

dewatering screens



Dewatering screens are similar equipment to conventional screens, but their bottom deck is slanted slightly upward toward the discharge end. Their primary applications are:

- In **sand dewatering**, to improve its quality when the water in the end product contains harmful particles, as for aggregate washing plants with a shortage water supply.
- To maintain **constant moisture** of sand, primarily if it is to be used in concrete preparation. At the same time, the increase cost of transporting excess water is eliminated and road spilling is prevented.
- To **filter** products with a fine particle size distribution, obviating the need on occasion of other more costly equipment such as vacuum filters.



Dewatering screen with pressure vacuum system

<200µm tailings filtration (150 tph)

OPERATION

During material dewatering, water is filtered through the mesh as a result of vibration while the material is conveyed toward the point of discharge. The filtered water carries solid particles whose size is slightly smaller than the mesh openings, which must be recovered by means of hydrocycloning and incorporated to final product in the discharge area. The level of moisture that can be obtained in the end product is between 10 % and 15 %, depending on its nature, particle size distribution and water content in the feed material.

CONSTRUCTION

Trough fabricated in mild painted steel, forming a highly rigid, non-deformable assembly. Its walls are protected by replaceable, abrasion-resistant plates.

Filter mesh, formed by modular polyurethane or stainless steel panels. The special design of these panels, with trapezoidal cross-section mesh openings, together with their elasticity, prevent obstruction and blocking. The result is a larger effective filtering area than in other types of mesh. Thanks to the modular design, the position of the mesh in the panel can be changed to ensure a regular wear of each panel.

Back trough wall with modular openings for improved filtering.

Drive system comprising twin adjustable, heavy-duty, motor-vibrators for linear high-frequency, low amplitude vibration to reach optimal filtering for every specification.

DEWATERING SCREENS WITH VACUUM SYSTEM. EVD model:

When moisture in the end product must be reduced to a minimum, the dewatering screens may be fitted with a built-in negative pressure vacuum system.

The liquid is filtered through the mesh and material bed not only by vibration, but also by the vacuum created across the mesh, which reduces the residual moisture in the product to minimum levels.

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Certified under ISO 9001 - ISO 14001

Type	Width mm	Length mm	Weight kg	Power kW	Capacity (tph)	
					Coarse Sand	Fine Sand
EV 12	300	1600	355	1.1	10	5
EV 22	600	1600	460	1.8	25	15
EV 23	600	2400	928	3.2	35	25
EV 33	900	2400	1145	4.4	60	40
EV 34	900	3200	1572	7.2	80	55
EV 43	1200	2400	1415	7.2	105	70
EV 44	1200	3200	2202	12	115	75
EV 53	1500	2400	1944	12	130	85
EV 54	1500	3200	2449	10	170	115
EV 64	1800	3200	3012	15	200	135
EV 65	1800	4000	3881	18	225	150
EV 74	2100	3200	3476	18	235	165
EV 75	2100	4000	4584	21.2	290	200
EV 86	2400	4800	6467	38	350	240
EV 87	2400	5600	7072	38	350	240

Capacities above mentioned are for products with s.g. of 2.65 t/m³ and solids concentration of 70 % and 85 % by weight in feed and discharge respectively. For coal applications 60% of capacity figures indicated should be applied.