

## Product datasheet

# Jaw Crusher EB 20-15 Pro

The new benchmark for crushing ore and hard rock up to 1,600 tph

Our latest generation of jaw crushers is compact and robust. We've drawn on more than one hundred years of experience, ongoing research and development and the application of new calculation methods from bionics, to create a crusher that is particularly maintenance-friendly thanks to its specially designed inlet hood. The EB Pro series is ideally suited for use in both underground and opencast applications, when processing medium-hard to hard ore and rock.

### Easy maintenance

#### Modular crusher housing

The bolted, modular crusher housing simplifies transport, assembly and maintenance. The patented screw connections allow for easy and sustainable service work.

### Durable main components

Essential main components such as housing parts and swing jaw have been designed using new methods from bionics. The patented solution of the swing jaw and front wall increases their service life and improves the absorption of load peaks during the crushing process.

### Maintenance-optimised wear elements

All wear elements are optimised for fast and easy maintenance, reducing service times by up to 20%. The freely expandable crushing jaws reduce stress transfers to other components. The eccentric shaft bearing arrangement is robust and easy to maintain. All bearings can be easily installed and removed using sleeves.

## Efficient crushing

### High throughput rates and service life

Optimised geometry of the crushing chamber with optimised nip angle and aggressive stroke leads to 10% higher throughput rates compared to market benchmark. More efficient utilisation of the crushing chamber results in lower and more uniform wear of the crushing tools.

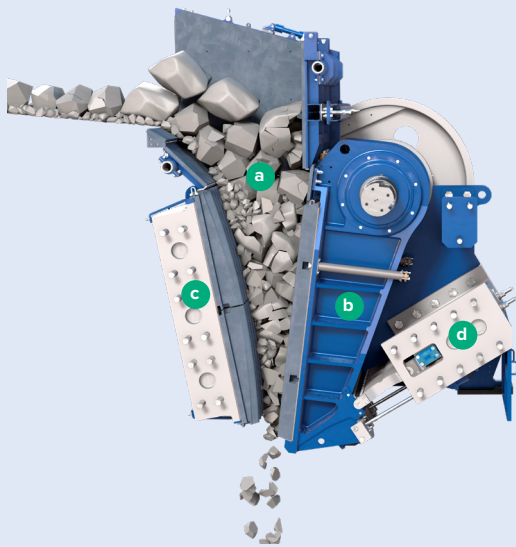
### Optimised operation

The interaction of optimum speed and generously dimensioned flywheels results in lower operating costs. At constant throughputs, power peaks and 25% lower energy cost compared to market benchmark are reduced. At the same time, load-carrying components such as bearings and wear elements are less stressed, which increases the service life and durability of the parts by more than 10%.

### Adjustment of the gap width

The standard hydraulically assisted gap adjustment can be converted to a fully hydraulic gap adjustment without much effort, reducing service times.

## Operating principle



After the feed material has reached the crushing chamber (a) it is continuously crushed between the oscillating swing jaw (b) and the fixed jaw (c) until the product leaves the crushing chamber. The mechanical or fully hydraulic gap adjustment enables manual or automatic adjustment of the crushing gap as well as the discharge of tramp metal or other non-crushable components contained in the feed material (d).

## Technical specification

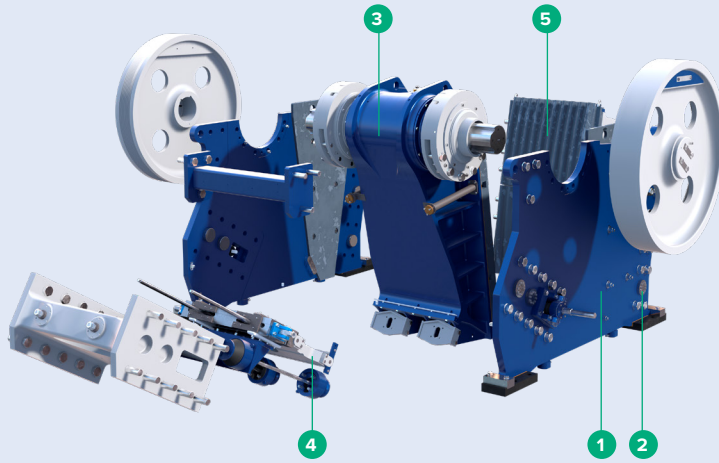
| Application data      |                                  |
|-----------------------|----------------------------------|
| Application           | Primary crushing                 |
| Feed material         | Medium hard to hard rock and ore |
| Capacity <sup>1</sup> | 600 – 1,600 tph                  |

| Technical data  |  |
|---|--|
| Configuration   | Single-toggle jaw crusher              |
| Feed opening <sup>2</sup> (A x B)                           | 1,500 mm x 2,000 mm                    |
| Crusher height – inlet                                      | 3,240 mm                               |
| Crushing jaws   | One or two-piece design                |
| Opt. crusher speed  | 145 – 160 rpm                          |
| Gap setting method/<br>Adjustment range<br>CSS <sup>3</sup> | Hydraulic or mechanical / 130 – 230 mm |
| Drive concept   | V-belt                                 |
| Installed drive<br>motor power <sup>4</sup>                 | Opt. 315 KW (up to 370KW)              |

| Weight and dimensions                         |  |
|---|--|
| Total weight <sup>5</sup>                     | Approx. 130,000 kg                     |
| Heaviest piece<br>for erection                | Swing jaw with bearings 43 t           |
| Heaviest piece<br>for maintenance             | Jaw liner 4,3 t                        |
| Main dimensions of<br>the crusher (L x W x H) | Approx. 5,260 mm x 4,070 mm x 4,720 mm |

1. The actual throughput depends on the feed material characteristics (e.g. bulk density, hardness UCS, feed particle size distribution, moisture content), the desired product size and the selected machine settings (e.g. gap setting CSS).
2. Width A = maximum length between the crushing tools of the oscillating swing jaw and the fixed crushing jaw.
3. CSS = Closed Side Setting (gap setting). The min. CSS depends on the properties of the feed material.
4. Motor rating range applicable for < 1000 m altitude. The nominal motor power selected for the respective application depends on the feed material characteristics, desired product size, actual machine configuration and actual installation height. Due to the generously dimensioned flywheels, smaller electric motors can also be used.
5. Weights indicated do not include base frame, drive motor and tools. Weights may vary depending on the respective machine configuration.

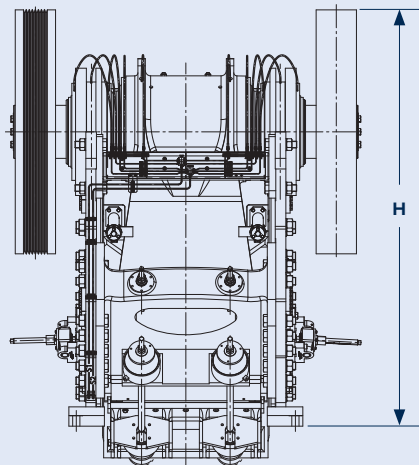
## Main components



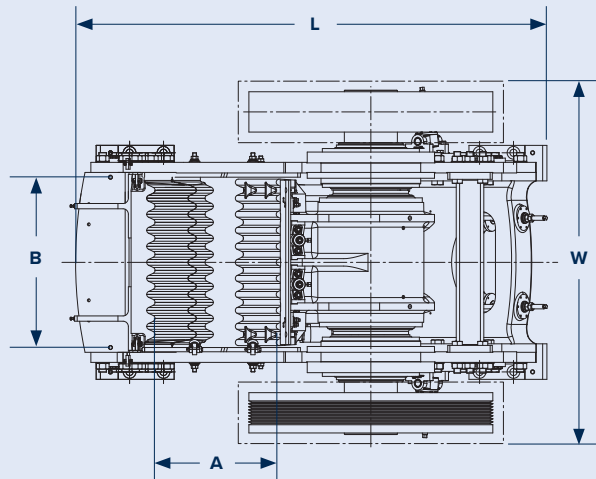
1. Modular housing
2. Patented screw connection
3. Swing jaw with bearing
4. Gap adjustment  
(Mechanical or fully hydraulic)
5. Segmented fixed jaw

## Main dimensions

Side view



Top view



| A<br>[mm] | B<br>[mm] | H<br>[mm] | L<br>[mm] | W<br>[mm] |
|-----------|-----------|-----------|-----------|-----------|
| 1,500     | 2,000     | 4,720     | 5,260     | 4,070     |

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