

 **JOYAL**  
*Crushing Plant--Jaw Crusher*



Shanghai Joyal Mining Machinery Co., Ltd

# Jaw Crusher

## • Application

1. This machine is used in mining, metallurgical industry, building material, highway, railway, and chemical industry.
2. It can crush mining stones and rocks whose compressive strength is not more than 320M Pa.
3. The max size of the stuff should not exceed the standard in the following table.
4. The output will be affected when the stuff has high viscosity.



# Jaw Crusher

>> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com

## • Work principle

The motor drives the mobile jaw up and down through eccentric shaft. The angle between toggle plate and mobile jaw increases when mobile jaw plate moves up. So the mobile jaw plate closes up the fixed jaw plate. The stuff will be crushed in this process. The angle between toggle plate and moving jaw decreases when mobile jaw moves down. The mobile jaw plate moves away from stationary jaw plate with the pulling of draw rod and spring, so the crushed stuff will be discharged from the outlet. This process will repeat. The moving jaw will crush and discharge the stuff circularly.



## Crushing Plant



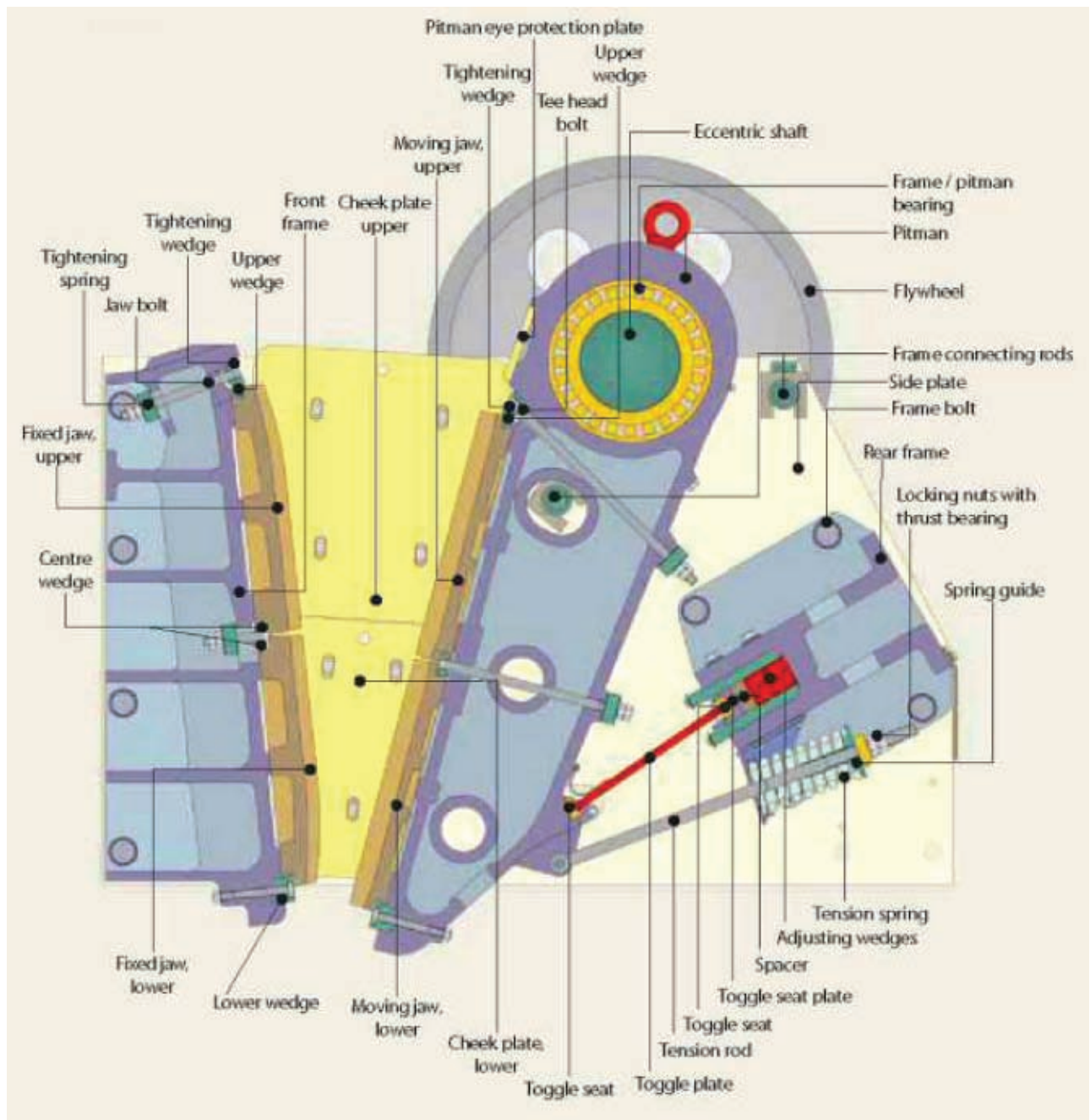
# Main Specifications

>> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com

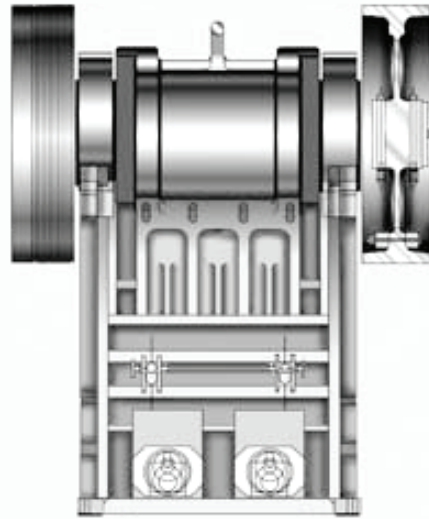
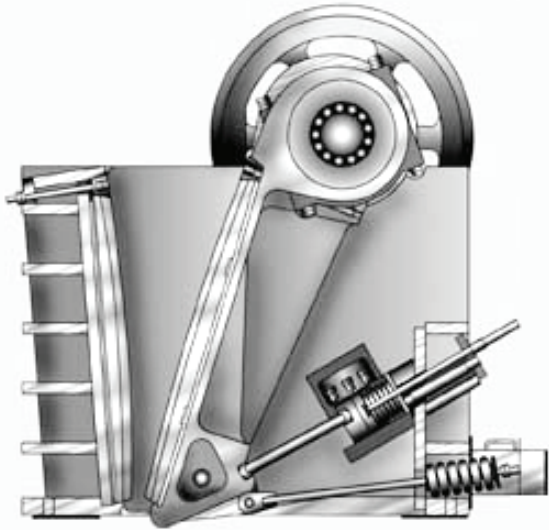
Model	Feed Opening Size (mm)	Max. Feeding Size (mm)	Adjustable Range of Output Size (mm)	Capacity (t/h)	Motor Power (kw)	Weight (t)	Overall Dimension (mm)
PE250×400	250×400	200	20-50	5-20	15	2.9	1430×1310×1340
PE400×600	400×600	350	40-100	15-60	30-37	6.8	1700×1732×1653
PE500×750	500×750	425	50-100	40-100	45-55	11.2	2035×1921×2000
PE600×900	600×900	480	65-160	60-140	55-75	16.5	2290×2206×2370
PE750×1060	750×1060	630	80-150	80-230	90-110	29	2655×2302×3110
PE900×1200	900×1200	750	95-165	140-320	110-132	54.5	3789×3050×3025
PE1000×1200	1000×1200	850	105-185	180-400	160-200	56.5	3900×3320×3280
PE1200×1500	1200×1500	1020	150-300	250-800	220-250	99.6	4300×3540×4043
PEX150×250	150×250	125	10-40	1-3	5.5	0.85	896×745×935
PEX150×750	150×750	125	12-45	5-16	15	3.8	1205×1495×1203
PEX250×750	250×750	210	25-60	10-40	22-30	5	1667×1545×1020
PEX250×1000	250×1000	210	25-60	15-50	30-37	6.8	1964×1550×1380
PEX250×1200	250×1200	210	25-60	20-60	37-45	8.5	2192×1605×1415
PEX400×1200	400×1200	320	35-95	28-95	45-55	11.7	2256×2100×1960
JCE1302 1	80×1300	150	10-30	12-50	30-37	6	1320×2150×1175
JCE1003	250×1000	220	20-40	15-65	30-37	5.6	1400×1850×1310
JCE1303	250×1300	220	20-40	26-85	37-45	6.8	1450×2150×1175
JCE604	400×600	350	35-85	15-85	30-37	10	1920×1460×1840

# Structure

>> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com



**Structure** >> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com



★★★★★★★★★★★ *Crushing Plant* ★★★★★★★★★★★★



# Crushing Plant >> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com



The JOYAL Crushing plant includes vibrating feeder, jaw crusher, impact crusher or cone crusher, vibrating screen, belt conveyor and centrally electric controlling system, etc.

The designed capacity is from 40t/h to 600t/h.

To meet customer's specific requirement for the stone crushing, we can also add other equipments such as cone crusher, dust catcher on the crushing plant.

# Process of Crushing Plant

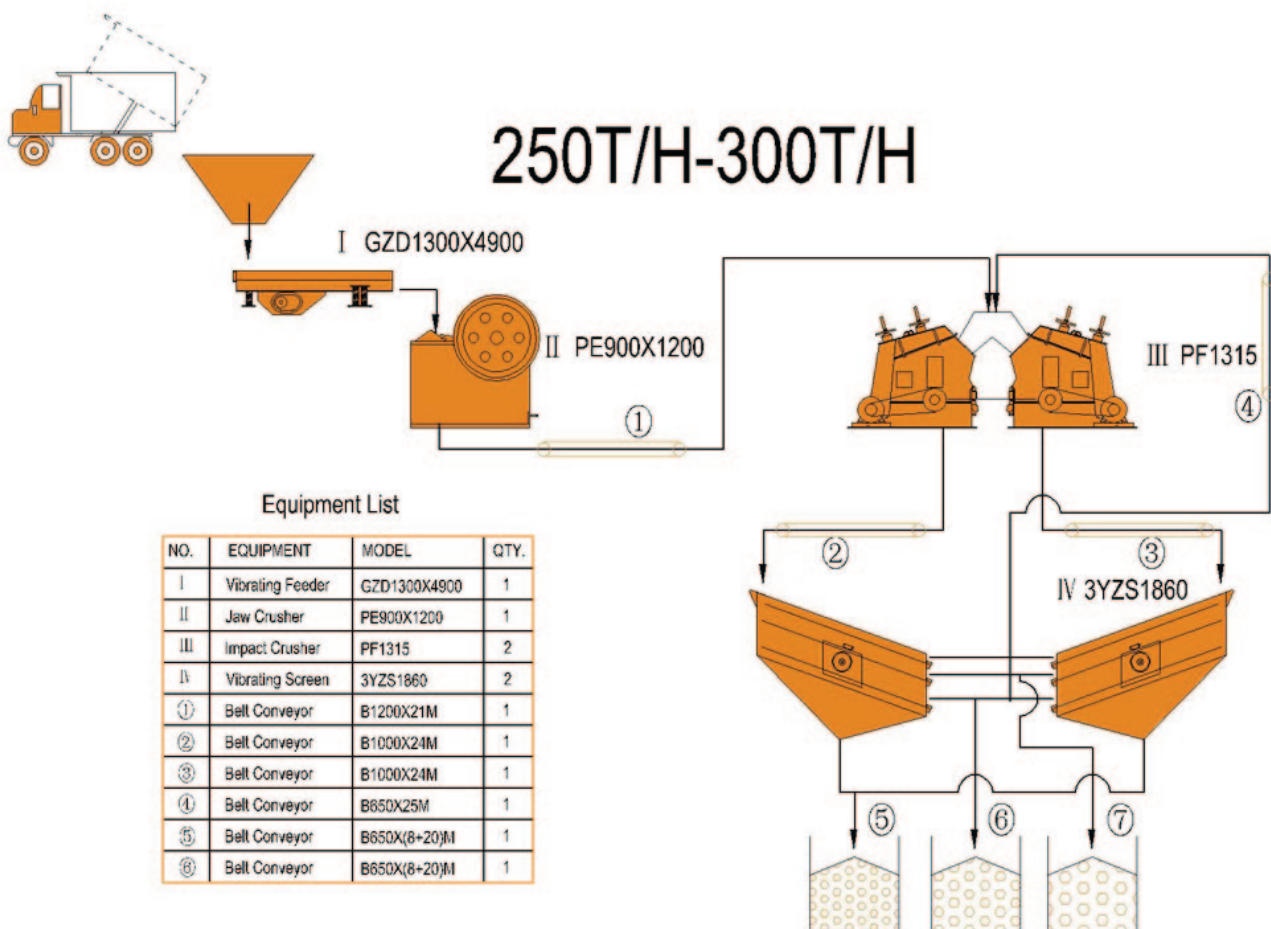
>> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com

The Big materials are fed to the jaw crusher evenly and gradually by vibrating feeder through a hopper for the primary crushing.

After first crushing, the material will transferred to impact crusher or cone crusher by belt conveyor for secondary crush; the crushed materials will then transferred to vibrating screen for separating.

After being separated, the parts that can meet standard will be taken away as final products, while the other parts will be returned to impact crusher, thus forming a closed circuit.

Size of final products can be combined and graded according to customer's specific requirement. We can also equip dust catcher system to protect environment.





# Images of Crushing Plant

>> E-Mail: [joyal@crusherinc.com](mailto:joyal@crusherinc.com) >> [Http://www.crusherinc.com](http://www.crusherinc.com)



## Preparation before Start-up

---

- ▶ Check the lubrication (The manufacturer just oil the machine for trial run).
- ▶ Check whether all the parts are fastened.
- ▶ Check the belts, if the belts or flywheel has been dirtied by oil, clean it immediately.
- ▶ This machine should be started up without loading, make sure that there is no stuff between mobile jaw plate and stationary jaw plate.
- ▶ When the stuff is very hard, the max feed size should less than 2/3 of the opening width.

## Start-up

---

- ▶ Start up when the machine and transmission part is normal.
- ▶ This machine should be started up without loading.
- ▶ After start-up, if anything abnormal, stop it and get rid of the problem.

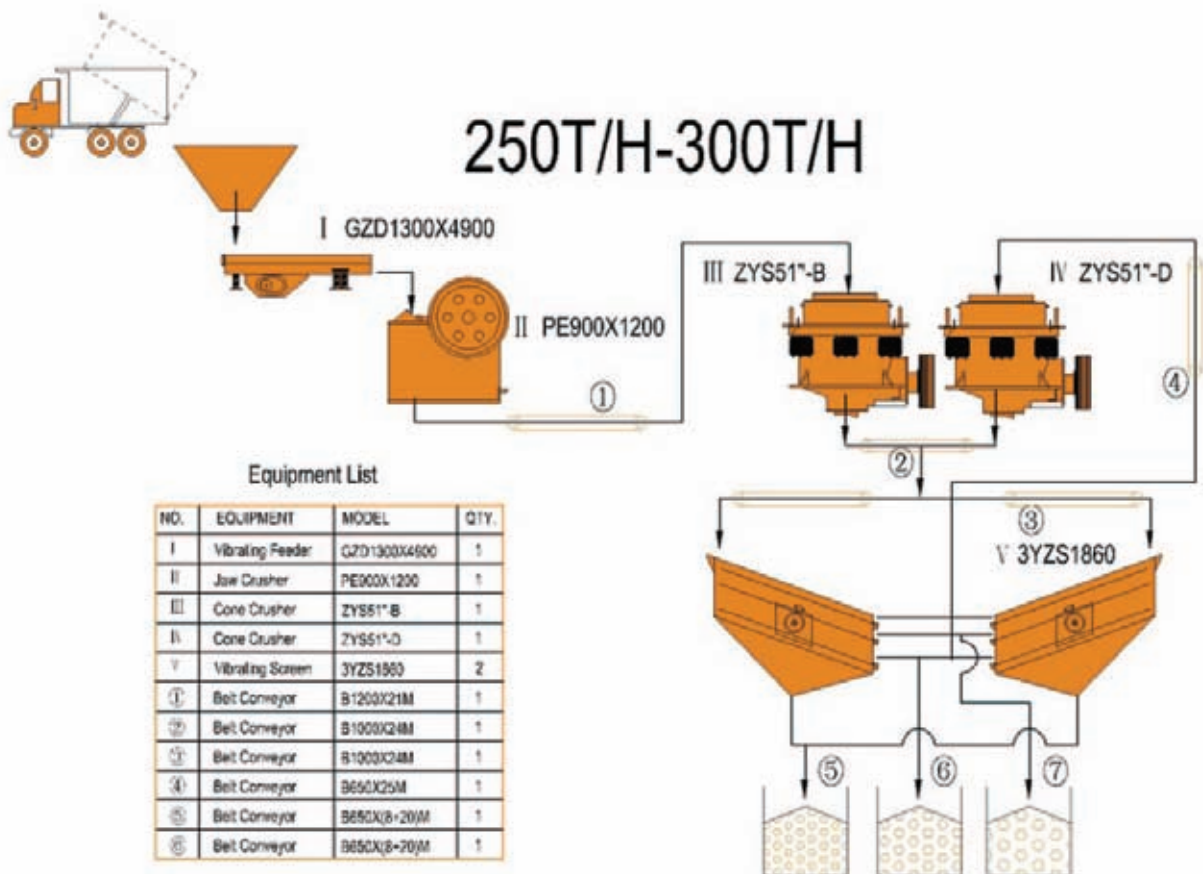
## Usage and Maintenance

---

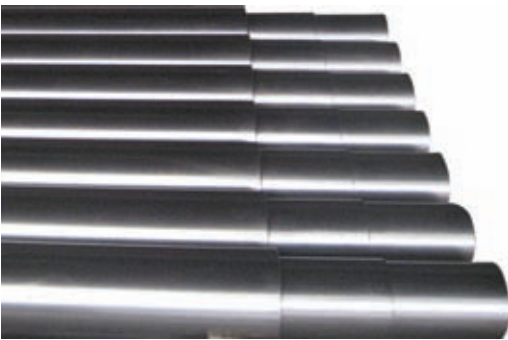
- ▶ The machine can be put into operation only when it works normally without load.
- ▶ The stuff should be fed steadily.
- ▶ Temperature rise of bearing should not exceed 35°C, the max temperature should not exceed 70°C. Otherwise, stop the machine and examine at once.
- ▶ Stop feeding before stopping the motor. Stop the motor only when all the stuff is discharged from the machine.
- ▶ If the machine is blocked by the stuff, stop the motor at once. Start up the machine again when the blocked stuff is clean away.
- ▶ Clean the bottom of toggle plate and keep the back of moving jaw clean.
- ▶ The jaw plate can be reversed when one end is worn out.

## ■ The Lubricating System

- >> Check the lubrication frequently to make sure the machine can work normally and extend the life time.
- >> The lubrication used in the machine depends on the place and climate. Usually quicklime grease is used.
- >> The lubricant grease added to the bearings should be 50~70% of its capacity. Change the lubricating oil once every three months. Before changing the oil, wash the bearings carefully with clean petrol or kerosene. The contacting part of toggle plate and toggle plate seat should be oiled before start-up.



## Easy damage parts >> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com



- ▶ toggle plate
- ▶ side guard plate
- ▶ fixed jaw plate
- ▶ mobile jaw plate
- ▶ spring
- ▶ bearing
- ▶ V-belt
- ▶ toggle plate gasket

## Safety rule

>> E-Mail:joyal@crusherinc.com >> Http://www.crusherinc.com

- ▶ Operator should be well trained.
- ▶ It is forbidden to watch the machine from the top of the machine when the machine is running.
- ▶ It is forbidden to adjust, clean or repair the machine when the machine is running.
- ▶ It is forbidden to move the stuff from input opening and crushing position when the machine is running.
- ▶ The electric equipment should be grounded and be put into insulating tube.



## Problem and solution

Possible problem	Cause	Solution
The flywheel rotates but cannot crush, the toggle plate falls down	1.spring broken	1.replace spring
	2.draw bar broken	2.replace draw bar
	3. draw bar bolts loose	3.fasten the bolts
Mobile jaw plate jump	Jaw plate fasteners loose	Fasten the bolts
Fixed jaw plate jump	Jaw plate asteners loose	Fasten the bolts
The temperature of bearing too high	1.lack of lubricant oil	1.Add more oil
	2.oil dirty	2.Replace the oil
	3.bearing broken	3.Replace the bearing
Noise at back of the machine	Draw rod loose, toggle plate beat the moving jaw and liner gasket	Fasten the draw bar bolt
Spring broken	Spring not loose when adjusting the discharging outlet	Fasten the draw rob bolt



Shanghai Joyal Mining Machinery Co., Ltd.  
Add: No.458, Fushan Road, Shanghai, China.  
Email:joyal@crusherinc.com  
Tel: 0086-21-68763311 0086-21-68763366  
Fax: 0086-21-68763366  
Post Code: 200122  
<http://www.crusherinc.com>