

# ceramill motion 2



Totally in-house.

  
AMANN GIRRBACH







Made with Ceramill Motion



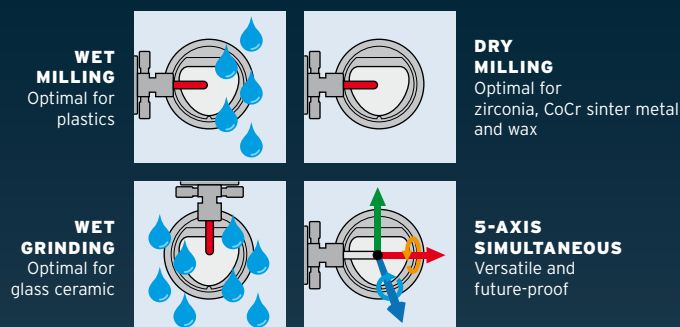
# ceramill motion 2 5X

## 5-axis wet and dry milling - compact, versatile and future-proof

With the Ceramill Motion 2 it will be possible to retain the value creation chain of prosthetic and framework digital fabrication almost entirely in-house - for any size of laboratory.

Ceramill Motion 2 combines the 5-axis milling technique (wet/dry) with the wet-grinding technique in a compact machine.

The machine can be used not only as a purely dry or wet system, but can also be operated in the wet and dry combination mode. In the combination mode operation can be easily changed between milling and grinding mode (by exchanging the blank holder).



### Highlights of the Ceramill Motion 2:

- \_Hybrid design, choice of wet or dry operation in one machine
- \_5-axis milling and grinding technique for full indication range
- \_Convincing amortisation
- \_Future-proof machine concept for new indications (e.g. models, full-denture prosthetics, splints...)

- \_Optimum material-specific processing combination consisting of wet/dry/milling/grinding
- \_Extremely compact design (small installation space, fits in any type of laboratory)
- \_Can be used with open CAD/CAM systems (3Shape®, Dental Wings®)
- \_Modular and upgradable with other material blank holders (e.g. for processing glass ceramic)
- \_Tool holder with automatic tool changer
- \_Automatic tool length measurement and broken tool detection
- \_Also ideal for practice laboratories (grinding technique inlays, onlays, etc)



# ceramill motion 2 5X

**Tool length measurer**  
incl. broken tool detection  
and calibration

**Blank holder**  
exchangeable, according to  
material or indication

**6 tool places**  
with automatic  
tool changer

**Speed boost**  
highly optimised milling and grinding  
paths for short processing times

**Conversion of the blank holder**  
in only a few simple steps

**Jäger® high frequency spindle**  
extremely robust and precise

**Wet / Dry operation**  
conversion in only a few simple steps

**Suction cup**  
for increased suction power and  
reduction of the water spray



Easy exchange of the blank holder for changing  
from milling to grinding.



5-axis operation (including simultaneous) with  
sufficiently large rotation path for future indications  
(models, full-denture prosthetics etc.)



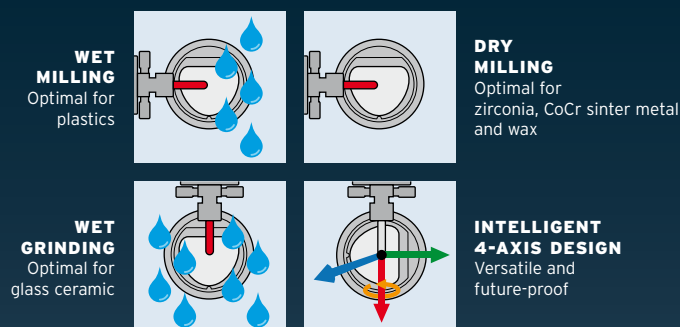
Ceramill Coolstream - coolant lubricant preparation  
integrated in the trolley supports the Motion 2 and  
can also incorporate the Airstream extraction for  
dry processing.

# ceramill motion 2 4X

Compact, versatile and with wet grinding function - everything you need in your daily routine.

The Motion 2 machine concept has been successfully on the market since 2012. The Ceramill Motion 2 entry-level version combines the processing modes milling (wet/dry) and grinding (wet) in a compact machine and so also belongs to the second generation of Ceramill Motion milling machines.

The combined wet/dry modes of the new entry-level model provide many more options than 4-axis machines currently on the market. Using the wet mode it is also possible to machine glass-ceramics and new polymer resins or infiltrated glass-ceramic etc.



## Highlights of the Ceramill Motion 2:

- \_ Intelligent 4-axis processing also reaches undercut areas
- \_ Diverse materials can be machined due to the choice of wet/dry machining (zirconia, CoCr, resin, wax, glass-ceramic, lithium disilicate etc.)
- \_ Compact dimensions and industrial, durable machine concept
- \_ Material-appropriate processing of a wide range of materials by milling or grinding
- \_ Rigid, torsion-resistant machine design
- \_ Industrial, high-tech components, designed to greatly exceed the load-bearing capacity for dental applications (Jäger spindle, high-end axis guidance)
- \_ Extensive range of indications: inlays/onlays, crown and bridge frameworks, crowns and bridges anatomically reduced and fully anatomical, telescope crowns, custom abutments
- \_ Network and server enabled for central data access & back-up with several machines in the laboratory (Ceramill Mindserve)





# ceramill motion 2 4X

**Presence sensor**  
for milling tools

**Tool length measurer**  
incl. broken tool detection  
and calibration

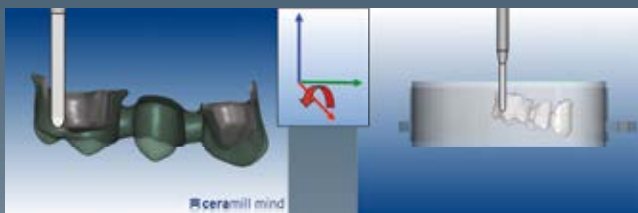
**Tool magazine**  
with automatic tool changer

**Blank holder**

**Jäger® high frequency spindle**  
extremely robust and precise

**Interior lighting**  
for visual control of milling

**Connection for extraction protects  
the internal mechanism against  
contamination**  
Optimal for use with the Ceramill  
Airstream, but can also be used for  
central extraction



Engage the 4th axis to any position



Milling of undercuts possible

# ceramill motion 2

## CNC ≠ CNC. 35 years of experience in machine construction – compressed for dental technology.

Though the Ceramill Motion 2 is unrivalled in terms of material and indication diversity, the quality of a CNC system is not only defined by the details of its features and diversity from a dental technology perspective. Decisive for the long-term precision and stability of a CNC machine are the constructive design itself and reduction of the moving parts to a minimum. The more compact and sturdy the design the longer the machine will run smoothly while maintaining the necessary precision.

Apart from an intelligent design, it is crucial to have high-quality components (spindle, axis guidance), with a load-bearing capacity greatly exceeding the limit, regardless of the material to be processed.

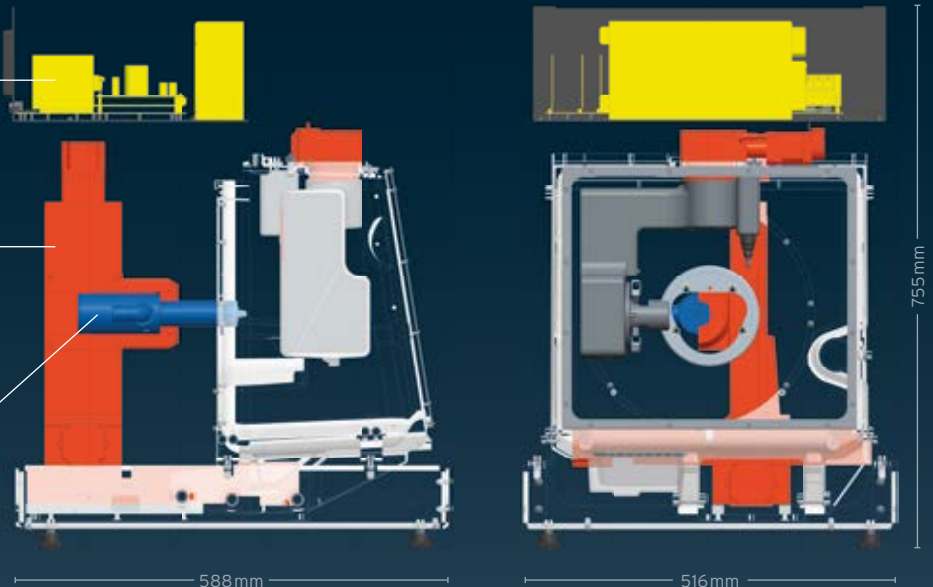
Control unit - installed in the upper section of the chassis / for optimal protection of all electronic components during wet processing





Industrial CNC guidance unit - highly precise, torsion resistant / designed with minimal moveable parts



Highly precise, durable Jäger spindle with a concentricity of < 0.004 mm  
[www.alfredjaeger.de](http://www.alfredjaeger.de)

Very compact machine design  
D/W/H: 588 x 516 x 755 mm  
\_ Width comparable to a 24" monitor  
\_ Fits in any workstation (depth adapted to conventional desk standards)



- \_Extremely compact design (small floor space requirement, fits in any laboratory) 
- \_Highly precise, durable Jäger spindle with a concentricity of < 0.004 mm.  
[www.alfredjaeger.de](http://www.alfredjaeger.de) 
- \_Industrial precision axis guidance for mechanical sturdiness due to few moveable parts 
- \_Electronic components installed in the upper section of housing, protecting them against moisture penetration 
- \_Milling area is hermetically separated from the control unit to avoid long-term contamination with dust/moisture on electronic components
- \_Interior space is made from a surface-coated cast unit for maximum protection - comparable to industrial CNC machines
- \_Easy conversion from dry to wet mode in only a few simple steps
- \_Easy conversion of the different blank holders

### Technical data:

**Dimensions D/W/H:** 588 x 516 x 755 mm  
**Weight:** 78 kg  
**Electr. connected load:** 100-230V 50/60 Hz  
**Electrical fuse:** T3, 15A / T6, 3A  
**Power output:** 250 W  
**Motor speed:** 60000 rpm  
**Compressed air:** 6 bar / 50L/min.  
**Extraction:** prepared  
**Wet processing:** prepared  
**Torque:** 4 Ncm  
**Chuck diameter:** 3 mm  
**Noise level:** 60 dBA  
**Number of axes:** depending on Type 4 or 5





# ceramill motion 2

## Upgrade for VITABLOCS for Ceramill Motion 2 and lithium disilicate blanks

The Ceramill Motion 2 processes glass-ceramic and lithium disilicate blanks (e.g. VITABLOCS for Ceramill Motion 2 or IPS e-max) in the wet grinding mode reliably and precisely. The processing of glass-ceramic blanks has been optimally integrated in the machine concept and is supported both by the Ceramill Mind CAD software and the Ceramill Match 2 CAM software.

A special blank holder with integrated tool holder ensures high process reliability. Equipped with 3 controllable slots in direct sequence the blanks are processed efficiently.

It is possible to work without models using the interface to the iTero intraoral scanner.



Coming soon - **Vita Enamic®** for Ceramill Motion 2



**VITABLOCS Mark II & Triluxe forte** for Ceramill Motion 2



Starter kit glass-ceramic for Ceramill Motion 2

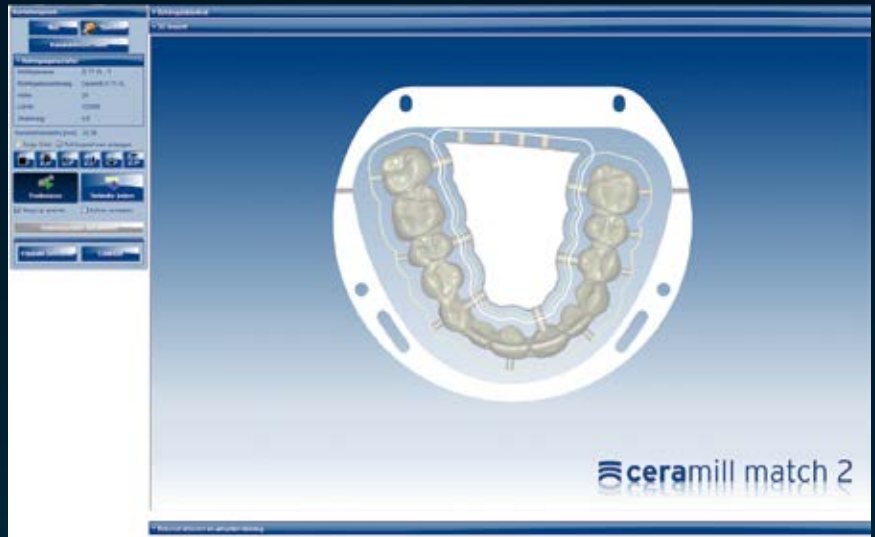


GCER Universal Bonding kit - for adhesive retention of glass-ceramic blanks or lithium disilicate blanks with the Amann Girrbach holder

# ceramill match 2

## Inhouse milling with premium performance, usability and precision

The automatic operator guidance and the transparent user interface of the Ceramill Match 2 CAM software form the basis for a reliable and easy operation. No CAM or milling know-how is required to use it. Even users with little experience may quickly and easily establish the milling programs to manufacture crowns and bridge frameworks. An elaborated collision control (and evasion) of Ceramill Match® ensures a high degree of process reliability.



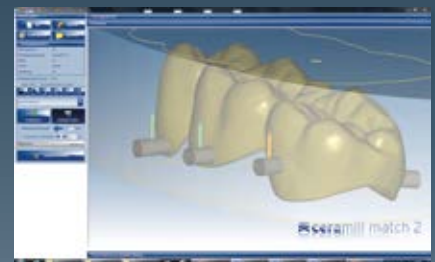
- \_ Quick and practical nesting of the design in the blank
- \_ Simplified handling with a focus on the essential elements for use in the dental laboratory
- \_ Easy positioning and alignment of designs in the blank
- \_ Easy adjustment of the position, size and alignment of connectors
- \_ Nesting for different shapes of blank (size 71 and glass-ceramic)
- \_ Quick calculation of the milling path
- \_ Sinter support block for long-span zirconia restorations
- \_ Quick milling times for excellent surface quality of the milling result



Processing of VITABLOCS TriLux forte with rendered representation of the shade gradient



Calculation process with sinter support block



Easy positioning of the connector posts on the designs

# ceramill motion 2

## The correct solution for all

To utilise a dental CAM machine in the laboratory to its full capacity it is important to choose a system with a suitable range of functions, which optimally covers the individual requirements of the laboratory - no more and no less.

Group of materials/indications	Material *	Availability	Motion 2/5-axes version		Motion 2/4-axes version	
			Dry modus	Wet modus	Dry modus	Wet modus
Crowns and bridges, abutments	Ceramill ZI - Zirconia	available	+++	+	+++	+
Multi-unit, screw-retained restorations on titanium bases	Ceramill ZI - Zirconia	available	+++	+	---	---
Crowns and bridges, abutments	Ceramill Zolid - Translucent zirconia	available	+++	+	+++	+
Multi-unit, screw-retained restorations on titanium bases	Ceramill Zolid - Translucent zirconia	available	+++	+	---	---
Crowns and bridges, abutments	Ceramill Sintron® - CoCr sinter metal	available	+++	---	+++	---
Multi-unit, screw-retained restorations on titanium bases	Ceramill Sintron® - CoCr sinter metal	available	+++	+	---	---
Crowns and bridges, abutments	Ceramill WAX - milling wax	available	+++	+	+++	+
Multi-unit, screw-retained restorations on titanium bases	Ceramill WAX - milling wax	available	+++	+	---	---
Crowns and bridges	Ceramill PMMA - acrylic which burns out without residue	available	+	+++	+	+++
Crowns and bridges	Ceramill TEMP - dyed PMMA	available	+	+++	+	+++
Multi-unit, screw-retained restorations on titanium bases	Ceramill TEMP - dyed PMMA	available	+++	+	---	---
Crowns and bridges, inlays, onlays, veneers	Glass ceramic Vita Mark II - Vitablocs	available	---	+++	---	+++
Crowns and bridges, inlays, onlays, veneers	Glass ceramic general and lithium disilicate	available	---	+++	---	+++
Crowns and bridges, inlays, onlays, veneers	Hybrid ceramic	available 2013	---	+++	---	+++
Splints	PMMA biocompatible	available 2013	+	+++	---	---
Crowns and bridges	New type of polymer plastics	in development	---	+++	---	+++
Models	Model plastic	in development	+++	+++	---	---
Full-denture prosthetics	New denture acrylic (PMMA optimised)	in development	+	+++	---	---

\* referring to the product range of Amann Girrbach

+++ = very good | + = possible | --- = not possible



## Order Informations

179280 Ceramill Motion 2/4-axes version

179250 Ceramill Motion 2/5-axes version

178630 Ceramill Coolstream

**Delivery volume:** coolant lubricant container; connector for supply and outlet of the coolant lubricant; product analysis







**Ceramill Motion 2 -**  
experience online now!

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