

# DRAMET

Draht - und Metallbau GmbH

Talk to us!

Tel +49 (0)2689-6045

[www.dramet.com](http://www.dramet.com)



## The diamond band saws BS270 S/X/XY are small production machines

The diamond band saw BS270 has a fixed saw unit

Passage: (HxW) 180 x 255 mm, cutting length (x-Axis) 400 mm.

In a standard version the diamond band saw BS 270 is operated manually, but it can also be fitted out as an NC-controlled 2-axis machine.

The sawing force can alternatively be used to control the feed rate, which is defined by the speed of the running workpiece.

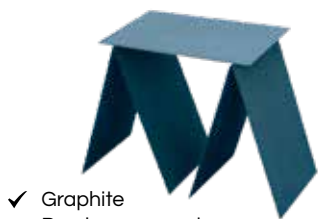
During cutting, the feed force as well as the feed rate is displayed on the screen.

The machine has an open, fault-resilient design. Both dry cutting and cutting with cooling are possible.

We build all of our machines in Germany at our premises. Components are subject to strict quality control regulations.

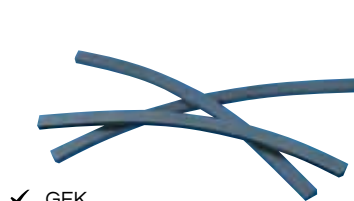
Both dry cutting and cutting with cooling are possible.

## The diamond band saws BS270 S/X/XY are cutting various substrates



- ✓ Graphite  
Precise, even cuts

Cooling: dry  
Speed: 35 mm/min



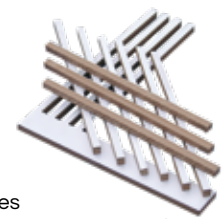
- ✓ GFR  
No delamination

Cooling: water  
Speed: 60 mm/min



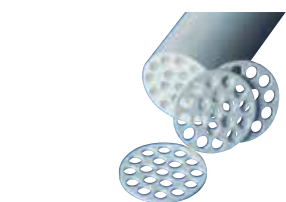
- ✓ Catalyser  
Torn bridges don't break out

Cooling: dry  
Speed: 900 mm/min



- ✓ Tiles  
The glaze does not flake off

Cooling: water  
Speed: 100 mm/min



- ✓ Aluminium oxide  
Clean cut, no breaking out

Cooling: dry  
Speed: 300 mm/min



- ✓ Glass  
No breaking off

Cooling: water  
Speed: 70 mm/min



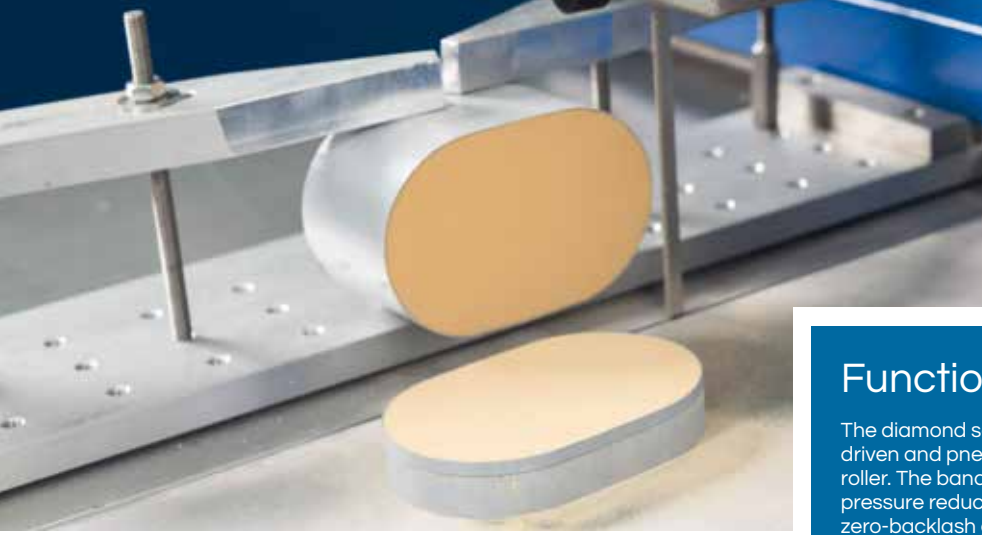
- ✓ Stainless steel cooler  
No soldered plates tear off

Cooling: water  
Speed: 2 mm/min



- ✓ Plastinate  
Cutting surfaces on parallel planes

Cooling: water  
Speed: 30 mm/min



## Functioning

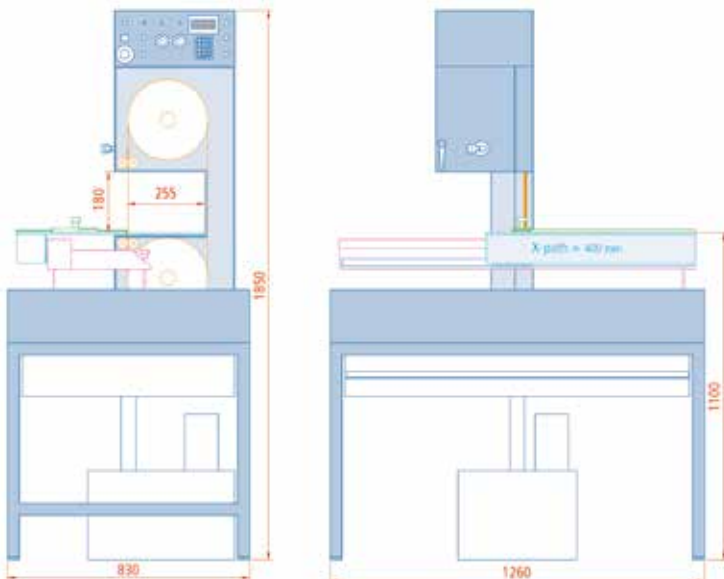
The diamond saw band runs over two rollers in an endless loop. It is driven and pneumatically tensioned by the height-adjustable upper roller. The band tension is set by the adjustable air pressure on the pressure reducer. Near the work area, the band is guided by two zero-backlash guide roller units. 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 fitted 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.

## 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.



Technical data	Description
Length:	1260 mm
Width:	825 mm
Height:	1840 mm
Passage:	180 mm x 255 mm
Travel (X, Y):	400 mm, 210 mm
Deflection roller diameter Ø:	266 mm
Guide roller diameter 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

## 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 with filter insert

Collecting tray with drain to coolant tank. The coolant pump is automatically controlled. Curved grid to hold a filter tissue, which can be replaced when necessary.

Specification is subject to change without notice.

DRAMET DRAHT- UND METALLBAU GMBH  
 Werkstraße 15 | 56271 Kleinmaisheid | GERMANY  
 Telefon: +49 (0)2689-6045 | Fax.: +49 (0)2689-6035  
 E-mail: info@dramet.de | Website: www.dramet.com

**DRAMET**  
 Draht - und Metallbau GmbH