

PRECISION & HIGH PRODUCTION CENTERLESS GRINDING SOLUTIONS ESTARTA



Precision & high production centerless grinding solutions

ESTARTA



Our range of ESTARTA centerless grinders is a family of solutions intended for the toughest production work.

The ESTARTA is faithful to core grinding concepts (including precision, stiffness, and thermal stability) yet still brings together all the innovations of recent years (e.g. user-friendliness, eco-friendly..).

The first ESTARTA was manufactured in 1947

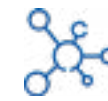
More than 75 years later, it is still the industry benchmark for centerless technology. It is a perfect combination of tradition and the avant-garde:

- Tight tolerances
- High grinding speed
- Fast changeovers
- Environmentally sustainable

Precision and production centerless grinding solutions



Benefits



A changeover has never been so fast and safe

- Automatic workrest blade clamp
- Automatic setting of grinding height
- Automatic taper adjustment
- Motorized wheel cover opening/closing



Up to 70% reduction in non-productive dressing time

- OptiDress: Dressing optimisation software unique in the market
- It eliminates human error by automatically calculating all needs when changing wheels profile
- Simultaneous dressing of both wheels possible
- High dynamics dressing devices thank to linear motors



The perfect win-win: for you and the planet

The machine bed is manufactured from natural granite and has only electric and pneumatic actuators:

- Low environmental footprint
- Minimum running cost
- Maximum performance
- No annual oil disposal



ECO Friendly

ESTARTA has up to 32% fewer components than other machines in the market. The need for maintenance is virtually eliminated and the environmental footprint is very small.

- Hydraulic components have been eliminated and all other machine components have been minimized
- The machine reduces energy consumption during the manufacturing process
- Machines are operated without chiller unit and energy consumption is managed with smart energy software functions

Innovative solutions

Centerless grinding range



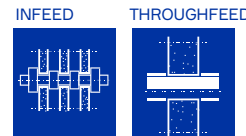
See this machine in action:



ESTARTA-175/250

For small to medium-sized workpieces

- Cantilever spindle for the grinding wheel for fast changeover
- Regulating wheel twin-grip
- Angular machine configuration option up to 15°



6.89/9.84"

CBN

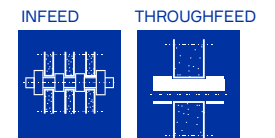
1.60/5.90"



ESTARTA-400/650

For medium to large workpieces

- Oversized ball screws
- Twin-grip system for both spindles
- Extra clamping in the regulating wheelhead



15.75/25.59"

CBN

5.9/9.8"



TECHNICAL CHARACTERISTICS

	ESTARTA-175	ESTARTA-250
Max.workpiece diameter	1.60 in	5.90 in
Grinding wheel dimensions (OD x width x ID)	Ø20 x 6.89 x Ø12 in	Ø26 x 9.84 x Ø12 in
Max. grinding wheel peripheral speed	23,620 sfpm	23,620 sfpm
Regulating wheel diameter (OD x width x ID)	Ø12 x 6.89 x Ø5 in	Ø15.74 x 9.84 x Ø8 in
Main motor	14.75-29.5 hp	29.5-49.6 hp
Net weight	17,630 lb	26,450 lb

TECHNICAL CHARACTERISTICS

	ESTARTA-400	ESTARTA-650
Maximum workpiece diameter	5.9 in	9.8 in
Grinding wheel dimensions (OD x width x ID)	Ø25.6 x 15.75 x Ø12 in	Ø25.6 x 25.59 x Ø12 in
Max. grinding wheel peripheral speed	23,620 sfpm	23,620 sfpm
Regulating wheel diameter (OD x width x ID)	Ø15.75 x 15.75 x Ø8 in	Ø15.75 x 25.59 x Ø8 in
Main motor	49.61-120.69 hp	73.75-147.51 hp
Net weight	27,550 lb	36,370 lb

Core technology

When it comes to reducing part cost, every detail matters

Minimize downtime: Fast spindle replacements available

We have a 24-hour shipment program to exchange your damaged or worn spindle for one we have in stock to eliminate downtime

Linear motors on grinding & regulating wheels dressers

- Highly accurate wheel profiles are achieved due to the interpolation of both axes controlled by optical glass scales
- Absence of mechanical wear means the precision is guaranteed and that maintenance requirements are minimal

Built-in dressing spindle

- Long-life precision guaranteed
- Electro-spindle, frequency controlled, grinding wheel dressing spindle with variable rpm range
- It eliminates any mechanical transmissions that could result in vibrations

Optimized machine design for best setup and operating access

- Fixed work center, making it easy to integrate peripheral equipment
- Easy-to-use DoGrind+ HMI
- Minimized tooling needs inside the machine
- Improved ergonomic access

High stiffness direct drive on main slides

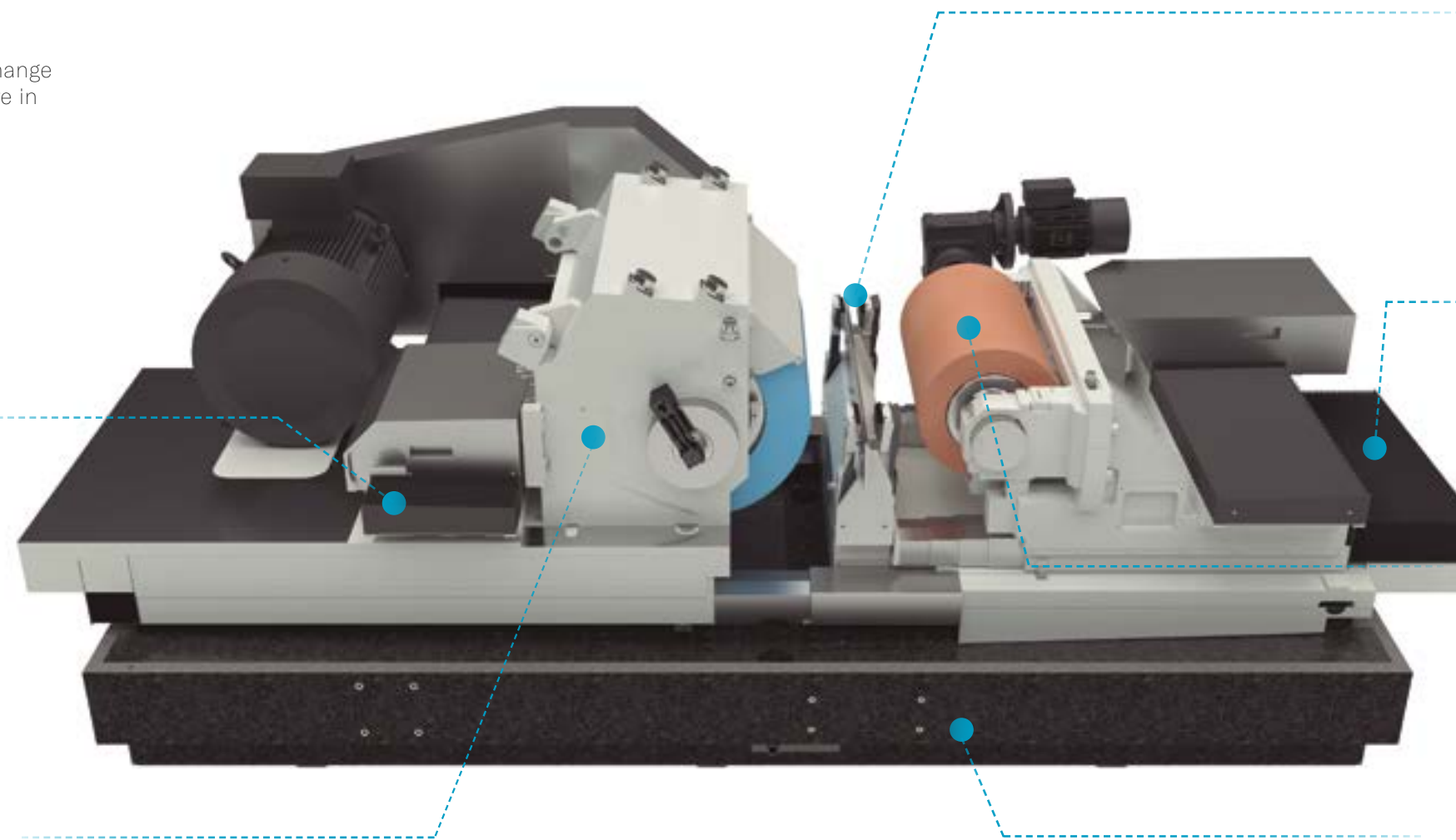
- Large diameter ballscrew
- No wear in the mechanical transmission of the axes movements, maintenance requirements are minimal

Best productivity

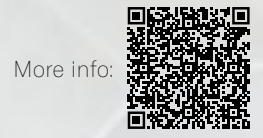
Stiff and stable machine with wheel widths up to 25.59 in. and reduced dressing times. Designed to optimize productivity.

Best process stability

Natural granite bed for the best vibration damping, stiffness and thermal stability, oversized ball screws... All designed to guarantee the best accuracy, with minimum maintenance over the life of the machine.



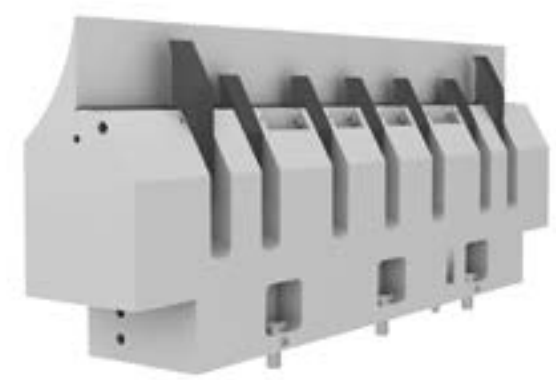
Rapid component changeover



Automatic wheel guard

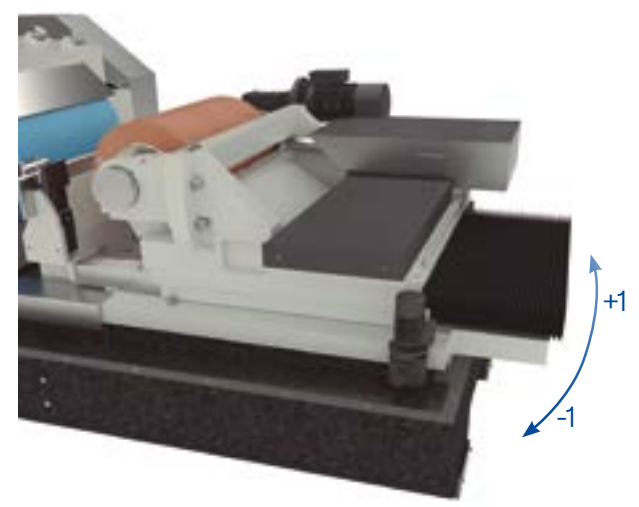
The cover of the twin grip wheel spindle opens and closes automatically, thus reducing wheel changeover times considerably.

No mechanical operator intervention is required to maximise process safety.



Automatic workrest blade clamping

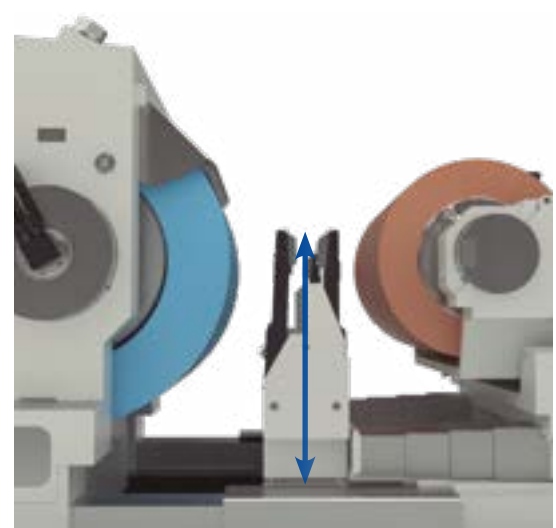
All you need to worry about is taking the workpiece blade on and off. Everything else is automatic and easy-to-use.



Automatic taper adjustment

The taper of the regulating wheel can be adjusted via machine control, thus eliminating mechanical operator intervention.

Fully automatic taper correction possible with integrated post-process diameter measuring unit.



Automatic workrest blade height positioning

This option enables the operator to automatically adjust the height of the workrest blade via operator control interface, eliminating time-consuming mechanical adjustments.

An electrical system is used for adjustment, to minimize power consumption and maintenance.

Innovative solutions

Automated solutions

Centerless grinding - Infeed

Gantry



M Motion
Gantry integrated in the machine



Centerless grinding - Throughfeed



Loading systems



Unloading systems



Robots



L Flexmotion
Robot outside the machine



Customization: Turnkey solutions

Our wide experience allows us to develop tailor-made solutions for special requirements turning ideas into real products.



Innovative solutions

Applications

Automotive & E-mobility



Hydraulics



Cutting tools



Yellow goods



Bearings



Aerospace





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