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PROCESSING

New Water Filters Reduce Downtime at Steel Proccesing Plant

By Elaine Floyd, freelance writer

When Steel Dynamics' Butler, Indiana, cold steel processing plant has to shut down its production line for any reason, the cost in lost production is about $25,000 per hour. So when the facility was forced to shut down for three hours at a time every six months or so in order to replace water pump parts, maintenance supervisor Brian Butcher decided there had to be a better way. Between lost production time and the high cost of water pump replacement parts, Steel Dynamics was spending a fortune on water treatment.

"And this was a redundant system," says Butcher. "The main water filtration happens at a different facility about 300 yards away. But periodically the water that comes to us is contaminated with grease and oil. When that happens we have a backup system that kicks in. And since we never know when the dirty water will hit, our backup system must be ready to go. It's like an insurance policy." Clean water is essential for Steel Dynamics' cold steel processing applications.

Cooling Water Filtration at Steel Dynamics, Butler, IN 3,000 gpm, 3 X Tekleen Filters model ABW8-LP with 200 micron screen.

To solve the plant's water filtration problems and minimize downtime and parts replacement costs, the Butler plant switched from sand filters to carbon steel filters. While the new filters were a vast improvement, Butcher found that carbon steel filters don't last forever.

"We spent an incredible amount of money on carbon steel filters and they wore out after three to four years," says Butcher. "That's when we started pricing stainless steel filters and found the Tekleen® filter. It costs the same as other companies' carbon steel filters but lasts forever." He adds that there has been virtually no maintenance associated with the three Tekleen filters that have been in operation now for about eight months. "During routine plant shutdowns we go in and check them just to make sure they're working properly. They always are. We basically don't have to think about water anymore."

"SST Filters that last forever at carbon steel prices," Brian Butler Steel Dynamic, IN.

"Their old filters had three two-inch flush valves," says Dan Flanick, sales manager for Automatic Filters, maker of the Tekleen water filter. "They were using a lot of water and not doing the job. We replaced them with one two-inch flush valve that uses much less rinse water and is virtually maintenance free."

When the pressure reaches a preset differential, the backwash cycle begins. Within seconds and without interrupting the main flow, vacuum nozzles aggressively suction the dirt from the inside of the screen. High performance screens, which are offered as an option on Tekleen filters, consist of sintered mesh on a perforated basket providing 50 percent more open screen area in the same filter body as compared to the standard PVC supported screen.

When asked what advice he would give other processing plants that are dependent on clean water for both quality output and efficient operations, Butcher said, "Don't buy carbon steel filters. They eventually start to rust and wear out. Stainless steel is the way to go, especially if you can get them for the same price"

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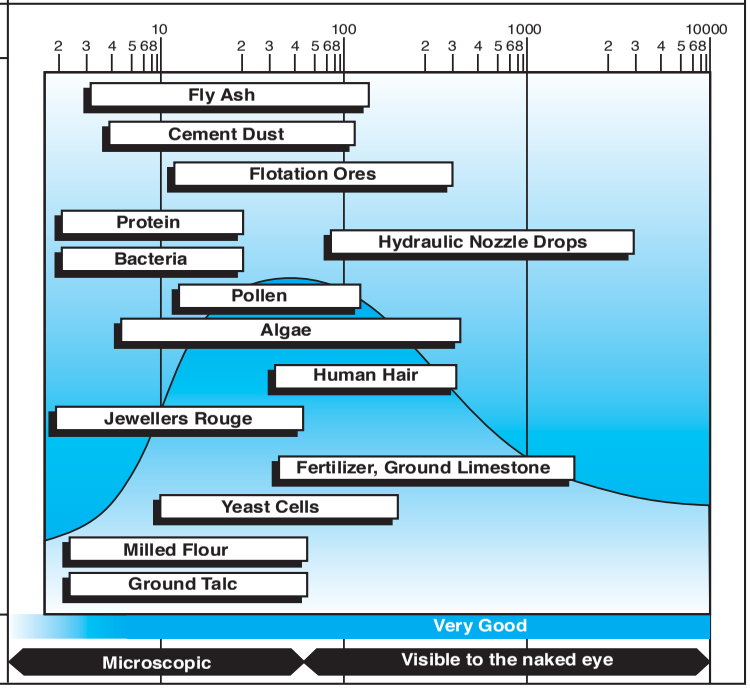
TEKLEEN Filtration Spectrum



TEKLEEN Conversion Tables

Automatic Filters, Inc. (310) 839-2828 FAX (310) 839-6878

Mesh	Micron	Inches
4	5205	0.2030
8	2487	0.0970
10	1923	0.0750
14	1307	0.0510
18	1000	0.0394
20	840	0.0331
25	710	0.0280
30	590	0.0232
35	500	0.0197
40	420	0.0165
45	350	0.0138
50	297	0.0117
60	250	0.0098
70	210	0.0083
80	177	0.0070
100	149	0.0059
120	125	0.0049
140	105	0.0041
170	88	0.0035
200	74	0.0029
230	62	0.0024
270	53	0.0021
325	44	0.0017
400	37	0.0015
550	25	0.0009
800	15	0.0006
1250	10	0.0004
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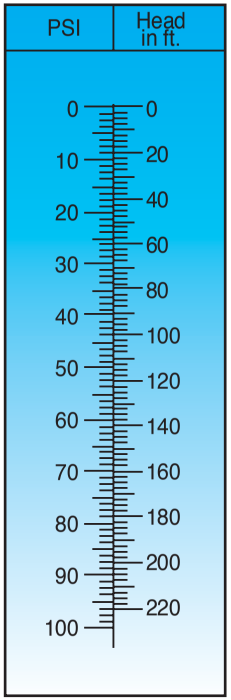
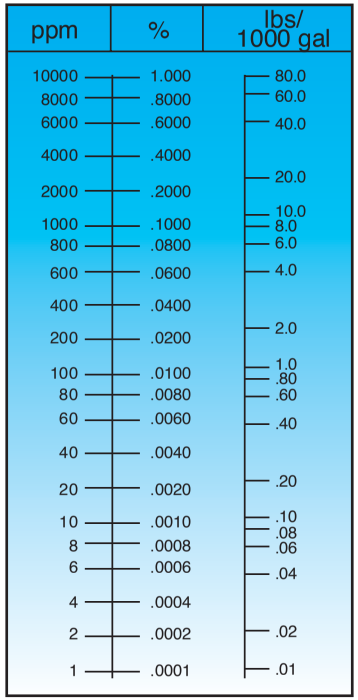
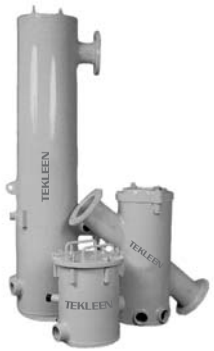




Please contact your local **Tekleen®** distributor for more information:



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Filter Models

# Model	Flange Size inches	Screen Area sq. ft.	Max Flow gpm
MTF-1	1" N.P.T	0.6	60
MTF-2	2" N.P.T	0.6	100
ABW2L	2" N.P.T	0.5	110
ABW4	4	0.8	350
ABW4L	4	3.3	400
ABW6L	6	3.3	650
ABW6XLP	6	4.9	600
ABW8	8	3.3	1,300
ABW8LP	8	4.9	1,300
ABW10	10	4.4	1,750
ABW12	12	6.6	2,600
ABW14	14	7.4	4,000
ABW16LP	16	10.0	5,000
ABW20P	20	21.0	8,000
ABW24P	24	21.0	12,000

Filter Construction Materials

Body - Carbon steel or stainless steel, ASME option.

Screen - Stainless steel mesh on plastic support or 3 layer sintered stainless steel "High Performance"

Vacuum Screen Cleaner - Plastic or stainless steel.

Rinse Valve - Brass or steel body with plastic actuator

Elastomers - Buna, EPDM, Teflon, or Viton