BOR

半浸没式滤布转盘过滤器

BOR Half-Submerged Rotary Disc Filter

产品简介 / PRODUCT DESCRIPTION

BOR半浸没式滤布转盘过滤器由多个水平安装的旋转过滤盘组成，每个过滤转盘由以偶数的扇形过滤板组合而成，转盘上装有可方便拆卸的滤布，滤布材质为不锈钢或聚酯，滤布的过滤孔径一般为10um。

BOR half-merged rotary disc filter is consist of several rotary filter discs, which are string together and vertically mounted inside the tank. Every rotary disc is formed of even number fan-shaped plates, covered with detachable SS or polyester cloth of 10um.

设备特点 / CHARACTERISTICS

01 设备的处理效果良好，性能稳定且出水水质稳定，进水可以承受60-80mg/L高悬浮物的冲击。
Good performance and stable permeate quality, the feed water SS can be up to 60-80mg/l.

02 设备具有占地面积小、运行可靠和低能耗等优点。
Space saving and reliable operation, low installed power and energy saving.

03 设备运行水头损失小，滤布前后水头损失不超过300mm，可以有效节约能源，减少浪费。
System head loss is no more than 0.3m.

04 系统工作运行全部实行自动化操作。
Fully automatic operation.

05 产品运用模块化设计，运行及维护简单，滤布更换快捷方便。
Modular design for simply installation and maintenance, replacement of disc cloth is more convenient.

06 过滤精度高（5-20μm），可根据需要选择。
High filtration precision, disc cloth micron rating from 5μm to 20μm according to requirements.

产品应用 / APPLICATION

- 用于污水处理出水水质从一级B提升为一级A标准。
- 用于污水的深度处理，设置于常规二级污水处理系统之后或设置于常规二级污水处理的二沉池中，主要去除总悬浮固体，结合投加药剂可去除部分磷、浊度、COD等污染物。
- 冷却水、循环水的制备和旁滤处理。

- Upgrading of sewage treatment from grade I B to grade I A.
- Filter is used after the secondary sewage treatment system or in the secondary sedimentation tank for advanced treatment of sewage. Its function mainly to remove the suspended solids, part of the phosphorus, turbidity and COD etc.
- Production and filtration of cooling water or circulating water.

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工作原理 / WORKING PRINCIPLE

滤布转盘过滤器的运行状态分为原水过滤和反冲洗排泥两个相对独立又同时进行的过程。过滤和排泥在过滤器内部全自动运行。

a．过滤：污水进入过滤器转动中心筒内侧，转动中心筒上设有方形配水孔。污水通过转筒内通过配水口进入过滤器每个滤盘内侧，经过滤布过滤，从而使污水中的悬浮物被截留在滤盘的内侧，过滤后的水通过溢流集水管排出。过滤时设备转盘处于静止状态。

b．反洗：污水中污泥拦截在滤布内侧，逐步形成污泥层。随着滤布上污泥的积聚，滤布过滤阻力增加，滤池水位逐渐升高。设备自带液位计监测池内液位的变化，当滤池内液位达到清洗水位（高水位）时，PLC控制开始反冲洗过程：滤盘开始以中心筒为圆心旋转，驱动减速机以1～3转/分钟的速度旋转，同时反洗水泵启动，反冲洗水泵抽取滤后水通过位于滤盘顶部的高压伞状清洗系统对处于顶端位置的滤布进行自外向内的冲洗，从而将堆积在滤布内表面的污物清洗下来，清洗下来的污泥通过排污管收集排出。清洗喷嘴进行有规律的移动，彻底清洗滤布表面无死角，并能节约清洗耗水量。反冲洗的次数和历时可根据现场运行状况调整。设备反冲洗时，滤池可连续过滤产水。

The operating state of the rotary disc filter is consist of filtering and backflushing(sludge discharge) processes, which are relatively independent but running simultaneously at different parts of the filter.

a．Filtering： Raw water fills into the central cylinder under the gravity, and distributed to the inner cavity of filter discs through the upper cylinder holes. Clean water pass through the disc cloth and flows to the filter outlet, while the particles or solids are intercepted inside the filter discs. Filter discs are stood still during filtering process.

b．Backflushing： With the accumulation of particles and solids inside the filter discs, tank water level gradually raised. When the water level reachs a predetermined line of backflushing, PLC control system starts backflushing cycle. Filter central cylinder and discs driven by the motor rotated at a speed of 1~3 rpm, while the backwashing pump started, pumping clean water to the top umbrella nozzles, flushing the disc cloth from outside to inside. Since the particles and solids are removed from the disc cloth and discharged from the drain manifold. Nozzles move up and down during backflushing cycle, great saving of water consumption and cleaning without dead corners. Filter backflushing times and duration can be adjustable according to the plant situation, and it continuous filtering without an interruption during backflushing.

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设备组成 / COMPONENTS

滤池：可采用钢混结构或不锈钢等材加工方形结构滤池。

滤盘：有不锈钢滤布及垂直中空管骨架组成。

反洗装置：反抽吸泵组和滤盘转动机构。

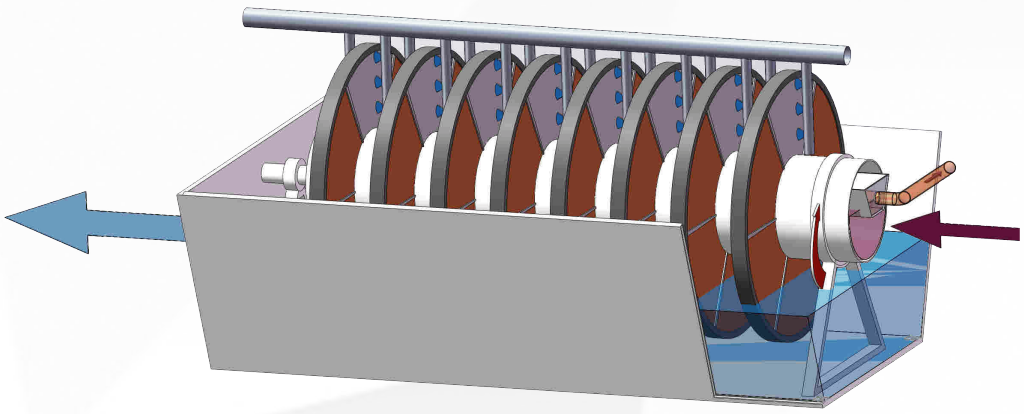
滤渣收集装置：高压喷嘴及滤渣收集槽。

Filter tank: square structure, material optional for stainless steel or steel-concrete according to requirement.

Filter disc: consist of stainless steel cloth and tubular framework.

Backflushing device: backwashing pump and rotating mechanism.

Residue collection device: high pressure nozzles and residue collection tank.



处理流量 Capacity	滤盘直径 Disc Diameter	滤盘数 Number of Discs	过滤面积 Filtration Area	滤速 Filtration Velocity	进水水质 Feed Water Quality
28~35m³/h（单盘 Per Disc）	Φ2000mm	3~23	4.5m²（单盘 Per Disc）	8~15m/h/m²	SS≤30mg/L
出水水质 Permeate Quality	滤盘材质 Disc material	滤布材质 Cloth Material	本体材质 Body Material	反洗驱动功率 Backwashing Driven Power	反洗泵功率 Backwashing Pump Powe
SS≤10mg/L	增强型工程塑料 Reinforced Engineering Plastics	不锈钢、PE SS、PE	不锈钢 SS	1.5KW	5~11KW
清洗水量 Backwashing Consumption	清洗压力 Backwashing Pressure	水头损失 Head Loss	反洗周期 Backwashing Cycle	工作压力 Operating Pressure	
30L/盘/次 30L/Disc/Cycle	6~8 bar	50~200mm	1~3 min	重力过滤 Gravity filtration	

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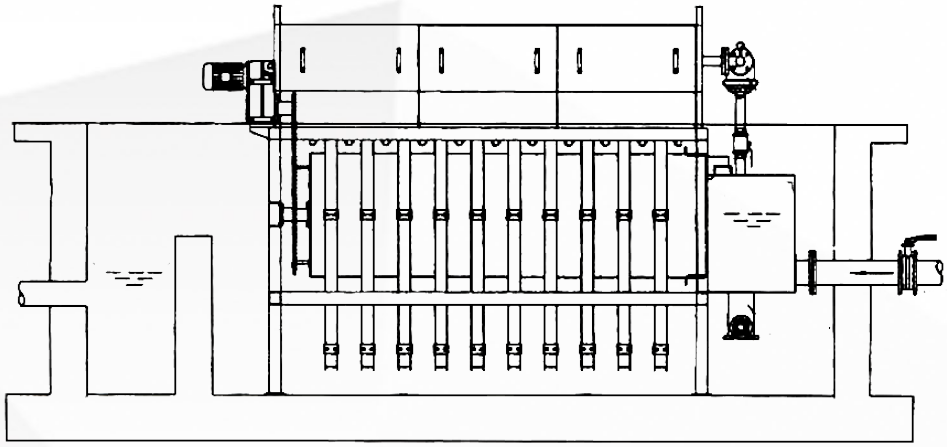
型号 Model	水泥池型（C） CP type- concrete pond mounting（C）			不锈钢箱体型（S） ST type- stainless steel tank（S）		
	L（mm）	W（mm）	H（mm）	L（mm）	W（mm）	H（mm）
BOR/H D8003C&S	3875	2250	2100	2435	1750	2470
BOR/H D8004C&S	4100	2250	2100	2670	1750	2470
BOR/H D8005C&S	4336	2250	2100	2905	1750	2470
BOR/H D8006C&S	4572	2250	2100	3140	1750	2470
BOR/H D8007C&S	4808	2250	2100	3375	1750	2470
BOR/H D8008C&S	5044	2250	2100	3610	1750	2470
BOR/H D8009C&S	5280	2250	2100	3845	1750	2470
BOR/H D8010C&S	5516	2250	2100	4080	1750	2470
BOR/H D8011C&S	5752	2250	2100	4315	1750	2470
BOR/H D8012C&S	5988	2250	2100	4550	1750	2470
BOR/H D8013C&S	6224	2250	2100	4785	1750	2470
BOR/H D8014C&S	6460	2250	2100	5020	1750	2470
BOR/H D8015C&S	6696	2250	2100	5255	1750	2470
BOR/H D8016C&S	6932	2250	2100	5490	1750	2470
BOR/H D8017C&S	7168	2250	2100	5725	1750	2470
BOR/H D8018C&S	7404	2250	2100	5960	1750	2470
BOR/H D8019C&S	7640	2250	2100	6195	1750	2470
BOR/H D8020C&S	7876	2250	2100	6430	1750	2470



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