

# Precision down to the last tooth.

## FS 1500

Bandsaw blade milling machine



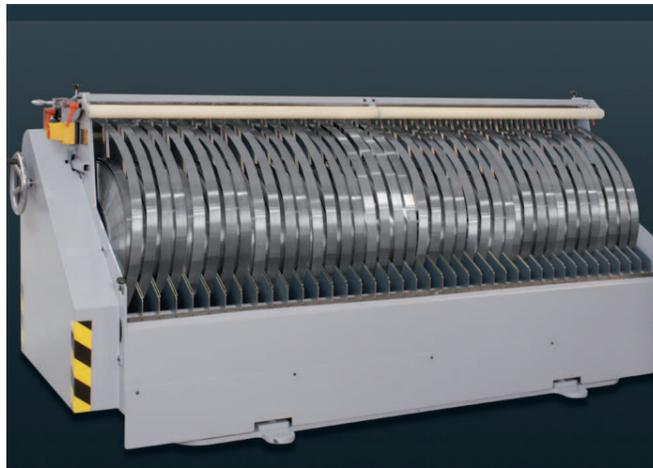
- ▶ Bandsaw blade production
- > Steering rack production
- > Rack production
- > Gear processing
- > Clamping tools

# FS 1500

The new FS 1500 is a highly productive machine based on decades of expertise in manufacturing special purpose milling machines for milling teeth in carbon and bimetal bandsaw blades of up to 80 mm band width and within the milling range of 32 - 1.4 teeth per inch. The machine is equipped with a state of the art Siemens SINUMERIK 840D sl control as well as Siemens drive units.

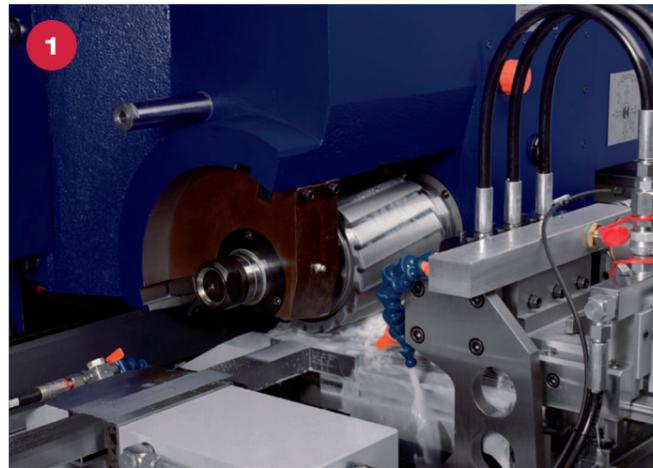
The fully enclosed cabin provides every aspect of safety, low noise emission and clean workshop conditions. With the further reinforced machine structure the FS 1500 is capable of milling even challenging profiles within short cycle times.

Our coiling systems in either horizontal or vertical design provide a complete system for fully automatic band feed to meet our customers' specific applications.



## Pay-out system

The raw steel bands are placed in the pay-out system. Up to 40 steel bands can be stored there. We offer on request variable adjustment possibilities for the space between the band feed-in stations which considerably reduces the changeover time and prevents band damage. In addition to the pay-out stations numerous vertical and horizontal pay-out and take-up systems tailored to the machines are available. These systems can be adjusted in many ways to meet any customer requirements.



## Milling

Zero backlash drive units based on ball-bearing spindles and a special designed power transmission yield the highest results in running smoothness and tooth quality. The milling process of the Kesel machines can either run with conventional or climbing milling.



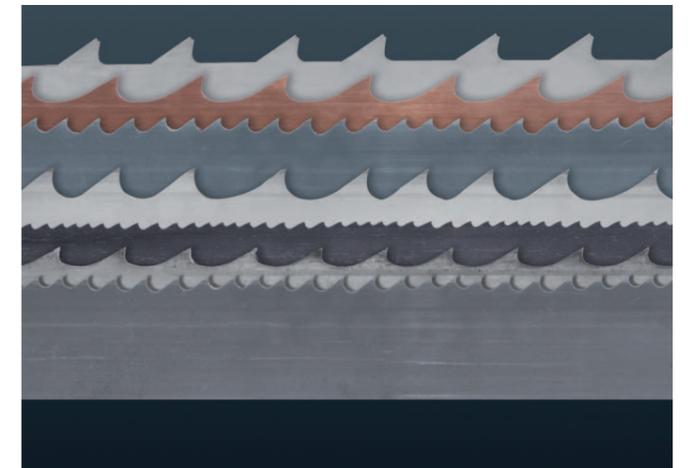
## Control

The Siemens SINUMERIK control 840D sl allows for a complete and flexible NC programming and enables an automatic work process.



## Magnetic filter roller

Both emulsion as well as oil can be used as cooling lubricants. The chips are removed through the coolant. A magnetic roller takes over the cleaning. The chips are removed via a belt conveyor into a chip container.



## Bandsaw blades

Manufacturers worldwide produce their different bandsaw blades on Kesel bandsaw blade milling machines. These machines offer almost unlimited possibilities for the tooth profile milling processes and the band sizes they have been designed for. Bimetal bands as well as carbon bands can be milled. If you are working with a special band type we will be happy to design the machine and the tool according to your specifications.

## Spezifikation FS 1500

<b>Milling head</b>	
Type	F 55.4, transmission with high power drive
Power	43 kW S6 40%
RPM	max. 315 rpm, infinitely variable
Milling arbor	SK 50
Min. diameter of milling cutter	128 mm + 2 x milling depth + 5 mm safety + resharpening (acc. to cutter manufacturer)
Max. diameter of milling cutter	250 mm (depending on taper angle milling cutter / cutting angle saw)
Max. tool width	200 mm For cutter design concepts contact Kesel
Rotational axis	Cutting angle swivel range up to 20°
<b>Control</b>	
Siemens SINUMERIK 840D sl	
<b>Clamping system</b>	
Hydraulic high pressure clamping unit with band leveling device	
Clamping width	60 mm
<b>Band guide and burr plate</b>	
Adjustable in vertical and horizontal direction Electrically operated burr plate drive	
<b>Coolant and swarf removal</b>	
Cooling lubricant	Oil / Emulsion
Filling capacity	390 litres
Magnetic filter roller for fine filtration	
<b>Electrical connection</b>	
Voltage	3 x 400 V
Amperage	80 A
<b>Dimensions and weight</b>	
Space consumption	length 5,200 x depth 2,900 x height 2,700 mm
Machine weight	approx. 6,700 kg (incl. control cabinet)
<b>Options</b>	
<ul style="list-style-type: none"> <li>- Additional milling accessories</li> <li>- Additional clamping equipment</li> <li>- Coiling system</li> <li>- Cutter changing unit</li> </ul>	

Additional accessories upon request / Subject to modification due to technical advance

