

SM 100 CNC Technologies for Optimal Grinding Results



Smart Solutions for Professionals



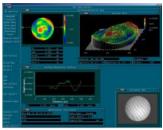
The rough, fine and finest grinding (3C) machine **SM 100 CNC TC** is an optimal and high flexible grinding machine for spherical components.

The SM 100 CNC TC-3C is perfectly suited to the SPK 100 CNC polishing machine, delivering a balanced cycle time for grinding and polishing.

Technical Data:

Туре	SM 100 CNC
Diameter (max. tool ø) [mm]	Ø10 - 120 (245)
Working Range Radius [mm]	10 - ∞
CNC-Controller	Siemens Sinumerik 840 Digital
CNC-Axes (C-Axis optional)	3 (X, Z, B)
Tool Spindle Speed [rpm]	12000
Tool Spindle Interface	HD 25 (HD 12 Option)
ens Spindle Speed [rpm]	2000
ens Spindle Interface	HD 25
Power Requirement [KW]	7
Air Pressure [bar]	5
/acuum Requirement [bar]	- 0.7
Mass [Kg]	2400 (without loader)
Dimension (W x D x H) [mm]	1736 x 1830 x 1990

OPTIONS	
KombiTools	
3C-Technology	
Auto-Loader	
Measuring Pin	
4 Spindle-Technology	
Portal Loader with Disk Magazine	
CNC Palette Portal Loader	
Dressing Technology for 3C- or Polishing Tools	
AST Advanced Setup Technology	
Remote Diagnosis	
OptoTool Support	
Aspherical Processing (requires optional AspheroTool software package)	



Result with 3C-Technology



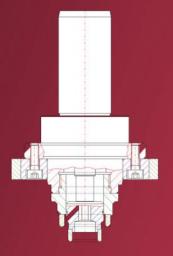
3C-Processing

2-Side Complete Processing

The SM 100 CNC is available as a 2, 3 or 4 spindle version and offers maximum flexibility. Its capabilities include "Two Side Complete Processing", a technology developed by OptoTech in 1998, as well as the new 3Cut Processing Technology (3C Technology). For the first time, this process integrates a third tool for surface processing, using a pellet tool for pre-polishing the surfaces.

Combined with the proven OptoTech KombiTools, this is a technology to create even better surfaces due to lower sub-surface damages. The surface quality is so good, it can even be measured on an interferometer. The result is so close to the polished surface that polishing tool wear is greatly reduced and polishing cycle times can be reduced by as much as 50%.

These advantages are very obvious especially on hard and crystalline materials or large production runs.



Innovative Grinding Technology

Technologies of our SM 50 and SM 100 generators:

- AST: Advanced Setup Technology
 Machine determines the point of contact independently
- KombiTools
 Combination of rough and fine grinding tool, with an alternative edging wheel on option.
 Machine can also be operated with standard cup wheels
- 3C-Technology Third surface processing step with a pellet form tool - for even better surface qualities, longer tool life time and shorter polishing cycle time; integrated dressing technology for the pellet tool
- Measuring Pin
 For measuring and correcting diameters and centre thicknesses before and after processing

All versions of the generator can be equipped with the highly effective OptoTech loading system

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