



# PF SERIES IMPACT CRUSHER

TOP 1 BRAND OF CHINA'S CRUSHING  
AND GRINDING INDUSTRY





## Product Presentation

As an improved and energy-efficient product of Liming Heavy Industry, PF Series impact crusher adopts domestic and foreign advanced technology, combining with specific mining conditions of domestic gravel industry. With rational structure, simple operation, and sound safety performance, PF Series impact crusher enjoys superior performance and wide application. The most outstanding advantage of impact crusher is that its finished powder is in good, cubic shape, non-tensile and cranny.

### Three Innovative Technologies :

1. PF Series impact crusher adopts a brand new design with keyless connection, narrow "V" belt drive in transmission part and compact structure, thus the production efficiency is greatly enhanced.
2. Axial limit device is made to ensure the proper position of plate hammer and prevent it from moving around, so that the motor moves in balance and keeps a high impact resistance.
3. Hinged housing cap uses advanced ratchet device for opening and closing to ensure safe and reliable replacement parts and maintenance. A specific taper sleeve connects principal axis and its coordination belt pulley for easy installation, effectively shortening the time of operation and maintenance, and omnibearingly improving the working efficiency.



## Purpose and **Application Scope**

1. PF series impact crushers are widely applied in building materials, transportation, energy, cement, mining, chemical industry, etc.

2. PF series impact crushers can crush many kinds of ores and rocks with max feeding size less than 300mm and compression strength lower than 350Mpa, not applicable to crushing viscous materials or ores with surface moisture larger than 8-10%.



## The working principle of PF series impact crusher

Impact crusher crushes material by impact energy. When it works, the motor drives the rotor rotate at a high speed. As soon as the material get into the affecting area of the plate hammer, they will be stroke by the plate hammer and be thrown to the impact plate, then crushed. The high speed forces the material to rebound repeatedly from the impact plate to the area where the impact chamber works until they have been crushed to the required size, finally discharge from discharging opening at the bottom of the machine. Adjusting the distance between impact frame and rotor can change the shape and size of the final products.

### Structure of PF series impact crusher

PF series impact crusher mainly includes rotor, impact frame, mainframe, rotating parts and other components.(Figure 1)

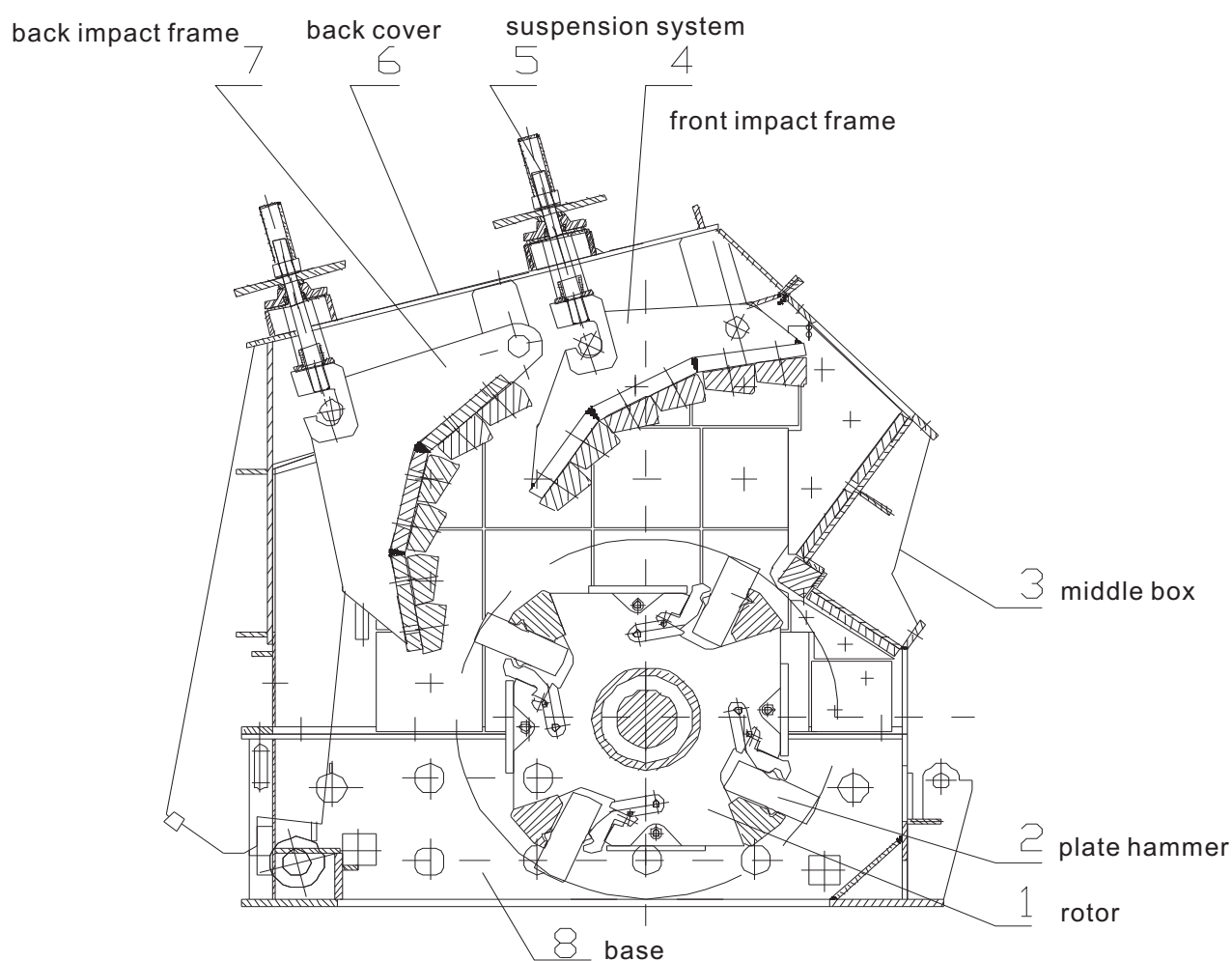


Figure 1 structure chart of PF series impact crusher



### (1) Rotor

The rotor frame is welded together by steel plate, while the plate hammer is made from wear-resisting material. Axial spacing device is equipped to ensure the proper position of plate hammer and prevent it from moving around. (Figure 2)

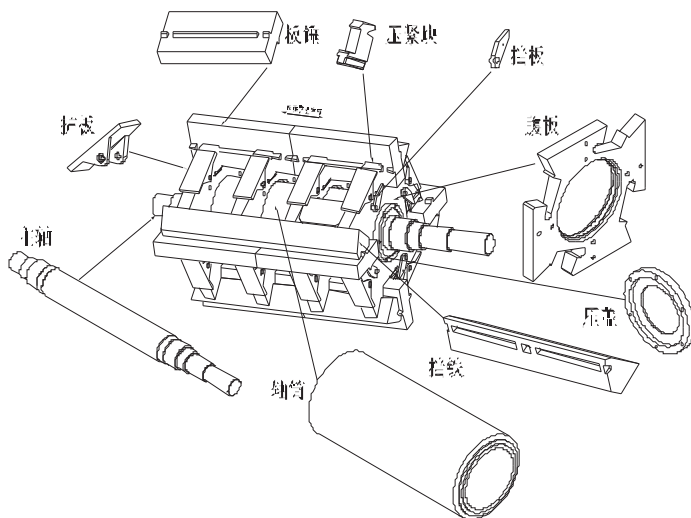


Figure 2 structure of the rotor

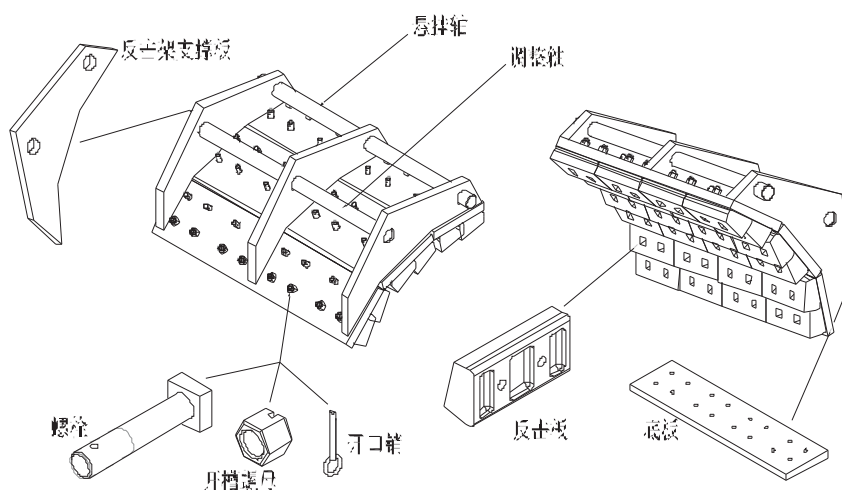


Figure 3 structure of the mainframe

## (2) Mainframe

Mainframe is comprised of base, middle box frame, back cover, and they are welded together by firm, distortion-resistant box welded structure with high-strength bolt connection. Hinged housing cap uses advanced ratchet device for opening and closing to ensure safe and reliable replacement parts and maintenance. (Figure 3)

### (3) Impact frame

PF series impact crusher adopts two impact frames- front impact frame and back impact frame with self-gravity suspension structure. Each impact frame is separately suspended in the crusher mainframe. When the machine is running, the impact frames keep the normal position by gravity. When something that cannot be crushed enters into the machine, such as metal, the impact frame will rise up, discharge the metal, then come back.

### (4) Transmission part

PF Series impact crusher adopts narrow "V" belt drive in transmission part. A specific taper sleeve connects principal axis and its coordination belt pulley, so it is convenient for installation. The rotor speed can be adjusted by changing the sheave.

### (5) Ratchet cover device

PF series impact crusher is equipped with two ratchet cover devices in both sides of the mainframe, comprising high-strength left and right trapezoidal screw and ratchet chngement. It is easy to open and close for inspection of machine. (Figure 4)

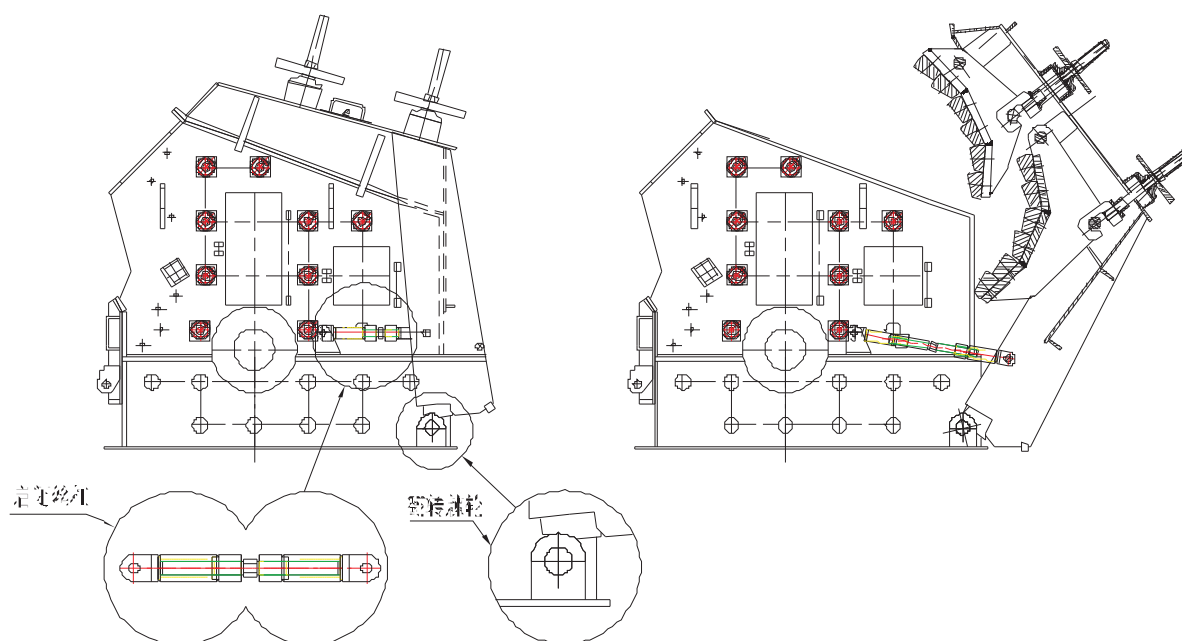


Figure 4 open-close screw and reversal ratchet



## **SUPERIOR PERFORMANCE**

### **1. Energy-efficient manufacturing process**

With large feeding opening and crushing cavity, PF series impact crusher is endowed with complete crushing function and high production efficiency. It can crush hard rock with small abrasion, and it is blessed with a high comprehensive benefit.

### **2. Adjustable discharging size**

Its final product is in good, cubic shape, non-tensile and cranny. Discharging opening is adjustable, so crushing process is simplified.

### **3. Efficient and steady mainframe structure**

The high chrome plate hammer is wearable and impact-resistant, that makes the equipment more durable and reliable.

## STRUCTURE FEATURES



### 1. Good dynamic and static balance

Axial limit device is made to ensure the proper position of plate hammer and avoid moving around, so that the motor moves in dynamic and static balance and keeps a high impact resistance.

### 2. Safe and convenient maintenance

Hinged housing cap uses advanced ratchet device for opening and closing to ensure safe and reliable replacement parts and maintenance. A specific taper sleeve connects principal axis and its coordination belt pulley for easy installation, effectively shortening the time of operation and maintenance, and omnibearingly improving the working efficiency.

### 3. Brand new design concept

PF Series impact crusher adopts a brand new design with keyless connection, narrow "V" belt drive in transmission part and compact structure, and hence greatly improve working efficiency.

## TECHNICAL PARAMETERS

### Main technical parameters

Model	PF-1010	PF-1210	PF-1214	PF-1315
Rotor size (mm)	1040	1040	1040	1040
Rotor Width (mm)	1000	1050	1400	1500
Feed Opening(mm)	1040×510	1155×465	1485×465	1540×700
Maximum feed size(mm)	≅200	≅250	≅300	≅300
CSS min-max(mm)	≅50	≅50	≅50	≅50
Capacity(t/h)	50-90	70-130	90-180	120-250
Motor Power KW(HP)	75(100)	110(150)	132(175)	200(270)
Weight ( T )	12.5	16.5	19	24
Overall Dimension(mm)	2455×2090×2800	2582×2052×2810	2582×2410×2810	2930×2765×3053

### Note:

1. The above feeding size, discharging size and capacity data are based on limestone.
2. Crushing capacity is related to the characteristics of crushed material, feeding size and composition. So it is only for reference.

In order to enhance your experience of our equipment during the operation, we strongly recommend spare parts originally manufactured by LIMING Heavy Industry. These high quality spare parts are manufactured using advanced metallurgy techniques, precise machining, and perfect compatibility, ensuring the lowest malfunction operation and creating higher value for our customer.

## Crushing Plant



Sine Liner



Spring



Toggle Plate



Guard Liner Plate



Impact Block



Wearproof Plate



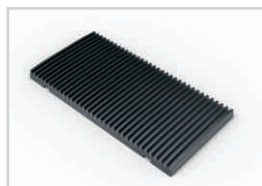
Impact Plate



Tension Rod



Feed Eye Ring



Movable Jaw Plate

## Grinding Plant



Ring



Roller



Shovel Base



Shovel



Gland Arove Roller Sleeve



Roller Sleeve



Roller Shaft



Classifier Impeller



Lining Plate



Air Way Guard Plate

## PRODUCT LIST

### Production Line

Stone Crushing Line

Sand Making Line

Industrial Grinding Line

### Grinding Plant

LM Vertical Mill

MTW European Trapezium Mill

LUM Vertical Roller Mill

TGM Trapezium Mill

T130X Superfine Grinding Mill

YGM Series Suspension Mill

HGM Series Micro Powder Mill

Coarse Powder Mill

Raymond Mill

### Crushing Plant

HJ Series Jaw Crusher

European Type Jaw Crusher

European Type Impact Crusher

Impact Crusher

Jaw Crusher

HPT Hydraulic Cone Crusher

HST Hydraulic Cone Crusher

CS Series Cone Crusher

Spring Cone Crusher

### Sand Making& Screening Plant

VSI5X Vertical Shaft Impact Crusher

VSI Vertical Shaft Impact Crusher

PCL Vertical Shaft Impact Crusher

YKN series vibrating screen

Vibrating Screen

Sand Washing Machine

Belt Conveyer

Vibrating Feeder

### Mobile Crushing Plant

Crawler Mobile Crushing Plant

Mobile Primary Jaw Crusher

Mobile Impact Crusher

Secondary Cone Crusher

Multi-Combination Mobile Crusher

Mobile VSI Crusher

Mobile Vibrating Screen

# QUALIFICATION

## GOST Certificate



Grinding Plant



Crushing Plant



Mobile Crushing Plant

## CE Certificate



Grinding Plant



Crushing Plant



Sand Making Plant



ISO9001:2008  
Quality Management  
System Certification



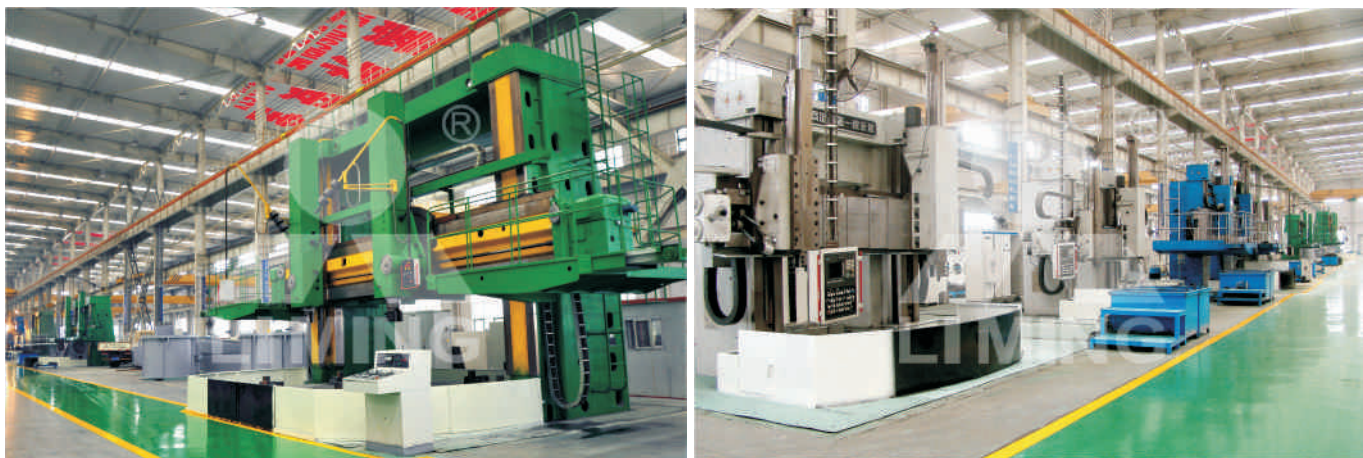
Environmental management  
system certificate



## **Service** — With me, enjoy your pleasant journey.

Liming has the most experienced team of engineers with professional knowledge and spirit of dedication. To serve the clients more conveniently, they scattered all over the world to work all year round. From the site planning to the drawing design, from the technical training to the installation and debugging, from the whole working line that values millions to the small pinion that looks insignificant, they fully understand the influence factors of actual situation on customer business, and create successful solution to improve the production efficiency and the environmental quality for customer operating agency.

## WORKSHOP



## ENTERPRISE PROFILE



Henan Liming Heavy Industry Science & Technology Co., Ltd. , established in 1987, is the leading enterprise of mining machinery in China.

Liming Heavy Industry is chronically committed to the research and develop of manufacturing of large infrastructure projects, such as construction, energy, transportation, etc. and provides various technical solutions and auxiliary products. "Made in Liming" is highly praised by our cooperative partners from more than 130 countries and regions overseas, such as Russia, Kazakhstan, Azerbaijan, Turkey, Kuwait, South Africa, Egypt, Vietnam, Malaysia, India, Australia, Korea, Canada and the European Union,etc. Liming is deserved to be one of the most excellent enterprises with the most industry customers and the most widely sales level service network.

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