恩迈特

Innovation Shapes the Future

精于选 分于细

PROFESSIONAL SEPARATION AND CLASSIFICATION

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选煤 选矿 砂石骨料

COAL PREPARATION, MINERAL PROCESSING & SAND AGGREGATE

COMPANY PROFILE

Company Profile
公司简介

恩迈特（ENMATE）作为国家级高新技术企业，深耕矿物分选领域，以装备研发、智能制造与成套工程服务，全方位赋能矿业提质增效。

我们坚守数字化、智能化、绿色化发展方向，搭建全链条数字体系。从 AI 仿真设计、大数据智能选配，到智能精工生产、物联网远程运维，全程把控产品性能与运行状态，实现设备全生命周期高效管理。

为煤炭、金属与非金属矿山、砂石骨料、电力环保、化工、基建等诸多行业，提供专业成套解决方案，助力客户降本增效、低碳生产，全力支撑绿色矿山建设。凭借过硬的产品与优质服务，已赢得全球近万家客户的信赖。

As a national high-tech enterprise, ENMATE is dedicated to the field of mineral processing and separation. By integrating equipment R&D, intelligent manufacturing, and complete engineering services, we provide end-to-end empowerment for the mining industry's quality and efficiency enhancement.

We uphold the development direction of digitalization, intelligence, and green transformation, and have established a full-chain digital system. From AI-powered simulation design and big data-driven intelligent configuration to smart precision manufacturing and IoT-enabled remote operation & maintenance, we maintain full-process control over product performance and operational status, enabling efficient equipment lifecycle management.

We deliver professional complete-set solutions to a wide range of industries including coal, metal and non-metallic mines, aggregates, power and environmental protection, chemicals, and infrastructure. We help our customers reduce costs, improve efficiency, and achieve low-carbon production, fully supporting the development of green mines. With proven products and premium services, we have won the trust of nearly 10,000 customers around the globe.

恩迈特
Innovation Shapes the Future

绿色矿山科学技术奖 Green Mine Science and Technology Award	**中国煤炭工业科学技术三等奖** Third Prize, China Coal Industry Science & Technology Award	**山东省机械工业科学技术一等奖** First Prize, Shandong Machinery Industry Science & Technology Award	**青岛市科学技术进步二等奖** Second Prize, Qingdao Science and Technology Progress Award	**青岛市科技型中小企业** Qingdao Technology-based SME
“青蓝汇”创新创业大赛一等奖 First Prize, Qinglanhui Innovation & Entrepreneurship Competition	**专精特新中小企业** Specialized, Refined, Differential & Innovative SME	**高新技术企业** High-tech Enterprise	**雏鹰企业** Eagle-incubated Enterprise	**青岛市创新型中小企业** Qingdao Innovative SME
2021 最具人气选矿设备供应商 Most Popular Mineral Processing Equipment Supplier, 2021	**高校战略合作企业** Strategic Cooperation Enterprise with Universities	**青岛市智能矿物分选设备技术创新中心** Qingdao Technical Innovation Center for Intelligent Mineral Separation Equipment	**青岛市矿物洗选分离技术研发专家工作站** Qingdao Expert Workstation for Mineral Washing & Separation R&D Technology	**ISO 三体系** Three ISO Management System Certifications

CONTENTS 目录

CORE ADVANTAGES

AI · Digital Intelligence · Green — 核心价值支柱

01 | AI
AI-Driven Engineering R&D
AI 驱动工程研发

AI拓扑优化引擎搭配有限元分析，批量迭代结构方案并完成全工况仿真验证。前置全流程结构测试，彻底规避设计风险，保障产品品质与落地效率。

AI topology optimization engine paired with FEA, batch-iterating structural variants through full operating-condition simulation. Front-loading all structural testing eliminates design risk at source, ensuring product quality and delivery efficiency.

▲ AI Topology Optimization | FEA Validated

02 | DIGITAL
Intelligent Selection & Data-Driven Performance
智能选型 · 数据赋能

自研智能选型系统，多维参数匹配最优配置。依托全球近万家现场设备运行数据持续迭代，方案贴合真实工况，选型科学精准。

Proprietary selection system matches multi-dimensional parameters to optimal configurations. Powered by 10,000+ global installations, the model continuously iterates on real-field data — every recommendation grounded in verified operating conditions, selection scientifically precise.

▲ Proprietary System | 10,000+ Installations

03 | GREEN
Efficient & Low-Carbon Sustainable Design
高效低碳 · 可持续设计

CFD流体+振动动力学双维度优化，兼顾高分选效率与低能耗表现。延长配件寿命、降低运维消耗，绿色节能指标全程可测算、可追溯。

Dual-dimension optimization — CFD flow paths plus vibration dynamics — balances high separation efficiency with low energy draw. Extended wear life and reduced maintenance consumption; green performance metrics fully calculable and traceable across the equipment lifecycle.

▲ CFD Co-optimized | Lifecycle Carbon Tracked

ENX-WT系列无压三产品重介质旋流器

ENX-WT Series Pressureless Three-Product Dense Medium Cyclone

性能优势 Performance Advantages

◎根据用户煤质资料及产品要求，设计合理的长径比，保证足够的处理能力，最佳的分选指标，最高的分选效率，可提供定制化服务。

◎根据用户对精煤、中煤、矸石不同指标要求，通过对原煤入口、精煤溢流管、介质入口、二段锥比、二段锥角等相关结构参数的组合设计及优化，确保精煤产率，保证矸石纯度及中煤灰分要求。

◎二段溢流管设置在线调节装置，可在线灵活调整中煤灰分。

◎根据用户实际情况，生产中选择合理的入料压力、悬浮液密度、介质系统煤泥含量等操作参数确保旋流器的最佳工作效果。

◎内衬材质为新型耐磨增韧高铝陶瓷，三氧化二铝含量≥96%。

◎ Reasonable length-diameter ratio is designed according to the user’s coal property data and product requirements to guarantee sufficient processing capacity, optimal separation performance indicators and maximum separation efficiency. Customized solutions are available.

◎ In response to differentiated performance requirements for clean coal, middlings and gangue, combined design and optimization of structural parameters including raw coal inlet, clean coal overflow pipe, medium inlet, second-stage cone ratio and second-stage cone angle are adopted to secure clean coal yield, as well as meet the purity standard of gangue and ash content requirement of middlings.

◎ An on-line adjusting device is installed on the second-stage overflow pipe to realize flexible real-time adjustment of middlings ash content during operation.

◎ Based on on-site actual working conditions of users, optimal operating parameters such as feed pressure, suspension density and slime content in the medium system can be selected during production to maintain the cyclone’s optimal separation performance.

◎ The lining is made of new-type toughened high-alumina wear-resistant ceramic with aluminum oxide (Al_2O_3) content ⩾ 96%.

技术参数 technical parameters

产品型号 Model	一段筒体直径 1st Stage Shell Diameter (mm)	二段筒体直径 2nd Stage Shell Diameter (mm)	入料粒度 Feed Size (mm)	入料压力 Feed Pressure (MPa)	处理能力 Processing capacity (t/h)	介质循环量 Medium Circulation Volume (m³/h)
ENX-WT600/400	600	400	⩽30	0.06~0.10	50~80	200~320
ENX-WT710/500	710	500	⩽35	0.08~0.12	60~100	300~450
ENX-WT780/550	780	550	⩽40	0.09~0.13	80~140	400~550
ENX-WT850/600	850	600	⩽45	0.10~0.14	120~160	500~650
ENX-WT900/650	900	650	⩽50	0.12~0.16	140~200	600~750
ENX-WT1000/710	1000	710	⩽55	0.15~0.20	180~240	750~1000
ENX-WT1100/780	1100	780	⩽60	0.18~0.22	220~280	900~1200
ENX-WT1200/850	1200	850	⩽70	0.20~0.28	260~360	1200~1400
ENX-WT1300/920	1300	920	⩽80	0.22~0.30	320~420	1400~1800
ENX-WT1400/1000	1400	1000	⩽90	0.28~0.38	400~550	1800~2200
ENX-WT1500/1100	1500	1100	⩽90	0.30~0.40	550~650	2200~2600

ENX-YT 系列有压三产品重介质旋流器

ENX-YT Series Pressurized Three-Product Dense Medium Cyclone

性能优势 Performance Advantages

◎有效分选下限达到0.2～0.25MM，对于不易泥化的煤种，分选效果尤为突出；

◎一段旋流器采用“锥体”结构，有效提高离心强度和分选精度，降低精煤损失，解决矸石带煤问题；

◎内衬材质为新型耐磨增韧高铝陶瓷，三氧化二铝含量⩾96%。

◎喇叭形专利结构中心管设计，解决了传统有压三产品中损偏高的问题。

◎ The effective lower separation limit reaches 0.2～0.25 mm, delivering outstanding separation performance for coals not prone to slime formation.

◎ The primary cyclone adopts a conical structure, which effectively enhances centrifugal intensity and separation precision, reduces clean coal loss and mitigates coal entrainment in gangue.

◎ The lining is made of new-type wear-resistant toughened high-alumina ceramic with an alumina (Al_2O_3) content of ⩾96%.

◎ Patented flared central pipe design addresses the problem of high middling loss existing in conventional pressurized three-product dense medium cyclones.

技术参数 technical parameters

产品型号 Model	一段筒体直径 1st Stage Shell Diameter (mm)	二段筒体直径 2nd Stage Shell Diameter (mm)	入料粒度 Feed Size (mm)	入料压力 Feed Pressure (MPa)	处理能力 Processing capacity (t/h)	通过量 Throughput (m³/h)
ENX-YT600/400	600	400	⩽30	0.08~0.12	50~90	280~380
ENX-YT710/500	710	500	⩽35	0.09~0.14	80~120	380~550
ENX-YT780/550	780	550	⩽40	0.10~0.15	100~160	550~650
ENX-YT850/600	850	600	⩽45	0.13~0.16	120~180	650~750
ENX-YT900/650	900	650	⩽50	0.15~0.18	160~200	750~900
ENX-YT1000/710	1000	710	⩽55	0.18~0.22	200~250	900~1050
ENX-YT1100/780	1100	780	⩽60	0.20~0.24	240~300	1050~1350
ENX-YT1200/850	1200	850	⩽70	0.22~0.28	300~400	1400~1650
ENX-YT1300/920	1300	920	⩽80	0.26~0.32	360~460	1600~1900
ENX-YT1400/1000	1400	1000	⩽90	0.30~0.40	460~560	1900~2300

ENX-FE系列两产品重介质旋流器

ENX-FE Series Two-Product Dense Medium Cyclone

性能优势 Performance Advantages

◎采用离心涡壳进料体及包角入料方式的设计，增大处理量20～30%，提高分选效率；
◎新型入料口及溢流管的优化设计，减小短路流及盖下流，减少产品错配物含量；
◎新型高铝陶瓷和进口高铝陶瓷等耐磨材料，提高产品寿命1.5倍以上。
◎内衬材质为新型耐磨增韧高铝陶瓷，三氧化二铝含量≥96%。

◎ Designed with a centrifugal volute feed body and wrap-angle feeding structure, it boosts throughput by 20～30% and improves separation efficiency.
◎ Optimized new feed inlet and overflow pipe reduce short-circuit flow and cover flow, lowering the content of misplaced materials in separated products.
◎ Wear-resistant materials including new high-alumina ceramics and imported high-alumina ceramics extend service life by over 1.5 times.
◎ The lining is made of novel wear-resistant toughened high-alumina ceramic with alumina (Al_2O_3) content ≥96%.

技术参数 technical parameters

产品型号 Model	筒体直径 Cylinder Diameter (mm)	入料粒度 Feed Size (mm)	入料压力 Feed Pressure (MPa)	处理量 Capacity (t/h)	通过量 Throughput (m³/h)
ENX-FE500	500	≤20	0.05~0.10	30~50	150~250
ENX-FE600	600	≤35	0.06~0.12	50~80	200~350
ENX-FE660	660	≤35	0.06~0.12	60~100	300~450
ENX-FE710	710	≤40	0.08~0.13	80~140	400~550
ENX-FE800	800	≤50	0.08~0.13	140~220	500~700
ENX-FE850	850	≤50	0.09~0.14	200~280	700~900
ENX-FE900	900	≤60	0.09~0.14	250~350	900~1100
ENX-FE1000	1000	≤70	0.10~0.16	300~400	1100~1250
ENX-FE1150	1150	≤70	0.10~0.16	350~450	1200~1350
ENX-FE1200	1200	≤80	0.10~0.17	400~500	1350~1500
ENX-FE1300	1300	≤85	0.10~0.18	460~550	1500~1700
ENX-FE1400	1400	≤90	0.10~0.18	500~650	1700~1900
ENX-FE1450	1450	≤95	0.12~0.20	550~680	1900~2200
ENX-FE1500	1500	≤100	0.12~0.22	650~750	2100~2400
ENX-FE1600	1600	≤120	0.14~0.20	800~1000	2200~2600

ENX-FJ系列浓缩分级旋流器（组）

ENX-FJ Series Concentration & Classification Hydrocyclone (Cluster)

性能优势 Performance Advantages

◎可根据客户需求及现场工艺情况，设计不同型号，不同单体数量的机组，保证最优分级、浓缩效果；
◎内衬耐磨高铝陶瓷、特种聚氨酯、耐磨橡胶、KM复合材料等。
◎利用切线、渐开线、螺旋给料等多种入料结构的设计，保证设备最好的分级效率。
◎矿浆分配器经过流体分析设计，保证各单体旋流器工作状态一致，溢流粒度组成稳定；
◎方便给料管、溢流管、底流口更换结构，有利于现场维护及更换。

◎ Units with various models and different quantities of single cyclones can be customized based on customers' requirements and on-site process conditions to achieve optimal classification and thickening performance.
◎ Optional liners include wear-resistant high-alumina ceramic, special polyurethane, wear-resistant rubber, KM composite material and more.
◎ Multiple feed inlet structures such as tangential, involute and spiral feeding are adopted to maximize classification efficiency.
◎ The slurry distributor is designed via fluid dynamics analysis to ensure consistent operating conditions of each single cyclone and stable particle size distribution of overflow.
◎ Quick-replace structure for feed pipes, overflow pipes and underflow spigots facilitates on-site inspection, maintenance and part replacement.

技术参数 technical parameters

产品型号 Model	筒体直径 Cylinder Diameter (mm)	入料压力 Feed Pressure (MPa)	处理能力 Processing capacity (m³/h)	分级粒度 Classification size (mm)
ENX-FJ150	150	0.10~0.15	10~20	0.04~0.08
ENX-FJ200	200	0.10~0.15	20~35	0.04~0.08
ENX-FJ250	250	0.10~0.15	30~50	0.06~0.10
ENX-FJ300	300	0.10~0.15	50~80	0.06~0.12
ENX-FJ350	350	0.10~0.15	70~120	0.08~0.15
ENX-FJ380	380	0.10~0.15	100~150	0.10~0.16
ENX-FJ400	400	0.10~0.15	120~170	0.10~0.16
ENX-FJ450	450	0.10~0.15	140~200	0.10~0.18
ENX-FJ500	500	0.10~0.15	160~250	0.12~0.20
ENX-FJ610	610	0.10~0.15	200~300	0.12~0.20
ENX-FJ660	660	0.10~0.15	250~350	0.14~0.22
ENX-FJ710	710	0.10~0.15	350~500	0.15~0.25
ENX-FJ750	750	0.10~0.15	450~600	0.15~0.25
ENX-FJ800	800	0.10~0.15	550~750	0.18~0.30
ENX-FJ850	850	0.10~0.15	600~800	0.20~0.32
ENX-FJ900	900	0.10~0.15	650~850	0.22~0.35
ENX-FJ1000	1000	0.10~0.15	700~1000	0.22~0.35
ENX-FJ1100	1100	0.10~0.15	800~1200	0.24~0.40
ENX-FJ1200	1200	0.10~0.15	900~1300	0.25~0.40

性能优势 Performance Advantages

ENMATE全系列水力旋流器产品规格齐全，锥体锥角覆盖3°～180°，有效直径区间25mm～840mm。进料口采用基于渐开线、螺旋线流道构型优化升级的 C 型进料腔体结构；锥体采用陡度倾角较大的上锥＋长锥段下锥复合式结构设计。

· 提升旋流器进料体+直锥段上部切向流速，强化离心分选场；

· 延长分选关键区域矿粒停留时长，优化分级环境；

· 抑制微细粒错配进入底流，有效降低细颗粒底流夹带率，提高溢流细度。

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ENMATE’s full range of hydrocyclones boasts complete specifications, with cone angles ranging from 3° to 180° and effective diameters spanning 25 mm to 840 mm. The feed inlet adopts an optimized Type-C feed chamber upgraded with involute and spiral flow channel configurations; the cone features a composite structural design consisting of a steep upper cone section and an elongated lower cone section.

· Increases the tangential flow velocity at the feed body and upper straight cone section of the hydrocyclone to strengthen the centrifugal separation field;

· Extends the residence time of mineral particles in the critical separation zone and optimizes classification conditions;

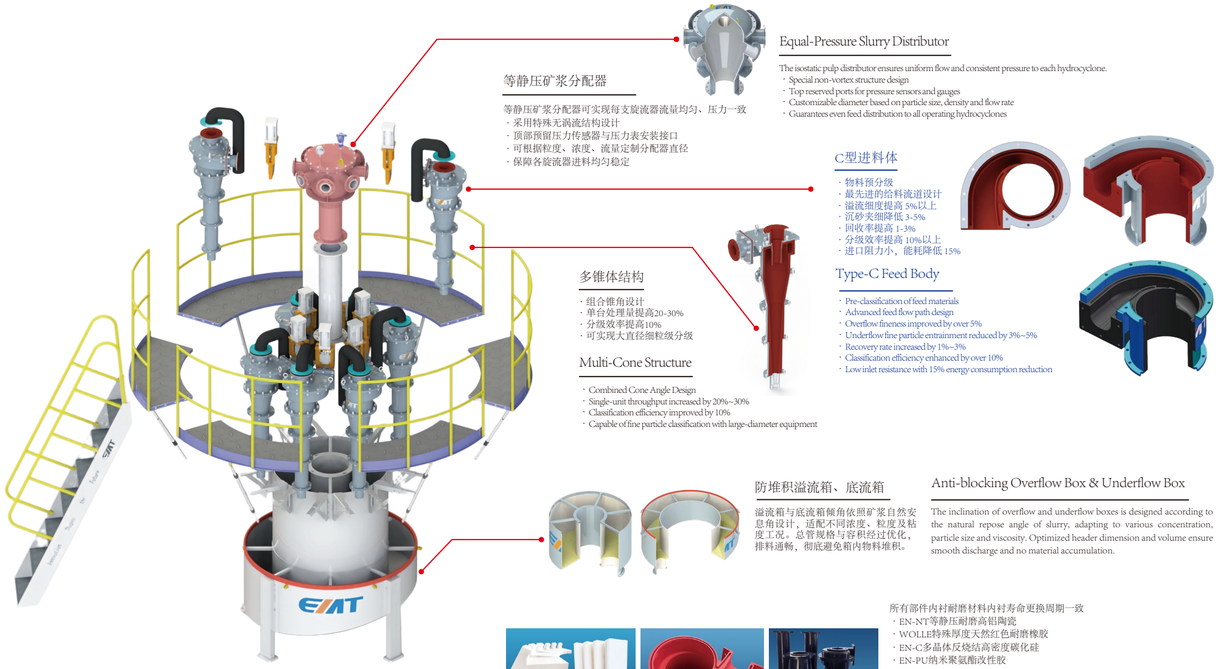
· Restrains misplacement of fine particles into underflow, effectively reducing the entrainment rate of fine grains in underflow and improving overflow fineness.

技术参数 technical parameters

产品型号 Model	直径 Diameter (mm)	最大给料粒度 Max. Feed Size (mm)	入料压力 Feed Pressure (Mpa)	处理能力 Processing Capacity (m^3/h)	分级粒度 Classification Size (um)	锥角 Cone Angle
FJ25	25	0.2	0.1-0.6	0.3-1	5-10	
FJ50	50	0.3	0.1-0.4	2-5	5-20	
FJ75	75	0.6	0.1-0.4	5-10	10-40	3°
FJ100	100	1	0.1-0.3	6-25	10-40	5°
FJ125	125	1	0.09-0.3	8-25	10-53	8°
FJ150	150	1.5	0.08-0.3	14-40	25-63	10°
FJ200	200	2	0.06-0.3	25-60	40-75	15°
FJ250	250	3	0.06-0.3	40-100	45-90	20°
FJ300	300	5	0.06-0.2	45-100	45-106	45°
FJ350	350	6	0.06-0.2	70-210	53-150	60°
FJ400	400	8	0.06-0.2	100-270	63-150	120°
FJ500	500	10	0.04-0.2	140-350	75-180	180°
FJ610	610	12	0.04-0.2	200-350	75-212	多维度
FJ660	660	16	0.03-0.15	260-600	75-250	
FJ710	710	18	0.03-0.15	400-650	75-300	
FJ840	840	20	0.03-0.15	500-1000	75-355	

ENX-FJ系列高效水力旋流器（组）
ENX-FJ Series High-Efficiency Hydrocyclone (Unit Group)

恩迈特 Innovation Shapes the Future



等静压矿浆分配器

等静压矿浆分配器可实现每支旋流器流量均匀、压力一致

· 采用特殊无涡流结构设计
· 顶部预留压力传感器与压力表安装接口
· 可根据粒度、浓度、流量定制分配器直径
· 保障各旋流器进料均匀稳定

Equal-Pressure Slurry Distributor

The isostatic pulp distributor ensures uniform flow and consistent pressure to each hydrocyclone.

· Special non-vortex structure design
· Top reserved ports for pressure sensors and gauges
· Customizable diameter based on particle size, density and flow rate
· Guarantees even feed distribution to all operating hydrocyclones

C型进料体

· 物料预分级
· 最先进的给料流道设计
· 溢流细度提高 5%以上
· 沉砂夹细降低 3-5%
· 回收率提高 1-3%
· 分级效率提高 10%以上
· 进口阻力小，能耗降低 15%

Type-C Feed Body

· Pre-classification of feed materials
· Advanced feed flow path design
· Overflow fineness improved by over 5%
· Underflow fine particle entrainment reduced by 3%~5%
· Recovery rate increased by 1%~3%
· Classification efficiency enhanced by over 10%
· Low inlet resistance with 15% energy consumption reduction

多锥体结构

· 组合锥角设计
· 单台处理量提高20-30%
· 分级效率提高10%
· 可实现大直径细粒级分级

Multi-Cone Structure

· Combined Cone Angle Design
· Single-unit throughput increased by 20%~30%
· Classification efficiency improved by 10%
· Capable of fine particle classification with large-diameter equipment

防堆积溢流箱、底流箱

溢流箱与底流箱倾角依照矿浆自然安息角设计，适配不同浓度、粒度及粘度工况。总管规格与容积经过优化，排料通畅，彻底避免箱内物料堆积。

Anti-blocking Overflow Box & Underflow Box

The inclination of overflow and underflow boxes is designed according to the natural repose angle of slurry, adapting to various concentration, particle size and viscosity. Optimized header dimension and volume ensure smooth discharge and no material accumulation.

所有部件内衬耐磨材料内衬寿命更换周期一致

· EN-NT等静压耐磨高铝陶瓷
· WOLLE特殊厚度天然红色耐磨橡胶
· EN-C多晶体反烧结高密度碳化硅
· EN-PU纳米聚氨酯改性胶

All components are lined with wear-resistant materials, featuring uniform service life and replacement cycle.

· EN-NT Isostatic Pressing Wear-Resistant High Alumina Ceramic
· WOLLE Special Thickened Natural Red Wear-Resistant Rubber
· EN-C Sintered Polycrystalline High-Density Silicon Carbide
· EN-PU Nano Modified Polyurethane Adhesive

ENX-FZ系列煤泥重介质旋流器

ENX-FZ Series Slime Dense Medium Cyclone

性能优势 Performance Advantages

◎内衬超耐磨TC高铝陶瓷材料、CM碳化硅材料，TC莫氏硬度≥8，CM莫氏硬度≥9.5，分级粒度0-1.5MM，EP≤0.08，入料效率＞90%，可调试溢流管。

◎ Lined with super wear-resistant TC high-alumina ceramic and CM silicon carbide materials.
Mohs hardness of TC ⩾ 8, Mohs hardness of CM ⩾ 9.5;
Classification cut size: 0 – 1.5 mm, EP ⩽ 0.08, feed efficiency ＞ 90%;
Equipped with adjustable overflow pipe.

技术参数 technical parameters

产品型号 Model	筒体直径 Cylinder Diameter (mm)	入料粒度 Feed Size (mm)	入料压力 Feed Pressure (MPa)	处理量 Capacity (t/h)	通过量 Throughput (m³/h)
ENX-FZ150	150	0~0.5	0.12~0.18	5~8	20~35
ENX-FZ200	200	0~0.5	0.18~0.22	8~12	35~55
ENX-FZ250	250	0~1.0	0.22~0.24	12~16	55~80
ENX-FZ300	300	0~1.0	0.24~0.28	16~25	80~140
ENX-FZ350	350	0~1.0	0.26~0.30	25~35	140~160
ENX-FZ380	380	0~1.0	0.26~0.30	35~45	140~160
ENX-FZ400	400	0~1.5	0.28~0.32	40~50	160~220

ENX-WT-MAX系列超级三产品重介质旋流器

ENX-WT-MAX Series Super Three-Product Dense Medium Cyclone

性能优势 Performance Advantages

◎改进优化口径比及长径比，二段采用两产品重介设计理念，大幅提高原煤入料粒度上限，解决了一二段通道、矸石口堵塞等问题。同时改进后的旋流器降低介煤比，达到提高处理能力及矸石外排能力的优点。
◎干煤处理量提高50%，最大70%。且矸石外排量提高至40%以上；
◎介煤比减少，降低至（3～3.5）:1，降低旋流器配泵流量计功率；
◎针对物料粒度大小，优化后提高粒度上限，满足150MM入料要求，最大200MM极限粒级；
◎整体结构优化，保持高分选精度，一段可能偏差0.03KG/L，二段可能偏差0.05KG/L。

技术参数 technical parameters

产品型号 Model	入料粒度 Feed Size (mm)	入料压力 Feed Pressure (MPa)	处理能力 Processing capacity (t/h)	介质循环量 Medium circulation volume (m³/h)
ENX-WT-MAX850	⩽80	0.14~0.18	160~260	800~1000
ENX-WT-MAX1000	⩽100	0.18~0.22	260~360	1100~1300
ENX-WT-MAX1100	⩽100	0.20~0.24	300~440	1300~1500
ENX-WT-MAX1200	⩽120	0.22~0.26	380~520	1600~1800
ENX-WT-MAX1300	⩽120	0.26~0.30	440~620	1800~2000
ENX-WT-MAX1400	⩽150	0.28~0.32	520~740	2200~2400

◎ The caliber ratio and length-diameter ratio are optimized and upgraded. The second stage adopts the design concept of two-product dense medium cyclone, which greatly raises the upper limit of raw coal feed size and resolves blockage issues of the first & second stage channels and gangue outlets. Meanwhile, the optimized cyclone achieves a lower medium-to-coal ratio, delivering the advantages of higher throughput and stronger gangue discharge capacity.
◎ Dry coal throughput rises by 50% with a maximum increase of 70%; the gangue discharge proportion is boosted to more than 40%.
◎ The medium-to-coal ratio is lowered to (3 – 3.5):1, which reduces the power consumption of pumps and flowmeters matched for the cyclone.
◎ Optimized for varying feed particle sizes, the maximum feed size limit is upgraded. It accommodates feed materials of 150 mm, with an ultimate top feed size of 200 mm.
◎ The optimized integral structure retains superior separation precision. The probable error (Ep) of the primary stage is 0.03 kg/L, and the Ep of the secondary stage is 0.05 kg/L.

ENF-FMX系列粗煤泥分选机

ENF-FMX Series Coarse Slime Separator

FMX 系列粗煤泥分选机依托上升水流在槽体内形成干扰沉降环境，矿浆颗粒悬浮构成自生分选介质层，实现粗细煤泥高效分选。矿浆从设备上部切线方向给入，带有稳定压力、流量的上升水由槽底通入；二者在槽体中部交汇形成稳定干扰床层，待分选颗粒同时完成干扰沉降与自生介质分选：低密度轻料上浮汇集至溢流槽，经溢流口排出为精矿；高密度重物料穿透床层沉降至槽体底部，通过底排阀持续排出成为尾矿。

The FMX series coarse slime separator relies on upward water flow to form an interference settling environment inside the tank. Mineral slurry particles suspend to form an autogenous separation medium bed for efficient separation of coarse slime.
Slurry is fed tangentially from the top of the equipment, while upward water with stable pressure and flow rate is introduced from the tank bottom. The two converge at the middle section of the tank to form a stable interference bed. Particles to be separated undergo both interference settling and separation in the autogenous medium simultaneously: low-density light materials float up and collect in the overflow launder, discharging as clean coal through the overflow outlet; high-density heavy materials penetrate the bed and settle to the tank bottom, and are discharged as tailings via the bottom discharge valve.

性能优势 Performance Advantages

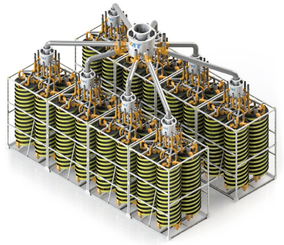
◎ 分选粒度范围宽3.0-0.15MM；
◎ 最佳分选粒度1.0-0.25MM;
◎ 无需添加重介质和化学剂且无动力运行；
◎ 精煤回收更大化，总精煤回收率一般可提高2%左右；
◎ 采用微电脑全自动控制，执行器、密度计等电气件原装进口。

◎ Wide separation particle size range: 0.15 – 3.0 mm
◎ Optimal separation particle size: 0.25 – 1.0 mm
◎ No heavy medium or chemical reagents required, with non-powered operation
◎ Maximize clean coal recovery; the total clean coal recovery rate can generally be increased by around 2%
◎ Adopt fully automatic microcomputer control; electric components including actuators and densitometers are original imported parts

技术参数 technical parameters

产品型号 Model	槽体直径 Tank Diameter (mm)	最大外径 Maximum Outer Diameter (mm)	处理量 Capacity (t/h)	床层密度 Bed Density (g/cm³)	入料浓度 Feed Concentration (%)
ENF-FMX1500	1500	2240	20~40	1.1~1.8	40~65
ENF-FMX1800	1800	2500	30~50	1.1~1.8	40~65
ENF-FMX2100	2100	2800	50~70	1.1~1.8	40~65
ENF-FMX2400	2400	3200	70~90	1.1~1.8	40~65
ENF-FMX3000	3000	3800	100~120	1.1~1.8	40~65
ENF-FMX3600	3600	4400	120~170	1.1~1.8	40~65

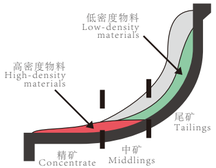
ENF-LXM系列螺旋分选机
ENF-LXM Series Spiral Separator

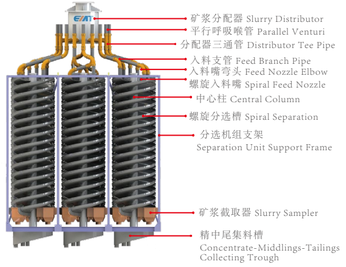


性能优势 Performance Advantages

ENMATE重选螺旋分选机专注0.04mm－1.5mm细粒级矿物高效回收，广泛运用于选煤、铁矿、铬矿、钛矿及各类高密度矿石的重选工艺。设备分选精度高、细粒回收率优越，是细粒煤炭与高密度细颗粒矿物分选的优选核心设备。

ENMATE gravity spiral separators are dedicated to the efficient recovery of fine minerals ranging from 0.04 mm to 1.5 mm. They are widely applied in gravity separation processes for coal, iron ore, chrome ore, titanium ore and all types of high-density ores.
Boasting high separation accuracy and outstanding fine particle recovery rate, this equipment serves as the preferred core separator for fine coal and high-density fine mineral grains.





技术参数 technical parameters

产品型号 Model	ENF-5LXM C1500	ENF-5LXM C1200A	ENF-5LXM C1200B	ENF-5LXM C900	ENF-5LXM C600
外径OD（mm）	1500	1200	1200	900	600
距径比（螺距 / 直径）P/D Ratio（mm）	0.45-0.7				
横向倾角（度）A Transverse Inclination Angle（°）A	14	14	14	14	14
横向倾角（度）B Transverse Inclination Angle（°）B	9	9	9	9	9
每柱安装螺旋头数 Number of Spiral Starts per Column	4	4或3 4or3	4或3 4or3	4或3 4or3	3或2 3or2
圈数 Number of Turns	3.5-5	3.5-5	3.5-5	3.5-5	3.5-5
槽面及螺旋形状 Trough Surface & Spiral Profile	光面螺旋 / 全槽面螺旋及4/5槽面+1/5光面螺旋				
给矿粒度（毫米）Feed Size (mm)	0.3-0.02	0.3-0.03	0.3-0.03	0.3-0.03	0.2-0.04
给矿浓度（%）Feed Concentration (%)	25-55	25-55	25-55	25-55	25-55
生产能力（吨 / 时）Production Capacity (t/h)	6-8	4-6	4-6	2-3	0.8-1.2

ENF-LXM系列螺旋分选机
ENF-LXM Series Spiral Separator

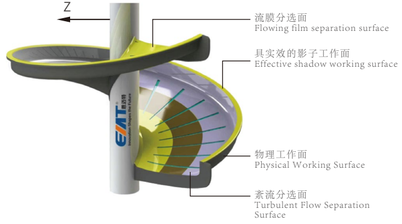
恩迈特 Innovation Shapes the Future

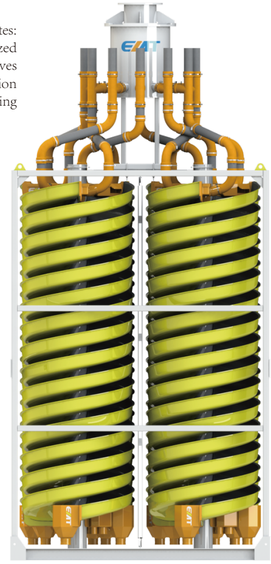
设备搭载多项核心技术，综合分选性能与稳定性大幅提升：
Equipped with multiple core technologies, the machine delivers greatly improved separation performance and stability:

· 螺旋溜槽的核心技术---采用流体力学优化的流线型断面曲线，精准贴合矿物分选轨迹，显著提升分选稳定性。

Core technology of spiral chutes: Adopt fluid dynamics optimized streamlined cross-section curves that precisely fit mineral separation trajectories, greatly improving separation stability.

· 独创反向叠片结构，物料分层充分，精矿品质与回收率同步提升；
Original reverse stacked plate structure realizes full material stratification to upgrade concentrate quality and recovery rate;

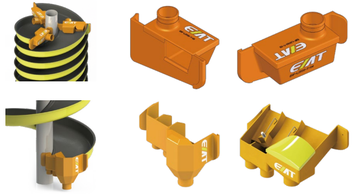




· 搭载重力均压给料系统，入料稳压匀流，避免分选波动；
Gravity pressure-equalizing feeding system ensures uniform and stable feed to eliminate separation fluctuation;

· 螺旋叶片整体模压一体成型，无拼接缝隙，耐磨耐用、性能持久；
Integrally molded spiral blades with no joints, featuring excellent wear resistance and long-term stable performance;

· 模块化组装设计，拆装简易，降低安装与运维成本；
Modular structure enables easy assembly and disassembly, cutting installation and maintenance costs;



ENT-CJQ系列弛张筛
ENT-CJQ Series Flip-Flow Screen

性能优势 Performance Advantages

ENT-CJQ系列弛张筛适用于细粒级物料的分级， 尤其适用于水分大、粘性较大的物料干法深度筛分。

· 筛网采用进口MDI三组份聚氨酯，形变大、瞬时加速度高，筛分效率优、不易堵孔。

· 剪切弹簧采用进口橡胶料，材质均匀、阻尼小、温升低，服役寿命长久。

· 配置强制同步箱式激振器，承载强、传动稳、低噪音低能耗，密封润滑优越，轴承五年免更换。

· 整机采用低合金优质结构钢，板材激光切割，核心部件数控精加工，尺寸与形位精度严苛可控。

· 筛箱整体采用 HUCK 虎克铆钉铆接，防振动松脱，整体刚度、强度显著提升。

· 过料构件喷涂弹性高分子材料或贴 WOLLE 耐磨橡胶，耐冲刷、抗腐蚀，延长设备使用周期。

· 采用带附加约束的超静定结构，结合复合筛分原理，实现低转速、大振幅稳定运行。

The ENT-CJQ series flip-flow screen is suitable for fine-grained material classification, especially for dry deep screening of high-moisture and high-viscosity materials.

· The screen mesh is made of imported three-component MDI polyurethane, featuring large deformation capacity and high instantaneous acceleration, delivering excellent screening efficiency with minimal plugging.

· Shear springs are manufactured from imported rubber compound with homogeneous material, low damping and low temperature rise, granting long service life.

· Equipped with forced-synchronous box-type vibrators featuring high load capacity, stable transmission, low noise and low energy consumption. Superior sealed lubrication enables five-year maintenance-free bearings.

· The whole machine adopts high-quality low-alloy structural steel. All plates are laser-cut and core components are CNC precision-machined for tightly controlled dimensional and geometric tolerances.

· The screen box is fully riveted with HUCK lockbolts to prevent loosening under vibration, greatly boosting overall rigidity and structural strength.

· Material-wetted components are coated with elastic polymer or lined with WOLLE wear-resistant rubber to resist erosion and corrosion and extend equipment service life.

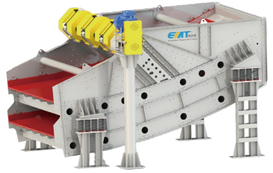
· An indeterminate structure with additional constraints combined with composite screening principle enables stable operation at low rotating speed and large amplitude.

技术参数 technical parameters

层数 Number of Layers	规格型号 Model & Specification	有效筛分面积(㎡) Effective Screening Area (㎡)	参考功率(kW) Reference Power (kW)
单层 Single layer	ENT-CJQ1861	10.98	22
	ENT-CJQ2461	14.64	30
	ENT-CJQ3073	21.90	37
	ENT-CJQ3090	27.00	37
	ENT-CJQ3690	32.40	37
	ENT-CJQ36100	36.00	45
	ENT-CJQ43100	43.00	90
	ENT-CJQ49120	58.80	55*2
双层 Double layer	ENT-2CJQ1861	10.98×2	37
	ENT-2CJQ2461	14.64×2	45
	ENT-2CJQ3073	21.90×2	55
	ENT-2CJQ3090	27.00×2	55
	ENT-2CJQ3690	32.40×2	75
	ENT-2CJQ36100	36.00×2	75
	ENT-2CJQ43100	43.00×2	55×2
	ENT-2CJQ49120	58.80×2	90×2

注：Q为强制同步稀油润滑激振器，处理量同筛孔尺寸相关。
Note: Q - Forced-synchronization oil-lubricated exciter. The throughput is related to the sieve aperture size.

ENT-XJQ 系列香蕉筛
ENT-XJQ Series Banana Screen



性能优势 Performance Advantages

ENT-XJQ系列香蕉筛适用于粗粒物料分级、脱泥，尤其适配细含量高的物料筛分。

· 采用等厚筛分原理，多段变倾角筛面设计，筛分效率高、处理量大；

· 整机采用低合金优质结构钢，板材激光切割、核心部件数控精加工，精度高、可靠性强；

· 筛箱采用力封闭结构，刚性强度高、动态性能稳定，使用寿命可达10年以上；

· 筛箱全HUCK铆钉铆接，杜绝振动松动，结构稳定性大幅提升；

· 过料部位配备高分子涂层或WOLLE耐磨橡胶，耐冲刷、抗腐蚀，延长设备寿命；

· 配置强制同步箱式激振器，传动稳、低噪节能、密封润滑优异，轴承五年免更换。

The ENT-XJQ series banana screen is suitable for classification and desliming of coarse-grained materials, especially for materials with high fine particle content.

· Adopting equal-thickness screening principle with multi-section variable-angle screen surface, it features high screening efficiency and large processing capacity.

· The complete machine is fabricated from premium low-alloy structural steel. All steel plates are laser cut and core components undergo CNC precision machining, delivering high precision and outstanding reliability.

· The force-closed screen box features high rigidity and excellent dynamic performance, with a service life of more than 10 years.

· Full HUCK riveting structure prevents loosening under vibration and greatly improves overall structural stability.

· Material contact parts adopt polymer coating or WOLLE wear-resistant rubber to resist abrasion and corrosion, extending equipment service life.

· Equipped with forced synchronous box-type vibrator, featuring stable transmission, low noise, low energy consumption and superior sealing lubrication. Bearings are maintenance-free for 5 years.

技术参数 technical parameters

层数 Number of Layers	规格型号 Model & Specification	有效筛分面积(㎡) Effective Screening Area (㎡)	参考功率(kW) Reference Power (kW)
单层 Single layer	ENT-XJQ1861	10.98	22.0
	ENT-XJQ2461	14.64	30.0
	ENT-XJQ3061	18.30	30.0
	ENT-XJQ3073	21.90	37.0
	ENT-XJQ3661	21.96	37.0
	ENT-XJQ3673	26.28	45.0
	ENT-XJQ3685	30.60	55.0
	ENT-XJQ4373	31.39	55.0
	ENT-XJQ4385	36.55	55.0
	ENT-XJQ4997	47.53	55.0
双层 Double layer	ENT-2XJQ1861	10.98×2	37.0
	ENT-2XJQ2461	14.64×2	37.0
	ENT-2XJQ3061	18.30×2	55.0
	ENT-2XJQ3073	21.90×2	55.0
	ENT-2XJQ3661	21.96×2	55.0
	ENT-2XJQ3673	26.28×2	55.0
	ENT-2XJQ3685	30.60×2	90.0
	ENT-2XJQ4373	31.39×2	90.0
	ENT-2XJQ4385	36.55×2	90.0
	ENT-2XJQ4997	47.53×2	55×2

注：Q为强制同步稀油润滑激振器，处理量同筛孔尺寸相关。
Note: Q - Forced-synchronization oil-lubricated exciter. The throughput is related to the sieve aperture size.

ENT-ZJQ系列直线筛

ENT-ZJQ Series Linear Screen

性能优势 Performance Advantages

ENT-ZJQ系列直线筛主要用于粗粒级物料的脱水、脱泥、脱介作业，也可用于细粒级物料的分级。

· 板材、型材均采用低合金优质结构钢；板材激光切割，核心部件经加工中心精铣，精准把控尺寸、形位公差与表面粗糙度，工艺稳定可靠。

· 筛箱采用新型力封闭结构，强度、刚度优异，动态性能佳，使用寿命超 10 年。

· 筛箱整体采用 HUCK 虎克铆钉全铆接，杜绝振动工况下连接件松动，进一步提升整体刚性与强度。

· 筛下横梁等过料部位喷涂弹性高分子材料或贴装 WOLLE 耐磨橡胶，抗冲刷、防腐蚀，延长设备寿命。

· 搭载强制同步箱式激振器，承载力强、传动平稳、低噪节能，润滑密封效果出色，轴承可 5 年免更换。

ENT-ZJQ series linear screens are mainly used for dewatering, desliming and medium removal of coarse-grained materials, as well as classification of fine-grained materials.

· Plates and sectional materials are all made of premium low-alloy structural steel. Steel plates are laser cut, and core components are precisely milled by machining centers to strictly control dimensions, geometric tolerances and surface roughness with stable and reliable manufacturing processes.

· The screen box adopts an innovative force-closed structure featuring excellent strength and rigidity, superior dynamic performance, and a service life of over 10 years.

· The entire screen box is fully riveted with HUCK lockbolts to avoid loose connectors under vibrating conditions and further enhance overall rigidity and structural strength.

· Material contact parts such as cross beams under the screen are coated with elastic polymer or lined with WOLLE wear-resistant rubber for erosion and corrosion resistance, extending equipment service life.

· Fitted with forced synchronous box-type vibrators, the machine boasts high load capacity, smooth transmission, low noise and energy efficiency. It achieves excellent lubrication and sealing performance, with maintenance-free bearings for up to 5 years.

技术参数 technical parameters

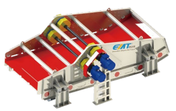
层数 Number of Layers	规格型号 Model & Specification	有效筛分面积(㎡) Effective Screening Area (㎡)	参考功率(kW) Reference Power (kW)
单层 Single layer	ENT-ZJQ2448	11.52	22
	ENT-ZJQ2461	14.64	30
	ENT-ZJQ3048	14.40	30
	ENT-ZJQ3061	18.30	30
	ENT-ZJQ3073	21.90	37
	ENT-ZJQ3648	17.28	37
	ENT-ZJQ3661	21.96	37
	ENT-ZJQ3673	26.28	37
	ENT-ZJQ3685	30.60	45
	ENT-ZJQ4373	31.39	55
	ENT-ZJQ4385	36.55	75
	ENT-ZJQ4997	47.53	90
双层 Double layer	ENT-2ZJQ2448	11.52×2	30
	ENT-2ZJQ2461	14.64×2	37
	ENT-2ZJQ3048	14.40×2	55
	ENT-2ZJQ3061	18.30×2	55
	ENT-2ZJQ3073	21.90×2	55
	ENT-2ZJQ3648	17.28×2	55
	ENT-2ZJQ3661	21.96×2	55
	ENT-2ZJQ3673	26.28×2	55
	ENT-2ZJQ3685	30.60×2	90
	ENT-2ZJQ4373	31.39×2	90
	ENT-2ZJQ4385	36.55×2	90
	ENT-2ZJQ4997	47.53×2	55*2

注：Q为强制同步稀油润滑激振器，安装角度：0°、+5°、+10°、+15°。

Note: Q - Forced-synchronization oil-lubricated exciter. Mounting angles: 0°, +5°, +10°, +15°.

ENT-TJ系列高效脱水筛

ENT-TJ Series High-Efficiency Dewatering Screen



性能优势 Performance Advantages

ENT-TJ系列脱水筛主要用于细粒物料的脱水、分级作业，如煤泥的脱水、脱介质及回收，砂石骨料脱水，尾矿干排等。

· 筛面采用正负倾角组合布局，划分预脱水、滤层成型、过滤脱水三区，脱水效率高、处理能力大。

· 侧板周边加装多层热轧角钢加强筋，提升刚度，杜绝边缘开裂。

· 经拓扑与布局优化，在筛箱高应力区增设加强梁与角钢，将应力控制在合理范围。

· 整机板材、型材选用低合金优质结构钢；板材激光切割，关键部件数控加工，严控公差与表面精度，工艺稳定可靠。

· 筛箱采用全 HUCK 虎克铆钉铆接，彻底解决振动工况下连接松动问题，整体刚度与强度大幅提升。

· 筛下横梁等过流部位喷涂弹性高分子材料或粘贴 WOLLE 耐磨橡胶，抗冲刷、防腐蚀，延长设备使用寿命。

The ENT-TJ Series Dewatering Screen is mainly used for dewatering and classification of fine-grained materials, including dewatering, medium removal and recovery of coal slime, dewatering of sand and aggregate, and dry stacking of tailings.

· The screen deck with combined positive and negative inclinations is divided into pre-dewatering, filter bed forming and filtration dewatering zones, delivering high efficiency and large throughput.

· Multi-layer hot-rolled angle steel stiffeners around side plates boost rigidity and prevent cracking.

· Topology and layout optimization places reinforcing beams and angles at high-stress areas of the screen box to maintain proper stress levels.

· All plates and profiles of the whole machine are made of high-quality low-alloy structural steel. Plates are laser-cut and key components are CNC machined to tightly control tolerances and surface precision, ensuring stable and reliable workmanship.

· The screen box is fully riveted with HUCK lockbolts, which thoroughly eliminates connector loosening under vibration and greatly improves overall rigidity and structural strength.

· Flow-wetted parts including cross beams under the screen are coated with elastic polymer materials or lined with WOLLE wear-resistant rubber to resist erosion and corrosion, extending the service life of the equipment.

技术参数 technical parameters

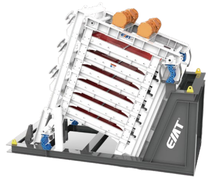
规格型号 Model & Specification	有效筛分面积(㎡) Effective Screening Area (㎡)	参考功率(kW) Reference Power (kW)	振幅(mm) Amplitude (mm)	工作频率(HZ) Operating Frequency (Hz)
ENT-TJG0924	2.16	2.2×2	3.0-5.0	25.0
ENT-TJG1236	4.32	3.0×2		
ENT-TJG1536	5.40	5.8×2		
ENT-TJG1548	7.20	5.8×2		
ENT-TJG1836	6.48	5.8×2		
ENT-TJG1848	8.64	6.3×2		
ENT-TJG2436	8.64	6.3×2		
ENT-TJG2148	10.8	7.5×2		
ENT-TJG2448	11.52	8.4×2		
ENT-TJG0924	2.16	2.2×2	6.0-8.0	16.33
ENT-TJD1236	4.32	2.9×2		
ENT-TJD1536	5.40	4.5×2		
ENT-TJD1548	7.20	5.0×2		
ENT-TJD1836	6.48	5.0×2		
ENT-TJD1848	8.64	6.0×2		
ENT-TJD2436	8.64	6.0×2		
ENT-TJD2148	10.08	7.5×2		
ENT-TJH(X)2448	11.52	11.0×2	6.0-8.0	16.33
ENT-TJH(X)2461	14.64	15.0×2		
ENT-TJH(X)3048	14.40	18.5×2		
ENT-TJH(X)3061	18.30	18.5×2		
ENT-TJH(X)3648	17.28	22.0×2		
ENT-TJH(X)3661	21.96	22.0×2		

注：G为高频振动电机（4级）\D为普通振动电机（6级）\H为双轴黄油激振器\X为双轴稀油激振器。

Note: G - High-frequency vibrating motor (4-pole); D - Standard vibrating motor (6-pole); H - Dual-shaft grease lubricated exciter; X - Dual-shaft oil lubricated exciter.

ENT-HSG系列海狮高频精细筛

ENT-HSG Series Sea Lion High-Frequency Fine Screen



性能优势 Performance Advantages

HSG系列海狮高频精细筛是一种精细湿法筛选设备，用于分离0.075-1.0MM的矿物。

· ENT-HSG 系列海狮高频精细筛采用模块化结构，最多可集成 10 组筛箱，构成整体刚性振动系统。高频振动电机的激振力可均匀传导至各层筛箱，振动组件振幅充足，物料透筛效果好，筛分效率与处理能力优异。

· 相较于同类精细筛分设备，本机型筛分面积提升一倍，结构紧凑、占地少，有效降低基建投入。

· 设备搭载专利多路布料器，可精准均分物料，保障进料沿筛网全宽均匀分布。

· 该筛机可与水力旋流器配套组成分选回路，也可单独使用替代旋流器，是湿法精细筛分的优选设备。

· 选用耐磨聚氨酯筛网，开孔率高，堵孔率低，筛分效率高，使用寿命长；

· 每段筛网之间布置独特的二次造浆槽，配合喷淋系统，可有效提高筛分效率；

· 筛机所有与矿浆接触部位整体喷涂弹性高分子材料或粘贴WOLLE红色耐磨橡胶，设备使用寿命长。

The HSG Series Sea Lion High-Frequency Fine Screen is a wet fine screening device, used for separating minerals with particle sizes ranging from 0.075 mm to 1.0 mm.

· The ENT-HSG Series Sea Lion High-Frequency Fine Screen adopts a modular design. Up to 10 screen boxes are combined to form an integral rigid vibration system. The exciting force generated by high-frequency vibrating motors is evenly transmitted to each screen box. The large amplitude of vibrating components facilitates material penetration through screens, delivering high screening efficiency and large throughput.

· Compared with other fine screening equipment, this model doubles the screening area. Featuring a compact layout, it occupies less floor space and reduces infrastructure investment.

· Equipped with a patented multi-channel distributor, the machine realizes accurate material distribution and ensures uniform feeding across the full width of each screen deck.

· It can work together with hydrocyclones to form a closed circuit, or be used independently as a replacement of hydrocyclones. It is the ideal choice for wet fine screening applications.

· Wear-resistant polyurethane screen panels are adopted, featuring high open area ratio, low blinding rate, superior screening efficiency and long service life.

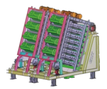
· Unique secondary slurry-making troughs are installed between each section of screen panels. Combined with the spraying system, they can effectively boost screening efficiency.

· All slurry-contact parts of the screen machine are entirely coated with elastic polymer material or lined with red WOLLE wear-resistant rubber to prolong equipment service life.

技术参数 technical parameters

规格型号 Model & Specification	层数 Number of Layers	有效筛分面积(㎡) Effective Screening Area (㎡)	振幅(mm) Amplitude (mm)	参考功率(kW) Reference Power (kW)
ENT-6HSG1014	6	8.4	1.5-3.0	1.84*2
ENT-6HSG1021	6	12.6	1.5-3.0	2.2*2
ENT-6HSG1216	6	11.52	1.5-3.0	1.84*2
ENT-6HSG1224	6	17.28	1.5-3.0	2.2*2
ENT-8HSG1014	8	11.2	1.5-3.0	2.2*2
ENT-8HSG1021	8	16.8	1.5-3.0	2.2*2
ENT-8HSG1216	8	15.36	1.5-3.0	2.2*2
ENT-8HSG1224	8	23.04	1.5-3.0	2.2*2
ENT-10HSG1014	10	14	1.5-3.0	2.6*2
ENT-10HSG1021	10	21	1.5-3.0	2.6*2
ENT-10HSG1216	10	19.2	1.5-3.0	2.6*2
ENT-10HSG1224	10	28.8	1.5-3.0	2.6*2
ENT-12HSG1014	12	16.8	1.5-3.0	3.2*2
ENT-12HSG1021	12	25.2	1.5-3.0	3.2*2
ENT-12HSG1216	12	23.04	1.5-3.0	3.2*2
ENT-12HSG1224	12	34.56	1.5-3.0	3.2*2

*筛孔尺寸为：0.053\0.075\0.1\0.12\0.15\0.180.2\0.23\0.3\0.35\0.43\0.5\0.63\0.71\0.8\1mm
*筛机可以做成两个模块一个组合，型号如：ENT-6HSG1014/2,筛分面积为：16.8㎡。
*Aperture sizes: 0.053, 0.075, 0.1, 0.12, 0.15, 0.18, 0.2, 0.23, 0.3, 0.35, 0.43, 0.5, 0.63, 0.71, 0.8, 1 mm
*The screen can be combined into a unit with two modules. Model example: ENT-6HSG1014/2, screening area: 16.8 ㎡



ENT-DJG系列叠层高频振动筛

ENT-DJG Series Stacked High-Frequency Vibrating

性能优势 Performance Advantages

ENT-DJG系列叠层高频振动筛主要用于细颗粒物料的脱水、分级作业，尤其适用于细颗粒物料高效湿式筛分，广泛应用于煤炭、冶金、化工等行业。

· 独特的双质体设计，单一筛箱激振可实现整个系统振动，系统运行平稳，对基础传递的载荷小；

· 配置多路分矿器及布矿器，每层筛面独立给料，可使矿浆均匀分布于筛面，处理量大；

· 布置方式灵活，根据物料特性，筛网可两段、三段或四段布置，筛箱可单层、三层、五层、八层等多层布置；

· 选用耐磨聚氨酯筛网，开孔率高，堵孔率低，筛分效率高，使用寿命长；

· 每段筛网之间布置独特的二次造浆槽，配合喷淋系统，可有效提高筛分效率；

· 筛机所有与矿浆接触部位整体喷涂弹性高分子材料或粘贴WOLLE红色耐磨橡胶，设备使用寿命长。

The ENT-DJG Series Stacked High-Frequency Vibrating Screen is mainly used for dewatering and classification of fine particles. It is especially suitable for high-efficiency wet screening and widely applied in coal, metallurgy, chemical and other industries.

· Adopting a unique two-mass system design, vibration generated by a single screen box drives the entire system. The equipment operates smoothly with low load transmitted to the foundation.

· Fitted with multi-channel ore distributors and feed spreaders, each screen deck is fed independently to ensure even slurry distribution and achieve large processing capacity.

· Flexible layout is available. According to material properties, the screen mesh can be arranged in 2, 3 or 4 sections, and screen boxes can be configured in single layer, 3 layers, 5 layers, 8 layers and other multi-layer forms.

· Equipped with wear-resistant polyurethane screen mesh, which features high open area, low blinding rate, high screening efficiency and long service life.

· Unique re-slurry tanks are installed between each mesh section. Combined with the spraying system, the screening efficiency can be effectively improved.

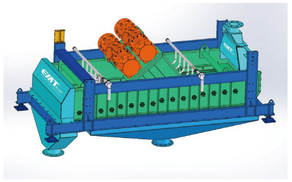
· All parts in contact with slurry are fully coated with elastic polymer or lined with WOLLE red wear-resistant rubber to prolong the service life of the equipment.

技术参数 technical parameters

规格型号 Model & Specification	有效筛分面积(㎡) Effective Screening Area (㎡)	参考功率(kW) Reference Power (kW)
ENT-DJG1014	1.46	1.84×2
ENT-DJG1216	2.04	1.84×2
ENT-3DJG1014	4.38	1.84×2
ENT-3DJG1216	6.12	1.84×2
ENT-5DJG1014	7.30	2.20×2
ENT-5DJG1216	10.20	2.20×2
ENT-DJG1021	2.18	1.84×2
ENT-DJG1224	3.07	1.84×2
ENT-3DJG1021	6.54	1.84×2
ENT-3DJG1224	9.21	1.84×2
ENT-5DJG1021	10.90	2.20×2
ENT-5DJG1416	11.2	1.84×2
ENT-5DJG1224	15.35	2.20×2
ENT-8DJG1014	11.68	2.20×2
ENT-8DJG1216	16.32	2.20×2

FGCZ系列除杂筛

FGCZ Series Impurity Removing ScreenScreen



FGCZ系列除杂筛配备高频振动电机，转速 1500R/MIN，处理低固含量矿浆时产能表现优异。设备结构紧凑、占地空间小，具备单位面积处理量大、功耗低、动载荷小等特点。适用于高精度、大产能的湿法筛分及脱水作业，广泛应用于金、银、铜、铅锌等有色金属选矿流程中的除杂、除屑、隔渣等工序。

性能优势 Performance Advantages

高效驱动设计

· 采用双电机自同步技术，驱动筛箱直线运动。

· 配备进口激振电机（马丁/OLI），运行可靠，寿命长。

优化筛分性能

· 多段筛箱设计，处理量大、筛分效率高、功耗低。

· 机械式筛箱角度调节，操作便捷。

· 筛箱整体热处理，适应高激振强度长期运行。

耐用结构设计

· 表面喷砂防腐处理，喷涂聚脲或贴WOLLE橡胶耐磨层，延长使用寿命。

· 采用柔性聚氨酯筛网（可安装3~5张），弹性好、防堵孔。

· 拉网螺栓固定，安装紧固可靠。

高可靠性配置

· 关键电气元件采用西门子/施耐德品牌

· 动载小、运行稳定、维护量低

FGCZ Series Impurity Removing Screen is equipped with high-frequency vibration motors at a rotational speed of 1500 r/min, achieving excellent capacity when processing ore slurry with low solid content. It features compact structure, small footprint, high throughput per unit area, low power consumption and low dynamic load. Designed for high-precision and high-capacity wet screening and dewatering, it is widely applied to impurity removal, debris disposal and residue separation in the beneficiation process of non-ferrous metals including gold, silver, copper, lead and zinc.

High-efficiency Drive Design

Adopts dual-motor self-synchronization technology to drive linear motion of the screen box.

Fitted with imported vibration exciters (Martin / OLI) for reliable operation and long service life.

Optimized Screening Performance

Multi-section screen box design achieves large throughput, high screening efficiency and low power consumption.

Mechanical adjustment of screen box angle for easy operation.

Integral heat treatment of the screen box enables long-term operation under high vibration intensity.

Durable Structural Design

The surface is treated with sand blasting for anti-corrosion, and coated with polyurea or lined with WOLLE rubber wear-resistant layer to extend service life.

Flexible polyurethane screen meshes (3 to 5 pieces installable) feature good elasticity and anti-blinding performance.

Tension bolts ensure firm and reliable installation.

High-reliability Configuration

Key electrical components adopt Siemens / Schneider products.

Low dynamic load, stable operation and low maintenance workload.

技术参数 technical parameters

产品型号 Model	ENT-FGCZ 1021	ENT-FGCZ 1028	ENT-FGCZ 1433	ENT-FGCZ 1440
有效筛分面积(㎡) Effective Screening Area	2.1 ㎡	2.8 ㎡	4.8 ㎡	5.6 ㎡
直线振动 (双振幅) Linear Vibration (Double Amplitude)	2-3mm	2-3mm	2-3mm	2-3mm
装机总功率（输出） Total Installed Power (Output)	2台(units) *1.2kW	2台(units) *1.2kW	2台(units) *1.5kW	2台(units) *2.3kW
振动频率 Vibration Frequency	25Hz	25Hz	25Hz	25Hz
筛面倾角 Screen Deck Angle	0~3°	0~3°	0~3°	0~3°
网孔大小 Mesh Size	0.045-2mm	0.045-2mm	0.045-2mm	0.045-2mm
筛网尺寸（长 × 宽） Screen Mesh Dimension (Length × Width)	700*1050(mm)	700*1050(mm)	840*1450(mm)	840*1450(mm)
筛网数量 Number of Screen Meshes	3张(pieces)	4张(pieces)	4张(pieces)	5张(pieces)
处理量（干矿 t/h） Throughput (Dry Ore, t/h)	3~8	3~9	5~11	5~15

ENT-BE系列强制同步型激振器

ENT-BE Series Forced Synchronous Vibrator

强制同步型激振器依靠两组异向同步旋转的偏心块产生正弦规律变化的沿单一方向的激振力。该系列激振器主要用于运动轨迹为直线的振动筛分设备。

性能优势 Performance Advantages

· 箱体采用耐低温冲击材料精铸而成，强度高，韧性大，耐零下40 C 振动冲击；

· 箱体、齿轮及轴等关键零部件全部采用加工中心加工，并经磨削加工，形位公差达到6级标准，关键部位达到5级标准；

· 激振器采用大螺旋角斜齿轮传动，传动平稳、噪音低、能耗低；

· 配置进口振动机械专用轴承，承载力大，更能适应振动筛恶劣的工况；

· 采用复合密封方式，密封性能优越，不渗油，散热快；

· 在润滑合理的前提下，5年内无需更换轴承。

Forced-synchronous vibration exciters generate sinusoidally varying unidirectional exciting force by means of two sets of eccentric masses rotating synchronously in opposite directions.This series of vibration exciters is mainly applied to linear-motion vibrating screening equipment.

· The housing is precision cast from low-temperature impact-resistant material, featuring high strength and great toughness, and can withstand vibration impact at minus 40° C.

· All key components such as the housing, gears and shafts are processed by machining centers and then ground. Their geometric tolerances meet Grade 6 standard, and key parts reach Grade 5 standard.

· The vibrator adopts large-helix-angle helical gear transmission with stable operation, low noise and low energy consumption.

· It is equipped with imported special bearings for vibrating machinery, which have high bearing capacity and can better adapt to the harsh working conditions of vibrating screens.

· It adopts a composite sealing structure with excellent sealing performance, no oil leakage and fast heat dissipation.

· Under proper lubrication, the bearings do not need to be replaced within 5 years.

技术参数 technical parameters

产品型号 Model		ENT-BE202S	ENT-BE204S	ENT-BE204V	ENT-BE208S	ENT-BE208V
转速(r/min) Rotational Speed		1000	1000	750	1000	750
静力矩 (Kg · cm) Static Moment	min	1400	1900	1900	2300	3600
	max	2800	3700	4200	4500	7600
最大激振力 (kN) Maximum Exciting Force (kN)		300	400	260	490	460

ENF-TAL系列高效逆流洗砂机

ENF-TAL Series High-Efficiency Counter-current Sand Washing Machine

ENF-TAL　系列高效逆流洗砂机，利用机内上升水流形成稳定干涉沉降场，借助泥沙颗粒干扰沉降末速差异实现泥沙分离。沉降速度低的泥料及有机杂质，随上升流由上部溢流排出；高密度砂石沉降至机体下部。设备由密度计实时监测料层比重，达到设定值自动排砂，并依据比重变化动态调节排砂阀开度，精准控制排砂工况。

This equipment creates a stable hindered settling field via internal upward water flow to separate sand and mud based on differing hindered settling terminal velocities.
Mud and organic impurities with low settling velocity overflow from the upper outlet. High-density sand settles to the lower chamber. A densitometer continuously measures material-layer specific gravity. Sand discharge is activated upon reaching the preset value, and the sand-discharge valve opening is regulated dynamically in response to specific-gravity fluctuations.

性能优势 Performance Advantages

洗砂洁净度高：采用旋流分离技术 + 干涉沉降原理进行洗砂，泥与砂分两个方向分离，减少了砂中的含泥量，对于高含泥物料依然有很好的效果。
自动化程度高：采用德国西门子控制系统，可无人值守并具有远程监控的功能。
产品砂细度模数可调：通过控制水流量及压力调整产品砂的细度模数。
运行成本低：设备本身无大型运转部件，因此功耗低，用水量少，特别是含泥量较高的物料，用水量是传统洗砂机用水量的二分之一。

High sand-washing cleanliness : Adopts cyclone separation technology combined with interference sedimentation principle for sand washing. Mud and sand are separated in two directions to lower mud content in sand. It works excellently even for materials with high mud content.
High automation level : Fitted with German Siemens control system, enabling unattended operation and remote monitoring.
Adjustable fineness modulus of finished sand : The fineness modulus of finished sand can be adjusted by controlling water flow rate and water pressure.
Low operating cost : The equipment has no large-size rotating parts, resulting in low power consumption and low water consumption. Especially for high-mud-content materials, its water consumption is half that of traditional sand washers.

技术参数 technical parameters

产品型号 Model	槽体直径 Tank Diameter (mm)	处理量 Capacity (t/h)	需水量 water consumption (m^3/h)	供水压力 Water supply pressure (Mpa)	入料浓度 Feed concentration (%)	分级粒度 Classification particle size (mm)
ENF-TAL2100	2100	30~80	60~120	0.1~0.15	50~70	0.1~0.15
ENF-TAL2400	2400	50~100	100~150	0.1~0.15	50~70	0.1~0.15
ENF-TAL3000	3000	100~150	150~200	0.1~0.15	50~70	0.1~0.15
ENF-TAL3600	3600	150~200	200~250	0.1~0.15	50~70	0.1~0.15
ENF-TAL4200	4200	200~250	250~300	0.1~0.15	50~70	0.1~0.15

ENH-LX系列轮式洗砂机

ENH-LX Series Wheel Sand Washer

ENH-LX 系列高效轮式洗砂机采用恩迈特独有的 ESC 排水结构，解决了普通洗砂轮斗扰动对分级的影响，提高了细砂回收率，0.15MM 以上回收率大于等于 90%，级配合理，细度模数适中。

ENH-LX Series High-Efficiency Wheel Sand Washer** adopts ENMATE’s proprietary ESC drainage structure. It eliminates the grading interference caused by bucket agitation of conventional sand washers, improving fine sand recovery rate. The recovery rate for particles above 0.15mm is ≥90%, with reasonable particle gradation and moderate fineness modulus.

性能优势 Performance Advantages

· 轮斗挖料口采用了锯齿设计，外衬耐磨合金材料，易损件便于更换，轮洗不易变形。
· 筛网采用锰钢（或 304 不锈钢）冲孔筛网，鱼鳞网孔结构，阻止了卡孔，堵网眼等状况发生，保证了设备的长期可靠使用。
· 筛网采用螺栓安装工艺，便于更换，降低维护成本。
· 电机、减速机、轴承均选用一线品牌，亦可选用国外品牌。

· The material-scooping opening of the wheel bucket features a serrated design and is lined with wear-resistant alloy material. Wear-prone parts are easy to replace, and the wheel bucket is resistant to deformation.
· The screen adopts punched screens made of manganese steel (or 304 stainless steel) with scale-like mesh structure. It prevents hole jamming and mesh clogging, ensuring long-term reliable operation of the equipment.
· The screen is mounted with bolt-fastening technology for easy replacement and lower maintenance costs.
· Motors, reducers and bearings are supplied with first-tier domestic brands; foreign brands are also available as options.

技术参数 technical parameters

规格型号 Model & Specification	处理量 Capacity (t/h)	入料粒径 Feed size (mm)	参考功率 Reference Power (kW)
ENH-LX2615-A	50~100	≤10	5.5
ENH-LX3615-A	100~150	≤10	7.5
ENH-LX3615-B	150~200	≤10	11
ENH-LX4215-B	200~300	≤10	11
ENH-LX4515-B	300~400	≤10	15
ENH-LX5015-B	400~500	≤10	18.5

ENH-LS 系列螺旋洗砂机

ENH-LS Series Spiral Sand Washer

EENH-LS系列螺旋洗砂机采用了全新的结构设计，解决了洗砂过程中入料与叶轮旋转扰动对分级影响的问题，提高了细砂回收率，0.15MM 以上回收率 90% 以上，砂产品级配合理，细度模数适中，含泥量少。

The ENH-LS Series Spiral Sand Washer adopts a brand-new structural design. It solves the problem that feeding and impeller rotation disturbance affect classification during sand washing, improves fine sand recovery rate. The recovery rate for particles above 0.15mm exceeds 90%. The finished sand features reasonable gradation, moderate fineness modulus and low mud content.

性能优势 Performance Advantages

· 优化进料结构，杜绝短路流；ESC 排水结构，提高细砂回收率
· 核心传动件国内一线，可配进口
· 锰钢 / 304 不锈钢一体成型，叶片耐磨防护，清洗分级效果优异
· 尾轴特殊密封，耐高磨损砂石工况
· 模块化单 / 双螺旋可选，大处理量，投资省，变频调速

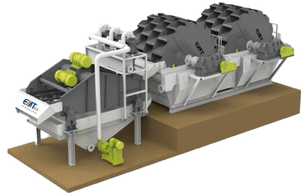
· Optimized feeding structure to avoid short-circuit flow; Exclusive ESC drainage structure improves fine sand recovery rate.
· Core transmission parts adopt domestic top-tier brands, imported brands optional.
· Integrally formed with manganese steel / 304 stainless steel; wear-resistant blade protection for excellent washing & classification performance.
· Special sealed tail bearing, suitable for high-abrasion sand-stone working conditions.
· Modular design, single /double screw optional; large processing capacity, cost-effective, variable-frequency speed adjustment.

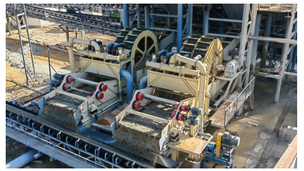
技术参数 technical parameters

产品型号 Model	入料量 Feed Capacity (t/h)	规格 Specification (mm)	参考功率 Reference Power (kW)	进料粒径 Feed Particle Size (mm)
ENH-LS1200	50~80	Φ1200	18.5	≤10
ENH-LS1500	80~120	Φ1500	22	≤10
ENH-LS1800	120~160	Φ1800	30	≤10
ENH-LS2000	160~220	Φ2000	37	≤10
ENH-2LS1200	100~160	Φ1200*2	18.5*2	≤10
ENH-2LS1500	160~240	Φ1500*2	22*2	≤10
ENH-2LS1800	240~320	Φ1800*2	30*2	≤10
ENH-2LS2000	320~440	Φ2000*2	37*2	≤10

ENH-LXY 系列轮式洗砂回收一体

ENH-LXY Series Wheel-Type Sand Washing & Recovery Integrated Machine





ENH-LXY 系列轮式洗砂回收一体机将恩迈特高效轮式洗砂机、C 型高效水力旋流器与直线脱水筛进行模块化组合，实现轮斗洗砂、洗砂回收以及干排脱水一体化，具有混料均匀、占地面积小、空间高度小等优势，还可根据不同物料配置不同旋流器组，进行一对一定制。

The ENH-LXY series wheel-type integrated sand washing and recovery machine modularly combines ENMATE high-efficiency wheel sand washer, C-type high-efficiency hydrocyclone and linear dewatering screen. It integrates wheel-bucket sand washing, fine sand recovery and dry dewatering into one unit. With advantages of uniform material mixing, smaller floor space and lower overall height, the equipment can be equipped with customized cyclone groups for different materials to realize one-to-one personalized configuration.

性能优势 Performance Advantages

· 模块化设计，布局合理、紧凑、占地面积小，可直接安装在适合的地面上使用。
· 工艺参数设计合理，设备耗能低，洗砂回收效果好。
· 全自动化控制，可选配远程控制功能。
· 洗砂水浓度可调，实时监控，自动调节，以保证洗砂的洁净度。（选配功能）
· 洗砂预搅拌功能，针对洗砂粘性高、含泥量高等物料。（选配功能）

· Modular design with reasonable and compact layout and small floor space, which can be directly installed and operated on qualified ground.
· Reasonable process parameter design ensures low energy consumption and excellent sand washing and recovery performance.
· Fully automatic control is adopted, with remote control function optional.
· Adjustable washing water concentration with real-time monitoring and automatic adjustment to guarantee sand cleanliness. (Optional)
· Pre-stirring function for sand washing, applicable to materials with high viscosity and high mud content. (Optional)

技术参数 technical parameters

产品型号 Model	处理量 Capacity (t/h)	进料粒径 Feed Particle Size (mm)	洗水量 Washing Water Flow (m^3/h)	回收粒径 Recovered Particle Size (μm)	参考功率 Reference Power (kW)
ENH-LXY100	50~100	≤10	80~100	>45	42.7
ENH-LXY150	100~150	≤10	150~300	>45	79.6
ENH-LXY200	150~200	≤10	250~400	>45	88
ENH-LXY300	200~300	≤10	400~600	>45	138
ENH-LXY400	300~400	≤10	600~800	>45	165.5

ENH-XT 系列细砂回收一体机

ENH-XT Series Fine Sand Recovery Integrated Machine

ENH-XT系列细砂回收一体机可简便去除多余粗细颗粒，洗涤效果优异，产出洁净低水分物料，便于输送与储存。

主要应用：

洗砂：去除细粉、黏土；将破碎机粉尘加工为商品砂；洗涤回收物料。

回收：从矿浆废水中回收商品砂、硅砂、压裂砂；尾矿、建筑垃圾回收处理。

It simply removes excess fine and coarse particles with excellent washing performance, producing clean, low-moisture materials for conveying and storage.

Main Applications:

Sand Washing: Remove fine powder and clay; convert crusher dust into marketable sand; wash recovered materials.

Recovery: Recover marketable sand, silica sand and fracturing sand from wastewater streams; tailings and construction waste recovery.

性能优势 Performance Advantages

· 采用模块化设计，适配不同处理量，具备占地小、高度低、功耗低的优势。

· 一体化中转泵池，让系统布局更合理紧凑。

· 易损部位内衬优质橡胶。

· 脱水筛可选配喷淋装置与不同介质筛板，提升细粒分离效果。

· 筛网、旋流器底流口更换便捷，支持多种配置选型。

· 变频驱动系统，可适配进料波动，保持设备最优运行工况。

· 搭载德国西门子（SIEMENS）中央控制单元，支持远程控制、数据传输，实时监控设备运行状态。

· Modular design is adopted to meet different throughput requirements. It features small floor space, low installation height and low power consumption.

· The integrated intermediate pump sump enables a more rational and compact system layout.

· High-quality rubber liners are fitted on wear-prone parts.

· The dewatering screen can be equipped with spray devices and medium-specific screen plates to enhance fine particle separation.

· Screen meshes and cyclone underflow outlets are easy to replace for multiple configuration options.

· The variable-frequency drive system maintains optimal operation regardless of feed variations.

· Equipped with Germany-made SIEMENS central control unit, it supports remote control, data transmission and real-time monitoring of equipment operating status.

技术参数 technical parameters

产品型号 Model	处理量 Capacity (t/h)	回收粒径 Recovered Particle Size (μm)	回收细砂量 Fine sand recovery capacity(t/h)	参考功率 Reference Power (kW)
ENH-XT150	100~150	>45	10~20	37.2
ENH-XT200	150~200	>45	15~35	49.6
ENH-XT300	200~300	>45	25~45	57.6
ENH-XT400	300~400	>45	35~55	77
ENH-XT500	400~500	>45	40~55	97
ENH-XT600	500~600	>45	45~60	112
ENH-XT800	600~800	>45	60~80	147

ESC-FTD 系列智能污水处理系统

ESC-FTD Series Intelligent Sewage Treatment System

ESC-FTD系列智能污水处理系统本系统由恩迈特旋流分离技术中心联合德国技术研发，为新一代智能高效污水处理设备。采用单元化、高集成、高智能化设计，集成度高、设计理念先进、运行成本低廉，创新结构布局相比传统污水处理工艺具备革命性优势。系统具备液位、流量、混凝、澄清、物料淤积的浓缩控制与检测功能，同时支持远程控制及数据库分析。

广泛应用于砂石骨料、煤炭、金属及非金属矿山等行业的水处理工序。

Developed by ENMATE Hydrocyclone Separation Technology Center in cooperation with German technology, the ESC-FTD series is a new-generation intelligent and high-efficiency sewage treatment system. Featuring modular, highly-integrated and intelligent design, it is a high-efficiency system with high integration, advanced concepts and low operating costs. Its innovative structural layout brings revolutionary advantages over conventional sewage treatment methods.

The system is equipped with functions for concentration control and detection of liquid level, flow rate, coagulation, clarification and material accumulation. It also supports remote control and database analysis.

It is applied to water treatment processes in various industries including sand and aggregate, coal, metal and non-metal mines.

ESC-FTD系列智能污水处理系统由 ESC-X、ESC-FTD两套子系统构成。

ESC-X系统实现高效沉淀；ESC-FTD系统承担系统控制、絮凝等功能。两套系统既可独立运行，也可搭配其他水处理设备协同作业。

The ESC-FTD series intelligent sewage treatment system consists of two subsystems: ESC-X and ESC-FTD.

The ESC-X subsystem is for high-efficiency sedimentation, while the ESC-FTD subsystem is responsible for system control, flocculation and other functions.

Both subsystems can operate independently or work in conjunction with other water-treatment equipment.

ESC-FTD Subsystem

ESC-X Subsystem

性能优势 Performance Advantages

· 整套设备由供水、絮凝制备、加药控制、在线检测、电气控制等单元组成，可选配污泥提升、自动排泥模块，实现全流程数字化集中控制。

· 系统采用积木式模块化组合，可按需搭配处理单元适配不同处理量，布局紧凑合理。设备集成度高、占地面积小、一体化安装，操作与维护便捷。

· 污水全程密闭处理，分离器表面采用特殊防腐耐磨涂层，无二次污染；设备自带全自动冲洗功能。

· 支持无人值守运行，昼夜模式自动切换，可替代传统沉淀池、深锥沉降设备，自带清水回用单元，大幅降低投资与运维成本。

· 设备搭载德国西门子中央控制系统与先进编程架构，人机交互智能稳定，数据传输可靠。

· 依托恩迈特专属旋流加药结构与多维混合装置，可在保护絮体完整的前提下实现高效混凝混合，有效降低药剂消耗量，部分工况可实现无药剂运行。

· 出水水质清澈，达标排放，可直接循环回用。

· The system consists of water supply, flocculant preparation, dosing control, detection and electrical units, with optional sludge lifting and sludge discharge units, realizing centralized digital control.

· Adopting building-block modular combination, the system can match different treatment capacities with optimized layout. Featuring high integration, small footprint and integrated installation, it ensures convenient operation and maintenance.

· The whole sewage treatment process is completed inside the closed system. The separator is protected by a special durable coating without secondary pollution, and is equipped with an automatic flushing function.

· Supporting unattended operation with automatic day and night mode switching, the system replaces traditional sedimentation tanks and deep cone thickeners. The built-in clean water unit effectively reduces overall costs.

· Equipped with advanced programming architecture and a German Siemens central control unit, the system realizes intelligent human-machine interaction, stable operation and reliable data transmission.

· With ENMATE's unique cyclone dosing structure and multi-dimensional mixing device, high-efficiency mixing and coagulation are achieved without damaging flocs. It reduces chemical dosage and can even operate without chemicals under certain working conditions.

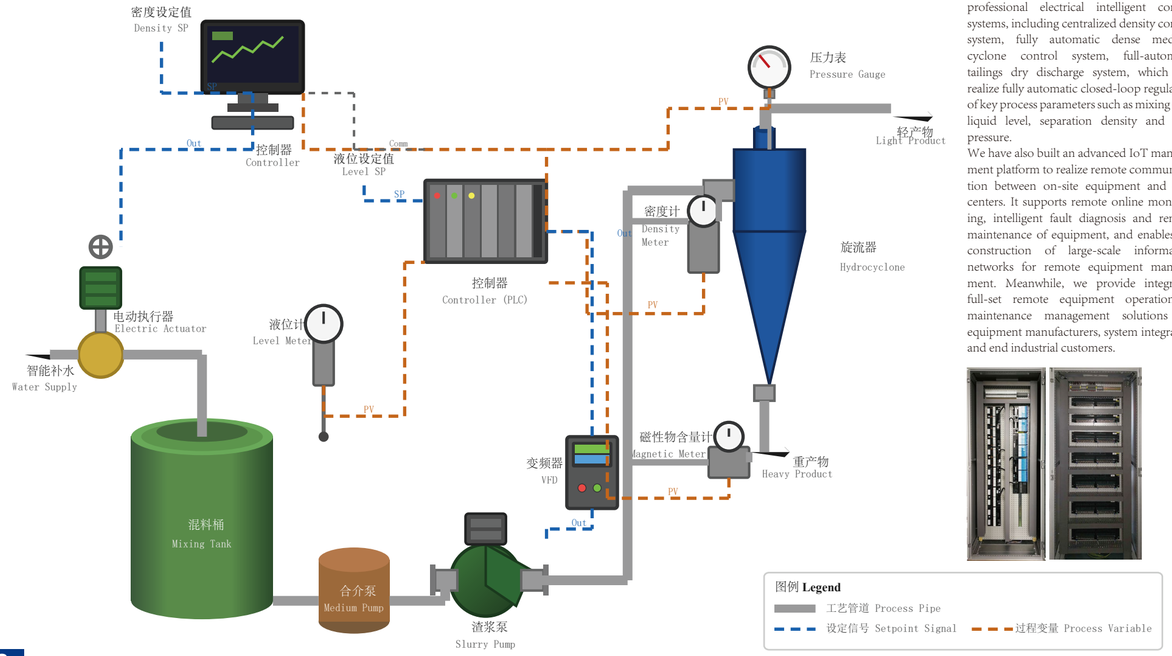
· The outlet water is clear, meets discharge standards and can be recycled for reuse.

END智能密控专家系统

END Intelligent Density Control Expert System

恩迈特可向客户提供成套专业电气智能控制系统，涵盖集中密度控制系统、重介质旋流器全自动控制系统、尾矿干排全自动控制系统等，能够对混料桶液位、分选密度、入料压力等关键工艺参数实现全自动闭环调控。

公司配套搭建先进物联网管控平台，打通现场设备与数据中心远程通信链路，支持设备远程在线监控、故障智能诊断、远程运维作业，可搭建规模化设备远程管理信息化网络；同时面向设备生产厂商、系统集成商及终端工矿客户，提供一体化完整设备远程运维管理解决方案。



ENMATE supplies customers with complete professional electrical intelligent control systems, including centralized density control system, fully automatic dense medium cyclone control system, full-automatic tailings dry discharge system, which can realize fully automatic closed-loop regulation of key process parameters such as mixing tank liquid level, separation density and feed pressure.

We have also built an advanced IoT management platform to realize remote communication between on-site equipment and data centers. It supports remote online monitoring, intelligent fault diagnosis and remote maintenance of equipment, and enables the construction of large-scale information networks for remote equipment management. Meanwhile, we provide integrated full-set remote equipment operation & maintenance management solutions for equipment manufacturers, system integrators and end industrial customers.

ENMATE在线监测系统

ENMATE Online Monitoring System

恩迈特振慧测系统基于物联网、5G、大数据、AI等先进技术，研发的振动筛在线状态监测及故障诊断系统，主要服务振动筛测试及在线监测场景，包含系统平台、手机APP以及无线振动传感器、无线温度传感器、智能采集终端等软硬件。可对振动筛的振幅、振频、横摆、冲击（G值）、运行轨迹、轴承温度等进行实时远程在线监测，利用波形、频谱等进行设备（轴承）故障诊断及健康分析。使用便捷，手机注册、扫码入网，全方位、多维度满足全行业用户对振动筛的测试及监测需求。

The ENMATE Vibration Intelligent Monitoring System is developed based on cutting-edge technologies including the Internet of Things, 5G, big data and AI. It serves as an online condition monitoring and fault diagnosis system dedicated to vibrating screens, mainly applied in vibrating screen testing and online monitoring scenarios. The system consists of complete software and hardware products: cloud platform, mobile APP, wireless vibration sensors, wireless temperature sensors and intelligent data acquisition terminals.

It enables real-time remote online monitoring of vibrating screen operating parameters, such as amplitude, vibration frequency, lateral swing, impact (G-force), motion trajectory and bearing temperature. Waveform and spectrum analysis technologies are adopted to carry out equipment (bearing) fault diagnosis and health assessment.

The system features simple operation: users can complete registration and network access via QR code scanning on mobile phones. It delivers all-round, multi-dimensional monitoring solutions to meet vibrating screen testing and monitoring demands of customers across all industries.

筛机配套无线智能在线监测系统，系统采用B/S架构，可以兼容各种接口，系统自带手机APP。

Wireless intelligent online monitoring system matched for vibrating screens adopts B/S architecture with compatibility for various interfaces, and is equipped with a dedicated mobile APP.

整套振动筛在线监测系统由温振一体无线智能监测器、多通道振动分析仪及工业计算机构成；平台软件搭载于工控机，可单台或多台接入分析仪，实现单 / 多台振动筛运行状态实时在线监测、故障智能分析与监测数据远程传输。

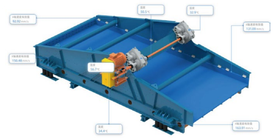
The online monitoring system for vibrating screens consists of integrated temperature-vibration wireless smart monitors, multi-channel vibration analyzers and industrial PCs. The platform software runs on industrial PCs, supporting connection to one or multiple analyzers. It realizes real-time online monitoring, fault analysis and remote data transmission for single or multiple vibrating screens.

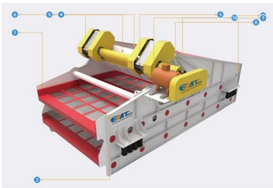
筛机安装一套综合性数据采集仪、每台筛机在激振器、侧板、传动轴、电机等部位安装10个无线传感器，可通过云平台来实时监测温度、振幅、运行轨迹、相位角度差、速度、加速度及包络值，并可对所用激振器及电机轴承及齿轮、螺栓松动等故障进行提前预测及诊断；对筛体的物料偏载、横梁、侧帮、激振梁、后背板进行故障预测。在线监测系统具有换油提醒、维保记录查询、每月生成使用报告等功能。

Each vibrating screen is equipped with an integrated data collector and 10 wireless sensors mounted on exciters, side plates, transmission shafts, motors and other positions. The cloud platform realizes real-time monitoring of temperature, amplitude, motion trajectory, phase difference, speed, acceleration and envelope values. It can predict and diagnose faults in bearings, gears, loose bolts, as well as screen issues including material unbalanced load, damaged cross beams, side frames, excitation beams and rear back plates. The system also provides oil change reminders, maintenance record inquiries and automatic monthly operation reports.

无线智能在线监测系统功能

Functions of Wireless Intelligent Online Monitoring System



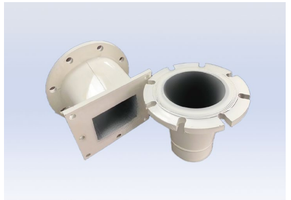


耐磨内衬与筛机备件

Wear-Resistant Liners & Vibrating Screen Spare Parts

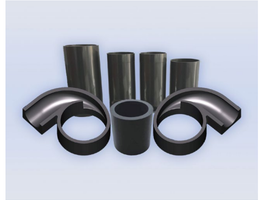
EN-NT等静压耐磨高铝陶瓷

EN-NT Isostatic Formed Wear-Resistant High-Alumina Ceramic



EN-K耐磨陶瓷复合材料

EN-K Wear-Resistant Ceramic Composite Materials



EN-C多晶体反烧结高密度碳化硅

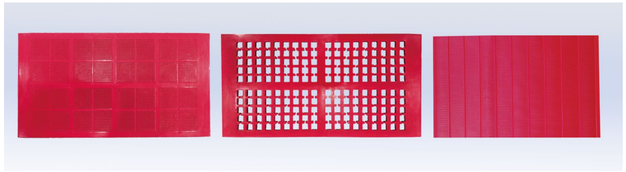
EN-C Polycrystalline Reverse-Sintered High-Density Silicon Carbide

EN-PU纳米聚氨酯改性胶

EN-PU Nano Modified Polyurethane Adhesive

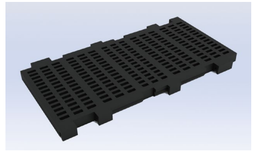
WOLLE特殊厚度天然红色耐磨橡胶

WOLLE Natural Red Wear-Resistant Rubber with Custom Special Thickness



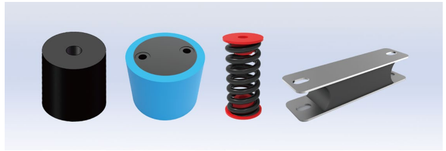
WOLLE(MDI/TDI)聚氨酯筛网

WOLLE (MDI/TDI) Polyurethane Screen Panels



WOLLE高弹性耐磨橡胶筛网

WOLLE High-Elasticity Wear-Resistant Rubber Screen Panels



WOLLE筛机专用橡胶类弹簧

WOLLE Special Rubber Springs for Screening Machines

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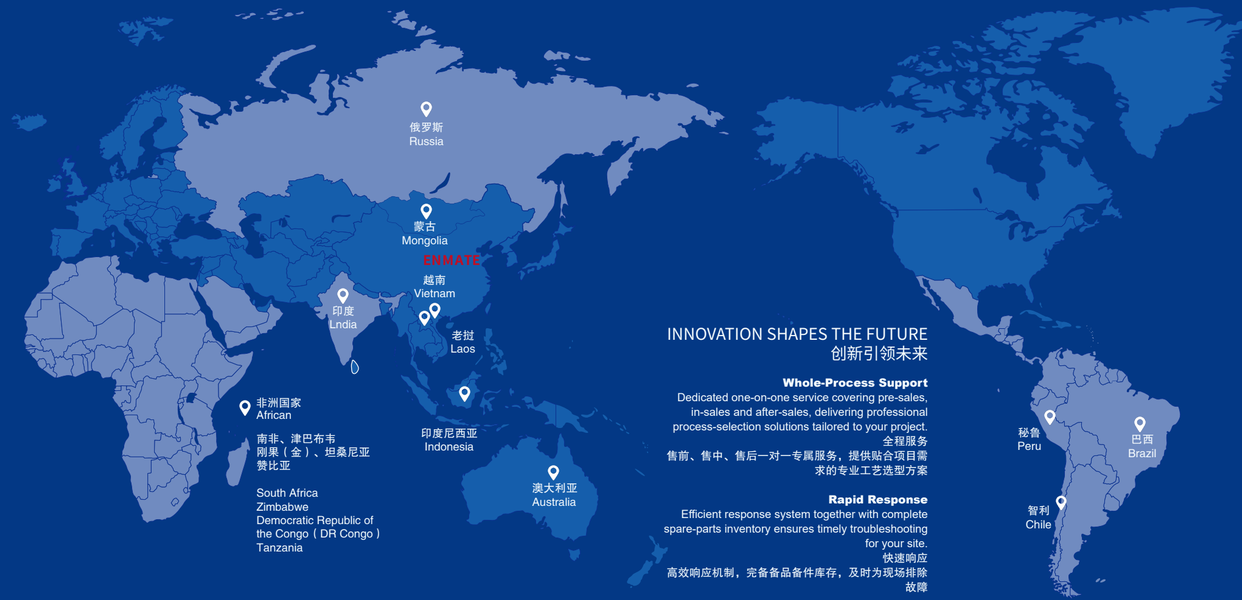
Innovation Shapes the Future



INNOVATION SHAPES THE FUTURE
创新引领未来

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