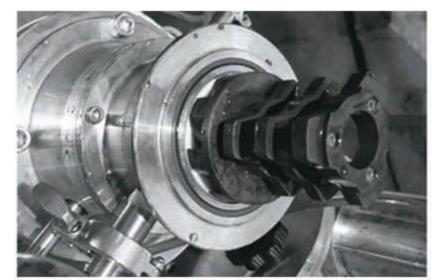


## LABORATORY SAND MILL



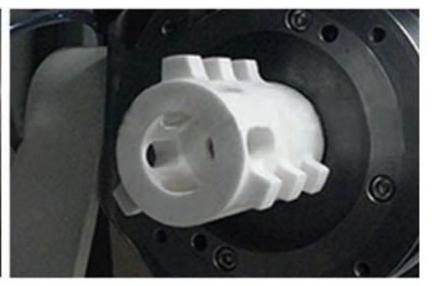
#### 转子形式 >>>











#### 产品概述 >>>

实验室系列砂磨机广泛应用于小批量物料的循环研磨、配方研究,研磨腔容积有0.2L、0.3L、0.5L、1.0L,精密可靠的机械密封,避免空气混入,防止气泡产生和溶剂挥发,减轻环境污染。

This laboratory series sand mills are widely used for the circulation grinding and formulation research of small batch materials. Available grinding chamber volumes include 0.2L, 0.3L, 0.5L, and 1.0L. Precision and reliable mechanical seals prevent air ingress, avoid bubble formation and solvent evaporation, and reduce environmental pollution.

#### 应用范围 >>>

主要应用于精细化工领域微纳米级研磨,适用于高校、科研单位及生产型企业等科研研究、配方研发中小样试生产及小批量生产。

Mainly used for micro-nano grinding in the field of fine chemical engineering, suitable for scientific research, formula development, small-scale trial production, and small-batch production in universities, research institutions, and manufacturing enterprises.

- 农药行业
- 汽车漆行业
- 涂料行业
- 橡胶行业
- 颜料行业
- 油墨行业











- Pesticide industry
- Automotive paint industry
- Coating industry
- Rubber industry
- Pigment industry
- Ink industry

- 动/静态的出料方式
- 可选用滤网式分离器
- 研磨效率高D90可达100nm
- 转子及简体可选用陶瓷、聚氨醋及合金钢 材质
- 输送系统可选用气动隔膜泵、蠕动泵等
- PLC控制系统触摸屏面板,操作更加简单 方便
- 整机结构设计合理,占地小易清洗且美观 大方
- 运行平稳无振动无噪音

- Dynamic/Static material discharging.
- Screen separator optional.
- High grinding efficiency, D90 could achieve 100nanometers.
- Rotor and chamber could be made by ceramic polyurethane (PU) and alloy steel.
- Material conveying system may choose pneumatic diaphragm pump, peristaltic pump and so on.
- PLC Control system, easy to operate with touchscreen panel.
- Reasonable structure design for entire machinesmall place occupy, easy to clean and beautiful look.
- Steadily working without vibration and noise.

型号 Model	研磨缸容积(L) Chamber volume	功率(KW) Motor Power	转速(rpm) Speed	介质(mm) Medium Aize	重量(kg) Weight	外形尺寸(mm) Dimension
DSN0.2	0.2	1.5	3000	0.2-2.0	70	550X400X850
DSN0.3	0.3	1.5	3000	0.2-2.0	80	300X460X550
DSN0.5	0.5	4	3000	0.2-2.0	250	320X460X550
DSN 1	1	4	3000	0.2-2.0	300	350X420X620

根据不同物料需求,转子及内筒体可用陶瓷或PU材质。

According to different material, we could also select ceramic or PU material for rotor for rotor and inner chamber.

#### 实验室系列》》



**DSN0.2** 



**DSN0.5** 



DSN1

## 静态盘式卧式砂磨机

STATIC DISC HORIZONTAL SAND MILL

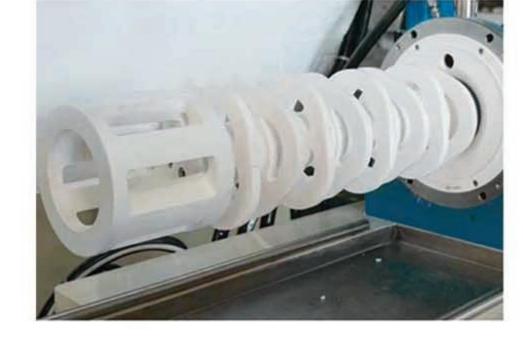




#### 转子形式>>>>









#### 产品概述 >>>

工业级盘式静态砂磨机广泛应用于水性低粘度物料的工业级生产。本系列机型采用离心筛网式出料结构,设备单位时间内流量更大,成品产量更高,在工业生产中可实现单机循环研磨,单机倒缸研磨,双机串联研磨等不同研磨工艺。优化过的盘式结构及出料结构使得成品研磨细度更好,粒度分布更加均匀,可达到 D90 小于 1 微米。

Industrial static disc sand mill is widely applied in the production of water-based and low-viscosity.LZSM adopt centrifugal screen discharging with larger flow rate and final product rate. In industrial production, it could realize different grinding process such as single set recycling grinding, double tank grinding, two sets in series grinding etc.Optimized disc structure and discharging structure makes better finish size and distribution. Finish size could reach 1 micron for D90.

- 静态筛网出料
- 变频调速、PLC控制
- 四重水冷却方式控制物料温度
- 自动保护系统,安全性能高
- 进料装置可根据物料选不同的泵
- 转子及筒体可选用陶瓷、聚氨脂及耐 磨合金钢材质

- Static screen discharging
- VFD control, PLC control is optional
- Quadruple water cooling method to controlmaterial temperature
- Automatic protection system with high safety performance
- Feeding device can choose different pumpsaccording to product types
- Rotor and inner chamber can be made of ceramic, polyurethane and wear-resistant alloy steel

#### 应用范围>>>>

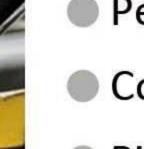
- 农药行业
- 涂料行业
- 颜料行业
- 染料行业
- ●粉末冶金材料行业
- 磁性材料行业

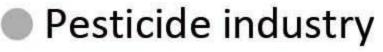












Coating industry

Pigment industry

Dye industry

Powder metallurgy materials industry

Magnetic materials industry

2	4
X	





型号 Model	研磨缸容积(L) Chamber volume	功率(KW Motor Power	转速(rpm) Speed	介质(mm) Medium Aize	重量(kg) Weight	外形尺寸(mm) Dimension
DSM-5	5	7.5	200-1450	0.3-2.0	362	1190X1000X1300
DSM-15	15	15	200-1450	0.3-2.0	750	1350X850X1450
DSM-20	20	18.5	200-1450	0.3-2.0	780	1650X900X1450
DSM-30	30	22	200-1450	0.3-2.0	850	1700X1000X1450
DSM-50	50	37.5	200-1400	0.3-2.0	1764	2450X1300X1780
DSM-60	60	45	200-1400	0.3-2.0	3500	2230X1050X2200
DSM-150	150	75	200-480	0.3-2.0	6600	2915X1220X2620
DSM-500	500	160	200-400	0.3-2.0	8100	2900X1750X2750

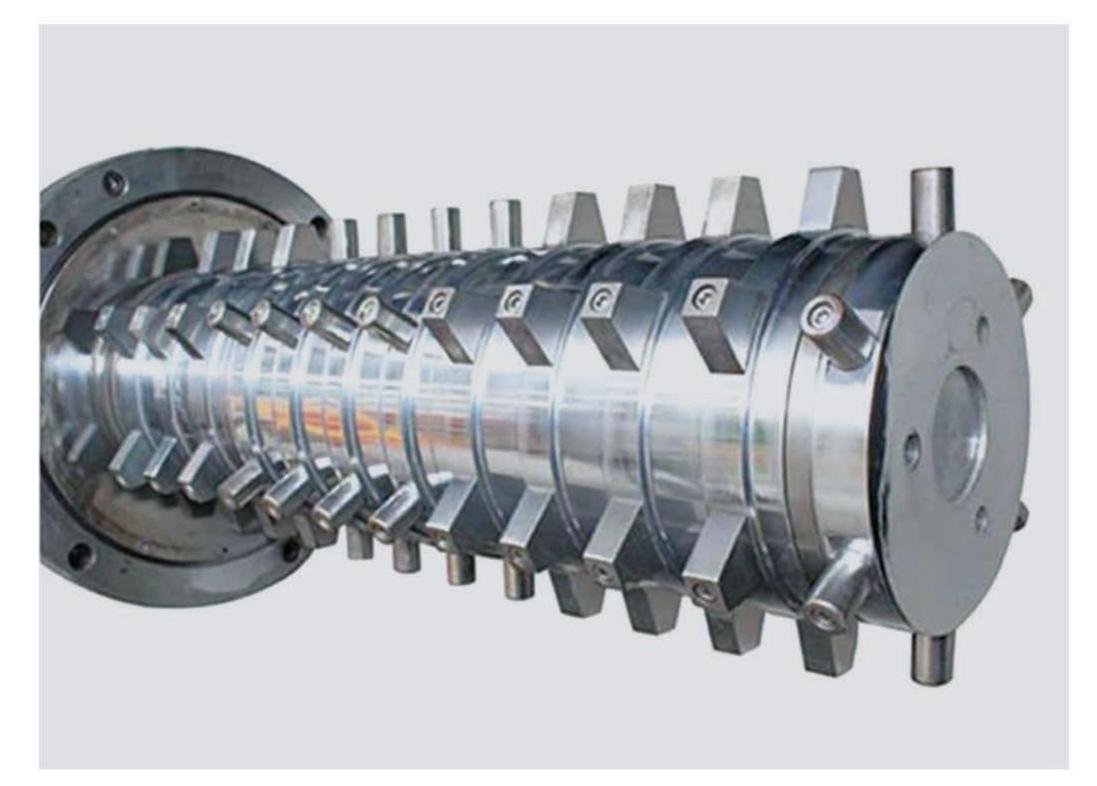
根据不同物料需求,转子及内筒体可用陶瓷或PU材质。 According to different material,we could also select ceramic or PU material for rotor for rotor and inner chamber.

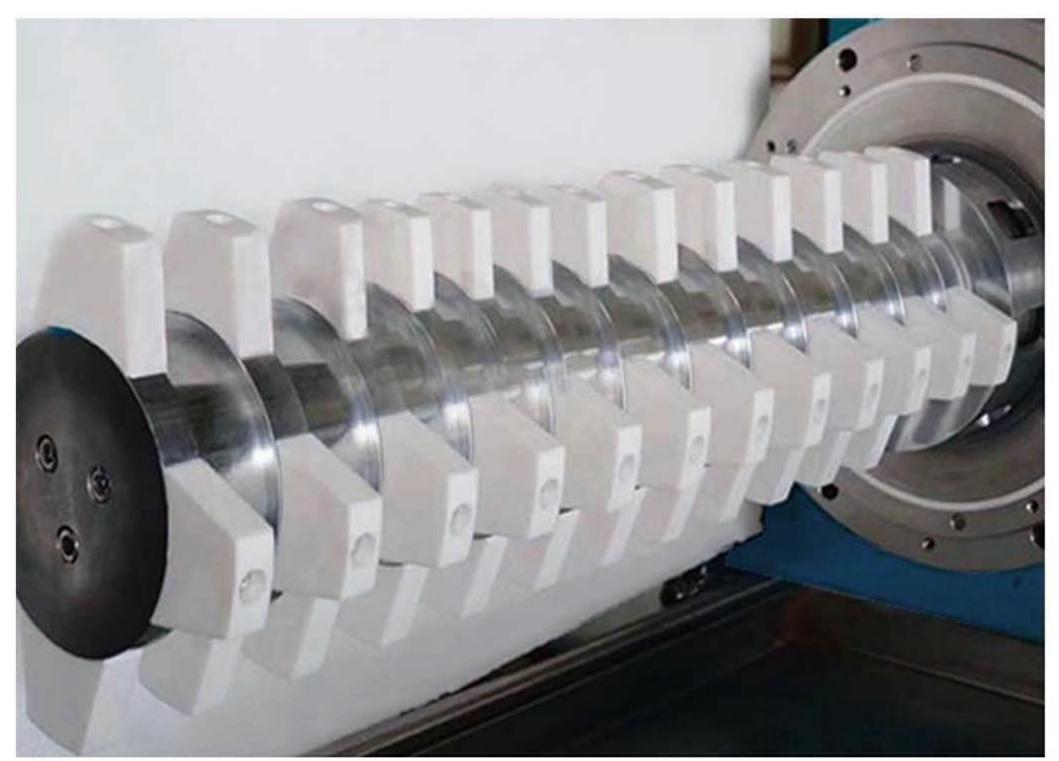
# 动态棒销式卧式砂磨机

DYNAMIC BAR PIN HORIZONTAL SAND MILL



#### 转子形式>>>>





#### 产品概述 >>>>

工业级棒销动态砂磨机广泛应用于微米级亚微米级、纳米级的中高粘度物料的研磨动静环间隙出料,棒销转子结构满足不同尺寸不同研磨细度以及不同研磨工艺的生产需求。

Industrial dynamic pin type sand mill is widelyapplied for micron grade, sub-micron grade and nanograde grinding, and are able to handle middle or highviscosity material. This series sand mills use dynamic discharging, the pin type rotor are applied in the grinding process of different feeding size, different final fineness requirements.

- 三重冷却,效果更佳
- 变频调速、PLC控制
- 双端面机械密封
- 大流量动态分离盘顺利出料
- 棒销转子结构,研磨效率提升2-3倍
- 可选耐磨合金钢、PU、陶瓷等研磨缸体 材质

- Triple cooling system for better temperature control
- VFD and PLC are optional
- Double end mechanical seal
- Large flow material will be discharged from dynamicseparating ring smoothly
- Pin type rotor with high grinding efficiency,2-3 timeshigher than traditional mills
- Grinding chamber can use high wear-resistance hardalloy, PU and ceramic material

#### 应用范围>>>>

- 农药行业
- 汽车漆行业
- 涂料行业
- 防腐漆行业
- 油墨行业
- 油漆行业











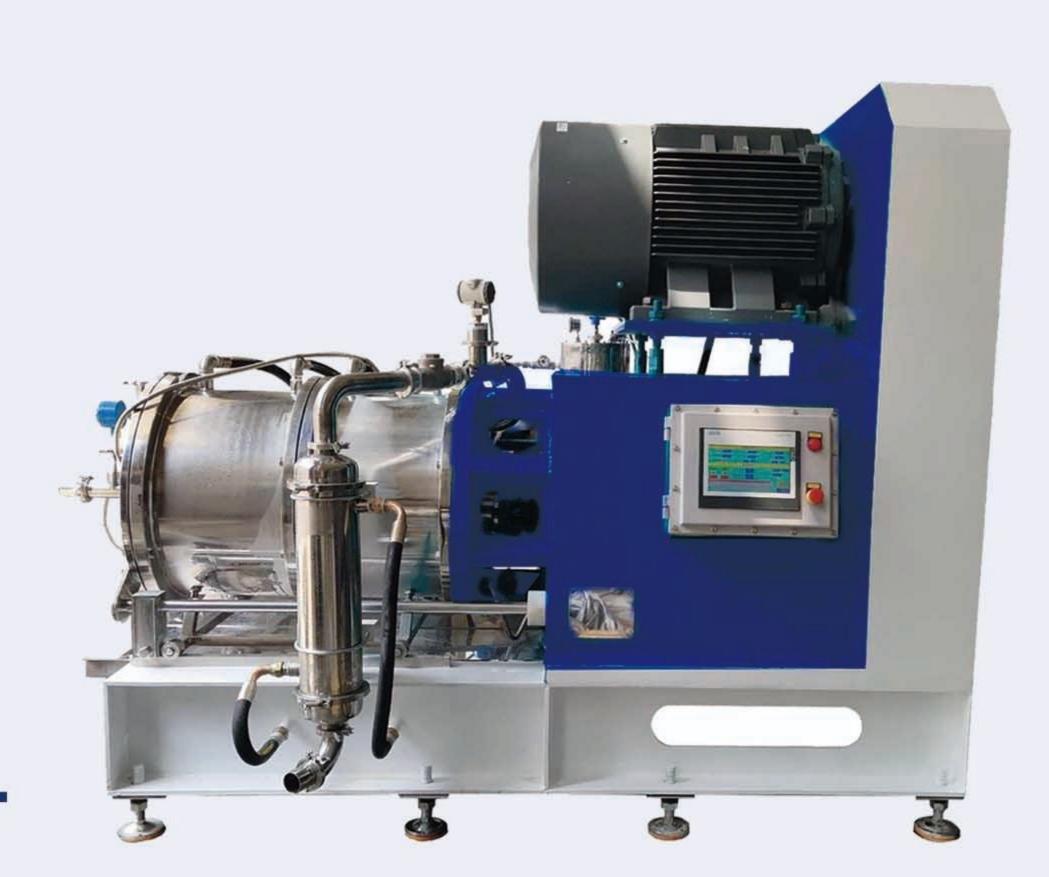
- Pesticide industry
- Automotive paint industry
- Coating industry
- Anticorrosive paint industry
- Ink industry
- Paint industry

型号 Model	研磨缸容积(L) Chamber volume	功率(KW) Motor Power	转速(rpm) Speed	介质(mm) Medium Aize	重量(kg) Weight	外形尺寸(mm) Dimension
DBN-2	4	5.5-7.5	200-2550	0.6-3.0	400	1122x972x1260
DBN-6	10	15-18.5	200-1550	0.6-3.0	602	1286x932x1638
DBN-10	18.2	22-37	200-1300	0.6-3.0	1302	1220x1065x1929
DBN-25	46	37-45	200-1000	0.6-3.0	2009	1538x1150x2042
DBN-30	55	37-45	200-1000	0.6-3.0	1800	1830x950x1850
DBN-60	107	55-90	200-800	0.6-3.0	3508	2735x1252x1850
DBN-150	285	160-200	200-480	0.6-3.0	6890	2915x1220x2620
DBN-200	310	185-255	200-420	0.6-3.0	5500	2800x1250x2100
DBN-300	488	260-300	200-370	0.6-3.0	7580	3280x1480x2580
DBN-400	550	355-400	200-360	0.6-3.0	9300	3300x2400x1900
DBN-500	650	185-315	200-350	0.6-3.0	8100	2900x1750x2750

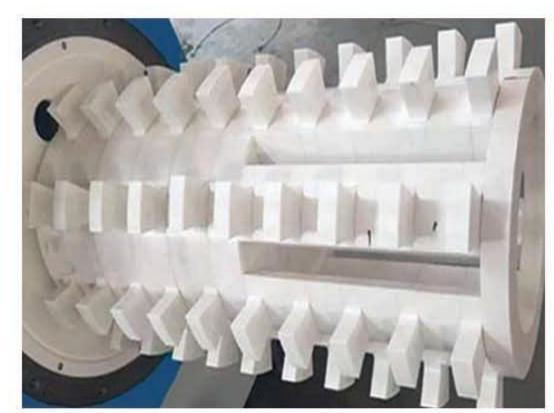
根据不同物料需求,转子及内筒体可用陶瓷或PU材质。 According to different material,we couid also select ceramic or PU material for rotor for rotor and inner chamber.

## 静态棒销式卧式砂磨机

STATIC BAR PIN HORIZONTAL SAND MILL



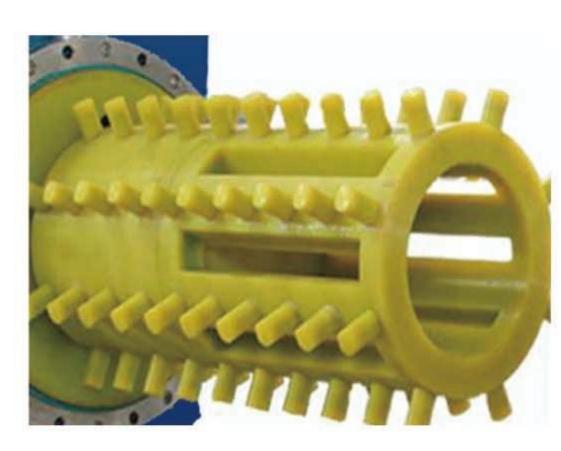
#### 转子形式 >>>

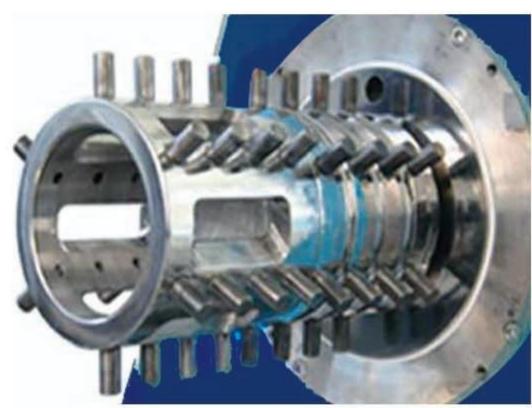














空心棒 销式转子

#### 产品概述 >>>>

DJN 系列砂磨机是对传统棒销砂磨机升级改造的新型纳米研磨设备,研磨效率和产量显善提升,适用于中低粘度、流动性较好的物料的微米级和纳米级研磨。

DJN series sand mill is a new type of nano-grinding equipment upgraded from the traditional pin type sandmill. The grinding efficiency and output are significantly improved. It is suitable for micro and nano level grinding of low viscosity, fluid materials.

- 静态筛网出料
- 三重冷却,效果更佳
- 变频调速、PLC控制
- 棒销转子结构,研磨效率提升2-3倍
- 整机美观大方,设备运行平稳,无 振动,无噪音

- Static screen discharging
- Triple cooling system for better temperature control
- VFD control, PLC control is optional
- Pin type rotor with high grinding fficiency, 2-3 timeshigher than traditional mills
- The overall appearance is good, the equipment operatessmoothly, no vibration, no noise

#### 应用范围>>>>

- 农药行业
- 颜料行业
- 钛白粉行业
- 荧光增白剂行业
- 电池正负极行业
- 色浆行业











- Pesticide industry
- Pigment industry
- Titanium Dioxide industry
- Optical brightener industry
- Battery positive and negative electrode industry
- Color paste industry

型号 Model	研磨缸容积(L) Chamber volume	功率(KW) Motor Power	转速(rpm) Speed	介质(mm) Medium Aize	重量(kg) Weight	外形尺寸(mm) Dimension
DJN-2	4	5.5-7.5	200-2550	0.6-3.0	400	1122x972x1260
DJN-6	10	15-18.5	200-1550	0.6-3.0	602	1286x932x1638
DJN-10	18.2	22-37	200-1300	0.6-3.0	1302	1220x1065x1929
DJN-25	46	37-45	200-1000	0.6-3.0	2009	1538x1150x2042
DJN-30	55	37-45	200-1000	0.6-3.0	1800	1830x950x1850
DJN-60	107	55-90	200-800	0.6-3.0	3508	2735x1252x1850
DJN-150	285	160-200	200-480	0.6-3.0	6890	2915x1220x2620
DJN-200	310	185-255	200-420	0.6-3.0	5500	2800x1250x2100
DJN-300	488	260-300	200-370	0.6-3.0	7580	3280x1480x2580
DJN-400	550	355-400	200-360	0.6-3.0	9300	3300x2400x1900
DJN-500	650	185-315	200-350	0.6-3.0	8100	2900x1750x2750

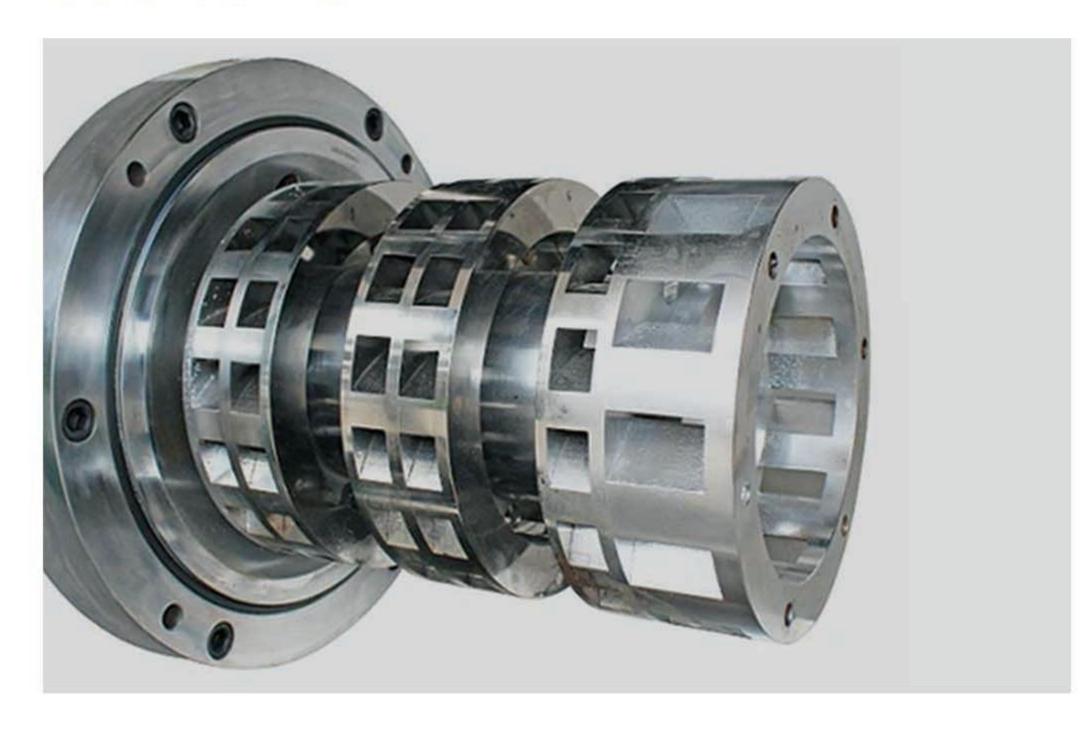
根据不同物料需求,转子及内筒体可用陶瓷或PU材质。 According to different material,we could also select ceramic or PU material for rotor for rotor and inner chamber.

### 涡轮式 卧式砂磨机

### TURBINE TYPE HORIZONTAL SAND MILL



#### 转子形式 >>>





#### 产品概述>>>>

DWN 系列涡轮静态卧式砂磨机属于高能量、纳米级别研磨设备,本系列机型转子部分采用离心涡轮转子+静态自清洗筛网式出料结构,设备高速运行时,涡轮转子将物料瞬间分散,大颗粒物料处于高能区研磨,在离心作用下,大颗粒物料在破碎后继续循环研磨,在此循环过程中破碎后颗粒进行助剂包裹,避免因破碎速度过快,造成助剂包裹不及时,出现团聚、返粗等现象。颗粒达到一定细度后,在泵推力作用下,送出研磨区域。因此,涡轮砂磨机研磨颗粒的粒径更加均匀,能量利用率高。

DWN series turbine static horizontal sand mill is a high-energy. nano-level grinding equipment. The ratolpart adopts centrifugal turbine rotor + static selt - cleaning screen type discharge structure. When the equipmen runs at high speed, the turbine rotor disperses the material instantaneously, and the large-particle materials are ground in the high -energy zone. Under the centrifugal action, the large-particle materials continue to circulate grinding after being crushed. The particles are wrapped in the auxiliary agent after being broken in this cycle process, to avoid the phenomenon that the auxiliary agent is not wrapped in time, agglomeration and coarsening is caused due to the excessive breaking speed. After the particles reach a certain fineness, they are sent out of the grinding area under the action of the pump. Therefore, the energy utilization of the turbo sand mill is higher, and the particle size is more uniform.

materiacreaming and agglomeration.

#### 产品特性>>>>

- 研磨效率高,能量利用率高,与传统同款盘式砂磨机对比,研磨效率高1倍以上; High efficiency of grinding and energy utilization. Compared to same old disc type bead mil, the efficiency of grinding more than doubled.
- 料温控制好,适合低熔点产品,涡轮拨珠的能量比较均匀柔和,不会造成局部或瞬间物料能量过 高,造成物料出现膏化或团聚情况; Better material temperature control and suitable for low melting point material. Turbo disc will stir grindingbeads in a smooth way, which in short time won't bring high energy in certain area and won't cause
- 粒径控制非常均匀,适合产品品质要求较高的低粘度物料,尤其适合纳米材料的精细研磨; The particle size control is very uniform, suitable for low viscosity materials with high product requirements, especially for fine grinding of nano materials.
- 物料气泡控制好,适合容易发泡的产品; Better foaming control, suitable for easily foamed material.
- 直接输入配方,砂磨机一键启动,避免人工因素造成产品的不稳定; Input formulation directly and operate sand mill by one-button start, which can avoid err caused by humanfactor.
- 筛网具有自清洗功能,解决筛网堵塞情况。 Discharge screen has self-cleaning function, it can solve the problem of screen blocking.

#### 应用范围 >>>

- 农药液体制剂
- UV、热转印、陶瓷墨水
- 分散、还原染料
- 新能源电池正负极材料
- 半导体材料
- MLCC 材料











- Pesticide liquid formulation
- UV ink, sublimation ink, ceramicink
- Disperse dye, vat dye
- Anode and cathode materialsfor new energy battery
- Semiconductor materials
- **MLCC** material

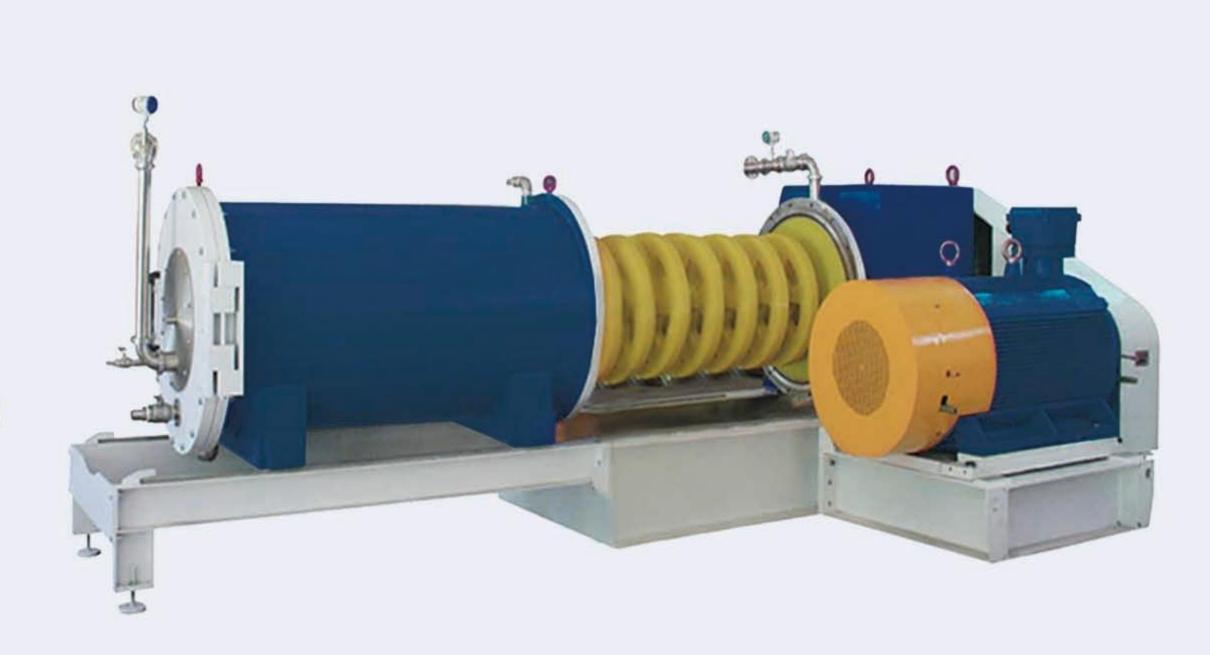
型号 Model	研磨缸容积(L) Chamber volume	功率(KW) Motor Power	转速(rpm) Speed	介质(mm) Medium Aize	重量(kg) Weight	外形尺寸(mm) Dimension
DWN-0.3	0.45	0.75	200-3000	0.2-2.0	75	320x360x347
DWN-0.5	0.7	4-5.5	200-2500	0.2-2.0	208	790x651x1150
DWN-2	4	5.5-7.5	200-2500	0.2-2.0	400	1122x972x1260
DWN-6	10	15-18.5	200-2500	0.2-2.0	602	1286x932x1638
DWN-10	18.2	22-37	200-1300	0.2-2.0	1302	1220x1065x1929
DWN-25	46	37-45	200-1000	0.2-2.0	2009	1538x1150x2042
DWN-60	107	70-90	200-600	0.2-2.0	3508	2735x1252x1850
DWN-150	285	160-200	200-480	0.2-2.0	6890	2915x1220x2620
DWN-300	488	260-300	200-370	0.2-2.0	7580	3280x1480x2580

根据不同物料需求,转子及内筒体可用陶瓷或PU材质。

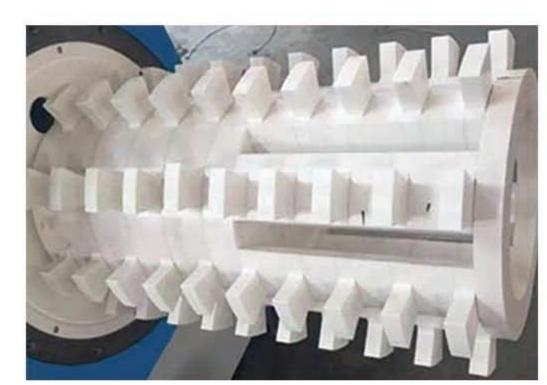
According to different material, we could also select ceramic or PU material for rotor for rotor and inner chamber.

# 大型砂磨机

LARGE HORIZONTAL SAND MILL



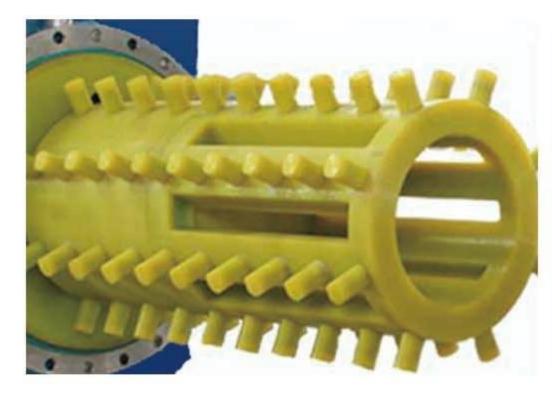
#### 转子形式 >>>

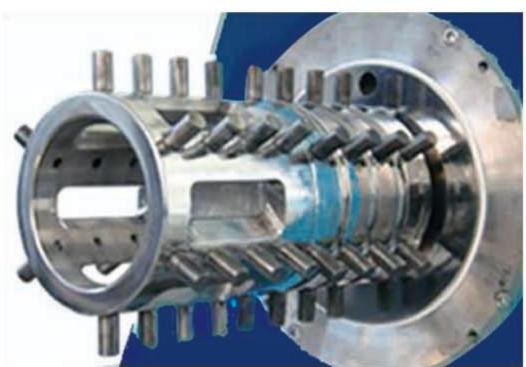














空心棒 销式转子

#### 产品概述 >>>

DWN 系列大型纳米卧式砂磨机特别针对微小研磨珠的使用进行了优化,从柔性分散至超高能量研磨都能高效工作。广泛应用于功能陶瓷,打印喷墨,TFT\LCD 滤色分散体,锂电池材料热敏纸 CMP,陶瓷墨水,纳米粉体,纳米色浆,食品添加剂等纳米研领域。

DWN series of large-scale nano horizontal sand mills are especially optimized for the use of tiny grinding beads, and can work efficiently from flexible dispersion to ultra-high energy grinding. It is widely used in functional ceramics, printing inkjet, TFT/LCD color filter dispersion, thermal paper for lithium battery materials, CMp, ceramic ink, nano powder, nano color paste, food additives and other nano-grinding fields.



- 全新设计的离心分离装置,流量大,出料顺畅 The newly designed centrifugal separation device has large flow and smooth discharge.
- 可以使用 0.05mm 以上的研磨介质
   Grinding media above 0.05mm can be used.
- 以黄金分割比为标准的转子与简体布置方式
   Rotor and cylinder arrangement based on golden ratio.
- 可以有效降低磨损、增大能量利用率,达成高效的使用效果
  Can effectively reduce wear, increase energy utilization, and achieve efficient use.
- 更加优化的整机设计,设备整体稳定性更可靠 More optimized design of the whole machine, the overall stability of the equipment is more reliable.
- 全部进口的机械密封、轴承、内外双重冷却模式,可以有效的降低研产生的热量 All imported mechanical seals, bearings, and internal and external cooling modes can effectively reduce the heat generated by grinding.

#### 应用范围>>>>

- 陶瓷墨水
- TFT\LCD 滤色分散体
- 食品添加剂
- 新能源电池
- 正负极材料
- 纳米粉体
- 纳米色浆



- Ceramic ink
- TFT\LCD color filter dispersion
- Food additives
- Anode and cathode
- materialsfor new energy battery
- Nano powder
- Nano Color Paste

型号 Model	研磨缸容积(L) Chamber volume	功率(KW) Motor Power	转速(rpm) Speed	介质(mm) Medium Aize	重量(kg) Weight	外形尺寸(mm) Dimension
DWN-300	300	75-185	200-450	0.3-2.0	7580	3280x1480x2580
DWN-500	500	185-250	200-400	0.3-2.0	8100	2900x1750x2750
DWN-1000	1000	315-355	200-300	0.3-2.0	12000	9000x1300x1100
DWN-1200	1200	355-500	200-260	0.3-2.0	13500	10000x1400x1200
DWN-3000	3000	800-1120	200	0.3-2.0	25000	16000x3500x2700

根据不同物料需求,转子及内筒体可用陶瓷或PU材质。 According to different material,we could also select ceramic or PU material for rotor for rotor and inner chamber.