Slicing and Grinding Machine SGM

The SGM machine is designed for processing glass and ceramics materials. The clever design with the horizontal grinding spindle allows the machine to be used as a milling or surface grinder. (It is also possible to grind aspherical lenses.)

All linear motion axes are located in the rear (dry) part of the machine, which is separated by a sliding stainless steel sheet from the grinding area. All moving axes are equipped with prestressed recirculating ball screws and guides.

The axes are driven by servo motors. Stable linear roller guides guarantee smoothness and stability for production of high quality optical components. Optional glass scales can be offered by request.
The precision grinding spindle ø100mm is usually offered with an outer cone, but can be fitted on request with ISO40 or HSK 63. The belt-driven grinding spindle is protected by air seals from pollution.

The control interface allows easy and comfortable programming. Simple programs can be entered through different dialogs on the touch-screen panel PP520. More sophisticated programs can be written in ISO code. An UBS and a LAN connection supplied offers the option to down and up-load programs as required.

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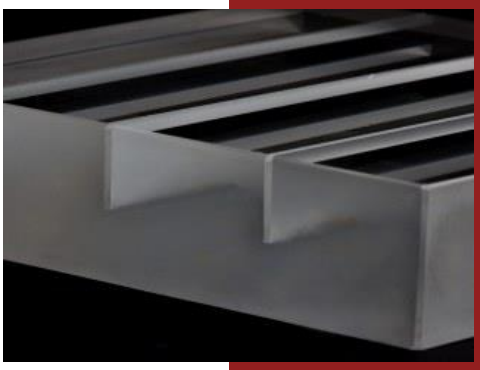
The grinding process can be controlled by the spindle power or a force measurement system which is available as an option. This improves the process especially for slicing and grinding very small and thin-walled contour parts. This system offers also a perfect environment for process parameter optimisation, as well as grinding wheel evaluation.

The construction of the machine is based on a modular grinding system designed by dama technologies ag. The construction allows the use of changeable fixtures, as well as dividing devices or driven rotary tables.

Technical data SGM

X-axis	travers path	470 mm
	digital display	0,001 mm
	feed rate	0 – 3‘000 mm/min
Y-axis	travers path	200 mm
	digital display	0,001 mm
	feed rate	0 – 3‘000 mm/min
Z-axis	travers path	400 mm
	digital display	0,001 mm
	feed rate	0 – 1‘000 mm/min
Spindle	- ø100 mm grinding spindle with 2.5 kW - programmable from 500 – 5‘000 rpm	
Force measurement (optional)	1D piezoelectric measurement system feed control of Z-axis	
Control	for X, Y and Z-axis movement B&R PP520 - Touch screen as operator interface - Force indication optional - Spindle load indication - Emergency stop B&R CNC control - Logic unit for 3 axes and 1 spindle - hand wheel	
Splashing protection	doors with window, complete stainless steel enclosure	
Dimension	Length	ca. 200 cm
	Width	ca. 180 cm
	Height	ca. 240 cm
	Weight	ca. 3’100 kg
Electrical connection	3x400V / 50Hz, 3L+N+PE / max. 32A	
Compressend air supply	6bar	
Colour	RAL 7035 / 3003	
CE-conformity	The machine complies with the European directives of the CE regulation.	



TECHNICAL ALTERATIONS SUBJECT TO CHANGE