Framework Management Digital





≅ cera mill map	≅cera mill mind	≅cera mill motion
≋cera mill m-plant	≅cera mill artex®	≅cera mill m-center



MODEL MANAGEMENT



Registration | Articulation

Model fabrication

Dosing | Mixing | Cleaning

DIGITAL



Outsource Digital Inhouse Digital

ANALOG Inhouse Manual

FRAMEWORK

MANAGEMENT









Looking for simplicity, precision and affordability? We understand your needs!

affordable prices



operation



FRAMEWORK MANAGEME	NT DIGITAL		
OVERVIEW		F 6	*
SYSTEM COMPONENTS	Ceramill Map100	F 12	
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≅ceramill mall

Ceramill Mall system components:

≈ceramill map100

The model scanner with a perfect price performance ratio







≈ceramill map300

The high performance model scanner with connection to articulator







ceramill artex®

The interface between manual and digital dental technology







_Economical introductory model

_Artex®CR synchable with virtual articulator

_Range of functions 1:1 to the actual Artex® CR

_Functional operation concept

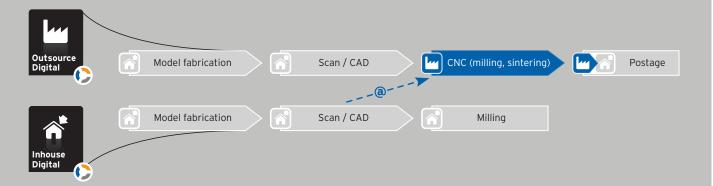
_Fully automatic scanning of bridges up to 14 units

_Perfect synchronisation between the actual and virtual articulator

_Bite registration, gingiva and wax-up scans possible with ease

_Unlimited indication width

_Software-based 1:1 visualisation of the Artex® CR (incl. excursion simulation)



≋ceramill mind

The brain of the system: The construction software



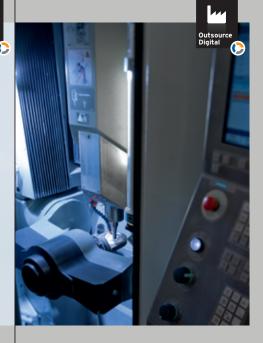
Manageable, versatile and accurate: The CAM milling machine

≋ceramill m-center

Reliable and precise: The milling center







_Economizing time through intuitive dental technical workflow

_Amortisation in record time

_Completion of indication range without additional investment and stock keeping

_Large functional scope

_Wide spectrum of indications regarding materials and size

_Quicker through-put times with high quality & precision

_Automatic preparation margin recognition

_Comprehensive indication range

_Superior CNC technology for high productivity

_Safer and simpler flow of work



≅outsource digital

In-house construction, external milling



METHOD �





Ceramill Cockpit: digital control panel for the overall Ceramill production process, selection of indication mode.



Scanning of the model via high precision strip-light projection.



- 1 Automatic recognition of the preparation margin.
- 2 Calculation of the anatomically reduced framework based on the full anatomic construction.



At the click of a button the saved construction data are sent to the Ceramill M-Center.



After the data input control, the construction is assigned, according to Material, to the designated manufacturing technique and the production process is calculated.



The construction is then produced either by milling with a CNC milling machine or using the laser melting technique.



After the quality control the framework is packaged and dispatched.

SYSTEMS **S** AND PRODUCTS **>**

≈ceramill map100





- _Low-cost entry due to partially automatic features as opposed to fully automatic _Easy re-scanning possible
- _Main application: Small pieces of work (up to 6 units, larger pieces of work are also possible)



≈ceramill map300

F | 13

_Fully automatic scanner, also registers bridges up to 14 units quickly and easily _Compatible with the virtual articulator Ceramill Artex® CR for automatic, full anatomical framework design.



≈ceramill mind

i F | 14

- _Accurate and quick recognition of the preparation margin
- _Intuitive dental technical work-flow which provides easy operation



≅ceramill zi units

1 F | 25

_Zirconium oxide milled and sintered in the Ceramill M-Center



≈ceramill np units

1 F|25

_CoCr bridges produced using laser-melting techniques in the Ceramill M-Center



i KH 40

Digital instructions, videos, forums and much more training material on AG methods.

≋inhouse digital



METHOD �





Ceramill Cockpit: digital control panel for the overall Ceramill production process, selection of indication mode.



Scanning of the model via high precision strip-light projection.



- Automatic recognition of the preparation margin.
- 2 Calculation of the anatomically reduced framework based on the full anatomic construction.



Placing the construction in the desired blank, adaptation of bars and calculation of milling paths.



Milling the construction in the milling machine Ceramill Motion



Stained and sintered bridge

SYSTEMS AND PRODUCTS ✓



≈ceramill map100



- _Low-cost entry due to partially automatic features as opposed to fully automatic _Easy re-scanning possible
- _Main application: Small pieces of work (up to 6 units, larger pieces of work are also possible)



≈ceramill map300

_Fully automatic scanner, also registers bridges up to 14 units quickly and easily _Compatible with the virtual articulator Artex® CR for automatic, full anatomical framework design.



≅ceramill mind



- _Accurate and quick recognition of the preparation margin
- _Intuitive dental technical work-flow which provides easy operation



≋ceramill match

i F 24

_Quick and easy positioning of the units in the blank - efficient use of the blank



≈ceramill motion

i F 22

- _For dry finishing zirconium oxide and acrylic
- _Mills up to 14 unit bridges
- _Optimised milling process, lower milling times, high productivity



i KH|40

Digital instructions, videos, forums and much more training material on AG methods.

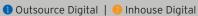




≅ceramill material

Overview of the wide range of materials and applications covered by Ceramill Mall:

Ceramill Framework units:	The most important features at a glance:	The most important indications:	
Ceramill ZI units (zirconium oxide)	_ High strength, rigidity, and biocompatibility _On request tooth coloured framework by staining _ Conventional and adhesive fixation	_Crowns and bridges in the anterior and posterior region _Telescope and conical crowns _Abutments and attachments	000000
Ceramill COMP units (Composite)	_ Nano composite _ High flexural strength _ Metal-free _ Ready-made material from industrial production	_Permanent prostheses: up to 3 unit briges _Suitable for veneer bonding Approved for up to: 14-unit bridges, 3 pontics	
Ceramill TEMP units (dyed PMMA)	_Dyed resin _Industrially pre-fabricated material	_Temporary appliances _2 intermediate elements _Suitable for veneer bonding	
Ceramill PMMA units (acrylic which burns out without residue	_Transparent acrylic _Burns out without leaving a residue _Industrially pre-fabricated material	_Framework for intraoral try-in _Framework for casting technique and press-on technique	
Ceramill WAX units	_Burns out without leaving a residue _Industrially pre-fabricated material	_Framework for casting technique and press-on technique	







Ceramill	Framework
unite	

The most important features at a glance:

The most important indications:

Ceramill GCER LS 2 units

(glass ceramic)



_High aesthetics

- _High strength
- _Industrially pre-fabricated material
- For conventional and adhesive fixation

_Inlays, Onlays, Veneers _Single crowns



Ceramill NP L units (CoCr - Lasergesintert)



_High strength, rigidity

- _Complex frameworks possible
- _Beryllium and nickel-free
- _For veneering with conventional metal bonding porcelains
- _Crowns and bridges in the anterior and posterior region
- _Telescope and conical crowns
- _Approved as a framework for veneering up to 7 units



Ceramill NP M units (CoCr - Gefräst)



_High strength, rigidity

- _Complex frameworks possible
- _Beryllium and nickel-free
- _For veneering with conventional metal bonding porcelains
- _Crowns and bridges in the anterior and posterior region
- _Telescope and conical crowns
- _Frameworks for veneering or fully anatomical



Ceramill TI alloy units (TiAINb)



_High strength, rigidity, and biocompatibility

- _Homogenous structure
- _Industrially pre-fabricated material, no casting defects
- _Crowns and bridges in the anterior and posterior region
- _Telescope and conical crowns
- _Individual abutments on titanium bases

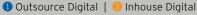


Ceramill TI units (Grade 2)



- _High strength, rigidity, and biocompatibility
- _Homogenous structure
- _Industrially pre-fabricated material, no casting defects
- _Crowns and bridges in the anterior and posterior region
- _Telescope and conical crowns
- _Individual abutments on titanium bases













≅ceramill map100

The part-automatic entry-level scanner uncompromising scanning quality

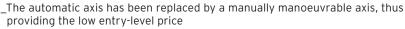
All scanners in the Ceramill Map range are characterised by their high resolution data, which is generated by the strip light projection. Highly sensitive 3D sensors ensure of highly accurate images of the model ($< 20 \mu m$).

Another standard quality is the functional range of the background software: Apart from scanning the model, it is also capable of scanning the bite registrations, gingiva and wax-ups.

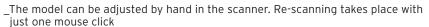
The low-cost basic scanner Ceramill Map100 is ideally equipped for 90% of all prosthetic restorations (6 units). Larger restorations are also possible.

The scanning field comprises 50x36x40 mm. The model is positioned by hand. The end position can be checked live on the monitor.









- _The model, the live image on the monitor and the constructed scan all move synchronously so that the missing areas can be directly re-scanned
- _Scanning can take place while the door is open due to the strip light projection
- Main application: 1-6 unit bridges, 14 unit bridges also possible
- Bite registration, gingiva and wax-up scan possible for optimised framework fabrication
- _The scanner comes with an open interface, scans (stl-files) can also be downloaded into other CAD software



The model can be adjusted in the scanner by hand. Side effect: Waiting times during the scanning process



When the model is turned in the scanner, the live image and the scan also turn automatically on the monitor.



Scan and live image - easy re-scanning via mouse-click or button on the scanner.









≈ceramill map300

The fully automatic scanner - uncompromising quality and handling

Apart from the same qualities as the Map100, the Ceramill Map300 is particularly characterised by its ease of use.

The scan field is identified and assessed automatically, which means that large spanned bridge frameworks can be quickly and efficiently documented.

Articulated models can also be easily processed by this type - one of the prerequisites when the" virtual articulator" comes into action with the construction software.



_The fully automatic strip light scanner scans up to 14 unit bridges quickly and easily



_Bite registration, situation model, gingiva and wax-up-scan possible for optimal framework fabrication

_Automatic user-guidance through the scan programme for easy and safe operation

_The scanner comes with an open interface, scans (stl-files) can also be downloaded into other CAD sortware



Articulated models in the Ceramill Fixator and Artex® CR. The models were synchronised using the Splitex® key.



Ceramill Fixator with articulated model in the Ceramill Map300 (Symbol illustration of the Ceramill Fixator)



Ceramill Map300 with model in the Ceramill Fixator - for lossless transfer of the model situation.









≅ceramill mind

The intelligent Construction Software - The "spirit" of framework fabrication

A software which is designed to follow the dental technical work-flow is the main prerequisite for the greatest possible acceptance of a digital medium. The CAD software Ceramill Mind was developed in close collaboration with dental technicians - and its further development is confirmed. Its contents leave nothing to be desired: Precise recognition of the prepared margin, automatic bridge and connector design, tooth library compilation and the open system structure are just some of the highlights.



- Large indication spectrum (fully anatomical and anatomically reduced crowns and bridges, inlays/onlays, reducing wax-ups, press-over, telescopes, virtual articulator)

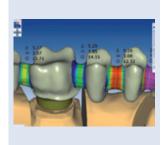
- _Simultaneous designing in the upper and lower jaw
- Library teeth automatically adapt to the scanned diagnostic model
- _Automatic defining of the preparation margins
- _Intuitive dental technical work-flow for comfortable and reliable use
- _The virtual articulator simulates the mandibular excursions and automatically constructs a full anatomical framework proposal, according to the **dynamic** occlusion, therefore reducing the necessity to grind the surfaces after milling
- _The order button integrated in the programme makes sending the construction data simple
- _Open for every type of construction data (File type: stl), increases flexibility

(i) COURSES

Please also note our course offers on this subject on Page 37



14-unit bridges with 5 individual abutments



Automatic display of the connector dimensions



Automatic adaptation of the library teeth to the teeth of the scanned diagnostic model









Eceramill artex®

Virtual Artex® CR as Upgrade for Ceramill Map300 and Ceramill Mind. The functional interface between manual and digital prosthetic dentistry

With manual production of dental prosthesis working with the articulator is standard for dental laboratories. In order to achieve the same quality of the works virtually, it is only logical and consistent to enable this by means of a CAD-CAM system. The virtual articulator "Ceramill Artex" serves as a bridge between manual and digital techniques:

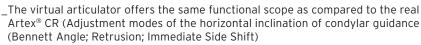
The model pair in the Artex articulator is transfered to the Map300-scanner while holding the same Artex mode by means of the Ceramill transferkit; it is subsequently scanned-in in the appropriate proportion.

The motion mode and free zones of the Artex® CR are thus brought into line on the same modes - digitally and manually.

Disturbing structures may already be removed thus reducing time-consuming grinding in the patient's mouth to a minimum.



_Fully visualised Artex® CR for a quick introduction to the digital world



- The transfer of the models by means of the Ceramill® Fixator ensures the precision at the functional interface between manual and digital techniques.
- _The calculation of the fully anatomical construction is dynamic and static under consideration of the antagonists and the adjusted values of the articulator.
- _Space for the porcelain built-up is automatically foreseen during the construction thus an optimal framework basis is established for veneers with high stability and a consistent layer thickness.



Demonstration video at www.amanngirrbach.com



Models in the Ceramill-Fixator



Models in the Ceramill fixator as a transfer interface in the Ceramill Map300



Adjustment modes at the virtual Artex® CR











Eceramill artex®

Step-by-Step

The Ceramill Artex® virtual articulator offers exactly the same setting options as the manual version (Artex® CR articulator). The articulator can be set in the same way as the original using a software mask. Adjustments to the articulator setting are completed onscreen and animated in real time on the Ceramill Artex®. This enables an immediate visual control of the settings and therefore makes the virtual articulator "functional".



A) Condyle actual Artex®CR



B) Condyle virtual (O degrees)



C) Condyle virtual (30 degrees)



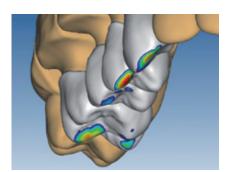
A) Artex®CR condyle in centric position viewed from below



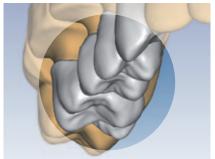
B) Virtual Artex® CR condyle in centric position as starting point for each excursion



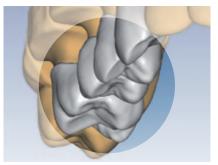
C) Artex®CR condyle in (animated in real time) lateral excursion



 A) The CAD design with visual marking of contact and penetration areas to the opposing model before use of the virtual articulator (calculation of the dynamics)



B) Ceramill Artex® in function - static reduction of the CAD design in the functional surfaces



C) The result of the dynamically automated operation of the Ceramill Artex®





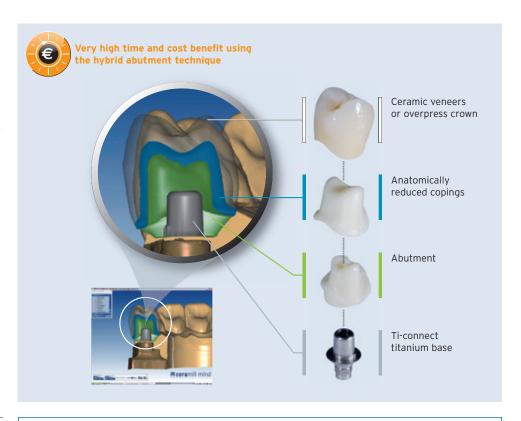




Abutment Module Upgrade for Ceramill Mind

Ceramill M-Plant is an upgrade module for the construction software Ceramill Mind and functions as a complement to construct individual hybrid abutments made from titanium and zirconium oxide.

With the adhesion of the titanium basis and the individual abutment the placement of a permanent and stable abutment in the implant is guaranteed.



Data software is available for the following implant systems:

Ceramill ti-connect for Nobel Biocare Replace Select®

Ceramill ti-connect for Nobel Biocare Nobel Active™

Ceramill ti-connect for Nobel Biocare Brånemark®

Ceramill ti-connect for Biomet 3i Osseotite® Certain®

Ceramill ti-connect for Biomet 3i Osseotite®

Ceramill ti-connect for Straumann® BoneLevel

Ceramill ti-connect for Straumann SynOcta®

Ceramill ti-connect for Zimmer Tapered Screw-Vent®

Ceramill ti-connect for Astra Tech OsseoSpeed®

Ceramill ti-connect for Dentsply-Friadent Frialit/Xive®

Ceramill ti-connect for Camlog

Ceramill ti-connect for Prowital

Ceramill ti-connect for Thommen Medical Construction of all components required for individualised implant prosthetics are possible in one step with this software: Abutment implant, anatomical framework, if necessary wax frameworks for the over press technique.



- _Using the hybrid technique (adhesive technique) a safe and durable fit of the abutment on the implant
- _Finishing of each individualised abutment using the Ceramill Motion or Ceramill M-Center
- _All produced from one source software and titanium bases are perfectly matched and compatible with one another for save processing
- _Construction can be started immediately, even when the Ti bases have not yet been received in the laboratory
- Emergence profile can be custom fitted to the gingiva
- _Ti-Connect Ti bases can also be used for Ceramill Base and Ceramill Multi-x
- _Biocompatible restoration, no black metal margins in the patient's mouth
- _Aesthetic advantages, the gingival emergence profile of the abutment can be customised for each case, perfect gingiva, perfect papillae after healing









4 steps to a finished customised abutment

1 Model preparation



Model with removable gingival mask and integrated laboratory implant.



Fit the scan body onto the laboratory implant.

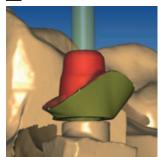
Note: Check that the scan body fits exactly and fix it in position using a screw. Recommended: order a separate screw extra for each scan body for fixing in position and subsequent adhesive retention.

2 Scanning



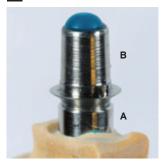
The model is scanned in the Ceramill Map100 or Map300 scanner. Simply follow the instructions of the software.

3 Designing



Designing the abutment using the Ceramill M-Plant software. The individual design steps are illustrated in the video tutorial on the homepage www.ceramill-m-center.com. The abutment can be fabricated in the Ceramill M-Center or using the Ceramill Motion.

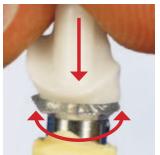
4 Adhesive retention



Protect the connection geometry of the titanium base (A) with separating agent and fix in position on the labor ratory implant using a screw.

Sandblast the adhesive surface of the base (B) and abutment using Al2O3 blasting medium 50 μ m at max. 2 bar. Clean the adhesive surfaces thoroughly. Seal the screw channel with wax. RelyX™ Unicem® (3M Espe), Panavia® F2.0 (Kuraray) or other similar luting materials are recommended for adhesive retention (use a metal primer, if necessary). Adhere to the

manufacturer's instructions.



Apply adhesive to the upper edge (B) of the titanium base.

Rotate the abutment when fitting it to the titanium base, to ensure distribution of the adhesive. Once resistance is felt, detect the final position by rotating the abutment.

The abutment must fit flush with the titanium base. Remove large amounts of adhesive residue immediately.



Remove the excess after the adhesive has cured using a silicone polisher. Remove the wax in the screw channel and clean the abutment together with the titanium base.



1 COURSE

Webinar available: Information can be found on Page 37

1 INFO

Comprehensive video tutorial with verbal instructions on www.m-center.com (only for registered customers)



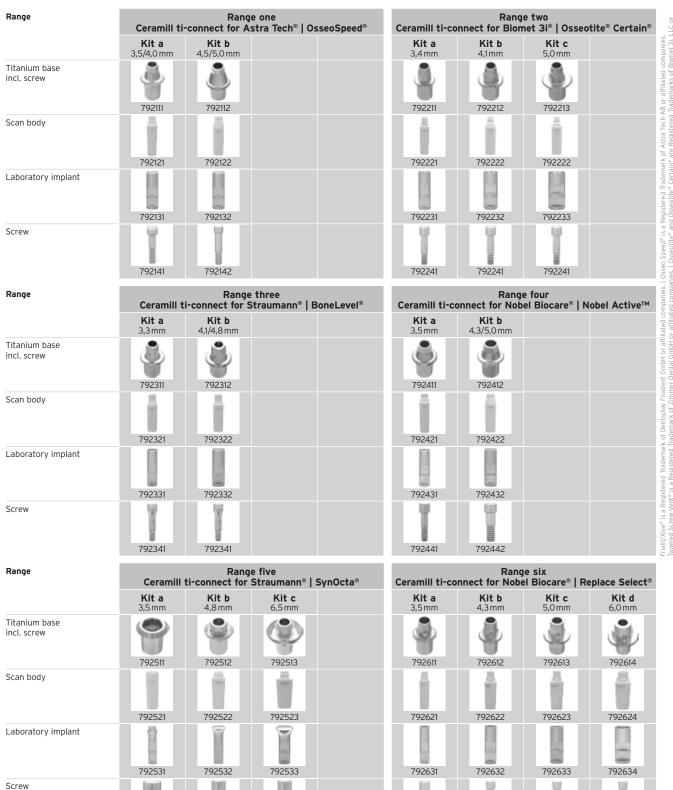






≅ceramill ti-connect

Titanium base for all conventional implant systems



Tapered Screw-Vent* is a Registered Trademark of Zimmer Dental GmbH or affiliated companies. | Osseotite* and Osseotite* Certain* are Registered Trademarks affiliated companies. | Nobe Markey and Replace Select* are Registered Trademarks of Nobel Biocare Management AG or affiliated companies. | BoneLevel* and Registered Trademarks of Strauman AG or affiliated companies.

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Range	Range seven Ceramill ti-connect for Biomet 3i Osseotite®			
	Kit a 3,4 mm	Kit b 4,1mm	Kit c 5,0 mm	
Titanium base incl. screw	9	9	9	
	792711	792712	792713	
Scan body	Î	Ì	Î	
	792721	792722	792722	
Laboratory implant		1		
	792731	792732	792733	
Screw	792741	792741	792741	



Range	Range nine Ceramill ti-connect for Zimmer Tapered Screw-Vent®			
	Kit a 3,5 mm	Kit b 4,5 mm	Kit c 5,7 mm	
Titanium base incl. screw	*	8	*	
	792911	792912	792913	
Scan body	Ì	Ì	l i l	
	792921	792922	792923	
Laboratory implant	Ŭ.			
	792931	792932	792933	
Screw				
	792941	792941	792941	

Ceramill ti-co	Range Innect for Dent	e ten sply Friadent	Frialit/Xive®
Kit a 3,4 mm	Kit b 3,8 mm	Kit c 4,5 mm	Kit d 5,5 mm
1		4	+
7921011	7921012	7921013	7921014
7921021	7921022	7921023	7921023
7921021	1921022	7 921023	1921023
7921031	7921032	7921033	7921034
7921041	7921041	7921041	7921041
1721041	1721041	1721041	1721041





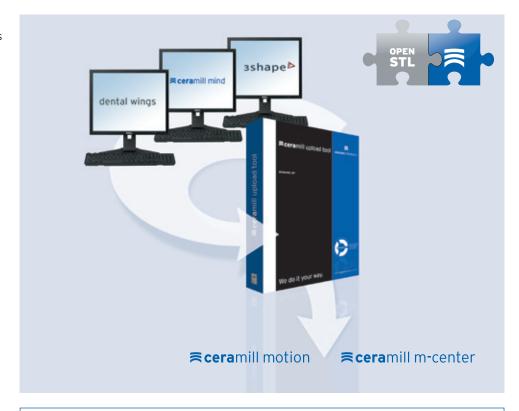




≅ceramill upload-tool

The convenient interface to the Ceramill Motion and Ceramill M-Center for 3-Shape and Dental Wings users

The "Ceramill Upload Tool" software module allows users of open scanners (3Shape®, Dental Wings®) to fabricated design data in their own laboratory using the Ceramill Motion milling machine or in the Ceramill M-Center manufacturing centre.



A requirement for this is the compatibility of external data.

Simply test in three easy stages whether your 3Shape or Dental Wings' scanner data is compatible with the Ceramill Motion and Ceramill M-Center.

* ZIP-packed = STL-files packed with WinZip®-packing program - Available at no charge on the Internet



Simply complete the online form (at www.m-center.com) and send us your open STL file (ZIP compressed*).



Your data will be subjected to a compatibility check for the Ceramill Motion as well as the Ceramill M-Center.



After the successful test our field service will contact you (within 2 working days following the day of your data dispatch).



Simply complete the form for the test data upload of STL data.



Load your STL data at the press of a button into the Ceramill Upload-Tool.



Milling of the digital data in the Ceramill Motion or Ceramill M-Center.











≅ceramill motion

The compact milling unit with intelligent 4-axis control - for rapid and accurately fitting framework fabrication in zirconia, resin, non-precious metal and wax

The compact CNC* milling machine Ceramill Motion gets things moving.

Clean, efficient and precise this CAM unit mills most framework situations in the laboratory.

Using Ceramill Match, the works aligned with the blank are converted into milling data at lightning speed.

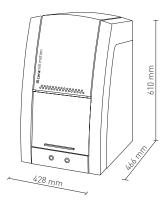
The compact external dimensions and an appealing design make the Ceramill Motion an attractive looking work horse to have in the laboratory.

The 4-axes compact milling unit guarantees a highly precise fit, even with undercut areas.





- _Mills up to 14 unit bridges
- _Optimised milling process, therefore lower milling times, high productivity
- _Small amount of space required, fits into every laboratory
- _Tool holding fixture with automatic tool changer
- _Open interface for an open scanner (3Shape®, Dental Wings®)
- _Quick and easy positioning of the units in the blank efficient use of the blank
- _Highly precise Jäger spindle with a true-running accuracy of < 0,004 mm
- _Smooth working possible by means of integrated monitoring electronics of the axis position
- _Air jet function and tool cooling by integrated air nozzles at the spindle for a long operating time
- _Automatic tool length measurement and broken tool detection
- _Reserve tools: If the first tool set is worn, the machine automatically changes to a new set
- Minimum maintenance required











≈ceramill motion

Presence sensor

for milling tools

Tool-length sensor incl. fracture check and calibration

Tool magazine with automatic tool changer

Blank holder

Interior lighting for visual control of milling

Removable extraction tray

for easy cleaning

$\ \, \hbox{Connection for extraction protects}$ the internal mechanism against contamination

Optimal for use with the Ceramill Airstream, but can also be used for central extraction



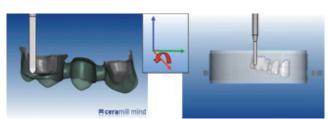
Function assignment:

- Reference run
- Start/Pause programme
- Workpiece control
- Extraction

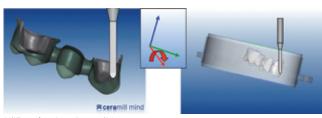
Function assignment:

Multifunction button

- Tool holder
- Service position
- Spindle ventilation



Engage the 4th axis to any position



Milling of undercuts possible









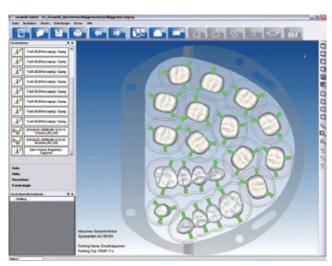
≅ceramill motion

Inhouse milling with premium performance, usability and precision



Jäger 🙈

Only the best is good enough. The centrepiece of each Ceramill Motion is a high frequency spindle of the worldwide known German company Alfred Jäger that - with 40 years of experience in the area of engine spindles and application technology - ensures profound expert knowledge and reliability to meet the extraordinary high performance requirement of Ceramill Motion.



≈ceramill match

The automatic operator guidance and the transparent user interface of the Ceramill Match 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.



Tool magazine with automatic tool changer incl. reserve tool places.





High precision in zirconia, resin, non-precious metal and wax.







Eceramill m-center

The manufacturing centre for all indications and materials: Versatile, reliable and fast

The prosthetic restoration still bears the individual technician's signature - the milling center will only produce a piece of work which has been previously approved by

A procedure using state-ofthe-art technology and specially trained processing engineers. Not without dental technical quality control, which takes place before the finished framework is dispatched.

Naturally, various AG support media is available on all aspects in the Ceramill M-Center: Online help, tracking the status of each order, the Ceramill help desk.

www.ceramill-m-center.com



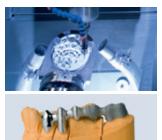
The wide spectrum of different materials available (zirconium oxide, glass ceramic, CrCo, titanium, composite, PMMA) cover almost the entire framework fabrication spectrum



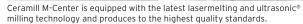
- Diverse indications (anatomically reduced and fully anatomical crowns and bridges, telescope crowns, inlays/onlays, press-on technique, individual abutments)
- _Quick processing times good planning safety
- _State-of-the-art production techniques produce optimal and precise frameworks
- Video-tutorials, CAD-CAM forum and exclusive services for M-Center customers













Quality control by professionals.









≅ceramill-m-center.com

Your interface to the AmannGirrbach manufacturing centre

The Ceramill M-Center Website is designed in particular for customers with an AmannGirrbach CAD/CAM system. It provides the customer with basic information on the product, the method and the manufacturing process. For registered customers, it offers a wide range of additional services like transfer of know-how and order processing. Hardware and software registration, user support, monitoring the order status (*no ordering function) as well as package tracking guarantee customers full control of the digital outsourcing process chain.





One-click upload of construction- and order data using the upload-button of the Ceramill mind software. Therefore there is no need of any additional order function via the website.

Only for registered customers in the download area.









In the following languages:



English French

Italian
Spanish











≅ceramill zi

Presintered Y-TZP zirconium-oxide blanks for machining without risk of splintering or damaged edges

Ceramill zirconia blanks already undergo strict test procedures according to fixed parameters during the manufacturing process in our in-house production facility. In this way AmannGirrbach ensures the permanent high-quality standard of its in-house production.

The pre-sintered blanks can be perfectly machined - they do not splinter and offer excellent edge stability. All blanks are marked in batches with their individual enlargement factors, which are later transferred to the milling unit Ceramill.



TOSOH Powder

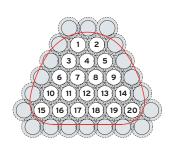
All Biaxial Pressed

1,300 MPa Strength

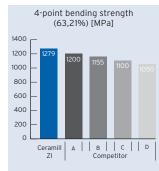
FDA & Health Canada Approved

IdentCERAM Stickers

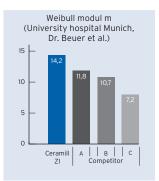
- _High-grade certified raw material
- _Extremely high bending strength, optimal edge stability and machinability
- _Due to their reusability, the blanks can be used efficiently so that unmachined areas can be processed later
- Optimal fitting due to encoded indication of the enlargement factor on the blanks
- _Individual coloring due to 4 different degrees of brightness of the Ceramill Liquid dying solutions
- _Can be used with all usual zircon veneering ceramics
- _Designed exactly according to the course of the dental arch
- _The ideal blank for large spanned bridges
- _Covers up to 90% of all work in a laboratory, with no material wastage
- _Different heights



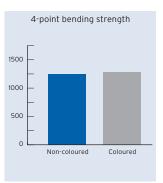
Possible unit per Ceramill Motion blank



At approx. 1300 Mpa flexural strength, Ceramill ZI lies in direct competition with the leading specialists



Ceramill ZI has an excellent Weibullmodulus of 14.2 and therefore proves a high degree of reliability during use.



Flexural strength of Ceramill ZI noncoloured and coloured with Ceramill liquid; AmannGirrbach, 2009









≅ceramill therm

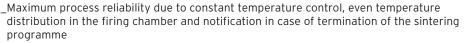
A fully automatic, high performance furnace for the final sintering of stress-free frameworks

The Ceramill Therm is a high temperature furnace with additional features.

The milled Ceramill zirconiumoxide frameworks are densesintered with the Ceramill Therm and thus obtain their final density and the resulting excellent material properties. For sintering, the objects are placed onto sintering beads, which ensures a frictionless sintering process and thus distortion-free frameworks. The Ceramill Therm offers maximum process reliability due to constant temperature control, even temperature distribution in the firing chamber and notification in case of termination of the sintering programme due to e.g. power failure. As a result of this, the user is able to safely control if the final density and thus strength of the frameworks has been achieved.

The user has 4 sintering programme locations at his disposal; one of them can be individually programmed.







- _Maximum process reliability due to optimally coordinated, fully-automated sintering programmes for different restoration sizes
- _4 sintering programme locations; one of them individually programmable by the user
- _2 stackable sintering bowls for maximum utilisation of the furnace
- _Minimum required space and installation time (supply required)





For maximum utilisation of the furnace, the Ceramill Therm exhibits a large firing chamber, in which 2 sintering bowls can be stacked on each other and thus the double amount of frameworks can be sintered in one cycle. With the aid of the sinter forceps, the sinter shell can be transferred easily and safely in and out of the furnace.



ORDER INFORMATIONS





Ceramill Map100

Ceramill Mind

Ceramill Outsource Digital 100 | SET

- 179003 Ceramill Map100 (part automatic scanner)
 - Ceramill Mind (CAD Software)
 - PC incl. monitor, keyboard, mouse, virus scan software

without furnace and extraction



Ceramill Map300

Ceramill Mind

Ceramill Outsource Digital 300 | SET

- 179004 Ceramill Map300 (full automatic scanner) incl. Ceramill Transferkit
 - Ceramill Mind (CAD Software)
 - Ceramill Artex (virtual Articulator, upgrade for Ceramill Mind)
 - PC incl. monitor, keyboard, mouse, virus scan software

without furnace and extraction



Ceramill Inhouse Digital Motion | SET

- 179005 Ceramill Motion incl. Ceramill Match (Milling device incl. CAM Software)
- PC incl. monitor, keyboard, mouse, virus scan software

without furnace and extraction



Ceramill Inhouse Digital 100 | SET

- Ceramill Map100 (part automatic scanner)
 - Ceramill Mind (CAD Software)
 - Ceramill Motion
 - incl. Ceramill Match (Milling device incl. CAM SW)
- PC incl. monitor, keyboard, mouse, virus scan software without furnace and extraction



Ceramill Map300

Ceramill Mind

Ceramill Motion

Ceramill Inhouse Digital 300 | SET

- 179002 Ceramill Map300 (full automatic scanner)
 - Ceramill Mind (CAD SW)
 - Ceramill Artex (virtual Articulator, upgrade for Ceramill Mind)
 - Ceramill Motion
 - incl. Ceramill Match (Milling device incl. CAM Software)
 - PC incl. monitor, keyboard, mouse, virus scan software incl. Ceramill Transferkit

without furnace and extraction

Technical Data:







Ceramill	Map 100	Map300	Motion
Art.Nr.	179100	179110	179200
Dimensions D/W/H (mm)	426 x 328 x 603	426 x 414 x 720	465 x 430 x 730
Weight (kg)	33	57	62
Power supply (V/A)	230/1,25	230/1,25	230/3,15 100; 115/6,3
E-fuse	T1, 25A	T1, 25A	
Output (W)	50	50	250
Compressed air connection			dry, clean compressed air, 6 bar max. 50 L/min
Engine speed (U/min-1)			60.000
Torque (Ncm)			4
Collet chuck (Ø mm)			3
Sound level (max. dbA)			60
Accuracy (µm)	<20	<20	<10
Axes	2	4	4
Recommended installation site	Table, no direct sunlight	Table, no direct sunlight	Table, no direct sunlight
Recommended temperature	18-30 °C	18-30 °C	18-30 °C

System requirements:

- Internet connection (minimum DSL) to guarantee data transmission to the M-Center and remote maintenance of the system _Flat rate is recommended

- _ A network cable for connecting the router / modem and PC.
 _ An Internet connection must be available on the day of installation. If the customer does not know how to create an internet connection, it must be ensured that an Internet specialist is on site on the day of installation. AG will not connect the system to an already existing network at the customer.
- _The customer must guarantee maintenance and any problem solving relating to the network / Internet connection.



Technical Data PC

Processor speed/model:	Intel Xeon Quad 2.67 GHz
Memory:	4 GB RAM
Hard drive:	232 GB
Graphics:	T1, 25A
Operating system:	Windows XP, Recovery Software, Virus protection MC Afee
Display:	19 Zoll
Resolution pixel:	1280x1024
Recommended installation site:	Away from the floor, not on the wall

Changes, in the sense of better function, performance, service life and technical improvements are subject to alterations.





Upgrades for Ceramill Mind

179151 • Ceramill Artex (virtual articulator, contained in the pack contents of the 300 version sets)

② Ceramill M-Plant (Abutmentmodul)













Technical Data
Dimensions: 535 x 435 x 655 mm
Furnace chamber volume: 11
Electrical supply rating: 230 V 50/60 Hz
Max. power consumption: 3.2kW

Ceramill Therm

178350 Ceramill Therm

Delivery volume: Ceramill Therm sintering furnace; Sintering shell, $100 \times 80 \times 15$ mm; Sintering pearls, 200 g, dia. 1 mm

Accessories:

178360 • Stackable sintering bowl, 1 pcs

Stackable only in Ceramill Therm (178350)

178361 ② Gripper for Sintering shell, stackable

178311 **3** Sintering pearls 200g, Ø 1mm



Technical Data

Dimensions: 406 x 280 x 423 Weight: 16kg Electrical connection values (V/A/Hz): 230/3,6/50-60, 115/7,0/50 Performance: 1000W Suction Power: 56,6 L/sec. Volume: max. 52 dbA Filter bag size: 10 Liter Hose diameter: 38 mm Hose length: 1,8 m Adapter diameter: conical, 37-38 mm HEPA micro filter (97,97%), Filter class H12, dust class M

Ceramill Airstream

- _ Suction for Ceramill Motion, Multi-x and Smartbox Invest
- _ May also be used for other devices with attached adapter

178600	Ceramill Airstream 230 V
	(100-120V = 178600V100-V120)
178610	Airstream Suction Bag (5 pcs.)
178611	Airstream Microfilter (1 pcs.)



Ceramill Scanmarker

Ceramill Scan marker is a powder spray that is applied to the surface of models or teeth to improve their visual characteristics when using a camera or scanner in the CAD/CAM technique. Suitable for extraoral use.

760562 Ceramill Scanmarker 50 ml



Ceramill Motion Starterkit

760012 Ceramill Motion Starterkit delivery specification: see label ★

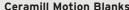


Ceramill Motion Milling cutter

760604	Ceramill Roto Motion 1,0 burr with magnet holder	Ø 1,0 mm	1 pcs. ★ 2x
760605	Ceramill Roto Motion 2,5 burr with magnet holder	Ø 2,5 mm	1 pcs. ★ 2x



6



Ceramill	Motion Blanks			
760172	Ceramill ZI 71 XS, zirconium-oxide b dental arch shape,	lank, h=12mm	1 pcs.	★ 1x
760173	Ceramill ZI 71 S, zirconium-oxide bla dental arch shape,	ink, h=14mm	1 pcs.	
760174	• Ceramill ZI 71, zirconium-oxide bl dental arch shape	ank, h=16 mm	1 pcs.	★ 1x
760176	Ceramill ZI 71 M, zirconium-oxide bla dental arch shape	ank, h=18 mm	1 pcs.	
760184	Ceramill ZI 71 L, zirconium-oxide bla dental arch shape	nk, h=20 mm	1 pcs.	
760175	Ceramill ZI 71 XL, zirconium-oxide b dental arch shape	lank, h=25 mm	1 pcs.	
760301	Ceramill TEST 71 L, test blank, dental arch shape	h=20 mm	1 pcs.	
760307	Ceramill WAX 71 XS, wax blank, dental arch shape	h=13 mm	1 pcs.	
760302	② Ceramill WAX 71 L, wax blank, dental arch shape	h=20 mm	1 pcs.	★ 1x
760311	Ceramill PMMA 71 XS acrylic which burns out without resi dental arch shape	due, h=13 mm	1 pcs.	
760303	● Ceramill PMMA 71 L, acrylic which burns out without resi dental arch shape	due, h=20 mm	1 pcs.	★ 1x
760309	Ceramill TEMP middle 71 XS, dyed PMMA, dental arch shape	h=13 mm	1 pcs.	
760305	Ceramill TEMP middle 71 L, dyed PMMA, dental arch shape	h=20 mm	1 ncc	→ 1v
760310	Ceramill TEMP light 71 XS, dyed PMMA, dental arch shape	h=13 mm	1 pcs.	* 1
760306	© Ceramill TEMP light 71 L, dyed PMMA, dental arch shape	h=20 mm	1 pcs.	
760308	Ceramill TEMP dark 71 XS, dyed PMMA dental arch shape ,	h=13 mm	1 pcs.	
760304	Ceramill TEMP dark 71 L dyed PMMA, dental arch shape	h=20 mm	1 pcs.	



Dry solutions, size 100 ml:

760471 Ceramill Liquid CL1 760472 Ceramill Liquid CL2 760473 Ceramill Liquid CL3 760474 Ceramill Liquid CL4

Ceramill Liquid

Four dilutable waterbased dye solutions for safe handling and individual colouring of the blanks.

760470	Ceramill Liquid - complete set	*
	4 colours à 100ml, 4 colouring jar, 1 forceps	



Ceramill Marker - Excellent adhesion during processing with a water-cooled laboratory turbine. Marks imperfections without depositing anything

Ceramill Marker

Blue, oil-based contact paste for fitting zirconium oxide crowns (e.g. Ceramill ZI).

760021	Ceramill Marker, blue 3 g, contact paste, 1 pcs.	★ 1x
583150	Pastebrush, brush for Ceramill Marker, 1 pcs.	★ 1x



K N O W - H O W

CERAMILL HELPDESK | TRAINING COURSES | AG WEBINARS | D-LAB 24

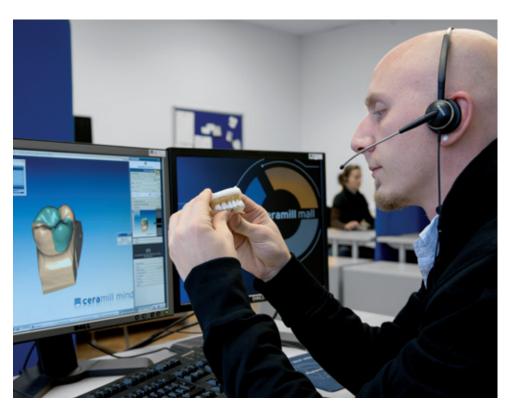
CERAMILL HELPDESK





The Ceramill Helpdesk: Targeted, effective help for CAD/CAM users

The Ceramill Helpdesk provides information and support from the putting into operation to the case related problem solving. A highly qualified team of dental technicians is ready to provide specific information and expert knowledge. Via phone or by desktop sharing via the Internet we are present in your laboratory and thus may offer an immediate solution that renders you productive within no time.



- _Easy contact by ticket system return call directly from specialists
- _Practical support during the putting into operation
- _Case-related problem solving
- _Answering of questions via e-mail and phone
- _Online support by desktop sharing we demonstrate the next working steps on your screen
- _Comprehensive information via Internet (www.ceramill-m-center.com)





Highly qualified dental engineers at Ceramill Helpdesk



Live support on your PC





TRAINING COURSES

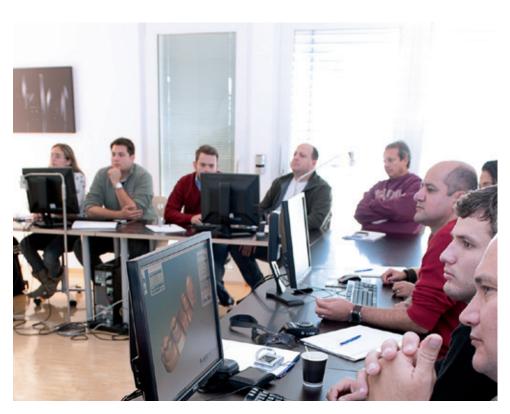
Know the technique - master the manual skills

State-of-the-art technologies, growing expectations of patients and not least global competition step up the pace in our business sector as well. For those who want to meet the demands of the market in the long run, it is vital to be flexible and stay at the cutting edge of technology.

The entry into the digital age has also been accompanied by wide-ranging changes to training requirements and we have addressed these changes.

"Webinar" is the keyword for an efficient learning method for CAD-CAM courses that not only save you an enormous amount of effort but are mainly held on the medium which is used for working procedures. A mixture of demonstrations, training videos, live streaming and individual consultation enable you to use the system immediately after 2-3 hours.

Our contact persons are available if you have any questions or would like to register. They ensure a smooth procedure and that you can fully concentrate on your training at our locations in Germany and Austria or in the "AG training center Middle East" in Beirut (Lebanon).





Sabrina Amann

(i) INFO

AG Training Center Germany / Austria

Sabrina Amann Intern. course organization Fon: +43 5523 62333-57 Fax: +43 5523 55990 sabrina.amann@amanngirrbach.com

For information on courses held by our dealers worldwide please contact them directly.



Université Antonine

(i) INFO

AG Training Center Middle East, Beirut (Lebanon)

Université Antonine Institute of Dental Laboratory BP 40016 - Hadath, Baabda | Lebanon Fon +9611877079 Mobile +961 3133911 abdo.salem@amanngirrbach.com





TRAINING COURSES





Overview training courses Framework Management Digital



COURSE:	CAD-CAM ADVANCED II	FMD M05
CONTENTS:	_Webinar individual course _"individual" abutment course _Free choice of indications by participant beforehand	
INSTRUCTOR:	AG instructors	NEW
COSTS:	EUR 180,- (2 hours)	***
COURSE:	CAD-CAM ADVANCED III	FMD MO
CONTENTS:	_Interface between analogue and digital technology in the daily routine _Complete procedure from the model to finished coping _Focus: The virtual articulator and all its _Extended analysis and measuring option	possibilities ns
INSTRUCTOR:	AG instructors	PLAN

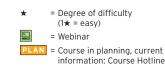
COURSE:	CAD-CAM ADVANCED IV ZA/ZT	FMD M07
CONTENTS:	_Interdisciplinary dentist-dental technicia	
	functional outcome _Zirconia based	
INSTRUCTOR:		
INSTRUCTOR:	_Zirconia based	
INSTRUCTOR:	_Zirconia based	PLAN
	_Zirconia based AG instructors	PLAN **** FMD MO8
COURSE:	_Zirconia based AG instructors CAD-CAM ADVANCED V _Telescope crown technique _Fabrication of an acrylic primary crown _Fitting primary pattern (telescope set) _Fabrication of the secondary crown	PLAN

Scope of services

As a matter of principle, catering for whole-day-courses or several-day-courses is included in the participation fee. The courses are acknowledged with a certificate.

Cancellation guarantee

Cancellation shall be made in written form and at least 4 weeks prior to the beginning of the event. After this period, 50% of the participation fee is due; from 1 week prior to the beginning of the course 100% of the participation fee is due. Optionally, the participation fee can be transferred to another course in the following 12 months. The participation can be assigned to a substitute free of charge. If AmannGirrbach is forced to cancel the event due to organisational or other reasons, the already paid participation fee will be reimbursed. Claims beyond this are excluded.





AG WEBINARS





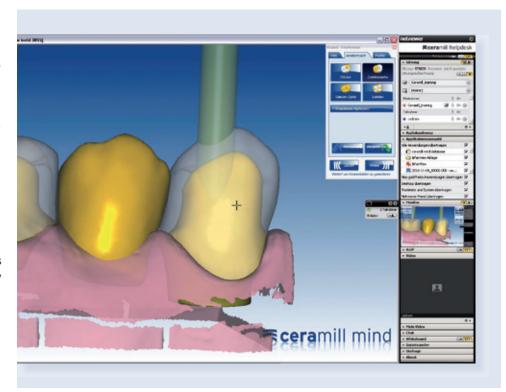


The new generation of online support via Internet

Webinar systems are similar in constitution and function to so-called "instant messenger programs" such as Skype, ICQ or the AOL instant messenger. Enhanced features such as the possibility to broadcast presentations or simulate a digital blackboard, make this an interactive online support service of the highest level.

Many problems that occur in day-to-day dental technical life can still only be solved from person to person. This is where Webinars offer a highly efficient alternative. Quick and uncomplicated help in the form of a support specialist, via Internet, directly into your laboratory.

There are many different types of problems that require personal assistance, where we can offer this type of support. Your only requirement is an active access.



- _Help regarding our many systems, applications and products.
- _No travel costs or waiting times for support technicians.
- _Interactive online training possible for up to 30 participants.
- _Cost-effective possibilities for training personnel.
- _Quick help with installation of machinery.
- _Quick help with maintenance and servicing.



1 INFOLINE

+43 5523 62333-0

or register directly at: www.amanngirrbach.com/de/ support/kursuebersicht/ online-kurse-webinars/



≋d-lab24.com

The dynamic E-learning Portal from AmannGirrbach - the digital "Product Specialist" for application techniques, daily updates, 24h online access.

The D-Lab24 is a platform that is now available for all users of our products and systems with the aim of transferring the know-how on the use of our systems and products simply, clearly and as directly as possible into the laboratory.

The requirements for the transfer of knowledge are diverse and therefore need different transport vehicles for example techniques-instructions will be converted in the form of elaborate e-learning modules (step-bystep). Video sequences will also be used at challenging sections which will create optimal transparency. In addition, there are numerous know-how documents available in the D-Lab24 for downloading. Instructions for use, course information, case studies and basic dental laboratory know-how: in future you will find all the technical information in the D-Lab24 you require to use our products and systems in the practice correctly and efficiently.



- Complex e-learning modules on AG methods describe every single move.
- Processing assurance for your laboratory with the option of breaking down each single working step into the smallest details.
- _Easy, cost-effective and efficient training for your laboratory staff.
- _Videos enable complex working steps to be understood easily.
- Downloads available on working, application and operating instructions guarantee the correct application of our products and systems from the start.
- _The entire know-how on products, systems and applications -accessible 24h
- _Always up-to-date due to continual updates
- Extensive know-how pool continually enhanced with new contents.

i ACCESS CODE

Available forthwith from your specialist dealer, via hotline **+49 7231 957-100** Or on order via email: d-lab24@amanngirrbach

No online registration necessary.

SERVICE

CUSTOMER SERVICE | TECHNICAL SERVICE | SERVICE PARTNER

AG LIVE LABS

GENERAL INFORMATION



CUSTOMER SERVICE | TECHNICAL SERVICE | SERVICE PARTNER



AmannGirrbach Products can only be acquired outside of Germany and Austria from our authorised dealers

You can find a specialist dealer in your area through our worldwide network of AmannGirrbach dealers.

If you do not have an active Internet access or if you cannot find a dealer in your area, please contact our export department at the AmannGirrbach headquarters in Koblach, Austria:



1 INFOLINE

Dealer directory:

www.amanngirrbach.com/en/contact/find-dealers/

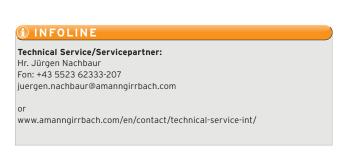
AmannGirrbach Headquarter:

AmannGirrbach AG Fon: +43 5523 62333-0 | Fax: +43 5523 55990 E-mail: austria@amanngirrbach.com

Authorised AmannGirrbach service partners in your area

The authorised service companies from AmannGirrbach provide a repair service using original AmannGirrbach machines and spare parts. These service companies have trained personnel and the technical information necessary for the correct and professional repair of our machines.

If you cannot find your service company, please contact our inhouse technical service department:





AG LIVE LABS

Experience the practical use of equipment, materials and systems, at a location near you



Information days are being held in certified laboratories worldwide. They are among the leading dental laboratories in their region in terms of size, quality, equipment and innovative capability.

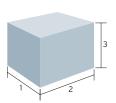
Exchange of experiences between colleagues - this describes the service provided by the new AmannGirrbach Live Labs.

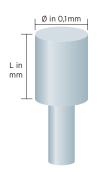
Registrations and current dates are available from your dealer or you can find a current list of all AG Live Labs at www.amanngirrbach.com

GENERAL INFORMATION

In this catalogue, the product information is restricted to some elementary features and applications.

You will find more information in the according system brochures and/or leaflets.





Technical data

In general, all dimensions are indicated in millimeters (mm) lined up in depth/length x width x height:

- 1. depth
- 2. width
- 3. height

If this is not the case, the differing indications are clearly defined (e.g. diameter = \emptyset , drilling, thickness, etc.)

Delivery volume

Introductory kits of systems or basic equipment for units are presented, on one hand, as complete set and, on the other hand, as single articles with different article numbers for repeat orders.

Replacement parts

... will be mentioned only in cases where there is high customer demand. All replacement parts are listed with article number in the unit's manual.

Changes, in the sense of better function, performance, service life and technical improvements are subject to alterations.







