	100 - 2500 Mic
Open Screen Area	40%	60%	30%
Hydraulic Collapse D.P.	300 PSI	300 PSI	450 PSI
Temperature Rating	150° F	300° F	700° F
Material	St/St 316L	St/St 316L	St/St 316L
Optional Material	Titanium, Hastelloy and other exotic material		
Fibrous Mat. Filtration	Poor	Poor	Excellent
Price	Low	Medium	High

TABLE 1

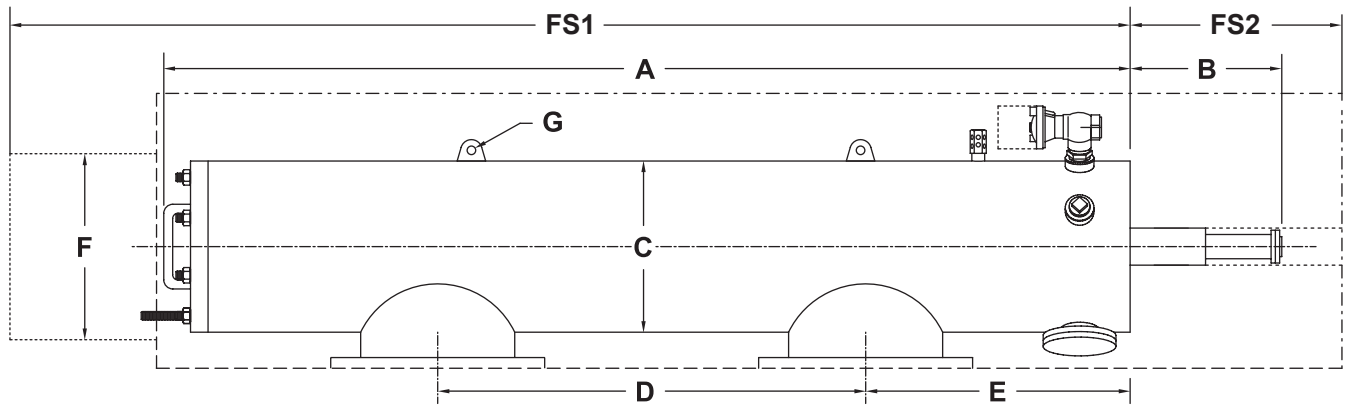
Flange Size (in.)	Configuration			Length		Max. Flow Rate (GPM)	Effective Screen Area (in.)	
	In-Line	On-Line	Bypass	Standard	Extended		Weave-Wire Mesh	Multilayer
2	N/A	x	N/A	N/A	x	110	64	96
3	x	x	N/A	x	-	175	64	96
3	x	x	x	-	x	175	237	356
4	x	x	N/A	x	-	350	120	180
4	x	x	x	-	x	350	474	713
6	x	x	x	N/A	x	660	474	713
8	x	x	x	x	-	1320	474	713
8	-	x	x	-	x	1320	713	1070
10	x	x	x	x	-	1760	632	950
10	N/A	x	x	-	x	1760	945	1420
12	x	x	x	x	N/A	2640	945	1420
14	x	x	x	x	N/A	3960	1070	1605
16	N/A	x	x	x	N/A	4840	1070	1605
18	N/A	x	N/A	x	N/A	6125	1070	1605
20	N/A	x	N/A	x	N/A	8100	2140	3210
24	N/A	x	N/A	x	N/A	12000	3210	4815

Installations & Configurations

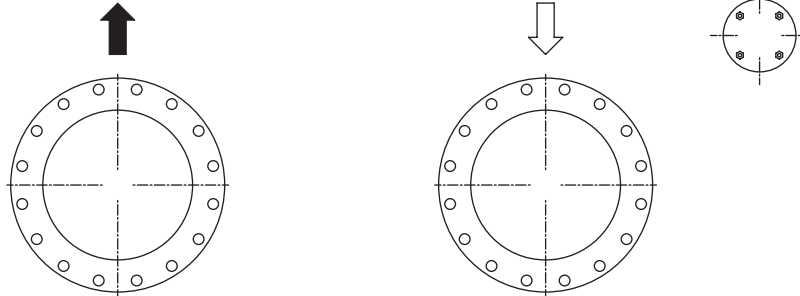
I Series	
	<ul style="list-style-type: none"> • In-line model • Inlet and outlet are concentric • Commonly used in single unit installations and vertical installations
P Series	
	<ul style="list-style-type: none"> • On-line model • Inlet and outlet are parallel • Commonly used in single and multiple unit installations and upside down installations
Multiple	B Series
	<ul style="list-style-type: none"> • Bypass model • Inlet and outlet are parallel • Commonly used in full flow applications where a constant flow of water is critical

Filter Specifications

On-line Configuration Shown
 (Consult Factory for In-line & Bypass Configurations)



FS1 & FS2 are free space around unit required for maintenance



Flange Size (in.)	Length	A	B	C	D	E	F	G	FS 1	FS 2	Empty Weight (lbs.)	Full Weight (lbs.)
2	E	18.9	-	10.8	5.9	5.4	11.8	-	25.6	-	95	135
3	S	21.1	-	10.8	8.1	6.3	11.8	1.0	28.2	-	105	160
3	E	44.1	17.7	10.8	17.7	17.1	11.8	1.0	73.2	24.8	215	345
4	S	27.8	-	10.8	11.8	7.7	11.8	1.0	40.0	-	135	215
4	E	59.6	17.7	10.8	35.4	16.4	11.8	1.0	104.7	24.8	225	400
6	E	62.4	17.7	12.8	35.4	17.6	13.8	1.0	104.7	24.8	285	555
8	S	70.0	17.7	12.8	35.4	23.3	13.8	1.0	115.0	24.8	325	630
8	E	85.7	17.7	12.8	35.4	39.0	13.8	1.0	147.2	24.8	355	755
10	S	76.8	17.7	16.0	43.3	19.7	17.7	1.0	133.9	24.8	575	1105
10	E	106.7	17.7	16.0	43.3	31.7	17.7	1.0	181.1	24.8	595	1220
12	S	106.7	17.7	16.0	43.3	31.7	17.7	1.0	181.1	24.8	645	1395
14	S	112.6	17.7	18.0	50.0	30.9	19.7	1.0	187.0	24.8	700	1650
16	S	112.6	17.7	18.0	50.0	30.9	19.7	1.0	187.0	24.8	965	1955
18	S	112.6	17.7	20.0	50.0	30.9	21.7	1.0	187.0	24.8	1025	2185

Ordering Data – Series H

Automatic Self-Cleaning Filter System with Hydraulic Actuation

FLANGE SIZE	
Code	Description (inches)
02	2
03	3
04	4
06	6
08	8
10	10
12	12
14	14
16	16
18	18

LENGTH	
Code	Description
S	Standard
E	Extended

SCREEN APERTURE	
Code	Description (Microns)
0010	10
0015	15
0025	25
0030	30
0040	40
0050	50
0080	80
0100	100
0120	120
0150	150
0200	200
0400	400
0800	800
1000	1000
1500	1500
3000	3000

BODY MATERIAL	
Code	Description
CS	Carbon Steel
SS	Stainless Steel

SCREEN PATTERN	
Code	Description
WM	Weave-Wire Mesh
ML	Multilayer
WW	Wedge-Wire

CONFIGURATION	
Code	Description
I	In-line
P	On-line
B	Bypass

H - 02 CS - I S WM - 0010

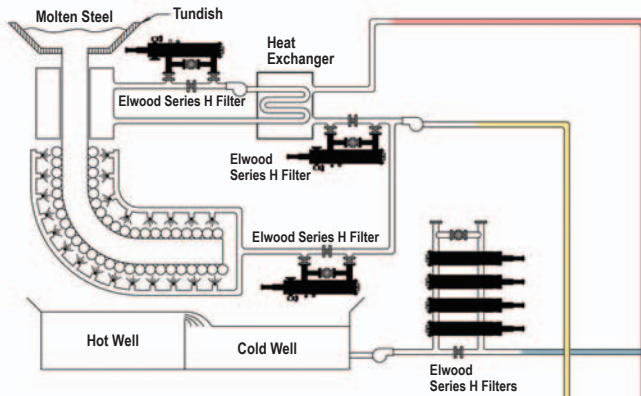
Code No. Example:

SERIES

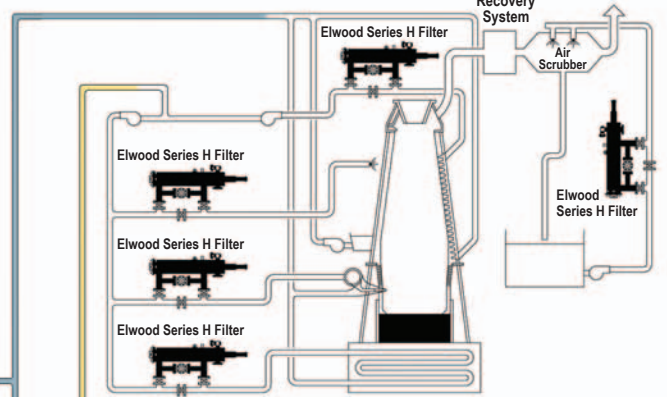
Mill Applications

Pond, Lake, River, Municipal Water Supply

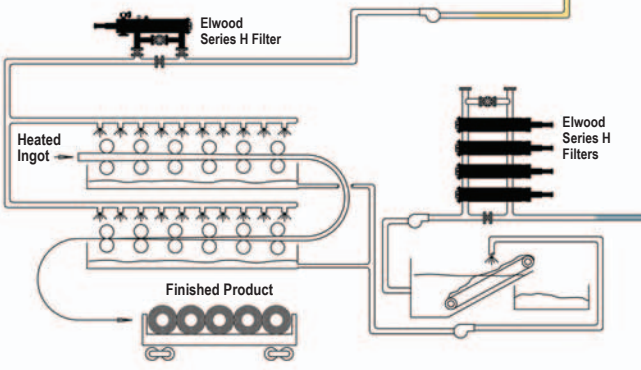
Continuous Casting



Blast Furnace



Hot Rolling



Cold Rolling

