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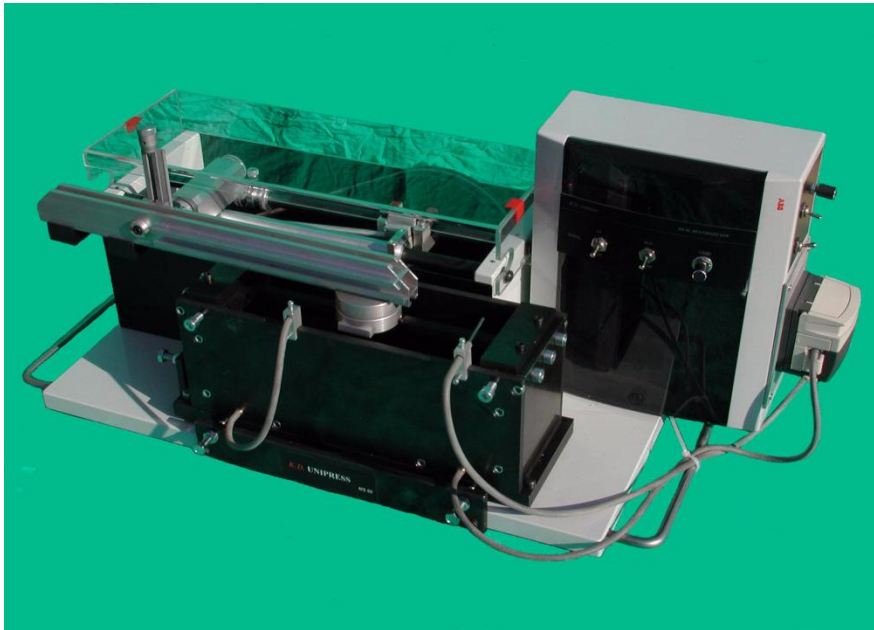
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PRECISION RECIPROCATING MULTI BAND SAW

Model: MS80

APPLICATION

The MS80 Saw is a precision device for cutting or slicing hard and brittle materials, such as metals, ferrites, ceramics, stones etc. In particular it is useful for cutting semiconducting materials. The saw enables cutting of very thin slices (thickness of 50 μ m) with smooth cut surfaces. This saw is recommended for cutting materials where losses of material should be minimized and cutting should not introduce crystal deformations or defects. The use of the special accessories (goniometers, orientation devices) extends the MS80 saw's application to precision cutting of crystallographically oriented crystals.



TECHNICAL DATA

Power supply: 220 - 250V/50Hz, 200VA
or 110V/60Hz, 200VA

Blades dimensions: working length 220 mm
width 10 mm
thickness 0,10 mm

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Blades thickness tolerance +/- ,007 mm
Blades flatness: 0,3% across the width
Blades steel grade:
C 1,00%, Si 0,30%, Mn 0,70%, Cr 0,35%
Blades tensile strength 1960 N/mm²
Reciprocating motion frequency 0÷400/min.
Sample max. dimensions:
 appr. 100x100mm
NET weight 68 kg
Dimensions: 600 x 480 x 320mm
Slurry pump flow rate: 5,0÷50 ml/min

The cutting operation is performed by steel tapes (blades) covered with an oil or glycerin-suspended carborundum or boron carbide abrasive slurry. The specimen moves back and forth in a reciprocating motion and is cut across the material in the vertical plane.

The electronically controlled motor is coupled by means of a rubber belt with a fly-wheel. Through a linkage drive it moves a work arm on which the cut material is mounted. The frame of work arm slides in reciprocating motion along two parallel guide rods. To eliminate vibrations caused by large reaction forces, the device is mounted on heavy, rigid supporting plate.

The cutting blades are tightened between two side walls of the tank. Three bolts on right side and three others on left side are responsible for even tensioning of them. Special spacers makes the whole tapes equidistant and enables cutting several samples of the same thickness. It is possible to use different sizes of the spacers to cut several dimensions of the samples in the same time. After tensioning tapes should be firmly fixed in the tank

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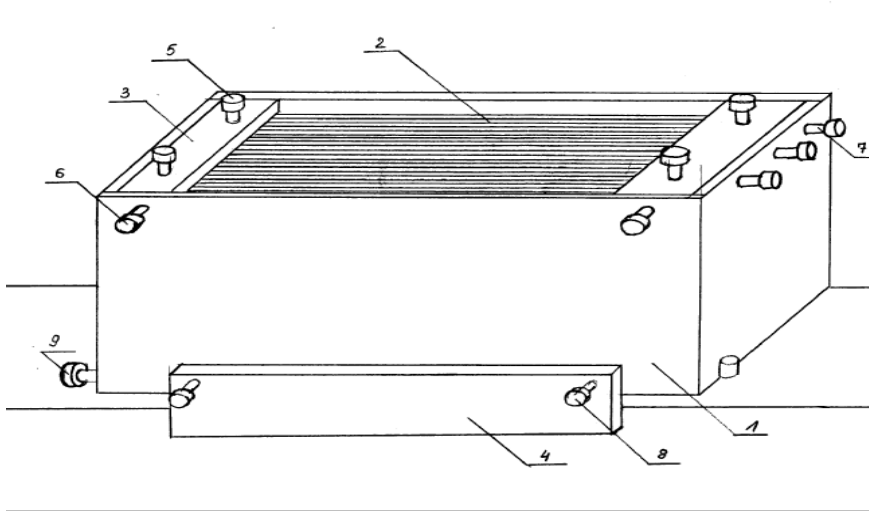
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1. View of the slurry tank with tensioned blades

Precision Reciprocating Multi band Saw MS80 is dispatched as a completely mounted machine, ready for operation