

# Exceed all X-pectations.

## F200M

Cross serrated flange milling machine.



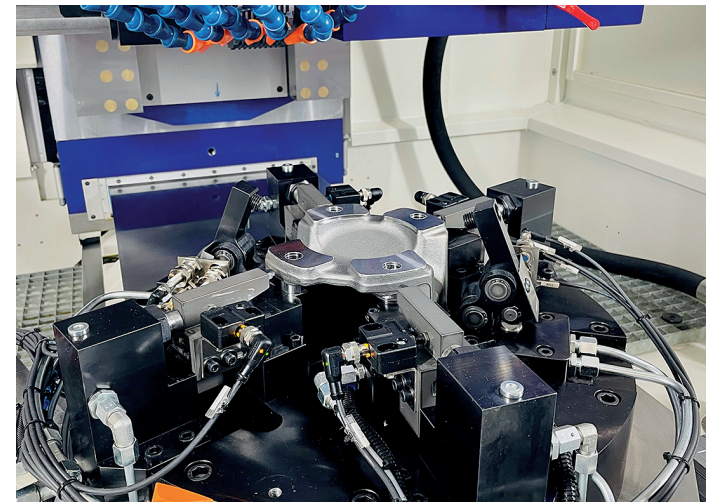
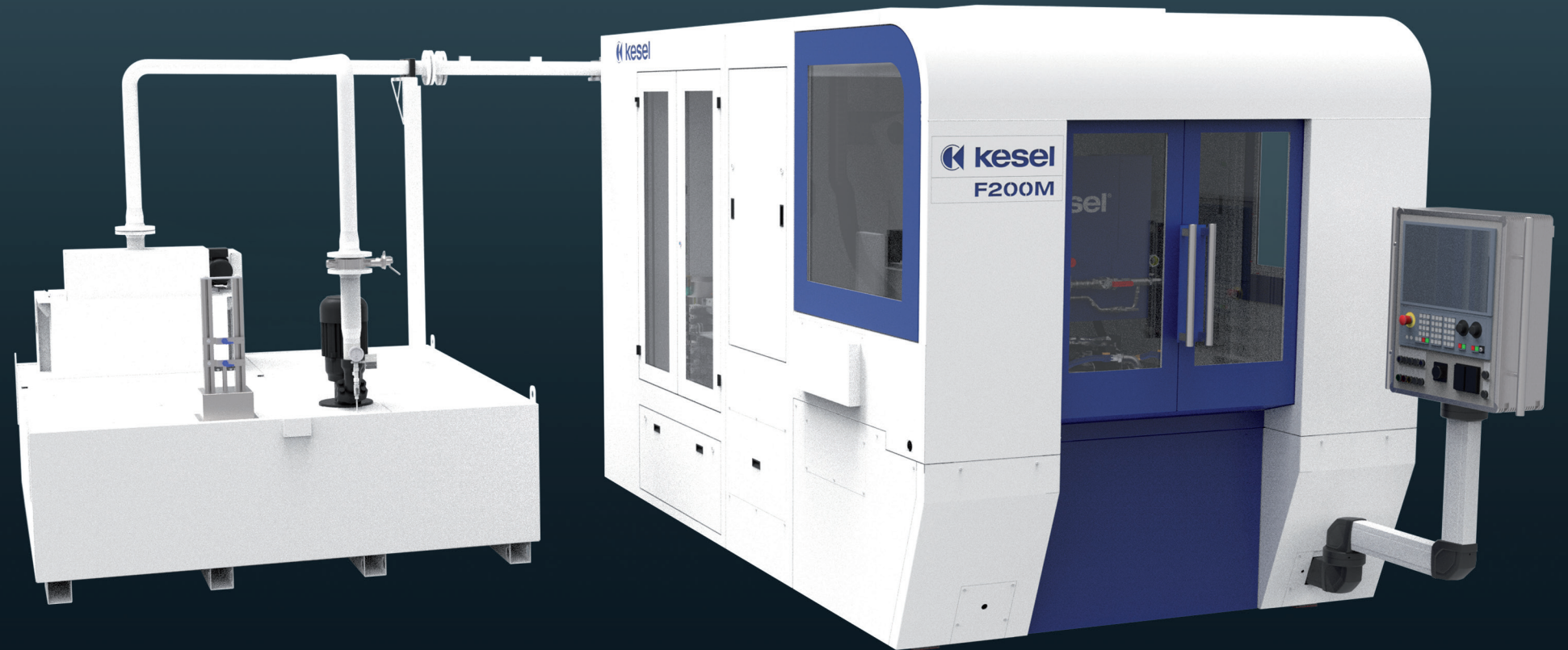
- Automotive production
- > Bandsaw blade production
- > Rack production
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# F200M

The Kesel F200M is a purpose-designed milling centre for creating cross-serrated toothing in flanges and other custom parts. Built to deliver ISO compliant toothing at the touch of a button, the F200M excels in its precision and speed of operation. Short cycle times, combined with exceptional finish quality and optimised tool life ensure the F200M delivers a competitive edge within any manufacturing line.

Equipped with the SINUMERIK ONE operating system and servo drive units from Siemens, the digital native CNC maximizes the productivity of the F200M through top PLC and CNC performance. The F200M is available in manual, automation-ready or fully automated configurations to ensure it fits seamlessly into any manufacturing line.



## The F2-SK Milling head

The F2-SK milling head is not only powerful and robust but is also very low maintenance resulting in exceptional OEE. The perfectly balanced rpm range combined with very high torque delivers incredible milling performance. This performance is further enhanced by the machine bed's hybrid construction which has been designed to create a rigid, highly dampened milling platform.

## Clamping System

Unleashing the full potential of the F200M has been made possible by the new, enhanced clamping fixture. Employing a multi-step clamping method, the F200M's workpiece holding capability is world-class. Customised to the contours of your part, the clamping unit can be quickly and precisely adjusted and setup to ensure rock-solid, precisely repeatable workpiece holding.

## Control

The F200M runs on the SINUMERIK ONE system from Siemens, a high-performance architecture comprising of state-of-the-art microprocessors. The result? Maximum speed combined with fluid CNC operation, even in high-load scenarios. Implementation of the SIMATIC S7-300 PLC reduces non-productive times at the machine and offers the best conditions for integrating the F200M into higher-level automation systems.

## Coolant and Swarf management

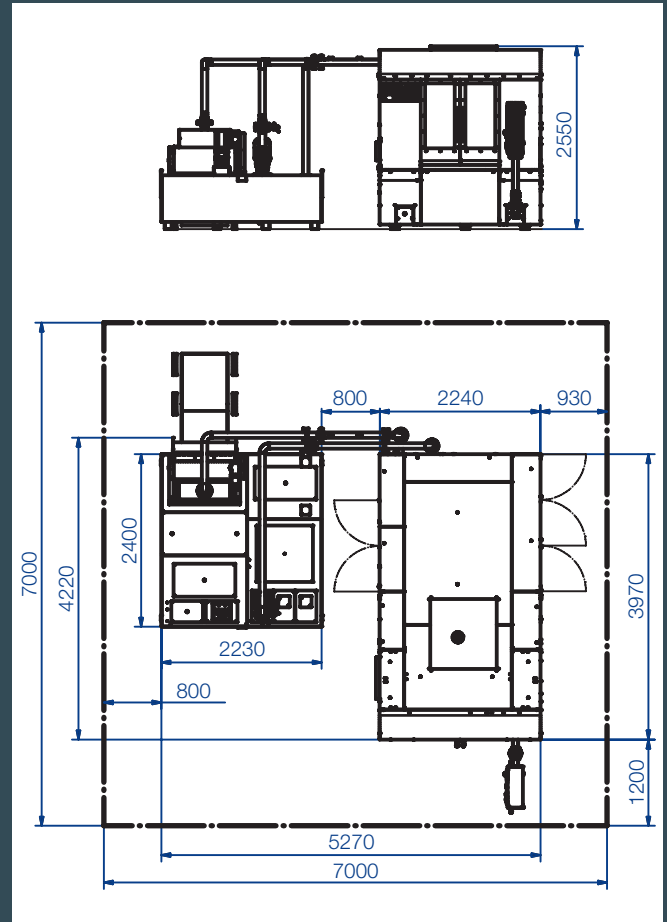
The F200M is supplied with an integrated coolant management system that can be configured for either water-based emulsion or oil cooling. The extended width magnetic filter roller delivers excellent filter performance and ensures a clean coolant is circulated through the machine, enhancing surface finish and extending tool life.



## Specification F200M

Travel range	
X-axis (horizontal, table-axis)	± 15 mm (manual)
Y-axis (vertical, cutting depth)	230 mm
Z-axis (horizontal, milling stroke)	520 mm
B-axis (positioning of the flange)	0 - 70° (infinitely variable)
Milling head	
Type	F2-SK, 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 cutting depth + 5 mm safety + resharpening (acc. to manufacturer)
Max. diameter of milling cutter	250 mm
Max. tool width	200 mm Contact Kesel for cutter design concepts
Control	
Siemens SINUMERIK ONE	
Clamping system	
Hydraulic workpiece clamping system, 360° rotary table.	
Coolant and swarf removal	
Cooling lubricant	Emulsion
Filling capacity	3,300 litres
Magnetic filter roller for fine filtration and oil skimmer	
Electrical connection	
Voltage	3 x 400 V
Nominal current	60 A
Dimensions and weight	
Installation dimensions:	length 7,000 x depth 7,000 x height 2,550 mm
Machine weight:	approx. 16,000 kg
Options	
<ul style="list-style-type: none"> <li>- Milling accessories for different types of flanges</li> <li>- Set-up for automated parts handling</li> </ul>	

Additional accessories available upon request/Subject to modifications arising from technical advances



approx. dimensions