HENAN EXCELLENT MACHINERY CO.,LTD

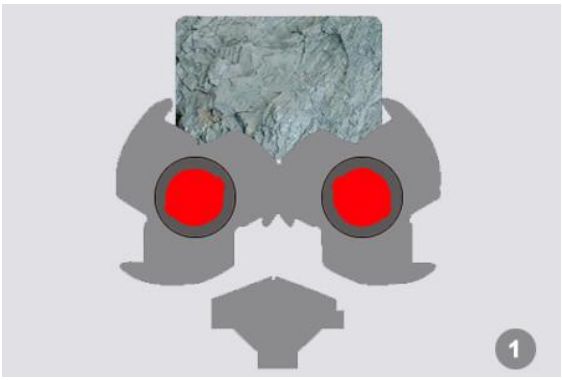
SIZERS

Excellent crushing solution

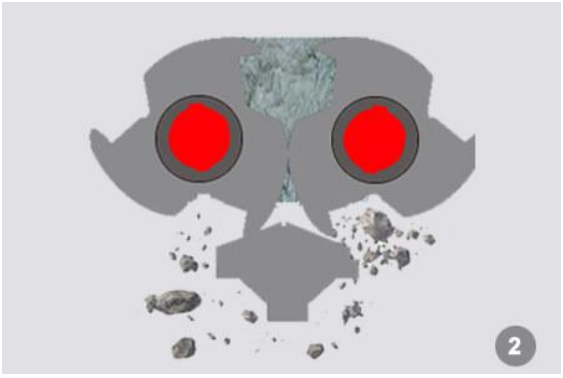
The crushing method of EXCT sizer is both compact and efficient. The operating principle of the sizer crusher is to generate continuous pressure between the tooth rollers through the reverse rotation of the two tooth rollers to continuously crush the material.

Based on our deep study of the processing material features, and drawn from the advantages of other brand Sizers, EXCT has produced a high efficiency, low maintenance cost crusher, the EXCT sizer. Its actual use effect is exactly equal to the crushers of world famous brand.

HOW IT WORKS



The mineral is gripped by the leading faces of opposed rotor teeth, and to be subjected to stress under the concentrated load of the rotor teeth. The stress breaks minerals along with their natural texture.



The mineral is broken in tension by being subjected to a three-point loading between the front tooth faces on one rotor and rear tooth faces on the other rotor.

The mineral that has not been fully broken can be further broken by the rotor teeth and fixed teeth of the breaker bar to ensure the 3d dimension requirements of the discharging material.

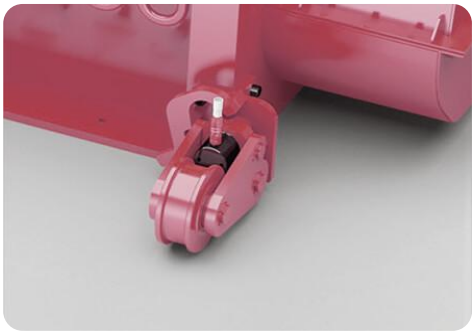
HANDLING MATERIALS

EXCT sizers provide primary, secondary and tertiary crushing operations for many kinds of mineral, such as coal, salt, gypsum, phosphate, limestone, bauxite, petroleum coke, lignite, trona, carbon anodes, oil sands, clay, shale and more.

SIZER COMPONENTS

Drive Device

Toothed Roller



Running Gear

Frame Construction

Synchromesh Gear

Lubrication System

FEATURES & ADVANTAGES

1. Optimum Performance

- The handling capacity of primary sizer can be reached 10,000 t/h, and the secondary sizer range covers up to 4,000 t/h.
- EXCT Sizer's unique tooth alloy formula is sufficient to handle material from soft coal (30 MPa) to hard granite (250MPa).
- EXCT sizer can handle not only wet stickly material and dry hard materials but also a mixture of both these materials.
- Scientifically choose different tooth shape and spacing to meet end-user's requirement of finished product size.

2. Cost Saving

- Compact structure for reducing the cost of steel structures and civil works.
- The modular design of wear parts makes all wear parts reach their full service life and greatly saves the maintenance cost.

3. Friendly Environment

- Under the same crushing conditions, EXCT sizer has low energy consumption and noise level compared with other types of crushers.
- Low roll speeds ensure minimum dust and fines generation during crushing process.

4. Increased Safety

- EXCT Sizers include overload protection device, preventing the equipment from sustaining damage by steel or other unbreakable material.
- Sizer matching PLC control system can realize automatic control start and close, overload protection, automatic lubrication and other functions.

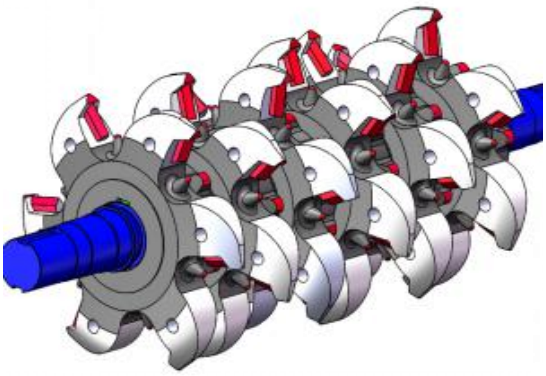
5. Easy Maintenance

- Integrated moving unit allows the sizer to be moved into maintenance position quickly.
- Modularized wear part design makes it easy to replace quickly and reduces downtime.
- The whole machine automatic lubrication system is applied in sizer, which facilitate the maintenance of equipment.

SIZERS TOOTHED ROLLER

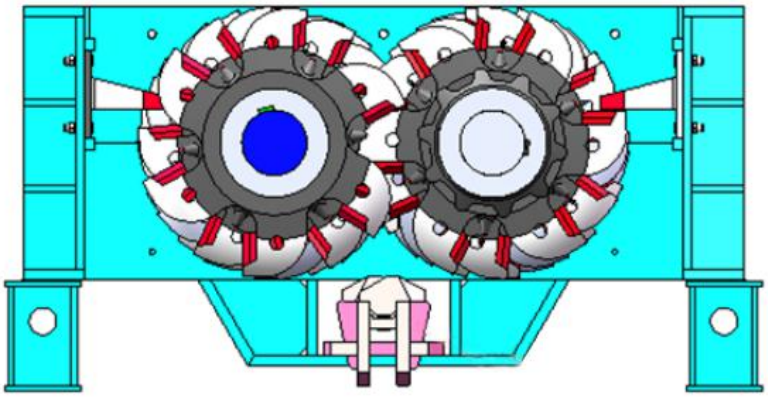
According to the types of broken materials provided by customers, working environment, material size, production capacity, maintenance status, etc., our tooth roller can be roughly divided into two categories-- primary crushing and secondary crushing.

Primary Sizers toothed roller



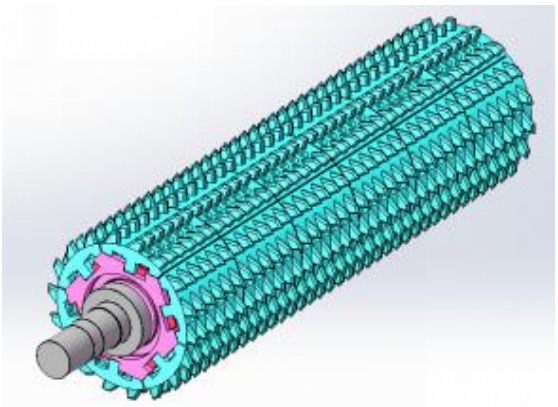
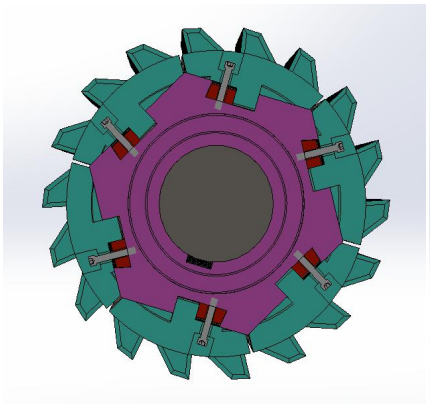
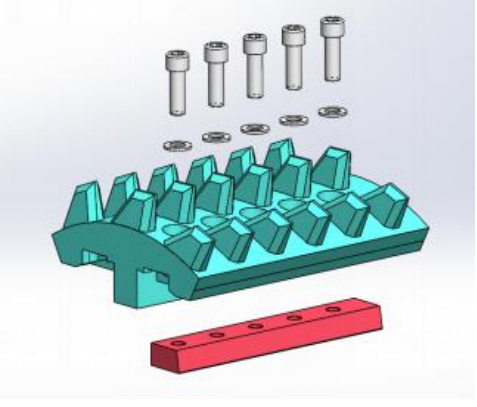
The arrangement of crushing tooth shapes and tooth shapes are arranged by special spiral tooth shapes. The crushing teeth are cast from abrasion-resistant and impact-resistant alloy steel. After heat treatment after precision casting, the crushing strength of the alloy steel up to 250Mpa. It is proved that the service life is far longer than those from the same industry.

Tooth shape arrangement is determined according to the field feeding situation, which is of strong biting capacity, improved crushing efficiency, high block rate, reduced over crushing, to reduce crushing power consumption, improve the crushing condition. Three passing cavities are formed between the two toothed rollers and between each toothed roller and the corresponding side plate body for screening and crushing materials respectively. The tail of the tooth roller is equipped with synchronous gear, so as to ensure that the jaw position of the crushing teeth on the double roller has a relatively stable effect so that the large material can be forced to be broken, and the discharge size of the material can be ensured.



Secondary Sizers toothed roller

Secondary crushing and fine breaking. The grain size of the graded tooth roll crusher for fine breaking (tooth plate) coal is less than or equal to 300 (a small amount of 400mm is allowed), and the discharging grain size includes 30mm, 50mm, 80mm, 100mm and etc. The graded tooth roll crusher for fine breaking (tooth plate) can break coal gangue and moderate strength rock. The structure type of the broken teeth is adjusted to the tooth plate structure when the tooth plate is made of special steel, while the heat treatment is carried out after the precision casting. The advanced tooth shape and the fixed way of the broken tooth plate, and there are two forms of the integral casting of micro-alloy and hard facing and wear-resistant material.

Features & Advantages

- The tooth head of crushing teeth is cast with abrasion-resistant and impact-resistant alloy steel as a whole. After precision casting, heat treatment is carried out to ensure its long service life.
- A new type of solid-state high-frequency heating device is used to heat the crushing teeth at high frequency, and then it is installed on the crushing teeth roller shaft. The special properties of the material are utilized to make the fitting between the crushing teeth and the shaft firm and reliable.
- Easy installation and disassembly of the crushing tooth head, which can significantly reduce the maintenance time.

Machining tooth roller shaft

Through the large lathe, the outer circle and the end face of the tooth roller shaft are processed. After the processing, the outer circle and end face of the tooth roller shaft are heat treated. Then, through the grinder, the outer circle and end face keyway of the tooth roller shaft are processed in the CNC planer and milling machine. The high-strength thickening key after heat treatment is processed by grinder so that the matching precision of the key groove of the crushing gear roller is higher than the national standard.


Heat treatment

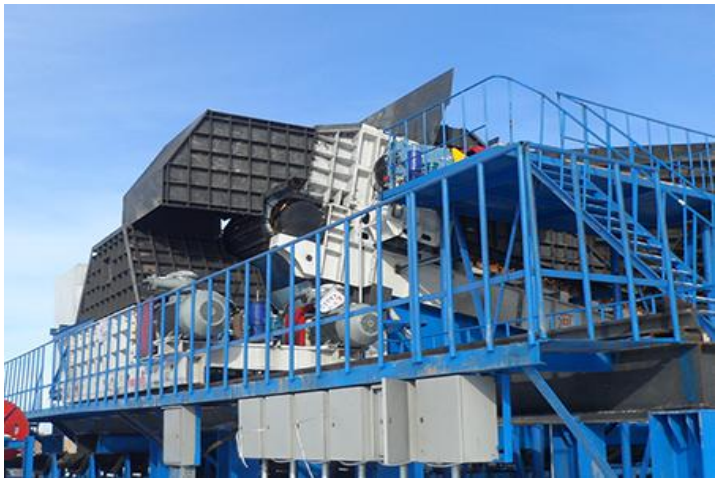

Digital display floor boring and milling machine


Finished Shaft

SUCCESS PROJECT IN VARIOUS MATERIAL

Limestone | Colombia | In: 300mm | Out: ≤50mm | Capacity: 3,500TPH

Brown Coal | Canada | In: 1000mm | Out: ≤200mm | Capacity: 4,000TPH



Clay | Australia | In: 800mm | Out: ≤100mm | Capacity: 2,500TPH

Copper Ore | South Africa | In: ≤1000mm | Out: ≤150mm | Capacity: 5,500TPH

Coal | Bangladesh | In: 350mm | Out: 50-120mm | Capacity: 5,000TPH

Coal | Xinjiang China | In: ≤350mm | Out: ≤160mm | Capacity: 3,500TPH

Aggregate| Shandong China | In: 500mm | Out: ≤300mm | Capacity: 2,000TPH

Coal | Guizhou China | In: 800mm | Out: ≤150mm | Capacity: 4,000TPH

Coal| Neimenggu China | In: 800mm | Out: ≤250mm | Capacity: 1,000TPH

Lump Raw Coal| Sichuan China | In: 600mm| Out: 60-120mm | Capacity: 2,000TPH

Coal| Shanxi China | In: 700mm | Out: ≤150mm | Capacity: 1,300TPH

Coal| Guangxi China | In: 600mm| Out: 100-160mm | Capacity: 1,100TPH

TECHNICAL SPECIFICATIONS

Primary Crusher

Model	2PLF800	2PLF1000	2PLF1200	2PLF1500
Teeth Roller Dia (mm)	800	1000	1200	1400
Roll length (mm)	1500-2500	1500-3000	1500-3000	2000-3500
Max feed size (mm)	800	1000	1200	1500
Output size (mm)	≤300	≤300	≤300	≤300
Capacity (t/h)	≤2000	≤3500	≤6000	≤10000

Secondary Crusher

Model	2PLS600	2PLS800	2PLS1000	2PLS1200
Teeth Roller Dia (mm)	600	800	1000	1200
Roll length (mm)	1000-2500	1500-3000	2000-3000	2000-4000
Max feed size (mm)	200	300	350	400
Output size (mm)	50-80	50-100	50-120	50-140
Capacity (t/h)	250-800	500-2000	600-3000	800-4000

SELECTION INSTRUCTIONS

1.Which material to be crushed:_____
2.Handling capacity:_____t/h.
3.Bulk material density: _____t/m3
4.The material compressive strength:_____Mpa
5.The material HGI (hardgrove grindability index) range:
6. Material particle distribution percentage ?
7.Max. grain size of the feeding material: _____mm
8. What is the grain size of the finished product after crushing?
9.What equipment is used to feed the material into the sizer?
10.What equipment is used to discharge the material from the sizer?
11.As we know,the sizer should form a system with other equipment, do you have reliminary design or hand-drawn sketch? If have, please send it to our engineer for reference. (info@exctmach.com)

EXCT committed to be the best supplier in the world

BULK MATERIAL HANDLING

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