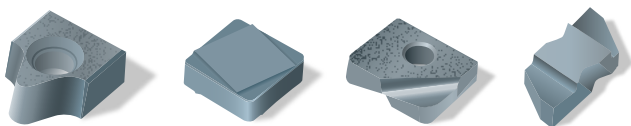


Evo Penta

Unmatched productivity and flexibility for complex geometries



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



AGATHON

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)

- Clamping systems: B1, B3, HSK E25
- 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



The outstanding advantages of the Evo Penta

Low cost per workpiece

- Very high machine rigidity
- 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

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 utilization

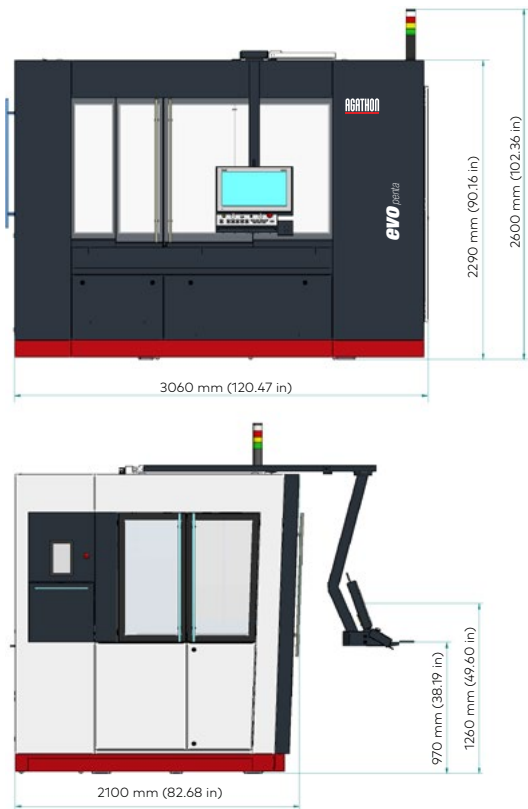
- High autonomy with storage for up to 16 trays
- State-of-the-art, low-maintenance drives
- Short changeover/set-up times
- Developed and manufactured in Switzerland
- Fast, competent and efficient teleservice and on-site field service
- Low-maintenance components

Ease of use

- Excellent access to workpiece spindle head
- Consistent Agathon operating philosophy and software
- Unique, domain-specific programming language for indexable inserts
- Proven, perfectly integrated automation
- Simple re-teach of robot
- 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 (WxDxH)	3.06 m x 2.10 m x 2.29 m
Weight	5800 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



sales@agathon.ch | www.agathon.ch