

Zentroflex

Center grinding machines

Exclusive agents in the UK & Ireland



ADGRIND
ADVANCED GRINDING SUPPLIES

technica
technology gmbh

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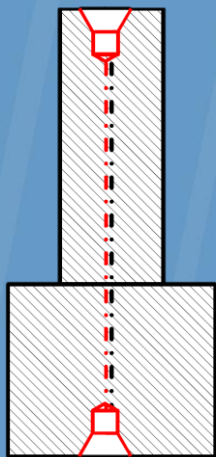
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When to use center grinding

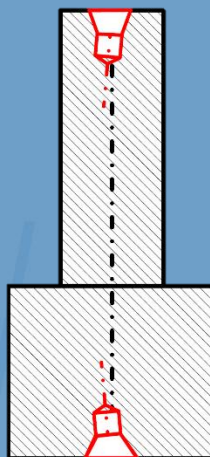
Center grinding is primarily used as a preliminary process for external cylindrical grinding - "grinding between centers". Since the two centers form the later base, it is important that these centers are exactly aligned with each other.

Especially with heat-treated parts, distortion often occurs and production errors cause the centers to be improperly aligned or deformed.

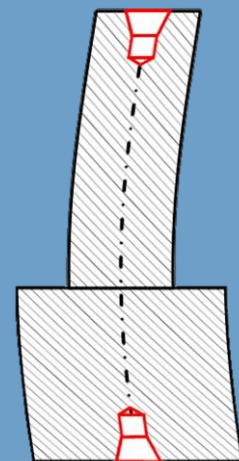
To bring the position of the center back into the correct position and to achieve perfect roundness in the center, the centers must be grinded on a center grinding machine.



Axis parallelism error



Different axis centers



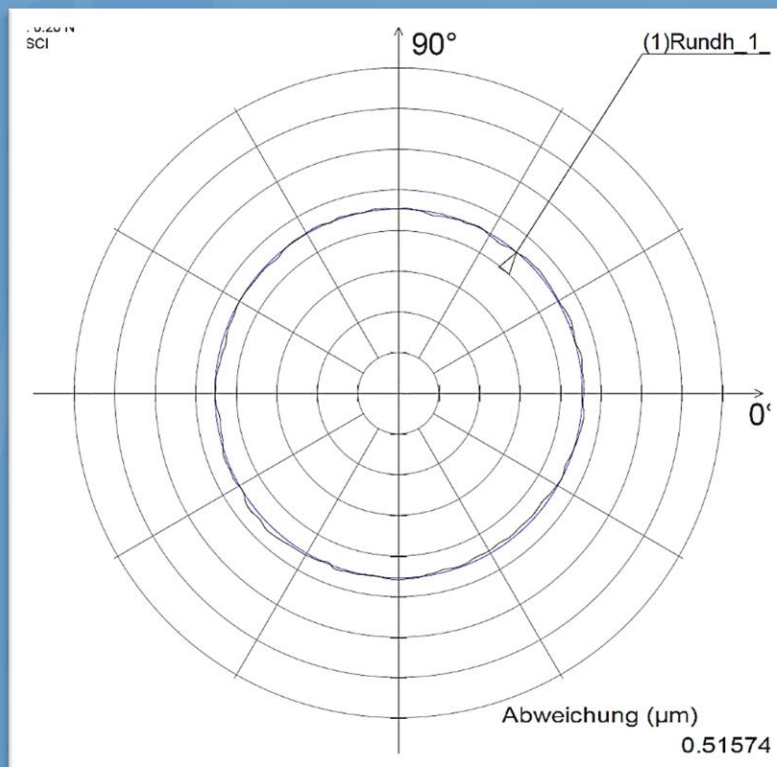
Distortion due to heat treatment

Advantages of center grinding

A precise center is the basis for all final machining processes.

Advantages of center grinding:

- Defined position for all final machining processes
- Reduced grinding workload
- Greater process reliability
- Increased economic efficiency
- Reduction of scrap rate
- Highest precision in every part

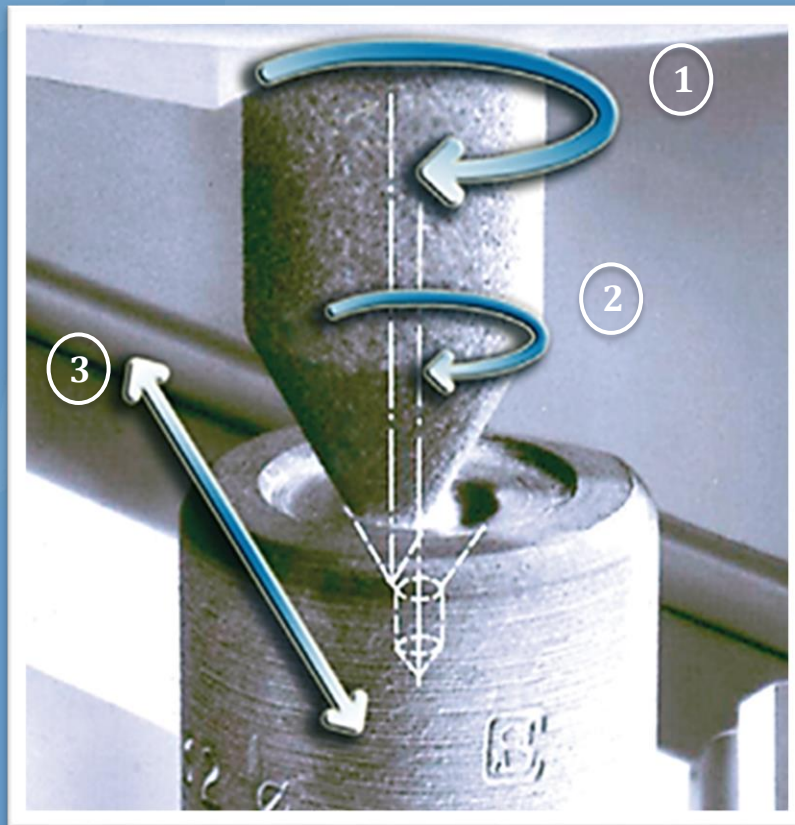


The technica grinding principle

Our unique grinding principle with the simultaneous 3D grinding body movement, produces geometrically highly precise centers. The resulting cross-grinding in the center creates fine oil pockets, which allow optimal lubrication and thus prevent "dry running" between the tips.

3D grinding wheel movement:

1. Planetary motion of the grinding head
2. Rotation of the grinding wheel around its own axis
3. stroke motion of the grinding wheel



Dressing the grinding cones

Dressing of the grinding wheels is semi-automatic. The dressing diamond moves along the angle of the grinding wheel and also makes an oscillating movement in order to obtain the optimum geometry of the grinding wheel. The automatic version of the Zentroflex machine performs the dressing automatically and compensates the infeed on the grinding part.



Model overview

Automation stages

The Zentroflex center grinding machines from technica are available in 3 different automation levels:

Manual (Type M)

Ideal for single parts or small batches. The feed is done by hand via a handwheel.

Semi-Automatic (Type SA)

Optimally suited for small and medium series. The CNC-driven Z-axis produces the centers semi-automatically. This means: clamp parts by hand, press start button and you are done. All parameters can be entered on the operating screen.

Automatic (Type A)

The automatic version of the Zentroflex offers everything necessary for fully automatic production. All axes are CNC controlled and the interface for a loading and unloading robot is given. Dressing and compensation are also fully automatic. A touchpoint recognition is now also possible to accelerate the approach paths.

Model overview

Size overview

Breakdown model designation:

Zentrox 14-M-110

- 14 = Maximum clamping diameter (140mm)
M = Automation stage M (manual)
110 = Maximum part length 110 (1100 mm)

	14-X-110	14-X-160	14-X-200	22-X-110	22-X-160	22-X-200
Workpiece clamping diameter (mm)	3 - 140	3 - 140	3 - 140	3 - 220	3 - 220	3 - 220
Shaft length (mm)	50 - 1'100	50 - 1'600	50 - 2'000	50 - 1'100	50 - 1'600	50 - 2'000
Speed continuously variable 1/min	5'000 - 45'000	5'000 - 45'000	5'000 - 45'000	5'000 - 45'000	5'000 - 45'000	5'000 - 45'000
Center size standard (mm)	1.5 – 60	1.5 – 60	1.5 – 60	1.5 – 60	1.5 – 60	1.5 – 60
Center Size Optional (mm)	1.5 – 100	1.5 – 100	1.5 – 100	1.5 – 100	1.5 – 100	1.5 – 100
Weight of workpiece max. (kg)	170	170	170	170	170	170

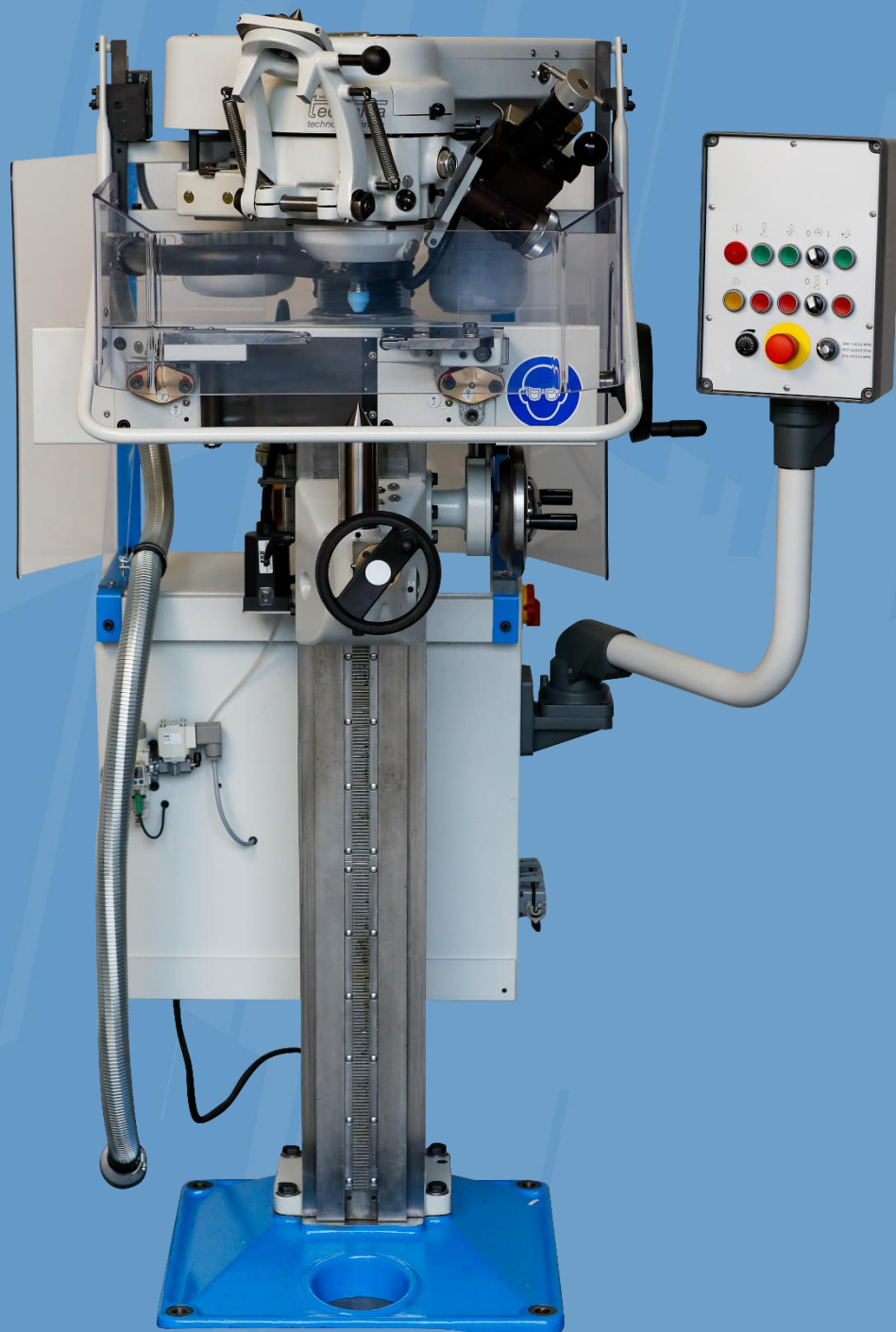
Acessoires

The basic equipment of the Zentrox already offers everything needed for grinding the most common workpieces. Thanks to the modular design, the machines can be supplemented with many options to achieve the best results even for special applications.

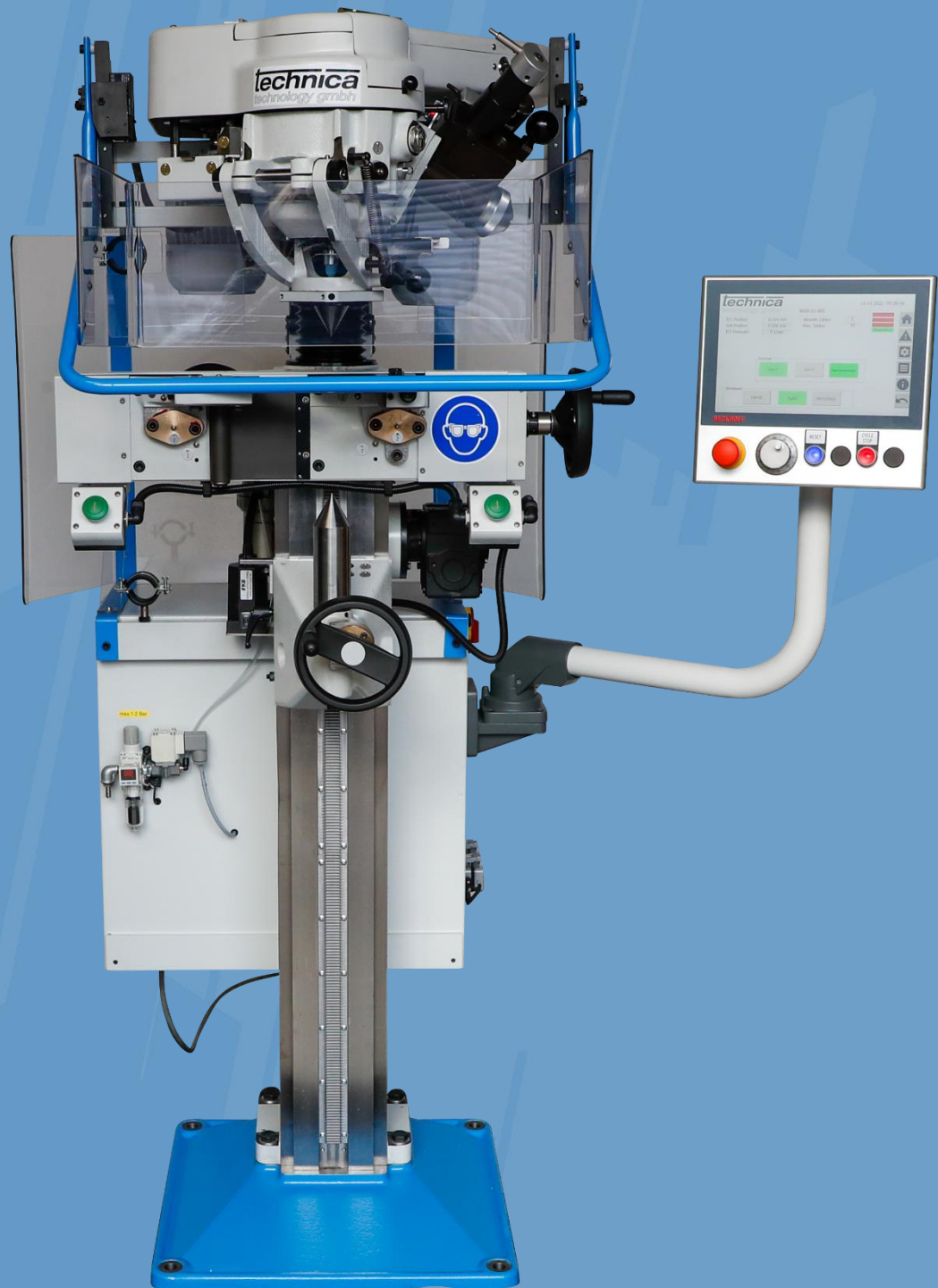
With our well-founded know-how, we will be happy to support you in putting together the right machine.



Zentroflex 14-M-110



Zentroflex 14-SA-110



Zentroflex 14-A-110



More profit in your production?

We will be happy to assist you!

Financing options:

You organize the workload and we organize the machine. We offer financing at attractive conditions so that you can optimize your production today.

We love custom design!

Do you have special requirements and circumstances? We love the challenge! We will be happy to create the right concept for you.

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