RELIABLE

# JAW CRUSHER

CRUSHING





# THE FIELDS OF APPLICATION

Jaw crushers are used for primary crushing of a wide variety of materials in the mining, iron and steel and pit and quarry industries. Furthermore they are used in recycling processes.

# THE FEED MATERIALS

Rock ranging from medium-hard to extremely hard, as well as different kinds of ore, building rubble, glass and other hard materials.



Double toggle jaw crusher, type 2121, size 2121/10-08



### THE MODE OF OPERATION

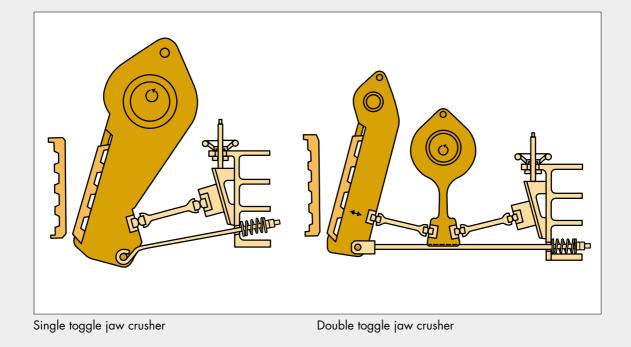
Jaw crushers are equipped with one fixed and one moveable crushing jaw (moving jaw), both of which support crushing plates (wearing parts) in several versions. They form a wedge-shaped crushing zone. The walls of the crushing zone are made of replaceable wearing sheets. Crushing is done between the two crushing jaws. The moving jaw of the single toggle jaw crusher moves elliptically. A pendulum motion is being carried out by the double toggle jaw crusher.

The crushing force is produced by an eccentric shaft. Then it is transferred to the crushing zone via a toggle plate system and supported by the back wall of the housing of the machine. Spring pulling rods keep the whole system in a condition of nonpositive connection. Centrifugal masses on the eccentric shaft serve as compensation for heavy loads. A flywheel is provided in the form of a pulley.

Due to the favourable angle of dip between the crushing jaws, the feeding material can be reduced directly after entering the machine. The final grain size distribution is influenced by both, the adjustable crusher setting and the suitability of the tooth form selected for the crushing plates.

## THE SPECIAL CHARACTERISTICS

An adjustable wedge system makes infinite adjustments of the crusher setting possible. The systems, spindles exert a direct influence on the thrust-bearing trestle. All parts of the adjusting system are accessible, maintenance-free and easy to replace. All of the toggle plates are provided with replaceable tempered pressure bars on both sides, which work according to the move on rolling contact principle. They are maintenance-free. A lubrication system ensures sufficient grease supply to all other bearing points.





### THE CONSTRUCTION

Single toggle jaw crushers are provided in heavy and light versions with welded steel housing and a moving jaw in a welded or cast steel version, as well as an eccentric shaft made of high-grade forged steel.

The jaw crushers with a double toggle system are

either built with heavy or light welded steel housings, with a moving jaw and a pulling rod in either welded or cast steel versions, as well as an axis and an eccentric shaft made out of high-grade forged steel.

#### THE VERSATILITY

Depending on the purpose of their use, the machines can be constructed in the following versions:

- Single toggle jaw crushers in heavy or light versions
- Double toggle jaw crushers in heavy or light versions
- Crusher setting and overload protection through build-in hydraulic cylinders
- Single toggle jaw crusher with hydraulical gap adjustment and integrated overload protection
- Built as a mobile, semi-mobile or stationary installation with a crawler mounted system, as a trailer, with skids or fixed on foundations.
- Automatic lubrication of all bearing areas

#### THE ADVANTAGES

- high and constant capacity
- high operational reliability
- long service and lifetime
- broad range of application
- easy replacement of wear and spare parts
- low maintenance requirements

### THE SCOPE OF APPLICATION

- Capacity:
- Feeding size:
- Size of final grain:

- Reduction ratio:

- Required power

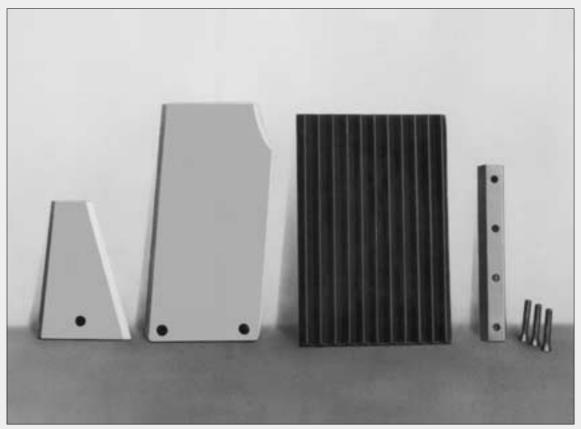
up to approx. 1250 mm up to < 20 mm depending on the feed material and its size up to 1 : 7 up to 200 kW

up to 450 m<sup>3</sup>/h



# THE WEARING PARTS

The crushing plates made of highly wear-resistant austenitic manganese steel casting are constructed in such a way that they can easily be turned after having loosen the clamping parts. The easily-replaceable side wedges are made of wear-resistant sheet steel or steel casting.



Lower side wedge, upper side wedge, crushing plate, wedge and assembly screws.

