



IDS 2017



WELCOME TO STATE-OF-THE-ART TECHNOLOGY.

As every 2 years our sector again eagerly awaits the IDS week in Cologne, Germany. With the market launch of our Ceramill DNA Generation in November 2016 we have already anticipated part of the show for the upcoming IDS, as far as the CAD/CAM laboratory segment is concerned.

We can make this statement because we are convinced that our 100% inhouse developed and produced DNA generation machines set new standards as far as performance combined with maximum precision and control in CNC processing of dental materials is concerned.

I can give you my word that these machines really have something special - Ceramill DNA. Speed, precision and innovative, dental-specific controls and milling strategies, which are all based on years of development work. There is now the right DNA machine for you, regardless of how you organise your laboratory strategies.

A minor disadvantage of such mammoth projects is that the visibility of other core competences is sometimes temporarily blurred. In light of recent events this is true of our position as one of the world's leading manufacturers of dental materials in the CAD/CAM sector.

With the brand new materials "Zolid HT+" and "Zolid FX Multilayer" we now have 2 fantastic new zirconia products with enormous potential ready to go. Aesthetics, reproducibility and maximum efficiency in harmony. Not only new types of blank, but also a completely new material generation for even more aesthetics with higher strength. (Ideal for long-span restorations on implants)

Due to the growing strategic importance we have also placed our zirconia portfolio under a new, unified umbrella brand in the same way as our machines - thus "Ceramill Zolid" becomes the "Zolid DNA Generation".

As if this were not enough. Also behind the scenes of the "inhouse movement" - something is also simmering in the operations sector - to put it mildly. Amann Girrbach is currently in the middle of the biggest production extension in the company's history.

On 1 March 2017 in Rankweil, Vorarlberg, Austria we put a new production plant into operation. The very openly designed "HIGH-MED-TECH production facility", which is divided into 4 large production segments, is technically and logistically the very latest state-of-the-art and designed for high growth capacity. The entire material-medical products' production and a large section of the conventional equipment manufacturing are thus getting a new home - one that has all the right components to master all the great challenges of high growth and international competition.

All this would not have been possible without you, our customers, distributors and partners. And, of course, not without our fantastic employees, who impress me day in, day out with their motivation, drive, passion, expertise as well as the resulting world class products.

For that, I cannot be thankful enough and I will do everything to ensure that we also continue as successfully on the same course together.

And now enjoy exploring the innovations - there is a great deal to discover...

Thank you for your confidence!

Marco Ratz

 **ceramill** motion 2

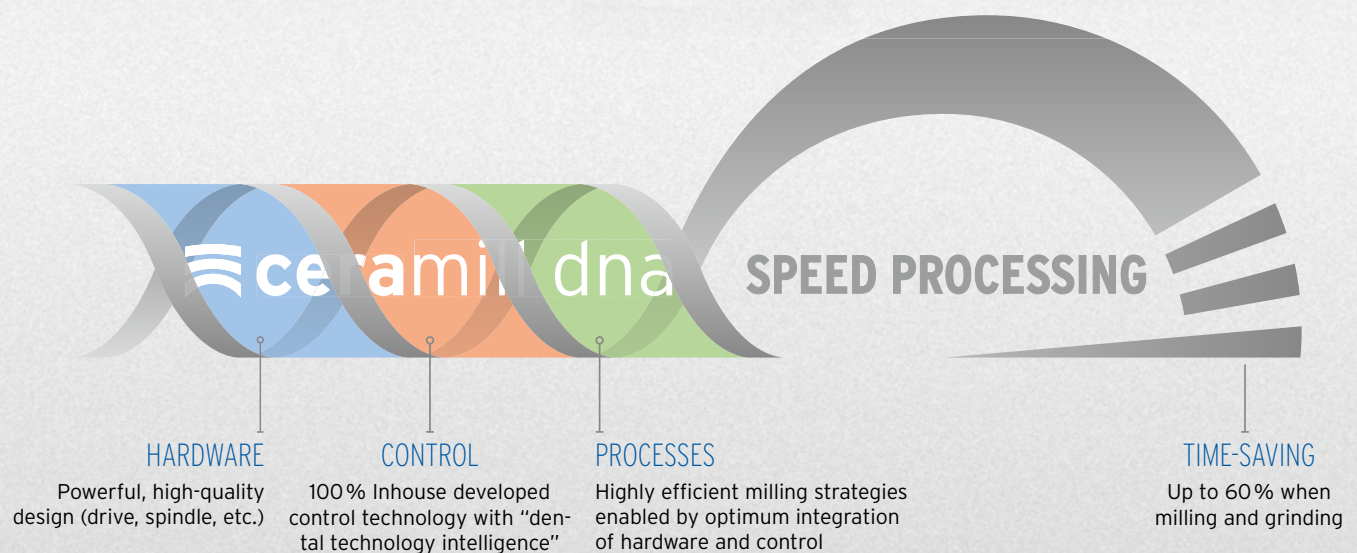
 **ceramill[®] units**



DNA GENERATION.

POWER + DENTAL TECHNOLOGY INTELLIGENCE = PERFORMANCE.

Our milling machines are produced 100 % inhouse and exclusively at Amann Girrbach headquarters in Koblach, Austria. Thanks to inhouse development of all elementary components and particularly the new control units, we can meticulously adapt our milling units to dental-specific requirements of dental technology and continually further develop them. There is a distinctive profile in terms of precision, speed and CAM processes, which are precisely adapted to the mechanical characteristics of dental materials - we call it "Ceramill DNA".



BECAUSE IT IS FASTER - CERAMILL DNA GENERATION



ceramill® mikro 4X

4-axis dry unit - easy entry or efficient upgrading

- _Low investment costs with high amortisation rate
- _Versatile thanks to dry processing, also including hybrid ceramics
- _High-performance components and extremely robust design ensure permanently high milling results

ceramill® mikro 5X

5-axis dry milling in minimum space

- _Maximum range of indication in the 5-axis dry milling sector
- _Speedy, efficient due to dental-optimised control and milling strategies
- _Monocoque design guarantees absolute stability and low-vibration processing



ceramill® mikro ic

4-axis wet processing with speed-grinding function

- _Carving mode grinding technique - for up to 60 % time saving when processing glass/hybrid ceramic
- _Intelligent machine design with powerful super-high-frequency spindle for maximum speed with the highest precision
- _Special holder design for easy handling and highest degree of accuracy when processing hard materials

ceramill® motion 2 5X

5-axis wet and dry processing - versatile and future-proof

- _Maximum range of materials and indications
- _Innovative processing procedures for maximum ROI (rotational milling of titanium, carving mode grinding technique etc.)
- _Intelligent machine design with powerful super-high-frequency spindle for maximum speed with the highest precision
- _Intelligent machine design guarantees optimum protection of all electronic components during wet processing

CERAMILL MAP400 - DNA GENERATION UPDATE



Full-Arch
scan:
24 sec.

Scan
accuracy:
6 µm

DNA Speed scanning with Splitex integration

- _ Completely usable results in 24 seconds thanks to DNA speed scanning
- _ Highly precise digitalisation of models in condylar relationship
- _ Universal use (e.g. Triple Tray, models, multi die, all-in, texture scans)
- _ Universal model plate enables flexible scanning of different model systems
- _ Individually adaptable scan sequence

BECAUSE IT IS FASTER - CERAMILL MAP400

Ceramill Map400. The precise functional scanner - now with significant new features. High-resolution scan data, quickly and precisely - this is provided by the Ceramill Map400 stripe-light scanner thanks to highly sensitive 3D sensors and a sophisticated, newly developed DNA speed scanning strategy. They reduce scan times by up to 50 % with constantly high precision. A full-jaw scan with completely usable results is therefore possible in 24 seconds.

The scanner impresses with Splitex integration and many new indications. In addition to scanning Triple Tray impressions, all-in scanning of quadrant models including single dies in one scan cycle, intelligent scanning of several single dies (multi die), individual adaptation of the scan sequence, it is also possible to scan textures. Ceramill Map400 has an open interface, so that scans (STL files) can also be loaded in other CAD programmes.

TRIPLE TRAY



Triple Tray impression scan

ALL-IN



All-in scan of quadrant models with single dies

TEXTURES



Monochrome texture scan - scans markings and surface textures

SCANNING IN CONDYLAR RELATIONSHIP



Digitalisation of models in condylar relationship

UNIVERSAL MODEL PLATE



Universal carrier plate for flexible scanning of very different model systems





ZOLID DNA - ZIRCONIA NEWLY DEFINED

IMPRESSIVE PROPERTIES

Highly modern, fully automatic production facilities and the best quality raw materials form the basis of the Zolid DNA Generation. This guarantees maximum aesthetics and ensures clinical success.

EASY TO USE

Aesthetics is only enjoyable if it works. This is why our zirconia with its reliable, reproducible shade concept is ideal for the fabrication of aesthetically high-quality zirconia restorations.

NICE DONE FAST

Amann Girrbach zirconia blanks are not individual products but are part of a system solution in which materials, software and hardware components are exactly coordinated with one another. Their intimate integration results in a process-reliable workflow, which allows every laboratory to fabricate accurately fitting restorations that also meet all aesthetic requirements.

QUALITY WITHOUT COMPROMISE

Amann Girrbach has always demanded a high-quality standard of itself. Our materials, 100% developed and produced in Koblach, Austria, meet the highest material technology requirements. This enables us to ensure permanently high material quality with excellent processing properties.



"Built-in aesthetics never seen before in a monolithic zirconia."

Lucas Lammott, CDT
M31 Dental Studio



"A clever, aesthetic alternative to lithium disilicate."

Benjamin Votteler, MDT
Dentaltechnik Votteler GmbH & Co

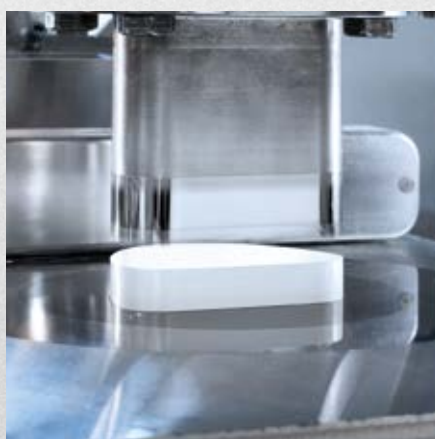


"Outstanding stability and excellent shade match."

Rosa Winterhalter, MDT
Lindauer Zahntechnik GmbH













MADE IN AUSTRIA

Made in Austria in our new production facility using the latest technologies and processes, which meet the highest requirements of medical products - for your safety and the safety of your customers and patients. Since the beginning of 2017 zirconia blanks as well as milling machines and Ceramill Sintron have been manufactured in a new production facility with over 4500 m² and more than 60 employees at the Rankweil/Austria location. This allows the rapidly growing demand for zirconia blanks to be met and at the same time new innovations to be produced quickly and reliably.



THE RIGHT CHOICE FOR EVERYONE

Independent of strategic direction (efficiency, aesthetic definition) they can be found in our zirconia portfolio. The super-high translucent Ceramill Zolid FX product range has been extended to include the unique Zolid FX Multilayer in 16 VITA tooth shades and by the pre-stained Zolid FX Preshade blanks in 6 basic shades. The successful Ceramill Zolid portfolio has been extended by the completely newly developed Ceramill Zolid HT+. This blank creates superior translucency and aesthetics with constant maximum strength.

		DNA Generation	DNA Generation
	 LOW TRANSLUCENCY 	 HIGH TRANSLUCENCY+ 	 SUPER HIGH TRANSLUCENCY 
Multilayer (with natural tooth shade gradient)			 Ceramill Zolid FX Multilayer AVAILABLE IN 16 A-D VITA SHADES
Preshade (pre-stained)		 Ceramill Zolid HT+ Preshades AVAILABLE IN 16 A-D VITA SHADES	 Ceramill Zolid FX Preshades AVAILABLE IN 6 A-D BASE SHADES
White (white)	 Ceramill ZI White	 Ceramill Zolid HT+ White	 Ceramill Zolid FX White
	TRANSLUCENCY →		EFFICIENCY →

ZOLID HT+ FIRST OF A NEW MATERIAL GENERATION

Conventional veneering is increasingly being omitted when fabricating all-ceramic restorations and only partial layering or even monolithic techniques are used. The framework material already has to have a high degree of aesthetics to meet the expectations mentioned above.

Amann Girrbach will cater for this trend with the next generation of proven Zolid material. Zolid HT+ combines high mechanical strength with excellent aesthetics. *Its strength of 1,100 MPa is within the range of Zolid, however, the aesthetics greatly surpass those of commercially available, comparable materials.* Even long-span restorations such as large implant-supported structures with gingiva sections have a vital appearance thanks to the light transmission - time-consuming veneers are no longer required.

The optimised manufacturing process also has a positive effect on the milling behavior. Otherwise there is no change in the processing - Zolid HT+ integrates harmoniously in the Amann Girrbach zirconia fabrication workflow. The Ceramill Liquids "new formula" are perfectly suited to Zolid HT+ and achieve highly aesthetic shade results according to the VITA shade guide.



THE HIGHLIGHTS

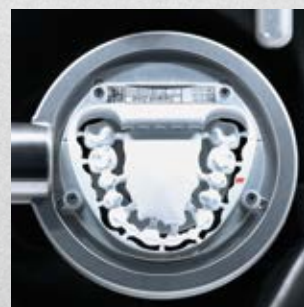
- _ Full range of indications due to high flexural strength of 1100 MPa
- _ Highest standards of aesthetics with natural appearance thanks to increased translucency
- _ Optimised processing harmoniously integrated in the AG zirconia fabrication workflow
- _ Preshaded blanks in 16 VITA A-D shades for increased efficiency and a high degree of shade stability

AVAILABLE

Zolid HT+ White - Available Q2-2017*

Zolid HT+ Preshades - Available Q3-2017*

* Product launch can vary depending on country-specific approval status.



Optimised processing properties



Ceramill Liquid New Formula - perfect also for Zolid HT+

ZOLID HT+ A NEW LEVEL OF EFFICIENCY THANKS TO 16 A-D SHADES

In addition to the white blanks, Amann Girrbach will also in future provide Zolid HT+ in 16 VITA tooth shades. This provides labs with a high degree of shade stability, increases the efficiency and guarantees reproducible results. Using a clever staining technique with Ceramill Stain & Glaze stains all 16 VITA A-D tooth shades can be produced with a smaller selection of the 16 blanks. This creates a tailor-made solution depending on the aspirations and requirements of laboratories.



MORE TRANSLUCENCY

The higher the translucency the higher the light transmission (more translucent) of the material.

Source: Amann Girrbach R&D

MAXIMUM FLEXURAL STRENGTH

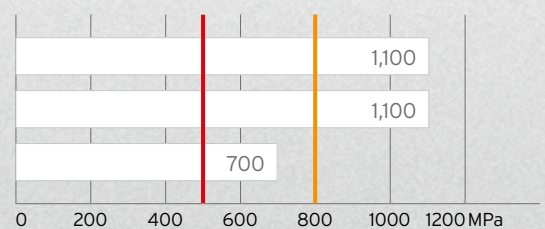
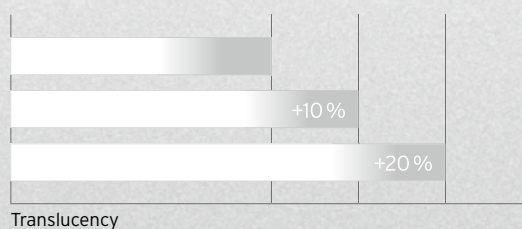
The higher the flexural strength the better the stability under masticatory loading.

Source: Amann Girrbach R&D

ceramill® zolid

zolid ht+

ceramill® zolid fx



3-point bending strength (MPa) DIN EN ISO 6872.

— Class 5 > 800 MPa according to DIN ISO 6872 (Minimum requirement for fabricating 4-unit to multi-unit bridges)

— Class 4 > 500 MPa according to DIN ISO 6872 (Minimum requirement for fabricating 3-unit bridges)

ZOLID FX MULTILAYER - SETTING NEW STANDARDS

Ceramill Zolid FX Multilayer is a super-high-translucent (SHT) zirconia blank with smooth shade and translucency gradient. SHT zirconia has a translucency only previously known from lithium disilicate and is ideal for highly aesthetic anterior restorations. Thanks to the high strength of 700MPa it is possible to fabricate up to 3-unit molar bridges. This guarantees permanently stable, highly aesthetic restorations with the outstanding processing properties.



A unique, economic shade concept has been created for users with Ceramill Zolid FX Multilayer. All 16 VITA shades can be covered with only 10 blanks, depending on the position in the blank. The intelligent nesting concept of the Ceramill CAD/CAM software aids easy positioning of the required tooth shade by visualisation of the shade gradient.

Zolid FX Multilayer is most efficient zirconia in the Amann Girrbach product portfolio with the highest standards of aesthetics and efficiency.

- _ Smooth shade and translucency gradient for soft shade transitions without shade break edges ensure natural aesthetics**
- _ High flexural strength in comparison with glass ceramics enables the fabrication of up to 3-unit bridges, including in the molar region**
- _ Intelligent nesting concept guarantees accurate matching of the VITA shades and efficient working in the lab**



Dental enamel, dentine and cervical shades merge fluently and without interfering shade break edges



Flexible nesting with customised gradient control (CAM)



AVAILABLE

CERAMILL ZOLID FX PRESHADES - THE BEST CHOICE FOR CUTBACK RESTORATIONS

Ceramill Zolid FX Preshades are preshaded zirconia blanks in A-D group shades, which easily cover all commonly used shades in the daily routine of the laboratory. The high translucency and homogeneous shading of Zolid FX Preshades in combination with the Ceramill Mindform cutback library form the perfect basis for reduced frameworks. Users profit from a high degree of shade stability and accelerated fabrication process. Aesthetic results can also be produced on monolithic restorations by applying stains after sintering.

- _ Super-high translucent zirconia for maximum aesthetics and efficiency**
- _ High flexural strength allows fabrication of up to 3 unit bridges, including in the molar region**
- _ Shade and process reliability due to preshaded blanks ensures easy, time-saving processing**



TAKE WHAT YOU REALLY NEED - CERAMILL ZIRCONIA BLOCKS

During 2017 Amann Girrbach will extend the existing Zolid FX Multilayer and Zolid HT+ Preshade blanks portfolio to include the block shape. The two block sizes C (C=crown) and B (B= bridge) give users the option between a block for single restorations and a block for maximum 3-unit bridges. Portfolio extension to include blocks in 16 A-D shades opens up the possibility for laboratories of not having to purchase blanks in 16 shades thus massively reducing storage costs, particularly with shades that are comparatively rarely used. Use of the multiple holder in the Ceramill milling systems enables restorations with very different shades to be milled overnight. This greatly increases efficiency during fabrication of smaller restorations.

- _ Economic storage due to extension of the blank portfolio to include zirconia blocks**
- _ Efficient fabrication of different tooth shades overnight thanks to the ingenious holder concept**
- _ Easy, reliable matching of the 16 VITA Classic shades due to industrially preshaded blocks**



CERAMILL THERM S - THE SPEED FURNACE FOR INCREASED FLEXIBILITY IN THE LABORATORY ROUTINE

The Ceramill Therm S gives the laboratory a new level of flexibility. In addition to the possibility of sintering single restorations in only 2 hours, the compact, energy-efficient furnace impresses, above all, with its range of applications. As well as the ability to sinter up to 6-unit restorations and the Autodry® drying function, glaze firings are also no problem for this agile unit. Furthermore the Therm S sets new standards in user-friendliness. In addition to a 10.4" touch display and an intuitive interface, the furnace can be connected to the internet via a network interface. Time-consuming updates and protocol archiving are therefore a thing of the past. These and other service and remote functions can be conveniently managed directly via an internet data-base.

- _ Increased flexibility in the laboratory routine thanks to 2 hours speed sintering programme for single restorations**
- _ Autodry® drying function, sintering mode for up to 6-unit restorations and glaze-firing mode ensure the greatest possible range of applications**
- _ Easy handling due to 10.4" touch display and internet connection for transferring programs and protocols**

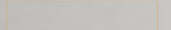




ZIRCONIA ALL-IN - NO MORE LIMITS.



by Lucas Lammott



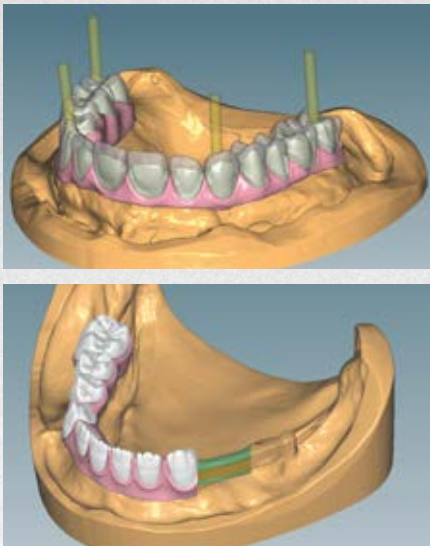


Digital Prosthetics
unlimited

DIGITAL PROSTHETICS UNLIMITED

We have been successful. It is now possible to fabricate both removable and fixed dentures on a 100 % digital basis using the Ceramill system. In addition to this option, parallel to the Ceramill FDS workflow (using Pala from Heraeus Kulzer, VITAPAN Excell/Lingoform from VITA Zahnfabrik and Merz Dental sets of denture teeth) we have integrated the two most promising new digital prosthetic workflows on the market into our system (VITA VIONIC from VITA and BDS from Merz Dental). We are also working continually on further developments in the fixed restoration sector. It will therefore be possible to fabricate REAX bridges as hybrid restorations and removable restorations on bars.

FIXED (IMPLANT-SUPPORTED) CERAMILL REAX



WHAT?

Quick, easy fabrication of high-quality fixed restorations with gingiva sections on implants or bars. Using one material as a mono-denture or as a hybrid restoration with material mixture.

HOW?

- _ Intuitive user guidance through the design process
- _ Highest standards of aesthetics at the press of a button thanks to the cutback library by Knut Miller
- _ **NEW:** Generation of dies for the fabrication of hybrid restorations for modern restorations with material mixture
- _ **NEW:** REAX bridges also on bars possible for removable restorations
- _ Special milling strategies reduce manual reworking to a minimum
- _ Coordinated processes and materials create a high-degree of reliability and efficiency

REMOVABLE CERAMILL FDS



BALTIC DENTURE SYSTEM (BDS) IN THE CERAMILL SYSTEM



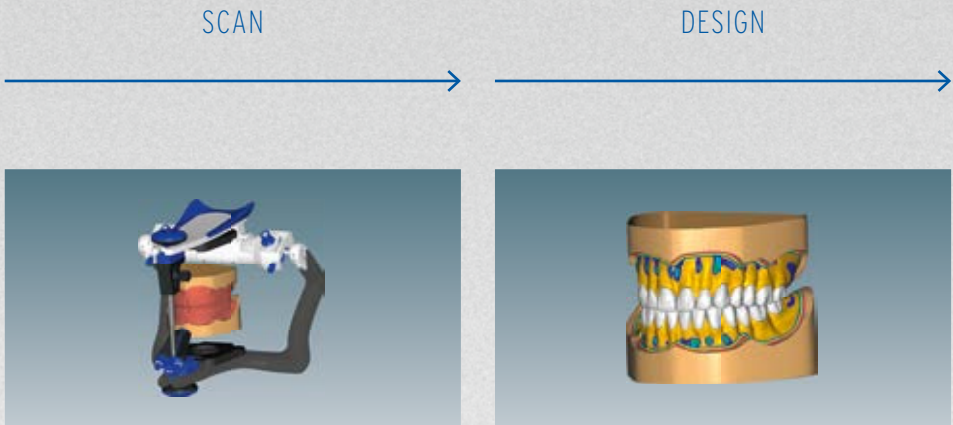
WHAT?

Quick, easy fabrication of full dentures, customised or standardised, as wax try-in, or directly in acrylic. Different tooth manufacturers and different setting up concepts for increased flexibility in tooth selection and setting up.

HOW?

- _ **NEW:** Different tooth libraries of 3 different tooth manufacturers (from VITA, Merz Dental and Heraeus Kulzer) for flexibility in tooth selection
- _ **NEW:** Different setting up concepts taking into account cross-bites, Angle classes and prosthetic concepts (with VITA teeth)
- _ Approximately 60 % saving in working time when setting up, which can be more profitably used thanks to increased convenience and elimination of sources of error and gaps in knowledge
- _ **NEW:** Elimination of the manual fabrication process due to milling the denture base directly in acrylic (with VITA teeth and BDS)
- _ 100 % reproducibility of dentures

FULL DENTURE PROSTHETICS PROCESSES IN THE CERAMILL SYSTEM



CUSTOMISED

CERAMILL FULL DENTURE SYSTEM (FDS)	SCANNING IN THE CORRECT POSITION	DESIGN CERAMILL D-FLOW
VITA VIONIC IN THE CERAMILL SYSTEM <small>NEW</small>	FULLY DIGITAL SCANNING IN THE CORRECT POSITION	DESIGN CERAMILL D-FLOW

STANDARD

BALTIC DENTURE SYSTEM IN THE CERAMILL SYSTEM <small>NEW</small>	FULLY DIGITAL SCANNING IN THE CORRECT POSITION	DESIGN ^{BD} Creator® PLUS
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TRY-IN

FINISHING



DIGITAL FABRICATION
WAX TRY-IN

CONVENTIONAL
FINISHING



With smaller conversions

DIGITAL FABRICATION
TRY-IN MONOBLOCK

DIGITAL
FABRICATION



If registration correct

not required (bite registration and functional try-in has already been done during first chairside appointment based on the use of [®]KEY[®] Set)

DIGITAL
FABRICATION



FULL DENTURE PROSTHETICS ACCORDING TO DENTAL TECHNOLOGY LOGIC. PRECISE, CUSTOMISED, AESTHETIC.

Ceramill FDS is characterised by a unique consistency and seamless linking of all software and hardware components. Implementation is with the software module "Ceramill D-Flow" and the 5-axis hybrid unit Ceramill Motion 2. Amann Girrbach always focussed on the entire workflow during development. Seamless interlinking of all system components creates an efficient working process, which reduces the time-consuming setting up process by approximately 60 % - including full value creation. This results in reproducible, functional full dentures with a high degree of precision and aesthetics. Now also with new sets of denture teeth and fabrication of the denture base directly in acrylic.



NEW SETS OF DENTURE TEETH FROM WELL-KNOWN MANUFACTURERS, GREATLY EXTENDED RANGE OF APPLICATIONS



Pala Premium 6
Pala Mondial 6 and 8
Pala Idealis 8

VITA VIONIC® SOLUTIONS



VITAPAN Excell (NEW PRODUCT)
VITAPAN Lingoform

NEW



Polystar® Selection EDITION anteriors
DeltaForm® posteriors

NEW



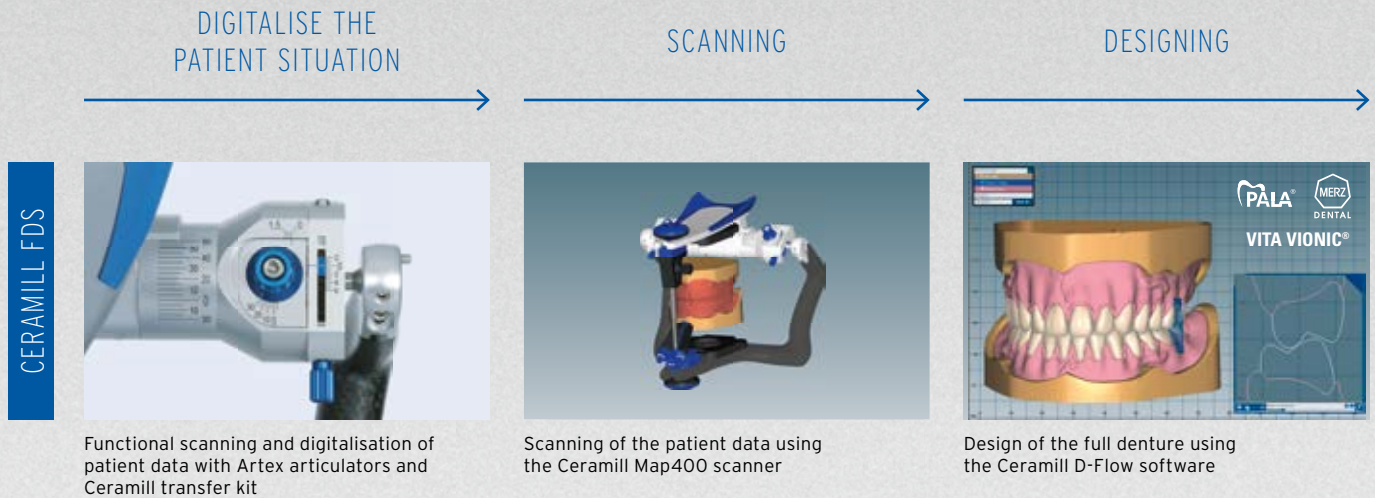
NEW

Now also mill in acrylic for 100%
digital workflow with VITA VIONIC



COMING SOON

OVERVIEW OF THE FULL DENTURE PROSTHETICS PROCESS



VITA VIONIC®

CERAMILL OFFICIAL CAD/CAM SYSTEM PARTNER

NEW:

VITA teeth and setting up concepts will soon be available in the Ceramill D-Flow software and as Ceramill D-Sets.

NEW:

The digital FDS workflow will be complemented with milling the denture base directly in acrylic with VITA teeth.

- _ Tooth ranges from 3 tooth manufacturers VITA, Merz Dental and Heraeus Kulzer increased flexibility in the choice of teeth
- _ 5 different setting up concepts of VITAPAN Excell and Lingoform teeth integrated in the CAD software, no special prosthetic knowledge required
- _ Time-consuming manual fabrication is no longer required due to milling of the denture directly in acrylic (only with VITAPAN Excell and Lingoform teeth)
- _ A denture base made from an industrially manufactured acrylic blank ensures improved fit and less reworking

BASAL ADAPTATION

MILLING (WET)

CONNECTING

CONTROL

CERAMILL FDS



Automatic adaptation of tooth bases to the alveolar ridge



Basal adaptation of the denture teeth and milling of the wax base



Connecting the denture teeth with the wax base



Control of the function with the possibility of adjustment and removal of high spots

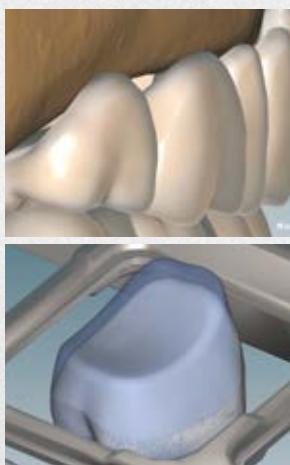
BASAL AND CONICAL ADAPTATION

MILLING (WET) IN ACRYLIC OR WAX

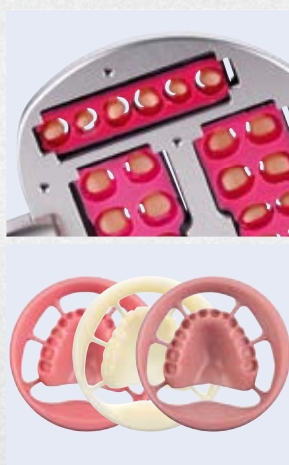
CONNECTING USING WAX OR ADHESIVE

CONTROL

VITA VIONIC® INTEGRATION



Conical basal adaptation of each tooth for a perfect fit in the tooth sockets, particularly important when milling acrylic denture bases



VITA VIONIC
_FRAME for basal and conical adaptation of the teeth in the machine
_WAX, pink for fabricating wax set-ups
_WAX, white for fabricating monoblock try-ins
_Base for fabricating definitive denture bases



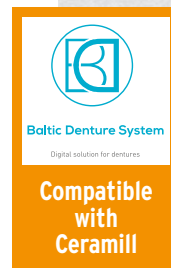
VITA VIONIC BOND
For fixation of the denture teeth in the acrylic base



Control of the function with the possibility of adjustment (wax try in) and removal of high spots

BALTIC DENTURE SYSTEM® INTEGRATION

The **Baltic Denture System** of Merz Dental is a highly promising system solution for cost-effective and time-saving fabrication of full dentures. Laboratories whose dentists use the BDS system now have the possibility of integrating the work into the Ceramill workflow and fabricating full dentures using AG milling machines. It is therefore now also possible to fabricate standard full dentures in the Amann Girschbach Ceramill system, with which only 2 dentist appointments are required.



^{BD}Load®

© Merz Dental

^{BD}LOAD® DENTURE BLANK IN THE CERAMILL MOTION 2



Due to a special developed blank holder it is possible to insert and mill the ^{BD}Load® denture blanks from the Baltic Denture System with the Ceramill Motion 2 (5X). The blank holder will be calibrated unique with the milling machine. Only this guaranteed a precise production of the jaw in relation to the prefixed denture teeth.

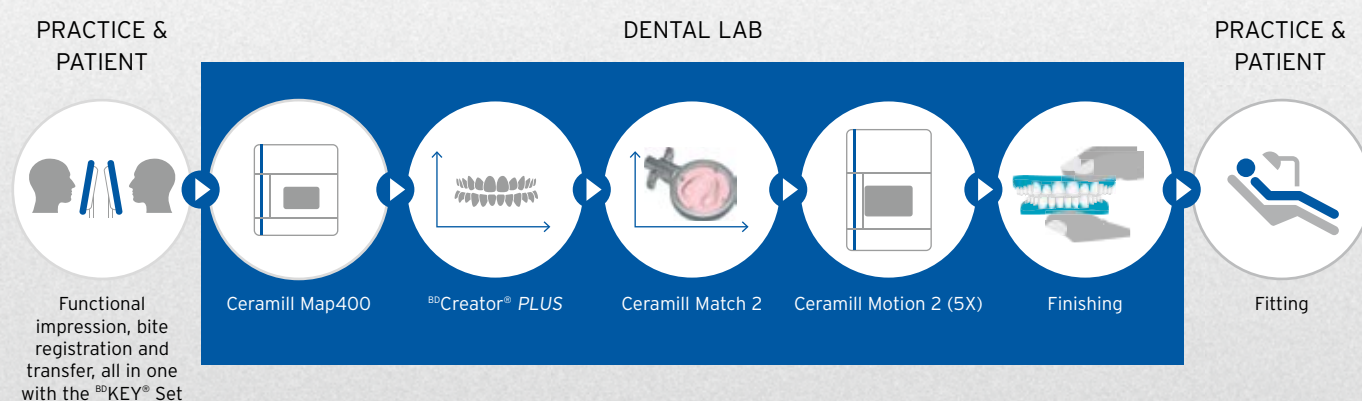
Further information can be found at:
www.baltic-denture-system.com

CAN BE USED FOR THE ENTIRE BDS RANGE

Small excerpt from the product range of ^{BD}Load® milling blanks

© Merz Dental

BDS® IN THE CERAMILL WORKFLOW



Further information can be found at:
www.baltic-denture-system.com

COMING SOON



ceramil® reax

REF: 701164
LOT: 181100
RM: LOT 215
Ceramil Zolid
75 47 16 44 82 218 82
22 82 16 44 82 218 82

CERAMILL RE(L)AX. FABRICATE IMPLANT BRIDGES WITH GINGIVA SECTIONS RELIABLY, QUICKLY AND VERY EASILY

Ceramill CAD/CAM provides a reliable, easy system solution for inhouse fabrication of implant-supported bridges with gingiva sections (Ceramill REAX - Reliable All-on-X). Specially developed milling strategies enable 5-axis external processing to produce the finest detail definition. This reduces manual reworking to a minimum. Users can take advantage of the new cutback library when designing customised anterior teeth. The new highly translucent zirconia Ceramill Zolid HT+ including Ceramill Liquid colour solutions complete the range.



SOFTWARE FOR CERAMILL REAX WORKFLOW (CERAMILL MIND UPGRADE)

- _ Automatic user guidance through the design process - no special knowledge required
- _ Highest standards of aesthetics at the press of a button thanks to the new cutback library by Knut Miller
- _ Special milling strategies reduce the minimal reworking to an absolute minimum
- _ Coordinated processes and materials create a high degree of reliability and efficiency



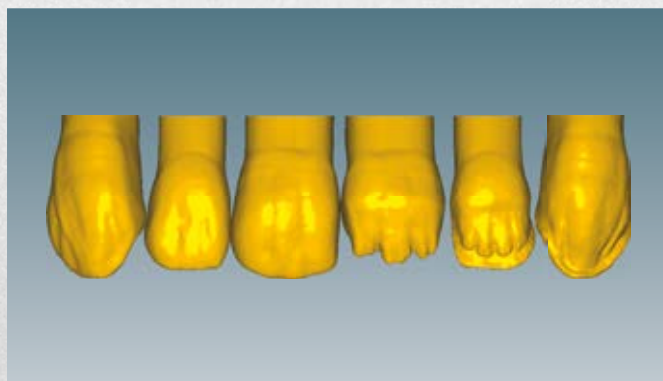
DESIGN



CUTBACK



Automatic gingiva cutback



Tooth moulds and cutback reduction at the press of a button



PRODUCTION

NEW: Ceramill Zolid HT+
ideal for implant-supported REAX bridges due
to its excellent mechanical and optical properties.
For more information see page 14



FINISHING



5-axis outer processing for the finest detail definition



Customisation using Ceramill Liquid "new formula"

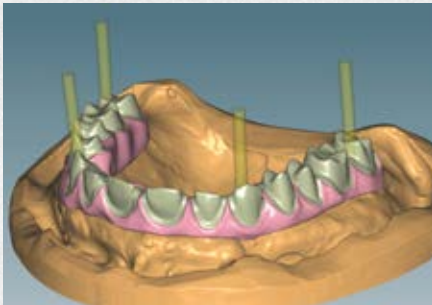
REAX BRIDGES - NOW AS HYBRID RESTORATIONS AND ON BARS

A new feature of the Ceramill M-Gin software module makes it possible not only to design REAX bridges fixed on implants but also on bars. When designing, a defined gap can be created using the scan taken previously. This function allows, e.g. an adhesive gap to be generated in which a bar patrix can be adhesively retained, or the friction between the primary and secondary framework can be influenced.

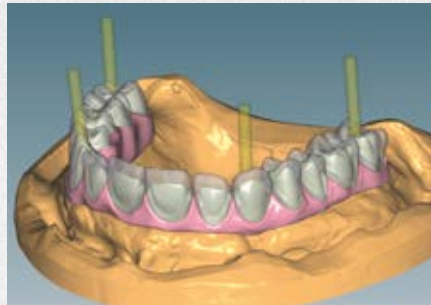
The new option of generating dies from library teeth and designing the actual crown on the die allows REAX bridges to be fabricated as hybrid restorations. A feature of hybrid restorations is that a material mixture of substructure (base with generated dies) and superstructure (crowns) is possible with which these restorations can be fabricated more stable, lighter, more aesthetic or more durable thanks to prevention of, e.g. chipping or abrasion. A stable and/or light material such as Ceramill Sintron or PEEK is suitable for the substructure of removable restorations. Aesthetic materials such as Ceramill Zolid or VITA ENAMIC are used for the superstructure.

_Generating dies for fabricating hybrid frameworks for modern restorations

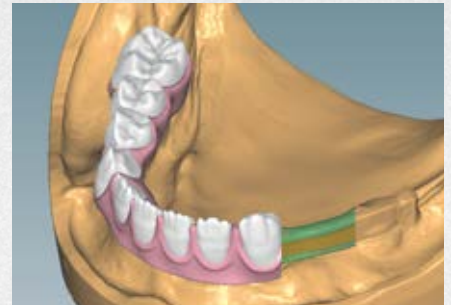
_REAX bridges now possible on bars for fabricating removable bridges with gingiva sections



REAX bridge with generated dies



REAX bridge with generated dies (substructure) and crowns (superstructure)

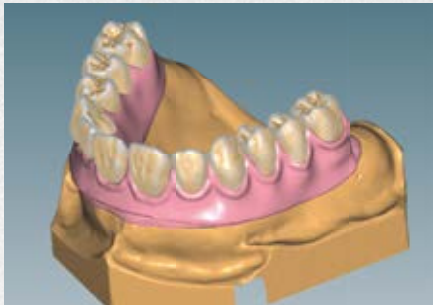


REAX bridge on a scanned bar. The adhesive gap between bar and bridge can be customised

CERAMILL M-GIN FOR REAX BRIDGES - 5 REASONS FOR OPTING FOR M-GIN

The Ceramill M-Gin software module enables easy digital fabrication of fixed restorations with gingiva sections on implants - so-called REAX (Reliable All on X). The following are 5 reasons why you should opt for the M-Gin.

1. Plug and Play for everyone: Complex restorations on implant bridges can be quickly and easily fabricated using the Ceramill M-Gin module. The Wizard integrated in the software guides the user step by step through the design process, guaranteeing precision and process reliability.
2. Increasing profits in the lab: The efficient, economic fabrication of Ceramill REAX implant bridges increases value creation and brings back profit to the lab with only a few clicks.
3. Maximum aesthetics with minimum effort: The new Ceramill Cutback library enables easy, quick aesthetic designing of anterior teeth at the press of a button. Different cutback moulds are available, providing the right solution for every situation.
4. Saves time and money: New milling strategies for undercut areas enable high-quality surfaces for minimum reworking.
5. Fully integrated system solution: Fabrication of REAX bridges is, in accordance with the Ceramill CAD/CAM philosophy, a completely integrated system solution. All software and hardware components are perfectly coordinated.

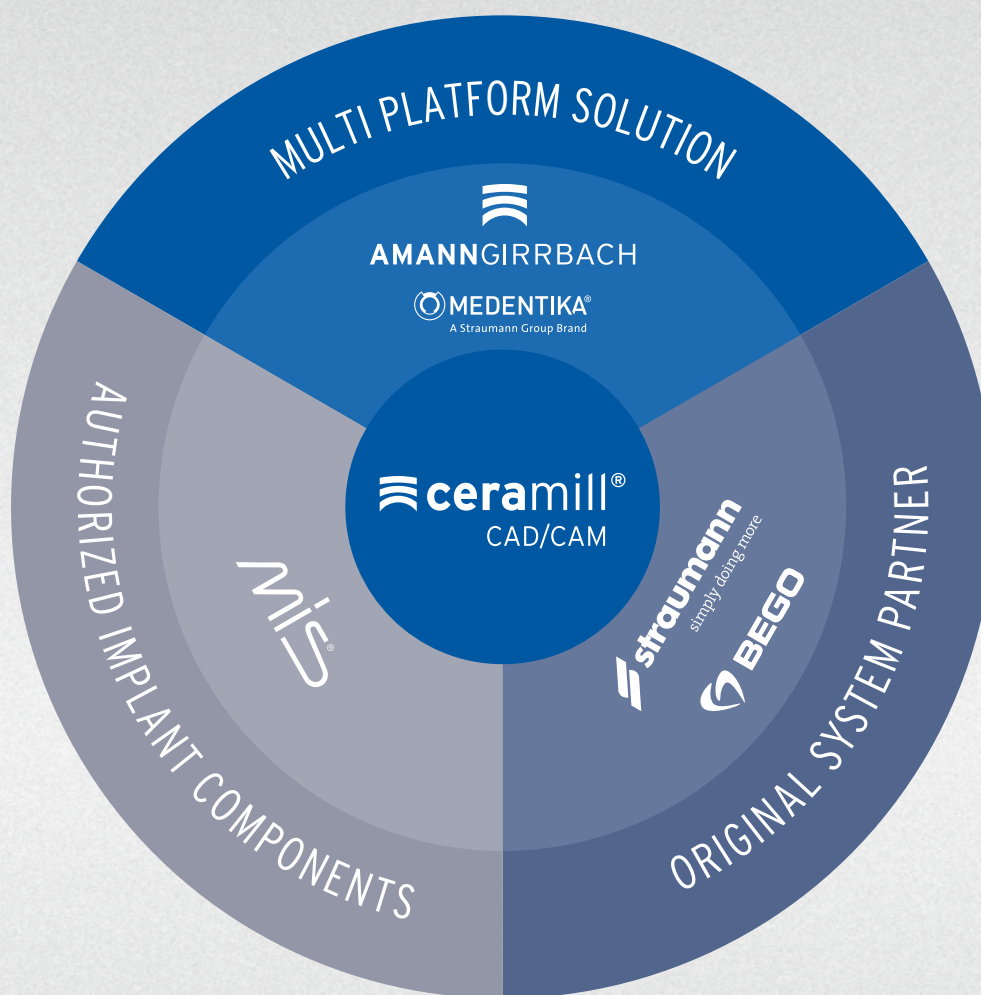


Implant prosthetics for Ceramill System








IMPLANT PROSTHETICS FOR CERAMILL CAD/CAM

An extremely wide product portfolio is available for the fabrication of implant-supported restorations with the system components of our Ceramill implant prosthetic range. We are individually adapting our range perfectly coordinated to your requirements or options. In accordance with the holistic philosophy of Amann Girrbach, all AG implant prosthetic components have been seamlessly integrated into the Ceramill CAD/CAM system architecture. You benefit from a high degree of process reliability, maximum precision and an efficient laboratory routine. Our range is continually being extended to include new implant lines to ensure maximum variety.



IMPLANT PROSTHETICS FOR CERAMILL CAD/CAM









EXTENSION OF IMPLANT PROSTHETIC INTEGRATION LINES FOR 2017

Multi Platform Solution for Ceramill CAD/CAM	Original System Partner for Ceramill CAD/CAM	Authorized Implant Components for Ceramill CAD/CAM
All from one supplier and can be ordered from Amann Girrbach	All from one supplier and can be ordered from Amann Girrbach	Data and components should be ordered from the implant manufacturer
 AMANNGIRRBACH  MEDENTIKA® <small>A Straumann Group Brand</small>	 straumann <small>simply doing more</small>  BEGO	
We provide innovative solutions for a variety of implant restorations with the Multi Platform Solution for Ceramill CAD/CAM Extensive implant prosthetic components for all conventional implant systems and treatment options are being continually extended.	Prosthetic components from ORIGINAL implant companies Premium implant manufacturer quality now in-house using Ceramill CAD/CAM	Prosthetic components from ORIGINAL implant companies Individual integration of implant libraries in the open Ceramill system
+ Excellent precision in combination with excellent price-performance ratio	+ Original implant connection geometries > including maximum value creation and precision	+ Continually increasing selection of available implant prosthetic components of regional and nationwide implant manufacturers
+ Innovative, individual implant prosthetic solutions - the variety is being continually extended	+ A perfectly matching system: coordinated design in combination with highly precise fabrication in the Ceramill CAD/CAM system	+ Original implant connection geometries > including maximum value creation and precision
+ Design and results perfectly coordinated to the Ceramill system	+ Fully integrated prosthetic components in the Ceramill system	+ Manufacturer's guarantee
+ Perfect and fully integrated solutions for the Ceramill system	+ Manufacturer's guarantee	






UNIQUE PRECISION

MEDENTIKA FOR CERAMILL RANGE EXTENSION - INNOVATIVE SOLUTIONS FOR A VARIETY OF IMPLANT RESTORATIONS USING CERAMILL CAD/CAM

Implant systems, MPS Compatible Medentika implant system components		
<div> <div> Altatec® / Camlog® Altatec® / Conelog® BEGO Implant Systems® / Semados® S / RI / RS / RSX BIOMET 3i® / Certain® BIOMET 3i® / External Hex Bredent Medical® / SKY® DENTSPLY Implants® / ASTRA TECH OsseoSpeed® EV DENTSPLY Implants® / ASTRA TECH OsseoSpeed® TX DENTSPLY Implants® / XiVE® S DENTSPLY Implants® / ANKYLOS® </div> <div> Medentis Medical® / ICX® Nobel Biocare® / Brånemark® Nobel Biocare® / NobelActive® - NobelReplace® Conical Nobel Biocare® / NobelReplace® Tapered Straumann® / Bone Level® Straumann® / Tissue Level® Zimmer Dental® / Tapered Screw-Vent® </div> </div>		
Range extension for individual solutions using the Ceramill system		
	TI-Forms®-Abutment for Ceramill	Ceramill TI-Forms are titanium abutment blanks with industrially prefabricated connection geometries, which are used for fabricating customised, one-piece titanium abutments. The TI-Forms, available for a wide range of conventional implant systems, are given their excellent surface quality by the rotational milling technique and feature a high degree of biocompatibility thanks to the proven material Ti6Al4V (medical grade 5, ASTM 136). Highly precise TI-Forms abutments as milling blanks.
	Titanium base zirconia abutment 2nd Generation	2 nd generation titanium base - original variety for excellent prosthetics _ Two different chimney heights (3.5 mm, 5.5 mm) for optimum static support of the zirconia framework _ With conical implant connections: two gingiva heights for optimum design of the emergence profile _ Diameter-reduced platform with significantly greater design freedom for the zirconia framework
	Titanium base zirconia abutment 2nd Generation	
	Titanium base bridge/bar 2nd Generation (rotating)	Rotating titanium bases are available with a chimney height of 3.5 mm. They are suitable for fabricating multi-unit bridges and bars
	Scanbody 2nd Generation	Scanbodies are suitable for intraoral and conventional use in the scanner. All scanbodies are made from titanium, ensuring significantly higher precision and durability. The surface of the scanbody is coated for optimum scanning, sterilisable and inscribed for better differentiation.
	MedentiBASE® abutment, straight	The MedentiBASE® abutment provides the option of creating very different, multi-unit CAD/CAM-fabricated bar and bridge restorations in the upper and lower jaws. MedentiBASE® abutments are available in 5 different gingiva heights.
	MedentiBASE® adhesive caps	
	MedentiBASE® titanium bases	MedentiBASE® titanium bases are available with a chimney height of 3.5 mm. They are suitable for adhesive retention of multi-unit bridges and bars, particularly from ceramic and composite materials.

BEGO SEMADOS® IMPLANT PROSTHETIC COMPONENTS FOR CERAMILL CAD/CAM

BEGO Semados® SC/SCX/RS/RSX/RI with platform switching design		
	Titanium abutment blanks for titanium abutments	<ul style="list-style-type: none"> _ Inhouse fabrication of one-piece titanium abutments _ Delivery includes technician and prosthetic screws _ High precision abutments thanks to industrially prefabricated implant connection geometries _ Titanium Grade 5 according to ASTM F136 _ Compatible with BEGO Semados® implants with platform switching design
	Titanium bases for abutments (Titanium bases with rotational security)	<ul style="list-style-type: none"> _ For fabricating hybrid abutments _ Delivery includes technician and prosthetic screws _ Minimum overall height for maximum design freedom of the superstructure _ Rotational security ensures reliable positioning _ Titanium Grade 5 according to ASTM F136 _ Compatible with BEGO Semados® implants with platform switching design
	Titanium bases for multi-unit restorations on implants (Titanium bases without rotational security)	<ul style="list-style-type: none"> _ For fabricating bridges and/or bar restorations _ Delivery includes technician and prosthetic screws _ Minimum overall height for maximum design freedom of the superstructure _ Rotational security ensures reliable positioning _ Titanium Grade 5 according to ASTM F136 _ Compatible with BEGO Semados® implants with platform switching design

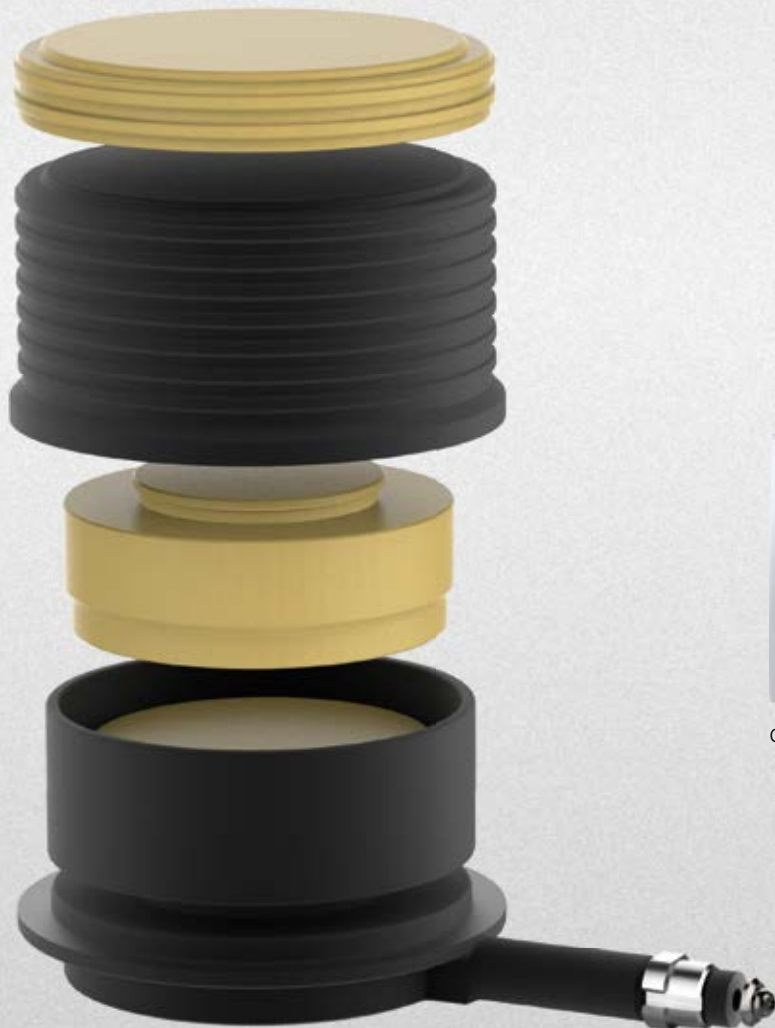


 **ceramill[®]** argovent

CERAMILL ARGOVENT 2 - INCREASED CAPACITY WITH CONSTANT ARGON CONSUMPTION

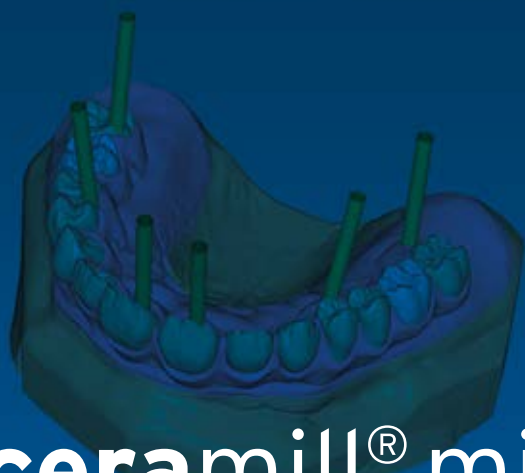
Even more units can be sintered in one cycle with the new Argovent 2. A main focus during development, in addition to increasing the capacity by 25 %, was on argon consumption. Because of the improved thermal conductivity of the Argovent 2 the required heat penetrates faster to the sintering restoration. Furthermore the sealing concept was improved too. This helps customers further reduce their per unit costs. The newly developed, warp-resistant and metal-free ceramic components can be easily removed and their quality ensures reliable restoration results. A universal program will also be available for the new Argovent 2 that will allow customers to sinter all indications in one cycle independent of size using a single programme.

- _ **Costs per unit are reduced thanks to improved thermal conductivity and impermeability concepts with a higher capacity**
- _ **Oxide ceramic inserts protect against melting on the sinter units**
- _ **Easy handling due to light, sure-grip tray components**
- _ **Compatible with Argotherm 1 AND 2**



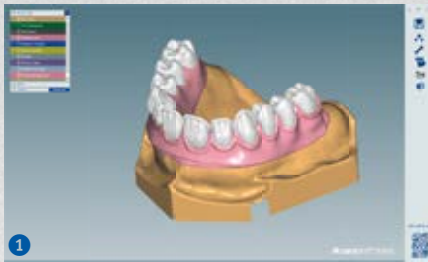
Compatible with Argotherm 1 AND 2

 **ceramill[®]** mind



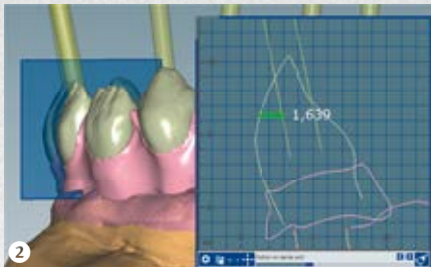
CERAMILL CAD/CAM UPDATE SUITE 3.5

The Ceramill CAD/CAM update 3.5, which is available immediately, is the most comprehensive in Amann Girrbach's company history and extends the Ceramill software of new modules and existing modules to include countless, free features.



1 NEW CAD UPGRADES - CERAMILL M-GIN AND CUTBACK LIBRARY BY KNUT MILLER FOR FABRICATING REAX BRIDGES

- _ Bridges with gingiva sections can be easily designed thanks to step-by-step workflow and automatic user guidance through the design process
- _ Three different cutback moulds ensure highly aesthetic results at the press of a button
- _ Reworking is reduced to a minimum due to special milling strategies
- _ Coordinated processes and materials provide the highest degree of reliability and efficiency



2 IMPROVEMENT OF THE CERAMILL MIND - CERAMILL MIND FEATURES

- _ Increased reliability and control in the design process due to displayable grid, ruler and measuring instruments with sectional planes
- _ Increase of flexibility and aesthetics in the design process thanks to optimised placement of single teeth, possibility of mirroring teeth and connecting designs
- _ Design complex restorations easily using chain function, deletion of connectors with bridges with gingiva sections and placement of anatomies independent of implant positions
- _ Increased convenience in the design process of full dentures using digital tooth mould charts



3 QUICKER SCANNING AND INCREASED FLEXIBILITY - CERAMILL MAP200 AND MAP400

- _ Scan time reduced by up to 50% by optimised, parallel matching and automatic, dynamic thinning of scan data
- _ Quick further scanning due to automatic standby after completion of a scan process
- _ Increased flexibility in the work process- scanner possible as stand-alone workstation



4 OPTIMISATIONS WITH REGARD TO SPEED AND ULTRA HD MILLING RESULTS - CERAMILL MATCH 2

- _ Convenient creation of Ceramill blanks in a matter of seconds using the IntelliScan
- _ 2x quicker processing of designs without fissures in the Ceramill Mikro using speed milling
- _ Ultra HD milling by 5-axis outer processing with undercuts



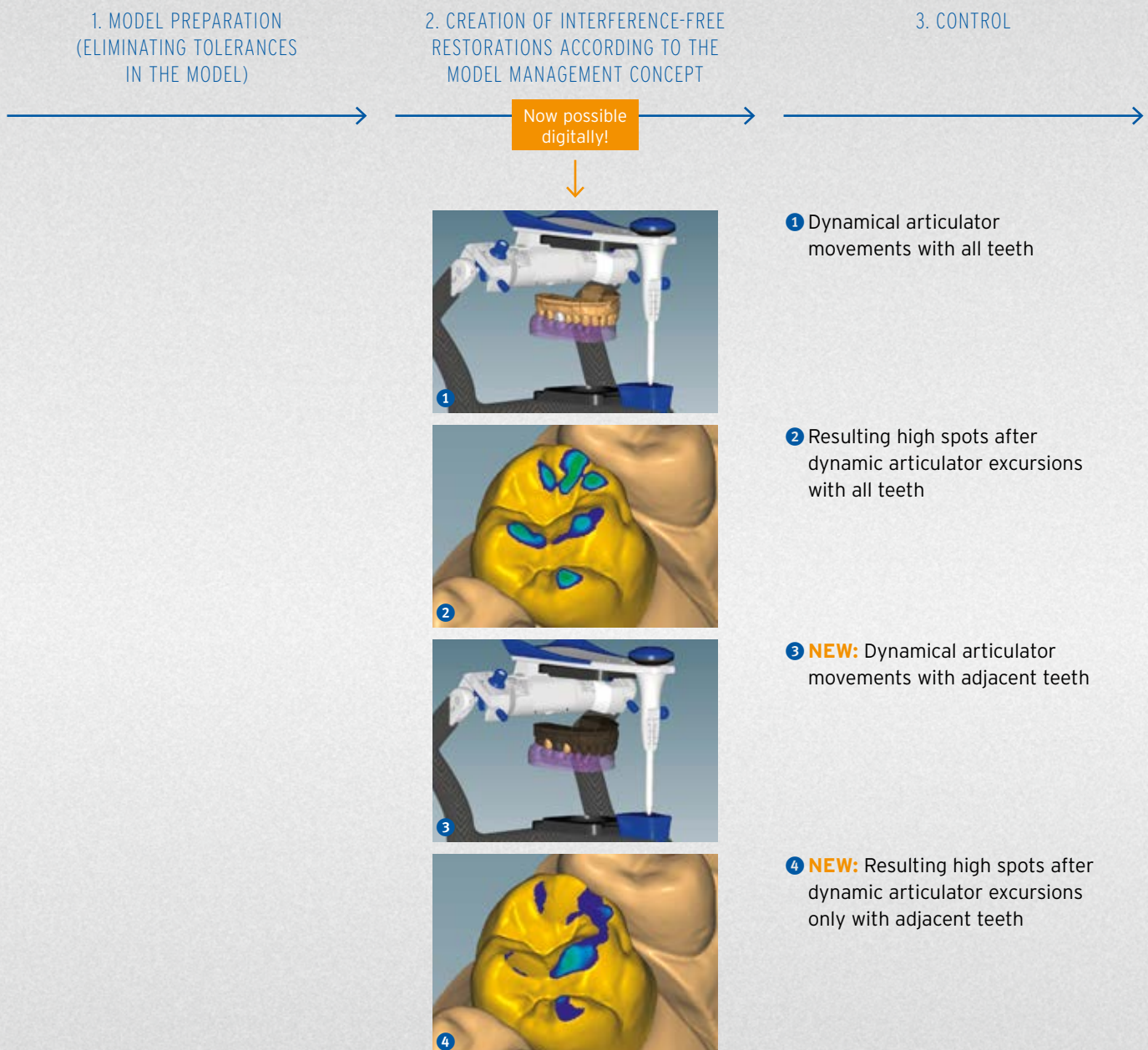
5 HANDLING IMPROVEMENTS OF THE DATABASE (CERAMILL COCKPIT)

- _ Use of the database as a laboratory order form improved by optimised print layout and export into PDF
- _ Quicker machine selection thanks to automatic storage of the machine last used and individual machine selection

DIGITAL MODEL MANAGEMENT - FREE UPDATE FOR CERAMILL ARTEX

Model management stands for the fabrication of interference-free restorations by elimination of tolerances in the model, which occur due to taking impressions and stone expansion, and taking into account the differing excursion paths of the rigid articulator compared with the human temporomandibular joint.

MODEL MANAGEMENT PROCESS



The high spots created during dynamic articulator excursion with adjacent teeth are minimal, comparable with the thickness of a hair. It is therefore all the more important to detect these high spots and eliminate them, which is possible at the press of a button digitally using Model Management. This guarantees an interference-free restoration in the patient's mouth.

AUSTRIA (HEADQUARTERS)

Amann Girrbaach AG
Koblach, Austria
Fon +43 5523 62333-105
austria@amanngirrbaach.com

GERMANY

Amann Girrbaach GmbH
Pforzheim, Germany
Fon +49 7231 957-100
germany@amanngirrbaach.com

NORTH AMERICA

Amann Girrbaach North America, LP
Charlotte, NC, U.S.A.
Fon +1 704 837 1404
america@amanngirrbaach.com

BRASIL

Amann Girrbaach Brasil LTDA
Curitiba, Brasil
Fon +55 41 3287 0897
brasil@amanngirrbaach.com

ASIA

Amann Girrbaach Asia PTE LTD.
Singapore, Asia
Fon +65 6592 5190
singapore@amanngirrbaach.com

CHINA

Amann Girrbaach China Co., Ltd.
Beijing, China
Fon +86 10 8886 6064
china@amanngirrbaach.com