

S-191: Turn- and Mill Center

The innovative concept of the BUMOTEC S-191 with up to 7 axis and 3 spindles, for a high precision production of complex parts from bar or bank with fore- and backside machining. All spindles with direct drive, the linear axis optionally with linear motors for reduction of bi-times and better dynamics and finishes at higher speeds. The newest generation of CNC-technique with nano-interpolation.



S-191 in watch-, medicinal- and micromechanical industries
Thanks to its axis-concept, the S-191 is able to turn and mill complex pieces in only one setting.

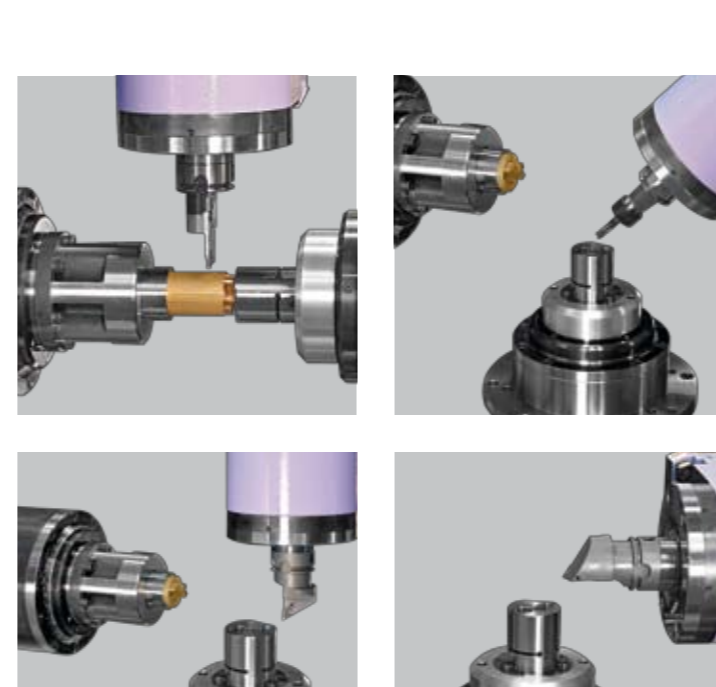


Perfect surface finish because of linear motors
and the most modern CNC-technique with nano technology and short manufacturing times. This drive-technology follows the profile more precisely and with higher dynamic.

The multi-purpose manufacturing-options



The milling head on the swivel-axe B allows with its swivel range of $+120^{\circ}/-25^{\circ}$ multi-purpose combinations of turn- and mill machining. During the turn machinings the spindle is blocked, so the load on the ball bearings are eliminated.



The axis-concept allows a simultaneous 5-axis machining on 2 spindles. The tool transfer for the backside manufacturing effects in horizontal position. The turn- and mill manufacturing on the opposite spindle are able in horizontal or vertical position.

S-191 Accessories

• A wide range of accessories are available to extend the S-191 machine capability



Tool Probe

A Renishaw contact probe is available as a tool setting option. Cutting tools are measured on 3 axis which are automatically introduced into the CNC machine control. The system also allows broken tool detection.



Workpiece measuring Probe

An ultra compact touch probe with wireless transmission provides a solution for workpiece inspection, part alignment and automatic off-set updates during the cycle.



Bar Feeder

A wide range of automatic bar feeders are available to meet your production needs and preferences.



Automation

Numerous automatic loading / unloading solutions are available to meet your application needs.



Paper Band Filtration

An ideal filtration method for machining precious metals.



High Pressure Coolant

The Hydro Fluid, high pressure coolant systems provides:

- Oil cooling
- Automatic filtration down to 5 microns
- Self-cleaning filters
- High pressure up to 80 bars



Parts Conveyor

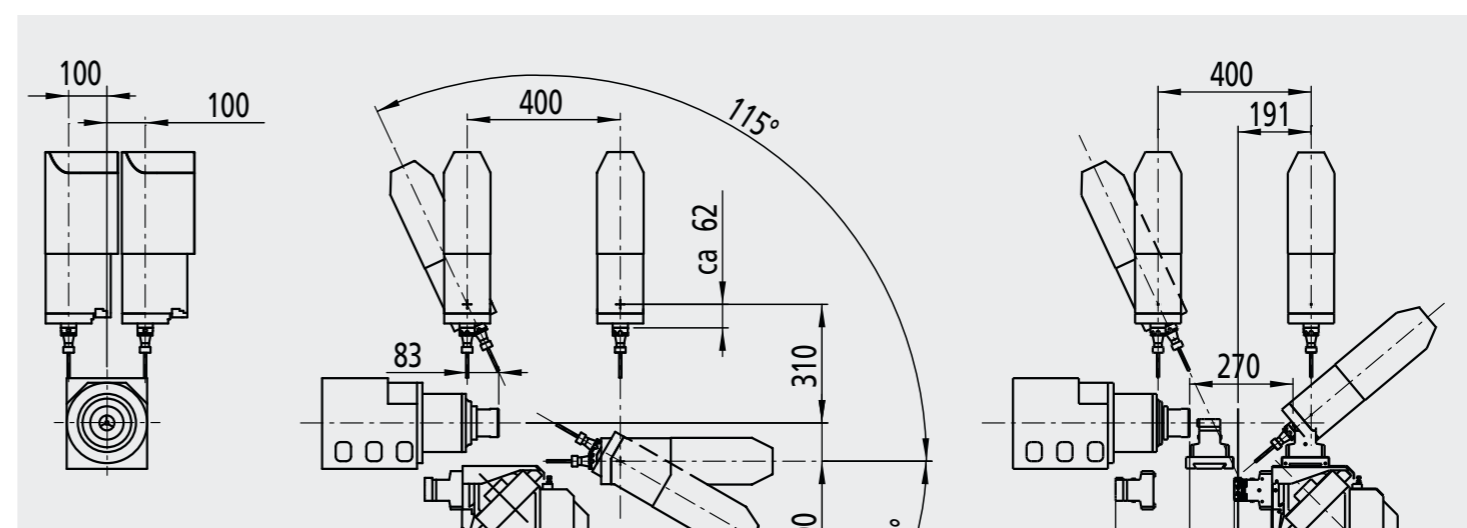
A conveyor belt provides part evacuation from the machining zone.



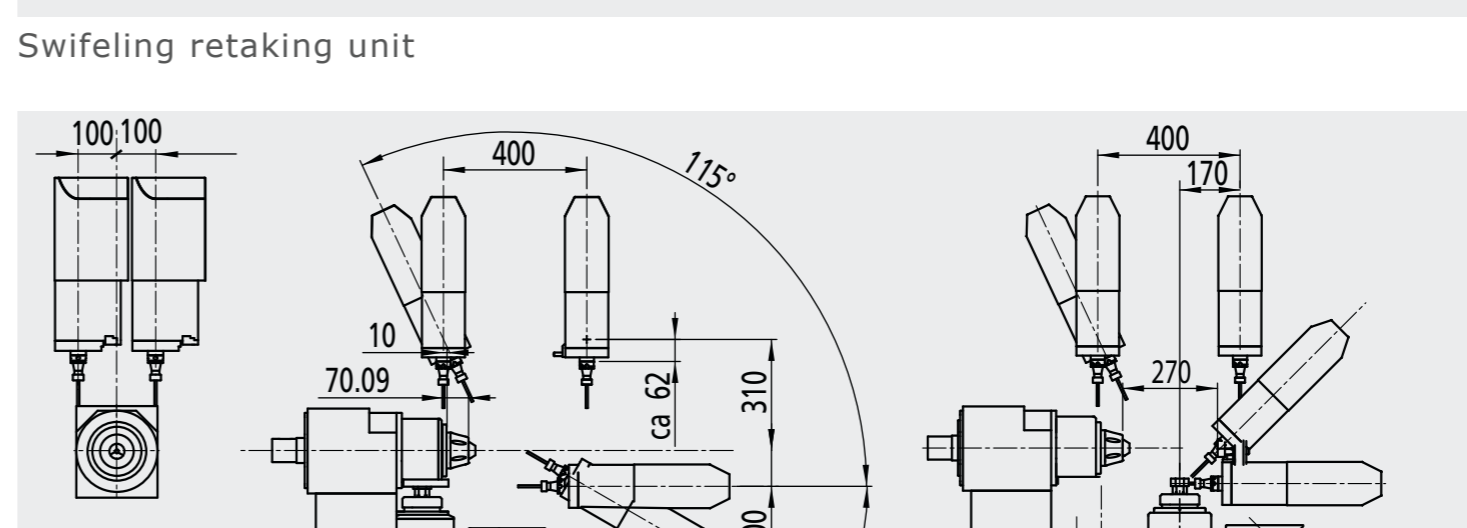
Chip and Coolant Management

Several chip and coolant system are available for all applications and materials.

S-191 Dimensions of the machining area



Swifeling retaking unit



with counter spindle

Main dimensions of S-191

