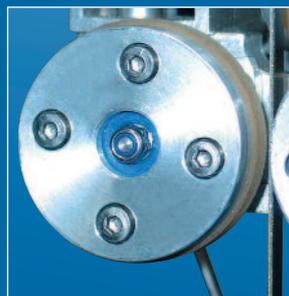
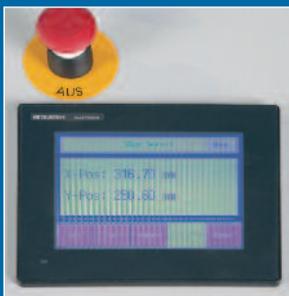


Precision diamond band saw **BS270**  
for use in the laboratory and in production



# Precision diamond band saw **BS270**

The BS270 is used for straight, material-saving dividing cuts in the production process and laboratory. The BS270 cuts off work-pieces with great precision and surface quality.



## Key features

- Cut width of 0.4 to 0.8 mm (depending on saw band used) means minimal waste.
- Low processing energy means minimal heating and low tension force is sufficient to clamp the workpiece. This virtually eliminates the risk of chipping when machining fragile or temperature-sensitive parts.
- The high band speed means high cutting performance.
- The quality of the cut surface is as if ground.
- The Y table with linear guiding, precisely adjusted by means of a spindle, allows slices to be cut from the workpiece with an accuracy of  $\pm 0.02$  mm.

## The saw band

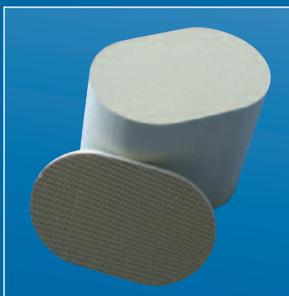


The 8 mm-wide saw band is 1870 mm long and 0.25 mm thick. It is an endless loop fitted with diamonds of grain-sizes D76, D126 or D181.

The choice of band depends on the material to be worked and the kind of cut required. Demands for the best possible surface quality, narrow cut-gap or rapid advance can therefore be taken into account.

### Catalyser

Technical benefit:  
Torn bridges don't break out



Cooling: dry  
Speed: 900 mm/min

### CFK

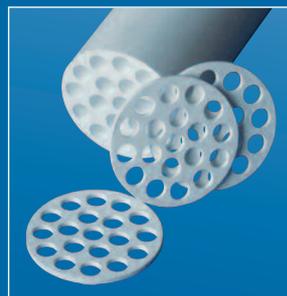
Technical benefit:  
No delamination



Cooling: water  
Speed: 60 mm/min

### Aluminium oxide

Technical benefit:  
Clean cut, no breaking out



Cooling: dry  
Speed: 300 mm/min

### Graphite

Technical benefit:  
Precise, even cuts



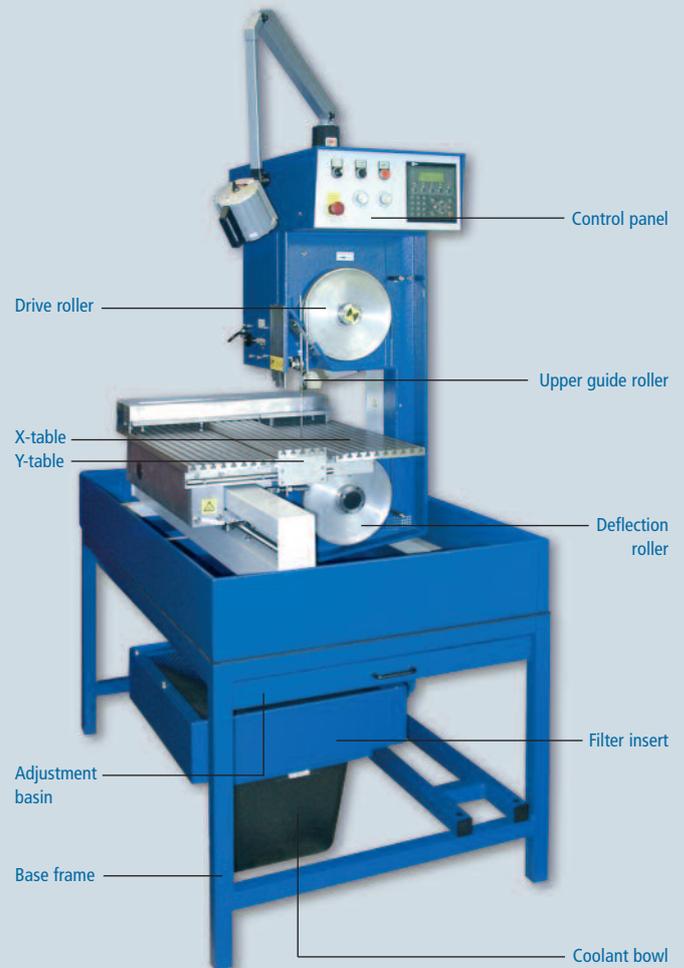
Cooling: dry  
Speed: 35 mm/min

## How it works

The diamond saw band runs over two rollers in an endless loop. It is driven and pneumatically tensioned by the height-adjustable upper roller. The band tension is set by the adjustable air pressure on the pressure reducer. Near the work area, the band is guided by two zero-backlash guide roller units. The wire is driven by a three-phase current motor controlled by a frequency transformer. The speed of the band can be set at any point between 200 and 2200 m/min.

The travel of the band unit is program-controlled with a ball screw and the servomotor (X axis). Travel and feed rates are programmable. The tables can be positioned with the help of buttons. Control: Mitsubishi touch-screen PLC control with menu-driven programming. The BS270 X is upgraded to the CNC-controlled 2-axis BS270 XY by fitting it with a servomotor-driven Y table.

In the basic version, the machine is operated manually. It can be tilted with an adjustment screw such that the linear movement of the X table is accomplished by its own weight. It can be operated with a dry cut or alternatively with cooling. For dry cutting, a suction unit is attached to the exhaust connector provided. For the stainless version, pure water can be used for cooling.



## Available options

### Y-stop

Manually moveable stop for the Y direction on the X table (with bracket). In order to cut off slices, the workpiece may be secured to it and moved in parallel.

### Y table

A workpiece table moved linearly in the Y direction, with drill-holes to secure the workpieces. The work table can be adjusted by 210 mm. It is brought into position with a hand wheel. The exact position is shown to within 0.01 mm on a digital display unit.

### Band cleaning

The band is cleaned by a set of high-pressure spray pipes. Because the saw band is cleaned under high pressure under the work area, the band returns to the cut completely clean.

### Coolant system

Collecting tray with drain to coolant tank. The coolant pump is automatically controlled.

### Filter insert

Curved grid to hold a filter tissue, which can be replaced when necessary.

### Stainless steel cooler

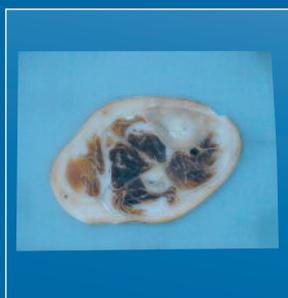
Technical benefit:  
No soldered plates tear off



Cooling: water  
Speed: 2 mm/min

### Plastinate

Technical benefit:  
Cutting surfaces on parallel planes



Cooling: water  
Speed: 30 mm/min

### Tiles

Technical benefit:  
The glaze does not flake off



Cooling: water  
Speed: 100 mm/min

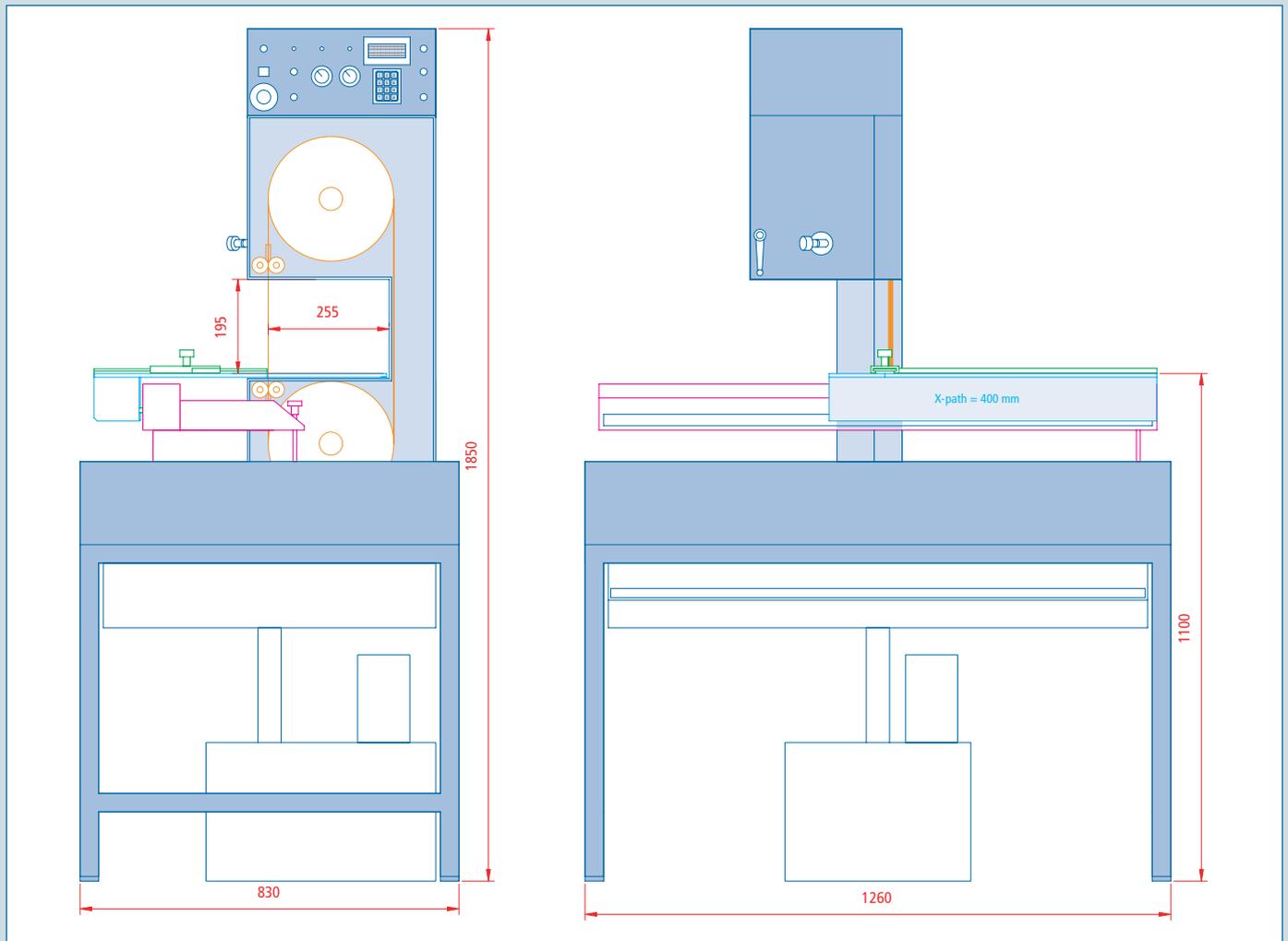
### Glass

Technical benefit:  
No breaking off



Cooling: water  
Speed: 70 mm/min

# Precision diamond band saw **BS270**



## Technical data BS270 with cooling system

Length:	1260 mm
Width:	825 mm
Height:	1840 mm
Passage:	195 mm x 255 mm
Workpiece range (X-axis, Y-axis):	400 mm, 210 mm
Deflection rollers Ø:	266 mm
Guide rollers Ø:	47 mm
Standard band:	0.7 mm x 8 mm, Length 1870 mm
Band speed:	200 – 2200 m/min
Drive:	Three-phase current motor 750 W
Weight:	110 kg

Specification is subject to change without notice. Status July 2013.

# **DRAMET**

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