

# DRAMET

Draht - und Metallbau GmbH

Talk to us!

Tel +49 (0)2689-6045

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



## The diamond band saw BS400 is available in the versions F and FY

The diamond band saw BS400 is a saw with a driven column

Passage (HxW) is 335 x 410 mm, cutting length (X-axis) is 750 mm.

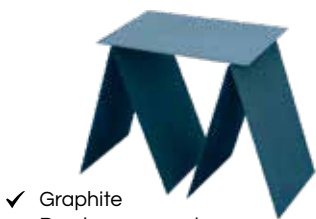
The diamond band saw BS400 in its standard version BS400 F is a machine which is X-direction driven.

When equipped with an NC-driven 2-axis machine, it is available in the version BS400 FY.

Serially the diamond saw is equipped with a spray protection cabin and a display. This comprises a measuring unit to measure the feed force. During cutting, the feed force is displayed on the screen. The feed and band speed can either be manually adjusted or regulated automatically according to the programmable nominal force.

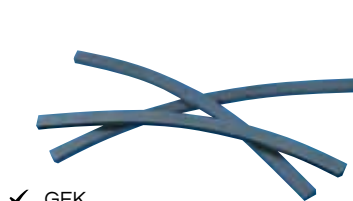
Both dry cutting and cutting with coolant are possible.

## The diamond band saw BS400 FY cuts various substrates



- ✓ Graphite  
Precise, even cuts

Cooling: dry  
Speed: 35 mm/min



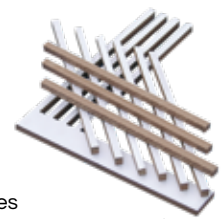
- ✓ GFR  
No delamination

Cooling: water  
Speed: 60 mm/min



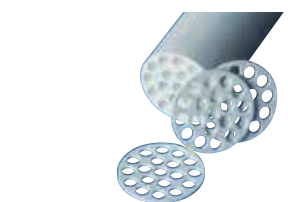
- ✓ Catalyser  
Torn bridges don't break out

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 basic version of the BS400 F with moving column is composed of a band unit with two deflection rollers  $D = 420$  mm with a passage (H x W) of  $355 \times 410$  mm. 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 is driven by a 2.2 KW three-phase current motor controlled by a frequency transformer. The band tension is set by the adjustable air pressure on the pressure reducer. The speed of the band can be set between 200 and 3000 m/min using the control dial.

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 band unit can be positioned with the help of buttons. Control: Mitsubishi touch-screen PLC control. The BS400 F is upgraded to the CNC-controlled 2-axis BS400 FY by fitting it with a servomotor-driven Y table.

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:	1700 mm
Width:	1985 mm
Height:	2230 mm
Passage:	335 mm x 410 mm
Travel (X, Y):	750 mm
Deflection roller diameter $\varnothing$ :	420 mm
Guide roller diameter $\varnothing$ :	70 mm
Standard band:	0,7 mm x 16 mm, length 3200 mm
Band speed:	200 – 2500 m/min
Drive:	Three-phase current motor 3000 W
Weight:	550 kg

## Available options

### Measuring unit to measure feed force

During cutting, the feed force is displayed on the screen. This allows the feed and band speed to be optimally adjusted.

### 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, coolant pump, coolant supply with shut-off valve and articulated pipe, automatic control of coolant system. A filter tissue of around  $0.7 \times 0.7$  m can be inserted and replaced when necessary.

### Spray protection cabin

Machine housing with Polycarbonat® insert to protect against spray.

Specification is subject to change without notice.

DRAMET DRAHT- UND METALLBAU GMBH  
 Werkstraße 15 | 56271 Kleinmaischeid | 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