

Knowledge |
Sharing Centre

Manufacturing Technology Conference 2023

 **DYMATO**
◀ CNC TECHNOLOGIE ▶

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HIGH TECH IS OUR BUSINESS.

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Precision Machining by Milling and Grinding for all Materials including Glass and Ceramics

Dr.-Ing. Oliver Gossel

Machine tool

- > Machines for
 - > high accuracies,
 - > high surface finish,
 - > short machining times
- > Equipped for (almost) all materials
- > In combination with the opportunity of a complete machining (roughing, finishing, drilling, measuring – milling, grinding)
- > Additional automation for highest profitability

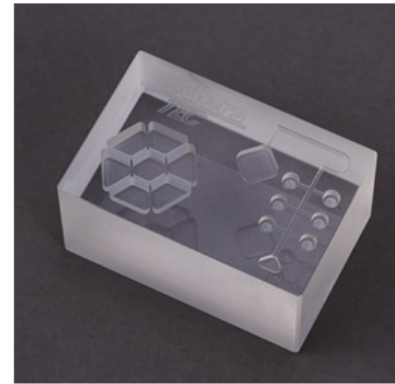


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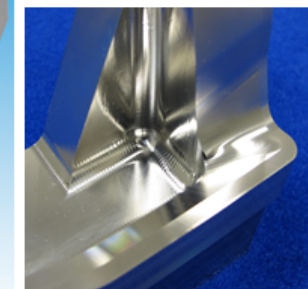
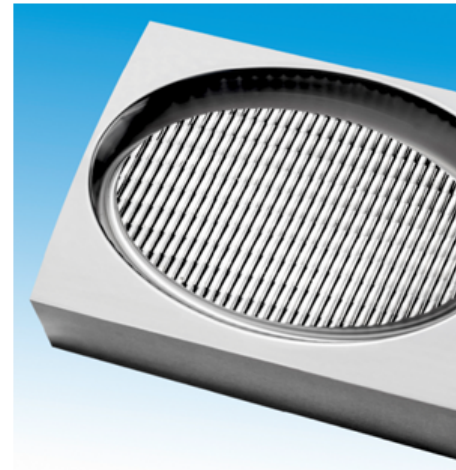


Application

- > Grinding & Milling
- > Machining of
 - > metals like steel (soft & hardened), copper,
 - > ceramics (presintered & sintered) and
 - > glass
- > Highest accuracies and surface finish
- > In one setup? In one machine?
- > Challenge
 - > Deal with different materials/chips
 - > Accuracy & surface finish

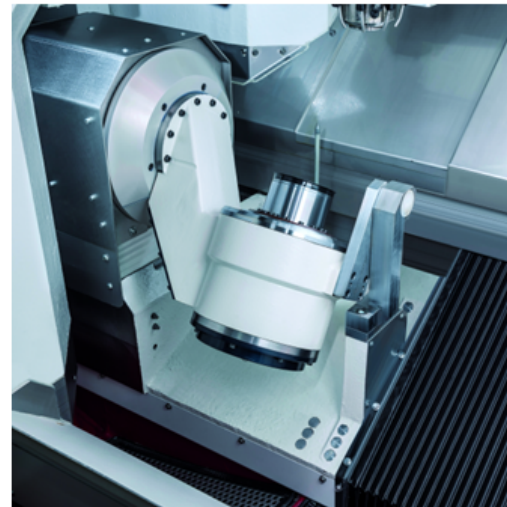


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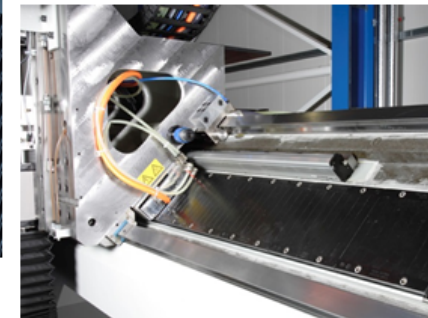


Precision

- > **Long time accuracy** due to
 - > Friction free direct drives
 - > Friction free equilibration
 - > Roller guides with highest rigidity
 - > Portal design
 - > Counter bearing for A-axis
 - > Precision HSC-spindle
 - > Precise tool measurement
 - > Temperature management
- > **Dynamic and accuracy** by
 - > Own control and drive technology
 - > 32kHz regulation (RACECUT)
 - > Path- and speed planning



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Grinding & Milling

- > Same requirement on accuracy and dynamic
- > Higher thermal load with chop grinding
 - > additional tempering necessary
- > Additional equipment necessary for grinding, depending on application
 - > AE sensor
 - > Dressing spindle
 - > Machining with oil including safety package
- > Automatic change between grinding and milling is possible
- > Automation of exchange of workpiece possible



Thank you for your attention

Knowledge
Sharing Centre

Open platform for knowledge sharing with first members:

ASML

ThermoFisher
SCIENTIFIC

hi holland
innovative

MIKRO
CENTRUM
at the heart
of hightech

INNOVOX & Partners
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