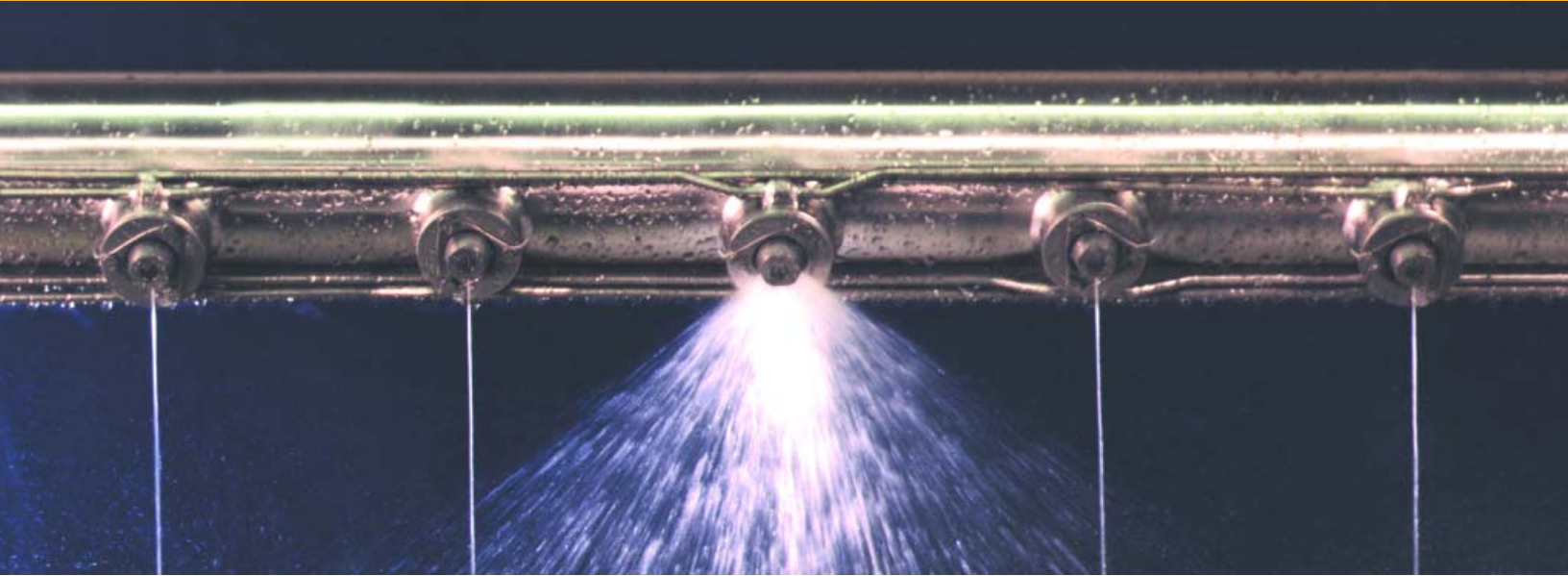


42 Stationary · 43 Oscillating Purgeable Shower Systems



System Design

Kadant AES 42 Stationary and 43 Oscillating Showers are designed and built for applications using filtrate or recycled water. The positive-purging nozzle provides complete cleaning at much higher pressures than previously possible.

Advantages

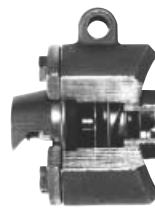
- ¥ Permits reuse of filtrate
- ¥ Provides positive purge of nozzles
- ¥ Reduces mill effluent
- ¥ Reduces loss of fines and fillers
- ¥ Reduces energy requirements for heating fresh water
- ¥ Reduction of pH control problems
- ¥ Positive water purge system eliminates complicated mechanisms
- ¥ Ability to handle relatively high solids loading
- ¥ Extended nozzle life through use of precipitation hardened stainless steel
- ¥ Superior seal design

Applications

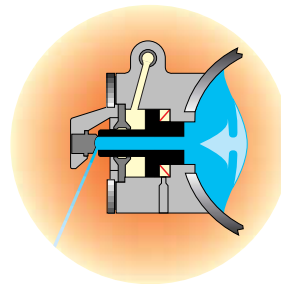
- ¥ Paper machine clothing and roll cleaning
- ¥ Filter press belt cleaning
- ¥ Vacuum filter fabric cleaning
- ¥ Extractor belt cleaning
- ¥ Replacement of existing fresh water showers

Shower Operation

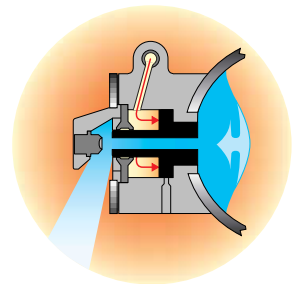
In operation, the shower pressure holds the piston against an anvil designed to produce the desired spray pattern. When purging is required, an air signal is applied to the double piston on the side opposite the water. The piston is forced away from the anvil allowing water pressure to clean the orifice. When the air signal is removed, the water pressure again forces the piston against the anvil for normal operation. Piston return is assisted by a Posi-Lift spring.



Nozzle Cut-Away



Normal Operation



Purge Position

Purge Control

The purge cycle can be activated manually and/or at pre-determined intervals through the use of fully automatic control panels. In addition, the system is designed for nozzle purging in an alternating manner – only 25% or 50% of the nozzles purge at one time. Use of smaller pumps is made possible by this systematic method of purge.

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42 Stationary - 43 Oscillating Purgeable Shower Systems

INSERT & HOOD ASSEMBLY														
	B10738	B10747	B10739	B10741	B10748	B10746	B10742	B10743	B10757	B10758	B10744	B10740	B10745	FLOW AT PURGE ALL
NOZZLE#	106	122	118	123	124	131	125	127	109	136	129	121	130	
ANGLE	JET	30°	40°	45°	45°	45°	45°	60°	60°	77°	90°	100°	120°	
	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM
	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM	LPM
PSI														
20	.15	.85	.85	.17	.27	1.03	1.40	.72	1.35	.80	.87	1.00	1.02	4.00
	.57	3.22	3.22	.64	1.02	3.90	5.30	2.72	5.11	3.03	3.29	3.78	3.86	15.14
40	.23	1.22	1.20	.25	.40	1.44	2.02	1.00	1.90	.95	1.21	1.41	1.41	5.44
	.87	4.62	4.54	.95	1.51	5.45	7.64	3.78	7.19	3.59	4.58	5.34	5.34	20.59
60	.28	1.51	1.47	.32	.50	1.76	2.50	1.22	2.25	1.16	1.46	1.72	1.71	6.50
	1.06	5.71	5.56	1.21	1.89	6.66	9.46	4.62	8.51	4.39	5.52	6.51	6.47	24.60
80	.32	1.76	1.70	.38	.58	2.02	2.91	1.39	2.60	1.30	1.67	2.00	1.96	7.40
	1.21	6.66	6.43	1.44	2.19	7.64	11.01	5.26	9.84	4.92	6.32	7.57	7.42	28.00
100	.36	1.97	1.90	.44	.66	2.26	3.27	1.55	2.93	1.42	1.86	2.21	2.17	8.17
	1.36	7.46	7.19	1.66	2.50	8.55	12.38	5.87	11.09	5.37	7.04	8.36	8.21	30.92
120	.39	2.17	2.09	.49	.72	2.47	3.61	1.68	3.20		2.02	2.40	2.37	8.86
	1.48	8.21	7.91	1.85	2.72	9.35	13.66	6.36	12.11		7.64	9.08	8.97	33.53
140	.42	2.35	2.26	.54	.79	2.66	3.91	1.81	3.45		2.18	2.61	2.54	9.49
	1.50	8.89	8.55	2.04	2.99	10.07	14.80	6.85	13.06		8.25	9.88	9.61	35.92
160	.45	2.52	2.41	.58	.85	2.84	4.20	1.93	3.70		2.32	2.80	2.71	10.08
	1.70	9.54	9.12	2.19	3.22	10.75	15.90	7.30	14.00		8.78	10.60	10.26	38.15
180	.48	2.68	2.56	.63	.90	3.01	4.47	2.04	3.90		2.45	2.95	2.86	N/R
	1.82	10.14	9.69	2.38	3.41	11.39	16.92	7.72	14.76		9.27	11.16	10.82	
200	.50	2.83	2.70	.67	.96	3.17	4.73	2.14	4.10		2.58	3.10	3.00	N/R
	1.89	10.71	10.22	2.53	3.63	12.00	17.90	8.10	15.52		9.76	11.73	11.35	
250	.56	3.19	3.02	.76	1.08	3.54	5.32	2.38	4.56		2.86	3.47	3.34	N/R
	2.12	12.07	11.43	2.88	4.09	13.40	20.13	9.01	17.26		10.82	13.13	12.64	
300	.59	3.51	3.31	.85	1.19	3.86	5.86	2.59	5.00		3.12	3.80	3.64	N/R
	2.23	13.28	12.53	3.22	4.50	14.61	22.18	9.80	18.92		11.81	14.38	13.78	
400	.68													
	2.57													
500	.75													
	2.84													
600	.88													
	3.33													
700	.95													
	3.59													



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