

耐磨橡胶王
King of Anti-abrasion Rubber

Xinhai

烟台鑫海耐磨胶业有限公司
Yantai Xinhai Anti-abrasion Rubber Co., Ltd

——湿法超耐磨橡胶产品
Wet Super Anti-abrasion Rubber

——衬胶矿山机械产品
Mining Machinery Products Lined With Rubber

中国·山东
Shandong·China



烟台鑫海耐磨胶业有限公司是全球领先、国内唯一的拥有湿法耐磨橡胶生产技术的公司，鑫海胶业自主研发的“液态纳米配方·常温高频固化”橡胶生产技术，打破了国外一些公司在全球耐磨橡胶领域长达80多年的垄断，而且由于鑫海胶业的生产技术配方中采用了纳米技术及高频固化技术，其生产的耐磨橡胶的重要性能指标已达世界先进水平。鑫海橡胶是目前在湿式料浆状态下最耐磨的橡胶，被誉为“耐磨橡胶王”。鑫海橡胶可广泛地应用于矿山、洗煤厂、建材、化工、火力发电厂、砂石厂等抗耐磨或耐腐蚀领域。

鑫海耐磨橡胶的另外一个重要的好处是，可以将耐磨橡胶制造成不同厚度的橡胶板，用户可以在现场像裁缝衣服那样根据管路、管件、漏斗、溜槽、滚筒等需要耐磨损的物件形状的不同，任意地对耐磨橡胶板进行剪切和冷粘，这更增加了鑫海耐磨橡胶的用途。鑫海生产各种冷粘用的专用粘合剂、底油、固化剂，橡胶表面活化剂等，在橡胶板与钢板等冷粘后，用人力的办法是无法将橡胶从粘接处撕开。

鑫海公司拥有一批矿山生产工艺方面的专家，熟知矿山生产工艺，了解矿山磨损的各个环节，因此鑫海利用超强的鑫海耐磨橡胶的特性开发并生产出大量高效好用的衬胶机械产品：泵、旋流器、脱水筛、阀、胶管、衬板等，这些产品很多都申请了专利，部分产品的性能达到国际领先水平。

鑫海公司检测设备齐全，已通过了ISO9001：2000国际质量管理体系认证，生产水平和研发能力强，将向世界各地的客户提供优质的技术产品和服务。

Yantai Xinhai Anti-abrasion Rubber Company is the sole company in China who has global leading technology for producing wet processing rubber. The technology of liquid phase nanometer formula • ordinary temperature high frequency curing that Xinhai created has broken more than 80 years' monopoly in rubber field by a foreign company, and the important performance indexes of Xinhai rubber product have exceeded that of the foreign company. Xinhai rubber is honoured as the king of anti-abrasive rubber, and widely used in the field of mine, coal washery, building materials, chemical, heat power plant, sand and gravel plant, etc..

What's more, Xinhai rubber can be made into rubber sheets in different thickness, and users can cut and adhibit the rubber sheets optionally according to the shapes of the anti-abrasive parts(such as pipelines, funnels, chutes, rollers, etc.). Besides, Xinhai Rubber produces all kinds of adhesive, primer, hardener and surface-active agent. People can not separate rubber sheets from steel after cold bonding.

Xinhai Company owns the experts who are proficient in mine productive technology and know well about every abrasion. Therefore, Xinhai developed many machinery products lined with rubber, such as pump, cyclone, dewatering screen, valve, rubber pipe, liner, etc., and some of these prodcuts have been applied for patents.

With complete detect equipments and strong R&D capability, Xinhai Company has passed ISO9001:2000 international quality control system authentication, and will provide the first class of service for customers all around the world.

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知识点：橡胶制品的耐磨性取决于橡胶制品中纯橡胶原料的含量和橡胶分子链的长度，只有在生产过程中保持纯橡胶原料的高含量，减少分子链的破坏，才能提高橡胶的耐磨性。

Tips: The abrasive resistance of rubber products depends on the pure rubber content and the molecular chain length. Therefore, the abrasive resistance can be strengthened by keeping high content of the pure rubber and reducing the damage of molecular chain.

★传统橡胶生产工艺与鑫海湿法橡胶工艺的对比

1、传统的橡胶生产工艺

传统橡胶生产的三个阶段：原料、炼胶、硫化

●原料

天然胶乳从橡胶树上采集后，经过净化、凝固、脱水、洗涤、造粒、干燥、分级和包装，得到固体块状天然橡胶原料。为了缩短干燥时间，胶乳脱水后还要进行锤磨造粒，在剪切力的作用下，橡胶高分子链受到一定程度的破坏。

●炼胶

在炼胶车间，根据橡胶产品配方，将固体块状橡胶原料与各种粉状橡胶助剂如促进剂、抗老剂、分散剂、防焦剂、氧化锌、炭黑、硫化剂等等进行机械混炼，至均匀为止。由于都是固态物料混合，为了保证混合均匀，就必须长时间的混炼，但是长时间的混炼必然增加分子链的破坏；为了避免分子链的过度破坏，就不能长时间的混炼，这样物料就很难混合均匀，物料混合不匀，橡胶在硫化过程中硫化程度就不一样，造成橡胶产品性能不均衡，影响橡胶产品的综合性能。所以传统的橡胶生产存在着这样矛盾的工艺问题。

●硫化

将混炼好的橡胶，硫化成各种不同的橡胶产品。

传统的橡胶生产工艺存在的问题：原料生产、炼胶过程中加温、机械切割都对橡胶分子链产生了破坏作用。另外固体橡胶原料与粉体助剂的混合时，橡胶助剂必须具有足够的用量，才能起到一定的作用，这反而降低了天然橡胶的含量，影响了产品的性能。

2、独特的鑫海湿法耐磨橡胶技术（液态纳米配方·常温高频固化）

●鑫海经过不断地探索研究，找到了能与天然胶乳充分混合的橡胶助剂，采用先进的纳米补强技术，引进美国先进设备进行了纳米材料表面处理，使之与天然胶乳结合更牢固，混合更均匀，特别是凝固剂的选用更是如此，鑫海选用的凝固剂可使天然橡胶乳汁与纳米助剂混合料更好的凝固成固态。

Comparison between traditional rubber productive technology and Xinhai wet rubber process

1.Traditional rubber productive technology

It has three stages: raw material, rubber mixing and vulcanization.

•Raw material

Natural latex is purified, solidified, dewatered, washed, prilled, dried, classified and packaged after collected from the rubber trees and become solid natural rubber. In order to shorten the drying time, rubber latex should be crushed and prilled after dewatering, thus the polymer chains will be damaged by shearing force.

•Rubber mixing

By the rubber product formula,the solid block rubber material will be mixed with powder rubber compounding ingredients such as accelerator, age resister, dispersing agent, antiscorching agent, zinc oxide, carbon black, vulcanizer, etc. in mixing mill until smooth uniformly. Because it takes long time for solids to mix uniformly, the polymer chains are easliy damaged; if materials can not be mixed uniformly, the state of vulcanization of rubber may different, and the product performance may imbalance. Therefore, the traditional rubber technology has this kind of contradictory problem.

•Vulcanization

Vulcanize the mixed rubber to different rubber products.

In general, traditional rubber technology has the following problems: polymer chains are damaged because of long time heating and mechanical cutting during the production of material and rubber mixing; besides, the powder auxiliary agent can take effect only when it is sufficient when mixing with solid rubber material, which may reduce the content of natural rubber and affect the prodcut performance finally.

2.Unique technology of Xinhai wet processing anti-abrasive rubber(Liquid phase nanometer compounding · normal temperature high-frequency curing).

•Xinhai discovered excellent powder auxiliary agent, coagulating agent especially. We adopts advanced nanometer reinforcing technology and introduces advanced equipment from America for surface treatment of nano material, which makes the combination between natural latex and auxiliary agent more firm and uniform.The coagulators used by Xinhai can better coagulate the mixture of natural latex and nano materials into solid state.

您需要的，

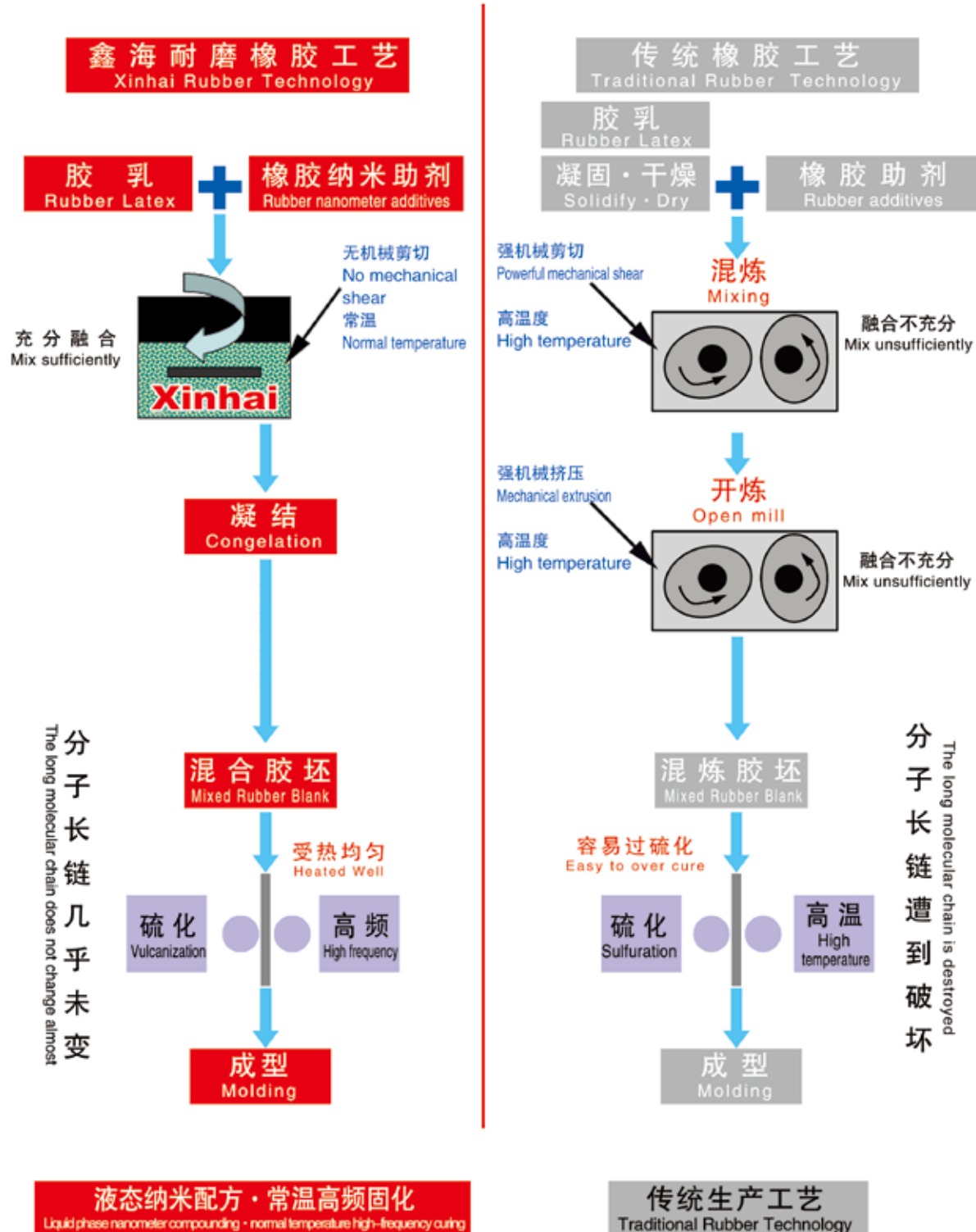
What you need is what we can do 正是我们能做到的！

No.1 超耐磨的鑫海湿法橡胶 No.1 Wet Super Anti-abrasion Rubber

鑫海耐磨橡胶为什么耐磨 Why is Xinhai Rubber Abrasion-resistant?

鑫海耐磨橡胶特殊生产工艺——独特的液态纳米配方·常温高频固化

Unique production technology of Xinhai anti-abrasion rubber—Liquid phase nanometer compounding · normal temperature high-frequency curing



- 鑫海有一批矿物方面的专家，深知各种耐磨材料的性能，所以鑫海在橡胶配方中对超耐磨的纳米材料的选用，更是增强了配方的优越性。
- 鑫海利用天然的橡胶乳汁与纳米级的助剂在常温状态下直接混合凝固成橡胶母胶，消除了传统橡胶厂的塑炼、密炼等含有的对橡胶剪切和加温环节，因此避免了传统橡胶生产工艺的加温、剪切对橡胶高分子链的破坏。
- 鑫海用湿法生产技术生产的橡胶，橡胶不会受到剪切破坏和高温老化，当然对橡胶高分子长链几乎没有破坏，因此保持了天然橡胶原有的优异性能。
- 鑫海用湿法生产技术生产的橡胶在液态状态下更容易混匀，所以需要的助剂量更少，橡胶混合物当中的橡胶含量更高，鑫海耐磨橡胶中天然橡胶的含量最高可达95%。
- 鑫海常温高频硫化技术，让厚度较大的橡胶内部和外部更容易同步硫化，而且硫化的时间更短，橡胶内外得到同时加热硫化，硫化质量更均匀，效果更好，不存在过硫或者欠硫的现象。
- 鑫海耐磨橡胶可以根据不同的客户需求，量身定做成不同的颜色，增加其品牌价值。
- 技术创新：采用独特的湿法配方设计、恰当的混合分散体制备工艺、结合纳米复合分散技术，得到性能优异的湿法纳米橡胶。橡胶里面各种硫化助剂以纳米颗粒形式均匀地分散在橡胶弹性体当中，橡胶分子链保持完好无损，可以直接用于常温、高频或低温硫化，具有优异的耐磨性、强度和弹性。
- Xinhai owns experts who are proficient in performances of anti-abrasive materials, therefore, the use of nano material strengthens the superiority of the formula.
- Natural rubber latex is directly mixed with nanometer auxiliary agents in ordinary temperature and become masterbatch, which eliminate the shearing and heating the rubber during the mastication and banburying in traditional rubber factory and so avoid the damage of polymer chains from heating and cutting in traditional way.
- Xinhai adopts wet technology to produce the rubber, which can't be destroyed by shearing and high temperature ageing so that eliminate the shearing and heating the rubber during the mastication and banburying in traditional rubber factory and so polymer long chain of rubber is hardly destroyed and this result in our rubber keeps the outstanding inherent properties.
- Xinhai rubber in liquid state is easier to be mixed uniformly, thus the auxiliary agent is less. The content of natural rubber in Xinhai rubber product can reach 95%.
- The interior and exterior of thicker rubber can be vulcanized synchronously in a shorter time by normal temperature and high-frequency vulcanization technology that Xinhai adopted. Curing is more uniformly, effect is better and there is no over cure and under cure problems.
- Users can choose different colors to increase their brand value.
- Technical innovation: We utilize the unique wet formula, appropriate preparation technology of mixed dispersion and nano-composite dispersion technology to get wet nano rubber. All kinds of vulcanizing agents uniformly disperse in the rubber elastomer as nanoparticles, rubber molecular chain remains intact, which can be directly cured under normal temperature, high frequency or low temperature. So our rubber exhibits outstanding resilience, strength and resistance to abrasion.

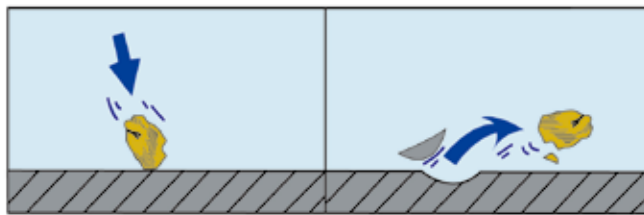
3、鑫海橡胶的“以柔克刚”

天然橡胶是出色的耐磨材料，尤其是在处理渣浆物料方面。这是由于其高分子量在长链状的分子组合中占较大比例，形成固有强烈的抗拉伸能力，且回弹性极强，这是橡胶形成耐磨防切割的主要因素。

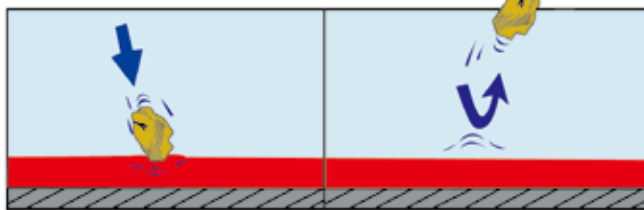
与铸石、复合陶瓷、合金、钢铁等硬性物质不同，橡胶本身耐磨，橡胶的弹性可吸收和排斥冲击力和摩擦力，具有“以柔克刚”的特性，所以不易磨损。

Softkill of Xinhai Rubber

Pure natural rubber is an outstanding abrasion resistant material, particularly for handing slurries. The inherent properties of strength, resilience and cut resistance have a direct affect on wear performance. These are attributed to a major proportion of



磨蚀性颗粒撞击刚性金属表面，动能转化成冲击力、摩擦力和噪音
Abrasive particle striking non-elastic metal surface. converse of kinetic energy into impact, friction and noise



磨蚀性颗粒撞击具有弹性橡胶表面，橡胶受压变形，把大部分动能返还颗粒，从而避免了磨损
Abrasive particle striking resilient rubber surface. Rubber deforms under load and returns most of kinetic energy to particle without rate of wear experienced above

物体与刚性或橡胶撞击时能量转换图
Conversion of kinetic energy when abrasive article striking on non-elastic metal surface or resilient rubber surface

naturally occurring long chain molecules, characterized by their high molecular weights.

Rubber is different from the hard materials such as mould stone, compounding ceramics, alloy, iron and steel for its own anti-abrasion. The resilience of rubber can absorb and repulse the impact and abrading forces, which result in the rubber isn't easy to abrade and has softkill characteristics.

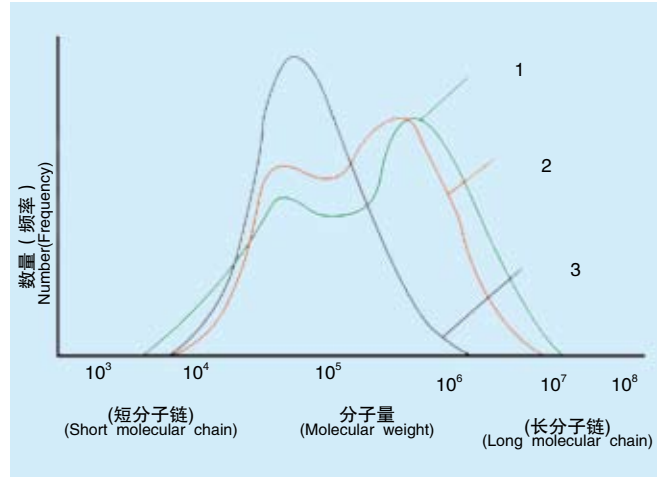
4、鑫海耐磨橡胶的相关数据 Relevant data of Xinhai rubber

(1) 鑫海耐磨橡胶的分子量检测数据

Molecular weight test data of Xinhai anti-abrasion rubber

注：分子量分布曲线

- 1--天然橡胶典型的双峰分子量分布曲线，见曲线1。
- 2--鑫海橡胶保持天然橡胶极佳的耐磨性能，见曲线2。
- 3--传统橡胶混合时破坏了长分子链，降低了耐磨性能，见曲线3。



分子量曲线图
Molecular weight distribution curve

Note: Molecular Weight distribution curve

- 1. Typical binmodal molecular weight distribution curve for raw natural rubber, see curve 1.
- 2. Xinhai rubber: retains the essential properties of raw natural rubber giving excellent abrasion resistance, see curve 2.
- 3. Conventional rubber: long chain molecules are broken up during mixing reducing wear performance, see curve 3.

(2) 鑫海耐磨橡胶的相关数据 Relevant data of Xinhai rubber

橡胶种类Rubber types		鑫海XH35橡胶 Xinhai XH35 Rubber	某国际品牌橡胶International brand rubber
胶料颜色Color		红、黄Red, Yellow	红Red
性能参数 Performance parameter	检测标准Testing standard	天然Natural	天然Natural
硬度 邵氏A Hardness ShoreA	GB/T 6031-1998	35	38
拉伸强度 MPaTensile strength	GB/T 528-1998	23.5	23.3
断裂伸长率%Elongation at break	GB/T 528-1998	866	768
拉伸永久变形% Tension set	GB/T 528-1998	4	6
撕裂强度N/mm Tearing strength	GB/T 529-1999	81.34	70.44
回弹性% Resilience	GB/T 1681-1991	76	74
比重g/cm ³ Specific gravity	GB/T 533-1991	0.95	0.97
耐磨指数% Abrasion resistance index	GB/T 9867-1998	128	100

备注：耐磨指数在湿式状态下，以某国际大品牌最耐磨的硬度为38的橡胶为参照测得的数据。

Remark: the data is got refering to the hardness of 38 of the international brand rubber under wet-type condition.

各种鑫海耐磨橡胶的物理特性表

Variable Xinhai rubber physics characteristics form

橡胶种类 Rubber types	Xinhai 35	Xinhai 40	Xinhai 50	Xinhai 60	Xinhai HD62	Xinhai HD70	Xinhai HDS	Xinhai BB	Xinhai N55	Xinhai OZ	Xinhai FG	
项目 Item	红色 Red	红色 Red	红色/橙黄色 red/orange	红色/橙黄色 red/orange	黑色 Black	黑色 Black	红色 Red	黑色 Black	橙黄色 Orange	黑色 Black	白色 White	
指标 Index sign	颜色 Color	天然 Nature	天然 Nature	天然 Nature	天然/合成 Nature/synthesis	天然/合成 Nature/synthesis	天然/合成 Nature/synthesis	卤代丁基橡胶 halogenating Neoprene	NBR(丁腈橡胶) Synthetic rubber	纯天然橡胶 Pure nature rubber	天然/合成 Nature/synthesis	
标准 Standard												
聚合物类型 Polymer type	天然 Nature	天然 Nature	天然 Nature	天然 Nature	天然/合成 Nature/synthesis	天然/合成 Nature/synthesis	天然/合成 Nature/synthesis	卤代丁基橡胶 halogenating Neoprene	NBR(丁腈橡胶) Synthetic rubber	纯天然橡胶 Pure nature rubber	天然/合成 Nature/synthesis	
硬度 Hardness	35	39	50	60	62	70	70	55	55	38	38	
抗拉强度 Tensile strength	23.5Mpa	25Mpa	29 MPa	28 MPa	22MPa	23MPa	22.8MPa	10.0MPa	19MPa	26.7MPa	25.9MPa	
断裂伸长率 Elongation at break	866%	750%	750%	750%	700%	600%	580%	580%	740%	760%	810%	
拉伸永久变形率 Tension set	4%	6%	20%	40%	12%	14%	25%	15%	12%	10%	7%	
撕裂强度 Tear strength	81.34N/mm	80N/mm	140N/mm	168N/mm	136N/mm	142N/mm	100N/mm	40N/mm	71N/mm	40N/mm	52N/mm	
回弹性 Resilience	76%	74%	68%	56%	50%	44%	57%		34%	83%	82%	
比重 Specific gravity	0.95	0.95	1.06	1.1	1.12	1.14	1.14	1.42	1.14	0.98	1.01	
温度范围 Temperature range	-40℃-70℃	-40℃-70℃	-40℃-70℃	-40℃-75℃	-40℃-75℃	-40℃-75℃	-40℃-75℃	-40℃-120℃	-20℃-110℃	-40℃-75℃	-40℃-70℃	
耐磨指数 Abrasion resistance index	≥128%	≥90%	≥40%	≥20%	≥40%	≥40%	≥38%		≥16%			
特点 Features	湿式耐磨性强、抗切和抗撕、柔韧性 Wet wear resistance, high resilience, resistance to cut and tear, good pliability, easy processing, low noise	抗粘结、密封好,适用于要求橡胶要有柔韧性又不易变形的场合 Anti-sticking, excellent sealing, used for where rubber needs to be flexible but not easily deformed	抗剧烈磨撞、硬度大、适应重负荷、抗扯抗撕, HD60为干或湿式场合、HD70和HDS为干式场合 Superior severe abrasion and impact resistance, high hardness, tear and cut resistance, under heavy load situation. HD60 applicable for wet or dry condition, HD70 and HDS for dry situation	高耐碱、耐高温、气密性好、耐老化、耐摩擦 Good resistance to acid-alkali, higher temperature and abrasion, low gas permeability, excellent electrical resistivity	耐油性、抗热老化、耐摩擦 Excellent resistance to oil, abrasion, heat and ageing.	抗臭氧、抗氧化、耐高温、耐老化、耐摩擦 Ozone,aging,high temperature, wear and tear resistant	食品卫生、无异味、无污染、耐切割、柔韧性好 Food safe, no odor, no pollution, abrasion and cut resistance, very good flexibility.	食品、药品和化妆品等行业专用 Particularly suited for food, pharmaceutical and cosmetics industries	食品、药品和化妆品等行业专用 Particularly suited for food, pharmaceutical and cosmetics industries	食品、药品和化妆品等行业专用 Particularly suited for food, pharmaceutical and cosmetics industries	食品、药品和化妆品等行业专用 Particularly suited for food, pharmaceutical and cosmetics industries	食品、药品和化妆品等行业专用 Particularly suited for food, pharmaceutical and cosmetics industries
用途 Application	泵、阀、旋流器等内衬, 槽、管等内衬, 湿式筛网, 广泛的湿式耐磨领域 Pump, valve, cyclone, chute and tube lining, wet screen deck, abroad wet and wear situation	湿筛网、密封垫、滚筒包胶; 皮带清扫器、球磨机筒体内衬 wet screen deck, sealing washer, roller cover, belt cleaner, ball mill cylinder lining	湿筛网、密封垫、滚筒包胶; 皮带清扫器、球磨机筒体内衬 wet screen deck, sealing washer, roller cover, belt cleaner, ball mill cylinder lining	湿筛网、密封垫、滚筒包胶; 皮带清扫器、球磨机筒体内衬 wet screen deck, sealing washer, roller cover, belt cleaner, ball mill cylinder lining	重型筛网、漏斗缓冲板、提升杆 Heavy screen deck, cushion plate of funnel, lift rod	抗剧烈磨撞、硬度大、适应重负荷、抗扯抗撕, HD60为干或湿式场合、HD70和HDS为干式场合 Superior severe abrasion and impact resistance, high hardness, tear and cut resistance, under heavy load situation. HD60 applicable for wet or dry condition, HD70 and HDS for dry situation	高耐碱、耐高温、气密性好、耐老化、耐摩擦 Good resistance to acid-alkali, higher temperature and abrasion, low gas permeability, excellent electrical resistivity	耐油性、抗热老化、耐摩擦 Excellent resistance to oil, abrasion, heat and ageing.	抗臭氧、抗氧化、耐高温、耐老化、耐摩擦 Ozone,aging,high temperature, wear and tear resistant	食品卫生、无异味、无污染、耐切割、柔韧性好 Food safe, no odor, no pollution, abrasion and cut resistance, very good flexibility.	食品、药品和化妆品等行业专用 Particularly suited for food, pharmaceutical and cosmetics industries	

您需要的, 正是我们能做到的!

What you need is what we can do

No.2 高效的鑫海橡胶粘合剂

No.2 High Efficiency Xinhai Rubber Binding Agents

1. 高效的鑫海橡胶粘合剂

鑫海公司科技人员针对矿山机械的特点，开发了适用于冷粘的系列粘合剂，适用于橡胶与橡胶、橡胶与钢铁的冷粘，也可用于其它金属、皮革、塑料、织物、木材、陶瓷等粘接，具有粘接强度高、弹性好、耐冲击、抗振动、耐水、耐酸碱、耐老化。

鑫海除了生产橡胶冷粘时需要的粘合剂、底油、固化剂以外，鑫海发明了两种独特高效的橡胶表面活化剂。

在冷粘时，只要将这两种表面活化剂进行少量的混合，然后用干净的布“蘸”取少许在要冷粘的橡胶表面上揉擦，然后冷粘，经过一段时间以后，用人力的办法是无法将橡胶从粘接处撕开的。强力剥离时橡胶被破坏，但是粘合层不会受到破坏。粘合层结合牢固，确保在使用过程中不开胶，经久耐用。

采用鑫海高效橡胶表面活化剂对橡胶表面处理后，其粘接效果是目前为止发现的国内外最好的粘接效果，非常之神奇。

1. Xinhai high-efficiency rubber binding agents

According to the features of mining machinery, Xinhai technicians developed cold bonding agents, which are applied to cold bonding between rubbers, rubber and steel and other materials like metals, leathers, plastics, fabrics, timbers, ceramics etc..and has such characteristics as high adhesive strength, very high resilience, resistance to impact, vibration, water, acid and alkali and ageing.

Besides the adhesive, primer, hardener for rubber cold bonding, Xinhai also invented two kinds of rubber surface active agents.

Mix the two surface active agents and dip clean cloth in the mixture to scrub the surface of the rubber, during cold bonding. After a time it is impossible to tear the rubber out by our hand, and if use external force, even rubber is damaged, the adhesive coat will be intact. The adhesive layer is so firm that it will not open glue and is durable service.

So far the bonding effect is the best at home and abroad, which is very miraculous, after the rubber surface is treated with Xinhai high-efficiency rubber surface active agent.



2. 鑫海高效橡胶粘合剂相关数据 Relevant data of xinhai rubber binding agents

经过鑫海高效橡胶表面活化剂处理后的粘合剂剥离强度检测数据对比表

Comparison table of peel strength test data of binding agents treated by Xinhai rubber surface active agent

生产公司 Company	平均剥离强度 N/mm Average peel strength	最大剥离强度N/mm Max peel strength	最小剥离强度N/mm Min peel strength	破坏情况 Damage
知名品牌粘合剂处理后 A well-known brand binding agent	4.00	4.89	2.00	橡胶与粘合层分离 Rubber is separate from adhesive coating
鑫海高效橡胶表面活化剂处理后 After Xinhai rubber surface active agent treatment	6.00	9.41	3.00	橡胶已被破坏，但是粘合层没有被破坏 Rubber is damaged, but adhesive coating is in good condition

鑫海橡胶冷粘工艺所需粘接剂的名称及包装规格说明

Name, packing and specification of binding agents required for Xinhai cold bonding craft

名称 Name	型号 Model	调配比例 Proportion	说明 Instruction
底油1 Primer	XD-1	直接使用 Direct use	低温、常温使用 Use at low and normal temperature
底油2 Primer	XD-2	直接使用 Direct use	夏天使用 Use in summer
粘合剂 Adhesive	XZ-1	5升 l	调配 Mix 即时使用 Present use
固化剂 Hardener	XG-1	150克 g	
胶表面活化剂1 Rubber surface active agent	XH-1	2.5升 l	调配 Mix 调配后有效期为4天 Valid for 4 days after mixing
橡胶表面活化剂2 Rubber surface active agent	XH-2	50克 g	

3.鑫海高效粘合剂使用说明 Instruction of Xinhai High-efficiency Binding Agents

3.1 施工环境

常温预硫化胶板粘接工艺，受外界环境的影响很大，一般要求橡胶衬里施工应在15~35℃温度下，湿度低于70%和无尘、无污染的环境中进行。若施工现场受到炎热的阳光照射，施工温度较高，应建临时棚子，顶部加遮盖物，若在冬季施工，骨架需要保温和增加采暖设施，达不到条件可采用特种工艺处理。

3.2 金属表面要求

- ①金属表面要求平整、光滑、无气孔、凹陷、死角。如有焊接不平、砂眼、漏焊等现象，必须补焊并打磨平整，以免衬里被刺破或残留气体造成衬里鼓包。衬里面上所有拐角的半径 $\geq 5\text{mm}$ ，达不到要求者用打磨法或用金属腻子补到 $R \geq 5\text{mm}$ 。
- ②为了提高胶板与金属的粘合强度，金属表面必须喷砂除锈处理，要全部露出金属光泽，达到Sa2 1/2标准要求。喷砂时风压不低于5~6Kg/cm²，所用铜渣或金刚砂（粒径1.5~3.5mm）需要干燥后方能使用，喷砂后需用毛刷刷去喷砂后附在金属表面的灰尘。



3.3 粘结剂的配制

①橡胶表面活化剂的配制：

按照活化剂XH-1为2.5升，活化剂XH-2为50克（XH-1：XH-2=50：1）的比例配制，均匀混合。活化剂XH-1与XH-2配制好后的混合溶液，有效期为4天，必须根据用量调配，及时使用。需用棉布蘸取处理胶板。

②面胶浆配制：

按照粘接剂XZ-1为5公升，固化剂XG-1为150克（XZ-1：XG-1=100：3）的比例配制，均匀混合。加入固化剂后，粘合剂搁置不到3个小时即凝固，必须根据用量调配，及时使用。

③底油XD-1与底油XD-2的使用

温度低于4℃，湿度小于70%，停放时间不大于4小时，用XD-1；
当需停放时间长，或者在野外，或者温度高时，或者湿度大时，用XD-2。

3.4 胶板下料

先下好样板，再裁胶板，力求准确、节约，适当考虑余量。坡口宽度为胶板厚度的3~3.5倍（15度）。胶板粘合面应保持干净，不干净的部位用橡胶表面活化剂处理干净。

3.5 粘接工艺

3.5.1 橡胶和橡胶粘接

- ①用棉布蘸取配制好的活化剂处理需要粘接的胶板表面。
- ②在需粘接的橡胶表面均匀涂一层配好的面胶浆，并晾干（10至15分钟）。
- ③待第一层面胶浆晾干后再均匀涂第二层面胶浆，至粘接面不粘手，再将粘接面叠合。
- ④粘接面在短时间内即粘牢，在施压前调整好位置，不要出现偏差。当位置对好后，在整个表面施压，用橡胶锤依次敲打或用压辊压实，使其接触均匀，挤出空气。

3.5.2 橡胶与金属板粘接

- ①严格按照第3.2的要求对要粘接的金属表面进行喷砂处理或者用钢丝刷去除铁锈和氧化层。
- ②采用甲苯或丁酮清洗喷砂后的表面，彻底晾干并将粉尘除去。
- ③涂底油XD-1或底油XD-2，待手摸达“触干”后，再在胶板、钢板上涂刷第二遍底油，触干后即可涂第一层面胶浆，并晾干（10至15分钟）。
- ④再均匀涂第二层面胶浆于需粘接的表面，至粘接面不粘手，再将粘接面叠合。
- ⑤粘接面在短时间内即粘牢，在施压前调整好位置，不要出现偏差。当位置对好后，在整个表面施压，用橡胶锤依次敲打或用压辊压实，使其接触均匀，挤出空气。

3.1 Construction environment

The ordinary temperature pre-vulcanization rubber sheet adhesive technology are greatly affected by environment. It is required that 15~35°C for rubber lining, and the humidity should be less than 70%, also free from dust and pollution. If the work temperature is too high, temporary shed is required; if the construction is in winter, heating facilities should be prepared.

3.2 Requirements for metal skin

- ①Metal surface is required to be flat, smooth, no pore, no sinks or dead angle. Repair weld for uneven weld, sand hole or solder skip etc to avoid the lining being pierced or bulged due to residual gas. All corner radiuses of lining should be $\geq 5\text{mm}$. Polish or puttying for failing to meet the requirements until $R \geq 5\text{mm}$.
- ②In order to increase the adhesive strength between rubber sheet and metal, metal skin must be sandblasted and reach Sa2 1/2 standard. Wind pressure should not be lower than 5~6kg/cm² during sandblasting and all copper slags and emerys (with grain size 1.5~3.5mm) can be used after drying. Besides, dust should be removed from metal skin by hairbrush after sandblasting.

3.3 Binding Agent Preparation

①Rubber surface active agent preparation

Mix active agent XH-1 of 2.5L and active agent XH-2 of 50g (XH-1:XH-2=50:1) evenly. The mixed solution, with the validity of 4 days, should be prepared according to actual conditions.

②Rubber cement preparation

Mix Adhesive XZ-1 of 5L and Hardener XG-1 of 150g (XZ-1:XG-1=100:3) evenly. Adhesive may solidified in 3 hours after adding Hardener, so the blending should be made according to actual dosage.

③Use of primer XD-1 and XD-2, Use XD-1 if the temperature is below 4°C, the humidity is below 70% and the storage time is less than 4 hours; otherwise adopt XD-2.

3.4 Cutting

Cut rubber sheet according to prepared models. Groove width is 3~3.5 times (15 degree) the thickness of rubber sheet. The adhesive coating of rubber sheet should be kept clean and the dirty part should be cleaned by surface active agent.

3.5 Bonding process

3.5.1 Rubber and Rubber bonding

- ①Scrub the rubber surface with cotton cloth dipped in prepared active agent.
- ②Apply the prepared rubber cement on rubber surface and dry in the air (10~15 minutes).
- ③Apply a second coat of rubber cement evenly, coincide the adhesive coating when it is not sticky.
- ④Because adhesive coating is firmed in a short time, adjust position before applying pressure and keep no deviation. Press the whole surface then, beat it by rubber hammer in proper order or compact by pressing roll and force the air out.

3.5.2 Adhesion of rubber and metal plate

- ①Remove the iron rust and oxide layer from the metal skin in strict accordance with the requirement 3.2 with steel brush or sandblasting.
- ②Clean the surface by toluene or butanone after sandblasting, and dry completely.
- ③Apply primer XD-1 and XD-2 on rubber sheet and steel plate separately, then apply again after the first coat is dry. Apply the rubber slurry and dry in the air (10~15 minutes).
- ④Apply a second coat of rubber cement evenly on the surface, coincide the adhesive coating since it is not sticky.
- ⑤Because adhesive coating is firmed in a short time, adjust position before applying pressure and keep no deviation. Press the whole surface then, beat it by rubber hammer in proper order or compact by pressing roll and force the air out.

No.3创新的鑫海衬胶机械产品 No.3 Innovative Xinhai Machinery Lined with Rubber

XPA型橡胶渣浆泵 Rubber Slurry Pump of Type XPA

1. 产品简介 Product Introduction

XPA橡胶渣浆泵利用了享誉全球的鑫海橡胶的杰出耐磨性，模压出橡胶过流件，在耐磨方面有绝对的权威性；是输送磨蚀性物料的理想泵。具有运行平稳、节能、噪声低、流量大、扬程高、成本省、效率高、易于维护、耐使用等优点。

输送矿浆最大浓度不超过65%（重量计）。

输送矿浆的温度-40℃~70℃。

Xinhai wear resistant rubber pump, which has adopted the lining parts moulded by famous wear resistant Xinhai rubber, is absolutely abrasion-resistant. The pumps are ideal pumps for transmitting abrading and corrosive materials. It features balanceable running, power saving, low noise, high head, cost reducing, high efficiency, easy-to-maintenance, wear resistant etc.

Slurry density not more than 65% (by weight)

Slurry temperature range: -40℃~70℃。



XPA型橡胶泵
Rubber Slurry Pump of Type XPA

2. 适用范围 Scope of application

金属选冶厂：各种渣浆输送。

砂石厂：各类分级和脱水设备的砂水供应。

选煤厂：重介质分级筛分输送，煤浆输送。

水利工程：筑坝、河床淤泥清除、砂石分级等。

陶瓷及玻璃厂：瓷土和砂石输送，旋流器给料及废水处理等。

钢铁厂：渣浆、铁锈、腐蚀性液体等输送。

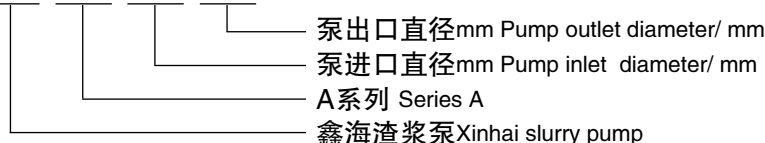
有油和有化学物的场所要向我们特别说明。

- Metal smelting plant: conveying slurry.
 - Sand plant: transporting and conveying sand and gravel, feeding sand and water to all types of classification and dewatering plants.
 - Coal preparation plant: classifying, screening and conveying heavy medium, conveying coal pulp
 - Irrigation systems and dredging: silt removal in dams and river bed, sand classifying
 - Ceramics and glass factory: porcelain clay and sandstone transportation, feeding hydrocyclone and effluent disposal etc.
 - Steel works: conveying slurry, rust and corrosive liquid etc.
- Please specify if applied where oil and chemicals are contained.

3. 型号标识举例 Model example

例如：XP A 200 / 150

Example



4. XPA 型橡胶渣浆泵的主要性能参数表 Main performance parameter of Xinhai pump XPA

规格 Specs	流量 Flow (m ³ /h)	最大扬程 Max head (m)	转速 Rotation Speed (rpm)	最大允许功率 Max. Rated power(kw)	最高效率 Max EFF (%)	叶轮直径 Impeller diameter(mm)	重量 Weight (kg)	外形尺寸 external dimension (mm)
50/50	20-60	38	800-2400	22	51	200	156	725×482×491
80/80	30-100	45	600-2100	45	53	256	326	915×590×595
100/100	60-160	50	600-1600	75	57.5	340	440	999×648×660
150/125	100-260	47	400-1400	110	63	372	608	1280×736×758
200/150	160-450	47	450-1200	132	69	433	736	1313×788×822
250/200	300-900	46	400-1200	250	78	454	1250	1600×812×956
300/250	400-1500	45	300-900	600	73	610	1956	1698×966×1083

XPA(2)型橡胶渣浆泵 Rubber Slurry Pump of Type XPA(2)

1. 产品简介 Product Introduction

XPA(2)泵是一种性能特殊的橡胶渣浆泵。该泵由后侧面吸入浆液，简单的填料密封无泄漏，更重要的是其流量、扬程曲线很陡。例如：压滤机专用给料加压泵、尾矿泵等，突破了橡胶泵不能用在60米以上扬程的工况的限制，扩大了橡胶泵的应用领域。

Pump XPA(2) is with special performance: slurry is sucked from the back side of pump; with simple packing seal; what's more, its flow rate curve and head curve are both steep. For instance, feeding pressure pump and tailing pump which are only for filter press have broke through the limit that the head of rubber pump can not be over 60m. Rubber pump got a wider application field.

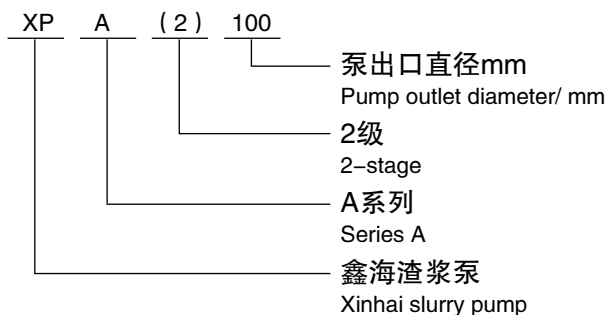


2. 特点 Features

- 水力设计、结构设计先进新颖，效率高，抗磨蚀，运行平稳可靠；
- 大流量，低扬程；
- 小流量，高扬程；
- 轴密封简单可靠，无泄漏；
- 用在压滤行业不用变频调速，输送浓度高。
- With hydraulic design, novel structure, high efficiency, resistance to abrasion and corrosion Sand stable and reliable operation.
- With high flow rate and low head;
- With low flow rate and high head;
- Simple and reliable shaft seal, no leak;
- Frequency control of motor speed not required, high transportation concentration.

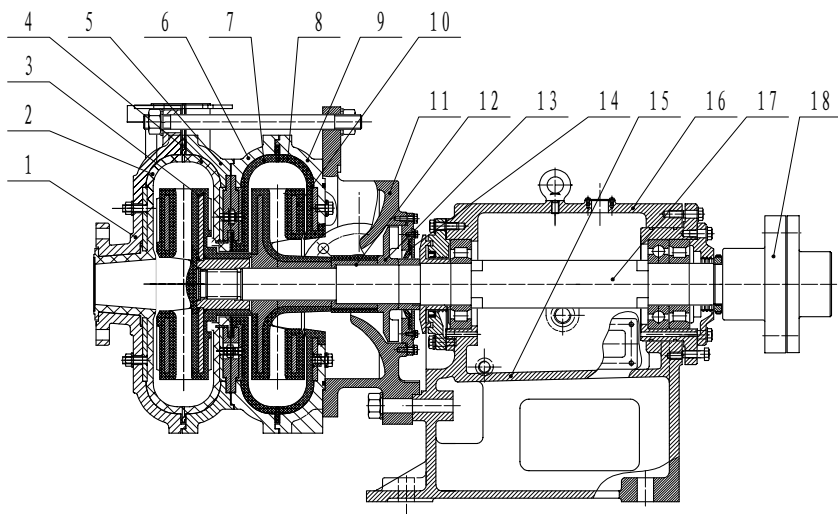
3. 型号标识举例 Model example

例如Example:



型号 Model	项目 Item	转速 Rotation speed r/min	流量 Flow rate m ³ /h	扬程 Head m	最大轴功率 Max shaft power kw	参 考 电 机 Referenced motor	
						型号Model	功率Power(kw)
XPA(2)-50	1480	27.5	76.0	22.3	Y225S-4	37	
		41.4	72.2				
		55.2	66.1				
		69.0	56.0				
XPA(2)-65	1480	80.0	43.5	32	Y225M-4	45	
		40.0	76.0				
		60.0	72.2				
		80.0	66.1				
XPA(2)-75	1480	100	56.0	49	Y250M-4	55	
		115	43.5				
		56.0	73.3				
		85.0	69.0				
XPA(2)-100	1480	113	62.5	62.5	Y280S-4	75	
		150	51.2				
		169	44.0				
		70.0	73.5				
XPA(2)-100- I	1480	105	71.6	78.2	Y280M-4	90	
		140	68.6				
		186	61.9				
		245	48.5				
XPA(2)-100- II	1480	79.7	80.0	64.7	Y280M-4	90	
		119	78.0				
		159	74.8				
		211	67.5				
		279	52.9				
		58.0	91.8				
		87.0	89.1				
		116	85.7				
		154	77.3				
		203	60.6				

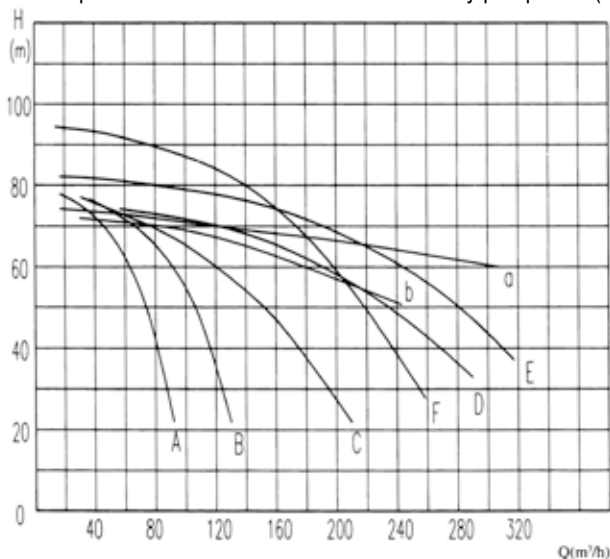
4.XPA(2)型橡胶渣浆泵结构 Structure of rubber slurry pump XPA(2)



- | | |
|--|--|
| 1、二级泵盖
Second stage pump cover | 2、二级泵盖护套
Liner of second stage pump cover |
| 3、二级叶轮
Second stage impeller | 4、二级泵体护套
Liner of second stage pump body |
| 5、二级泵体
Second stage pump body | 6、一级泵体
First stage pump body |
| 7、一级泵体护套
Liner of first stage pump body | 8、一级泵盖护套
Liner of first stage pump cover |
| 9、一级泵盖
First stage pump cover | 10、一级叶轮
First stage impeller |
| 11、进料箱
Feed box | 12、轴套
Shaft sleeve |
| 13、副叶轮
Expeller | 14、密封部分
Seal part |
| 16、托架
Bracket | 17、轴承体
Bearing body |
| 17、泵轴
Shaft | 18、联轴器
Shaft coupling |

5.XPA(2)型橡胶渣浆泵及其它几种杂质泵性能曲线比较

Comparison of performance curve between rubber slurry pump XPA(2) and other impurity pumps



- | | |
|---|-------------|
| A:XPA(2)-50专用入料泵
A: Special feeding pump XPA(2)-50 | n=1480r/min |
| B:XPA(2)-65专用入料泵
B: Special feeding pump XPA(2)-65 | n=1480r/min |
| C:XPA(2)-75专用入料泵
C: Special feeding pump XPA(2)-75 | n=1480r/min |
| D:XPA(2)-100专用入料泵
D: Special feeding pump XPA(2)-100 | n=1480r/min |
| E:XPA(2)-100- I 专用入料泵
E: Special feeding pump XPA(2)-100-I | n=1480r/min |
| F:XPA(2)-100- II 专用入料泵
F: Special feeding pump XPA(2)-100-II | n=1480r/min |
| a:4/3E-HH沃曼渣浆泵
a : Warman slurry pump 4/3E-HH | n=1280r/min |
| b:100ZJG- I -B42给料渣浆泵
b : Feed slurry pump 100ZJG-I-B42 | n=1480r/min |

6.选项说明 Introduction

本泵为压入式吸入泵，吸程小，建议入料液面高于泵的中心高。进出口管道直径一般与泵的进出口直径相同或稍大，因浆体浓度大多较高，故泵进口管路不宜过长，以免影响吸料。

与其它一般性输送用泵区别很大：一般性输送用泵的选型，主要是选用某条流量、扬程曲线上的某个点或很短一段曲线所对应的性能。而压滤机的工作特性是：滤室内滤饼的逐渐形成，入料阻力也随之加大，要求喂料泵从起始时的大流量、低扬程自行过渡到末期的小流量、高扬程。反映到曲线上是需要较长的甚至一条较完整的而且是越陡越好的流量、扬程曲线。除此特性外，还要求泵工作在高压时，不用轴封水和无泄漏，为建设环保工厂创造条件。

喂料泵的最大功率损耗在喂料的初始阶段，所以要详细计算由喂料泵往压滤机注浆的最小压力，然后按该最小压力对应的该泵的流量、扬程配用功率。如此较为准确、节约。

由于各工厂压滤系统的实际布置差异，当喂料泵与压滤机之间的沿程阻力较大时（如：泵距压滤机较远、管道直径偏小、弯头与闸门较多、浆液粘度较大等），会增加喂料泵的扬程损失，降低成饼压力。滤饼水分偏高与单循环时间拉长，导致系统的生产效率大为降低，所以必须要合理的管路配置。

本资料所列主要技术参数为泵在1480r/min时的数据，对于要求压力低的工况，可适当降低泵转数来解决，只提供几个直联传动的基础尺寸，因地形限制或改变泵转数需要皮带传动的基础尺寸，由现场提供具体数据另行设

计。皮带传动方式一般有尾架式、平行式、背托式传动。

As a forcing suction pump, its suction height is low. Therefore, the level of feed liquid should be higher than the center height of pump. Besides, the diameter of inlet and outlet pipes are generally the same with or larger than that of the pump, and the slurry density is high, thus in order to avoid affecting feeding the inlet pipe of pump should not be too long.

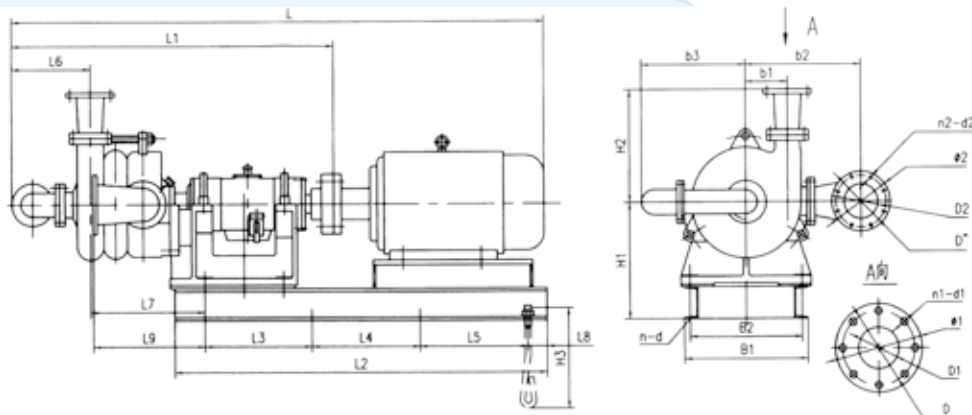
The pump is quite different from the common delivery pump. As for common delivery pump, the performance corresponding to some point or some short curve on the flow rate curve and will be selected. While the operating characteristic of filter press is: with the formation of filter cake, feed resistance has become larger and larger. Therefore, the feed pump is required to transmit itself from large flow rate and low head at the beginning to low flow rate and high head at the end. It is a longer, even a full flow rate and head curve on the curve chart, which is the steeper the better. Besides, the pump is required no shaft seal water, no leakage when the pump works under high pressure, which provides conditions for building environmental factory.

The max power consumption of feeding pump is in initial stage and so minimum pressure of slurry injecting from feed pump to filter press should be calculated in detail and then the pump power is mated by the flow rate and head corresponding to the minimum pressure, which is more accurate and saving.

Considering the arrangement differences of filter press systems in factories, when on-way resistance between feed pump and filter press is larger (for example, there is a long distance between pump and filter press, diameter of pipe is smaller, calculated in detail and then the pump power is mated by the flow rate and head corresponding to the minimum pressure, which is more accurate and saving, slurry viscosity is higher, etc.), the loss of head of feed pump may be enlarged and the pressure for cake formation may be reduced. Also production efficiency may be greatly reduced due to higher moisture of filter cake and longer time of single cycle, so it is necessary to arrange pipeline reasonably.

Main technical parameters in this book are obtained when pump is in 1480r/min. Reducing the revolution of pump properly can fit low pressure working condition. We only provide several foundation dimensions for direct connection drive. Dimensions of belt drive due to the topographic constraint and revolution change shall be designed according to the specific data from worksite. Belt drive generally includes tail bracket drive, parallel drive and back-up drive.

7. 安装尺寸图 Installation dimension drawing



8. XPA(2) 橡胶渣浆泵安装图与尺寸 Installation drawing and dimension of rubber slurry pump XPA(2)

型号 Model	电动机 Motor	L	L1 L2	L3 L4	L5 L6	L7 L8	L9 H1	H2 H3	b1 b2	b3	B1 B2	φ1 φ2	D1 D2	D' D''	n1-d1 n2-d2	n-d
XPA(2)-50	Y225S-4 37KW	2133	1313	480	480	467	492	460	188	450	550	185	80	150	4-φ18	8-φ30
	Y225M-4 45KW	2158	1680	480	295	85	514	350	498	500	205	100	170	4-φ18		
XPA(2)-65	Y225M-4 45KW	2200	1355	480	480	469	495	460	188	434	550	215	100	180	4-φ18	8-φ30
	Y250M-4 55KW	2285	1680	480	330	85	514	350	498		500	205	100	170	4-φ18	
XPA(2)-75	Y250M-4 55KW	2368	1438	480	480	503	500	490	188	465	550	215	100	180	8-φ18	8-φ30
	Y280S-4 75KW	2438	1680	480	350	85	514	350	518		500	260	150	225	8-φ18	
XPA(2)-100	Y280S-4 75KW	2634														
XPA(2)-100- I	Y280M-4 90KW	2684	1634	510	510	565	536	520	203	570	550	280	150	240	8-φ23	8-φ30
	Y315S-4 110KW	2834	1805	510	399	115	514	400	578		500	260	150	225	8-φ18	

XPB型合金渣浆泵 Alloy Slurry Pump of Type XPB

1. 产品简介 Product introduction

XPB型渣浆泵分为悬臂、卧式离心渣浆泵。适用于冶金、矿山、煤炭、电力、建材等工业部门输送强磨蚀、高浓度渣浆。该泵型也可以多级串联使用。

XPB type slurry can be divided into cantilever and horizontal centrifugal slurry pump, which are applied in metallurgy, mine, coal, electrical power and building materials to convey slurry with high abrasion and concentration. This kind of pump is also used in multilevel series.

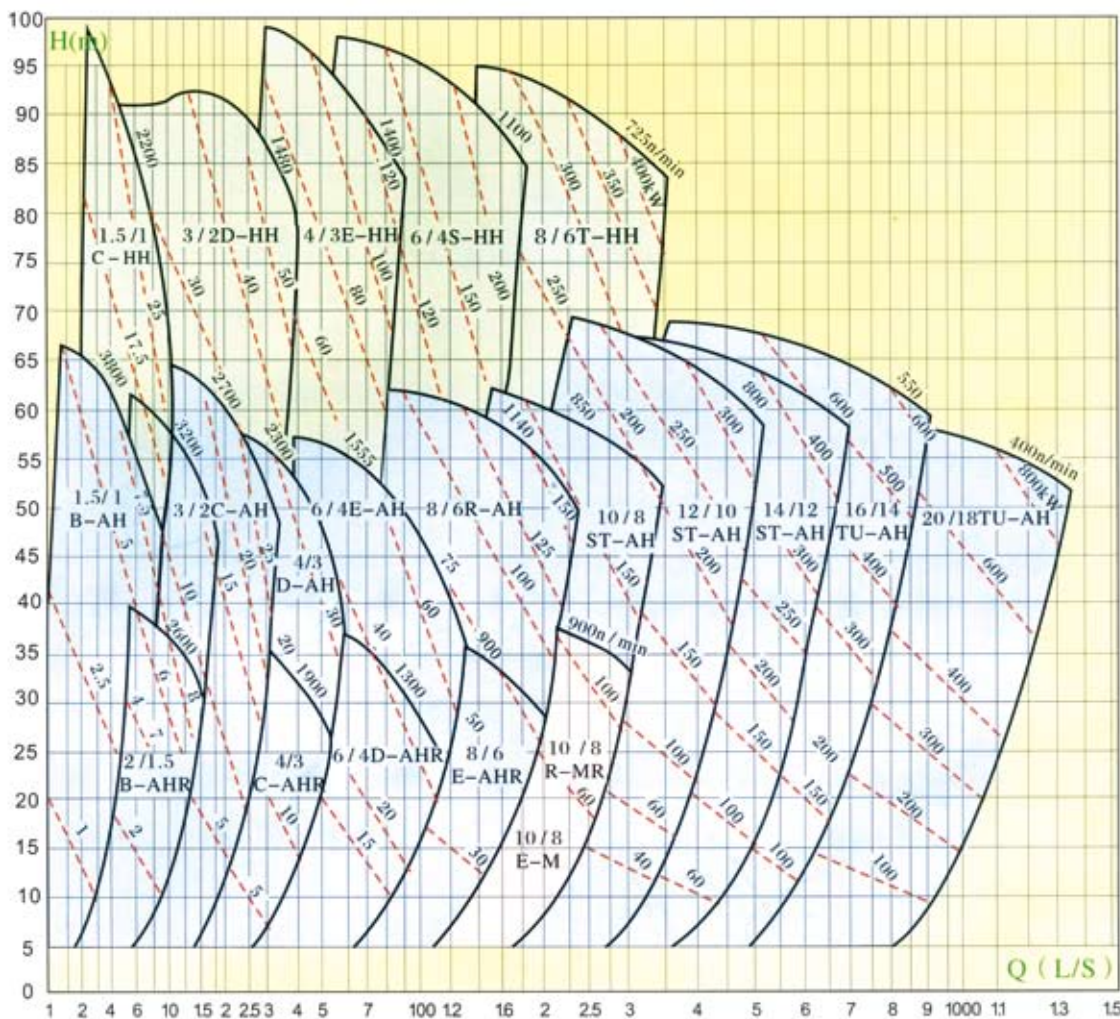


XPB型合金渣浆泵
Alloy Slurry Pump of Type XPB

2. 型号标识举例 Model example

XPB3/2C-AHR	C:托架形式	XPB3/2C-AHR	C:Bracket type
XP-鑫海渣浆泵	AH:具体泵型	XP-Xinhai Pump	AH:Specific
B-B系列	R: 橡胶过流件	B-BSeries	R: Rubber flow passage Component
3-泵进口直径	无R: 合金过流件	3-Inlet dia of Pump	No R: Alloy flow passage Component
2-泵出口直径		2-Outlet dia of Pump	

3. XPB型合金渣浆泵曲线 Alloy slurry pump curve of type XPB



注：清水近似性能，仅供初步选型使用。
NOTE: Approximate performance for clear water, to be used for primary selection only.

XPC型合金渣浆泵 Alloy Slurry Pump of Type XPC

1.特点和用途 Features and applications

XPC型泵为单级、单吸、悬臂卧式离心渣浆泵。该系列泵采用国际上先进的固液两相流理论，按最少损失原则设计，其过流部件的几何形状符合介质的流动状态，减少了涡流和撞击在局部与沿程中造成的水力损失，从而减轻了过流部件的磨损，提高了水力效率，降低了运行噪音和振动；该型泵过流部件采用高合金铸铁，其材质具有高抗磨性、抗腐蚀性、抗冲击性能，从而使其寿命提高。此外，该型泵采用动力降压，保证了浆体不易泄漏。

XPC合金泵可广泛适用于矿山、冶金、电力、煤炭、化工、建材等行业，输送含有固体颗粒的腐蚀性和磨蚀性浆体，其固液混合物最大重量浓度：灰浆45%、矿浆60%。该型合金泵规格齐全，可采用直联、皮带、液力耦合器、变频调速等传动形式，亦可根据用户需要串联或并联运行。

XPC type pumps are single stage, single suction and cantilever horizontal centrifugal slurry pump. This kind of pump adopts advanced solid & liquid two phase flow theory and is designed according to the minimum loss principle, and the geometrical shape of its flow parts which is in keeping with the flowing state of medium, thereby which reduces hydraulic loss caused by vortex and knock in the local and along the course and then reduces the wear of the flow parts, increase the hydraulic efficiency, reduces running noise and vibration; the flow parts of the pump adopts high hard alloy cast iron, which has high wear resistance, corrosion resistance and impact resistance, thus makes the service life longer. What's more, it adopts power depressurization, which ensures the slurry is not easy to leak.

XPC alloy pump can be widely used in mine, metallurgy, electrical power, coal, chemical engineering and building materials, also can convey the corrosive and abrasive slurry with solid particle size, its maximum weight concentration of solid-liquid mixture are: mortar 45%, slurry 60%. This kind of alloy pump has a complete range of specifications, so the drive style can adopts direct connection, belt, fluid coupling and frequency control of speed, also can adopts series connection or parallel connection as customers required.

2.型号标识举例 Model example

200XPC- I -A60

200——泵出口直径 (mm)

XP——鑫海渣浆泵

C——系列号

I —— I 为一级泵或单级泵

(II 为二级泵)

A——叶轮叶片数目 (见下表)

60——叶轮直径 (cm)

200XPC- I -A60

200——pump outlet diameter (mm)

XP——Xinhai pump

C——serial number

I —— I refers to one stage pump or single pump

(II refers to two stage pump)

A——impeller blade number(see following table)

60——impeller diameter (cm)

代号Code name	A	B	C	D	E	F	G	...
叶片数目Blade number	5	4	3	2	1	6	7	...

规格 specs	40xpc	50xpc	80xpc	100xpc	150xpc	200xpc	250xpc	300xpc
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XPC型合金渣浆泵
Alloy Slurry Pump of Type XPC

XPD型合金渣浆泵 Alloy Slurry Pump of Type XPD

1.特点和用途 Features and applications

为了满足电力、冶金、煤炭等行业需要，针对除灰除渣及渣浆输送工况的特点，在几十年渣浆泵设计制造经验基础上，广泛吸取国内外先进技术和研制成果，我厂开发了最新一代大流量、高扬程、可多级串联的XPD系列渣浆泵。该系列产品的主要优点如下：

- 采用现代CAD设计方法，水力性能优良，效率高，磨损率低；
- 流道宽畅，抗堵塞性能好，汽蚀性能优越；
- 采用付叶轮加填料组合式密封和机械密封，确保渣浆无泄漏；
- 可靠性设计，保证了整机平均无故障工作时间（MTBF）大幅度提高；
- 采用稀油润滑公制轴承，合理设置润滑与冷却系统，保证轴承在低温下运行；
- 过流部件采用特殊材质，耐磨耐腐蚀性能好；经特殊处理，用于海水除灰及海水和盐雾电化学腐蚀工况；
- 在允许的压力范围内可以多级串联使用，其允许最大工作压力为3.6Mpa。

该系列渣浆泵产品具有结构合理、效率高、运行可靠和维修方便等优点，广泛适用于电力、冶金、矿山、煤炭、建材、化工等工业部门输送磨蚀性或磨蚀性渣浆，特别是电厂灰渣。

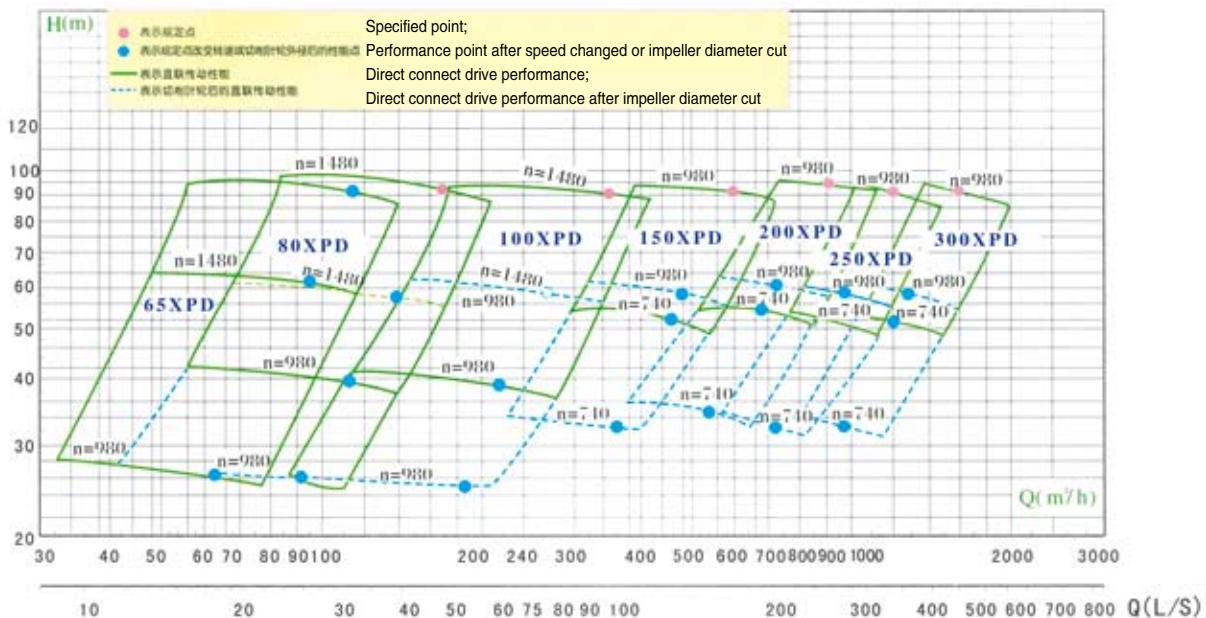
In order to fulfill the needs of the development in electric power, metallurgy, coal industries, specific to the features of ash removal, slag removal and slurry conveying, basing on several decades of the experience of slurry pump design and manufacture, and absorbed advanced technology and research findings widely from home and abroad, we have developed a new generation of XPD multi-stage alloy pump in series with a large flow and a high head. The major advantages are as follows:

- CAD design, fine hydraulic performance, high efficiency and low abrasion;
- Spacious flow passage, good anti-blockage performance, outstanding anti-cavitations performance;
- Use combined seal(expeller plus packing)and mechanical seal, ensuring no leakage of slurry
- Reliable design, increase the mean time before failure (MTBF) of the complete machine greatly.
- Thin oil lubricated metric bearings and reasonable set of lubricated and cooling system keep the bearing running in cold temperature.
- Flow parts adopt special material, which has good wear resistance and corrosion resistance; through special treated, used sea water ash removal and salt fog electrochemical corrosion;
- Multi-stage in series can be adopted in allowable pressure, and the maximum working pressure is 3.6Mpa.



XPD型合金渣浆泵
Alloy Slurry Pump of Type XPD

2.XPD型渣浆泵曲线图 Curve of slurry pump XPD



XPE/ZA、ZE、ZAO系列石油化流程泵

Petrol-chemical Process Pumps XPE ZA, ZE and ZAO

1. 产品简介 Product introduction

ZA、ZE、ZAO系列石油化流程泵设计、制造执行AP1610和VDMA24297范围。

ZA、ZE、ZAO系列石油化流程泵是消化吸收国外先进技术并结合国内外工业发展方向开发的用于替代进口泵、IH标准化工泵、CZ标准化工泵、AY离心油泵的新一代高可靠性、节能环保产品。

The design and manufacture of ZA, ZE and ZAO series petrol - chemical process pumps are in accordance with standard AP1610 and VDMA24297.

ZA, ZE and ZAO series petrol-chemical process pumps are the new generation environmental protection products with high reliability and energy-saving, which absorbed advanced foreign technology and combined with industry developing direction at home and abroad, and replaced the imported pumps, IH standard chemical pumps, CZ standard chemical pumps, AY centrifugal oil pumps.



XPE/ZA、ZE、ZAO系列石油化流程泵
Petrol-chemical Process Pumps of Series XPE/ZA,
ZE and ZAO

2. 主要用途

- 石油炼制
- 石油化学工业
- 造纸业
- 环保工程
- 制糖业
- 电力工程
- 石油化工精制
- 煤加工工程
- 制药业
- 供水供暖工程
- 海上工程

3. 输送介质

- 各种温度和浓度的硫酸、硝酸和磷酸等无机酸和有机酸溶液
- 各种温度和浓度的氢氧化钠和碳酸钠等碱性溶液
- 各种盐溶液
- 各种液态石油化工产品
- 有机化合物以及其它有腐蚀性的液体

4. 性能范围

ZA: 口径25~400mm

(ZAO)流量Q: 2.5~26003/h

扬程H:16~250mm

工作压力P:2.5MPa

工作温度T:-80℃~+450℃

ZE: 口径25~400mm

流量Q: 2.5~26003/h

扬程H:16~250mm

工作压力P:5.0MPa

工作温度T:-80℃~+450℃

Application

- Petroleum refining
- Petrol-chemical industry
- Paper industry
- Environmental protection engineering
- Sugar industry
- Power engineering
- Petrochemical refining
- Coal processing industry
- Pharmaceutical industry
- Water and heat supply engineering
- Marine engineering

Pumped medium

- Organic acid and inorganic acid: Sulphuric acid, nitric acid, hydrochloric acid and phosphoric acid at various temperature and concentration.
- Alkaline solution like sodium hydroxide and sodium carbonate at various temperature and concentration.
- All kinds of salt solution.
- Various liquid petrochemicals
- Organic compounds and other corrosive liquid.

Performance range

ZA: diameter: 25~400m

(ZAO)Flow rate: 2.5~2600m³/h

Head : 16~250m

Pressure : 2.5Mpa

Temperature : -80℃ to +450℃

ZE: Diameter: 25~400m

Flow rate: 2.5~2600m³/h

Head : 16~250m

Pressure : 5.0Mpa

Temperature : -80℃ to +450℃

XPE/CZ型化工流程泵 Petrol-chemical Process Pumps XPE/CZ

1. 产品简介 Product introduction

CZ系列标准化工泵是卧式、单级、单吸离心泵；其尺寸和性能符合DIN24256/ISO2858标准。

CZ系列标准化工泵的性能范围包括了IH系列标准化工泵所有性能，其效率，汽蚀性能等指标均超过IH型泵，可与IH型泵进行单机互换。

The standard chemical pumps of series CZ are horizontal type, single-stage and single-suction centrifugal pumps, whose dimensions and performances are up to tight the standard of DIN 24256/ISO2858.

Series CZ standard chemical pumps have all functions that IH type pump has, and its indexes of efficiency and cavitation performance are both higher than that of IH pump. Also, the single pump of the two types can be exchanged.



XPE/CZ型化工流程泵
Petrol-chemical Process Pumps
XPE/CZ

2. 用途

输送低温或高温液体；中性或有腐蚀性液体；清洁或内含有固体颗粒的液体。特别应用于：

- 化学和石油化学工业
- 炼油厂
- 造纸厂和纸浆业
- 制糖业

3. 设计特点

作用于轴封处的压力由副叶片或叶轮上的平衡孔平衡。轴封既可采用软填料密封（可冷却，也可不冷却），也可采用各种结构的单、双端面机械密封（可采用平衡型）。滚珠轴承经久耐用，轴径尺寸充裕，以保证运行平稳。部分规格的泵体设计成双蜗壳体，以平衡径向力。轴承架，包括轴、叶轮、填料箱等形成一个组合部件，使泵体在维修时不需从管道上拆下（如果采用加长联轴器时，电机也不必拆下）。

法兰设计采用PN16/PN25两种（依据材料的差别）。而且，也可适用于ANSI125磅/吋²或150磅/吋²。

4. 性能

- 口径 DN 32-300mm
- 流量 (Q) 可达2000m³/h
- 扬程 (H) 可达160m
- 工作压力 (P) 2.5MPa
- 工作温度 (t) -80℃~+300℃

特性曲线平坦，汽蚀值低，效率高。在不满负荷时，也保持这些特性。

5. 输送介质

各种温度和浓度的硫酸、硝酸、盐酸和磷酸等无机酸和有机酸。

各种温度和浓度下的氢氧化钠和碳钠等碱性溶液。

各种盐溶液。

各种液态石油化工产品、有机化合物，以及其它有腐蚀性的原料和产品。

目前我厂的耐腐蚀材料，能满足上述各种介质的要求。订货时，请用户提供所要输送介质的详细情况。

说明：*订货合同在泵型上还应注明叶轮型式，例如：选CZ40-250，叶轮型式为A，应写为CZ40-250A。

*表中有流量、扬程值而无功率值的泵，需订货时当面确定。

Applications

Convey low or high temperature liquid, neutral or corrosive liquid and clean or solids-laden liquid. Especially for:

- Chemical and petrochemical industries
- Refineries
- Pulp and paper mills
- Sugar industry

Design features

The pressure acting on the shaft seals is compensated by means of back blade or bores on the impeller. The shaft adopts either soft packing (cooled or not cooled) or mechanical seal of single or double face seal with various structures (balanced mechanical seal can be adopted). Antifriction bearings designed for long durability and an amply dimensioned shaft ensure a particularly smooth running. For some sizes, the volute casings are designed with double volute to compensate the radial forces. The bearing frame and an assembling part that includes shaft, impeller and stuffing box enable pump body stay on pipework during maintenance. (if a extended coupling is adopted, the motor needn't be removed, either.)

Flanges are normally rated to PN16 or PN25 (depending on the material). what's more, they can also be the same with ANSI125 lbs or 150lbs.

Performance

- Size 32-300mm
- Maximum flow rate 2000m³/h
- Maximum head 160m
- Operating pressure 2.5Mpa
- Operating temperature -80℃ to +300℃

Stable characteristic curve, low NPSH and high efficiency. All the characteristics can be kept in sub-load.

Pumped medium

- Organic acid and inorganic acid: Sulphuric acid, nitric acid, hydrochloric acid and phosphoric acid at various temperature and concentration.
- Alkaline liquid like Sodium hydroxide and sodium carbonate at various temperature and concentration.
- All kinds of salt solution.
- Various liquid petrochemicals, organic compounds and other corrosive materials and products.

At present, our anti-corrosive materials can meet all the requirements of the medium mentioned above. If you would like to order, please provide us the details of the medium.

Note:

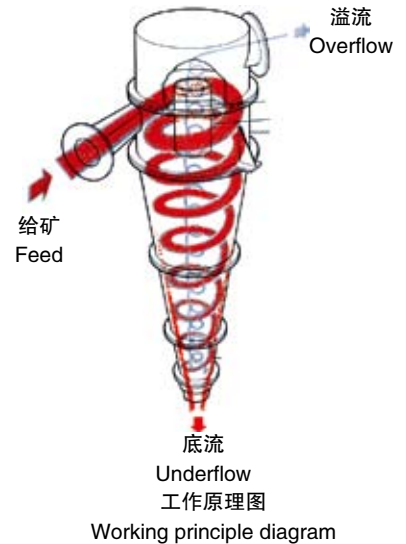
* the type of impeller shall be marked in ordering contract. For example, if the pump type is CZ40-250 and the impeller type is A, the correct model should be CZ40-250A.

* Confirm clearly when ordering if there is flow rate and head value, but no power value in the list.

鑫海耐磨旋流器 Xinhai Anti-abrasion Cyclone

1. 旋流器工作原理 Cyclone operating principle

旋流器作为一种常见的分离分级设备，其工作原理是离心沉降，当待分离的两相（或三相）混合液以一定压力从给矿口进入旋流器后，产生强烈的三维椭圆型强旋转剪切旋流流动。由于粗颗粒（或重相）与细颗粒（或轻相）之间存在粒度差（或密度差），在离心力、向心力、浮力、流体阻力等作用下大部分粗颗粒（或重相）按螺旋轨迹下旋到底部，作为沉砂从沉砂口排出。细颗粒（轻相）在中心形成内螺旋矿流向上运动，作为溢流从溢流管排出。



Cyclone is a kind of common separating and classifying equipment, which the operating principle is centrifugal settling. The three dimensional elliptic heavy-spinning action is caused by two-phase (or three-phase) mixed flow through the inlet branch to the cyclone under certain pressure. For there are size (or density) differences between coarser particles (heavy phase) and finer particles (light phase), under the force of centrifugal force, centripetal force, buoyancy force and fluid resistance, the bulk of coarser particles (or heavy phase) spirals down to the spigot and leaves the cyclone as underflow through the spigot and finer particles (light phase) spirals upwards and leaves the cyclone as overflow through the vortex finder.

2. 鑫海耐磨旋流器品种介绍 Introduction of types

鑫海公司利用耐磨橡胶做内衬制作的水力旋流器分为常见类和专用类两大类型，几十个规格，这些旋流器的筒体全部分段制造，便于拆装和更换。

Xinhai hydrocyclone lined with anti-abrasion rubber has common and special types, dozens of different specifications. All cylinders are manufactured section by section, for easy installation and replacement.

3. 鑫海耐磨旋流器品种简单分类 Xinhai anti-abrasion hydrocyclone

类型 Type	简单分类 Model	特点 Feature
常见类 Common	XC I	一种给矿口、沉砂嘴均可调的新型高效旋流器。 A new type efficient cyclone with adjustable feed port and spigot
	XCII	给矿沿渐开线方向给入，分级效果较好。 Involute feeding, sharper classification.
	XC III	带鱼尾装置和虹吸装置，适用于脱水、浓缩、分级，特点是可通过调整虹吸装置，既可达到从鱼尾装置排出的底流浓度变化，又可获得较高的和一定范围内恒定的底流浓度。用作脱水时，溢流有时可调整达到澄清状。 With fishtail and siphon device. Applicable for dewatering, thickening and classifying. The feature is through the adjustment of siphon equipment, fishtail discharge underflow density is changeable, and it can give a higher fineness and a stable density under a certain range. The overflow can be adjusted to clear when dewatering.
	XCIV	沉砂嘴可根据需要随时连续调整，特别适用于细粒分级或对溢流细度要求较严的情况下。 Continuous adjustment on spigot when need is available. Especially applicable for fine particle classification and strict requirement on overflow fineness.
专用类 Profession	重介质旋流器 Heavy medium cyclone	特别适用于煤炭行业按比重选煤用。 Suitable for coal selecting by specific gravity in coal industry
	XC3W型无压给料三产品 Un-pressurized feed three products	入选粒度范围宽，入选粒度高，分选粒度效果好，分选精度高，易于实现自动化控制。 Wide selected particle size range, high selected limit, excellent separation results, high separation precision, easy to achieve automation.
	XC3Y型有压给料三产品 Pressurized feed three products	分选效率和分选精度高，处理能力大，分选下限低。 High separation efficiency and precision, large processing capacity, low separation limit
	XC2W型无压给料两产品 Un-pressurized feed two products	结构简单、操作方便、过粉碎少、次生煤泥少、分选效率高。 Simple structure, easy to operate, less over crushing and secondary coal slurry, high separation efficiency.
	XC2Y型有压给料两产品 Pressurized feed two products	入选上限高、分选效率高、精度高、数量效率>95%， $E_p \leq 0.03$ 。 High selected limit, separation efficiency and precision, quantity efficiency > 95%, $E_p \leq 0.03$

XC | 型水力旋流器 Hydrocyclone XC |

★一种给矿口、沉砂嘴均可调的新型高效旋流器

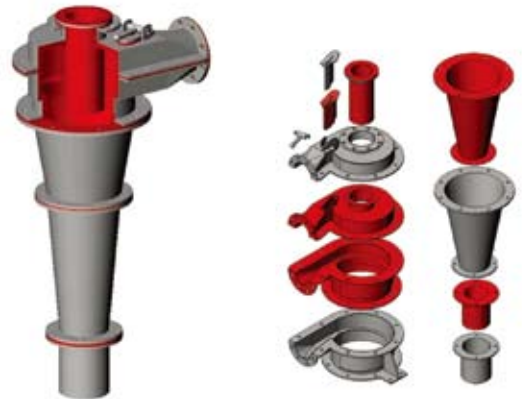
鑫海 | 型水力旋流器，是鑫海公司运用CFD（流体动力学电脑计算系统）模型和三维模型分析系统等专业的设计理论，研发成功的具有世界先进水平的一种高效水力旋流器。更适合于分级、脱水作业。

鑫海 | 型水力旋流器锥体部分有10°、15°、20°三种角度形式可供选用。

★A new type efficient cyclone with adjustable feed port and sand settling mouth

Xinhai | type hydraulic cyclone, developed by Xinhai company using CFD (computational fluid dynamics) model, three dimensional analysis system and other professional design theory, is a kind of highly effective hydraulic cyclone reaching world leading level. the feeding type along the direction of underflow outlet in the axial direction

Xinhai | type hydraulic cyclone has three kinds of angles—10°, 15°, 20° for you to choose in the cone part.



XC | 型鑫海耐磨水力旋流器
Hydrocyclone XC |

特点 Features

- 采用了三维蜗形进料结构，实现了圆周和轴向三维给料，消除了物料进入旋流器后，在溢流管附近产生的紊流干扰，加速了粗物料向底流口方向的旋流，避免给料急促的回转，更有利于提高分级效率；
- 方形管状给料形式，使物料更加接近旋流器内壁，给矿的阻力最小，使物料的发散力最大，对进料箱的磨损最轻；
- 独一无二的给矿口楔形调整装置，可在线快速调整旋流器入口的尺寸，提高了旋流器的分级效果；
- 楔形调整阀片，使入口管部分增加了可更换的部件，而不需更换旋流器的整个衬套；
- 鑫海高耐磨橡胶内衬卓越的耐磨性能，能大大地降低使用成本，同时为您的旋流器更长时间保持内部流道形状和尺寸，从而保持稳定的分级效率；
- 可提供模压高耐磨橡胶衬套和冷粘高耐磨橡胶衬套，使用寿命长；
- 专用的旋流器选型软件，能够快速准确地进行选型。

● It adopts three dimensional snail type feeding structure, achieves three dimension feeding from circle and axis direction, eliminate the confused flow disturb nearby the overflow tube after materials gets into the cyclone, speeds up the swirl flow of rough materials towards the underflow outlet, avoids gyre caused by pressing feeding, good to improve the classifying efficiency.

● Square tube feeding type makes materials closer to the wall of the cyclone, and causes least resistance to minerals and largest radiation strength, and least abrasion to the feeding box.

● The unique cone adjusting device at the feeding inlet can adjust the size of the cyclone inlet to improve the classifying efficiency.

● The cone-adjusting valve increases number of changeable parts in the inlet tube, avoiding the trouble of changing the whole liner of the cyclone.

● The excellent Xinhai highly wearing rubber liner will greatly reduce the producing expense and meanwhile it can help your cyclone to keep the dimension and shape of the internal flowing tube, so as to keep stable classifying efficiency.

● We can also provide model pressed highly wearing rubber liner, to increase the service life.

● A professional cyclone selection software will help you to choose a correct type rapidly.

技术性能参数 Technical and capacity parameters

XC | 型水力旋流器技术性能参数 Parameter of Xinhai hydraulic cyclone XC |

旋流器规格 Cyclone specs	处理能力 Capacity (m ³ /h)	分级粒度 Cut size (μm)	溢流口直径 Vortex finder(mm)	沉沙口直径 Spigot(mm)	入口压力 Inlet pressure (MPa)
150	10-23	25-74	30-50	8-22	0.060-0.15
200	17-38	28-80	40-65	16-32	0.060-0.15
250	24-53	30-82	65-100	16-40	0.060-0.15
300	40-100	36-90	65-120	20-40	0.060-0.15
350	56-118	40-100	80-120	30-70	0.060-0.15
400	74-157	42-105	90-135	30-70	0.060-0.15
450	90-192	44-110	100-150	30-70	0.060-0.15
500	128-300	50-115	130-220	35-100	0.060-0.15
550	155-368	52-120	140-240	35-100	0.060-0.15
610	200-468	57-125	160-260	65-110	0.060-0.15
660	237-524	60-130	180-280	80-150	0.060-0.15
710	285-580	63-135	200-280	120-160	0.060-0.15

XC II 型水力旋流器 Hydrocyclone XC II

★一种渐开线方向给料的旋流器

XCII型水力旋流器为鑫海耐磨公司开发的具有世界先进水平的水力旋流器，其给料口采用渐开线方向给入物料，更有利于增大物料的离心力，提高了分级效果，且大大的减轻了进料箱的磨损。

★A cyclone with involute feeding

The XC II Hydrocyclones developed by Xinhai Company which has reached world-class advanced level. Its involute feeding materials through the inlet branch increases the centrifugal force, therefore improves the classification level and reduces the wear and tear its involute feeding box greatly.



XCII型鑫海耐磨旋流器
Xinhai anti-abrasion cyclone XCII

特点 Features

- 给料口采用渐开线进料方式，降低了物料进入旋流器时，由于突然发散而产生的紊流程度，使流体在旋流器内的运动趋于平稳，提高了旋流器的分离性能；
- 给料口采用渐开线进料方式，减少了物料进入旋流器后对给矿箱的冲击磨损；
- 旋流器的柱锥段长度比例及溢流管插入深度合理，分级效率更高；
- 特别适合于分级作业。
- The way of involute feeding through the inlet branch reduces the turbulence of the burst emanative flow when materials entry, makes a smooth movement of liquid inside cyclone, therefore gives a sharp classification.
- The way of involute feeding through the inlet branch lowers the impact on feeding box when materials fling to the cyclone.
- The rational length proportion of cylinder and cone and reasonable insert depth of vortex finder result in higher classification efficiency.
- Especially suitable for classification operation.

技术性能参数 Technical and capacity parameters

XC II 型标准旋流器技术性能参数 Parameters of standard cyclone XC II

旋流器规格 Cyclone specs	处理能力 Capacity(m ³ /h)	分级粒度 Cut size (μm)	溢流口直径 Vortex finder (mm)	沉砂口直径 Spigot diameter (mm)	入口压力 Inlet pressure (MPa)
150	10-23	25-74	30-50	8-22	0.060-0.15
200	17-38	28-80	40-65	16-32	0.060-0.15
250	24-53	30-82	65-100	16-40	0.060-0.15
300	40-100	36-90	65-120	20-40	0.060-0.15
350	56-118	40-100	80-120	30-70	0.060-0.15
375	74-157	42-105	90-142	30-70	0.060-0.15
450	90-192	44-110	100-150	30-70	0.060-0.15
500	128-300	50-115	130-220	35-100	0.060-0.15
610	200-468	57-125	160-260	65-110	0.060-0.15
660	237-524	60-130	180-280	80-150	0.060-0.15

- 实际参数会随计算机选型结果的不同而变化。 Actual parameters may vary along with the computer aid selection result.

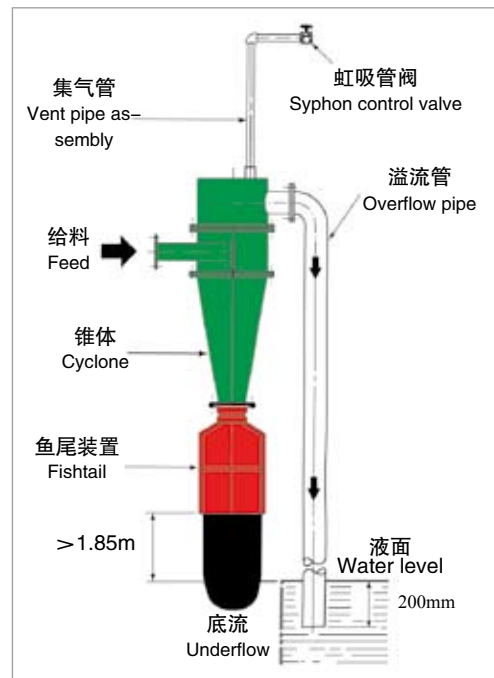
XC III 型水力旋流器 Hydrocyclone XC III

★一种底流浓度可调，并且底流浓度恒定的旋流器

XC III 型水力旋流器是鑫海公司开发的具有世界先进水平的水力旋流器，它在沉砂嘴处带有一个特殊设计的鱼尾装置，在溢流箱顶部另外带有一个特殊设计的虹吸装置，因而具有其它水力旋流器所无法比拟的优良特性，通过虹吸装置的调整，可获得较高的底流浓度和较低的溢流浓度，对于硅砂（石英砂）行业，其溢流可调整到排出的几乎是水，底流浓度最高可达到85%；另外，特殊设计的鱼尾装置可在给矿量、给矿浓度、给矿压力一定范围内波动的情况下，旋流器底流的排放浓度和溢流细度保持恒定。

★ A cyclone with an adjustable and constant underflow density

XC III Hydrocyclone is the world-class level hydrocyclone developed by Xinhai Company. Under the spigot there is a special designed fishtail and above the overflow box there is a special designed syphon regulating assembly. That is why it has the incomparable advantages. Through the adjustment of syphon regulating assembly, a higher underflow density and a lower overflow density can be achieved. For silica sand (quartz sand) industry, the overflow can be adjusted to be almost water and the underflow density can reach 85%. Additionally, the special designed fishtail can maintain a constant underflow discharge density and overflow fineness despite variations in feed volume, feed density and feed pressure in a certain range.



带鱼尾装置的XC III鑫海耐磨旋流器
Xinhai anti-abrasion cyclone XC III with fishtail

技术性能参数 Technical and capacity parameters

XC III 型标准旋流器技术性能参数表
Parameter of Xinhai hydraulic cyclone XC III

旋流器规格 Cyclone specs	处理能力 Capacity(m ³ /h)	分级点 Cut size (μm)	溢流口直径 Vortex finder (mm)	沉砂口直径 Spigot (mm)	入口压力 Inlet pressure (MPa)
50	2-3.5	10-74	11-18	4-12	0.1-0.3
75	3.7-6.6	20-74	15-20	6-12	0.08-0.25
100	5.8-9	35-75	30-40	8-18	0.06-0.15
125	12.6-19	35-75	38-60	8-20	0.06-0.15
150	15-24	35-75	38-60	8-22	0.06-0.15
225	27.7-43	40-100	57-85	16-38	0.06-0.15
250	32-53	40-100	65-90	16-40	0.06-0.15
300	45-70	45-110	65-120	25-50	0.06-0.15
380	76-120	50-110	94-152	30-72	0.06-0.15
455	128-203	60-120	114-178	50-140	0.06-0.15
500	136-215	60-120	144-180	50-140	0.06-0.15
600	206-325	65-140	178-254	82-140	0.06-0.15

●实际参数会随计算机选型结果的不同而变化。 Actual parameters may vary along with the computer aid selection result.

XCIV型水力旋流器 Hydrocyclone XCIV

★一种沉砂嘴处带有线性可调装置的旋流器

XCIV型水力旋流器为鑫海公司研制开发的一种具有国际先进水平的水力旋流器，所有过流件均采用鑫海耐磨橡胶制作。

该旋流器不仅结构尺寸合理，而且在沉砂嘴处特别设计一个可上下调整的紧缩套筒，用于精确调整沉砂嘴的长度，特别适用于细粒物料的分级和脱水，操作方便，指标波动较小。

★A cyclone with linear adjustable device at the spigot

XCIV Hydrocyclone is the world-class cyclone developed by Xinhai Company according to the Japanese technique. All rubber parts are made of Xinhai wear-resistant rubber.

The structure and size of the cyclone are rational. A special designed adjustable tube near the spigot is for spigot mouth precise adjustment, especially applicable for fine particle classification and dewatering. Also it is easy for operation and low index fluctuation.

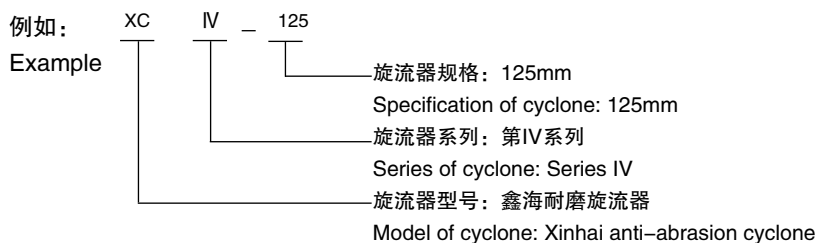


XCIV型鑫海耐磨旋流器
Xinhai anti-abrasion cyclone XC IV

特点 Features

- 特别配备的紧缩套筒，可精确地调整沉砂嘴的阻力，从而较精确地调整旋流器的分级指标。
- 结构设计合理，分级指标较高，指标波动较小。
- 特别适用于细粒物料的分级和脱水。
- A special designed adjustable tube near the spigot is for spigot outlet precise adjustment, therefore for precise adjustment of cyclone classification index.
- Reasonable structure design, high classification index and low fluctuation index.
- Especially for fine materials classifying and dewatering.

型号标识举例 Model example



技术性能参数 Technical and capacity parameters

XCIV型标准旋流器技术性能参数 Parameter of Xinhai hydraulic cyclone XCIV

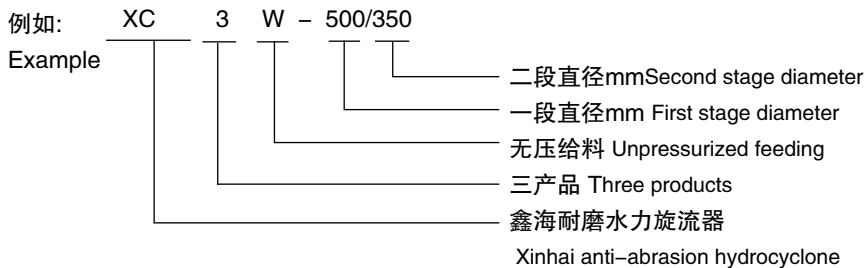
旋流器规格 Cyclone specs	处理能力 Capacity(m ³ /h)	分级点 Cut size (μm)	溢流口直径 Vortex finder(mm)	沉砂嘴直径 Spigot (mm)	入口压力 Inlet pressure (MPa)
75	5-15	25-50	10-32	5-15 15-32	0.04-0.3
150	15-70	30-60	20-50	20-58	0.04-0.3
230	20-150	35-80	58-90	30-72	0.04-0.3
300	40-250	40-90	76-120		0.04-0.25

XC3W型无压给料三产品重介质旋流器 Un-pressurized Feed Three Products Heavy Medium Cyclone XC3W

特点 Features

- 入选粒度范围宽，入选粒度上限高，分选效果好，分选精度高，易于实现自动化控制；
- 过粉碎少、次生煤泥少、排矸密度高；
- Wide selected particle size range, high selected upper limit, excellent separation results, high separation precision, easy to achieve automation.
- less over crushing and less secondary coal slurry, high refuse discharging density.

型号标识举例 Model example



技术性能参数 Technical and capacity parameters

XC3W型无压给料三产品重介质旋流器主要技术参数

Main technical parameter of unpressurized feeding three products dense medium cyclone XC3W

规格尺寸 Specification & Dimension	直径(mm) Diameter		入料粒度(mm) Feeding particle size	入料压力(Mpa) Feeding pressure	处理能力(t/h) Capacity	介质循环量(m³/h) Medium circulating load
	一段First stage	二段Second stage				
XC3W 500/350	500	350	≤20	0.05-0.08	35-50	140-180
XC3W 600/400	600	400	≤30	0.06-0.10	50-80	180-300
XC3W 710/500	710	500	≤35	0.08-0.12	80-120	300-420
XC3W 780/550	780	550	≤40	0.09-0.13	100-150	420-540
XC3W 850/600	850	600	≤45	0.10-0.14	120-180	480-620
XC3W 900/650	900	650	≤50	0.12-0.16	140-200	560-700
XC3W 1000/710	1000	710	≤55	0.15-0.18	180-230	700-800
XC3W 1100/780	1100	780	≤60	0.18-0.22	220-280	800-1100
XC3W 1200/850	1200	850	≤70	0.20-0.28	260-350	1100-1400
XC3W 1300/920	1300	920	≤80	0.22-0.30	320-400	1400-1600
XC3W 1400/1000	1400	1000	≤90	0.28-0.38	400-500	1600-2000
XC3W 1500/1100	1500	1100	≤100	0.30-0.40	500-600	2000-2400

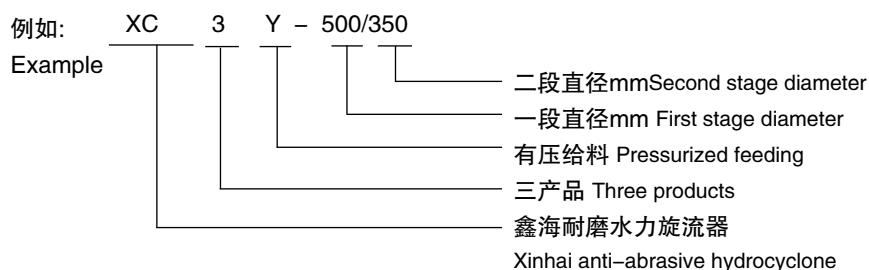
XC3Y型有压给料三产品重介质旋流器 Pressurized Feed Three Products Dense Medium Cyclone XC3Y

特点 Features

- 分选效率和分选精度高，处理能力大，分选粒度下限低；
- 溢流管、底流口直径灵活可调，可控制各产品的质量；
- High separation efficiency and precision, large processing capacity, low separation lower limit
- Adjustable overflow pipe and underflow mouth diameter can control qualities of all products.



型号标识举例 Model example



技术性能参数 Technical and capacity parameters

XC3Y型有压给料三产品重介质旋流器主要技术参数

Main technical parameter of pressurized feeding three products dense medium cyclone XC3Y

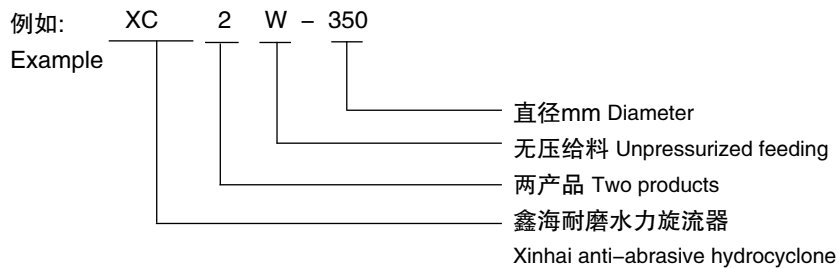
规格尺寸 Specification & Dimension	直径(mm) Diameter		入料粒度(mm) Feeding particle size	入料压力(Mpa) Feeding pressure	处理能力(t/h) Capacity	介质循环量(m³/h) Medium circulating load
	一段First stage	二段Second stage				
XC3Y 500/350	500	350	≤20	0.06-0.10	35-60	180-250
XC3Y 600/400	600	400	≤30	0.08-0.12	50-90	250-370
XC3Y 710/500	710	500	≤35	0.09-0.14	90-130	370-540
XC3Y 780/550	780	550	≤40	0.10-0.15	110-160	540-650
XC3Y 850/600	850	600	≤45	0.13-0.16	120-180	650-70
XC3Y 900/650	900	650	≤50	0.15-0.18	160-200	740-840
XC3Y 1000/710	1000	710	≤55	0.18-0.22	200-250	840-1050
XC3Y 1100/780	1100	780	≤60	0.20-0.24	240-280	1050-1250
XC3Y 1200/850	1200	850	≤70	0.22-0.28	300-380	1250-1600
XC3Y 1300/920	1300	920	≤80	0.26-0.32	350-450	1600-1900
XC3Y 1400/1000	1400	1000	≤90	0.30-0.40	450-550	1900-2300

XC2W型无压给料两产品重介质旋流器 Un-pressurized Feed two Products Heavy Medium Cyclone XC2W

特点 Features

- 结构简单、操作方便、过粉碎少、次生煤泥少、分选效率高；
- Simple structure, easy to operate, less over-crushing and secondary coal slurry, high separation efficiency.

型号标识举例 Model example



技术性能参数 Technical and capacity parameters

XC2W型无压给料两产品重介质旋流器主要技术参数

Main technical parameter of unpressurized feeding two products heavy medium cyclone XC2W

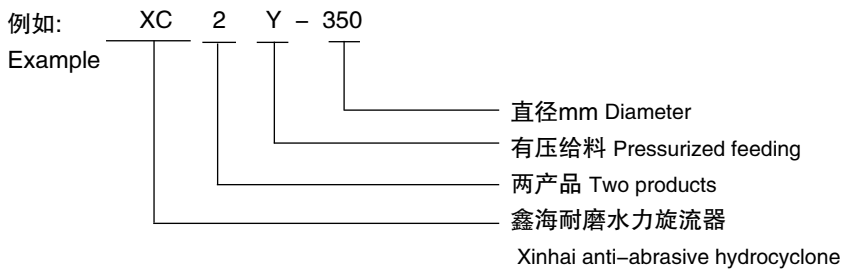
规格尺寸 Specification & Dimension	直径(mm) Diameter	入料粒度(mm) Feeding particle size	入料压力(Mpa) Feeding pressure	处理能力(t/h) Capacity	介质循环量(m ³ /h) Medium circulating load
XC2W 350	350	≤15	0.04-0.06	25-35	80-130
XC2W 500	500	≤30	0.05-0.08	35-60	130-180
XC2W 600	600	≤35	0.06-0.09	60-80	180-260
XC2W 710	710	≤40	0.07-0.10	80-110	260-320
XC2W 800	800	≤45	0.08-0.12	110-150	320-440
XC2W 900	900	≤50	0.10-0.16	150-180	440-540
XC2W 1000	1000	≤55	0.15-0.18	180-220	540-650
XC2W 1100	1100	≤60	0.16-0.22	220-250	650-800
XC2W 1200	1200	≤70	0.20-0.25	250-320	800-1200

XC2Y型有压给料两产品重介质旋流器 Pressurized Feed Two Products Heavy Medium Cyclone XC2Y

特点 Features

- 入选粒度上限高、分选效率高、精度高、数量效率>95%， $E_p \leq 0.03$ ；
- High selected upper limit, high separation efficiency and precision, quantity efficiency>95%, $E_p \leq 0.03$

型号标识举例 Model example



技术性能参数 Technical and capacity parameters

XC2Y型有压给料两产品重介质旋流器主要技术参数

Main technical parameter of pressurized feeding two products dense medium cyclone XC2Y

规格尺寸 Specification & Dimension	直径(mm) Diameter	入料粒度(mm) Feeding particle size	入料压力(Mpa) Feeding pressure	处理能力(t/h) Capacity	介质循环量(m³/h) Medium circulating load
XC2Y 350	350	≤15	0.04-0.08	26-36	100-150
XC2Y 500	500	≤30	0.05-0.10	36-60	120-180
XC2Y 600	600	≤40	0.06-0.12	50-75	150-220
XC2Y 710	710	≤50	0.08-0.12	70-140	210-400
XC2Y 800	800	≤60	0.08-0.13	140-220	400-700
XC2Y 850	850	≤60	0.09-0.13	220-280	700-880
XC2Y 900	900	≤70	0.09-0.14	280-320	880-1050
XC2Y 1000	1000	≤70	0.10-0.15	300-360	1050-1150
XC2Y 1150	1150	≤80	0.10-0.16	350-420	1150-1300
XC2Y 1200	1200	≤80	0.10-0.17	400-460	1300-1400
XC2Y 1300	1300	≤90	0.10-0.18	460-540	1400-1600
XC2Y 1450	1450	≤100	0.10-0.20	540-650	1600-2000
XC2Y 1500	1500	≤100	0.10-0.20	650-740	2000-2300

鑫海多频脱水筛 Xinhai Multi-frequency Dewatering Screen

产品介绍 Introduction

鑫海公司在脱水筛的设计方面有很多独到的技术。脱水筛的筛板主要部分在水平方向向上偏，筛板后部与主板成45°角，两个平衡的振动电机水平安装，一个在另一个上端，旋转时不平衡的重力产生的回转效果，使筛子的工作非常稳定，筛网采取嵌入式，便于安装和局部更换。

鑫海多频脱水筛结构独特，当与鑫海XC I、XC II型水力旋流器及鑫海高效多锥深锥浓密机配套使用时（详见本样本的No.4部分），会收到意想不到的效果。处理量大，脱水充分，技术经济效果显著，可广泛应用于尾矿干排、精矿脱水、炼泥浆浓缩、除屑、炭浆分离等行业。

减振采用橡胶缓冲器，筛箱侧板粘贴鑫海耐磨橡胶板，适合于恶劣的工况，并减少了铁质对物料的污染，更适宜一些非金属和湿法冶金及核工业系统。

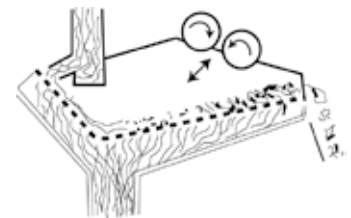
Xinhai has much unique technology on the design of dewatering screen. The main deck of the screen slopes upwards and incorporates a 45° sloping back deck section. The two parallel vibrating motors are installed horizontally and one is the top of the other. The rotation effect caused by non-balancing gravity force while rotation makes the screen operate stably. The snap-in modular screen deck panels are easily fixed and small areas of localized wear can be easily replaced.

Xinhai unique multi-frequency dewatering screen, used with Xinhai hydrocyclone XCI and XCII and Xinhai high-efficiency multi-cone thickener, will bring unimaginable effect. Large capacity, thorough dewatering, remarkable technical-economic effects and can be widely used in the industries such as dry discharge of tailing, dewatering of concentrate, thickening and trash removal and separation of carbon and pulp etc.

Rubber buffers are used to isolate live frame vibrating load. The side plates of the machine are bond with Xinhai anti-abrasion rubber and it is suitable for execrable operating condition and reduces the pollution on materials made by iron. It is particularly applied to non-metal, hydrometallurgy system and nuclear industry



脱水筛
Dewatering screen



物料脱水形式
Dewatering mode

技术性能参数 Technical and capacity parameters

鑫海多频脱水筛理论处理能力表（干料 吨/小时）

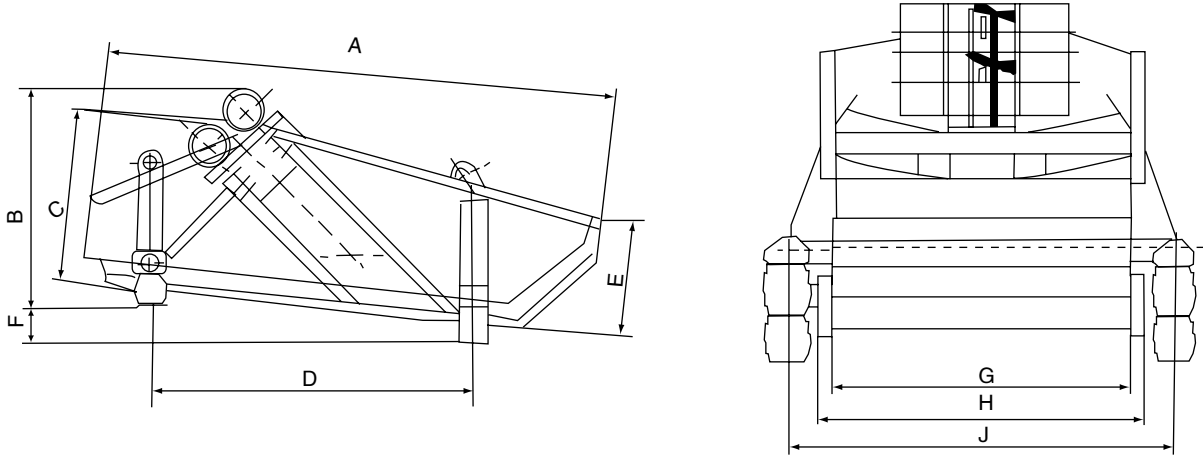
Nominal feed capacity (dry mtpH) of Xinhai dewatering screen

规格型号 Model	最低30%的固体体积给料浓度（细粒浓度要提高） Minimum feed slurry concentration 30% solids by volume (Improving the concentration if finer particles)						单台电机功率(KW) Unit motor power	
	细煤理论上-0.5+0.1mm 比重1.5 Coal fines nominal -0.5mm+0.1mm		粗砂大约-5mm100% -0.6mm50%，比重2.7 Concrete sand aprox 100% -5mm,50%-0.6mm		细砂90% -1mm比重2.7 Fine sand 90% -1mm		980rpm	1460rpm
	SG1.5		SG2.7		SG2.7			
	1460rpm	980rpm	1460rpm	980rpm	1460rpm	980rpm		
VD-6	6-8	10-13	14	28	10	21	2.2	2.0
VD-9	9-12	15-20	21	42	16	32	3.0	2.2
VD-12	15-19	24-30	33	67	25	50	5.5	4.0
VD-12L	18-24	28-35	40	80	30	60	5.5	4.0
VD-15	30-35	50-60	63	125	47	94	7.5	6.0
VD-18	35-45	60-80	77	153	57	115	7.5	6.0
VD-21	—	85-100	—	225	—	164	—	—
VD-24	—	95-110	—	250	—	190	—	—

鑫海多频脱水筛与传统脱水筛主要技术指标比较表
Comparison of main technical indicators with traditional dewatering screen

序号 No	内容 Item	筛面宽度B=1200 Screen surface width B=1200mm		筛面宽度B=1800 Screen surface width B=1800mm		筛面宽度B=2400 Screen surface width B=2400mm	
		鑫海VD12 1220X3169 XinhaiVD12 1220X3169	ZK1.2X3.0 1200X3600 ZK1.2X3.0 1200X3600	鑫海VD18 1830X3820 XinhaiVD18 1830X3820	ZK1.8X3.0 1800X3600 ZK1.8X3.0 1800X3600	鑫海VD24 2440X4865 Xinhai VD24 2440X4865	ZK2.4X5.25 2400X5250 ZK2.4X5.25 2400X5250
1	筛孔尺寸(mm) Mesh Size	条缝Slotted aperture 0.3 × 12	条缝Slotted aperture 0.5 × 12	条缝Slotted aperture 0.3 × 12	条缝Slotted aperture 0.5 × 12	条缝Slotted aperture 0.3 × 12	条缝Slotted aperture 0.5 × 12
2	筛网材料 Screen deck material	耐磨聚氨酯 Wear-resistant polyurethane	不锈钢编织 Knitted stainless steel	耐磨聚氨酯 Wear-resistant polyurethane	不锈钢编织 Knitted stainless steel	耐磨聚氨酯 Wear-resistant poly- urethane	不锈钢编织 Knitted stainless steel
3	处理能力(吨/小时) Capacity (t/h)	15-67	6-48	35-135	8-65	95-250	10-77
4	入料粒度(mm) Feed particles	-1	-1.5	-1	-1.5	-1	-1.5
5	电机功率(kw) Motor power	2 × 5.5	2 × 5.5	2 × 7.5	2 × 11	2 × 15	2 × 15
6	重量(kg) Weight	3529	3400	3500	5700	5000	8700
7	脱水特点 Charateristics	设计独特，因而特别适合处理细粒矿物，处理量大，脱水充分，技术经济效果显著。 Uniquely designed Xinhai multi-frequency dewatering screen is particularly suitable for handling fine minerals and it has the characteristics:high capacity, complete dewatering, good technical and economic effect.					
8	振动装置 Vibration device	鑫海脱水筛采用双振动电机激振，结构紧凑坚固，寿命长，克服了传统块偏心振动器结构庞大、漏油、磨损大、噪声大、不便维护的缺点。 Xinhai multi-frequency dewatering screen adopts two vibrating exciter motors with compact and robust structure, long service life, overcoming the defects of conventional eccentric block such as: large structure, oil leakage, severe abrasion, loud noise and difficult maintenance etc.					
9	筛体侧护板 Side plate	鑫海脱水筛侧板采用抗磨性能卓越的鑫海耐磨胶板，保证筛框不受磨损破坏。 For Xinhai dewatering screen, the side plates is lined with Xinhai rubber with outstanding abrasion resistance so that the screen frame can't be abraded and damaged easily.					
10	表面处理 Surface treatment	鑫海脱水筛筛体表面采用特别的化学防腐处理，更适合恶劣工况。 Xinhai dewatering screen uses special chemical antiseptic treatment and suitable for severe operating condition.					
11	减振装置 Damping device	鑫海脱水筛采用橡胶减振柱，更适合潮湿工况，既减振又经久耐用。 For Xinhai multi-frequency dewatering screen, rubber buffers are used to isolate live frame vibrating loads and provide long life and minimum maintenance and so particularly suitable for wet operation condition.					
12	筛网维护 Maintenance of screen deck	鑫海脱水筛采用嵌入式耐磨聚氨酯组合筛网（305mm × 305mm），易于安装和局部更换，寿命长。 Xinhai dewatering screen is fitted with snap-in modular screen deck panels made of wear-resistant polyurethane easy to installation and small areas of localized wear can be replaced and gives a longer service life.					

结构尺寸 Layout dimensions



鑫海脱水筛结构尺寸图
Xinhai dewatering screen layout dimension

鑫海多频脱水筛外型尺寸表

Layout dimension of Xinhai dewatering screen

型号 Model	单位 Unit	A	B	C	D	E	F	G	H	J
VD-6	mm	2227	1099	850	1403	726	n/a	610	746	980
VD-9	mm	2431	1086	870	1634	726	n/a	915	1105	1314
VD-12	mm	3169	1249	1120	1840	940	n/a	1220	1397	1650
VD-15	mm	3779	1765	1120	2426	940	235	1525	1641	1995
VD-18	mm	3779	1765	1320	2426	940	235	1830	1946	2299
VD-21	mm	4869	2440	1991	3353	1197	297	2135	n/a	2659
VD-24	mm	4869	2440	1991	3353	1197	297	2440	n/a	2964

应用实例 Application examples

国内硅质原料生产厂应用鑫海多频脱水筛，取得了意想不到的效果，例如沂南台湾玻璃硅砂矿、安徽通达石英砂矿、福建明达硅砂矿应用鑫海水力旋流器和鑫海脱水筛用于产品的脱水，其产品的含水量可降低到10%左右，而且运转平稳，故障率低。

The Xinhai dewatering screen applied in silica materials manufacture factory in domestic achieves unforeseen effect. For example Yinan – Taiwan glass siliceous sand mine, Tongda quartz sand mine in Anhui and Mingda silica sand mine in Fujian using Xinhai hydrocyclone and dewatering screen for dewatering, water content in the products can be reduced to 10% and they operate stably and failure rate is low.



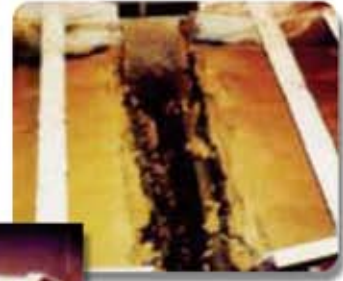
鑫海多频脱水筛使用现场
Xinhai dewatering application

您需要的，

What you need is what we can do 正是我们能做到的！

鑫海高频脱水筛脱水效果实例图片

Dewatering effect pictures of Xinhai multi-frequency dewatering screen



鑫海耐磨橡胶筛网 Xinhai Anti-abrasion Screen Deck

1. 筛网特点 Characteristics of screen deck

由于鑫海耐磨橡胶强劲的弹力，可以使物料回跳振动，从而形成一个很好的扩散层。同时强劲的弹力足以促使大颗粒的物料弹起向前运动，去寻找适合它的筛孔，而金属筛网则做不到这一点，所以橡胶筛网的筛分效率高，它的优点接近完美。

Xinhai anti-abrasion rubber has all the resilience for effective material rebound to provide efficient stratification and separation without plugging and blinding. Enough resilience can keep the over-size product airborne as the through product moving freely under it seeking openings. But wire cloth screens can't do this and so rubber screen decks provide highly efficient screening and their advantages are almost perfect.

高耐磨度 High abrasion resistance

筛分效率高 High screen efficiency

抗疲劳 Antifatigue

不堵筛网，易清洗 No block and easy to wash

抗腐蚀 Corrosion resistance

噪音低 Low noise

安装轻松方便 Handy to installation

抗冲击 Resistance to impact

抗撕裂 Resistance to tear

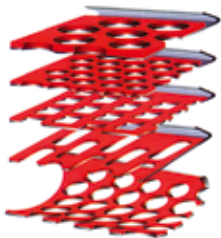
如图A所示的金属筛网，当物料尺寸与筛孔尺寸相近时，容易将筛孔堵塞而卡住。如图B所示，鑫海耐磨橡胶筛网的筛孔比下面的支撑金属板的筛孔略小，弹性橡胶强劲的弹力会将物料弹起，使筛孔以下物料过筛，大于筛孔尺寸的物料被弹起，所以鑫海筛孔不易堵塞。

With wire cloth (See A) near-size material jams in the openings and is held captive. With Xinhai screen deck(See B), the specification opening in the Xinhai that has been selected for sizing the material is slightly smaller than the opening in the supporting metal plate underneath. This overlap presents only a "live" resilient surface for particles to work against...rejecting the oversize and accepting the under-size without hesitation. The flexing properties of Xinhai screen and the specially controlled perforating technique virtually eliminate plugging and blinding.

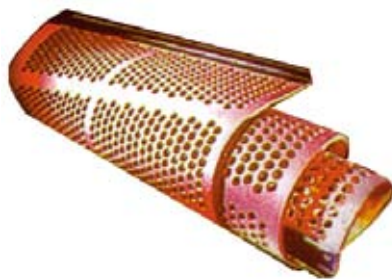
2. 筛网类型 Type of screen deck

鑫海耐磨筛网根据筛网与骨架的结合形式或大小来分，共有四类，即XH-I类、XH-II类、XH-III或XH-IV四类。

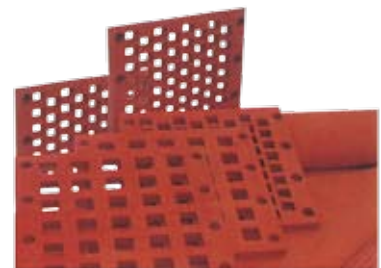
There are four types of Xinhai screen deck panels divided according to the combination mode with metal frame or size of rubber screen deck i.e. XH-I, XH-II, XH-III, XH-IV.



XH-I 类鑫海耐磨橡胶筛网
Xinhai anti-abrasion rubber
screen deck panel XH-I



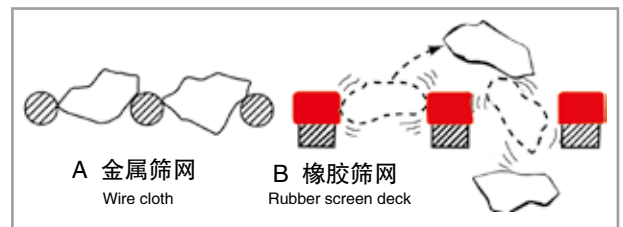
XH-II 类鑫海耐磨橡胶筛网
Xinhai anti-abrasion rubber
screen deck panel XH-II



XH-III 和 XH-IV 鑫海耐磨橡胶筛网和型材
及衬板
Xinhai anti-abrasion rubber screen deck panel,
section bar and liners XH-III and XH-IV



鑫海耐磨橡胶制作的筛网
Screen deck made of Xinhai
anti-abrasion rubber



物料通过筛网时形象比较图
Imaginal comparison of materials passing through screen deck

聚氨酯筛网 Polyurethane Mesh

分级粒度：0.1、0.2、0.3、0.5、1、2、3、4、5、6、7、8、10、12、15、18、20、25、30、35、40、45、50、55、60、80、90、100、120、150mm等。

常用孔型：长方形、方形、圆形、窄细孔形

Classifying grain size:0.1-150mm Common hole:rectangular,square,round,slotted hole.

1. 聚氨酯筛网规格说明 Specification

● 筛网分为标准型、效率型和寿命型。标准型为常用品，其筛分效率和使用寿命适中；效率型效率略高，寿命稍低；寿命型效率略低，寿命较高。

● 筛孔尺寸可根据筛分需求定制。

● Screen deck panel can be divided into standard type, high-efficiency type, long-life type. The standard type is commonly used and its efficiency and service life is modest; the high-efficiency type has higher efficiency, shorter service life; the long-life type has lower efficiency, but longer life.

● Sieve mesh can be customized by the requirements of screening.



聚氨酯筛网PU screen cloth



聚氨酯筛板
PU screen deck

2. 产品特点 Features

● 筛网纵横条均由高耐磨聚氨酯材料制成，条内含钢丝。使用寿命比传统金属筛网高3-10倍。

● 结构独特，适宜的弹性和塑性力，既可以减少卡堵，同时因筛条的二次谐波高频振动，又可减少粘度。实用开孔率高，筛分效率高。

● 筛网两侧设有弹性张紧钩，整体重量轻，柔性好，运输保管容易，安装拆卸方便。

● 筛网能有效吸收冲击，减少噪音，改善工作环境。

● The criss-cross strips of screen deck panel are made of wear resistant PU, of which is steel wire and the service life is 3-10 times higher than that of conventional wire cloth.

● Unique structure, appropriate resilience and not only can reduce the plugging and blinding, but also simultaneously reduce the sticky due to the second harmonic high-frequency vibration. High open area percentage and screening efficiency.

● Elastic tension hook fitted at the both sides of the screen deck panel, light weight, good flexibility, easy to pack, transport, fit and demount.

● Screen deck panel can effectively absorb impact and reduce noise and improve the working environment.

3. 产品用途 Use of the product

● 冶金（铁矿石、石灰石、萤石、冷却高炉渣、焦炭等原料）、有色、黄色、煤炭、化工、建材及水电工程、磨料垃圾处理、采石场等行业物料的洗矿、筛分、分级等行业。各种幅面规格和筛孔尺寸的新型结构模式筛板，尤以通用于冲击性强、硬度大、耐磨性要求高的场合。在铁矿石中细碎筛分、原煤分级、黄金、建材以及水电、核电工程砂石的筛分等用耐磨筛板。

● Materials washing, screening and sizing etc in metallurgy (raw materials of iron ore, limestone, fluorite, cooling blast furnace slag, coke etc), non-ferrous metal, ferrous, coal, chemicals, building materials industries, water and electricity projects, abrasive refuse disposal and quarry etc. The new structure of screen panel with various specifications and mesh holes is particularly suitable for where impact is strong and good hardness and excellent abrasion resistance are required. Used for the screening of fine or medium particles of iron ores, sizing of raw coal and the screening of gold, building materials, gravel in water-power engineering and nuclear power project.

浇注型聚氨酯物理指标 Physical index of CPU

指标名称 Name	单位Unit	A3	A4	A5	A6	A7	A8	A9
硬度 Hardness	邵尔Shore A	35 ± 5	45 ± 5	55 ± 5	65 ± 5	75 ± 5	85 ± 5	95 ± 5
拉伸强度 Tension strength	MPa	>8	>10	>15	>25	>30	>35	>40
撕裂强度 Tearing strength	KN/m	>8	>8	>15	>30	>50	>35	>90
300%定伸强度 300% tensile modulus	MPa	>4	>4	>5	>6	>7	>8	>12
伸长率Elongation rate	%	>100	>650	>600	>500	>450	>400	>400
永久变形Tension set	%	<15	<15	<15	<10	<10	<10	<10
阿克隆磨耗Akron abrasion loss	cm ³ /1.61km	<0.08	<0.08	<0.06	<0.05	<0.05	<0.05	<0.05
回弹 Resilience	%	>15	>15	>15	>15	>20	>25	>25
适当温度Temperature	℃				-50-100			

鑫海阀门 Xinhai Valve

我国矿山企业使用的阀门有很多种，但由于密封件及阀体材质存在问题，造成故障率很多、寿命很短，特别是“跑、冒、滴、漏”问题一直困扰着很多企业。不要小看一个小小的阀门，因为管路中的每一个控制点一般都设一个阀门，阀门一坏，生产就要停。鑫海公司充分利用鑫海耐磨橡胶的超强耐磨性、弹性、抗腐蚀性和抗疲劳等特点，研制出一系列的阀门，充分满足了广大用户不同的需求。

There are many kinds of valves used in the mines in China. But because there are some defects in the sealing parts and valve body materials, the failure rate is very high and service life is very short. Especially the problem of escaping, spewing, dropping and leaking has been puzzling many mines. Don't look down upon a small valve, if it is damaged, the production has to stop because generally every control point is equipped with a valve in the pipeline. Our company makes full use of the high abrasion resistance, high elasticity, high corrosion resistance and antifatigue etc of Xinhai rubber and has developed a series of valves to meet various requirements of the users.

鑫海耐磨夹管阀 Xinhai Pinch Valve

结构特点 Structure and characteristics

阀芯为一个耐磨的弹性橡胶软管，开关时通过使螺杆旋转时带动夹紧装置快速向中心线靠拢，使关闭阀门更可靠，速度更快且对胶管的破坏最轻。阀芯胶管采用鑫海公司利用特殊“液相纳米配方，常温高频固化”生产的超耐磨橡胶制成，弹性更好，抗疲劳更持久，耐磨程度是国产橡胶的10倍以上，壳体通常采用铸件，也可采用金属铝合金铸造而成。开启通过手动控制手轮，也可通过电动执行机构控制。

Valve sleeve is made of anti-abrasion rubber with excellent resilience. The clamps actuated by screw moves toward the center line to close or open the valve more reliably and faster and thus abrasion of the sleeve is minimum. Sleeve rubber is produced with “Liquid phase nanometer compounding, normal temperature high-frequency curing”, which has very high resilience, good resistance to fatigue, gives more than 10 times the life of domestic rubber. Usually standard bodies are made of cast iron and also are cast from aluminium alloy. The valve opens by hand wheel control or motorized control.



鑫海夹管阀
Xinhai pinch valves

特别提示 Special tips

国产胶管阀不仅不耐磨损，而且不抗疲劳，所以使用的周期更短，而鑫海耐磨橡胶则不同，既耐磨，又抗疲劳和弹性好。

The service life of pinch valves homemade is very short for its poor wear resistance, poor antifatigue. But the Xinhai pinch valves are different from them for they are wear-resistant, antifatigue and very resilient.

优点 Advantages

- 全断面：几乎没有流动阻力。
- 可更换衬套：只需简单更换衬套，阀门即完好如新。
- 绝对密封：采用弹性极好的鑫海耐磨橡胶衬套密封。
- 耐磨：采用鑫海公司利用“液相纳米配方，常温高频固化”生产的超耐磨橡胶，其寿命是国产橡胶的10~15倍，聚氨脂的3~6倍。
- 抗疲劳：鑫海耐磨橡胶抗疲劳能力强，使用更持久，这与国产橡胶的抗疲劳相比有“天壤之别”。
- 机械部分受到保护：仅有橡胶衬套接触处理物料，机械部分受到保护。
- 无密封装置：无密封装置，也就不存在堵塞问题。
- 更换：非常方便，费用很低。

- Full bore: flow resistance is negligible
- Replaceable sleeve: Simple replacement gives new lease of life to valve.
- Positive sealing: Resilient sleeve seals on solid particles
- Wear resistance: Adopting outstanding wear resistant rubber produced by Xinhai using proprietary “Liquid phase nanometer compounding, normal temperature high-frequency curing” and giving 10–15 times the life of homemade rubber, 3–6 times the life of polyurethane.
- Antifatigue: Having high antifatigue ability and being everlasting which is vastly different from homemade rubber as “between heaven and earth”
- Protected Mechanism: No gaskets required. Sleeve is the only part exposed to material handled and mechanism is protected.
- Glandless: No gasket required and no sealing problems.
- Replace: Handy and low cost to replace sleeves
- Replace: Handy and low cost to replace sleeves.

温馨提示 Warm tips

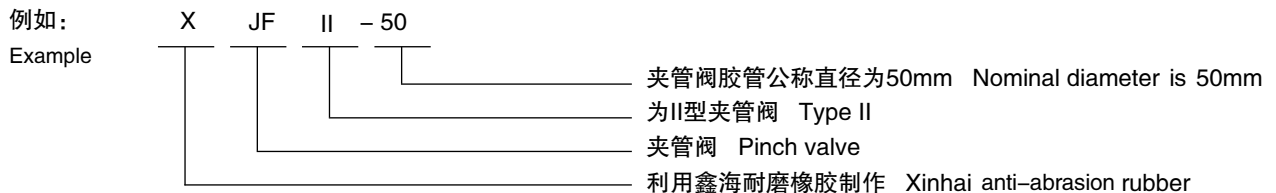
- ▲ 当您使用夹管阀时，请注意： Pay attention to the following items when you use Xinhai pinch valves:
 - ▲ 该阀门不适于在负压下工作。 Not recommended for negative pressure.
 - ▲ 不适于急剧减压。 Not recommended for severe throttling duties.
 - ▲ 衬套的最大工作压力为10.5kg/cm²，高于此压力需与我们联系。
- The sleeves are designed for pressure up to 10.5kg/cm². If the required pressure is higher than this, please contact with us.

夹管阀类型 Types of pinch valves

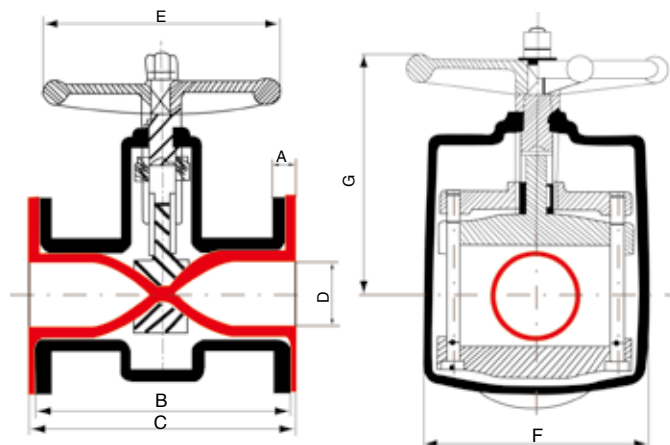
鑫海夹管阀类型分为两种，XJFI型和XJFII型，XJFI型壳体采用铸铁和铝合金铸造而成，XJFII型衬套外部除中部的开关装置采用金属外，其他部分均是鑫海橡胶管直接裸露，产品的造价更底，更换衬套方便，整个阀门的开关过程用肉眼可以看的见，结构简单易操作。

There are two kinds of Xinhai pinch valves: XJFI and XJFII. XJFI's shell is cast iron or cast aluminum alloy. XJFII is developed by our company and the outside of its sleeve is Xinhai anti-abrasion rubber pipe exposed directly to outer except the switch device in the middle part is made of metal. So production cost is lower and the sleeve can be replaced conveniently. The whole course of opening and closing the valve can be seen with naked eyes and its structure is simple and easy to operate.

型号标识举例 Model example



技术参数 Technical parameter

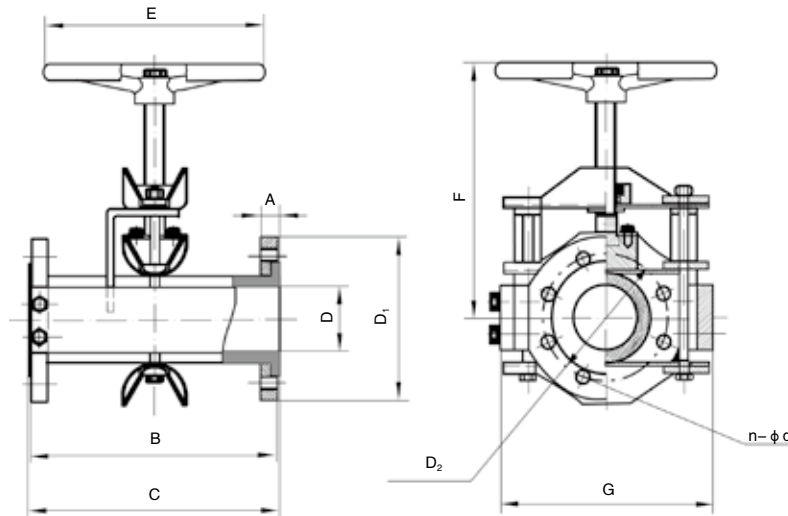


XJFI型鑫海夹管阀结构尺寸图
Structure and dimension of Xinhai pinch valve XJFI

XJFI型鑫海夹管阀结构尺寸表
structure and dimension table of Xinhai pinch valve XJFI

规格 Size	D	B	C	A	E	F	G	标准法兰 Standard flange			重量 (Kg) weight(Kg)	
								法兰直径 Flange dia	螺栓PCD Bolt PCD	螺栓孔径 Bolt dia	铝 Aluminum	铸铁 Cast iron
20	20	144	150	15	119	80	100	105	75	4—φ14	1.6	2.8
25	25	159	165	15	119	90	125	115	85	4—φ14	2.3	3.2
40	40	199	205	17	119	118	162	140	100	4—φ18	3.5	5.5
50	50	229	235	17	220	156	185	150	110	4—φ18	6.5	12.5
65	65	299	305	17	220	190	200	165	125	4—φ18	8.8	15
80	80	309	315	21	220	202	225	185	145	4—φ18	10.5	22
100	100	354	360	25	220	247	269.5	200	160	8—φ18	18.2	41
125	125	419	425	28	280	310	350	220	180	8—φ18	29	66
150	150	479	485	29	280	343	373	285	240	8—φ18	42	99
200	200	594	600	30	280	457	486.5	340	295	8—φ22	87	230

根据用户需要，可以进一步提供10"、12"、14"鑫海阀的详细资料。
We can further provide the details of Xinhai pinch valves of 10", 12", 14" according to the requirements of the users.



XJFII型鑫海夹管阀结构尺寸图
Structure and dimension of Xinhai pinch valve XJFII

XJFII型鑫海夹管阀结构尺寸表
Leading parameter table of Xinhai pinch valve XJFII

规格 Size	D	B	C	A	E	F	G	法兰尺寸 Flange dimension		
								D ₁	D ₂	n—φd
20	20	144	150	21	120	178	192.5	105	75	4—φ14
25	25	159	165	21	120	190	202	115	85	4—φ14
32	32	175	181	21	120	198.5	217	140	100	4—φ18
40	40	199	205	21	165	214	240	150	110	4—φ18
50	50	229	235	21	165	230	255	165	125	4—φ18
65	65	299	305	23	220	254	285	185	145	4—φ18
80	80	309	315	23	220	292	320	200	160	8—φ18
100	100	354	360	25	220	315	355	220	180	8—φ18
150	150	479	485	27	280	400	430	285	240	8—φ18
200	200	594	600	27	280	474	525	340	295	8—φ22

XQKF型鑫海耐磨气控夹管阀 Xinhai Anti-abrasion Air Control Pinch Valve XQKF

1. 工作原理 Working principle

鑫海耐磨气控夹管阀的橡胶管套由高弹性、高耐磨的橡胶模压而成。利用阀体同橡胶管套间的气压或水压，使管套变形合拢将流体截断，实现远程控制，自动化控制。

The rubber sleeve of Xinhai air control pinch valve is moulded by high elastic and high wearable rubber. The air pressure or water pressure between valve body and rubber sleeve forces the sleeve to close to cut off the liquid to realize the remote control or automatic control.

2. 优点 Advantages

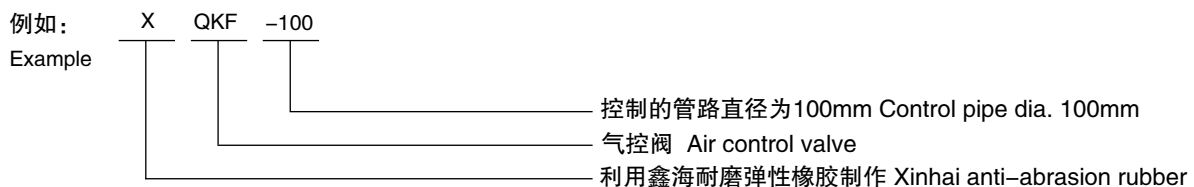
- 高耐磨损，耐腐蚀
- 无压力损失、无堵塞、无泄漏，防水锤冲击
- 特别适合于含颗粒的液-固及气-固二相流
- 橡胶管套带有纤维增强结构，耐磨、抗疲劳
- 开启时，介质全断面流动，几乎没有流动阻力
- 便于远程控制或自动化控制
- High wear resistance and anticorrosion.
- No pressure loss, no block and no leaking, water hammer impact prevention.
- Especially suitable for liquid-solid two-phase flow and gas-solid two-phase flow with particle suspension.
- Rubber sleeve with fiber reinforced structure, wear resistance and antifatigue.
- When opening, medium flows in gross section with almost no resistance.
- Convenient for remote controlling or automatic controlling.



3. 适用范围 Scope of application

- 各种磨蚀性、非磨蚀性管路输送的自动化控制，远程控制
- 化工，矿山的药剂均匀添加
- 矿山选矿工艺中的均匀放矿阀门，能很方便的实现矿量均衡。
- Automatic control or remote control for all kinds of abrasive and non-abrasive pipelines.
- Uniform addition of reagents in chemical industry or mine.
- Very convenient to achieve uniform discharging as discharge valve in the mineral processing technology.

4. 型号标识举例 Model example

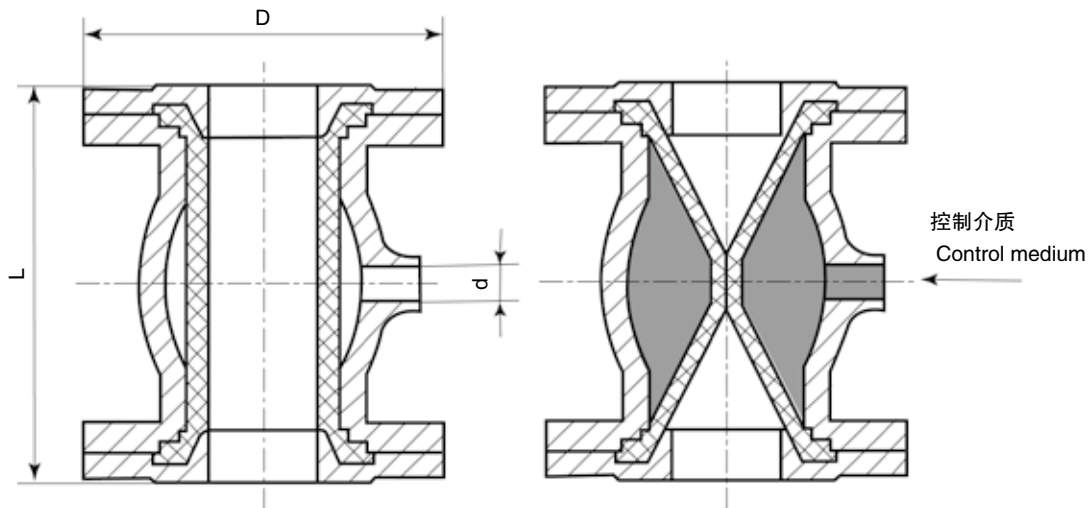


5. 技术参数 Technical parameters

- 阀体：铸铁DN20 ~ 80 铸铝 DN100 ~ 300
- 法兰联接：铸铁DN40 ~ 300, 316L DN40 ~ 200
- 螺纹联接：黄铜/316L, DN20
- 管套材质及温度范围：鑫海耐磨橡胶 -20℃ ~ 65℃
- 食品级：食品级Xinhai FG鑫海耐磨天然橡胶管套-20℃ ~ 65℃
- 控制介质：压缩空气或压力水
- 口径：DN20-200, DN250-300
- 工作压力：DN20-200最大Max0.4Mpa, DN250-300最大Max 0.3Mpa

- 控制压力:DN20-200最大Max 0.6Mpa, DN250-300最大Max 0.45Mpa
- 最大压差:DN20-200是0.2Mpa, DN250-300最大Max 0.15Mpa
- Valve body : Cast iron DN20 ~ 80 Cast aluminum DN100 ~ 300
- Flange connection : Cast iron DN40 ~ 300, 316L DN40 ~ 200
- Screw connection : Brass/316L, DN20
- Material of sleeve and temperature range : Xinhai anti-abrasion rubber -20℃ ~ 65℃
- Food grade: Food grade Xinhai FG Xinhai anti-abrasion rubber lining-20℃ ~ 65℃
- Control medium: compressed air or water
- Opening diameter : DN20-200, DN250-300
- Work pressure: DN20-200 Max0.4Mpa, DN250-300 Max 0.3Mpa
- Control pressure: DN20-200 Max 0.6Mpa, DN250-300 Max 0.45Mpa
- Max pressure difference: DN20-200 Max 0.2Mpa, DN250-300 Max 0.15Mpa

6.外形尺寸 Layout dimension



XQKF型鑫海耐磨气控夹管阀主要参数表
Leading parameter of Xinhai air control pinch valve XQKF

口径 Opening dia.		40	50	65	80	100	125	150	200	250
外形尺寸 External dimension	L	150	180	180	220	276	345	414	550	680
	d	Rp3/8"								Rp3/4"
	D	150	165	185	200	220	250	285	340	480
标准 Standard		PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10
标准 Standard		DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250

XWXZF系列对夹式无隙闸阀 Xinhai Clamp Knife Gate Valve of Series XWXZF

结构特点 Structure features

XWXZF系列鑫海耐磨对夹式无隙闸阀产品由阀座、阀衬、闸板、支架和驱动装置所组成。两阀座在组装预紧力的作用下使阀衬紧密吻合，形成一段对接的短管，阀门关闭时，闸板楔入两阀座封面之间，切断流体，靠鑫海橡胶阀衬极好的弹性与闸板紧密吻合，保证密封。

该产品具有结构紧凑、体积小、重量轻、操作和维修方便，适合有颗粒或有沉积物磨损比较严重的场合。根据压力及腐蚀情况的不同，闸板有不锈钢、超高分子量聚乙烯及不锈钢与超高分子量聚乙烯结合三种材质。阀体设有注油嘴，可以减少闸板摩擦力，降低阀门启闭力矩。阀衬为鑫海耐磨橡胶模压件，可以更换。

XWXZF系列鑫海耐磨闸阀产品一般为手动，根据用户的要求可制成电动、气动。既可现场操作，也可很方便的远程控制。结构长度和法兰尺寸，一般按国家标准制造，也可根据用户制作。

The Xinhai clamp knife gate valve of series XWXZF is composed of valve seat, valve sleeve, gate, ally arm and drive unit. The valve sleeves fit tightly under the assembly pretightening force of the two valve seats and form a short butted tube. When the valve closes, the gate wedges into the seal surface of the two valve seats and cut off the fluid. The valve sleeve can be tightly fitted with gate to ensure good seal for it is made of Xinhai rubber which is very resilient.

It has such characteristics as compact structure, small volume, light weight and easy operation and maintenance, suitable for where the particles and settlings abrade serious. According to the pressure and corrosion there are three kinds of gates : stainless steel plate, super molecule polyethylene and combination materials of stainless steel plate and super molecule polyethylene. The valve body is fitted with oil nipple to reduce the friction on gate and force moment of opening and closing of the valve. The valve sleeve is molded and can be replaced.

Generally Xinhai gate valves clamping without slit of series LWXZF are hand-operated and they can be made air-operated or electric according to the requirements of the users. It can be operated on the spot as well as remote controlled. Generally structure length and flange dimension are in accordance with National Standard of China and they also can be made according to the user's requirement.



XWXZF对夹式无隙闸阀
Xinhai clamp knife gate valve of series XWXZF

适用范围 Scope of application

XWXZF系列对夹式无隙闸阀为大开大闭，适合安装于旋流器给矿、尾矿管路或双回路管道中需要一开一关情况下开关用，适合的介质为矿浆、灰渣等浆体，酸、碱等腐蚀性介质。

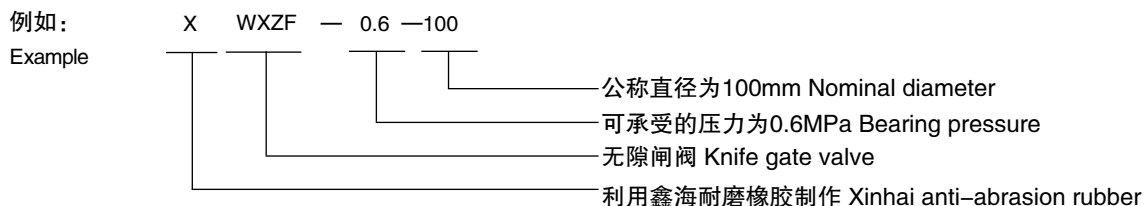
Xinhai clamp knife gate valve of series XWXZF can be opened or closed fully and suitable for installing in the feed pipeline of the cyclone, tailings pipeline and two-circuit pipeline. It can be used for slurry, ash, corrosive medium such as acid, alkali etc.

规格 Specification

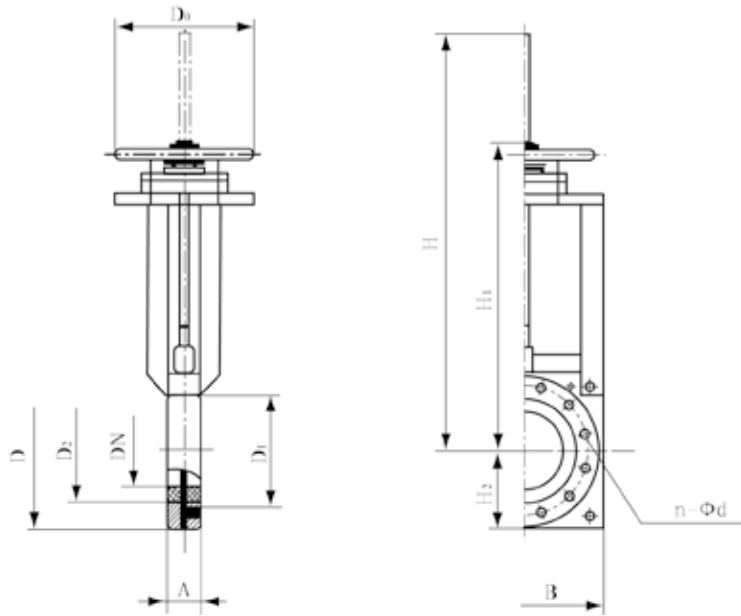
XWXZF系列对夹式无隙手动闸阀按承受压力为0.6MPa、1.0Mpa、和1.6Mpa的不同分为三种，分别命名为XWXZF-0.6、XWXZF-1.0、XWXZF-1.6。

According to bearing pressure, Xinhai clamp knife gate valve operated by hand can be divided into 0.6Mpa, 1.0Mpa and 1.6Mpa which is named respectively XWXZF-0.6, XWXZF-1.0, XWXZF-1.6.

型号标识举例 Model example



手动无隙闸阀结构尺寸 Structure and dimension of hand-operated Xinhai clamp knife gate valve



XWXZF系列鑫海耐磨无隙闸阀结构尺寸图
Structure and dimension of Xinhai clamp knife gate valve of series XWXZF

XWXZF-0.6 鑫海耐磨无隙闸阀结构尺寸参数表

Parameter table of structure and dimension of Xinhai clamp knife gate valve of XWXZF-0.6

DN	A	D	D ₁	D ₂	n-φd	D ₀	H	H ₁	H ₂	B
50	60	165	140	84	4-φ14	270	500	390	82.5	165
65	60	185	160	102	4-φ14	270	535	415	92.5	185
80	64	200	190	118	8-φ18	270	575	435	107.5	215
100	64	220	210	144	8-φ18	270	635	475	115	230
150	70	285	265	194	8-φ18	360	800	590	140	280
200	70	340	320	244	12-φ18	360	916	664	170	340
250	76	395	375	304	12-φ18	360	1056	749	200	400
300	83	445	440	360	12-φ18	610	1190	830	232.5	465

XWXZF-1.0 鑫海耐磨无隙闸阀结构尺寸参数表

Parameter table of structure and dimension of Xinhai clamp knife gate valve of XWXZF-1.0

DN	A	D	D ₁	D ₂	n-φd	D ₀	H	H ₁	H ₂	B
50	60	165	125	94	4-φ18	270	510	400	95	190
65	60	185	145	112	4-φ18	270	540	420	100	200
80	64	200	160	126	8-φ18	270	580	440	112.5	225
100	64	220	180	150	8-φ18	270	640	480	120	240
150	70	285	240	200	8-φ22	360	810	600	150	300
200	70	340	295	256	12-φ22	360	926	674	180	360
250	76	395	350	316	12-φ22	360	1066	759	210	420
300	83	445	400	366	12-φ22	610	1190	830	235	470

您需要的，

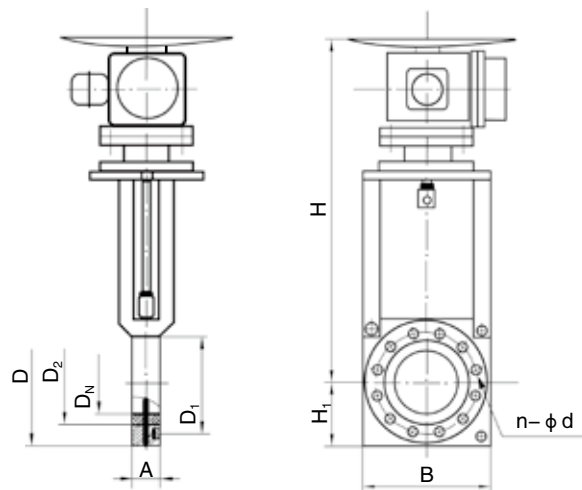
What you need is what we can do 正是我们能做到的！

XWXZF-1.6鑫海耐磨无隙闸阀结构尺寸参数表

Parameter table of structure and dimension of Xinhai clamp knife gate valve of XWXZF-1.6

DN	A	D	D ₁	D ₂	n-φd	D ₀	H	H ₁	H ₂	B
50	60	165	125	94	4-φ18	270	510	400	95	190
65	60	185	145	112	4-φ18	270	540	420	100	200
80	64	200	160	126	8-φ18	270	580	440	112.5	225
100	64	220	180	150	8-φ18	270	640	480	120	240
150	70	285	240	200	8-φ22	360	810	600	150	300
200	70	340	295	256	12-φ22	360	926	674	180	360
250	76	405	355	316	12-φ26	360	1071	764	215	430
300	83	460	410	366	12-φ26	610	1195	835	240	480

电动无隙闸阀结构尺寸 Structure and dimension motorised knife gate valve



XWXZF/D-1.6系列鑫海耐磨电动无隙闸阀结构尺寸

Structure and dimension of Xinhai motorised knife gate valve of series XWXZF/D-16

XWXZF/D-1.6系列鑫海耐磨电动无隙闸阀产品性能规范表

Performance of Xinhai motorised knife gate valve of series XWXZF/D-1.6

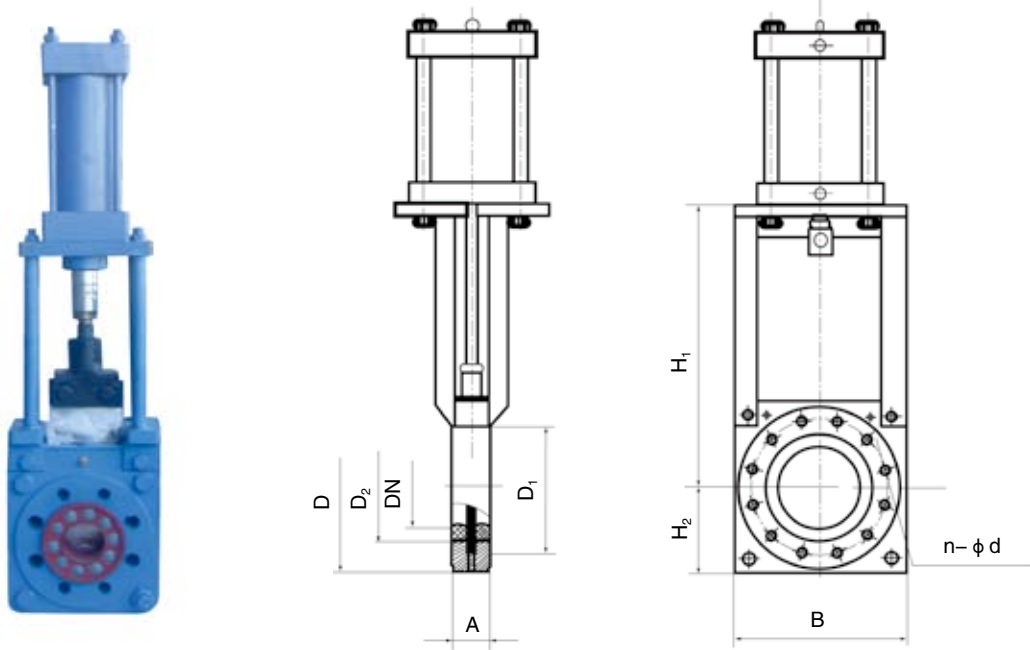
DN	承受的压力 Bearing pressure (Mpa)	电动装置型号 Model of electric actuator	最大扭矩 (牛顿·米) Max torque(N/m)	电机功率 Motor power (KW)
50	1.6	DZ10	100	0.25
65	1.6	DZ10	100	0.25
80	1.6	DZ10	100	0.25
100	1.6	DZ10	200	0.37
125	1.6	DZ10	200	0.37

XWXZF/D-1.6 鑫海耐磨电动无隙闸阀结构尺寸表

Structural dimensions of Xinhai motorised knife gate valve of series XWXZF/D-1.6

DN	A	D	D ₁	D ₂	n-φd	B	H	H ₁
50	60	165	125	94	4-φ18	180	546	90
65	60	185	145	112	4-φ18	200	565	100
80	64	200	160	126	8-φ18	220	580	110
100	64	220	180	150	8-φ18	240	610	120
125	70	250	210	178	8-φ18	270	640	135

气动无隙闸阀结构尺寸 Structure and dimension of air operated knife gate valve



XWXZF/Q1.0 系列气动无隙闸阀结构尺寸图
Structure and dimension of Xinhai air operated knife gate valve of series XWXZF/Q-1.0

XWXZF/Q1.0 系列气动无隙闸阀性能规范表
Performance of Xinhai air operated knife gate valve of series XWXZF/Q-1.0

项目Item	指标Index	单位Unit
公称压力 Nominal pressure	1.0	MPa
密封试验压力 Seal test pressure	1.0	
强度试验压力 Intensity test pressure	1.5	
工作压力 Working pressure	≤1.0	
工作温度 Working temperature	≤70	℃
工作介质 Working medium	矿浆、灰渣等浆体 Slurry, ash etc.	
气缸工作压力 Working pressure of air cylinder	0.4 ~ 0.6	MPa

XWXZF/Q-1.0系列气动无隙闸阀的主要参数表
Leading parameter of Xinhai air operated knife gate valve of series XWXZF/Q-1.0

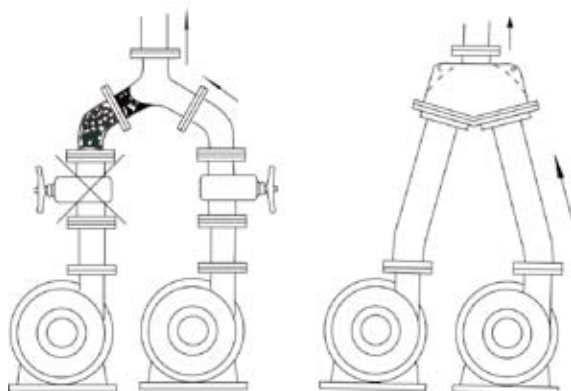
DN	A	D	D ₁	D ₂	n-φd	H ₁	H ₂	B
50	64	165	125	94	4-φ18	320	95	190
65	64	185	145	112	4-φ18	340	100	200
80	64	200	160	126	8-φ18	368	112.5	225
100	64	220	180	150	8-φ18	400	120	240
150	70	285	240	200	8-φ23	490	150	300
200	70	340	295	256	12-φ23	580	180	360
250	76	395	350	316	12-φ23	666	210	420
300	83	400	400	366	12-φ23	740	235	470

鑫海三通自动换向阀 Xinhai Three-way Automatic Change Valve

结构特点 Structure features

如下左图所示，一般生产中采用的浆体泵都是一台生产，一台备用配置，当开启其中一台泵和阀门时，在关闭的阀门至三通口颈段将会出现严重的堵塞，将来开启时难以打开。如下右图所示，一件三通自动换向阀代替了两件阀门，当打开其中的一个，另一个则无浆可过，既方便实用又经久耐用。

As showed in the following left diagram, generally one of two slurry pumps is in service and the other is used for spare. When one pump and valve is opened and the other pump and valve is closed, there will be serious block up at the part between the closed valve and the neck of the tee joint and it is difficult for later opening. As showed in the following right diagram, a tee automatic change valve replaces the two valves. When one side is opened and no slurry passes through the other side and so it is convenient, practical and wears well.



鑫海三通自动换向阀工作原理
Principle Xinhai three-way automatic change valve

适用范围 Scope of application

矿浆、矿渣、尾矿等浆体，以及各种备用泵的排水系统及化工腐蚀性介质。

Slurry, ore dreg, tailing, draining system of all kinds of standby pumps and chemical corrosive medium.

工作压力： $\leq 0.7\text{Mpa}$

Working pressure: $\leq 0.7\text{Mpa}$

型号标识举例 Model example

例如：

Example

X HX - 100

公称直径100mm Nominal diameter

换向阀Change valve

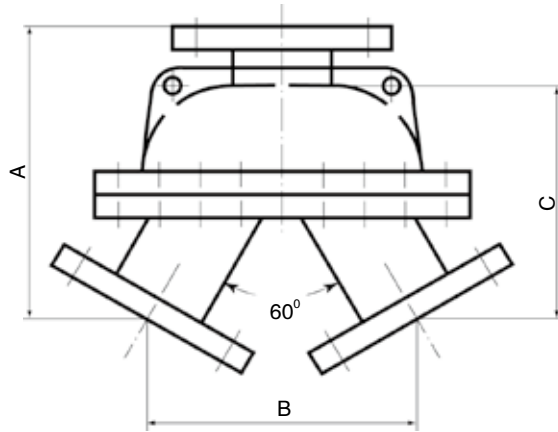
利用鑫海耐磨橡胶制作Xinhai anti-abrasion rubber

温馨提示 Warm tips

矿浆输送系统的渣浆泵常常是一用一备，在切换备用泵时至少要操作两个阀门才能完成，往往会在三通位置淤塞而造成停产，损失很大。很多矿山采用双泵双管线的办法解决这个问题，但是管路投入费用很大，如果您选用一个三通自动换向阀完全可以解决这个问题。仅花费一个阀门的价格，省掉一条管路的投入，并能够很容易地实现自动化控制。

There are two slurry pumps usually in slurry conveying system and one of both is used for standby. Replacing the pump is accomplished only by operating two valves at least. The downtime often happens when jamming on tee position, which causes a great loss to mine. The problem is resolved in many mines with two pipes and two pumps which usually result in a great deal of investment of pipe. Now it is easy to resolve the problem if you use a three-way automatic change valve. A valve saves costs of a pipe and it is easy to control

外形尺寸 Layout dimension



三通自动换向阀外形结构图

Layout structure of three-way automatic change valve

三通自动换向阀外形尺寸表

Layout dimension of three-way automatic change valve

规格 Specs (DN)	A	B	C	法兰尺寸 Flange dimension		
				螺栓孔中心距 Center distance of bolt holes	法兰外径 Outside diameter of flange	n-Φd
65	247	227	197	145	185	4-Φ18
80	267	250.5	217	160	200	8-Φ18
100	308.5	296	256.5	180	220	8-Φ18
125	352	346	300	210	250	8-Φ18
150	410	400	346.5	240	285	8-Φ22
200	477	476.5	413	295	340	8-Φ22
250	569	569	493	350	395	12-Φ22
300	656	669.5	580	400	445	12-Φ22
350	735	761	659	460	505	16-Φ22
400	833.5	863	747.5	515	565	16-Φ26
450	922.5	952	824.5	565	615	20-Φ26
500	1011	1054	913	620	670	20-Φ26

性能规范 Performance

公称压力 Nominal pressure	0.7Mpa					
试验压力 Test pressure Mpa	密封Sealing	1.0	试验介质 Test medium	水Water		
	强度Intensity	1.5		水Water		
工作压力 Working pressure	≤1.0Mpa					
工作介质 Working medium	矿浆、矿渣、尾矿等 Slurry, dreg, tailings and so on.					

鑫海耐磨橡胶管件制品 Xinhai Anti-abrasion Rubber Pipe Fittings

利用鑫海耐磨橡胶超强的耐磨性，防腐性，我们开发了很多管件制品。这些管件制品不仅耐磨，而且设计构思新颖，解决了生产实际中很多问题，深受欢迎。

On the basis of of Xinhai anti-abrasion rubber with high resistance to wear and corrosion , we developed many pipe fittings which not only are wear-resistant but also designed well and solve many problems in the production practice and come into favor.

鑫海耐磨橡胶弯头 Xinhai anti-abrasion rubber bends

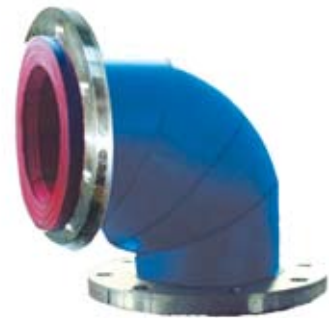
结构特点 Structural features

特殊设计制作的弯头是一个不完全的球体与直管圆滑过渡，更加符合流体力学原理，这种结构的弯头磨损更轻，解决了矿山、电厂、化工等生产流程的停顿,从根本上解决了弯头磨损快和摩擦阻力大，功耗高的问题。配备活动法兰更方便连接，按工作压力不同可分为橡胶球形弯头和钢壳高压衬胶弯头。

适用范围：适用于所有矿浆输送及化工腐蚀性介质输送管路。

Rubber bends are especially designed from an imperfect sphere smooth transition to a straight pipe which accords with the principle of fluidics, which minimize the wear on the bends. Not only the production pause problem in the process flow of mines, electric power plants and chemical industry can be settled fundamentally but also quick abrasion on bends and large friction and serious power consumption are settled. The movable flange equipped is handy to connect. They can be divided into rubber spherical bends and steel bends lined with rubber under high pressure according to working pressure.

Range of application: It is suitable for conveying all slurry and chemical corrosive medium.



鑫海耐磨橡胶弯头
Xinhai anti-abrasion rubber bend

优点 Advantages

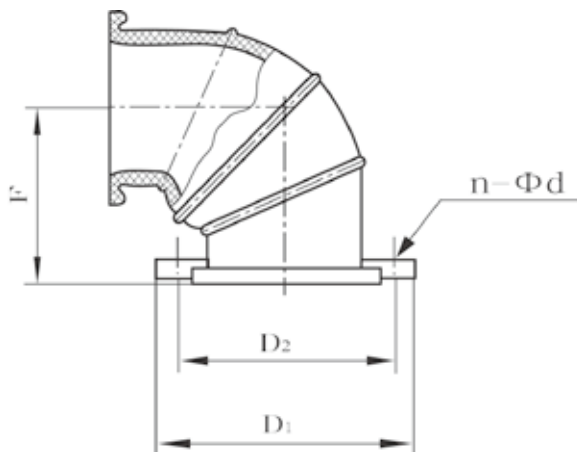
- 耐磨损，利用鑫海耐磨橡胶超强的耐磨性，所以寿命更长。
- 弯头两侧的钢法兰是活动的，便于两侧的管道法兰联接，即使管路安装的不标准也可轻松安装，弯头两侧的橡胶凸台可作为法兰垫片，利用鑫海耐磨橡胶的弹性，密封更严。
- 弯头中部拐弯处为一凸出的球形，既避免流体在此处对弯头产生磨损和阻力，同时可使管路中的气体在此处“喘集”。
- 橡胶弯头较钢弯头更轻，便于安装更换。
- Wear resistance, long service life
- Steel flanges at both sides of the bends are movable and it is handy for the pipe flange on the both sides of the pipe to connect. Even though the pipeline is not fitted up ideally and the bends can be fixed. The dummy club at the both sides of the bend can be used as flange spacer and seal more tightly utilizing the resilient Xinhai anti-abrasion rubber.
- At the corner of middle part of the bend , there is a sphere that can avoid fluid abrading bends and avoid resistance for fluid, and at the same time, the air in the pipe can breath at this part.
- Rubber bends are lighter than steel bends and easy to fix and replace.

弯头种类 Type of bends

利用鑫海耐磨橡胶制作的弯头共有两种，一种是XWT/M型模压弯头，该弯头为纯橡胶制品，适用的压力为 $\leq 0.6\text{Mpa}$ ；另一种是XWT/G型钢制衬胶弯头，该弯头外壳为钢制。内衬鑫海耐磨橡胶，适用的压力为 $\leq 1.6\text{Mpa}$ 。

There are two types of rubber bends: one is molded bend XWT/M which is wholly made of rubber and working pressure should be less than 0.6Mpa . The other is steel bend lined with rubber XWT/G and its shell is made of steel and the liner is Xinhai anti-abrasion rubber. Its working pressure should be less than 1.6Mpa .

结构尺寸 Structure and dimension



鑫海耐磨橡胶弯头结构尺寸图
Structure and dimension of Xinhai anti-abrasion rubber bend

XWT/M型鑫海耐磨球形模压弯头的主要技术参数及法兰尺寸表 Main parameters and flange dimension of Xinhai ball molded bend XWT/M

主要参数Main parameter		法兰尺寸 (标准法兰) Flange dimension(standard flange)		
DN	F	D ₁	D ₂	n-Φd
50	65	165	125	4-Φ18
65	85	185	145	4-Φ18
80	105	200	160	8-Φ18
100	130	220	180	8-Φ18
125	165	250	210	8-Φ18
150	198	285	240	8-Φ22
200	264	340	295	8-Φ22
250	330	395	350	12-Φ22
300	396	445	400	12-Φ22

适应压力Working pressure ≤ 0.6Mpa

XWT/G型鑫海耐磨钢制衬胶弯头的主要技术参数及法兰尺寸表 Main parameters and flange dimension of Xinhai steel bend lined with rubber XWT/G

主要参数Main parameter		法兰尺寸 (标准法兰) Flange dimension(standard flange)		
DN	F	D ₁	D ₂	n-φd
50	65	165	125	4-φ18
65	85	185	145	4-φ18
80	105	200	160	8-φ18
100	130	220	180	8-φ18
125	165	250	210	8-φ18
150	195	285	240	8-φ22
200	260	340	295	12-φ22
250	325	405	355	12-φ26
300	390	460	410	12-φ26

适应压力Working pressure ≤ 1.6Mpa

XDJ型鑫海耐磨球形橡胶短节 Xinhai Ball Rubber Short Joint XDJ

结构特点 Structural features

利用鑫海耐磨高耐磨橡胶模压制作的球形短节是渣浆泵进出口管线上的必备的管件，可以吸收和缓冲工作中的压力波动，球形腔体能压缩，可利用它方便地拆除泵及其他管件，使检修难度更小，检修时间更短。两端装有活动法兰盘可以很方便地连接装配。

The ball short joint molded with Xinhai high wear resistant rubber is the necessary fitting for the outlet and inlet pipeline of slurry pump. It can absorb and cushion the pressure fluctuation. The spherical cavity can be compressed and this helps to disassemble pump and other pipe fittings and reduce maintenance difficulty and shorten maintenance time. Movable flanges equipped at the both ends are handy to assemble and connect.



XDJ型鑫海耐磨球形橡胶短节
Xinhai ball rubber short joint XDJ

优点 Advantages

- 拆卸管路和泵更方便，特别是安装在泵的入口和出口，抢修时往往由于空间所限，拆卸很不方便，有了橡胶短节则方便自如。
 - 短节两侧的钢法兰是活动的，便于安装联接。
 - 橡胶短节中间的球形腔，能吸收和缓冲工作中的压力波动，泵抽吸过程中产生的“喘气”现象可以在此缓解，气体在球形腔中喘集。
 - 耐磨损
- Handy to disassemble the pipeline and pump. In the past the space at the inlet and outlet of the pump is limited and so it is difficult to examine and repair, which can be done freely now if rubber short joint is used.
- Movable steel flanges at the both ends of short joint are easy to assemble and connect.
- Spherical cavity in rubber short joint can absorb and cushion the pressure fluctuation. It can also remit the gasp phenomenon in the course of suck of pump and air gasps and concentrate in it.

适用范围 Scope of application

广泛的使用在金属矿山、非金属矿山、煤炭洗煤厂，发电厂等渣浆泵进出口管线、化工泵的进出口管线等，使用寿命是国产橡胶的10倍以上，最大工作压力 $\leq 1\text{Mpa}$ 。

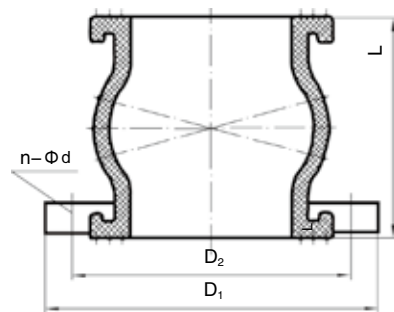
It is widely used in the inlet and outlet of pipeline of slurry pump and chemical pump used in metal mine, nonmetal mine, coal mine, coal washery and power station. It gives more than ten times the life of the homemade rubber and its working pressure can't be more than 1Mpa.

结构尺寸 Structure and dimension

XDJ型鑫海耐磨球形橡胶短节主要技术参数及法兰尺寸表

Main parameter and flange dimension of Xinhai spherical rubber short joint of type XDJ

主要参数 Main parameter		法兰尺寸 (标准法兰) Flange dimension (standard flange)		
DN	L	D_1	D_2	$n-\phi d$
50	65	165	125	4- $\phi 18$
65	85	185	145	4- $\phi 18$
80	105	200	160	8- $\phi 18$
100	130	220	180	8- $\phi 18$
125	165	250	210	8- $\phi 18$
150	198	285	240	8- $\phi 22$
200	264	340	295	8- $\phi 22$
250	330	395	350	12- $\phi 22$
300	396	445	400	12- $\phi 22$



XDJ型鑫海耐磨球形橡胶短节
结构尺寸图
Structure and dimension of Xinhai ball rubber short joint of type XDJ

鑫海超耐磨橡胶衬板 Xinhai Super Anti-abrasion Rubber Liners

磨矿机械橡胶衬板 Rubber liners of grinding machinery

鑫海超耐磨橡胶衬板在磨机内所运用的是高低组合结构形式，即提升压条和衬板的组合，根据磨机的规格型号、转数、给料硬度、粒度、介质的规格种类，要求产品达到的粒度和质量，通过电脑动态模拟出磨机的磨矿工作状态，确定相应规格的超耐磨橡胶提升条和衬板的高度、宽度及其形状，同时由于磨矿工艺不同，磨机衬板磨损机理不同，还需要选用不同的橡胶种类，以达到最佳磨矿效果，最长的使用寿命。目前，鑫海公司已经开发出的超耐磨橡胶衬板有三十多种。

Xinhai super anti-abrasion rubber liners adopt high-low combination structure, that is, the lifting bars are combined with the liners. According to the specification and revolution of the mill, feed hardness, particle size, medium kinds, granularity and quality of the product required, and the working state of the mill dynamically simulated by the computer, we can confirm the height, width and the shape of lifting bar and liners made of super anti-abrasion rubber. Meanwhile, due to the different grinding technology and abrasion mechanism of mill liners, various rubbers can be chosen to achieve the best grinding effect and the longest service life. At present, Xinhai has already developed more than 30 kinds of super anti-abrasion rubber liners.



鑫海超耐磨橡胶衬板
super anti-abrasion rubber liner

球磨机用鑫海超耐磨橡胶衬板 Xinhai super anti-abrasion rubber liner of ball mill	φ 1200—5500
棒磨机用鑫海超耐磨橡胶衬板 Xinhai super anti-abrasion rubber liner of bar mill	φ 1500—3600
自磨机用鑫海超耐磨橡胶衬板 Xinhai super anti-abrasion rubber liner of auto mill	φ 2400—5500
管磨机用鑫海超耐磨橡胶衬板 Xinhai super anti-abrasion rubber liner of pipe mill	φ 1830—2800

鑫海超耐磨橡胶衬板的物理、化学性能

Physical and chemical features of Xinhai super anti-abrasion rubber liner

利用鑫海耐磨橡胶制作的磨机衬板，具有超耐磨、耐冲击、抗撕裂的特点。

The ball mill liners made of Xinhai rubber have the features of super abrasion resistance, high impact resistance and tear resistance.

鑫海超耐磨橡胶衬板的物理、化学性能

Physical and chemical features of Xinhai super anti-abrasion rubber liner

性能名称 Property	标准 Standard	单位 Unit	指标 Index
硬度 Hardness	GB/T6031-1998	邵尔A	62
抗拉强度 Tensile strength	GB/T528-1998	Mpa	22
断裂伸长率 Elongation at break	GB/T528-1998	%	700
拉伸永久变形% Tension set	GB/T528-1998	%	12
撕裂强度 Tear strength	GB/T529-1999	N/mm	136
回弹性 Resilience	GB/T1681-1991	%	50
比重 Specific gravity	GB/T533-1991	g /cm ³	1.12
耐磨指标 Abrasion resistance index	GB/T9867-1988(湿式wet)	%	40

鑫海超耐磨橡胶衬板的特点 Features of Xinhai super anti-abrasion rubber liner

- (1)耐磨程度高,使用寿命长一段磨矿使用寿命2~3年,二段磨矿使用寿命4~5年。
 - (2)橡胶比重仅是锰钢的1/7, 使用鑫海高耐磨橡胶衬板重量大大减轻, 使磨机启动电流更低, 运转更平稳, 节电5~10%。
 - (3)降低噪音, 改善劳动环境, 噪音降低18分贝以上。
 - (4)密封性能好, 不漏矿浆, 现场环境好, 运转率高。
 - (5)安装便捷, 减轻劳动强度, 缩短检修时间3/4。
 - (6)磨机有效容积大, 处理量大。
- 因为鑫海耐磨橡胶衬板高耐磨, 设计的衬板厚度比锰钢薄, 因此磨机容积增大, 适当调整装球量, 能够提高磨机的处理能力。

High abrasion resistance; long service life. For primary grinding, the service life is 2~3 years, for secondary grinding, the service life is 4~5 years.

The weight of the mill using Xinhai super anti-abrasion rubber liners will reduce greatly for the specific gravity of rubber is 1/7 of manganese steel, starting current of mill will be lower, the operation will be more smooth, and energy will be saved 5~10%.

Reduce noise, improve working environment and noise is reduced more than 18 dB.

Excellent sealing, no leakage of slurry, good environment on site, high operating efficiency

Easy to assemble, lighten labor intensity and shorten maintenance time 3/4

Large effective volume and capacity

Due to the high abrasion resistance of Xinhai anti-abrasion rubber liners, it is designed thinner than manganese steel liners, the effective volume of the mill is enlarged and the capacity of the ball mill can be improved by adjusting the charge of balls properly.

温馨提示 Warm tips

鑫海超耐磨橡胶衬板通常用于湿式磨矿, 温度不超过80℃的情况下, 对于需耐高温 (≤120℃) 干法磨矿、耐强酸碱 (PH值3—13基本无影响)、耐油等特殊情况, 需要提前告诉我们。

贮存过程中必须置于室内妥善保管, 防止室外高温晒和雨淋。

Xinhai anti-abrasion rubber liners are usually used for wet milling under the temperature ≤80° . Please contact with us in advance if the resistance to high temperature dry grinding, acid-alkali (little influence if PH=3-13) of rubber liners are required.

They must be properly kept indoors to prevent high temperature and raining outside.

应用场合 Applications

有色金属矿山	Non ferrous metal mine
黑色金属矿山	Ferrous metal mine
黄金矿山	Gold mine
冶炼厂	Smelt factory
发电厂	Power plant
湿法水泥厂等等	Wet cement factory etc.
非金属矿山钢铁烧结厂	Nonmetal mine
球团厂	Steel sinter factory
氧化铝厂	Alumina factory
磷肥厂	Phosphate fertilizer factory



漏斗、溜槽的超耐磨橡胶衬板
Super anti-abrasion rubber liner of funnels and chutes

各行业生产环境、生产工艺不同，选用鑫海橡胶衬板的结构形式和配方也分别不同。

Due to differences of manufacture environment and technology in various fields, you should choose relevant structure and formula of the Xinhai rubber liner separately.

鑫海超耐磨漏斗溜槽橡胶衬板

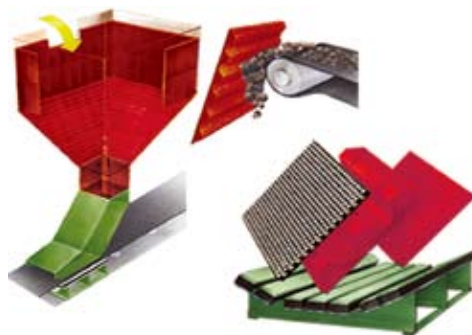
Xinhai super anti-abrasion rubber linings of funnels and chutes

鑫海耐磨橡胶具有超强的耐磨性，抗冲击、抗撕扯性能，使用寿命是钢制衬板20倍以上，锰钢衬板的15倍以上。灵活的安装形式，适合各种复杂的安装形式，在化工、煤炭、电力、有色、黑色矿山等行业的破碎、筛分、磨矿、洗选作业中的漏斗、溜槽应用极其广泛，解决了噪音大、磨损快、停车检修困难且时间长的的问题。

Xinhai anti-abrasion rubber lining has extraordinary abrasive resistance, impact resistance and tear resistance. Its service life is 20 times of the steel lining; 15 times of the manganese steel lining.

With flexible installation methods, it is suitable for all kinds of complex installation ways, and it is extremely widely used in the funnels and chutes during the operation of crushing, screening, grinding, washing in the fields of chemical industry, coal industry, electric power, non-ferrous, ferrous mines. What's more, it has solved the problems of loud noisy, quick abrasion, inconvenience of overhauls and waste of long time.

结构形式 Structure form



多种形式的漏斗、溜槽橡胶衬板
Multiform rubber lining of funnels and chutes

优点 Advantages

- 抗冲击 Impact-resistance
- 超长耐磨 Super abrasion resistance
- 噪音低 Low noise
- 便于更换 Easy to replace

您需要的，

What you need is what we can do 正是我们能做到的！

No.4完美的鑫海选矿工艺

No.4 Perfect Mineral Processing Technology of Xinhai

鑫海耐磨橡胶产品在磨矿分级流程中的应用

Application of Xinhai products in the grinding and classifying

磨矿分级效率的重大提高与突破

A great improvement and breakthrough of grinding and classification efficiency



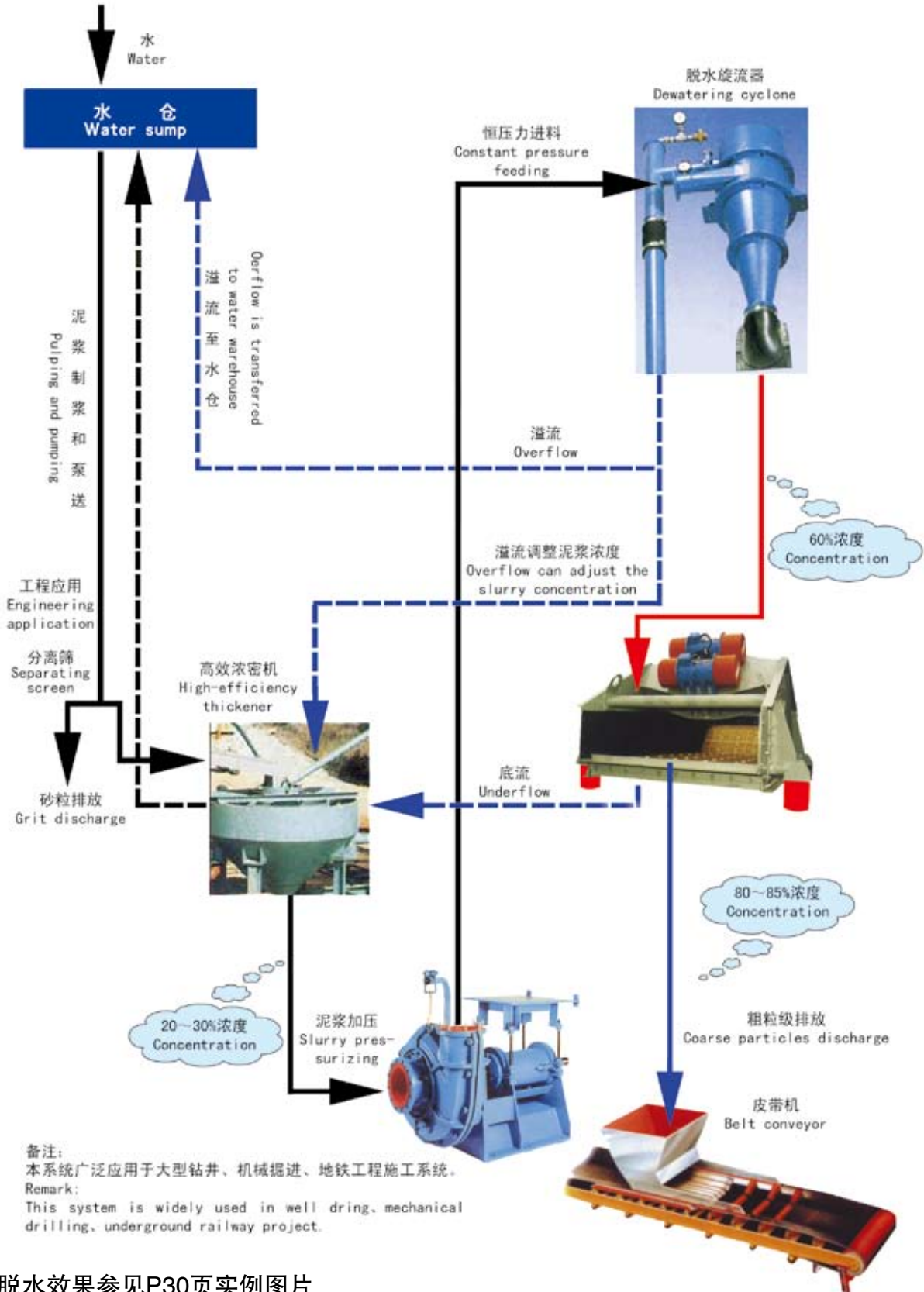
完美组合，可以达到以下效果：

- 比螺旋分级提高分级效率20-30%，可达到70-85%；
- 旋流器寿命达二年以上；
- 可提高磨机处理能力15%以上，并减少了物料过磨；
- 多功能筛可将溢流中粗颗粒自动返回磨机；
- 彻底解决了大型选矿厂采用格子型球磨机配套分级设备的老大难问题。

Perfect combination, and remarkable effects:

- Classification efficiency has been increased by 20-30% than that of spiral classifier, which can reach 70-85%;
- Service life of cyclone is more than 2 years;
- Mill capacity can be increased by more than 15% over-grinding of materials can be reduced;
- Multifunction screen can return coarse particles to the mill.
- The big and difficult problem of grid ball mill mated with classifier in large plant is resolved completely.

鑫海泥浆分离脱水系统（主要用于泥浆冷却循环作业工程）
Xinhai Slurry Dewatering System (Mainly for slurry cooling circulating operation)



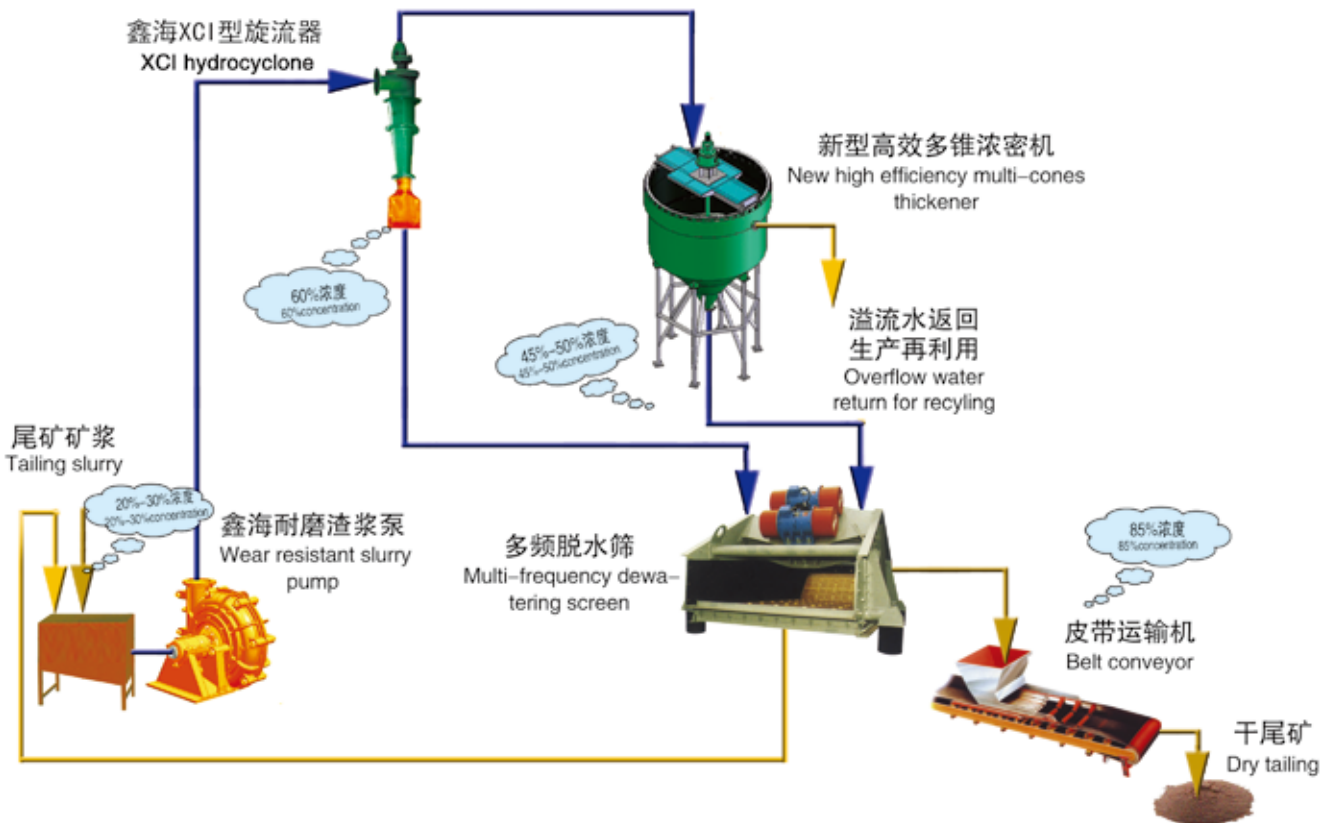
脱水效果参见P30页实例图片
See pictures on page 30 for dewatering effect

鑫海尾矿干排系统（用于各种矿物尾矿、精矿脱水）

Xinhai Tailings Dry Discharge System(For tailings and concentrate dewatering)

鑫海公司推出国内外最先进的多频筛脱水尾矿干排工艺系统，已经在国内矿山尾矿连续干排得到了应用及推广，效果极佳，解决了目前国内选矿厂尾矿干排重大难题，目前已成功应用于-200目80-90%以内细度的尾矿干排系统，全泥氰化尾渣脱水-200目95%系统，-325目80%焙砂脱水系统，核工业铀浸出脱水，比其它脱水设备(带滤机、厢式压滤机)工艺节电2kw.h/t，节省投资40-50%，节省干排成本2-4元/t，回水率达75%以上。

Xinhai adopts advanced multi-frequency dewatering screen for tailings dry discharge process system, which has been applied in many domestic mines and solved many difficult problems. Up to now, the process is successfully used in tailings dry discharge with the fineness of -200 mesh 80%-90%, all-sliming cyanidation tailings dewatering system with the fineness of -200 mesh 95%, calcine dewatering system with the fineness of -325 mesh 80%, nuclear uranium leaching and dewatering, and so on. It can save electricity 2kw.h/t, save investment 40-50% and save dry discharge cost 2-4 RMB yuan/t than other dewatering equipments(like belt filter press and box filter press), and its back water rate is more than 75%.



尾矿干排

- 消除了传统尾矿库的溃坝隐患；
- 简化了尾矿库审批手续；
- 减少了建设尾矿库的巨额投资；
- 增大了回水的利用率；
- 尾矿可外销制砖、修路和制作加气混凝土等，变废为宝；
- 氰化提金工艺尾渣干排完全达到生活和牧业环保要求，吨矿收益大于10元/吨。

Tailings dry discharge

- Remove the hidden danger of dam-break of traditional tailing pond
- Simplify approval process of tailing pond
- Reduce a huge investment for building tailing pond
- Increase the utilizing rate of backwater
- Tailings can be sold to make bricks and aerated concrete and to pave roads, changing waste into valuable
- Tailing dry discharge of cyanide gold extraction process has completely met with the requirements of environment protection of life and animal husbandry and the profit per ton is more than 10 RMB yuan.

脱水效果参见P30页实例图片 See pictures on page 30 for dewatering effect



牛顿说:我取得了成功是因为我站在巨人的肩膀上。

客户说:我取得了成功是因为我选择了鑫海。

鑫海说:您需要的,正是我们能做到的。

Isaac Newton said:I have achieved success for I Stand on the shoulders of colossus.

Customer says:I have achieved success for I have chosen Xinhai.

Xinhai says:What you need is what we can do!

烟台鑫海耐磨橡胶有限公司
Yantai Xinhai Anti-abrasion Rubber Co.,Ltd.

销售热线 Sales Tel: +86-535-6999990

技术热线 Customer Service Tel: +86-535-6999905

传真 Fax: +86-535-6999907

地址: 烟台市福山高新技术产业区鑫海街188号

Add: No.188 Xinhai Street of Fushan New & High Technology
Industry Park, Yantai, China

邮编 ZIP: 265500

Email:xinhairubber@sina.com

Http://www.ytxinhai.com