CI5X 系列反击式破碎机

CI5X Series Impact Crusher

High-efficiency Rock Processing Equipment
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To satisfy users' requirements for high profits, low costs, and energy saving, and to overcome the shortcomings of conventional crushing equipment such as complex operation procedures and low crushing efficiency, SMM as a world-class supplier of crushing equipment used in mines, according to the feedback from users in more than 160 countries as well as its experience in engineering application, and taking into consideration the latest scientific research achievements, has developed the new generation of high-efficiency coarse and medium-fine crushing equipment — CI5X series impact crushers. They are ideal upgrades of conventional crushing equipment.

In respect of coarse or medium-fine crushing of soft rocks, CIEX series impact crushers represent the most advanced crushing workmanship and technology currently in the world. Successful integrated application of such latest scientific research achievements as high-rotation-inertia high-precision rotor, multi-functional fully-hydraulic operating system, and high-efficiency involute-shaped crushing chamber, in conjunction with correct selection of wear-resistant materials of critical components, provides CIEX series impact crushers with higher crushing efficiency, higher reliability, and greater ease of maintenance and operation as compared with conventional crushing equipment.

In short, high-efficiency crushing workmanship plus ergonomic design enable CIEX series impact crushers to adapt to various crushing conditions and meet users' needs. They are high-efficiency solutions and can help users maximize returns on investment.

**Typical Construction:**

1. Hammer Bar
2. Lower Frame
3. Pulley
4. Rotor
5. Lining Plate
6. Impact Plate
7. Hydraulic Regulation Device
8. Impact Plate
9. Upper Frame
10. Hydraulic Jacking Device
Integrated application of latest scientific research achievements

CIX series反击破破碎机采用大量国内外先进设计和制造技术的基础上，将破碎腔、转子和
调整装置等多部位设计成果整合应用，使得设备的性能和破碎能力达到国际领先水平。

Integrated application of many latest scientific research achievements, for example, those
concerning crushing chamber, rotor and adjusting device, based on the analysis of technical
details and operating conditions of a great many domestic and foreign impact crushers makes
CIX series Impact crushers Internationally most advanced in respect of crushing performance
and easiness of operation and maintenance.

大转动惯量高精度重型转子
Great-rotation
--inertia high--precision rotor

CIX series impact crushers have a heavy-duty, high-rotation-inertia, high-precision rotor that
is manufactured in numerically-controlled machine tool and equipped with high-quality
bearings that have good load ability and high-rotation precision. Material breakage after full
acceleration produces greater reduction ratio. Under a heavy load, the rotor exhibits high
gotation inertia, more effectively crushing materials. The impact racks of automatic overload
protection along with the rotor ensure the safe and stable operation of impact crusher.

多功能全液压操纵系统
Multi-functional fully
-hydraulic operating system

CIX series impact breakers have a multi-functional, fully-hydraulic operating system to accurately and
rapidly adjust the clearance between impact rack and rotor to realize discharge grain size adjustment, saving
both labor and time, and increasing machine utilization ratio. The hydraulic cylinder of the opening and closing
device can be directly operated by the hydraulic system, facilitating maintenance of hammer bars and
impact blocks hence reducing production interruption time.

渐开线型高效率破碎腔
High-efficiency involute
--shaped crushing chamber

The crushing chamber is a high-efficiency, involute-shaped crushing chamber designed with simula-
tion software and verified through actual application. It can process material of larger grain size; it can be used in
the coarse and medium-fine crushing of medium-hard and soft rocks. Undergoing cold and hot treatment in the
crushing chamber, rocks break into high quality cubic aggregates satisfying production requirements.
高标准的原材料确保设备高强度

**Raw materials to high standard ensuring high strength of equipment**

CDX系列反击破与同类产品相比，性能更可靠，强度更高。这一切都归功于品质一流的原材料选用，并且整机采用ANSYS有限元计算机辅助设计，不仅保证了设备在运行中的安全可靠，还大大降低了设备维修成本，提高了破碎机使用寿命。

Compared to conventional crushing equipment, CDX series impact crushers present higher reliability, safety, and strength as they are designed with computer-aided finite element design software ANSYS, and fabricated with raw materials of first-class quality. The crusher maintenance costs are greatly reduced with the service life extended.

**轻量化机架
Lightweight frame**

优化机架结构，选用高强高塑性钢材制造，整体经过加工，设备结构紧凑，强度高重量轻，安装运输安装方便。

Optimized structurally, fabricated with qualified steel and machined integrally, the frame is of high strength, compact, light, and easier to transport and install.

**高精度主轴
High-precision shaft**

CDX系列反击破主轴采用优质钢材锻造成型，经过高精度加工，配合高品质轴承，使设备在持续高强度工作时依然非常稳定。

Forged with quality steel, machined highly accurately, and supported by high-quality bearings, the shaft is capable of operating very steadily even under harsh conditions.

**高强韧性齿架
High-strength impact rack**

反击架采用高强韧性钢铸造而成，高韧性反击板通过大量经验积累在反击架加工上，整体强度大，抗冲击效果在工作过程中反击板的非正常磨损。

Highly-wear-resistant impact blocks are fixed by large-diameter bolts to the machined faces of high-strength steel welded impact racks, producing high integral strength and effectively avoiding accidental detachment of impact blocks during the operation.

**耐磨锤头板
Highly wear-resistant hammer bars**

CDX系列反击破的锤头和衬板都采用高耐磨材料，使用寿命大大提高；锤头经过加工精度更高，采用特殊的斜度安装在轴芯上，固定可靠，磨损后可以翻转使用，提高易损件利用率。

Both the hammer bars and liner plates are made of highly wear-resistant steel with service life greatly prolonged. The hammer bars more accurately machined are securely fixed by special wedge-shaped blocks to the rotor. The hammer bars are so designed that these can be reused by repositioning after one face wears out, with the utilization ratio increased.
Ergonomics design theory reducing operation cost

CISX系列反击式破碎机的优秀源于其扎实设计和材料，即使是最小的细节也做到了精益求精，它不仅保证设备高效率性能，还能保证可靠性长寿命设计特性，融入了人机工程设计理论，使得整机拆换与维护工作更加简单便捷，减少了停机时间，降低了运行成本。

(The) Excellence of CISX series impact crushers comes from their first-class structural design and material selection, pursuing perfection in every tiny detail. High reliability, maintainability, and operational convenience are ensured besides high strength and performance. Replacement of vulnerable parts and maintenance of the machine are simplified by ergonomics design with both production interruption time and operation cost reduced.

Integral bearing block design reducing risk of damage

CISX系列反击式破碎机采用整体式轴承座设计，利用特殊定位装置，脱离了轴向承载能力，降低了轴承因轴承座位置发生偏移的风险。

Integral bearing block utilizes special positioning design enhancing radial load ability and reducing the risk of bearing damage due to bearing block displacement.

Grease lubrication

设备轴承采用油脂润滑形式，润滑更加可靠，轴承轴承受损概率工作，润滑方便快捷。

Efficiently lubricate with grease and provided with reliable seals, the bearings are capable of continuously operating steadily. Grease addition and replacement can be performed conveniently.

Hydraulically-operated opening and closing device easy to maintain

设备在操作的时候可以选配液压系统直接控制液压缸，实现上机架的开启和闭合，无需额外安装设备，方便维护。

To maintain the machine, hydraulic cylinder can be directly driven by the hydraulic system to open and close the frame, with maintainability enhanced without need of any holding equipment.

Hydraulic adjustment device quick and convenient

CISX系列反击式破碎机采用液压调整机架，可以连调调节反击板和转子间隙，以控制设备的排料粒度和出料，调节过程方便快捷。

Clearance between impact rack and rotor can be hydraulically adjusted continuously and conveniently to control discharge grain size and gradation.
---粗碎和中细碎多种机型选择---
Selection from a variety of coarse and medium-fine crushing models

CIDX系列反击式破碎机有粗碎和中细碎多种机型，无论是作中等硬度或软物料
的大中产量的粗碎还是中细碎作业，均有宽幅的机型选择。

Selection from a variety of coarse and medium-fine crushing models of
CIDX series impact crushers can be made so that the selected model is
absolutely ideal for the coarse or medium-fine crushing of medium-hard or
soft materials with huge or medium throughput.

CIDX series反击式破碎机具有多种机型供选择，无论是作中等硬度或软物料
的中大产量的粗碎还是中细碎作业，均有宽幅的机型选择。

The coarse crushing model of CIDX series Impact crushers are designed to
have a larger feed opening and crushing chamber able to receive and
process materials of large grain size to a great reduction ratio. The design of
medium-fine crushing model of CIDX series impact crushers attaches more
importance to the crushing effects and quality of crushed products. The
materials to be processed by these machines generally have a compara-
tively small grain size. A third impact rock may be installed to further
improve the quality of crushed products.

技术参数
Technical Information

<table>
<thead>
<tr>
<th>型号</th>
<th>转子规格</th>
<th>进料口尺寸</th>
<th>最大进料粒度</th>
<th>处理能力</th>
<th>标配装机功率</th>
<th>功率</th>
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<tbody>
<tr>
<td>Model</td>
<td>Rotor spec (mm)</td>
<td>Feed opening (mm)</td>
<td>Maximum feeding size (mm)</td>
<td>Capacity (t/h)</td>
<td>Nominal installed power (kW)</td>
<td>Power (kw)</td>
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注：上述性能是以物料松散密度1.6t/m³。骨料层的测定数据。
Capacity is indicative for instantaneous sampling results of materials with bulk density of 1.6t/m³.