TONGGE

彤格®
TONGGE

铸就旋流器分选设备、高性能聚氨酯制品的国际品牌



威海彤格科技有限公司

WEIHAI TONGGE TECHNOLOGY CO.,LTD.



彤格®
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关于企业
About the enterprise

30多年专业技术
为客户提供好用、耐用的优质产品

威海彤格科技有限公司成立于1992年，是一家集产品选型设计、生产制造、销售和服务为一体的专业厂商，经过30余年新材料配方合成技术的研发，已成为国内高性能聚氨酯制品和旋流器分选设备行业的佼佼者，产品已通过ISO9001：2015质量体系认证。公司以“科技、质量、诚信、服务”为宗旨，注重自主研发、对外技术合作和过程控制。产品“好用、耐用”，广泛应用于矿山、煤炭、电力、环保、化工、机械、石油等各行业的几百家客户，并常年出口澳大利亚、俄罗斯、美国、荷兰、沙特、马来西亚、巴西等十几个国家，是艾法史密斯、北矿院、首钢集团、洛阳钼业、紫金矿业、荷兰marel、美国magefab等国内外知名企业的指定供应商。



Weihai Tongge Technology Co., Ltd. established in 1992, is able to offer product selection design, manufacturing, sales and service as one professional manufacturer. With more than 30 years of new material formulation synthesis technology research and development, we has become the domestic high-performance polyurethane products and hydrocyclone equipment industry leader. Our products have passed ISO9001:2015 quality system certification.Our purpose is technology, quality, integrity, and service. We pay attention to independent research and development, also cooperate with domestic relevant science and research institutes on technology. Our products are widely used for the mining, coal, electricity, chemical industry, machinery, and environmental protection and so on, also exported to more than 20 countries including of USA, Netherlands, Russia, Saudi Arabia Malaysia, Brazil, Australia and so on. We also are the nominated supplier of FLSmidth, Beijing General institute Institute of Mining & Metallurgy, Zijin Mining, MAREL in Netherlands, MAGEFAB in USA and so on.



✓高新技术企业 ✓核心技术

✓持续研发专利 ✓权威认证





使命：服务客户，成就员工

Mission：Meet our customers demand; Achieve our staffs value

价值观：创新、高效、品质、服务

Value:Innovate，efficient，quality，service

愿景：铸就旋流器分选设备、高性能聚氨酯制品的国际品牌

Vision：Build an international brand of hydrocyclone and high performance polyurethane products



产品 Product business 业务

为用户提供分选实验、选型、设计、制造、调试、售后服务等；

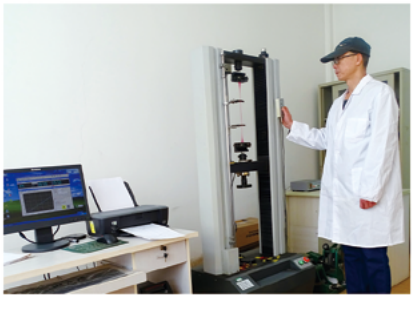
制造各种规格型号的旋流器、旋流器机组等；

制作高性能聚氨酯制品：高效耐磨筛板，耐腐蚀浮选机叶轮、定子，高耐磨聚氨酯板类，重载高动态辊轮、活塞。

Offer our customers the separation test, model selection, design, manufacture, installation, debug, after-sale service and so on.

Manufacture the variety models of the hydrocyclone unit and hydrocyclone group.

Manufacture the high performance polyurethane products: high wear resistance screen panel, anti-corrosion rotor and stator for flotation machine, high wear resistant polyurethane custom plates, high load dynamic roller, piston and so on.



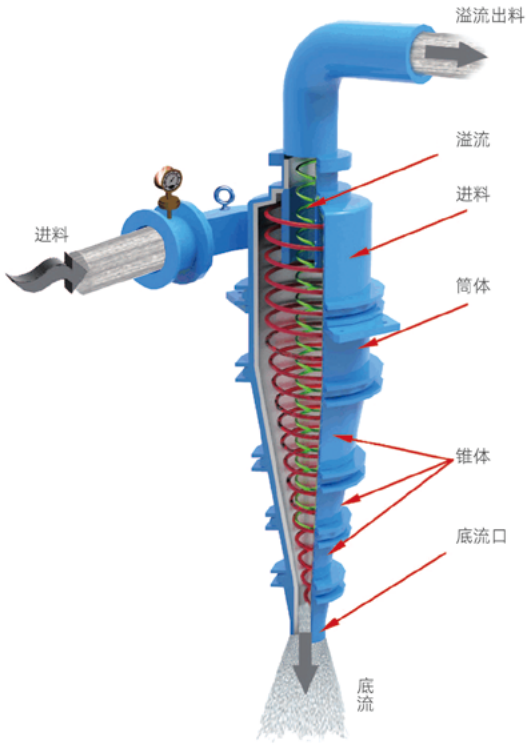
WORK PRINCIPLE ▸▸

水力旋流器工作原理

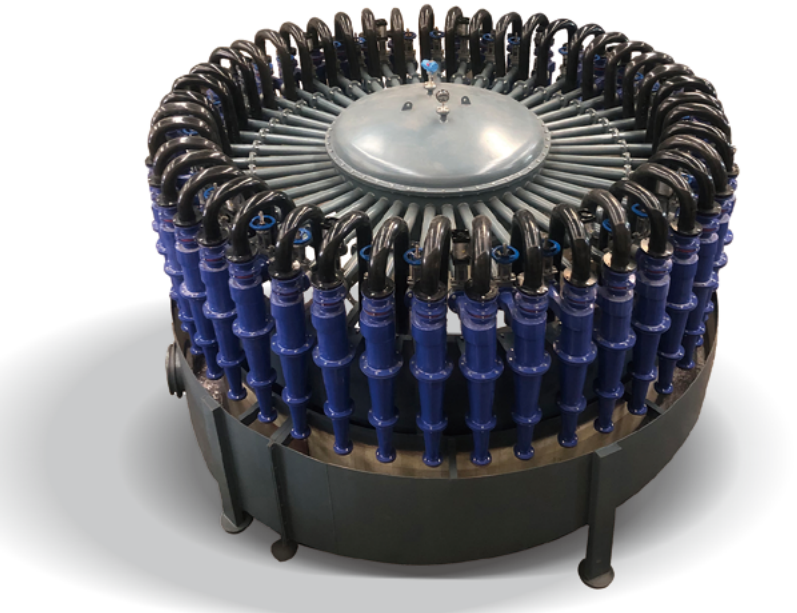
水力旋流器是由上部筒体和下部锥体两大部分组成的流体运动型分离设备，其分离原理是离心沉降。当待分离的料浆（非均相固液混合物）以一定的压力从旋流器周边进入旋流器后被迫作回转运动。由于其受到的离心力、向心浮力、流体曳力等大小不同，料浆中的固体粗颗粒克服水力阻力向器壁运动，并在自身重力的共同作用下，沿器壁螺旋向下运动，细而小的颗粒及大部分水则因所受的离心力小，未及靠近器壁即随料浆做回转运动。在后续给料的推动下，颗粒粒径由中心向器壁越来越大，形成分层排列。

随着料浆从旋流器的柱体部分流向锥体部分，流动断面越来越小，在外层料浆收缩压迫之下，含有大量细小颗粒的内层料浆不得不改变方向，转而向上运动，形成内旋流，自溢流管排出，成为溢流，而粗大颗粒则继续沿器壁螺旋向下运动，形成外旋流最终由底流口排出，成为沉砂。从而达到分离分级的目的。

The hydrocyclone consists of upper barrel and lower cone, non-sports separation equipment. The separation principle is centrifugal sedimentation.The to be separated liquid-solid mixture (two phases (or three phases) mixed liquid) is forced for rotational motion from the surrounding into the hydrocyclone. Because of the different centrifugal force, centripetal buoyancy, drag force and so on, the solid particles in the mixture overcome the hydraulic resistance and move into the wall, also because of its own gravity, and then the solid particles are spiral downward along the wall. Most of water and small particles because of small centrifugal force, just make rotational motion together with mixture without close to the wall. In the drive of Subsequent feeding, the partical size of solid from the center to wall is bigger and bigger, which forms a layer mode. And with the mixture moving from the upper barrel to the lower cone, the cross section of flow is smaller and smaller. Under the force of outer mixture, the inner mixture including of a large number of fine particles (or light phase) have to change to move up, and discharge form overflow pipe. The most coarse particles (or heavy phase) go on moving spiral down along the wall, and discharge from underflow outlet as grit.



旋流器工作示意图



PRODUCT FEATURES ▸▸

彤格水力旋流器的特点

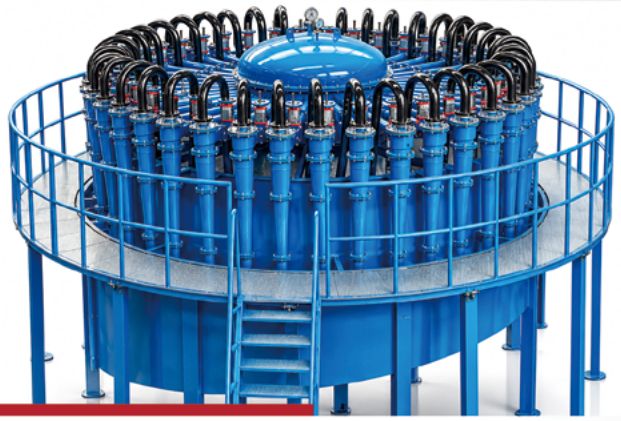
- 分离效果好 Good separation effect
- 工作效率高 Higher efficiency
- 使用寿命长 Longer service life
- 合理的性价比 Reasonable price and good quality
- 技术支持强 Strong technical support
- 售后服务及时 Timely after-sales support

水力旋流器规格及技术参数
Technical Parameter

型号规格 Model	筒体内经 Diameter (mm)	锥角 Angle of Cone (°)	溢流管直经 Diameter of Overflow Outlet (mm)	底流口直径 Diameter of Spigot (mm)	允许最大给料粒度 Max Feeding Size (mm)	给料压力 Inlet Pressure (Mpa)	处理能力 Capacity (m^3/h)	分级粒度 Separation Particle Size (um)	外形尺寸 Overall Dimension			单机重量 Unit Weight (Kg)
									长(mm) Length	宽(mm) Width	高(mm) Hight	
FX840	840	20	280-380	80-220	18	0.04-0.15	420-850	74-350	1700	1500	3700	1621
FX750	750	20	180-290	85-175	16	0.04-0.15	350-600	74-300	1210	910	2680	1400
FX660	660	20	165-250	80-155	16	0.05-0.15	280-480	74-240	1140	1000	2920	600-900
		45	165-250	80-155	16	0.05-0.15		74-240	1140	1000	2000	
FX610	610	20	155-230	75-140	13	0.05-0.15	220-400	74-240	875	950	2560	500-700
		45	155-230	75-140	13	0.05-0.15		74-240	875	950	1810	
FX500	500	20	125-185	55-115	10	0.06-0.2	140-275	74-200	850	700	2050	350-500
		45						74-150	850	825	1630	
FX350	350	20	80-120	30-70	6	0.06-0.2	60-170	50-150	775	620	1765	180-270
		15						50-120	775	620	1970	
FX300	300	20	65-115	20-50	5	0.06-0.25	45-100	50-150	498	485	1415	90-180
		15						40-100	498	485	1642	
FX250	250	20	60-100	16-45	3	0.06-0.3	40-90	40-100	410	380	1215	70-130
		15						40-100	410	380	1405	
		10						30-100	410	380	1788	
FX200	200	20	40-65	16-32	2	0.06-0.3	20-45	40-100	365	330	1030	45-80
		15						30-100	410	330	1083	
		10						30-100	400	365	1490	
FX150	150	20	30-55	8-22	1.5	0.08-0.3	10-42	30-74	310	265	820	25-65
		15						30-74	310	265	878	
		10						30-74	310	265	1160	
FX125	125	17	25-40	8-18	1	0.08-0.3	8-15	20-100	260	218	620	10.2
FX100	100	20	20-40	8-18	1	0.08-0.3	10-20	20-100	260	210	525	15-35
		15						20-100	268	215	720	
		8						20-100	365	150	1065	
		5						20-100	365	150	1505	
FX75	75	15	15-22	6-12	0.6	0.08-0.35	3-8	20-74	240	230	420	2.2
		5						5-40	240	230	778	6.5
FX50	50	15	11-16	3-8	0.3	0.08-0.35	1-3	10-74	160	137	400	1.5
		5							160	137	680	5.5
FX25	25	5	6-10	3-7	0.2	0.1-0.4	0.8-1.2	4-20	130	85	495	1.2
FX10	10	4	3-4	2-3	0.2	0.2-0.4	0.1-0.2	2-10	30	30	195	2

HYDROCYCLONE APPLICATION ▸▸

水力旋流器的应用



磨矿分级 / Grinding and Classification

旋流器与一段球磨机组成闭路磨矿分级系统，在较高的给矿浓度下，分级效率比常用的螺旋分级机高出5—10%，结构有大锥角、特殊结构旋流器。根据溢流细度、浓度等要求，选用不同结构形式的旋流器，可使溢流细度在较宽范围内自由调节，以满足生产工艺需求。

The hydrocyclone and the primary ball mill form a closed-circuit grinding and classification system. At higher feed concentrations, the classification efficiency is 5–10% higher than that tof commonly used spiral classifiers. The hydrocyclone features a large cone angle and a special structure. By selecting hydrocyclones of different structural forms according to requirements for overflow fineness, concentration, etc., the overflow fineness can be freely adjusted over a wide range to meet production process requirements.



原矿脱泥 / Crude Ore Desliming

高效去除原矿泥土杂质及砂矿除泥。

Efficiently remove the soil impurities from the raw ore and remove the mud from the sand ore

精、尾矿浓缩脱水 / Concentration and dewatering of concentrate and tailings

采用多锥小锥角旋流器可实现高效浓缩脱水。

The use of multi-cone and small-cone-angle cyclones can achieve efficient concentration and dewatering.



尾矿筑坝、尾矿干排 / Tailings dam construction, tailings dry discharge

在保证底流浓度的同时，能使底流中更少夹细，一般采用FX250、FX300、FX350、FX500旋流器，与浓缩机过滤机等设备组合，实现干排。

While ensuring the concentration of the bottom flow, it can also reduce the occurrence of very fine particles in the bottom flow. Generally, cyclones such as FX250, FX300, FX350, and FX500 are used, combined with equipment like concentrators and filters, to achieve dry discharge.



纸浆除渣器 / Pulp Slag Remover

利用水力旋流的分离原理，有效去除纸浆中的废渣，材质使用低游离高端聚醚型聚氨酯，提高了耐水解性能锥体为内螺旋结构，除渣效果好。

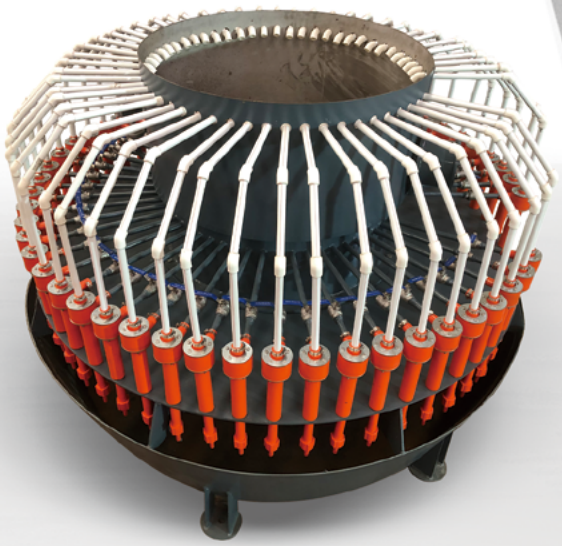
Using the separation principle of hydrocyclone, it effectively removes waste residues from the pulp. The material used is low-alkali high polyether-type polyurethane, which enhances the hydrolysis resistance. The cone has an inner spiral structure, resulting in excellent slag removal performance.



微细粉粒分级 / Fine particle classification

旋流器最小直径φ10mm，采用聚氨酯材料制作，尺寸准确，工作表面光滑，能完成-2um颗粒分级。

The minimum diameter of the cyclone is 10mm. It is made of polyurethane material and has accurate dimensions.
The working surface is smooth and it can achieve particle size classification of -2um.



细砂回收 / Sand Recycling



污水处理 / Wastewater Treatment



泥浆除砂、钻井隧道 / Desander and Desilter

在石油钻探作业中，使用旋流器除砂与脱泥，对钻井泥浆进行净化。使用φ250、φ300旋流器可以脱除+45um以上的岩屑，使用φ100、φ125旋流器可以脱除+15um以上的岩屑，使用φ50旋流器可以脱除+10um岩屑。使用聚氨酯弹性体制作的水力旋流器具有耐腐蚀、抗老化、质量轻等优点，有利于室外及野外作业。具有特殊结构的旋流器具有分级效率高、分级粒度小的优点。



In oil drilling operations, using cyclones for sand and mud removal and sedimentation to purify the drilling mud. The medium-sized 250 and 300 cyclones can remove rock debris larger than +45um, the medium-sized 100 and 125 cyclones can remove rock debris larger than +15um, and the medium-sized 50 cyclone can remove rock debris larger than +10um. The hydraulic cyclones made of polyurethane elastomer have the advantages of corrosion resistance, anti-aging, and light weight, which are beneficial for outdoor and field operations. Cyclones with special structures have high classification efficiency and small classification particle size.

APPLICATION OF HYDROCYCLONES IN THE FGD SYSTEM FOR FLUE GAS DESULFURIZATION ▸▸

水力旋流器在烟气脱硫FGD系统装置中的应用

在烟气脱硫FGD系统装置中应用的旋流器有石灰石分级旋流器、石膏浓缩旋流器、废水旋流器。

The hydrocyclones applied in the FGD system for flue gas desulfurization include limestone classification hydrocyclones, gypsum concentration hydrocyclones, and wastewater hydrocyclones.

石灰石分级旋流器
Limestone classification cyclone

与球磨机构成闭路磨矿系统，一般使用中小规格(FX165或FX150)，可使旋流器的溢流细度达到-325目>90%。

It forms a closed circuit grinding system with the ball mill. Generally, medium-sized or small-sized ones (FX165 or FX150) are used, which can make the overflow fineness of the cyclone reach -325 mesh > 90%.

石膏浓缩旋流器
The gypsum concentration cyclone

是真空皮带脱水机前必要的初步缩水设备，入料浓度一般为10%-20%左右，底流浓度为(40-60)%，溢流浓度≤5%。

is a necessary preliminary shrinkage equipment before the vacuum belt dewatering machine. The feed concentration is generally around 10% - 20%, the bottom flow concentration is (40 - 60)%, and the overflow concentration is 5%.

废水旋流器
Wastewater hydrocyclone

主要目的是对石膏旋流器溢流进一步分离，使溢流的浓度保持在2%以内，达到可利用或排放的标准。

The main purpose is to further separate the overflow from the gypsum hydrocyclone, ensuring that the concentration of the overflow remains below 2%, so as to meet the standards for reuse or discharge.

旋流器特点
Features of the hydrocyclone

材质：高性能纯聚氨酯
耐高温介质、耐腐蚀、高耐磨，延长使用寿命。
聚氨酯由模具一次成型，旋流器工作表面光滑且尺寸精确，保证分级效果。

Material: High-performance polyurethane, resistant to high-temperature media, corrosion, and wear. It extends the service life. The polyurethane is molded in one step, and the working surface of the cyclone is smooth and precisely sized, ensuring the classification effect.





煤炭洗选

无压给料三产品重介质旋流器



结构特点：

▲有三个排料口，能以单一密度悬浮液一次分选出合格精煤、中煤和矸石；

▲分选精度高，入选粒度范围宽，入选上限高，适应范围广；

▲被选物料与悬浮液分开进入旋流器，节省电耗，减少矸石泥化及次生煤泥量，利于工艺环节合理布局；

▲结构简单，无运动部件，采用高铝陶瓷等材料分段制作耐磨性能好，使用寿命长；

▲用于高硫、难选、极难选原煤的分选。

3WZX系列无压给料三产品重介质旋流器技术规格

型号	500/350	600/400	710/500	850/600	1000/710	1100/780	1200/850	1300/920	1400/1000
一段筒体内径 mm	500	600	710	850	1000	1100	1200	1300	1400
二段筒体内径 mm	350	400	500	600	710	780	850	920	1000
二段锥体角度（°）	20	20	20	20	20	20	20	20	20
入料压力 Mpa	0.06-0.08	0.07-0.10	0.08-0.11	0.10-0.14	0.12-0.19	0.14-0.23	0.17-0.29	0.19-0.33	0.21-0.38
入料粒度 mm	≤40	≤45	≤50	≤60	≤75	≤80	≤85	≤95	≤100
介质循环量 m^3/h	130-150	150-250	250-350	350-500	500-700	700-900	800-1200	1200-1500	1500-1800
处理能力 t/h	30-50	50-80	70-120	110-170	160-230	220-300	300-400	350-450	450-550

有压两产品重介质旋流器

结构特点：

▲入选上限高，分选效率、精度高，数量效率大于90%可能偏差小于0.03；

▲结构简单，无运动部件，采用高铝陶瓷、高铬合金等材料分段制作，耐磨性能好，使用寿命长；

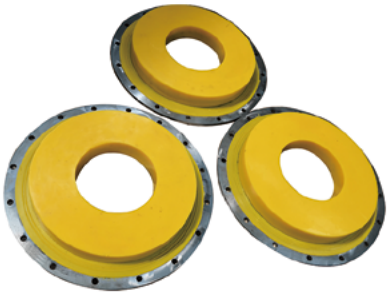
▲用于高硫、难选、极难选原煤的分选；

ZJX系列有压两产品重介质旋流器技术规格

型号	350	500	600	710	850	1000	1100	1200	1300	1400
筒体内径 mm	350	500	600	710	850	1000	1100	1200	1300	1400
锥体角度(°)	20	20	20	20	20	20	20	20	20	20
入料压力 Mpa	0.035-0.1	0.05-0.1	0.06-0.1	0.06-0.1	0.06-0.1	0.1-0.2	0.12-0.25	0.12-0.35	0.12-0.35	0.12-0.35
入料粒度 mm	≤10	≤25	≤40	≤50	≤60	≤80	≤95	≤110	≤120	≤130
介质循环量 m^3/h	100-150	135-190	180-250	270-380	540-750	630-880	650-900	675-945	900-1250	1150-1650
处理能力 t/h	26-36	53-74	76-108	106-150	153-215	210-295	280-395	305-425	385-540	445-625

THE LINING MATERIAL OF THE HYDROCYCLONE ▸▸

水力旋流器内衬材料





高耐磨聚氨酯
Highly wear-resistant polyurethane

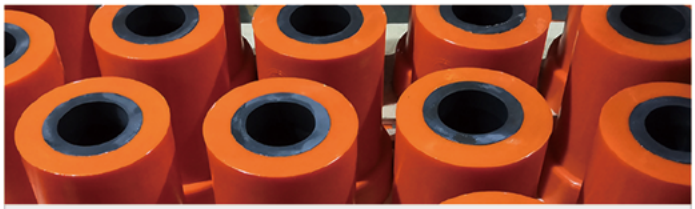
彤格公司通过分子接枝改性，使高耐磨聚氨酯材料的DIN磨耗值达到15以内现场应用测试，其使用寿命为通用型聚氨酯的1.5倍以上。

Through molecular grafting modification, Tongge has enabled the DIN abrasion value of high wear-resistant polyurethane materials to reach within 15 for on-site application. Its service life is more than 1.5 times that of general polyurethane.

TG-NM耐磨材料
TG-NM Wear-resistant Material

双组份、反应涂敷型，使用温度范围-25~+150°C，耐油、耐酸碱性优良。

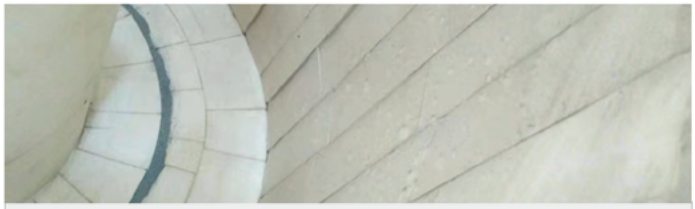
Two-component, reactive coating type, with a usable temperature range of -25 to +150°C, excellent resistance to oil, acid and alkali.



反应烧结碳化硅
Reaction bonded silicon carbide

碳化硅陶瓷具有耐高温、耐腐蚀、高硬度和耐磨性、抗氧化、强度高等优点，主要用于旋流器易磨损部件的制作。

Silicon carbide ceramics has the advantages of high temperature resistance, corrosion resistance, high hardness and wear resistance, oxidation resistance, and high strength, and are mainly used for the severely worn components of cyclones.



高铝陶瓷 (刚玉)
High-alumina ceramics (corundum)

含量≥95%Al_2O_3经高温烧结成型，具有高硬度，耐磨蚀，化学稳定性好，能够长时间承受高浓度、大颗粒物料的冲击磨损，是旋流器内衬的理想材料。

With a content of ⩾ 95% Al_2O_3, after being sintered at high temperature, they possess high hardness, good wear resistance, and excellent chemical stability. They can withstand the impact and wear caused by high-concentration and large-particle materials for a long time. They are the ideal material for the inner lining of cyclones.

主要技术参数 / Main Technical Parameters

使用温度	密度 (g/m³)	气孔率 (%)	抗弯强度 (MPa)	莫氏硬度	耐酸碱性
1380	≥ 3.02	≤ 0.1	≥ 250	9	优

刚玉陶瓷理化指标 / physicaland chemicalindex

$A1_2O_3$(%)	抗弯强度 MPa	断裂韧性	洛氏硬度 (HRA)	磨损体积 (cm^3)	密度 (g/cm^3)
95+0.5	>280	>3.9	>88	<0.3	>3.7

POLYURETHANE ELASTOMER ▸▸

聚氨酯弹性体

聚氨酯弹性体泛指分子链中重复出现氨基甲酸酯基团（—NHCOO-）的一类高分子材料

其特点是：

▲通过模具液体浇注成型，便于制造复杂形件

▲模量介于塑料和橡胶之间

▲在高硬度下保持高弹性

▲硬度范围宽，既可做成软橡胶状，又可做成硬塑料状

▲拉伸和撕裂强度是橡胶的2倍以上

▲卓越的耐磨耗性能

▲吸能性优良

▲耐油及化学品性、耐自然老化性能优良

彤格公司对聚氨酯弹性体材料的研究有三十余年，采用先进的配方和合成技术，在高耐磨、高动态、耐高温水聚氨酯材料，低硬度吸能聚氨酯材料，复合聚氨酯材料等领域有突出表现。

The characteristics are:

▲It is formed by liquid injection molding through molds, making it convenient to manufacture complex parts.

▲Its modulus is between that of plastics and rubber.

▲It maintains high elasticity under high hardness.

▲It has a wide hardness range, capable of being made into rubber-like materials or plastic-like materials.

▲Its tensile and tear strength is more than twice that of rubber.

▲It has excellent wear resistance.

▲It has excellent energy absorption performance.

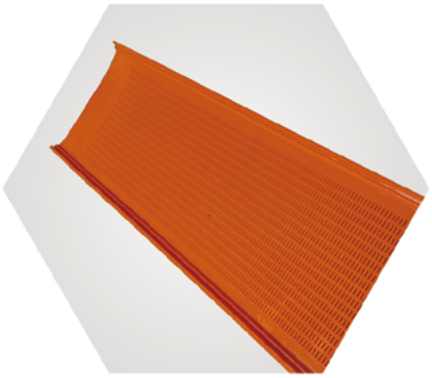
▲It has excellent resistance to oil and chemicals, and excellent resistance to natural aging.

Tongge has conducted research on polyurethane elastomer materials for over 30 years. By adopting advanced formulations and synthesis technologies, it has outstanding performance in high-maintenance, high-dynamic, high-temperature water polyurethane materials, low-hardness energy-absorbing polyurethane materials, and composite polyurethane materials.

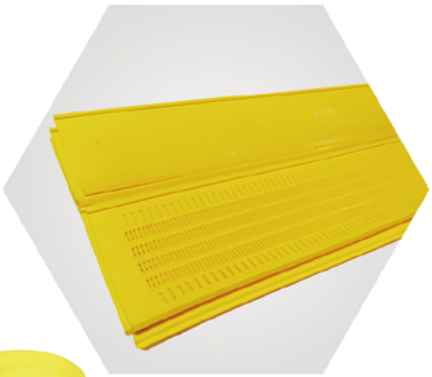
彤格牌聚氨酯材料部分牌号

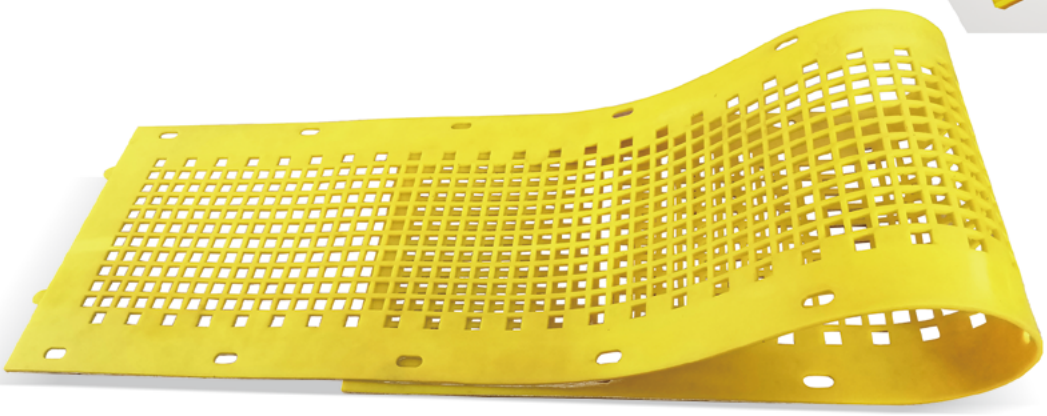
序号	材料牌号	产品硬度 (邵 A)	材质特点	用途举例
1	TG-A2140	40±5A	柔韧耐寒高弹	机械托块、靶标
2	TG-B2150	50±5A	柔韧耐水解高弹	密封类过流件
3	TG-A2355	55±5A	高回弹、柔韧耐磨	筛板类、管件
4	TG-A2365	65±5A	高回弹、柔韧耐磨	筛板、旋流器内衬
5	TG-A2375	75±5A	高回弹、柔韧耐磨	筛板、旋流器内衬
6	TG-A2385	80-85A	高回弹、耐磨	弛张筛板、刮刀
7	TG A2390	85-90A	高回弹、耐磨	筛板、活塞
8	TG-A2390-Z	85-90A	自润滑、高耐磨	筛板、刮刀
9	TG-B1492	90-92A	高动态、高强度、耐水解	辊轮类
10	TG-A2095	95A	高强度、高承载	地辊轮
11	TG-A2695	95A	高动态、耐高温	活塞类、单轨吊驱动轮
12	TG-B198	98A	高模量、耐水解	纸浆除渣器
13	TG A2595	95A	高回弹、高动态、耐高温	玻纤切割辊，筛板、刮刀
14	TG-B23/38-95	95A	高动态、高承载	高性能活塞、滚轮
15	TG-B2023H-70	70D	超高硬度、耐磨	除渣器、筛板底座

POLYURETHANE SCREEN PANEL ▸▸
聚氨酯筛板



THE FLIP-FLOW SCREEN PANEL ▸▸
弛张筛板





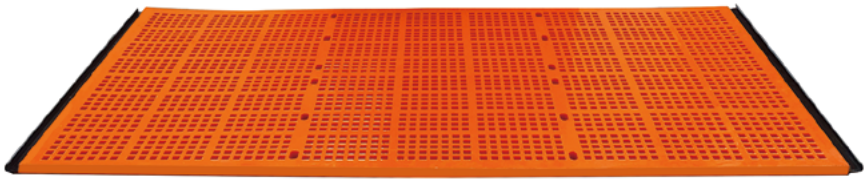
驰张筛板主要由三组份MDI聚氨酯浇注成型，分为普通型、高回弹型、高强度型、耐高温型等，能满足各种工矿现场严苛使用环境，先进的配方和工艺保证了我公司生产的弛张筛板具有耐磨性好、弹性好、自润滑、耐曲挠的特性。同时弛张筛板内部还采用特殊的工艺结构，大大的延长了筛板的使用寿命。特别适用于潮湿物料的筛分，具有筛分效率高，粒度范围广，无堵塞，不粘结等优点。

The flip-flow screen panel is mainly cast from a three-component MDI polyurethane system and is available in standard, high-rebound, high-strength, and high-temperature-resistant types. It can meet the demanding operating conditions of various industrial and mining sites. Advanced formulations and processes ensure that the flip-flow screen panels produced by our company have good wear resistance, good elasticity, self-lubrication, and flex fatigue resistance. In addition, the internal structure of the flip-flow screen panel adopts a special process structure, greatly extending its service life. It is particularly suitable for screening wet materials, offering high screening efficiency, a wide particle size range, no clogging, and no sticking.

THE TENSION SCREEN PANEL ▸▸

张紧筛板

张紧筛板是目前应用较为广泛的一类筛板，由两侧张紧钩施力紧附在刀梁上形成弹性较好的筛面。两端张紧钩由多条钢丝绳牢固连接，自润滑型聚氨酯能有效减少筛孔堵塞。



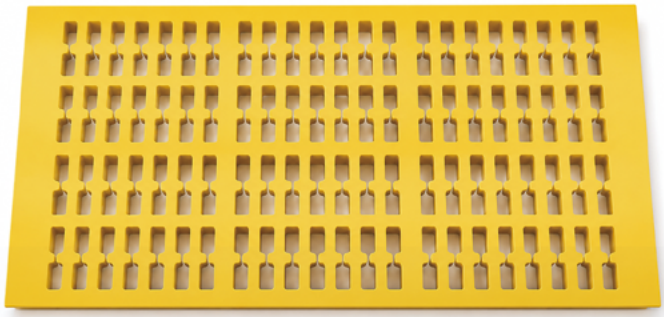
The tensioned sieve plate is widely used at present. It forms a relatively elastic sieve surface by being tightly attached to the knife frame with tensioning hooks on both sides. The tensioning hooks at both ends are firmly connected by multiple steel wire ropes, and the self-lubricating polyurethane can effectively reduce the clogging of sieve holes.

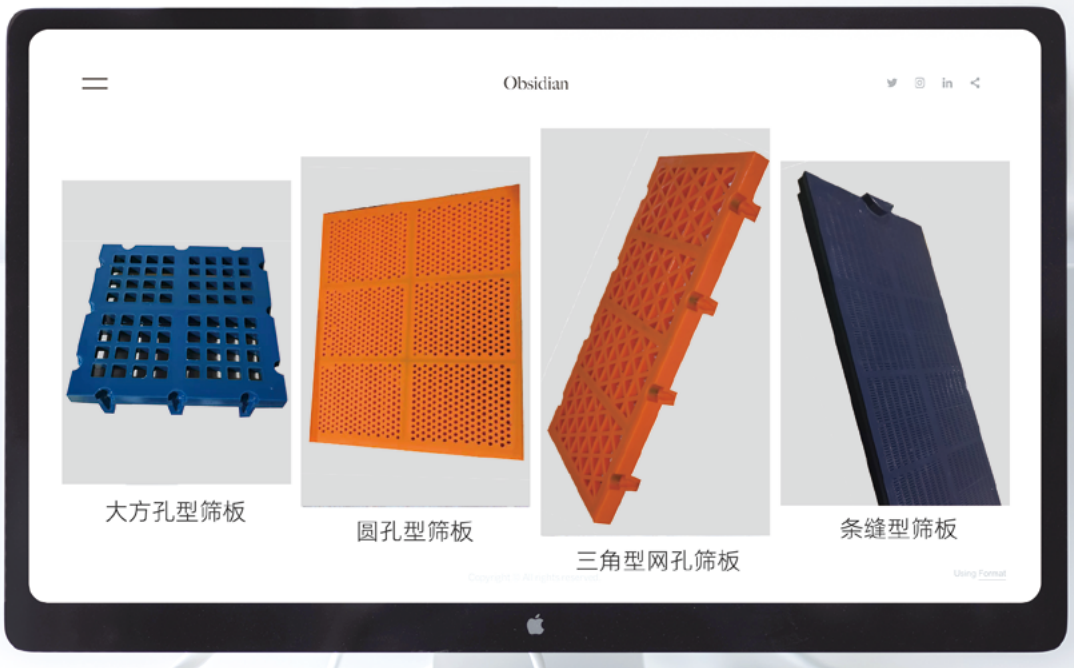
THE PLATE-TYPE SCREEN PANEL ▸▸

板式筛板

由三组份MDI型改性自润滑聚氨酯和金属骨架构成，高耐磨、自润滑、不易堵塞。

It is composed of three-component MDI type modified self-lubricating polyurethane and a metal framework. It is highly wear-resistant, self-lubricating for reducing the clogging of sieve holes.



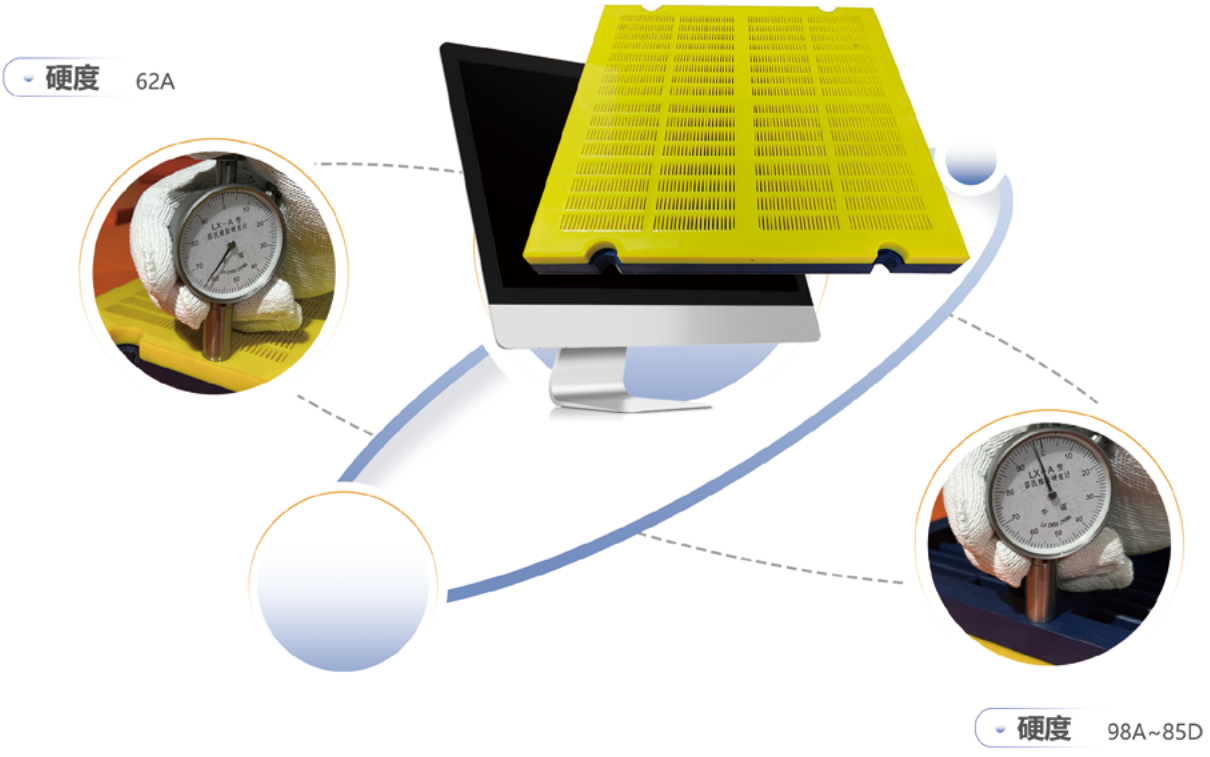


DUAL-HARDNESS SCREEN PANEL ▸▸

双硬度筛板

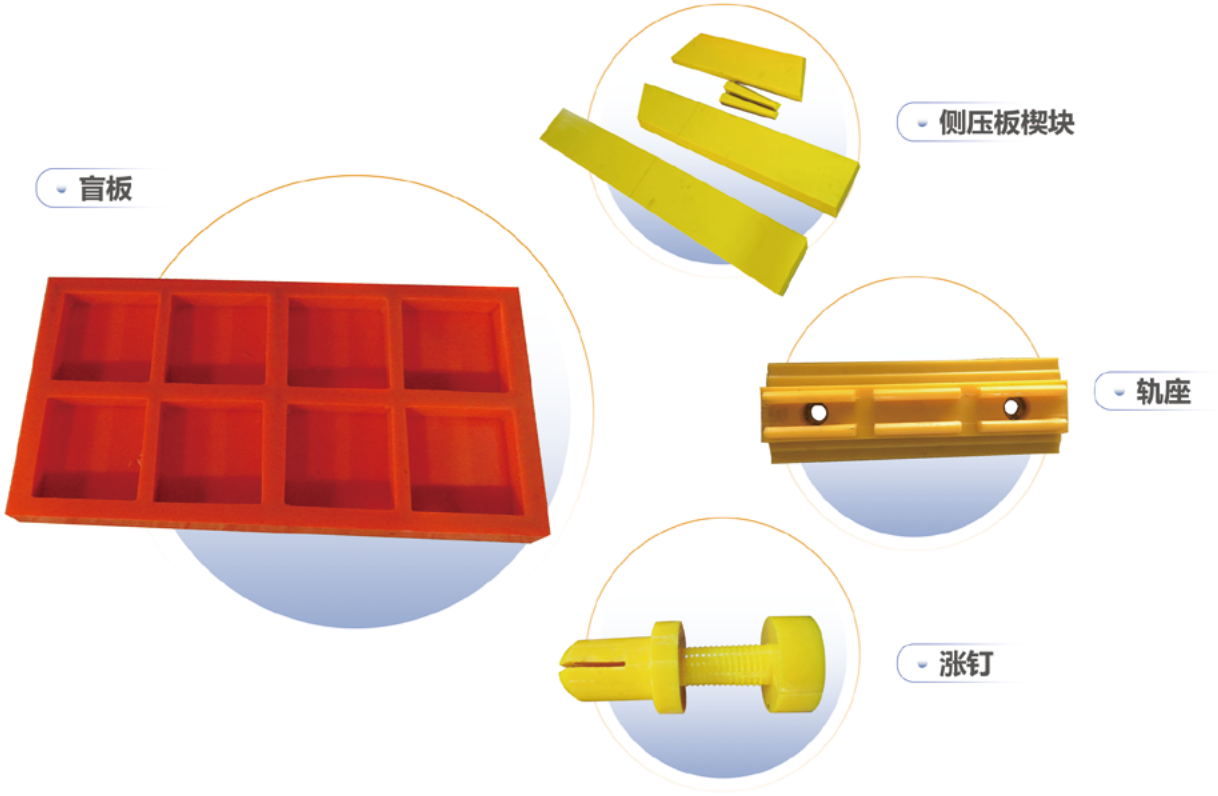
一体化双硬度筛板：采用双硬度浇注工艺，安装部分采用高硬度，筛面部分采用高回弹低硬度聚氨酯这样既保证了安装的牢固性又有效降低堵孔概率，保证高的筛分效率和效果。

The integrated dual-hardness plate-type screen panellt adopts the integrated and dual-hardness casting process, the higher hardness PU materialat the bottom is for the installation purpose, and the different hardness confirmation of screendesk is depending on the screening request of different materials. So it will ensure the stabilityof the installation and effectively reduce the probability of hole plugging for high screeningefficiency and great effect.



THE ACCESSORIES OF SCREEN PANEL ▸▸

筛板配件



安装方式 ▸▸ INSTALLATION WAY

高 效　耐 磨　防 堵

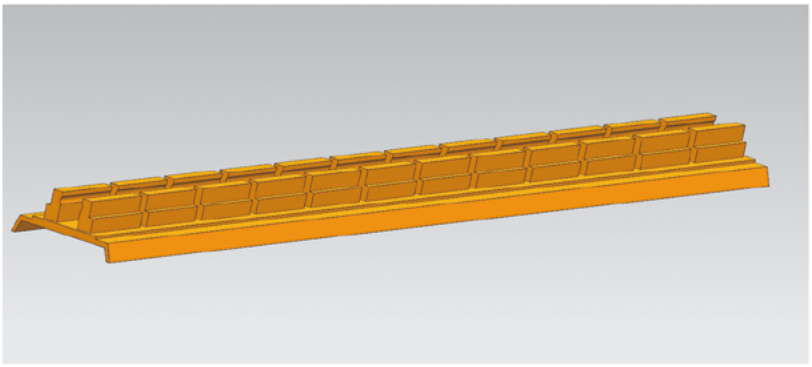
镶嵌式　螺栓连接　压条连接　筛钩连接

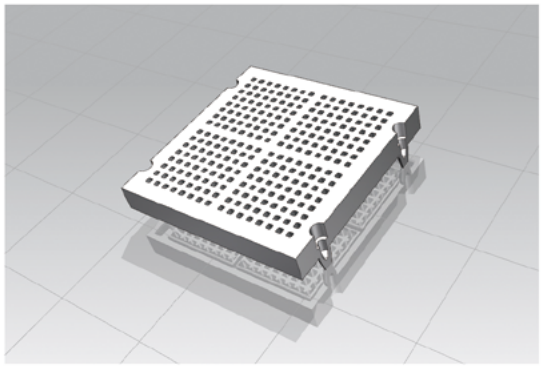
DESIGN AND DEVELOPMENT ▸▸

设计开发

▲根据筛分要求，结合实际情况，设计结构和材质
▲根据客人筛网样品图纸，测绘，生产
▲经验丰富的技术人员，三维设计图纸，动态模拟现场及完备的模具加工能力，既满足客户的特殊要求，又缩短了加工时间

▲We are able to design and manufacture according to our customers' drawings directly
▲We are able to measure our customers' samples and finish the design and the drawing forproduction
▲We also have the experienced technicians, three-dimensional design ability and completemold processing capacity to meet the customers special requirements, also shorten theprocessing time.





聚氨酯材质
Our polyurethane material's introduction

01 三组份MDI系列
Three-component MDI series

02 二组份TDI系列
Two-component TDI series

03 耐高温等特殊聚氨酯系列
The special polyols series

PRODUCTION CAPACITY ▸▸

生产能力

聚氨酯合成浇注车间 / Our Polyurethane Casting Workshop



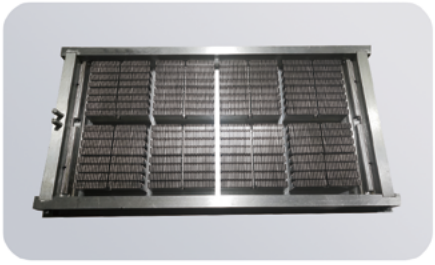
▲根据筛板性能研制配方合成预聚体，筛板更耐磨防堵孔。

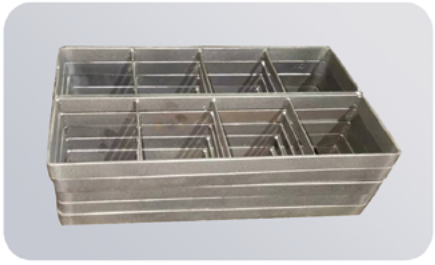
▲We have the R&D capacity and can develop the prepolymer byourselves according to the special performance of the screenpanel that is more wear-resisting and less plugged hole.



▲浇注机代替人工浇注，原料混合更均匀，有效控制温度等工艺参数。

▲We use the auto eating machine instead of manual pouringgood to get more uniform mixing material and control the temperature effectively.





机械加工能力 / Our Machining Capacity

▲筛板模具自己加工，有效降低了客人定制筛板的成本，金属模具有效保证了筛缝的公差

▲多台车铣床和经验丰富的加工人员

▲骨架焊接平整，焊缝焊后无毛刺和锋利的边缘

▲The molds of the polyurethane screening panel are processed by ourselves so it willreduce the cost and guarantee effectively the tolerance of the mold.

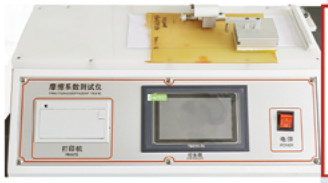
▲There are many sets of lathes and experienced processing staff in our workshop.

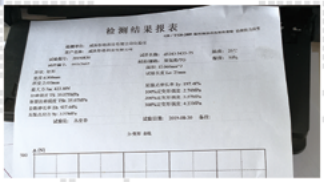
▲The frame is welded flat, without burr and sharp edge after welding.

PERFORMANCE TESTING OF THE POLYURETHANE ▸▸
聚氨酯性能检测

- 硬度的测定按GB/T531.1规定进行
  Hardness: The harness shall be measured in accordance with GB/T 531.1
- 撕裂强度的测定按GB/T529规定进行
  Tear strength: The tear strength shall be measured in accordance with GB/T529
- 回弹性的测定按GB/T1681规定进行
  Rebound: The rebound shall be measured in accordance with GB/T1681
- 拉伸强度、拉断伸长率的测定按GB/T528规定进行
  Tensile strength and elongation at break: The tensile strength and elongation at break shall be mea-sured in accordance with GB/T528
- 硫化橡胶或热塑性橡胶耐磨性能的测定（旋转辊筒式磨耗机法）按GB/T 9867-2008规定
  Measurement of wear resistance of vulcanized rubber or thermoplastic rubber (rotary roller typeabrasion machine method) according to GB/T 9867-2008
- 摩擦系数的测定按GB/T1006-1988
  The coefficient of friction is measured according to GB/T1006-1988



检测设备
TESTING EQUIPMENT


TEST ▸▸

筛板检验

正常生产，每年做一次外检，质量监督部门出具检验报告

▲过程检验 Process inspection

胶料性能检验：硬度、拉伸强度、拉断伸长率、撕裂强度、回弹性磨耗等。

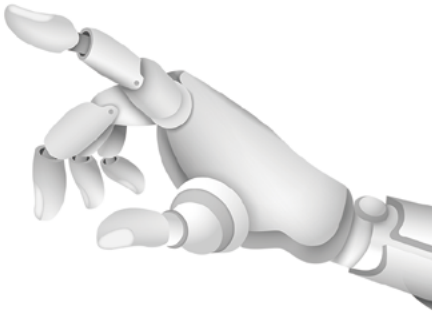
Test for Polyurethane material performance:hardness, tear strength, elongation at break. tear strength, rebound and so on.

▲出厂检验 Delivery inspection

1、硬度检验 Hardness

2、外观检验 Appearance

3、尺寸检验：外形尺寸、筛孔尺寸 Size,shape,mesh size



检验标准

外观：聚氨酯筛板的表面应平滑，色泽均匀一致、无杂质、无裂纹、无断筋；每块筛板表面不得有直径大于2mm的气泡，筛板筋部位不得有直径大于1mm的气泡。

尺寸公差：外形尺寸、筛孔尺寸 应符合客户或图纸的要求，公差应满足下表的规定。

硬度公差±2度。

Inspection requirements:

We conduct an external inspection once a year. The quality supervision department issues the inspection report.

Testing standards:

Appearance: The surface of the polyurethane sieve plate should be smooth, with uniform color, no impurities, no cracks, and no broken strands. Each sieve plate surface shall not have bubbles with a diameter greater than 2mm, and the sieve plate rib area shall not have bubbles with a diameter greater than 1mm.

Size tolerance: The external dimensions and sieve hole dimensions should comply with the requirements of the customer or the drawings, and the tolerance should meet the regulations in the following table.

外形尺寸公差%			筛孔尺寸公差mm	
长	宽	厚	筛孔宽度或筛孔直径W	公差
±0.2	±0.2	±0.2	0.1<W<0.3	+0.03
			0.3<W< 1.0	+0.08
			1.0<W< 10	+0.1
			>10	±0.5
注:特殊要求由供需双方协商决定				

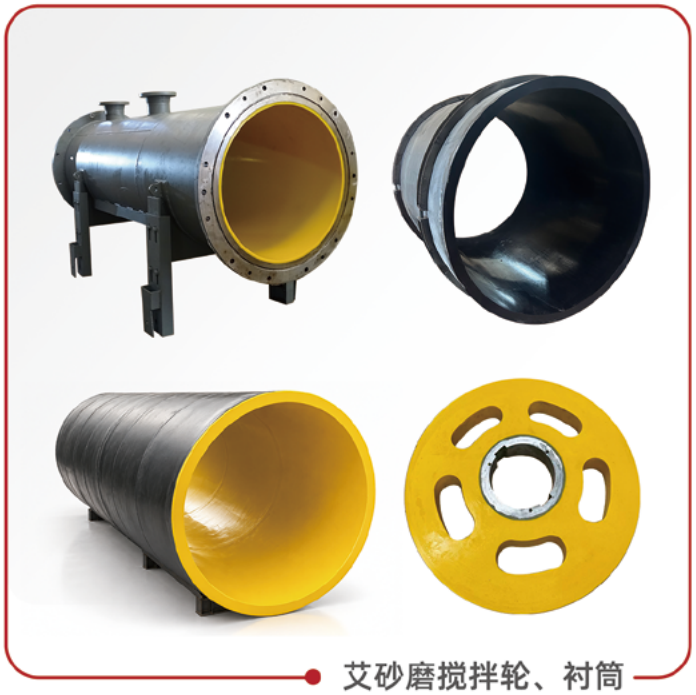
ROTOR AND STATOR FOR FLOTATION MACHINE, DISPERSER (RESISTANT TO DRUGS, HYDROLYSIS AND WEAR) ▸▸

浮选机转子定子、分散器（耐药品、耐水解、耐磨）

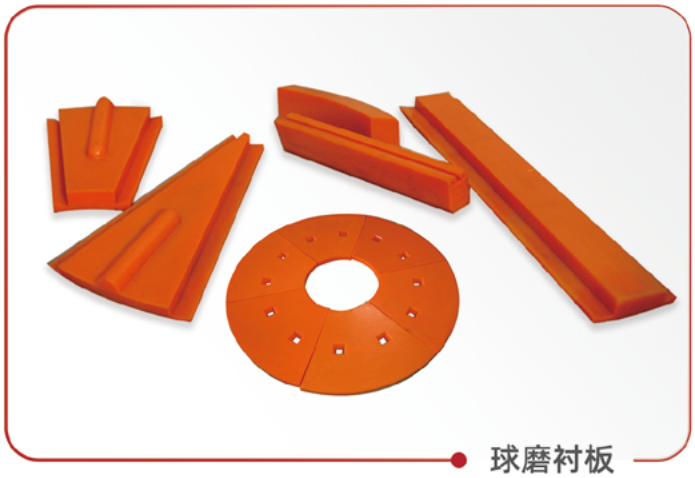


HIGH WEAR RESISTANT POLYURETHANE CUSTOM PLATES ▸▸

高耐磨衬板、衬胶



艾砂磨搅拌轮、衬筒

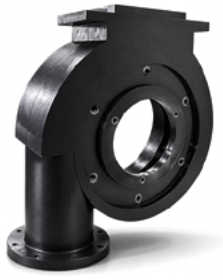


球磨衬板



塔磨螺旋衬板





泵护套

HIGH LOAD DYNAMIC ROLLER, PISTON ▸▸

重载高动态辊轮、活塞

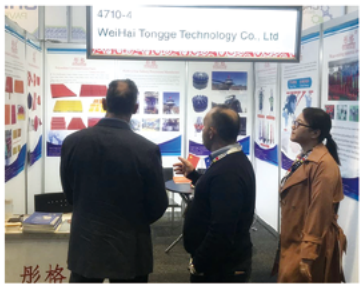


OTHER POLYURETHANE PRODUCTS ▸▸
其它聚氨酯制品



OVER BUSINESS DEVELOPMENT ▸
对外交流













CLIENT LIST ▸▸

部分客户业绩

艾法史密斯机械有限公司
洛钼集团股份有限公司
首钢集团
紫金矿业集团
北京矿冶研究总院
白银有色集团
厦钨集团
日昌升集团有限公司
中材装备集团有限公司
丹东东方测控技术股份有限公司
山东魏桥铝电有限公司
鲁中矿业有限公司
中国电建集团上海能源装备有限公司
大唐风陵渡电厂
江苏国发电力科技有限公司
国电滦河热电有限公司
山东同华发电有限公司
华北石油工程建设有限公司
莱新铁矿有限公司
大唐内蒙古多伦煤化工有限公司
鞍山鞍重矿山机械有限公司
河南威猛振动设备股份有限公司
中国科学院合肥物质科学研究所
本溪钢铁有限公司
马鞍山市天工科技股份有限公司
三联泵业股份有限公司
宝金矿业集团有限公司
海洋化工研究所
兰州金铜储能新材料有限公司
上海蓝科石化环保科技有限公司
内蒙古黄河铬盐股份有限公司
宁夏金海峰晟超阳化工有限公司
宁夏英力特化工股份有限公司热电公司
宜化松滋肥业有限公司
山东金洲矿业集团
宝航环境修复有限公司
北京探矿工程研究所
滦平兆丰矿冶有限公司
美国MAGEFABY
荷兰MAREL
加拿大APEX
斯伦贝谢SCHLUMBERGER
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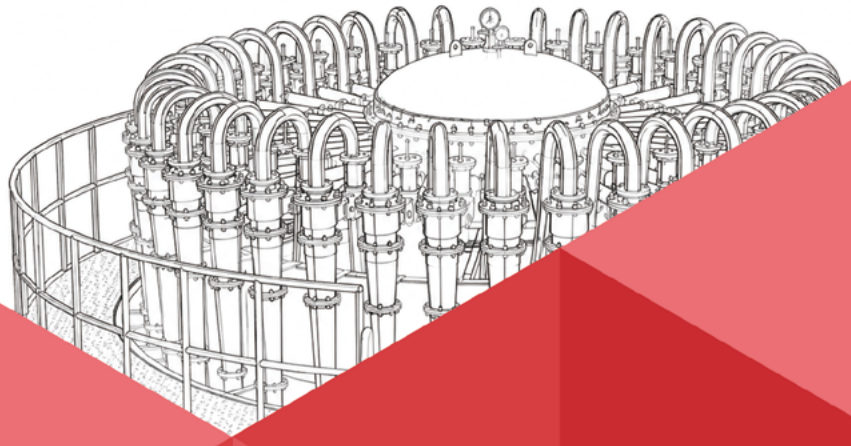

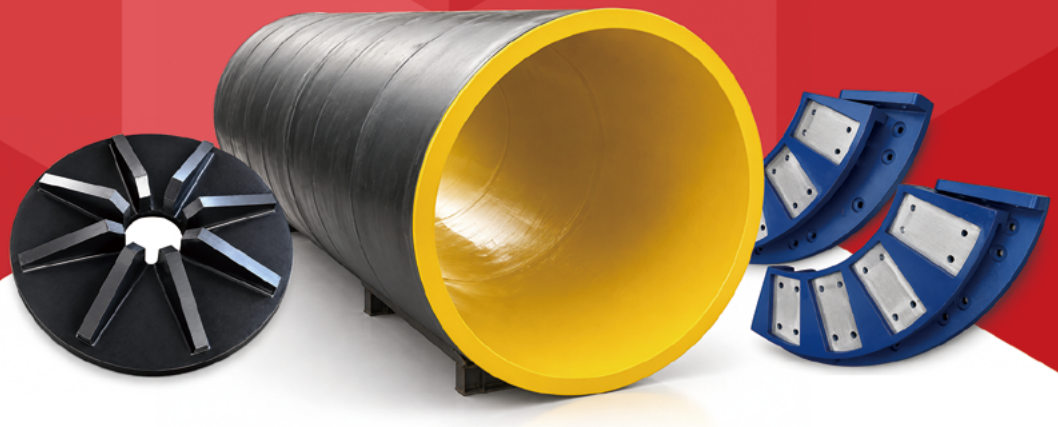

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