



Product flyer ZSA

automatic
center hole grinding machine

ZAMAG



ZSA-M8-1000-SP150

automatic

center hole grinding machine

with precision chuck \varnothing 150mm

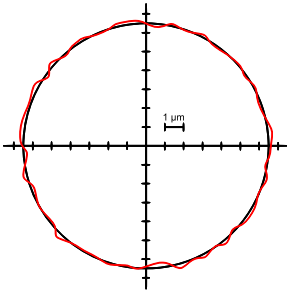


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The characteristics of the automatic center hole grinding machine ZSA:

Highest precision:

The machine achieves a concentricity accuracy of 0.001mm

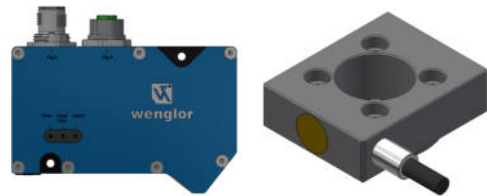


More time for productive work:

When grinding with the manual center hole grinding machine ZSM, most of the steps are carried out by hand. With the ZSA, the operator only clamps the workpiece and aligns it. After entering the parameters, the ZSA does the rest automatically.

Automation:

The center hole grinding machine ZSA independently measures the height of the components with the laser and automatically grinds the center hole with the help of the sound sensor.



Control system:

The ZSA has a PLC control system. All grinding parameters and cycles are entered via a 12" touch panel.



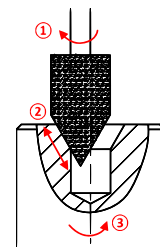
Precision chuck:

Thanks to our chuck even parts with inaccurate surface can be clamped and aligned.

With a lot of experience to the optimal result:

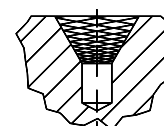
Grinding principle:

1. rotary movement of the grinding wheel
2. stroke movement of the grinding wheel
3. rotating workpiece



Result:

A cross hatch pattern with oil pockets that provides optimum oil retention in the center holes



Differences between ZSA and ZSH:

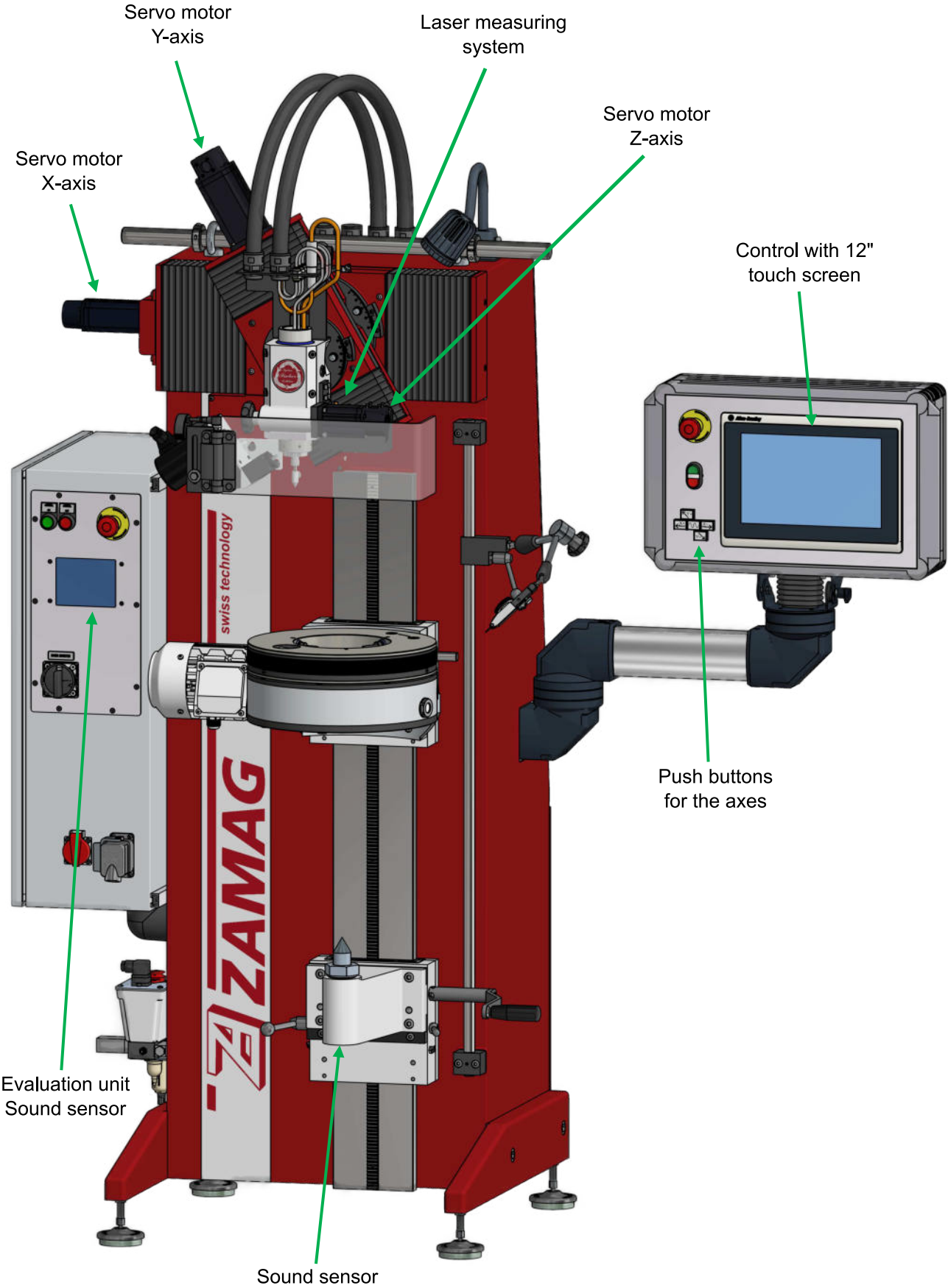
(ZSA: automatic center hole grinding machine / ZSH: semi-automatic center hole grinding machine)

- The ZSA has an adjustable control panel with a PLC control system.
- All axes (X-axis: cross slide / Y-axis: stroke slide / Z-axis: grinding head) are equipped with servomotors and can be moved using push buttons.
- The current position of the X-axis and Y-axis is displayed on the control system.
- Dressing and the complete grinding process runs automatically. All grinding data, the selection of cycles for grinding, dressing and sparking out as well as the process-guided set-up programs such as changing the grinding pin or calibrating the laser can be programmed via the 12" touchscreen.
- The laser measuring system automatically measures the height of the workpiece.
- As with the ZSH, the sound sensor system monitors the contact between the grinding pin and the workpiece and sends a signal to the control system as soon as the center hole has been ground all around.
- The laser and the sound sensor system enable the completely automatic grinding process. Once the workpiece has been clamped and aligned, everything runs automatically.

Advantages:

- The ZSA can be used for fully automatic grinding, which is a great advantage for series production. However, as it is very easy to set up a new workpiece, individual parts or small series can also be ground on the ZSA easily.
- Thanks to the laser measurement, the sound sensor system and the automatic grinding process, the operator has more time to carry out other works (e.g. preparing the next shaft or grinding on another machine).
- The sound sensor system reduces the grinding time.
- The center holes can either be ground clean all round or to a specific dimension. The latter makes it possible for all workpieces to have the same center size after center hole grinding.
- Every ZSM equipment variant can be configured as a ZSA.

Features of the ZSA



	ZSM	ZSH	ZSA
	Version Manual	Version semi-automatic	Version automatic
Application	Single parts	Single parts Smaller series	Bigger series
Control panel with touch screen	X	7"	12"
Motorized cross adjustment	only with option B	✓	✓
GAP sound sensor	X	✓	✓
Workpiece height measurement with laser	X	X	✓
Dressing	manual	manual	automatic

Setting up new grinding pin	manual	manual	Process guided via control panel
Set up 1st workpiece of a new series	manual	manual	Process guided via control panel
Data input 1. workpiece of a new series (in control panel)	X	Selection of grinding process	Workpiece data input Grinding data input Selection of grinding process

Grinding process:	manual	semi-automatic	automatic
Approach to workpiece (cross slide)	manual	manual	automatic
Moving into workpiece (stroke slide)	manual	manual	automatic
Touch workpiece (center hole)	manual	automatic	automatic
Grinding	manual	automatic	automatic
Grinding out	manual	automatic	automatic
Lifting grinding pin after grinding	manual	automatic	automatic
Move back stroke slide	manual	semi-automatic	automatic

Contact us!

We are happy to advise you competently,
help you to find a solution for your task
and equip a center hole grinding machine for you -
according to your needs and your workpieces.

ZELLER AUTOMATIK AG

Bernstrasse 52

CH-4923 Wynau



+41 62 926 60 50



+41 62 926 60 59



mitracon@zamag.ch



www.zamag.ch

swiss technology