



川源（中国）机械有限公司
GSD Industrial Co.,Ltd.



DBW

织毛式污泥脱水机

DBW Filter press with standing fiber wool belt

DBW 织毛式污泥脱水机

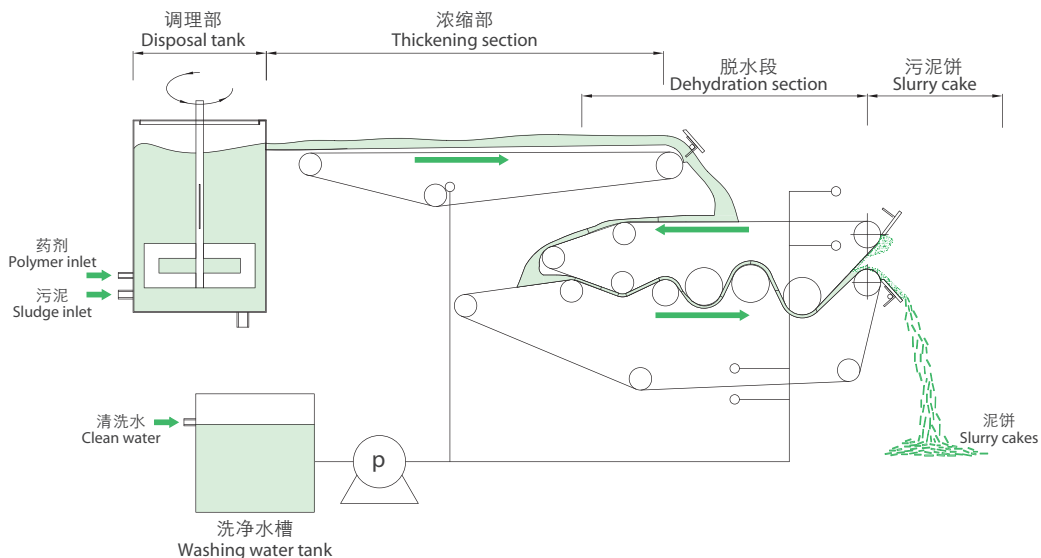
DBW Filter press with standing fiber wool belt



特点 Features

- 机体小，处理量大，节省空间；
 - 构造设计简单，操作维护容易；
 - 清洗水少，动力小，省电，无噪音；
 - 使用立毛式纤维滤带能有效的阻止污泥的侧滑，透水性优良，泥饼剥离性佳，含水率低，对于难处理的含油污泥、粘性污泥、活性污泥等也可有效的处理。滤带尼龙材质本身特性耐高温180℃、耐酸碱、耐溶剂，不易出现掉毛现象。
- Small size, large quantities of sludge treatment, save the installation space;
 - Simple module structure and easy operation and maintenance;
 - Small quantities of clean water and power consumption, save the power and no noise;
 - Using the standing wool textile fiber is effectively preventing the sludge side leakage and with high percolation characteristic, superior detachment and lower water content rate of sludge cake. The treating effect is remarkable for oily sludge, sticky sludge, and active sludge. The characters of Nylon are able to endure maximum temperature 180℃, acid and alkali, as well as it is not easy to drop wool in operation.

流程图 Flow chart



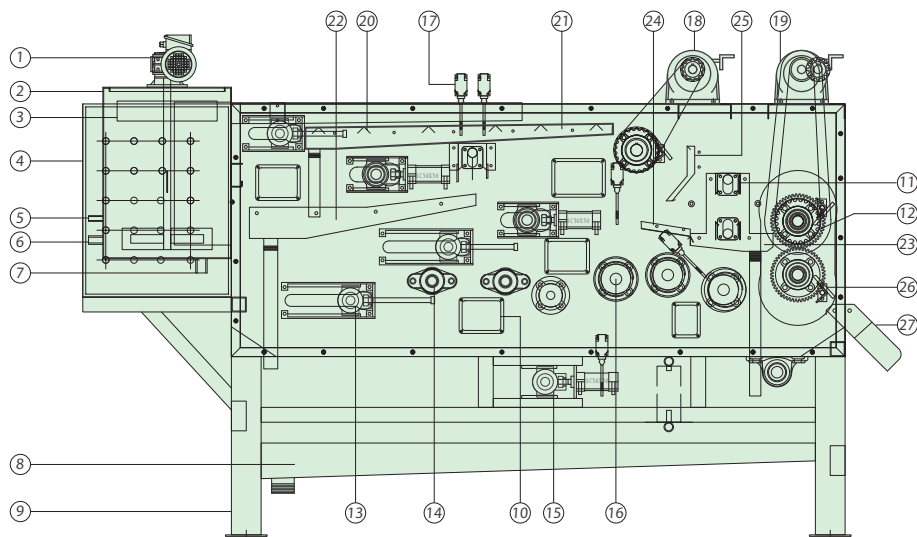
型号说明 Type description

DBW - 1000

滤带宽度 (mm) The width of filter belt

织毛式污泥脱水机 Filter press with standing fiber wool belt

结构简图 Construction



NO.	名称	Name	NO.	名称	Name
1	调理槽电机	Motor of disposal and mixing tank	15	修正滚筒	Adjustable roller
2	调理槽	Disposal and mixing tank	16	脱水滚轮	Dehydration roller
3	搅拌叶片	Agitating impeller	17	限位开关	Limit switch
4	电控柜	Control panel	18	浓缩段电机	Thickening section motor
5	PAM入口	PAM inlet	19	脱水段电机	Dehydration section motor
6	污泥入口	Sludge inlet	20	滤布支撑	Filter belt support
7	排放口	Discharge outlet	21	浓缩段上接水盘	Collecting tray for thickening filtrate
8	总积水盘(选配)	Collecting tray for filtrate(optional)	22	浓缩段下接水盘	Collecting tray for thickening filtrate
9	架台	Machine structure	23	滤带清洗系统接水盘	Collecting tray for washing system
10	检视窗	Inspection window	24	导水板	Sewage guide plate
11	滤带清洗系统	Belt flush system	25	导泥板	Sludge guide plate
12	驱动包胶滚轮	Driving roller with rubber cover	26	污泥饼刮刀	Sludge cake scraper
13	张紧滚筒	Tensioning roller	27	污泥饼导板	Sludge cake guide plate
14	预脱水滚轮	Pre-dehydration roller			



性能规格配备及尺寸表

Technical data & external dimensions of belt presses

型号 Model	滤带宽度 Belt width (mm)	污泥浓度 1%-2.5% S.S.1%-2.5%		泥饼含水率 (视污泥种类而定) Cake moisture (Depends on the sludge feature) (%)	电机动力 Power (kW)			滤液下 总排水盘 Lower collecting tray for pressed filtrate	外型参考尺寸 External reference dimension (mm)			参考 重量 Reference weight (kg)
		处理量 Treating capacity (m ³ /h)	绝干量 Dried sludge (Kg.ds/h)		调理搅拌机 Disposal agitator motor	滤带 浓缩机 Gravity belt thickener	滤带 驱动机 Driving motor		L	W	H	
DBW-500	500	2.6-3	30-65	60-85	0.18	0.18	0.37	无None	2753	1005	1700	560
DBW-600	600	2.8-5	50-70	60-85	0.18	0.18	0.37	无None	2753	1105	1700	620
DBW-800	800	4.2-7.8	78-105	60-85	0.37	0.37	0.37	无None	3087	1332	1758	870
DBW-1000	1000	5.2-9.5	95-130	60-85	0.37	0.37	0.37	无None	3137	1532	1758	1090
DBW-1500	1500	10.0-17.5	175-250	60-85	0.37	0.37	0.75	无None	3576	1961	1759	1430
DBW-2000	2000	16.5-28.2	282-412.5	60-85	0.75	0.75	0.75	无None	3943	2430	1482	1920

注：处理量因污泥浓度及污泥种类不同而异。
特殊要求可按客户需求设计。

The process load is different because of the sludge density and the sludge type are different.
Special requirements can be designed according to customer demand.

结构组成 Structure

调理槽

SUS304不锈钢制造，耐腐蚀，配有进泥与进药口，装设搅拌电机。电机带动SUS304不锈钢制的搅拌轴与叶片转动，可将污泥与絮凝剂混合均匀，达到充分絮凝。

浓缩段

浓缩带使用网带，可根据污泥浓度高低及絮凝情况选择最适合的网孔。搭配无极调速电机，设备运行时，可随时调整至最理想的行进速度，达到提升污泥浓度，增加污泥回收率以及提高处理量的效果。

脱水段

下滤带或者两条滤带都使用织毛式滤布。滤带表面的立毛纤维，能有效的阻止污泥的侧滑。大网孔的基布，具有平板带3~5倍以上的排水效能。泥饼厚度厚，含水率低，具粘性

及含油份的污泥也可有效处理。
分为预压段及挤压段。浓缩后的污泥，在预压段受力排出部份水分，将污泥浓度进一步提升，增加耐压程度，接着导入管径由大至小的挤压区，随着管径的缩小，单位面积压力增加，把污泥中的含水挤出。适合各种浓度的污泥使用。

Disposal and mixing tank

The tank is made of stainless steel SUS304, which can be able to endure the corrosive, and with sludge and polymer inlet. There is an agitator motor which links driven shaft and propeller, can mix the sludge and PAM equally and ensure the reaction of sludge and polymer.

Thickening section

The thickening section uses the net belt selected appropriate net hole according to the sludge consistency. It also uses adjustable varying speed motor which could regulate to the appropriate operating speed in order to achieve sludge consistency enhancement, and sludge recycling rate and treating quantity improvement.

Dehydration section

The bottom belt or two belts use weaves filter belt of woolliness fiber. The standing wool textile fiber is effectively preventing the sludge side leakage. The kieb with big net hole does improve 3 to 5 times of drainage efficiency. The sludge cake is thick and with low contented water percentage; additionally, the oily and sticky sludge can be treated effectively.

The dehydration section divides pre-press and pressing parts. The concentrated sludge would drain part of water in the pre-press section and improve the concentration of sludge and enhance press endurance. Furthermore, the sludge moves to the press section where the rollers diameters are from large to small, as the pipe diameter is becoming small and the pressure is increasing, the water in sludge would be squeezed and drained. It is suitable for various sludge concentrations.



清洗系统

清洗管路与喷嘴材质均为不锈钢，使用UPVC管将水泵管路与清洗管衔接，并配有Y型过滤器，清洗管上装置有足够的清洗喷嘴，喷射清洗角度为九十五度，压力为5kg/cm²，可轻易将滤带上残留的污泥洗净。清洗管配置有上下清洗罩，材质为不锈钢，可确保清洗水不飞溅到机台外。

纠偏装置

利用气动阀控制气缸作动，将滤布限定在一定的安全范围内行走，两侧设有异常偏移保护检知器，滤带异常往左或右偏移碰到检知器时，整台机器将断电停机，保护人机安全。

张紧装置

机械张紧：利用大型螺杆张紧滤布。

滚筒

均采用不锈钢制造，坚固耐用抗腐蚀，驱动滚筒表面包覆橡胶增加运转时带动的摩擦力。第二根挤压滚筒上，焊接矩形条，让被挤出的水分轻易的从矩形条的空间中排出。

驱动电机

铝合金外壳，附有DISCO无级变速，可依泥量大小随时快速调整滤带行走速度。

控制系统

控制箱可控制污泥泵、加药泵、清洗泵、浓缩脱水一体机、空气压缩机、输送机等设备，亦可选择PLC控制，将自动化操作变得简易，安全。同时还可设置密码，避免外人误触。

遥控急停及启动复归（选配）

可选用遥控急停及启动复归。二十米范围内，在急停按钮基础上，更强化操作安全功能，进一步保护人机安全。

Flush system

The material of flush pipe and nozzle are stainless steel. The UPVC material pipe connects between pump pipe and flush pipe; otherwise, the Y type filter assembles on the flush pipe. There are sufficient nozzles on the flush pipe and with 95° flush angle and 5kg/cm² water pressure in order to clean the remaining sludge on the filter belt. The flush pipe is with top and bottom clean cover, which is stainless steel material, for ensuring the clean water would not splash on the module.

Auto-adjusting device for the filter belt deflection

Using the air pressure sensing valve and cylinder displacement control does regulate the belt movement in a safe ambit. Wrong displacement protective sensors are used on the both sides of the belts. When the belts move wrong displacement to right or left side and touch the sensor, the machine will cut off the power immediately and protect the operator and machine.

Auto-tensioning device

Mechanical tension: Using the big size screw for tensing the belt.

Roller

The roller, which is made by stainless steel, is anticorrosive and with long service life. The surface of driven roller covers rubber to increase the friction in operation. The second pressing roller welds the rectangular bars which lets the squeezed water drainage out through these bars.

Driven motor

The driven motor is with Aluminum alloy cover, and DISCO adjustable varying speed equipment which can regulate the operating speed of the belt according to the treating sludge quantities.

Control system

The control panel can control sludge pump, dosing pump, washing pump, filter presses, air compressor and transfer machine. And PLC is optional for simple and safe operation. Meanwhile, the operator can set the password in the host to prevent the incautious touch.

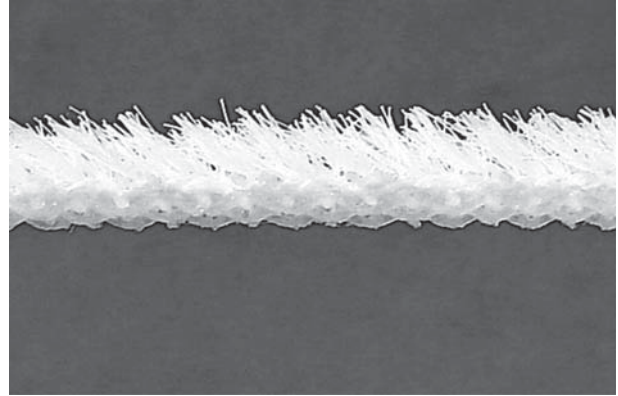
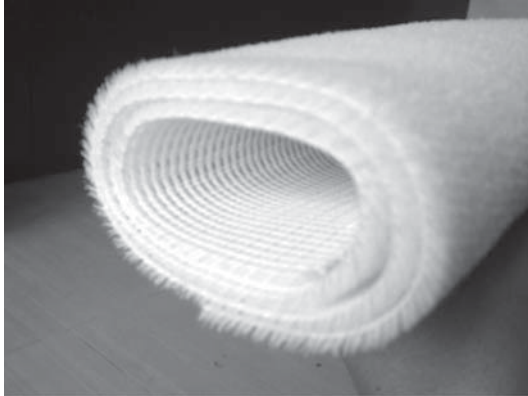
Remote control stop, start and restart (optional)

You can also choose the remote control stop, start and restart. The range is to 20 meters. It is designed the panic button to enhance the safe function and improve the operators and machine safety.



织毛滤带的构造与说明

The description of Weaves filter belt is as follow



- 基布上织有同方向性的立毛纤维。
- 污泥掉落在滤布上，纤毛因重力向同方向躺平覆盖滤带表面，污泥停留在毛上而不会掉落，挤压脱水时，泥中被挤出的水经由毛细管现象瞬间排除，基布不会堵塞。又因纤毛对污泥的抓力强，挤泥时污泥滑动少，泥饼厚度厚，泥饼含水率低。
- 织毛纤维的恢复性佳，压泥完成后，纤毛自动弹起将泥饼弹开，污泥剥离性佳，残留在滤布上的污泥极少。
- 滤布是由几十捆特殊尼龙纱线一体织成，无接着剂。适用于各种污泥之脱水，对于较难处理之含油污泥、粘性污泥、化学污泥等也可有效的脱水。
- 滤布网孔较大，可更快的过滤水分并且清洗容易。

- As the picture shows, the kied is weaved with the standing wool textile fiber which on the same direction.
- When the sludge falls on the filter belt, it will cover the belt area because of the fibers standing on the same direction. When the sludge does press and dewater, the water in sludge would be squeezed and drained out immediately according to the capillarity phenomenon. The kied won't clog to the net on the belt. Furthermore, the fiber wool is with good grab efficiency for the sludge. Therefore, there would be lots of benefits as follows: the thickness of sludge cake is good; the water content rate of sludge cake is low.
- The recovery of wool textile fiber is excellent. After finishing the pressing process, the wool textile fiber would fillip the sludge cake and be with good sludge stripped rate for the less sludge on the filter belt.
- The belt is made by tens of bundles of particular Nylon threads, without glue. GSD filter press is suitable to vary slurry dehydration processes for dewatering oily sludge, sticky sludge, and chemical sludge efficiently.
- The belt can filt water more quickly with larger net hole, and be cleaned easily.

机型配备说明 The description of the functions and accessories

标准配备 Standard accessories	主体不锈钢SUS304制造 Main structure made of stainless steel 304	
	滤带（组装机台上） Filter-belt(installed on machine)	
	调理槽（含搅拌机） Disposal and mixing tank(including agitator)	
	电控箱（组装机台上） Control panel(installed on machine)	
	前端浓缩系统 Pre-thickening system	
	保养手册/保固书 Operation & maintenance manual/Product certificate	
选购配备 Optional accessories	功能升级 Function upgrade	主体为不锈钢SUS316/316L或碳钢材质制造 Main structure made of stainless steel 316/316l or carbon steel
		电器元件指定品牌/PLC程式控制/人机界面 Appointed brand electric parts/PLC control/Man-machine monitor touch interface
		遥控急停及启动复归 Remote control stop, start and restart
	周边附属设备 Peripheral equipments	空气压缩机 Air compressor
		清洗泵浦 Washing pump
		污泥输送泵 Sludge pump
		絮凝剂加药泵 Polymer solution dosing pump
		絮凝剂溶解泡药（或搅拌机/储存桶） Polymer solution automatic dispensing dissolvers(or agitator/storage tank)
		滤液回流泵（视机台放置情形而定选用） Filtrate recycling pump(depend on the positioning condition of the machine)
		泥饼螺旋输送机 Screw conveyor for sludge cake

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如需求上列选购配备，请另洽谈。

Our company will reserve the right of design modification.
If the above optional accessories needed,pls contact us.



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泵系列

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- 陆上泵系列
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搅拌推流系列

- 搅拌机系列
- 推流器系列



供氧曝气系列

- 曝气机系列
- 曝气盘系列
- 曝气管系列



风机系列

- 三叶罗茨鼓风机系列
- 增压罗茨鼓风机系列
- 沉水式风机系列



污泥处理设备 及其他

- 固液分离系列
- 泡药设备
- 输送设备



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