

Filtertechnik b.w. AB is specialised in producing Gravity Strainer

Filtertechnik b.w. AB is specialist in producing machines for cleaning process or raw water. The Swedish family company is doing their business worldwide and has a high number of well known customers

in the pulp- and paper industry. Filtertechnik b.w. AB has customers in all water-consuming industries with the emphasis on the paper and pulp industry, the iron and steel industry, the chemicals indus-

try and hydroelectric power stations.

The speciality of Filtertechnik b.w. AB is mechanical purification of raw water, cooling water and hot and cold process water.

Gravity Strainer

Application area

They are most commonly used in the pulp and paper industries to reduce the suspended solids concentration and to remove felt hairs and fibre bundles. Also to separate long fibres and process debris from recycled white waters.

BSW Gravity Strainers used for clarified water in papermaking are mostly used on water streams with 20 up to 600 mg/l (ppm) fibres.

Typical applications are the mill's spray water systems, purification of sealing water from vacuum pumps, polishing of water from flocculation plants and cooling towers. The filter is also used for purification of intake water from lakes and rivers.

Types

The BSW Gravity Strainer is available in six sizes, and are self cleaning systems which work under atmospheric conditions for water flows up to 12000 l/min.

- Capacity range: 400 to 12000 l/min
- Filter media: 80 to 250 micron
- Motor: 0.25 - 0.37 kW, depending on filter size
- Material: Stainless steel EN1.4301 or EN1.4404 and EN1.4436.

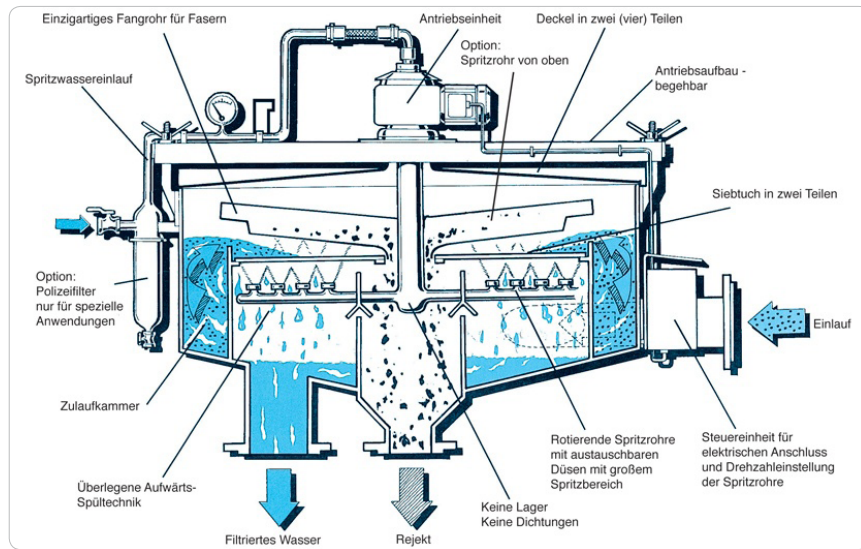


Principle of Operation

The water is fed in tangentially between the outer and inner jackets of the filter vessel. The water flows up and over the edge of the internal vessel and down onto the strainer media. Unwanted solids/fibres are captured upon the strainer media, and clean water passes through the fine filter mesh, exiting at the bottom of the strainer vessel.

Cleaning is achieved by spray cleaning the strainer media in a novel way, „bottom-up cleaning“. Two spray bars positioned below the strainer media, rotates in-line with the unique collection chambers located directly above the strainer media.

These collection chambers catch the fibres/solids lifted by spray water from the screen surface, and feed them down towards the drain. Fibres are transported inside the collection chambers, not on the top of the strainer media.



Advantages

- The bottom-up cleaning technique used, is a major improvement over other designs that rely on „top-down“ sprays to drive solids/fibres along the strainer media to a collection point.
- This top-down technique is less effective and less efficient in retaining fibres/solids, because the sprays can drive solids into or through the strainer media.
- The bottom-up spray continuously forces fibres/solids off the strainer media and lifts them into the reject pipe.
- It makes the BSW Gravity Strainer more effective and efficient in retaining fibres/solids, and provides an improved final filtrate.
- No bearings or seals positioned below the drive unit.
- Screen frames in two or four sections for easy handling.
- No problems with settling of fibres in inlet chamber due to tangential inlet connection.
- Bottom-up cleaning system and collection chamber is a major improvement over other designs.
- Easy to inspect and replace the two/four parts screen.
- Spray pipes with „self cleaning“ nozzles purged by closing and reopening the ball valve at the spray pipe inlet as little as 2 or 3 seconds.

