

# HPY SERIES

Multi-cylinder Hydraulic Cone Crusher

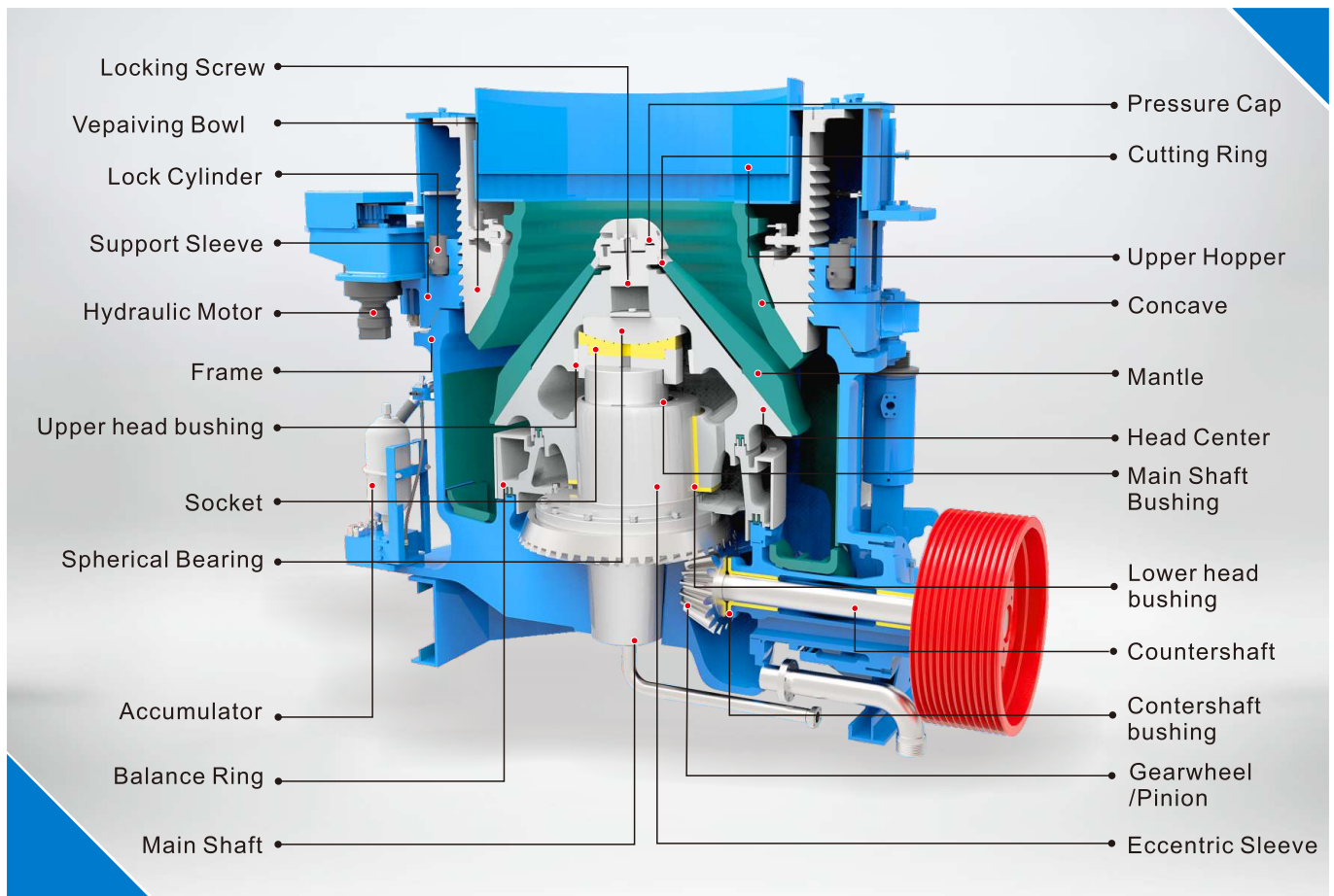


## DESCRIPTION

HPY Series Multi-cylinder Hydraulic Cone Crusher is one of advanced cone crushers in China, which is developed and manufactured by our company. The machine is one kind of high-class product combined with mechanical technology, electrical technology, hydraulic technology and advanced crushing technology. The machine adopts high strength casting-steel frame, alloy forging main shaft and high precision straight bevel gear driving structure, combined with multi-chambers selection and automation control system, which fulfills the performance and advantages. It can be widely used in secondary and fine crushing work for all kinds of hard materials and rocks to meet customers' various needs for crushing.



## STRUCTURE



## FEATURES

### ● HIGH PRODUCTIVITY

Combined with the optimal crushing chamber, large eccentricity, the optimal swing frequency and the laminating crushing principle, the machine keeps the constant value of discharge opening in the process of crushing by using preloading technology of hydraulic cylinder. Which make the performance of machine more stability, getting more greater throughput, higher productivity and better products shape, as well as minimize the unit energy consumption.

### ● AUTOMATION

Automation control system can achieve the overloading protection, iron protection, discharge opening adjustment and cavity clearing, and can also constantly monitor these conditions such as oil temperature, oil pressure and oil flow, as well as motor load and discharge opening size, etc., which sure the machine reliable operation.

### ● HIGH LOADING CAPACITY

Optimization design of strong frame and (cantilever) high strength of fixed shaft structure, unique hydrodynamic lubrication design of copper bush, smart and reliable overload protection system, which make sure the equipment have long-term and stable operation under extremely bad conditions such as hard rock crushing.

### ● WIDE APPLICABILITY

There are two types of the cone crusher: standard type and short head type. There are several of chambers can be chosen for each type. Different chambers can be changed by changing liner, pulley and adapter ring to meet requirement of different production process and application. The adjusting of products' classifying can be achieved by adjusting the driving shaft speed to maximize the equipment's value.

### ● LOW RUNNING NOISE AND LOW VIBRATION

The driving structure of high precision straight bevel gear has advantages of low running noise, high driving ratio and long durability. Low vibration itself and flexibility supporting of the steel structure ensure minimum vibration (which is caused by transmission from machine to foundation) and low foundation cost.

### ● LOW INSTALLATION COST

HPY series of cone crushers have advantage of low installation height, which is lower than products of other companies. And the integral steel base frame ensure easy installation, short time-cost and minimum installation cost.

### ● LOW RUNNING COST

The liner use ratio and durability can be increased by special crushing chamber, liner structure and liner material. Most of the parts can be disassembled in top and side, which is safe, convenient and efficient.

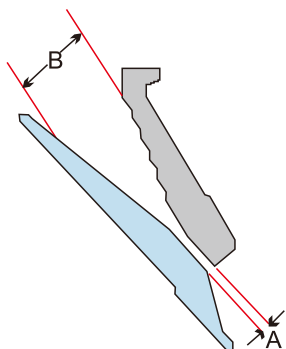


## TECHNICAL SPECIFICATIONS

Model	Power (kW)	CSS (mm)/ Throughput Capacity (t/h)											
		6mm	8mm	10mm	13mm	16mm	19mm	22mm	25mm	32mm	38mm	45mm	51mm
HPY200	160	60-75	70-90	85-115	115-145	135-175	145-185	155-195	165-215	185-230	205-245		
HPY300	220	75-95	100-130	110-140	145-180	170-215	190-230	220-260	225-275	245-320	300-375	345-430	
HPY400	315		105-140	135-170	180-225	215-275	250-320	275-345	285-365	315-425	350-480	400-540	455-615
HPY500	400		135-170	170-220	225-290	270-345	310-400	340-425	360-450	400-530	425-585	500-670	560-770
HPY800	630			240-335	315-420	375-500	420-540	465-590	490-725	545-790	585-920	670-990	765-1100

**Remark :** The capacity above is subject to limestone with density 1.6t/m<sup>3</sup> under the condition of open-circuit, which is 15-30% lower than it under the condition of closed-circuit.

## CRUSHER CAVITY SELECTION



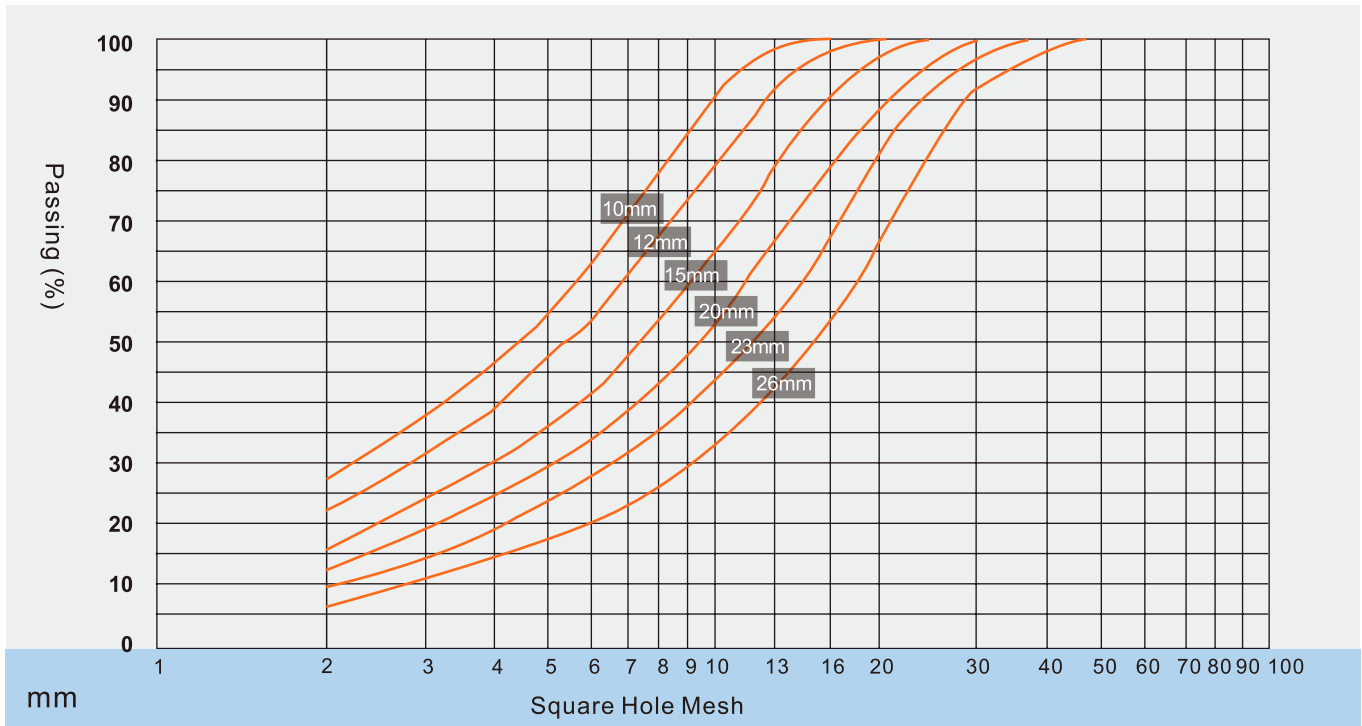
1. The minimum setting is that at which the crusher will operate without causing ring bounce. Depending on the crusher characteristics of the rock, this setting can change.
2. Feed opening "B" is at a minimum setting "A".
3. Maximum feed size vary from 80 to 100% of "B" depending on machine size and material.

Model	Cavity	Standard		Short Head	
		Min. Setting (mm)A	Feed Opening (mm)B	Min. Setting (mm)A <sub>1</sub>	Feed Opening (mm)B <sub>1</sub>
HPY200	F	14	95	6	25
	M	17	125	6	54
	C	19	185	10	76
HPY300	EF			6	25
	F	13	107	6	25
	M	16	150	8	53
	C	20	211	10	77
	EC	25	233		
HPY400	EF			6	30
	F	14	111	6	40
	M	20	198	8	52
	C	25	252	10	92
	EC	30	299		
HPY500	EF			6	35
	F	16	133	8	40
	M	20	204	10	57
	C	25	286	13	95
	EC	30	335		
HPY800	EF				
	F	16	219	5	33
	M	25	267	10	92
	C	32	297	13	155
	EC	32	353		

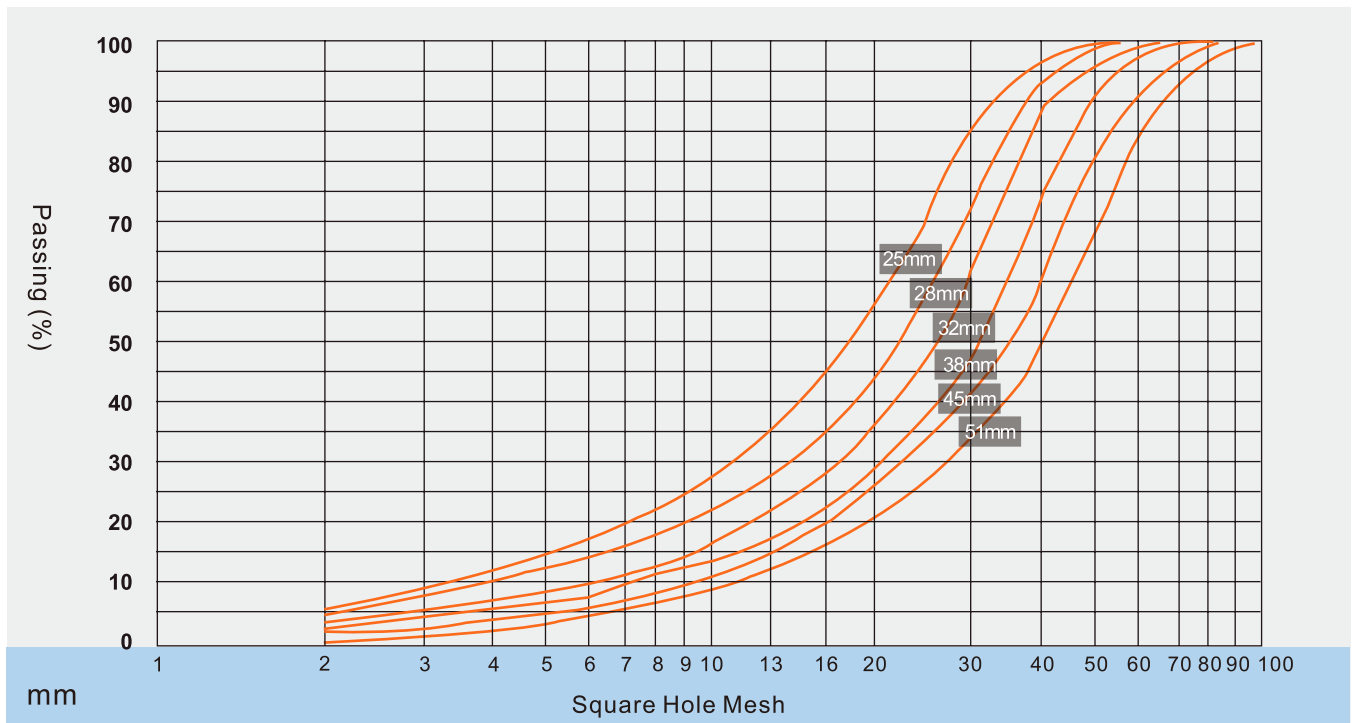
**Remark :** EF=Extra Fine F=Fine M=Medium C=Coarse EC=Extra Coarse



## GRADATION CURVES (FINE CRUSHING)



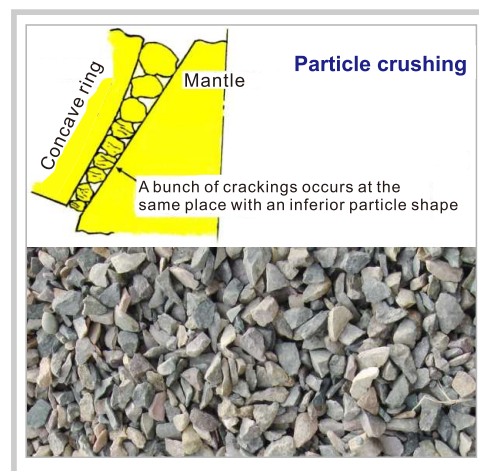
## GRADATION CURVES (SECONDARY CRUSHING)



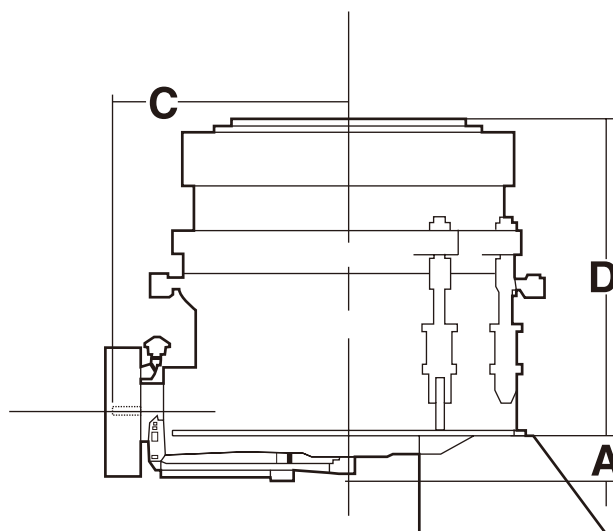
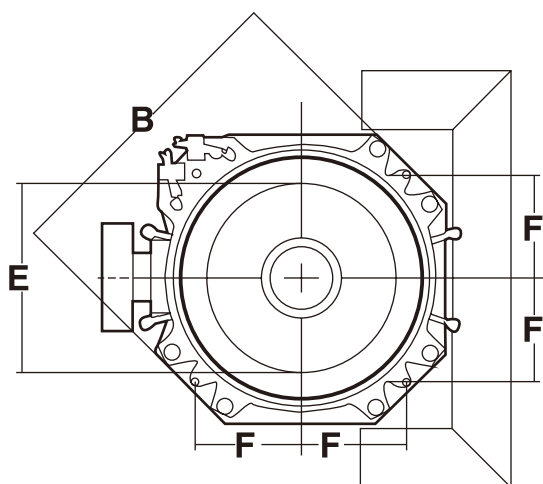
○ The figure on the curves are for the discharging opening size and analysis of square hole.

## CONTRAST

### LAMINATING CRUSHING AND PARTICLE CRUSHING



## DIMENSION



Dimension	HPY200	HPY300	HPY400	HPY500	HPY800
A-To Pipeline Bottom	346	328	240	425	722
B-Adjusting Ring Maximum Diameter	1900	2207	2370	2730	3702
C-To Pinion Shaft End	1179	1347	1645	1760	2225
D-The Maximum Height to Top	1660	1865	2055	2290	3538
E-Inner Diameter of the Feed Hopper	878	1078	1308	1535	1863
F-Foundation Bolt Location	510	660	830	885	1130
Main Frame Discharge Gate Diameter	1238	1470	1726	2040	2420

● The dimension is only for reference, for more information in details please check the outline drawing.



## APPLICATIONS







## VALUE BUILT UPON SERVICES

In order to ensure that your equipment is under the best condition, it is highly recommended to use parts, components and recommended lubrication oil from Luoyang Dahua.



## LUOYANG DAHUA

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