

HYDRAULIC STATIC SCREEN

MORE INFO

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DESCRIPTION

Hydraulic Static Screen is a type of filtration or separation device commonly used in various industries, especially in wastewater treatment, mining, and food processing. It functions primarily to remove suspended solids or debris from liquids by utilizing a static, gravity-based filtering mechanism. This device relies on hydraulic pressure, which is generated by the flow of the liquid through the screen, to facilitate separation.

Key features and Operation

Screen Structure:

- The screen typically consists of a mesh or perforated surface that captures particles from the incoming liquid.
- The mesh is usually made of stainless steel or other durable materials, depending on the application.

Hydraulic Pressure:

The "hydraulic" aspect refers to the way water or liquid under pressure flows through the screen. The flow rate and pressure ensure that the liquid passes through the mesh, while solid particles are captured and retained on the surface.

Static Nature:

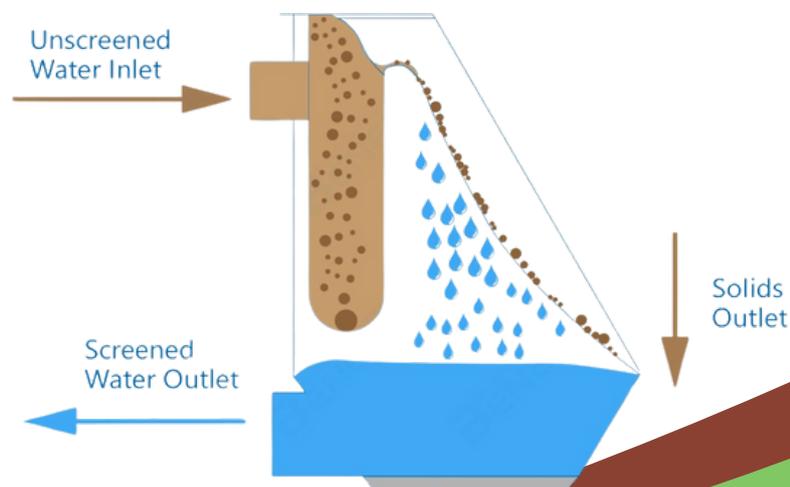
Unlike mechanical or rotary screens, a hydraulic static screen operates without moving parts. This reduces the need for maintenance and increases reliability. The process depends on the natural flow of liquid and gravity to push the water through the screen.



SUPERIORITY

- 1** **Low Maintenance:** With no moving parts, HSS require less maintenance and are more reliable, resulting in reduced downtime and fewer repairs.
- 2** **Energy Efficiency:** These screens operate with minimal energy since they don't rely on mechanical movement, reducing operational costs.
- 3** **Cost-Effective:** HSS have lower initial costs and long-term operational savings due to low maintenance and energy use.
- 4** **High Filtration Efficiency:** They effectively filter out solids with various mesh sizes, ensuring stable and consistent performance.
- 5** **Durability and Reliability:** Built from corrosion-resistant materials like stainless steel, they are durable and able to run continuously without frequent breakdowns.
- 6** **Simple Operation:** HSS systems are easy to operate with automatic flow regulation and minimal manual intervention.
- 7** **Environmental Benefits:** They are eco-friendly, with low noise, vibration, and energy consumption.
- 8** **Adaptability:** HSS can be customized for different applications, including wastewater treatment, food processing, and mining.
- 9** **Improved Water Quality:** They enhance water quality by removing large solids before further treatment, especially in wastewater systems.
- 10** **Compact Design:** Their space-saving design makes them ideal for environments with limited space.

FLOW SCHEME



COMPARASION

Aspect	Hydraulic Static Screen (HSS)	Rotating Screen	Vibrating Screen
Operation Mechanism	Static, relies on hydraulic pressure and gravity.	Rotating drum with mechanical movement.	Uses vibrating motion for filtration.
Energy Consumption	Very low; no motors or mechanical parts required.	Moderate; requires motor-driven rotation.	High; requires continuous vibration via motors.
Maintenance	Minimal; no moving parts reduce wear and tear.	Regular; moving parts (bearings, motors) need attention.	Frequent; vibration causes wear on parts and screens.
Durability	High; stainless steel construction and fewer components.	Moderate; moving parts are prone to mechanical failures.	Lower; prone to wear and tear due to vibrations.
Operating Costs	Low; reduced energy use and minimal maintenance.	Moderate; higher energy and maintenance costs.	High; significant energy and repair costs over time.
Filtration Efficiency	High; customizable mesh size ensures effective solid separation.	Moderate; efficiency depends on drum rotation speed.	High; effective for fine filtration but less consistent.
Installation Space	Compact; space-saving static design.	Larger; drum structure requires more space.	Larger; needs space for vibration clearance.
Noise and Vibration	None; operates quietly.	Moderate; rotating parts create noise.	High; vibrations generate significant noise.
Environmental Impact	Low; energy-efficient and eco-friendly design.	Moderate; higher energy use and motor operation impact.	High; energy-intensive and louder operation.
Adaptability	Highly versatile; suitable for various industries and applications.	Moderate; specific to certain applications.	Limited; best for specific fine filtration processes.
Initial Investment	Low to moderate; cost-effective design.	Moderate to high; mechanical components increase costs.	High; sophisticated vibration systems add to the cost.
Maintenance Downtime	Minimal; fewer mean less down, for repairs.	Moderate; motor and drum issues cause occasional delays.	High; frequent part replacement needed due to wear.

TECHNICAL DATA

Model Specifications	BNSL-60	BNSL-90	BNSL-120	BNSL-150	BNSL-180
Screen Width(mm)	600	900	1200	1500	2000
Device Size(mm)	700*1320*1800	1000*1320*1800	1300*1520*2100	1600*1520*2100	2100*1520*2100
Inlet Flange	DN100	DN150	DN200	DN250	DN250
Outlet Flange	DN150	DN200	DN250	DN300	DN350
Drainage Flange	DN65	DN65	DN65	DN65	DN65
Equipment Empty Weight (kg)	230	280	360	420	550
Equipment Operating Weight (kg)	980	1300	1600	1980	2550

SPECIFICATION

Technical Specifications		BNSL-90	BNSL-120	BNSL-150	BNSL-180
Gap b(mm)	0.25	8	12	24	30
	0.5	25	35	55	70
	1.0	40	60	100	120
	1.5	60	80	130	160
	2.0	80	105	165	200
Capacity Q (m ³ /h)					

FULL PRODUCT



Benefit the



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