



## JAW CRUSHER BB 50

The compact benchtop model

**The BB 50 is the smallest model of the RETSCH jaw crusher series and has been specially designed for sample preparation in the laboratory. The compact machine fits on any laboratory bench and offers safe and convenient handling.**

The RETSCH jaw crusher series is available in 8 different sizes. Throughput and final fineness depend on the crusher type, selected gap width and breaking properties of the sample material.

Robust design, simple handling and cleaning are the features of the RETSCH jaw crusher models. Small amounts of sample are processed batchwise; for larger amounts the crushers can be operated continuously.

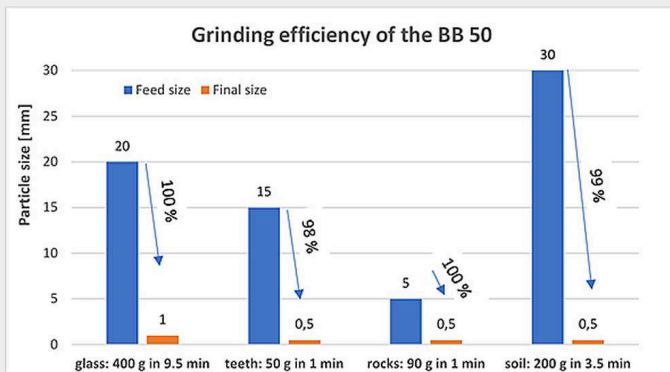
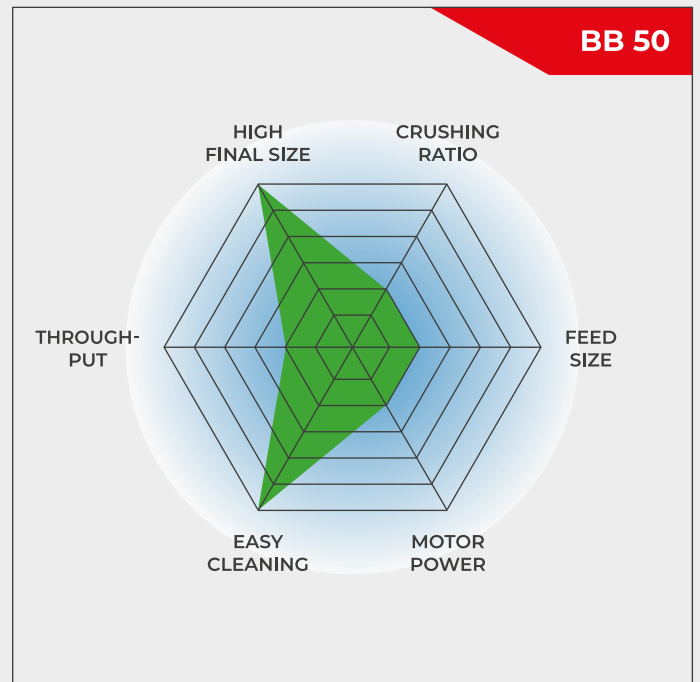


[Click to view video](#)

**Product Video**

## POWERFUL & COMPACT

- High crushing efficiency, feed sizes up to 40 mm can be crushed to 0.5 mm
- Removable jaw for easy cleaning
- Adjustable speed allows adaptation to sample characteristics
- Wear compensation with zero-point adjustment
- Convenient operating keypad with digital display
- Memory for gap width setting



Small, powerful benchtop unit

### JAW CRUSHER BB 50

## SUPERIORITY IN DETAIL

The BB 50 is designed for efficient and convenient size reduction. The variable speed can be set between 550 and 950 min<sup>-1</sup> to adapt the crushing process to sample requirements. The possibility to reverse the rotating direction is helpful if too much sample material has been fed to the crusher causing it to block. The simple push of a button restarts the process. Due to permanently lubricated bearings and its solid design, the BB 50 jaw crusher is virtually maintenance-free.



*Fold-back hopper can be removed for easy access*



*Digital speed setting and display of gap width*

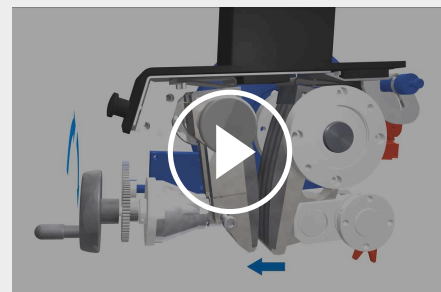


*Large collection receptacle (3 l) with optional lid*

## JAW CRUSHER BB 50

### ZERO POINT ADJUSTMENT

An advantage of the jaw crusher BB 50 is the so-called zero point adjustment. Sooner or later, the breaking jaws will show signs of wear which will affect the reproducibility of the size reduction process. This effect can be compensated by adjusting the zero point. A sign in the display indicates if the jaws need to be replaced altogether, thus helping to avoid damages to the crusher.



[Click to view video](#)

## JAW CRUSHER BB 50

### EASY OPERATION & CLEANING

Working with the BB 50 jaw crusher is easy and safe. The large, clearly structured operating panel allows for digital display of parameters such as gap width and speed. The sample material is conveniently fed to the crusher via the large hopper equipped with splash-back protection.



[Click to view video](#)

For easy cleaning the fold-back hopper and crusher arm can be removed without using tools. The user can also exchange the breaking jaws if the crusher needs to be converted for different applications.

## CYCLONE SYSTEM FOR JAW CRUSHERS

# BYE-BYE DUST AND SAMPLE LOSS

Whether you're preparing samples in mining, precious metals, materials research, or environmental analysis, the RETSCH Cyclone System ensures efficiency, precision and safety like never before!



### Why should you choose the RETSCH Cyclone System?

#### | Total Sample Recovery

Eliminate sample loss during crushing with our cyclone, ensuring accurate and reproducible results for every analysis!

#### | Enhanced Operator Safety

Our cyclone significantly reduces dust exposure, creating a safer and cleaner working environment for your team!

Plus: Existing instruments (BB 50, BB 250, BB 400 or BB 500) can be retrofitted with the Cyclone System.

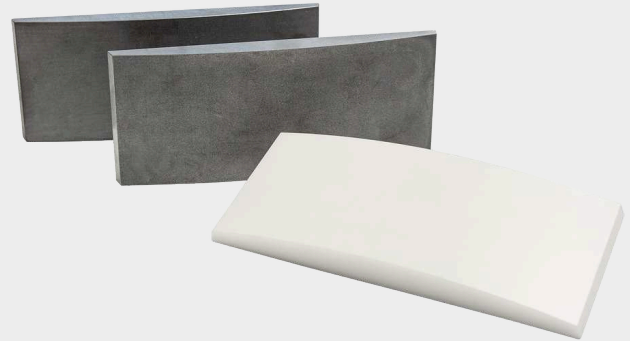
FOR SAFE AND EFFICIENT CRUSHING PROCESSES

## ACCESSORIES FOR THE JAW CRUSHER BB 50

Breaking jaws and wearing plates are available in five different materials to be selected depending on the sample and the analysis to be carried out:

- | manganese steel
- | stainless steel
- | tungsten carbide
- | zirconium oxide
- | steel for heavy-metal free grinding

The optional lid for the collecting receptacle of the jaw crusher ensures that the fine residues from previous samples fall on the lid and not into the receptacle which helps to avoid cross contaminations.



### JAW CRUSHER BB 50

## TYPICAL SAMPLE MATERIALS

RETSCH's powerful jaw crushers are ideally suited for preliminary crushing of construction materials, ores, granite, oxide ceramics, quartz, slag, silicon, coal, tungsten alloys, cement clinker, etc.



*concrete*



*jade*



*glass*



*coal*

To find the best solution for your sample preparation task, visit our application database.

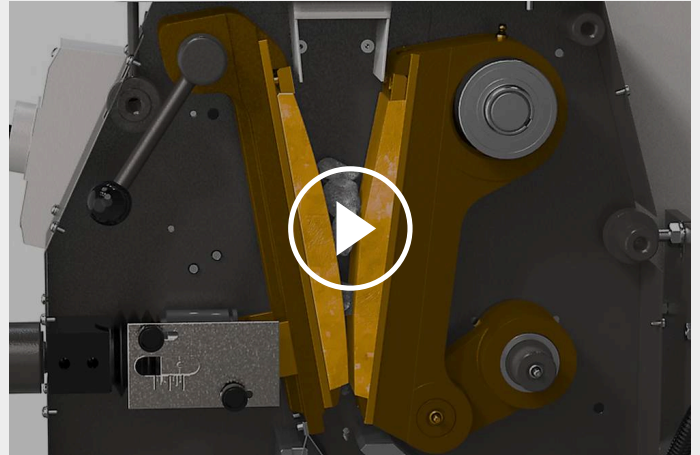
## JAW CRUSHER BB 50

### FUNCTIONAL PRINCIPLE

The Jaw Crusher BB 50 is a robust and powerful forced-feed crusher. The feed material passes through the no-rebound hopper and enters the crushing chamber.

Size reduction in the Jaw Crusher takes place in the wedged area between the fixed crushing arm and one moved by an eccentric drive shaft. The elliptical motion crushes the sample which then falls under gravity.

As soon as the sample is smaller than the discharge gap width, it falls into a removable collector. The continuous gap width setting with digital display ensure optimal size reduction in accordance with the set gap width value.



[Click to view video](#)

JAW CRUSHER BB 50

## TECHNICAL DATA

<b>Applications</b>	coarse and pre-crushing
<b>Field of application</b>	agriculture, biology, construction materials, geology / metallurgy, glass / ceramics, medicine / pharmaceuticals
<b>Feed material</b>	medium-hard, hard, brittle, tough
<b>Size reduction principle</b>	pressure
<b>Material feed size*</b>	< 40 mm
<b>Final fineness*</b>	< 0.5 mm
<b>Throughput*</b>	3 l/batch
<b>Material of grinding tools</b>	manganese steel, stainless steel, tungsten carbide, zirconium oxide, steel 1.1750 (for heavy-metal free grinding)
<b>Jaw width</b>	45 x 59 mm
<b>Gap width setting</b>	0 - 11 mm in increments 0.1 mm
<b>Gap width display</b>	digital
<b>Zero point adjustment</b>	yes
<b>Reverse rotating direction</b>	yes
<b>Hinged hopper</b>	yes
<b>Dust extraction unit</b>	already dust-tight
<b>Central lubrication</b>	lifetime lubrication by manufacturer
<b>Process line version</b>	process line use is possible by removing drawer
<b>Collector capacity</b>	3 l
<b>Drive</b>	3-phase motor with frequency converter
<b>Drive power</b>	1.1 kW
<b>Electrical supply data</b>	different voltages
<b>Power connection</b>	1-phase
<b>Protection code</b>	IP 20 / IP 00 at ventilation slots
<b>W x H x D closed</b>	420 x 460 x 560 mm
<b>Net weight</b>	~ 79 kg
<b>Standards</b>	CE

\*depending on feed material and instrument configuration/settings

[www.retsch.com/bb50](http://www.retsch.com/bb50)

## ORDER DATA

### JAW CRUSHER BB 50

#### Jaw Crusher BB 50 complete with breaking jaws and wearing plates

				<b>breaking jaws / wearing plates</b>
20.062.0001		BB 50	200–240 V, 50/60 Hz	manganese steel / stainless steel
20.062.0002		BB 50	200–240 V, 50/60 Hz	stainless steel / stainless steel
20.062.0009		BB 50	200–240 V, 50/60 Hz	stainless steel waved / stainless steel
20.062.0003		BB 50	200–240 V, 50/60 Hz	tungsten carbide / tungsten carbide
20.062.0004		BB 50	200–240 V, 50/60 Hz	zirconium oxide / zirconium oxide
20.062.0005		BB 50	200–240 V, 50/60 Hz	steel 1.1750 / steel 1.0344, for grinding without heavy-metal contamination

### CYCLONE FOR BB 50

CYCLONE SET WITH HOLDER, CONNECTING ELEMENT, LID WITH CONNECTOR FOR VACCUUM CLEANER AND SAMPLE OUTLET  
(PLEASE ORDER CASSETTE WITH OUTLET SEPARATELY)

22.935.0038	Cyclone set with sample bottles 0.25 and 0.5 liters
02.183.0140	Cassette with outlet for use with cyclone
02.605.0420	Adjustable steel connection tubing (316L) for cyclone set
05.707.0208	FDA certified hose, 1.5 m
22.748.0017	Industrial vacuum cleaner Attix, 230 V, 50/60 Hz

### ACCESSORIES JAW CRUSHER BB 50

#### BREAKING JAWS BB 50

22.048.0014		Breaking jaws manganese steel
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1 pair

22.048.0012



Breaking jaws  
stainless steel

1 pair

22.048.0023

Breaking jaws  
stainless steel, waved  
1 pair

22.048.0010



Breaking jaws  
tungsten carbide

1 pair

22.048.0011



Breaking jaws  
zirconium oxide

1 pair

22.048.0016



Breaking jaws  
steel 1.1750

1 pair, for grinding without heavy-metal contamination

#### WEARING PLATES BB 50

22.711.0015

Wearing plates  
stainless steel  
1 pair

22.711.0016



Wearing plates  
tungsten carbide

1 pair

22.711.0017



Wearing plates  
zirconium oxide

1 pair

22.711.0018



Wearing plates  
steel 1.0344

1 pair, for grinding without heavy-metal contamination

#### FURTHER ACCESSORIES BB 50

03.050.0437



Cover lid for collecting receptacle

05.242.0038



V-belt, 1 piece

22.825.0005



Carry handles, 1 pair