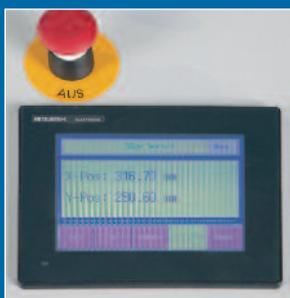


Precision diamond band saw **BS400 F**
for use in industrial production



Precision diamond band saw **BS400 F**

The BS400 F is a stable machine. It cuts work-pieces to 200 kg. The BS400 F is used for straight, material-saving dividing cuts in the production process. The BS400 F cuts off work-pieces with great precision and surface quality.

Key features

- The 0.25 mm saw band 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 ± 0.02 mm.



The saw band

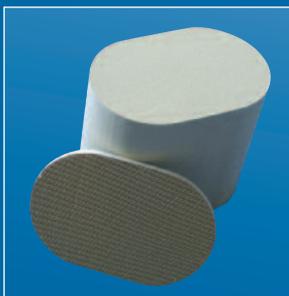


The saw band is 3200 mm long and 0.25 mm thick. It is an endless loop fitted with diamonds of grain-sizes D76, D126 or D181.

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

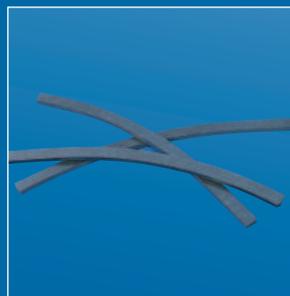
Technical benefit:
Torn bridges don't break out



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



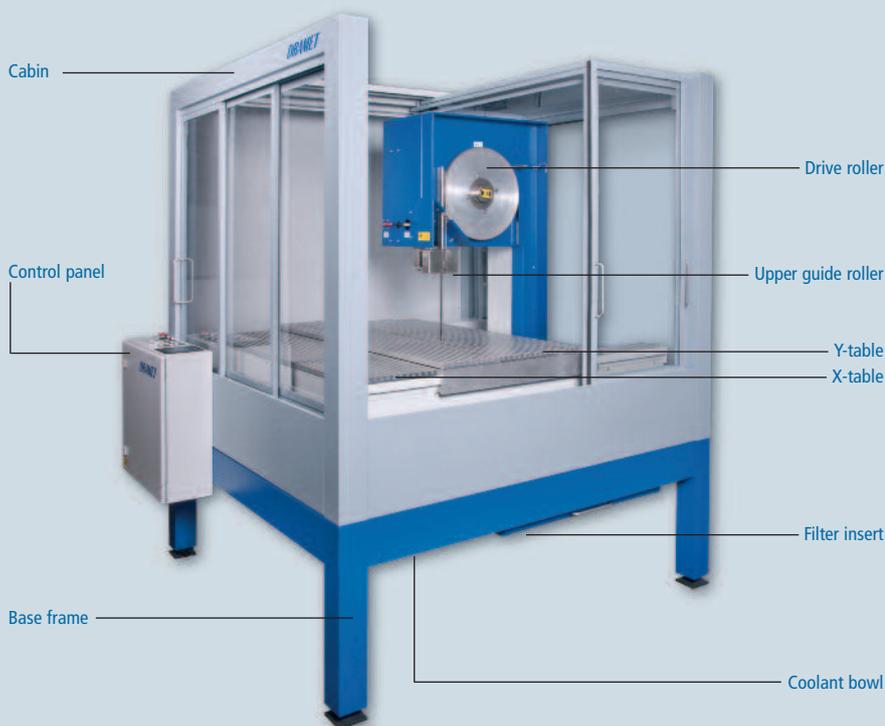
Cooling: dry
Speed: 35 mm/min

How it works

The 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 400 x 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.



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 x 0.7 m can be inserted and replaced when necessary.

Spray protection cabin

Machine housing with Perspex® insert to protect against spray.

Stainless steel cooler

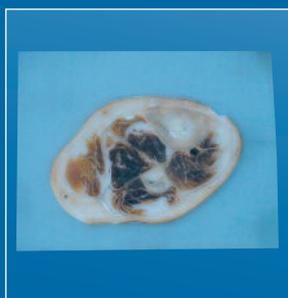
Technical benefit:
No soldered plates tear off



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

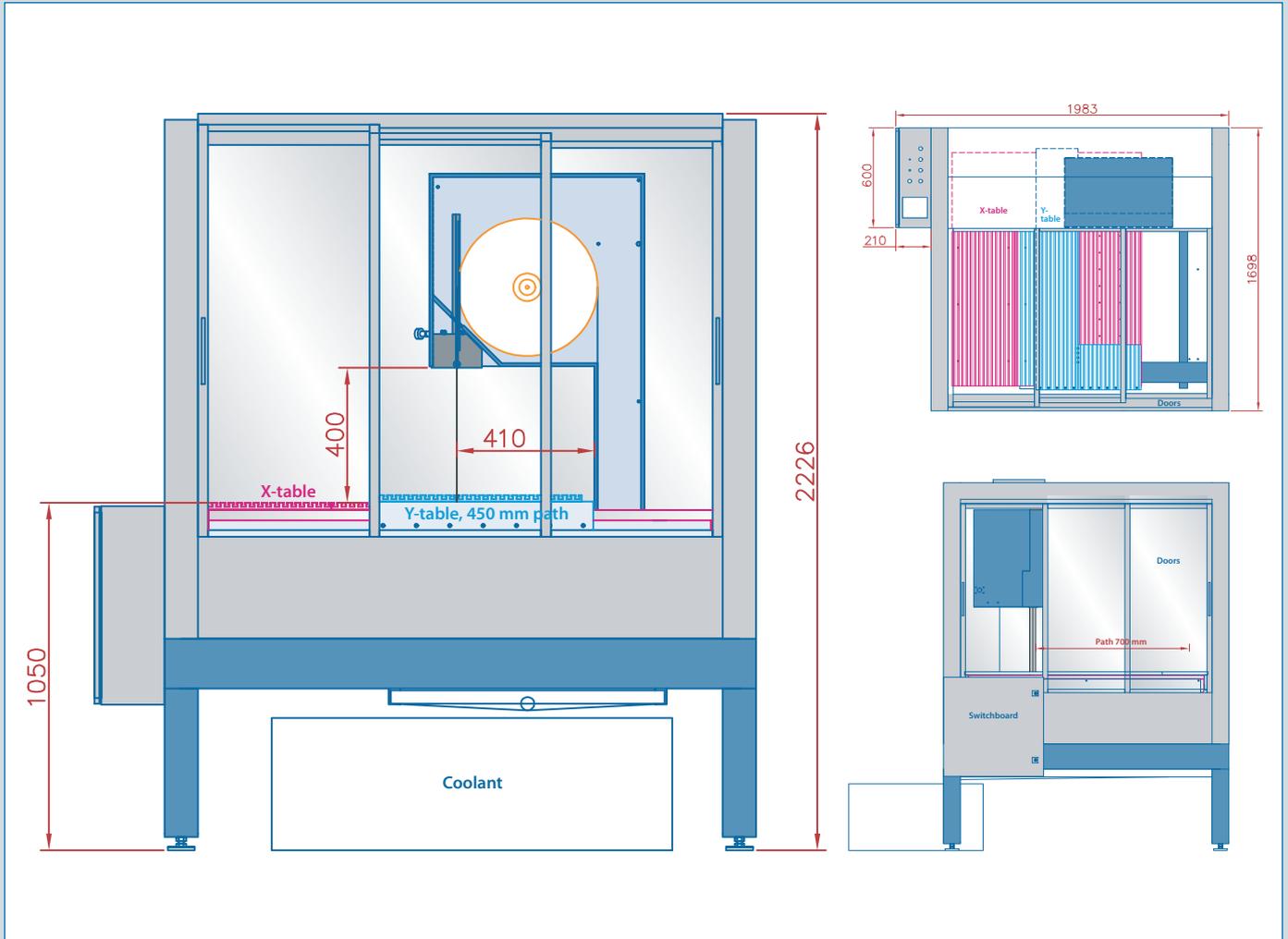
Glass

Technical benefit:
No breaking off



Cooling: water
Speed: 70 mm/min

Precision diamond band saw **BS400 F**



Technical data BS400 F with spray protection cabin

Length:	1700 mm
Width:	1985 mm
Height:	2230 mm
Passage:	400 mm x 410 mm
Workpiece range (X-axis, Y-axis):	700 mm
Deflection rollers Ø:	422 mm
Guide rollers Ø:	70 mm
Standard band:	0,7 mm x 16 mm, Length 3200 mm
Band speed:	200 – 3000 m/min
Drive:	Three-phase current motor 2200 W
Weight:	550 kg

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

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