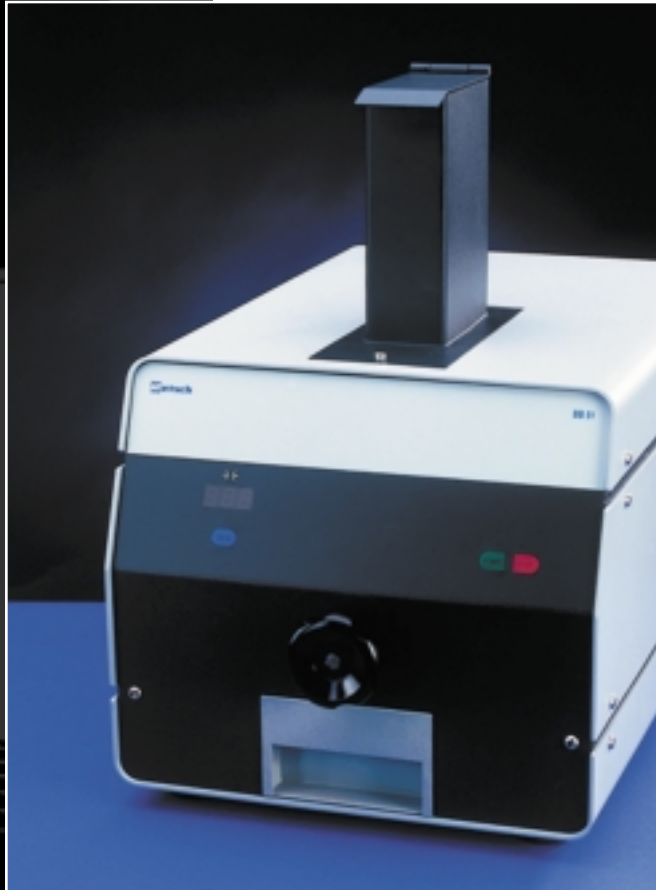


# LABORATORY JAW CRUSHER BB 51



## CRUSHING

Retsch jaw crushers are engineered for fast but gentle preliminary size reduction of medium-hard, hard, brittle and tough materials. These units are particularly suitable for processing stone, minerals, ores, glass, ceramics, construction materials, brittle metal alloys, slag, synthetic resins and many other hard and brittle substances.

Model BB 51 was developed especially for specimen preparation in laboratory operations. The space-saving, dust-tight unit will fit on any laboratory bench. As option with exchangeable breaking jaws and wearing sheets of zirconium-oxide for disintegration without heavy metal contamination.

## ADVANTAGES

- Compact and space-saving table-top unit
- Excellent performance and high ultimate fineness
- Reproducible adjustment of crushing gap width, with digital display
- Neutral-to-analysis results due to grinding tools of breaking jaws in 5 different materials
- Hazard-free, user-friendly design with the CE safety seal
- Rugged, dust-tight design
- Smooth and quiet operation
- Two-year warranty

## FEATURES

application	size reduction
feed stock	medium-hard, hard, brittle
feed size	max. 35 mm (jaw opening 40 mm)
final fineness	< 0.5 mm
sample volume	up to 1000 ml

## GRINDING

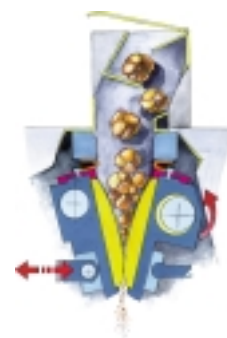
The BB 51 jaw crusher is enclosed in a housing with four rubber feet and is designed to prevent users reaching into the crushing chamber.

The on/off switch, digital gap width display and gap adjustment are located at the front panel for ease of use.

The crushing chamber comprises the moving arm and the fixed, adjustable crushing arm along with two side panels with wearing sheets of stainless steel, tungsten carbide or zirconium

oxide. Breaking jaws are available in manganese steel, chrome steel, stainless steel, tungsten carbide and zirconium oxide. A stack of disk springs and thermal safety relay protect the jaw crusher unit against overloads. The fill hopper can easily be removed to simplify cleaning.

Its small size also makes the BB 51 ideal for use in mobile laboratories.



## MATERIAL ANALYSES

	Composition (approx.)
manganese steel	85.00% Fe, 13.00% Mn, 1.30% C
chrome steel	94.85% Fe, 1.80% Cr, 1.20% Ni
stainless steel	83.17% Fe, 14.50% Cr, 1.00% Si, 1.00% Mn
tungsten carbide	92.00% W, 8.00% Co
zirconium oxide	94.50% Zr O <sub>2</sub> , 5.20% Y <sub>2</sub> O <sub>3</sub>

## REFERENCES

LABORATORY JAW CRUSHERS BB 51	Article-No.
BB 51, for 230 V, 50 Hz, breaking jaws of chrome steel, wearing sheets of stainless steel	20.056.0001
BB 51, for 230 V, 50 Hz, breaking jaws and wearing sheets of stainless steel	20.056.0002
BB 51, for 230 V, 50 Hz, breaking jaws and wearing sheets of tungsten carbide	20.056.0003
BB 51, for 230 V, 50 Hz, breaking jaws and wearing sheets of zirconia	20.056.0004
BB 51, for 230 V, 50 Hz, breaking jaws of manganese steel, wearing sheets of stainless steel	20.056.0006
BB 51, for 110 V, 60 Hz, breaking jaws of chrome steel, wearing sheets of stainless steel	20.056.0007
BB 51, for 110 V, 60 Hz, breaking jaws and wearing sheets of stainless steel	20.056.0008
BB 51, for 110 V, 60 Hz, breaking jaws and wearing sheets of tungsten carbide	20.056.0005
BB 51, for 110 V, 60 Hz, breaking jaws and wearing sheets of zirconia	20.056.0009
BB 51, for 110 V, 60 Hz, breaking jaws of manganese steel, wearing sheets of stainless steel	20.056.0010

Replacement Parts	Article-No.
Spare breaking jaws of chrome steel, 1 pair	22.048.0013
Spare breaking jaws of stainless steel, 1 pair	22.048.0012
Spare breaking jaws of tungsten carbide, 1 pair	22.048.0010
Spare breaking jaws of zirconia, 1 pair	22.048.0011
Spare breaking jaws of manganese steel, 1 pair	22.048.0014
Spare breaking jaws of stainless steel, 1 pair	22.711.0007
Spare breaking jaws of tungsten carbide, 1 pair	22.711.0008
Spare breaking jaws of zirconia, 1 pair	22.711.0009
Spare V-belt, 1 piece	05.242.0028
Carry handles, one pair	32.825.0001

### NOISE DATA (noise measurement to DIN 45635-31-01-KL3)

Workplace related emission level	$L_{p\text{ eq}} = 83,7 \text{ dB (A)}$	
Sound power level	$L_{WA} = 91,7 \text{ dB (A)}$	Input material: marbel pebbles < 25 mm

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## BB 51 MECHANICS

The product passes through the fill hopper, which is designed to prevent ejection, and into the wedge-shaped crushing chamber. There the elliptical motion of the moving arm and the pressure it applies crush the product and move it downward. As soon as product particles are reduced to a size less than that of the bottom gap, they fall into a removable receiver tray which, in the interest of safety, is located inside a drawer. Fineness and throughput volume will depend on the gap width selected, from 0 to 10 mm, and the fracture characteristics of the products. The BB 51 is driven by a high-performance, single-phase AC motor integrated into the unit and delivering 1100 watts of power. Due to its permanently lubricated bearings and its sturdy design the BB 51 can be considered as maintenance-free.

Quality is guaranteed by the DIN ISO 9001/EN 29001 standards, safety by CE conformity.

## WEIGHTS AND MEASURES

W x H x D	360 x 510 x 580 mm
Weight	app. 80 kg

RETSCH offers a comprehensive programme of equipment for sample preparation of solids. Just ask for information on our crushers, mills, sample dividers, sieving machines, optical particle sizers, feeders, mixers, cleaning and drying devices. You will receive all documents free of charge and without obligation.

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