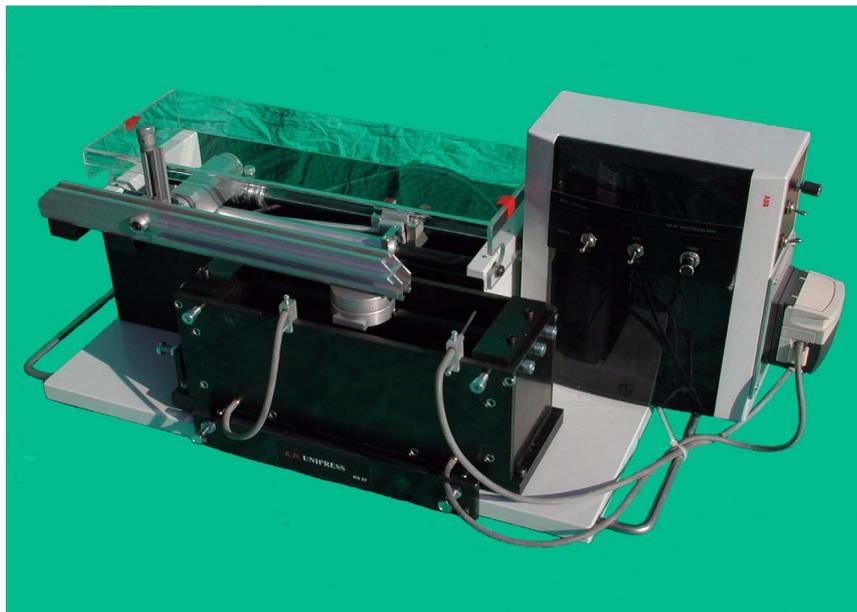


PRECISION RECIPROCATING MULTI BAND SAW

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 50µm) 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

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

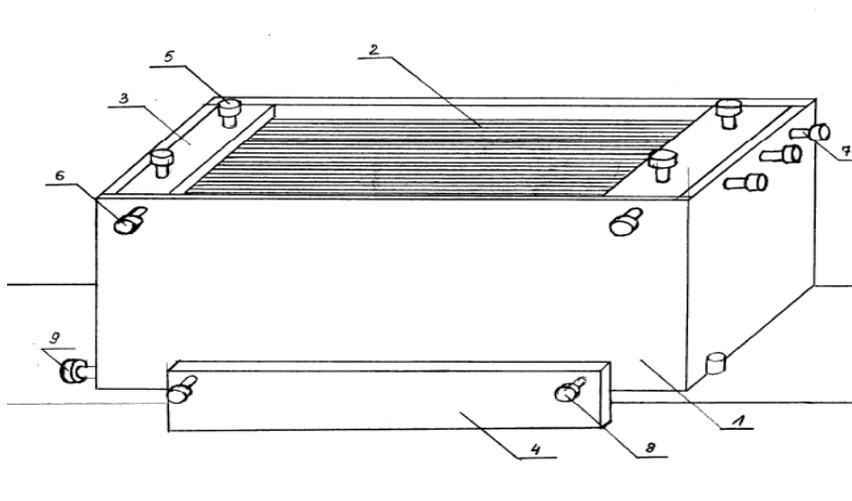
Dimensions: 600 x 480 x 320mm

Slurry pump flow rate: 5,0÷50 ml/min

The cutting operation is performed by steel tapes (blades) covered with an oil or glicerine-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 workarm on which the cutted material is mounted. The frame of workarm 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



1. View of the slurry tank with tensioned blades

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