



HST 系列单缸液压圆锥破碎机

HST Series Single Cylinder Hydraulic Cone Crusher

至简至高，至优至强

Extremely simple, high, good and powerful



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Hydraulic Cone Crusher*

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在矿山和石料行业，人们不仅要求破碎设备产量高，产品质量优异，而且希望能源利用率高、运行维护成本低、操作使用方便。HST系列单缸液压圆锥破碎机正是为了满足这些需求而设计的：破碎效率高、生产成本低、控制全自动化，能够适应各种破碎工艺。

If your aggregate or mining business demands not only big capacity and first-class product quality but also low operating cost, high utilization of source and easy maintenance, you will find a SBM HST crusher is optimized for your needs. As a kind of energy efficient product, HST series can be efficiently applied to various crushing processes with full automation control and relatively low operating and maintenance cost.



性能特点

Product features

生产效率高 承载能力强

High performance & Great Compressive Capacity

设备的高效运行依靠的不是单个部件的优化设计或单个部件材料质量的提升，而是整体结构间的完美配合。HST系列单缸液压圆锥破碎机正是通过将破碎腔型、偏心距与运动参数相配合，实现了更高的生产效率，更优的产品质量。并且结合优化的强度设计，高质量的部件材料，使设备的承载能力更强，从而使破碎比更大，通过能力更强。

The high performance of HST series cone crusher not depends on a single component's optimized design or the upgraded materials, but the perfect match between different components.

HST series cone crushers incorporate eccentricity, cavity and equipment motion parameters together, greatly improving the end products quality, production capacity and efficiency.

The optimized strength design and high quality components improve HST series cone crushers' compressive capacity, which provides a higher crushing ratio and capacity hence.



易于维护 运行成本低

Easy Maintenance & Low Operating Cost

设备结构简单，所有维修工作都可在取下上机架后完成，这不仅让检查、检修更方便，同时使维护成本更低。通过正压防尘系统保证破碎腔内部压力始终高于外部压力，有效地降低了进入破碎机的灰尘或其它小颗粒，减少了对轴承的破坏，从而减少了维护工作量，延长了润滑油和设备的使用寿命。除了以上特点之外，HST系列单缸液压圆锥破碎机整体上设计紧凑，破碎机安装空间小，便于移动。

All the maintenance work can be completed after removing the upper frame, which not only makes the device inspection and maintenance easier but also reduces the maintenance cost. Dust and other unwanted particles can be prevented from entering the cavity by ensuring that the cavity's inner pressure is always higher than its external pressure. Thus, the damage of bearings and maintenance work is reduced. The life cycle of lubricating oil and device are extended. In addition, the compact design of main machine saves installation space, making the device easy to move.



正压防尘系统
Positive Dynamic pressure air sealing

全自动控制生产过程

Full Automatic Control

全自动控制系统提供手动控制、恒定排料口控制、恒定功率控制等多种运转模式供用户选择。

可连续监测破碎机内部实际负荷，自动对设备进行调节，从而优化破碎机的利用率，使破碎机在任何工作时间都能发挥其最佳性能。

能自动监测并提供告警，显示各种运行参数，实时了解破碎机运行情况。如：当衬板磨损到更换期不能再继续使用时，便在控制盘上自动显示和报警。

Full automatic control system provides manual control, consistent discharging control, consistent power control and other kinds of operating mode for users to choose.

It can continuously monitor the actual load inside the crusher, so as to optimize the utilization rate of the crusher and maximize its performance by automatically adjusting the equipment.

Besides, the system can automatically monitor, provide alarm and display various operating parameters, enabling the user to command real-time running situation of the equipment. For example, when the liner wears to replacement period and can not be used anymore, the control panel will display and emit an alarm automatically.



全自动控制系统
Automatic control system

多腔型适应多种工艺需求

Suitable for Various Process Requirements

设备有中碎和细碎两种机型，每种机型有多种标准腔型可供选择，偏心距可通过更换偏心套进行调整。根据不同的生产工艺，配备合适的生产腔型和偏心距，实现设备价值的最大化。

HST系列单缸液压圆锥破碎机适合于粗碎后的二段破碎，同样也是三段和四段破碎的最佳选择。在用作二段破碎时，可以将粗碎设备排料口调至最大，大大提升生产线的通过能力。

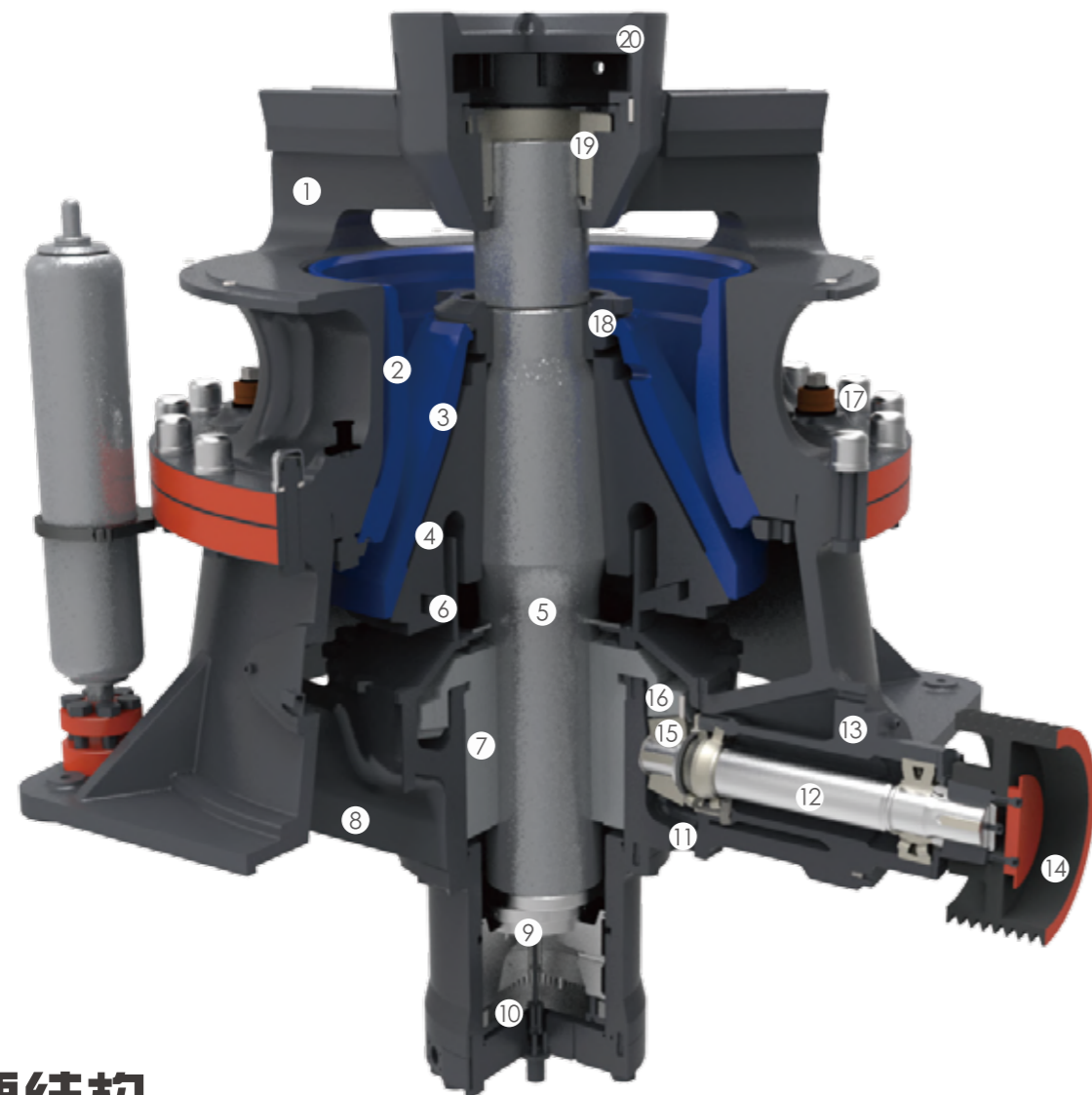
A variety of cavity type, a larger crushing ratio and flexible change of eccentricity guarantee the most reasonable solution for a wide variety of crushing processes.

HST series cone crushers can provide excellent performance in secondary application, and it is also the best choice for tertiary and quaternary application. In secondary application, the capacity of production line can be greatly improved by maximizing the primary crusher's closed side setting.



结构特点

Product structures



主要结构:

Detailed structure:

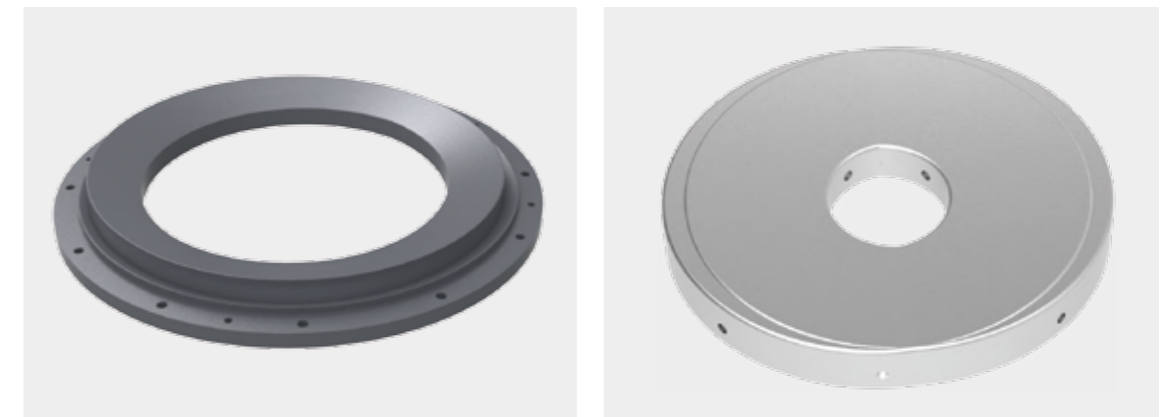
- | | |
|---------------------------------|---|
| 1— 上架体 Upper Frame | 11— 润滑油回油管 Lubricating Oil Return Pipe |
| 2— 轧臼壁 Concave | 12— 水平轴 Horizontal Countershaft |
| 3— 破碎壁 Mantle | 13— 水平轴架体 Horizontal Countershaft Frame |
| 4— 动锥体 Movable Cone | 14— 皮带轮 Pulley |
| 5— 主轴 Main Shaft | 15— 小齿轮 Pinion |
| 6— 防尘密封圈 Dustproof Sealing Ring | 16— 大齿轮 Gear |
| 7— 偏心套 Eccentric Sleeve | 17— 轧臼壁紧锁螺栓 Concave Locknut |
| 8— 下架体 Lower Frame | 18— 破碎壁紧锁螺母 Mantle Locknut |
| 9— 止推轴承 Thrust Bearing | 19— 顶部轴承 Top Bearing |
| 10— 液压缸 Hydraulic Cylinder | 20— 顶部轴承盖 Top Bearing Cap |

防尘密封圈设计

Anti-dust System

采用正压防尘系统，使破碎腔内部压力始终高于外部压力，有效地防止了灰尘或其他细小颗粒进入破碎腔污染润滑油，破坏轴承，从而延长了润滑油和设备的使用寿命。

By adopting the positive pressure anti-dust system, the cavity's inner pressure is always higher than its external pressure, which efficiently prevents the dust or other unwanted particles from entering into the cavity to damage the bearing, thus extends the working life of lubrication oil and device.



滑动轴承设计

Unique Sliding Bearing

滑动轴承采用特殊的油楔设计，将轴的旋转动力转化为油膜压力，在轴与轴承的接触表面间形成稳定的润滑油膜，避免轴与轴承的直接摩擦接触，降低了发热量，延长了轴承的使用寿命。

采用特殊轴承材料，使设备承载能力大，抗粘附能力强，具有很强的恶劣工况适应能力，提高了设备运转的可靠性。

Sliding bearing uses a special oil wedge design, which converts the shaft rotation force to the oil film pressure and avoids direct frictional contact of the shaft and bearing.

The special bearing materials offer the device greater compressive capacity, excellent ability to resist adhesive and amazing adaptability in poor working conditions, improving operating reliability.

主轴采用两端支撑设计 Strut On Both The Upper And Bottom End For Principal Axis

两端支撑使主轴的受力更稳定，设备承载能力更大，运行更可靠。

The unique support structure stabilizes the stress of the principal axis, and improves the equipment's bearing capacity and reliability.

排料口调整装置和过铁保护装置 Discharging Adjustment & Overload Protection

采用主轴浮动和液压升降控制相结合的结构，将排料口的调整和过载保护功能集于一体，在保证性能的同时，简化了破碎机的结构，相比其他类型的圆锥破碎机，不必再额外添加繁杂的排料口调整装置和过铁保护装置。

By control the hydraulic lift and floating main shaft at once, the discharging adjustment and overload protection can be achieved meanwhile. The optimized structure design simplifies the crusher structure while ensuring the performance. Compared with other types of cone crushers, the HST series need no more additional complicated discharging adjustment device or the tramp releasing system.

机体增强设计 Enhanced Frame

机体整体结构进行优化，加强筋布局优化设计，上部机架采用星形臂架布置方式。特殊设计的耐磨护板，有效避免了物料对上部机架的冲击磨损。

The frame structure is optimized, of which the upper frame adopts unique star jib structure. The special designed wear plate efficiently avoid the impact wear of upper frame.

腔型优化设计 Optimized Cavity

采用优化的破碎腔设计，在保证高效层压破碎的同时，保证设备在衬板磨损以后仍然拥有最佳的破碎效果，破碎效率更高，衬板的使用寿命更长。

The optimized crushing cavity design not only guarantees the high efficiency of interparticle crushing, but also enables the best performance of equipments even when the liner is wearing out. Therefore, higher efficiency of crushing and longer service life of liner is achieved.



传动系统设计 Drive System

传动系统采用螺旋伞齿轮传动，传动效率高、可靠、平稳，噪音低，寿命长。
传动轴采用滚动轴承设计，选用大规格轴承，承载能力更强。

By using spiral bevel gear, the drive system ensures that the transmission process is high efficient, reliable and stable with low noise and long life.

The transmission shaft adopts rolling bearing design and large size bearing to promise a greater compressive capacity.



优化的液压润滑站设计 Integrated Hydraulic Lubrication Station

- a. 液压站、润滑站一体化设计，节省设备安装空间；
- b. 合理的液压润滑站元器件布局，维护操作更加方便；
- c. 优化的油箱容积，用量仅为同规格常规液压润滑站的1/3，日常运转成本更低；
- d. 液压系统采用高压方式设计来满足普通压力需求，设备正常运行时有较高的压力裕量，提高了液压系统的可靠性；
- e. 水平轴独立润滑，润滑更加可靠。

- a. The integrated design of hydraulic station and lubrication station saves the installation space.
- b. The reasonable layout of hydraulic lubrication station's components enables the maintenance much easier.
- c. Optimized tank design reduces oil capacity by 66% compared with traditional hydraulic lubrication station with same specification, so the daily operating cost is cut down.
- d. High pressure design of hydraulic system is adapted to meet ordinary pressure needs, which improves the reliability of hydraulic system by offering a relatively high pressure allowance during normal operation.
- e. Horizontal countershaft can be lubricated independently and reliably.



技术参数

Technical Information

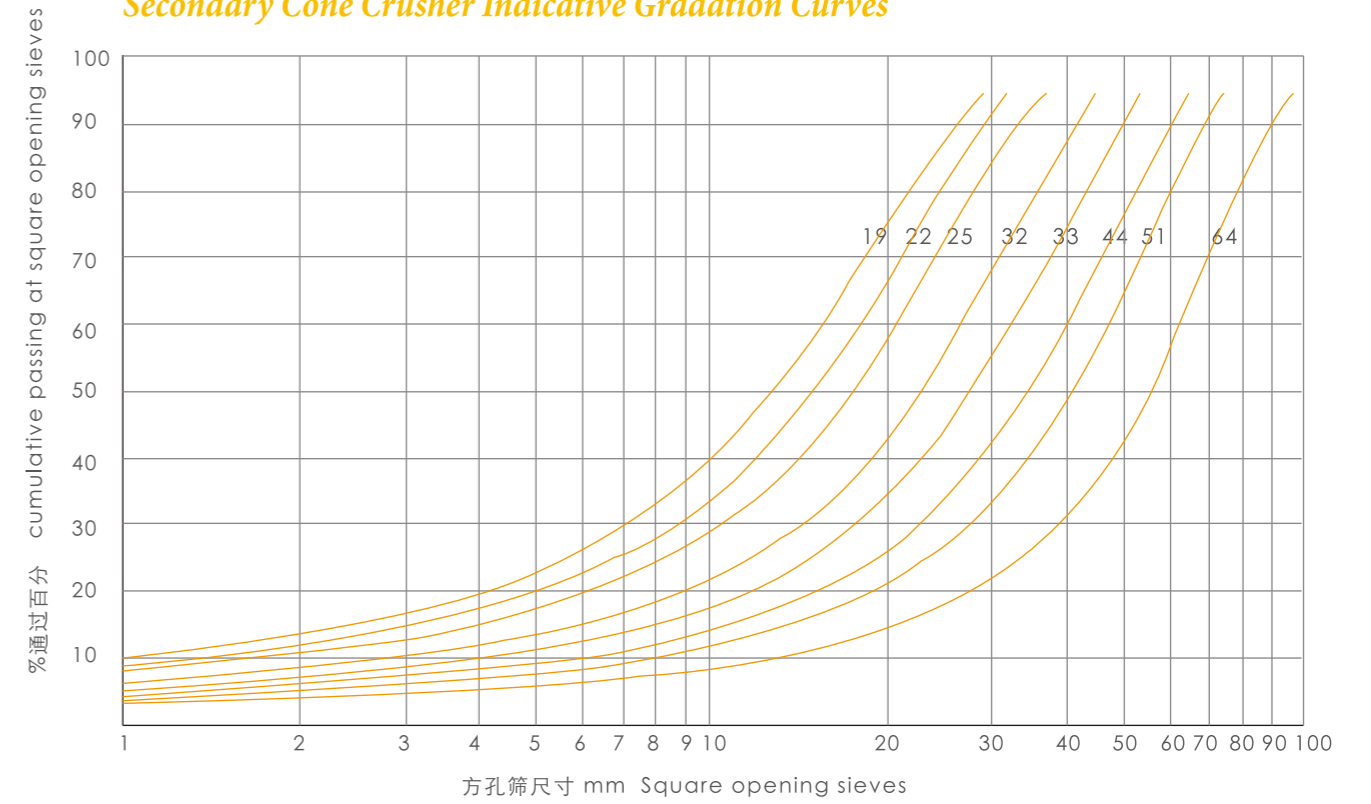
技术参数 Technical Information

型号 Model	腔型 Cavity	最大进料尺寸 Maximum feeding size(mm)	最小排料口尺寸 Minimum discharging size(mm)	最大装机功率 Maximum installed power(kw)
HST100	S1(超粗) Extra Coarse	240	22	90
	S2(中粗) Medium Coarse	200	19	
	H1(细) Fine	135	10	
	H2(中细) Medium Fine	65	8	
	H3(超细) Extra Fine	38	4	
HST160	S1(超粗) Extra Coarse	360	25	160
	S2(中粗) Medium Coarse	300	22	
	S3(粗) Coarse	235	19	
	H1(细) Fine	185	13	
	H2(中细) Medium Fine	90	10	
	H3(超细) Extra Fine	50	6	
HST250	S1(超粗) Extra Coarse	450	35	250
	S2(中粗) Medium Coarse	400	29	
	S3(粗) Coarse	300	25	
	H1(细) Fine	215	16	
	H2(中细) Medium Fine	110	13	
	H3(超细) Extra Fine	70	8	
HST315	S1(超粗) Extra Coarse	560	41	315
	S2(中粗) Medium Coarse	500	38	
	H1(细) Fine	275	16	
	H2(中细) Medium Fine	135	16	
	H3(超细) Extra Fine	65	13	
HST560	H1(细) Fine	300	22	560
	H2(中细) Medium Fine	155	19	
	H3(超细) Extra Fine	80	10	
HST750	H1(细) Fine	370	25	750
	H2(中细) Medium Fine	195	22	
	H3(超细) Extra Fine	85	10	

表中给出的数据是基于松散度为1.6t/m³的物料而言，实际结果根据给料的粒级、物料类型和含水量的不同会有差异。
Minimum discharging figures are indicative for materials with bulk density of 1.6 t/m³. Actual results may vary depending on the feed grading, rock type, moisture etc.

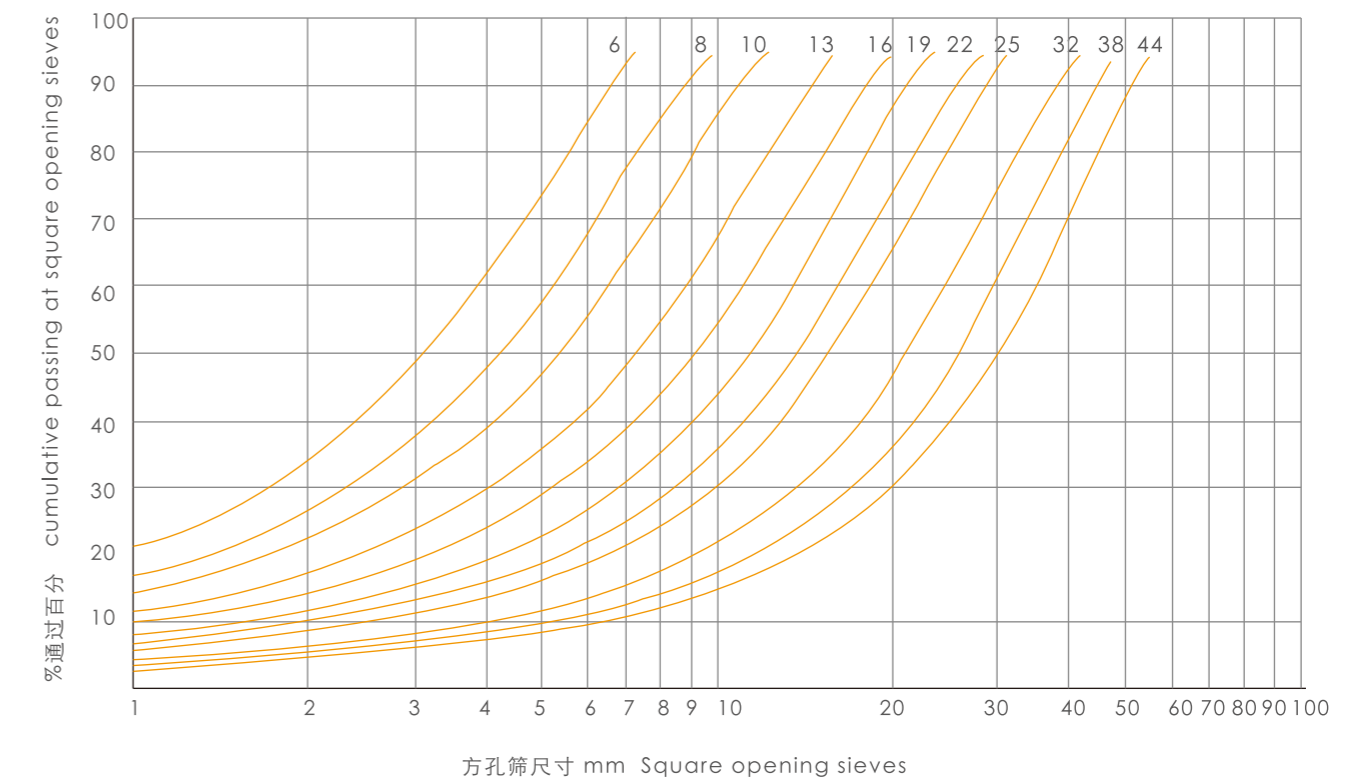
HST中碎粒度分布曲线

Secondary Cone Crusher Indicative Gradation Curves



HST细碎粒度分布曲线

Tertiary Cone Crusher Indicative Gradation Curves



生产能力

Indicative Crusher

表中给出的产量是基于松散度为1.6t/m³的物料而言，实际结果根据给料的粒级、物料类型和含水量的不同会有差异。

Capacity and minimum setting figures are indicative for materials with bulk density of 1.6 t/m³. Actual results may vary depending on the feed grading, rock type, moisture etc.

HST系列中碎单缸液压圆锥破碎机 HST Series Secondary Cone Crusher

型号 Model	腔型 Cavity	紧边排料口尺寸(mm) Closed Side Setting																
		19	22	25	29	32	35	38		41	44	48	51	54	60	64	70	76
HST100	S1(超粗)Extra Coarse		85	90-115	100-160	105-170	110-145	115										
	S2(中粗)Medium Coarse	70	75-95	80-130	90-115	95												
HST160	S1(超粗)Extra Coarse			120	135-175	140-230	150-295	160-310		170-330	175-345	190-310	195-260	205				
	S2(中粗)Medium Coarse		105	115-145	125-200	130-255	140-270	145-285		155-305	165-265	175						
	S3(粗)Coarse	90	95-125	105-170	115-220	120-235	125-250	135-265		140-275	150-245	160						
HST250	S1(超粗)Extra Coarse						255	270-355		285-450	300-565	320-605	335-525	350-460				
	S2(中粗)Medium Coarse				215	230-300	245-385	260-485		270-515	285-450	305-400	300					
	S3(粗)Coarse			190	205-270	220-345	230-435	245-465		260-490	270-430	290-380	305					
HST315	S1(超粗)Extra Coarse									335	350-460	375-590	390-720	410-860	445-930	465-980	500-1050	535-985
	S2(中粗)Medium Coars							305		320-420	340-620	360-755	375-790	395-825	425-895	450-825	480-635	

HST系列细碎单缸液压圆锥破碎机 HST Series Tertiary Cone Crusher

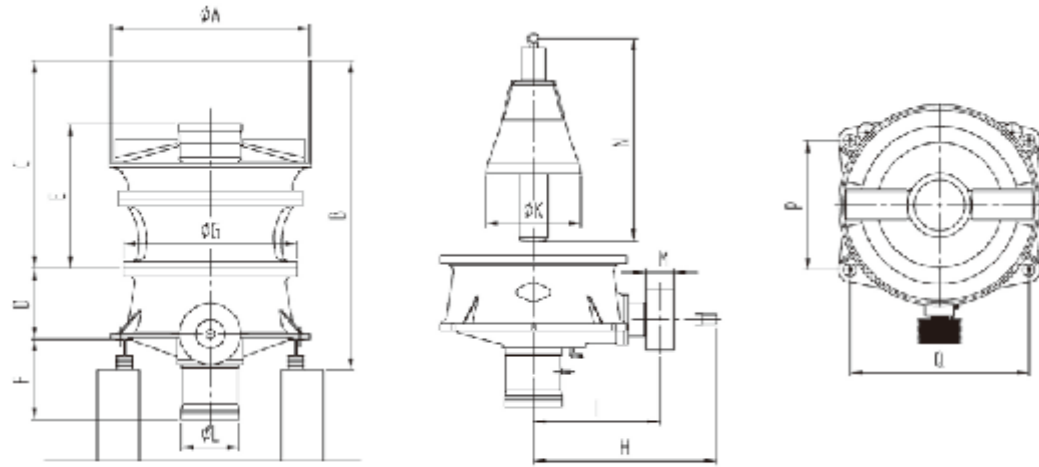
型号 Model	腔型 Cavity	紧边排料口尺寸(mm) Closed Side Setting																
		4	6	8	10	13	16	19		22	25	32	38	44	51	57	64	70
HST100	H1(细)Fine				45	50-85	52-95	58-100		60-105	63-115	75-130						
	H2(中细)Medium Fine			35-45	38-75	40-80	45-76	50-60										
	H3(超细)Extra Fine	27-35	30-50	31-55	32-60	35-50	38											
HST160	H1(细)Fine					66-110	75-150	80-165		85-175	90-185	100-210	110-210					
	H2(中细)Medium Fine				65-85	70-135	75-145	80-155		85-165	90-155	100						
	H3(超细)Extra Fine		48-80	50-85	53-90	56-100	60-104	65-105		70-95	75							
HST250	H1(细)Fine						110-200	120-280		125-295	135-315	155-360	170-395	185-385				
	H2(中细)Medium Fine					115-190	120-280	130-300		140-320	150-340	170-285	185					
	H3(超细)Extra Fine			90-135	95-180	100-195	110-210	115-225		125-240	135-255	150-210						
HST315	H1(细)Fine						170	185-340		195-440	210-465	235-550	260-605	285-665	315-515			
	H2(中细)Medium Fine						190-295	205-440		215-470	230-500	265-505	290-405					
	H3(超细)Extra Fine					205-295	220-320	235-300		250-290								
HST560	H1(细)Fine									430-590	455-850	520-970	575-1070	630-1175	690-1295	745-1395	810-1515	865-1335
	H2(中细)Medium Fine							380-565		410-790	435-840	495-955	545-1055	600-1155	660-1275	710-1375	770-1250	825-1100
	H3(超细)Extra Fine				270-405	290-405	315-560	335-600		360-640	380-640	435-775	480-730	525-670				
HST750	H1(细)Fine										460-640	520-1280	575-1415	630-1550	695-1705	750-1840	815-1995	870-2130
	H2(中细)Medium Fine									525-615	560-1045	640-1190	705-1315	770-1440	850-1590	915-1605	995-1395	1060
	H3(超细)Extra Fine				350-420	380-535	405-575	440-620		465-660	495-700	565-800	625-885	685-885	755			

外形尺寸

Dimensions

HST系列中碎单缸液压圆锥破碎机

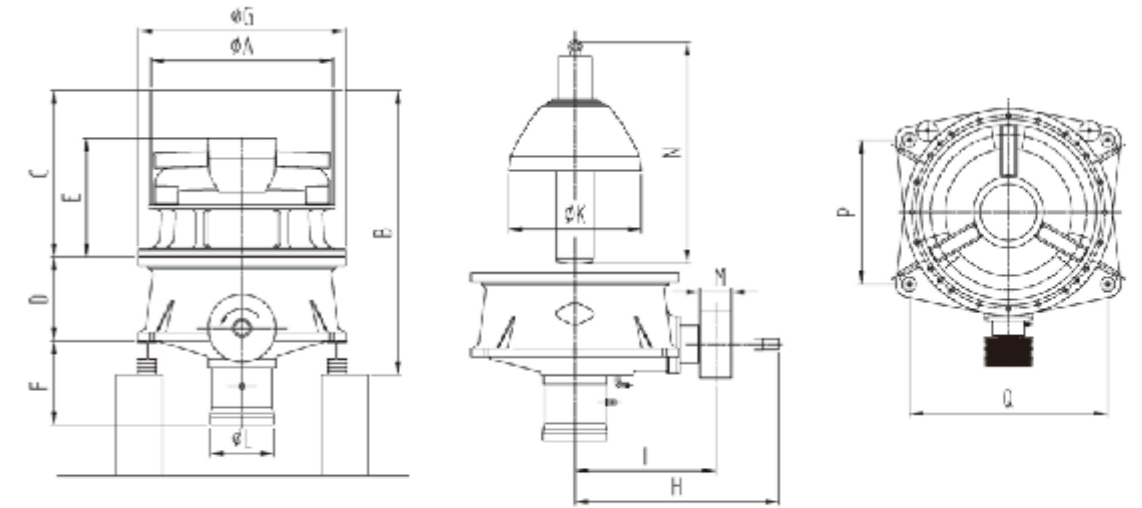
HST Series Secondary Cone Crusher



尺寸 Dimensions	HST100	HST160	HST250	HST315
	S	S	S	S
A	1272	1635	2550	2942
B	2499	2630	3393	3925
C	1727	1705	2365	2644
D	550	665	755	890
E	1016	1263	1515	1830
F	751	670	820	945
G	1280	1550	1830	2200
H	1270	1705	1900	2156
I	843	1145	1270	1490
K	772	962	1102	1295
L	420	495	580	690
M	110.5	161.5	255	297
N	1680	2000	2402	2850
P	1090	1270	1350	1528
Q	1400	1676	1880	2103

HST系列细碎单缸液压圆锥破碎机

HST Series Tertiary Cone Crusher



尺寸 Dimensions	HST100	HST160	HST250	HST315	HST560	HST750
	H	H	H	H	H	H
A	1078	1372	1540	1954	2450	2660
B	1772	2190	2391	3066	3995	4711
C	1000	1262	1365	1755	2045	2400
D	550	665	755	890	1228	1186
E	718	910	1050	1255	1365	1600
F	751	670	820	945	1202	1719
G	1280	1550	1830	2200	2654	2882
H	1270	1705	1900	2156	2850	3100
I	843	1145	1270	1490	1824	2073
K	790	956	1135	1408	1635	1775
L	420	495	580	690	850	1022
M	110.5	161.5	255	297	350	400
N	1425	1710	2033	2350	3095	3545
P	1090	1270	1350	1528	3795	4450
Q	1400	1676	1880	2103	4391	5064

低成本 高性能

Low cost - High performance

HST系列单缸液压圆锥破碎机——实现性能成本的完美平衡

HST Series Cone Crushers——Perfect Balance between Performance and Cost

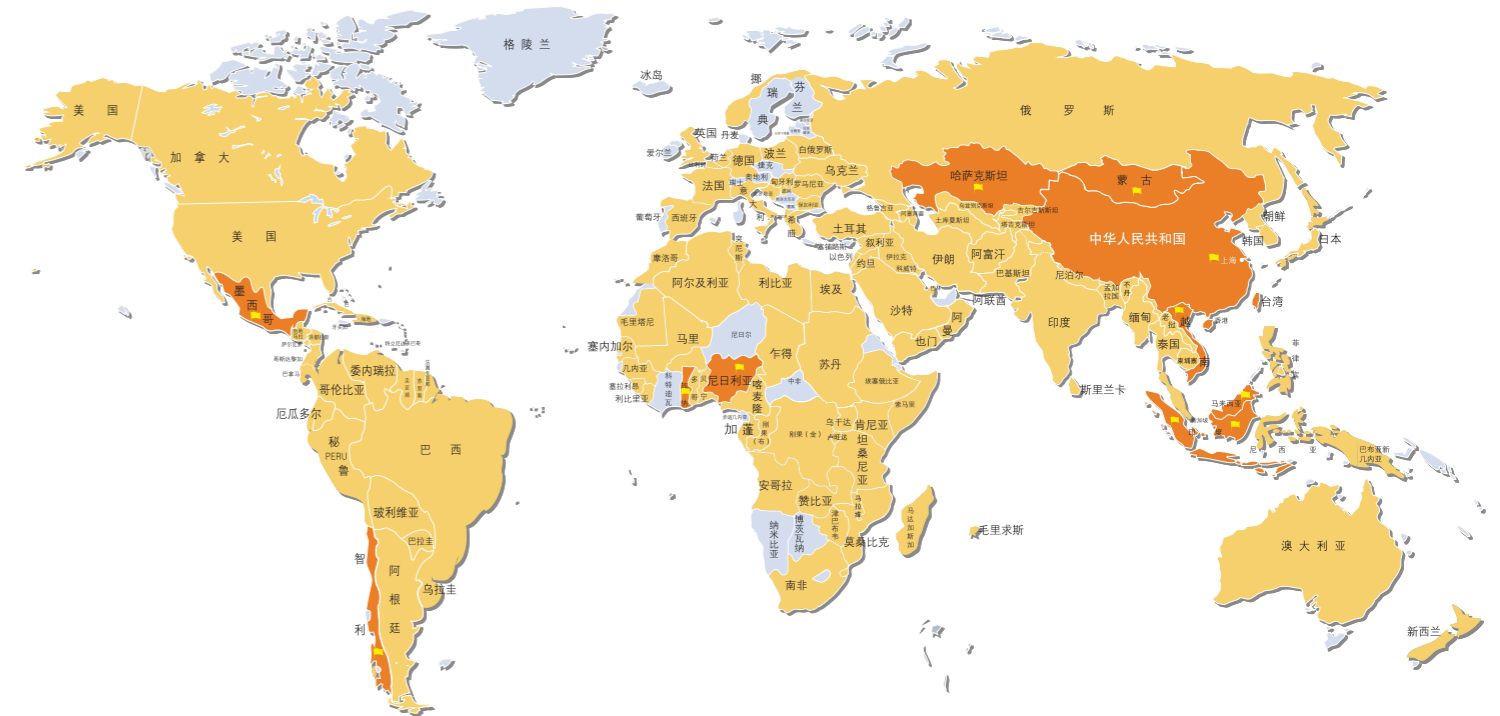
完美匹配的结构设计、简单方便的维护操作、全面自动的调整控制系统、多种选择的破碎腔型，以及高质量的部件，使HST系列圆锥破碎机拥有传统圆锥破碎机无法比拟的高效性能，同时具有最低的运行成本。

Optimized structure, easy adjustment and control system, various cavity types and high quality components endow HST series cone crushers with unmatched high performance and low cost per ton in compare with traditional cone crushers.



您最佳的选择

Your Best Choice



世邦办事处分布
Overseas Offices

国贸出口国家
Export Countries

世邦集团是世界领先的破碎筛分设备制造商和出口商。几十年来，我们致力于创新技术研发和精英团队建设，让我们的设备始终处于积极变革的最前沿。从旧金山到象牙海岸，无论是标准装配还是定制化生产，每一个客户都从我们的精心设计和悉心服务中获益。

SBM is a world leading mining machinery enterprise specializing in R&D and manufacturing crushing machines and grinding equipments. For decades, we are devoted to innovative technique developing and elite group building, which makes us always the avant-garde in this field. From San Francisco to the Ivy Coast, whether the standard assembly or the customized manufacturing, every customer benefits from our precise design and attentive service. Market across the world, reliable technical support and timely response of pre- and aftersales service make SBM a perfect partner for you.