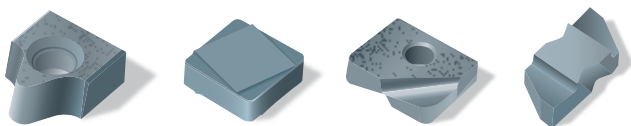


Evo Penta

Unmatched productivity and flexibility for complex geometries



High-precision 5-axis grinding center for the machining of indexable inserts with complex geometries



AGATHON
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The Evo Penta concept

Basic machine

- Proven design with good accessibility
- Extended travel ranges and swivel angles for the production of complex geometries without re-clamping
- Proven Penta Workpiece spindle head
- Direct drives with optimized performance for the X, Y and C axes
- Internal and external dressing devices can be combined
- Grinding wheel diameter 400 mm
- Grinding area separated from handling area
- Two trays in the work area for separation of blank and finished parts

Options (selection)

- Electro-erosion conditioning process (PowerGrind)
- Robust U-axis for in-process cleaning, sharpening and profiling
- 2D force measurement system for normal and tangential forces for the process definition, optimization and control
- Extensive possibilities for Connectivity and Data Management
- Vision system for parts alignment and spot recognition

The outstanding advantages of the Evo Penta

Low cost per workpiece

- Shorter grinding times thanks to very high material removal rates
- Short transfers due to agile handling and internal dressing
- Complete machining without re-clamping
- Standardized, compatible Agathon tools
- Fast product change due to offline programming and graphic simulation
- Up to 50% cycle time reduction with PowerGrind
- Low-maintenance components

Flexibility (materials, process, geometries)

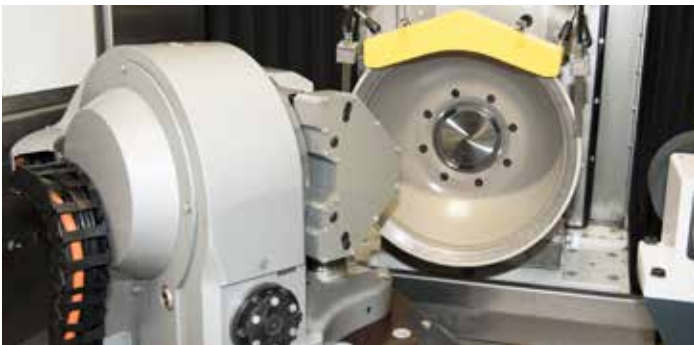
- Extended swivel angles and travel ranges for significantly more geometries
- K-Lands on both sides without re-clamping
- 5 axis for wide range of workpieces and geometries
- Free combination of various dressing methods
- Largest possible range of applications from IC 3.96 mm to OD 50mm
- Suited for all common indexable insert materials

Maximum availability

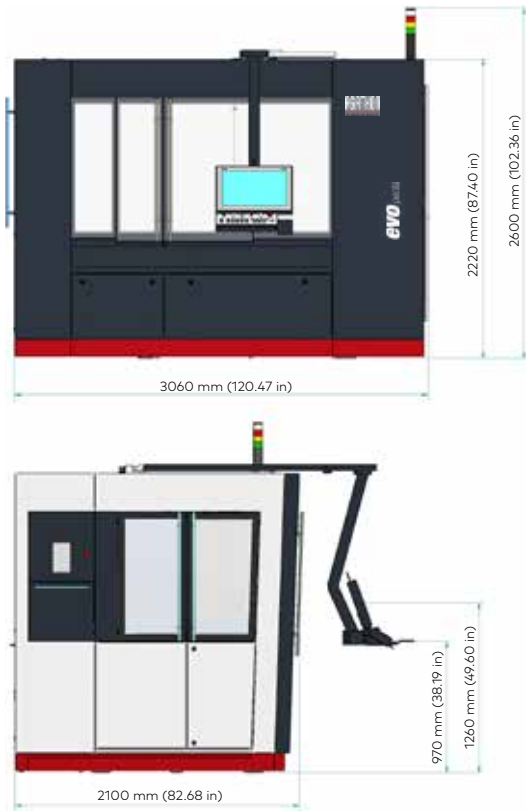
- High autonomy with storage for up to 16 trays
- State-of-the-art, low-maintenance drives
- Short changeover/set-up times
- Designed and manufactured in Switzerland
- Fast, competent and efficient teleservice and on-site field service

Ease of use

- Workpiece spindle head close to machine front for better access
- Consistent Agathon operating philosophy and software
- Unique, domain-specific programming language for indexable inserts
- Simple Re-teach
- Proven, perfectly integrated automation
- Comprehensive training program for programming, operation and maintenance



The Evo Penta at a glance



Technical Data Evo Penta

| | |
|-----------------------------------|---|
| Number of pallets | max. 16 |
| Grinding cup Ø | 400 mm |
| Dimensions (LxWxH) | 3.06 m x 2.10 m x 2.22 m (with lamp 2.60 m) |
| Weight | 6500 kg |
| Swiveling range of C axis | -140° to +140° |
| OD IC | max. 50 mm min. 3.96 mm |
| Workpiece - Clamping dist. | 29 mm |
| Materials | Carbide, Cermet, Ceramics, CBN, PCD |

The service spectrum



We make the difference

- Responsive teleservice providing worldwide, real time support directly on the machine
- Competent on-site service by our experienced service engineers
- Training covering operating, programming and maintenance of the machines, performed by our specialists
- Our application specialists will assist you regarding grinding processes and programming

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Agathon AG
Gurzelenstrasse 1 | 4512 Bellach | Switzerland
Phone +41 32 617 45 00 | Fax +41 32 617 47 00
insert@agathon.ch | www.agathon.ch