



4000 Series Gravity Strainer

ISO 9001
Registered
Queensbury, NY

KADANT

A E S

Proven reliability

AES Engineered Systems' Gravity Strainers have been the industry standard in pulp and paper mills for over 25 years. Over 1,000 of these highly reliable and efficient units are installed worldwide. Ideally suited for a wide range of applications, it is non-pressurized, easy and economical to operate, has few moving parts, and is capable of handling flow rates in excess of 2,800 gallons per minute.

Process advantages

The AES 4000 can effectively remove long and short fibers, felt hair, and granular solids from process water. It can also handle system upsets and slugs, without sacrificing the filtered water quality. In many applications, upsets to equipment or process upstream of the gravity unit will result in a large increase in fibrous contaminants. The 4000 Strainer continues to deliver strained water downstream, with a possible temporary rise in reject flow.

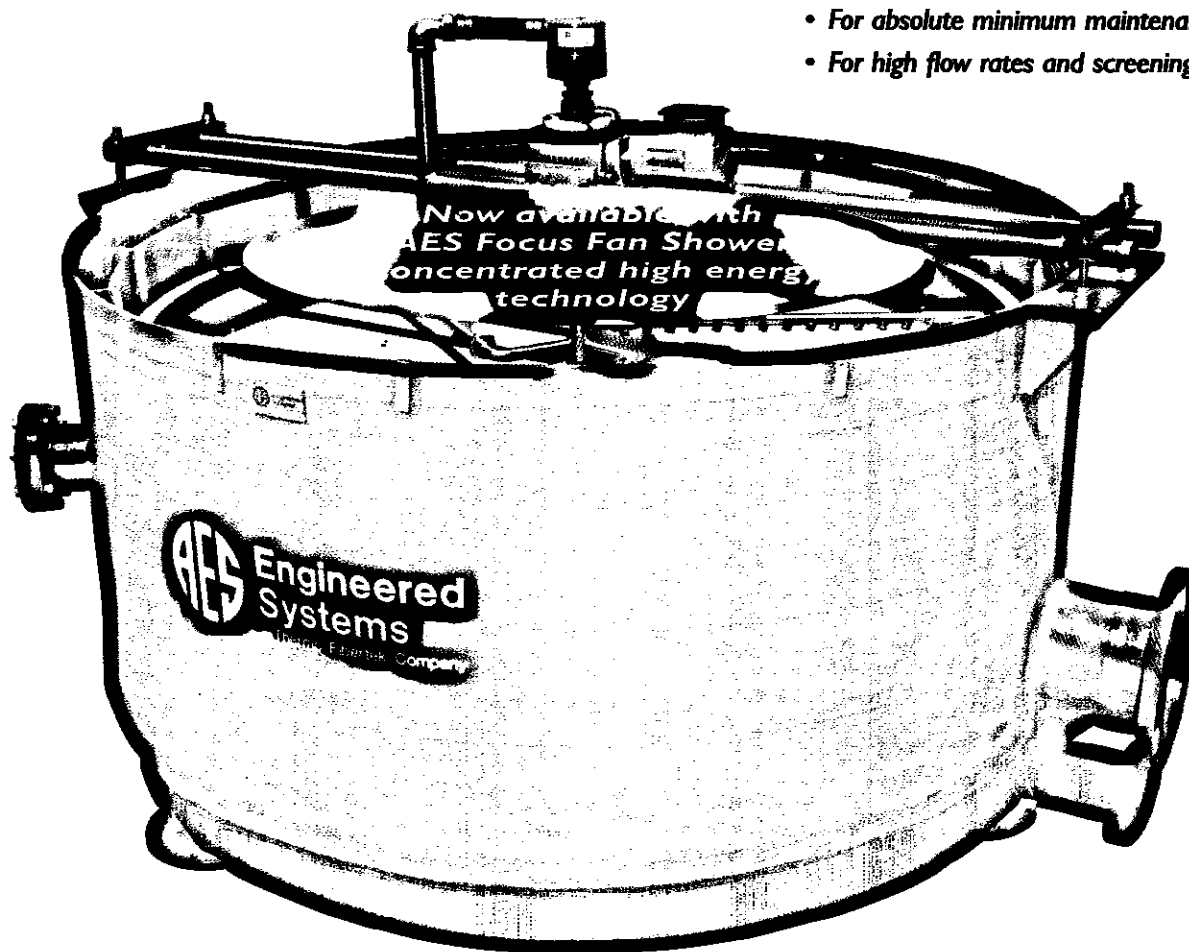
Designed for efficiency

The very high efficiency of the AES 4000 is due to the controlled flow over the media surface and the gentle separation forces. Filtered solids are continuously washed inward to the center of the screen by the strainer's rotating showers and discharged into the center reject port. The screen is returned to full effectiveness without manual attention even after an upset condition is encountered.

Easy performance monitoring

The 4000's low pressure shower and drive are easily accessible from the top of the strainer and its construction allows quick and easy monitoring of media conditions and performance. Removable flow distributors assure an even flow of the influent onto the stationary screen.

- For increased solids removal
- For energy and water conservation
- For absolute minimum maintenance
- For high flow rates and screening efficiency



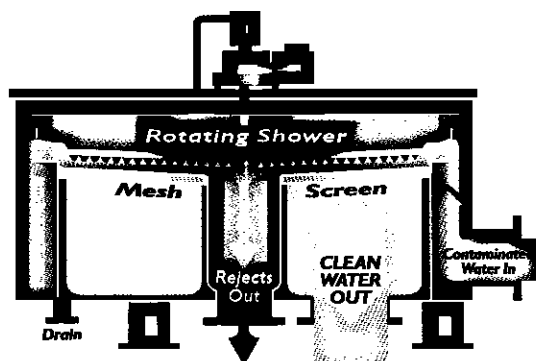
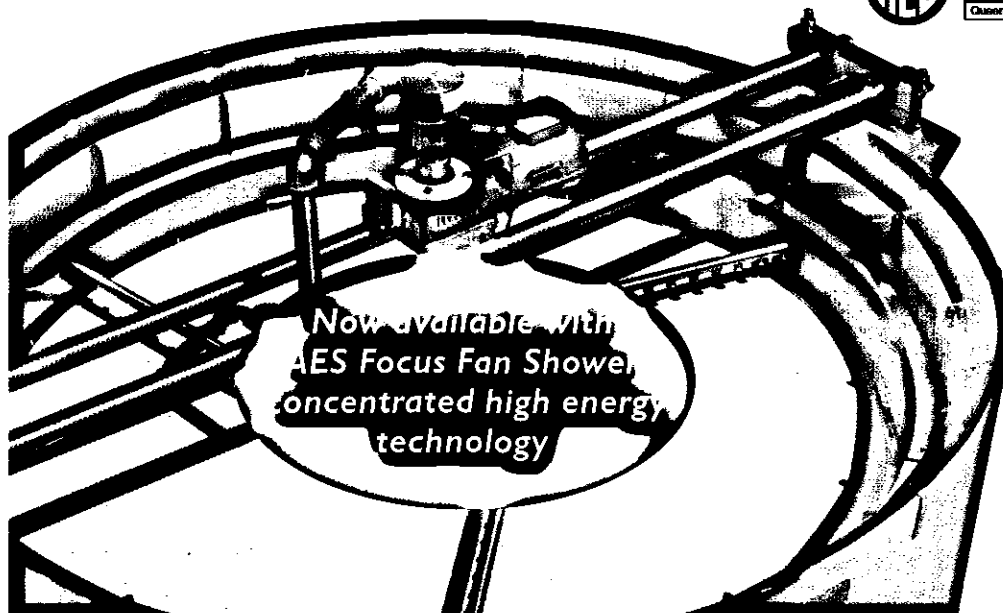
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How it works

Water to be filtered is piped into and channeled around the periphery of the tank. It flows upward and through a weir assembly for even distribution over a fine screen mesh (40 to 200 mesh.) The water is filtered here leaving fibers and solids on the screen. Clean water is then collected in the strainer's bottom and flows from the unit. A continually rotating shower above the screen washes the rejects toward the center opening and the reject pipe for discharge.



Gravity Strainer Model	Flow Capacity Range ** GPM / lpm	Nominal Diameter In. / cm	Nominal Height * In. / cm	Inlet/Reject Connection In. / cm	Accept Connection In. / cm	Gross Weight Dry - Wet Lbs. / kg	
4005	96 - 610 365 - 2310	61 155	59 150	6 15	10 25	800 363	4500 2040
4015	163 - 1037 615 - 3925	73 185	69 176	8 20	12 30	975 442	7150 3243
4025	241 - 1537 910 - 5820	85 215	72 183	10 25	14 35	1300 590	9000 4082
4035	338 - 2153 1280 - 8150	97 245	75 190	12 30	16 40	1425 646	11050 5011
4045	511 - 3257 1935 - 12330	115 290	78 198	14 35	18 45	1760 798	16500 7483

** Capacity can vary depending on inlet loading and screen mesh

* Height of support legs can vary to suit application

Features

- High flow rates
- Relatively high solids loading
- Gravity feed
- Shower rotation by small, fractional 1/2 HP 3-phase motor
- Continuous media cleaning with rotating multiple showers
- Shower utilizes strainer accepts
- Completely assembled—can be placed above existing tanks
- Wide range of media—easily changed
- Cleaning shower assembly is the only moving part
- Corrosion-free fiberglass standard; stainless steel optional

Benefits

- Lower cost per gallon processed
- Careful sizing, less equipment minimizes "installed cost"
- Eliminates pumping cost—can be gravity fed
- Minimal power cost
- Maximum throughput, minimal downtime, high efficiency
- No fresh water requirements
- Inexpensive installation
- Adaptable for many applications
- Minimal maintenance and downtime
- Optimal cost/life ratio for your particular conditions

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AN ACCENT ON INNOVATION

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Gravity Strainers

Simple,
efficient,
designed for
economical
results.

Mills worldwide value AES Engineered Systems strainers for their outstanding economical and reliable performance in many papermaking applications.

- AES Gravity Strainers are in use polishing white water for showers, removing felt hairs from recycled press water, on pulp mill applications, on deckers, stock washers and on savealls—even on mill influent systems.

- Benefits include substantial energy and water savings, highly effective fiber and solids removal and reliable operation even when upsets and slugs occur.

**Gravity Strainer Capacities
at Various Fiber Removal Rates**

Gallons/Liters Per Minute
with Free Draining Stock

Model	Mesh	0-99 PPM	100-299 PPM	300-499 PPM	500-799 PPM	800-1000 PPM
100	470	1780	408 1545	316 1195	250 945	158 600
200	285	1080	248 940	191 725	152 575	96 365
4015	60	1037 3925	901 3410	697 2640	553 2095	348 1315
100	798	3020	694 2625	537 2030	426 1610	268 1015
200	484	1830	421 1595	325 1230	258 975	163 615
4025	60	1537 5820	1336 5055	1033 3910	819 3100	516 1955
100	1184	4480	1029 3895	795 3010	631 2390	398 1505
200	718	2720	624 2360	482 1825	383 1550	241 910
4035	60	2153 8150	1871 7080	1447 5475	1148 4345	724 2740
100	1658	6275	1441 5455	1114 4215	884 3345	557 2110
200	1006	3810	874 3310	676 2560	536 2030	338 1280
4045	60	3257 12330	2831 10715	2189 8285	1736 6570	1094 4140
100	2508	9495	2180 8250	1686 6380	1337 5060	843 3190
150	2296	8690	1996 7555	1543 5840	1224 4635	772 2920
200	1521	5755	1322 5005	1022 3870	811 3070	511 1935

Gravity Strainer Design Specifications

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4005	96 - 610 365 - 2310	61 155	59 150	6 15	10 25	725 330	2875 1305
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4025	241 - 1537 910 - 5820	85 215	72 185	10 25	14 35	1100 500	7700 3495
4035	338 - 2153 1280 - 8150	97 245	73 185	12 30	16 40	1225 555	10750 4875
4045	511 - 3257 1935 - 12330	115 290	87 220	14 35	18 45	1560 710	15000 6805

* Height of support legs can vary to suit application.

** Capacity can vary depending on inlet loading and screen mesh.

