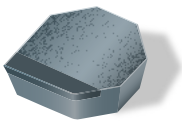
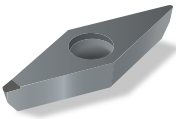
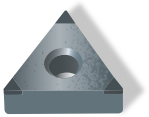
Neo

Fast and efficient processing of superhard materials

Superhard materials can be autonomously pre-processed with the laser. Also available without automation







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The Neo concept

Tools made of superhard matrials, in particular indexable inserts with superhard tips (PCD, pCBN etc.) are lasered near to the final dimension and finally processed on the grinding machine. Compared to grinding, the Neo laser has an approximately 100 times higher removal rate when processing superhard materials.

Features

- Ideal combination of tremendous machining speed and perfect surface quality
- The combined process of laser processing and grinding is faster than other established processes
- Considerably reduced costs for consumables when grinding the superhard material tips
- Reasonable investment costs for laser processing
- The Neo is extremely compact with a footprint of about 1 m^2 (with automation unit around 2 m^2)

Option

- Clamping system HSK E25

Unmatched advantages – greater benefits

Highly productive and matched to one another

- The machine concept ensures efficient laser processing and can be combined with tried and tested automation
- Significantly faster processing of carbide inserts with superhard tips (pCBN, PCD)
- Reduction of the effective processing time up to 40%
- Handling, handling tools, attachments and HMI are industrial Agathon standard

Set-up and operation made simple

- Easy to use without prior knowledge in laser processing
- Short set-up and changeover times due to intuitive HMI and functional hand-held terminal
- Easy programming with largely standardized Agathon user experience
- Outstanding accessibility for easy loading and unloading as well as maintenance

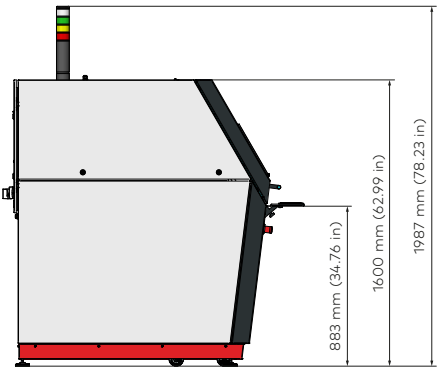
High autonomy and outstanding results

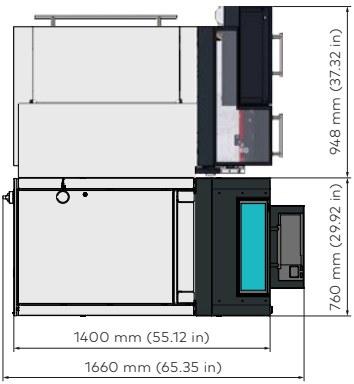
- High production autonomy through efficient automation which can be fitted with up to two trays
- After processing, the workpieces can be stored in the initial tray as well as in the alternative tray
- Optimized for high thermal stability and thus for a stable production environment and perfect quality of parts
- High production reliability thanks to its industrial laser source

Compact and flexible

- Neo with the automation unit together require just about 2 m^2 of floor space
- Only power and pneumatic connections (with automation) are required for the operation
- The Neo concept integrates itself perfectly into today's production environment
- The automation unit can be attached at a later time

Neo at a glance





Technical Data	
Axes	
Machine	3 mechanical axes (Z, A, B) 3 optical axes (X, Y, Z)
Automation unit	6 mechanical axes
Application	periphery, clearance angle, chip breakers and laser marking
Dimensions (L x B x H)	
Machine	1.40 m x 0.76 m x 1.60 m
Automation unit	1.47 m x 0.91 m x 1.60 m
Weight	600 kg | without automation 1200 kg | with automation
Clamping device	B3 clamping device, W25 clamping chuck
Suction device	integrated
Cooling unit	integrated
Number of trays	2
Type of trays	All current trays

Automatic or manual – you have the choice

Advantages and benefits of automation

Reduction in operator requirements allows for optimal use of personnel shifts	• Reduced part costs for larger batch sizes • The productivity of the machine is greatly increased
Less demanding activities (loading and unloading) are performed by the machine	• Improved manufacturing environment and operator experience

Advantages and benefits of manual use

Extremely low investment costs	• Reduced part costs for small batch sizes • Cost-effective elimination of bottlenecks in the existing process chain
Minimal footprint with easy mobility	• Ideal for small manufacturing environments

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