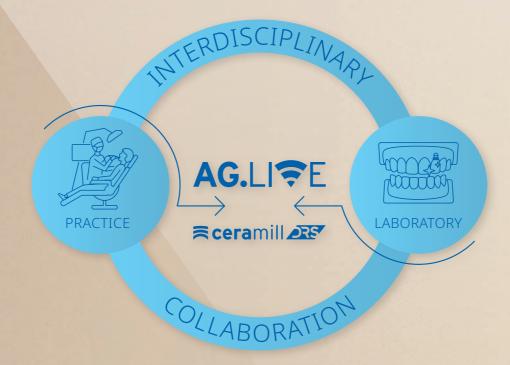


**DENTISTRY UNIFIED** 

# General Catalog

# DENTISTRY UNIFIED



# Connect to the Workflow!

With the advance of digital technologies as well as the advent of CAD/CAM in the dental laboratory and dental practice, the job profile of dental technicians and dentists has changed rapidly. Amann Girrbach has set itself the task of accompanying dental professionals along this path and supporting them with solutions that optimize interdisciplinary collaboration between the practice and laboratory. Bridging interdisciplinary gaps have already become reality today with Ceramill DRS in combination with the AG.Live platform. To better meet today's patient demands, the laboratory and dentist can now work together seamlessly, uniting their skills and designing workflows together at the touch of a button.

# Functional precision chain.

#### Anatomically correct fixation of the skull-axis relation

- ✓ Anatomically correct fixation of the skull-axis relation in just two minutes
- ✓ Loss-free transfer of the oral situation to the Artex articulator
- ✓ Reduces or saves grinding times on the patient thanks to the highest precision

### Precise, stable and proven 1,000 times over

- ✓ Provides all functions for analysing the free spaces and excursion patterns
- ✓ Variable sideshift function for transversal clearance, adjustable
- ✓ Light and stable due to carbon construction for optimum handling

### Precision models fast and cost-effective

for digitalisation

- ✓ Outsmarts gypsum expansion and thus saves time-consuming grinding
- ✓ Time savings by manufacturing the dental arch in only 6 minutes (working time) ✓ Fault-free basis
- process reliability ✓ HD scan via 3D sensor with blue light technology and variable resolution guar antees optimal and reproducible results

The high-performance scanner

✓ Integrated, universal fixator for

ensures maximum flexibility

✓ Intelligent scan height control for

optimum model alignment in the

scan field offers the highest possible

all common types of articulators

for open articulator scans

✓ DNA Speed Scanning enables a full jaw scan with unrestrictedly usable results in only 18 seconds

### The intelligent design software

- ✓ High saving in time thanks to intuitive workflow according to dental technology logic
- ✓ Perfectly coordinated with scan and CAM processes to guarantee a continuous workflow ✓ Virtual Artex CR with an
- unlimited range of functions ✓ Automatic user guidance for maximum process safety
- and easy operation ✓ Future-safe due to continuous expansion of upgrade modules

**≈ cera**mill<sup>®</sup> mind

#### CAD/CAM materials for the highest demands in quality and esthetics

- ✓ Zirconia for great expectations esthetic, cost-effective and
- $\checkmark$  CoCr sintering and hard metal for fabricating non-precious metal restorations
- ✓ Resins for temporary restorations and therapeutic splints
- ✓ Hybrid ceramics which combine the positive properties of composites and ceramics

### 5-axis milling units for perfect in-house production

- ✓ Maximum range of indications
- ✓ Fast and efficient thanks to control and milling strategies optimised for dental
- ✓ Monocoque design guarantees absolute stability and low-vibration processing

# The Full Service Unit with maximum time savings

- ✓ Maximum time savings in resource management through automatic management of tools and materials
- ✓ Highest possible convenience due to autonomous wet and dry change and automatic cleaning
- ✓ Full range of applications due to maximum indication and material portfolio ✓ Future-safe due to constant software
- ✓ Intelligent sintering satisfies the most stringent requiredevelopment and expandable holder portfolios ments for esthetics and strength

# **≅ cera**mill® matik









## ≅ceramill therm ≥₹



The sintering furnaces give

material properties

the substance the necessary

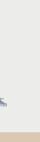
✓ Wide range of options for rou-

tine use - from a speed-sinter-

familiar overnight sintering

ing cycle of up to 20 min to the

# **≈ ar**tex<sup>®</sup> facebow



# **≅ar**tex®

**DATA INPUT** 



# **≋ giro**form®



### **≈ cera**mill® map



**PRECISION** 

SCANNING

AG.LI ?E PLATFORM

DESIGN (CAD)

VIRTUAL

OCCLUSION

# CAD/CAM Material



# **MATERIAL**



# **SELECTION**



**PRODUCTION** 













# 100 % DIGITAL

**WORKFLOW** 

**WORKFLOW** 

CLASSIC



### The digital facebow

- ✓ Provides the basis for practically every indication in dentistry
- ✓ Simple, intuitive, wireless workflow
- ✓ Digital data transfer to the CAD/CAM system

# ≅ceramill map Æ

### Easy to handle Intraoral Scanner (IOS)

- ✓ Small, light and fast IOS as an entry point of same day dentistry, ideal for simple restoration procedures
- ✓ Fully integrated with Ceramill Lab Software and AG.Live for highlyefficient patient case management
- ✓ High-comfort IOS for patient and dentist

# 3D printing materials

### Meticulous material validation for outstanding results

- ✓ Large selection of coordinated NextDent 3D printing materials ensures the greatest range of applications in routine laboratory use
- ✓ Clever material management and coordinated post-processing options simplify the use of these materials

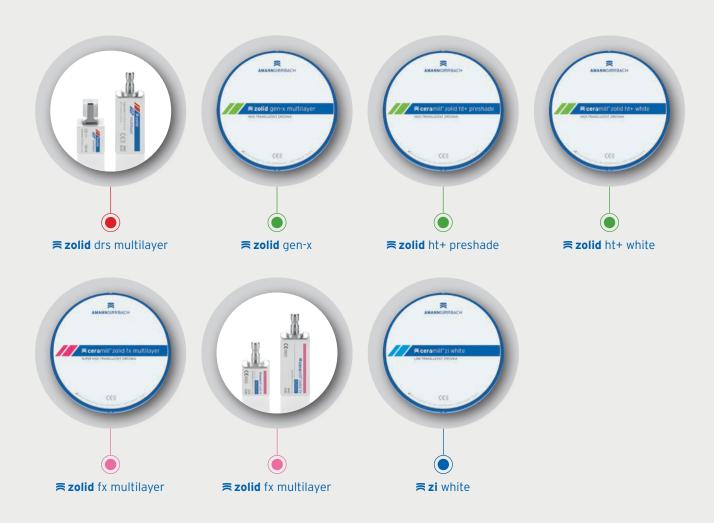
# NextDent<sup>™</sup> 5100 for **≈cera**mill<sup>®</sup>

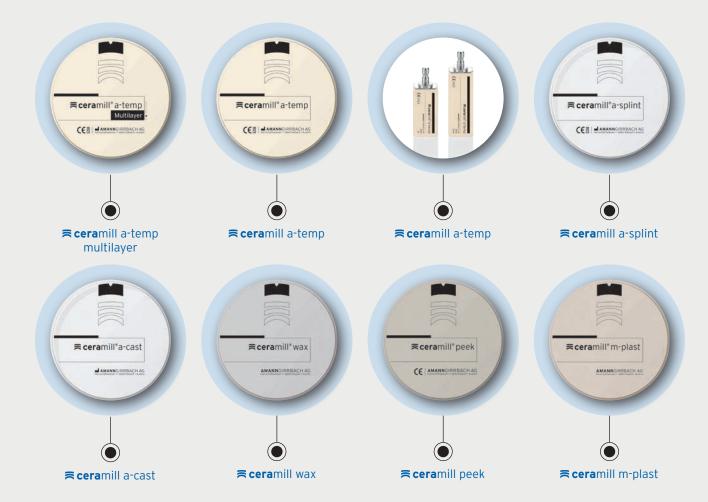
### The high-speed 3D printer for dental materials

- ✓ Up to 3x faster printing due to Figure 4<sup>™</sup> technology for high productivity and flexibility
- ✓ Excellent printing results in highest precision due to coordinated workflows, machines, materials and accessories
- ✓ Rapid amortization due to maximum material and indication spectrum as well as low investment and fixed costs

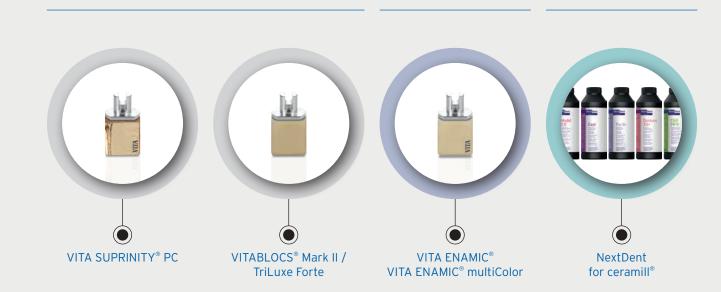
# CAD/CAM materials

ZOLID ZIRCONIA POLYMERS/WAX









**HYBRIDS** 

**CERAMICS** 

**3D PRINT RESINS** 



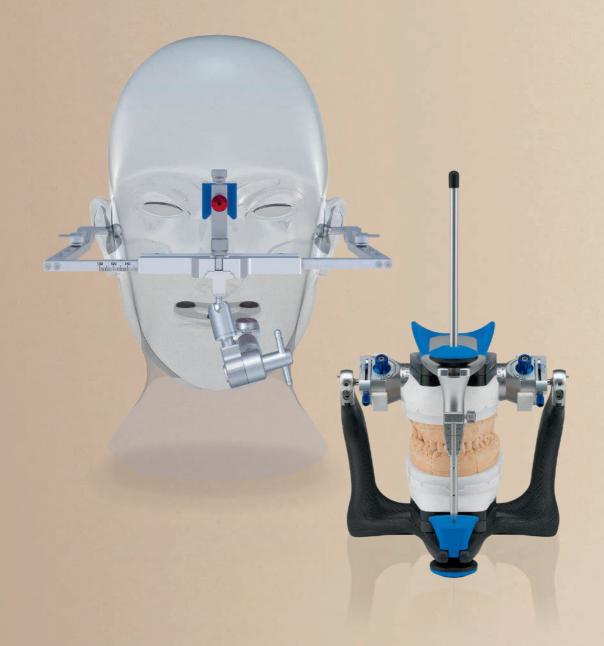
# **≋ar**tex®system

# Articulation system components

# Artex system – the perfect communication between dentist, dental technician and the patient.

For maximum accuracy of fit for well-functioning dentures, working with an articulator is essential. The Artex system is renowned worldwide as being fully functional and reliable, and for dentists and dental technicians alike it is an effective aid in recording static jaw relationships and simulating jaw movements.

For the best possible link-up between dentist and dental technician. For the ultimate in reliability and accuracy. For perfect service to the patient.













# Anatomically correct fixation of the cranial-axis relationship in just 2 minutes

Artex facebow, transfer jig and articulator form a single communication unit. Dentists determine the cranium-axis position of the maxilla using the Artex facebow. This anatomically important parameter is quickly and precisely fixed in position on the transfer jig. This secures it for transport from the practice to the laboratory where the models are mounted patient analogous in the Artex articulator.



- $\checkmark$  Cranium-axis oriented transfer of maxillary model to the articulator transfers the real jaw position precisely to the articulator and consequently reduces grinding time at the
- ✓ Reliable reproducibility of arbitrary axis position using cushioned Leipzig Nasion
- ✓ Cranium/axis relation determined in corresponding to the patient's anatomy in just two minutes
- ✓ Quick and secure the 3D universal joint



Bite fork insertion



Face bow attached to the patient



Removing joint support with bite fork record from the face bow

## **≋ar**tex®facebow

# The Artex facebow – the better way to obtain an anatomically correct registration of the patient's cranium/axis relationship



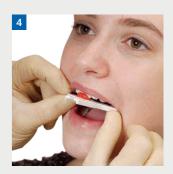
Preparation of the facebow: The nasion bar is secured in a rear position. Joint support inserted with its vertical position fixed by a wing screw



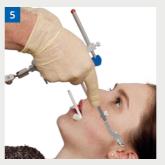
Prepare the bite fork in a double-boiler



Introduce the bite fork into the patient's mouth



Position the bite fork at the dental arch of the upper jaw



Move the Artex facebow close to the patient's face



Introduce the ear tips into the external auditory meatus while sliding the sides of the facebow together and fix them in position by tightening the locking screw



Place the nasion adapter on the glabella by applying gentle thumb pressure till the marker on the nasion bar is reached. Patient is lying down



Fix the nasion bar by tightening the screw on the bar with your free hand



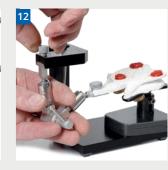
Move the joint support up to the bite fork and tighten the wing screw, thus securing the position of the upper jaw



It takes only 2 minutes to apply



Remove the facebow and detach the joint support together with the bite fork registration



Fix the bite fork registration on a plaster bed on the transfer table for safe transport of the secured upper jaw



# The digital facebow for more accurate prosthetic results

The Zebris for Ceramill digital facebow digitally captures the patient's temporomandibular joint trajectories in next to no time and closes the gap between any intraoral scanners on the dentist side and the CAD/CAM systems on the laboratory side. It is suitable for virtually every dental indication: single tooth restorations, bridges, implant technology, splint therapy as well as full dentures. The lightweight wireless facebow captures and calculates the patient's axis relations and joint compartment in just a few minutes. Comprehensive patient documentation and the values for programming the articulator can be provided at the touch of a button.

Specific extension modules enable extended bite registration of the patient in an extremely short time. Zebris for Ceramill completes the digital Ceramill workflow in combination with the Ceramill Map DRS intraoral scanner. Both the Zebris data as well as the scan data can be easily and quickly integrated into the Ceramill CAD/CAM system on the laboratory side. Of course, it can also be inserted into the analog process chain with the transfer jig.



- $\checkmark$  Complete digital workflow closes the gap between intraoral scanner and CAD system
- ✓ Time-saving, efficient and profitable lean process from exact digital recording of the individual jaw situation to reduced grinding times due to more accurately fitting dentures - enables profitable integration into the daily business
- Comprehensive patient documentation at the touch of a button due to digital patient data collection
- ✓ Specific extension modules enable extended bite registration of the patient in an extremely short time



The software module Ceramill M-Pass offers the possibility to transfer complex jaw movements exactly into the Ceramill Mind. With the jaw registration systems from Zebris all movements of the lower jaw can be recorded. The data output is imported into the Ceramill system without loss.



With the unique transfer stand it is possible to transfer the individual upper jaw position into every mechanical articulator.



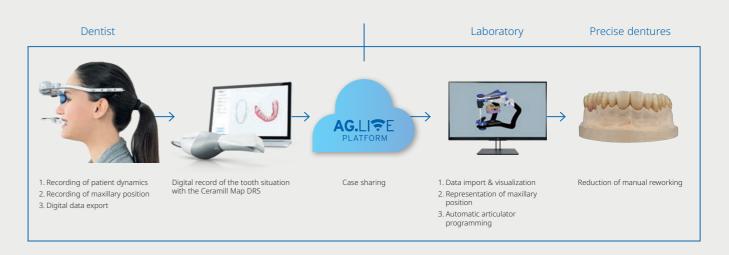
The System Tray allows the safe storage of the measuring components and at the same time it can be used as an inductive charging station for the facebow. The system can be optionally connected with a USB interface or completely wireless via WIFI.

# Save time with digital facebow – the 100% digital way



### THE DIGITAL WORKFLOW

From the dental practice to an individual, precise fit



# Sensitive excursion simulators precise, stable and proven in 1000s of applications

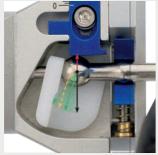
What the dental technician fabricates in the articulator must function intraorally. Artex articulators provide a highly precise option for accurately reproducing excursion patterns of patient receptors. Their light, stable design simplifies and accelerates work on the model while also reducing work on the patient and significantly increasing patient comfort.

Their reliable precision, flexibility and simple, ergonomic handling make Artex articulators one of the most commonly used mastication simulators in the world.



- ✓ Integrated magnetic mounting plate system
- ✓ Interior height 126 mm large working area, provides plenty of space for mounting
- ✓ Bonwill triangle with 110 mm lateral length formed from intercondylar distance and incisal point
- ✓ Average marking of the occlusal plane
- ✓ Scaled, adjustable incisal guidance pin (-5 mm to +10 mm)
- ✓ Support pin for opened upper member of the Artex articulator
- $\checkmark$  Light and stable thanks to carbon design (CN, CT, CPR, CR)





The reproducible centric guarantees a reliable start and end position of each excursion. Interferences less than 20 µm can be identified, checked and removed



Facebow and Artex articulators – the communication unit for patient-analogue

# All Artex articulators at a glance

	Arcon design		Non-arcon design		
TECHNICAL DATA CHART	ARTEX CR	ARTEX CPR	ARTEX CT	ARTEX CN	ARTEX BN
SCI (Sagittal condylar inclination)	-20° to +60°	-20° to +60°	-15° to +60°	35°	35°
Bennett-angle (HCI)	-5° to +30°	-5° to +30°	0° to +20°	0° to +20°	15°
Protrusion	0 to 6 mm	-	-	-	-
Retrusion	0 to 2 mm	0 to 2 mm	-	-	-
ISS (Immediate Sideshift)	0 to 1.5 mm (per side)	-	-	-	-
Distraction	0 to 3 mm	0 to 3 mm	-	-	-
Centric design	Centric lever for semi-axes	Centric lever for semi-axes	Centric click	Centric click	Centric click
Upper and lower articulator arms prevented from coming apart inadvertently in open centric by:	Arcon-Clip	Arcon-Clip	Centric plate	Centric plate	Centric plate
Arbitrary pins for direct transfer with Artex face- bow	yes	yes	yes	no	no



# in arcon design

Artex articulators in Arcon design based on the human anatomy. The condylar balls are therefore in the lower member of the articulator and condylar guidance surface in the upper member. The condylar guidance elements can be adjusted using individual positioning registrations.

### **≋ar**tex®cr



# Model management articulator and universal diagnosis and therapy device

- ✓ Provides comprehensive adjustment possibilities to reproduce the patient's clearance and movement dynamics
- Fully adjustable Artex Carbon articulator offering the following additional functions:
- ✓ Variable sideshift function for transversal clearance, adjustable from 0 to 1.5 mm (for each side)
- √ Variable protrusion, adjustable from 0 to 6 mm
- ✓ Variable retrusion, adjustable from 0 to 2 mm
- ✓ Distraction permitting release of compressed mandibular joints from 0 to 3 mm
- ✓ Ideal for model analysis, splint manufacture and correction
- ✓ Adjustable inclination of the condyle track inclination from -20° to +60°
- ✓ Bennett angle adjustable from -5° to +30°

# **≋ar**tex®cpr



### The Arcon base device

- ✓ Semi-adjustable Arcon articulator with 3 non-tip working positions
- $\checkmark$  High-precision and robust centric quick lock via mechanically guided semi axis
- $\checkmark$  Arbitrary pins for direct transfer with the Artex facebow
- ✓ Adjustable inclination of the condyle track inclination from -20° to +60°
- ✓ Distraction permitting release of compressed mandibular joints from 0 to 3 mm
- ✓ Arcon clip prevents separation of upper and lower articulator parts while centric is open
- ✓ Bennett angle adjustable from -5° to +30°
- ✓ Infinitely variable retrusion, can be set from 0 to 2 mm

## **≅ar**tex®articulators

# in non-arcon design

A feature of Artex articulators in non-Arcon design is their reliable and easy handling. In contrast to Arcon design articulators, the condylar ball is in the upper member of the articulator and the condylar guidance surface is in the lower member. The anatomy of the patient is thus "turned on its head", whereby upper and lower members of non-Arcon articulators form a single unit, even with opened centric.

### **≋ar**tex®ct



### Non-arcon base device

- ✓ Partially adjustable non-Arcon articulator
- ✓ Adjustable inclination of the condyle track inclination from -15° to 60°
- ✓ Bennett angle adjustable from 0 to 20°
- ✓ "Click" centric quick lock
- ✓ Arbitrary pins for face bow adaptation

### **≋ar**tex®cn



### Non-arcon base device

- ✓ Simple and pleasant handling
- √ 3 working positions, no tipping over
- ✓ "Click" centric quick lock
- ✓ Fixed average condyle track inclination at 35°
- ✓ Bennett angle adjustable from 0 to 20°

### **≋ar**tex®bn



# Non-arcon base device

- ✓ Precise functional components made from aluminium and stainless steel
- ✓ Integrated magnetic mounting plate system
- ✓ Fixed condyle with a 19 mm path radius
- $\checkmark$  Fixed average sagittal condylar path inclination of 35°
- ✓ Fixed Bennett angle of 15°
- $\checkmark$  "Click" quick centric lock

# Precisely interchange Artex articulators

All Artex articulators can be adjusted to uniformity of design using the Splitex key and Splitex plate set. The magnetic plate system is used for metric interchangeability. The precision of calibration is such that deviations are brought down to below 10 µm. This means that models can be mounted and changed with precision on any calibrated

Adjustability of the Artex articulators greatly simplifies model transfer between the practice and laboratory. Where both parties have a calibrated articulator, then only the models need to be transported, and not the complete articulator. Not only does this protect the articulator against handling problems, it also saves on postal charges.



- $\checkmark$  Highly precise interchangeability of Artex articulators thanks to tolerances below 10  $\mu m$
- $\checkmark$  Saves articulators and increases their profitability
- $\checkmark$  Simplifies dispatch (only the model) and increases the information flow
- ✓ Splitex Counter plates prevent the risk of poor fit caused by plaster expansion and guarantee quick, precise adaptation to Splitex metal plates



Splitex-keys



Splitex counter-plates in black



Splitex plate set for the carbon

# **≅spli**tex<sup>®</sup>calibration

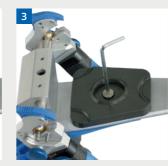
# Splitex calibration



Remove model plates, magnets and magnet holders from the upper and lower parts of the Artex articulator



Replace the magnet holders by the mounting plates and secure them with screws in the upper and lower parts of the Artex articulator



Screw down the Splitex TOP plate on the upper part of the Artex articulator and magnet into the TOP plate



Insert the Splitex magnet holder



Insulate the carbon surface in the area of the adhesive plate by applying a thin layer of petroleum jelly



Screw down the adhesive plate onto the lower part of the Artex articulator



Place the Artex articulator upside down and put Splitex key in place



Put Splitex mandibular adjustment plate on top of the key



Apply two strands of glue near the center of the Splitex plate



Close the Artex articulator and let the glue dry



Calibrate further Artex articulators using the Splitex key for metric commonality



Models can be transferred from one calibrated Artex articulator to the next as every dental technician and every dentist has his or her own Artex articulator



# Protects the posterior teeth and guarantees correct incisal guidance

The Artex incisal guidance is used for fabricating functional anterior restorations, as correct incisal function is the prerequisite for a durable posterior restoration and preserving the residual posterior teeth. The incisal-canine guidance can be determined using the diagnostic models before grinding the teeth and transferred to settings of the customised incisal guidance unit.

Customised incisal guidance has been integrated in the Ceramill CAD/CAM system without limitations and is an integral component of the Ceramill Artex virtual articulator.

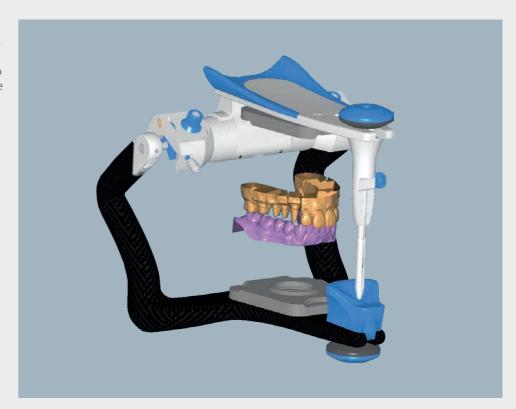


- ✓ Reproduces the incisal guidance of the patient
- $\checkmark$  Guarantees correct incisal function and protects the posterior teeth against overloading
- ✓ Avoids ceramic fractures due to overloading
- ✓ Also practical for setting up guidance with posterior restorations
- ✓ Avoids excessive grinding
- ✓ Component of the Ceramill Artex virtual articulator

# **≅cera**mill®artex

# The functional interface between manual and digital dental technology

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 Map 600+ -scanner while holding the same Artex mode by means of the Ceramill transferkit; it is subsequently scanned-in in the appropriate proportion. The movement options of the Artex CR are thus synchronised digitally and manually. Interfering structures can already be removed, reducing time-consuming grinding in at the chairside to a minimum.



- ✓ Virtual Artex CR for speedy entry into the digital world
- $\checkmark$  The virtual articulator offers the same functional scope as compared to the real Artex CR
- ✓ Ceramill transfer kit guarantees loss-free transfer of patient data to the scanner
- $\checkmark$  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



Setting the customised incisal-canine guidance with diagnostic models the posterior teeth disocclude



Prepared anterior with applied customised incisal-canine guidance



Customised incisal guidance table in the Ceramill Artex. The virtual and analogue techniques are identical



Models in the real Artex CR



Model in the Artex Fixator



Adjustment modes at the virtual

# Overcomes plaster expansion easily quickly and precisely.

The fitting accuracy of dental prostheses is largely dependent on the precision of the models. Yet this is the very area in which the natural expansion of the plaster constitutes the greatest source of error. The effects of plaster expansion are evident in the patient's mouth in problems with the fit of prosthetic work, such as tension areas. Giroform outsmarts the plaster expansion of the jaw segment, thus providing a true model of the patient's mouth. The Giroform System provides dental technology with a perfect and high-precision model making system on the market. By employing standardized and optimized procedures Giroform guarantees permanent and reproducible quality.



# **≅giro**form®system

# Model fabrication system components









# Fabricate precision models precisely, easily and quickly

The pin drill allows precise, fast and safe determination of the desired drill position.

Drilling starts at the press of a button. The plate holder is fastened magnetically, securing the drill position.

In order to guarantee pin friction, identical, smooth-faced and regular holes are drilled into the Giroform base plate. The precise drill guide also enables uniform drilling depth. These specific characteristics of the Giroform pin drill guarantee precise, fast and costeffective model manufacture.



- ✓ Laser beam for easy drill positioning
- $\checkmark$  Plate holder smoothly adjustable thus ensuring safe and fast operation
- $\checkmark$  Plate holder is secured magnetically and automatically when drilling starts
- ✓ Automatic drill advance guarantees identical boreholes in the plates (0.5 seconds per drill cycle)
- ✓ Ergonomically positioned tip-on buttons for a high degree of operating convenience and easy activation of drilling
- ✓ Guide grooves ensure easy drill change
- ✓ Universal plate holder for all sizes and shapes of Giroform baseplates with anti-rotation protection



Strong, practical and aesthetic -



Laser beam for easy drill positioning



Plate holder is secured magnetically and automatically when drilling starts

# **≋giro**form®system

# Overcoming plaster expansion

### **UNDESIRABLE PLASTER EXPANSION IN MAKING** THE MODEL:



The patient's original mouth position



The tooth arch following plaster expansion



By superimposing the original and the expanded tooth arch, the deviation is clearly shown

### **HOW DOES GIROFORM SOLVE THIS CHALLENGE?**

Defeat expansion with Giroform = Eliminate tensions from prosthetic work



The pin positions are chosen taking this cast into account. By drilling the pin-holes, there is secure and immovable patient-analogous transfer to the dimensionally-stable Giroform Plate. The pin-holes ensure that the positional information is now stored. The Giroform Base Plate serves as a kind of memory stick



The cast plaster tooth arch is removed from the base plate after 30 minutes – i.e. before the onset of plaster expansion. This allows the tooth arch to expand freely. However, after this it no longer maches the drilled original information on the Giroform Plate



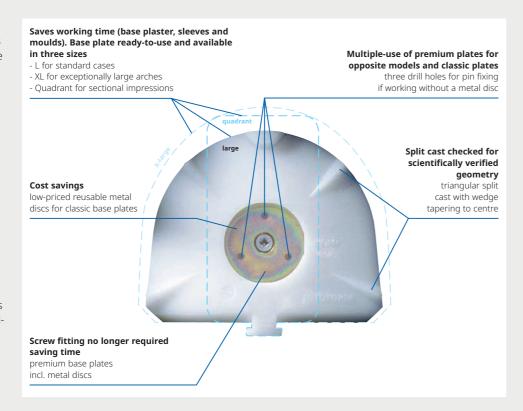
After sawing or separating the tooth arch, the pins again fit into the drillholes. The cut section serves as an expansion joint to accommodate the expansion, which is now restricted to just the individual segments, thus no longer causing distortion of the tooth arch. The segmented model therefore offers a precision basis for perfectly-

# Dimensionally stable plastic plates for model fabrication without plaster expansion

Using the Giroform base plate means that the model is already half finished. The base plate is expansion-resistant, saves one working step and prevents plaster expansion.

Prior to using the plaster, the pinhole is set into the base plate, recording the position of the individual segment.

The high-precision homogenous plate material provides for smooth drill holes and guarantees precise pin guidance. The flat surface of the base plate enables simple control of the segment position via an easily recognizable light gap. Cost-effectiveness is further increased by the possibility to re-use the base plate and the retention disc.



- $\checkmark$  Using the Giroform base plate means that the model is already half finished
- ✓ Inherently stable base plate instead of the risk of secondary plaster expansion due to base plaster
- ✓ Plate material and the plate strength provide for precise pin guidance
- ✓ Only minimal amounts of dental arch plaster required
- ✓ Flat base plate surface enables individual segment monitoring at a glance
- ✓ Inclined rear surface facilitates insertion in the plate holder and model removal from the articulator
- ✓ Base plate can be re-used for opposing model



Individual segments checked at a glance. Plane surface of the base plate



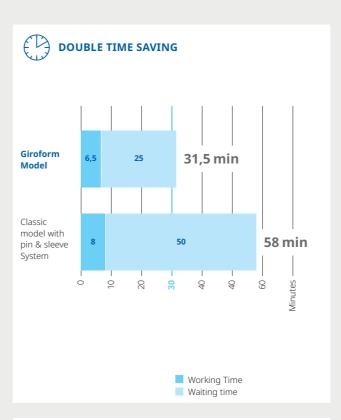
Multiple usage of used baseplates for opposing dentition models and unscrewed metal plates as retention discs for diagnostic models



Slanting facilitates insertion in drill plate holder and removal from

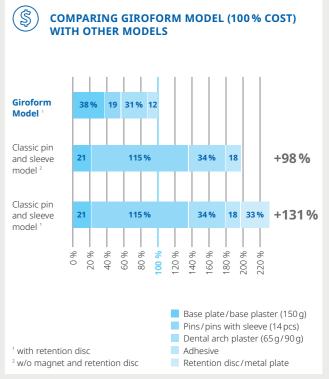
# **≋giro**form®system

# The system which saves double the time



- ✓ The actual time required to make the model is just 6-7 minutes
- ✓ The base is already completed due to the dimensionally stable Giroform base plate and does not require any curing time
- ✓ Segmentation of the dental arch can commence after a little more than 30 minutes

# The system that saves time and material



- ✓ The amount of plaster needed is reduced due to blocking out the impression with Giroform putty
- ✓ The metal disc is already fixed into the premium base plate
- ✓ Multiple use of base plates, secondary plates and metal discs
- ✓ Base plaster no longer required
- ✓ No adhesives, guide sleeves or shell moulds required

# From the impression to the finished, high-precision Giroform model and application in the Artex\* articulator



Trim the impression (working model)



The impression is fixed onto the impression carrier with Giroform – putty, align the impression and putty insulation is trimmed



With the Giroform base plate inserted, the impression carrier is attached to the plate holder



Position drilling hole with the aid of the laser beam and initiate drilling procedure



After 30 minutes, the dental arch is detached from the base plate



Partition/saw tooth arch into segments (Tip: in order not to damage the tooth arch, first separate the tooth arch in the middle)



Giroform model pair



At the dental lab, the transfer table is placed in the articulator or the special mounting articulator used as a plastering device



When the Giroform pins have been inserted into the drilled holes, the base plate is put aside for later use. (Important when multiple models are produced)



Trimmed impression of the opposing jaw on impression carrier, while the holes for the 8 pins are drilled for the counter bite



Mark out the selected drilling hole on used base plate (multiple usages)



Used plate with drilled holes and pins for opposite bite



Artex CR with inserted upper jaw model



Giroform-Models were articulated in static occlusion using a face bow registration



Mark out the grinding facets on the occlusion with a pencil



Reduce the master model for height analysis. Remove all segments up to the neighbouring teeth from the model



Smartbox – push button for water and plaster powder dosage



Smartmix mixes the dental arch plaster



Upper and lower jaw prior to stone pour in each case with pinned bases



Fill the alpenrock eliminating any voids into the impression model – only to the top of the putty insulation



Open the side shift setting screw to open the ISS. Set the anterior guidance pin out of contact



To determine the height the antagonists are put into their deepest position alongside one another.

Articulator centric is open



Re-insert the other segments and remove the segments that determine the height. Use articulating film to mark out and adjust any premature contacts – with the centric articulator relation closed



Check the dynamic occlusion – lateral motion. Are the abrasion facets on the teeth close to the restoration area providing guidance now?

<sup>\*</sup>Method can be used for patients with optimally functioning pre-condition

# Fabricate precision models economically and quickly

# **≅giro**form<sup>®</sup> secondary plate



# Stability and comfort

- ✓ Split cast check enables passive (non-magnetic) precision fit to the base plate
- ✓ The balanced magnetic force and high material strength prevent
- ✓ The retention pattern on the rear has been optimized to provide excellent grip for the plaster during insertion in the articulator but also its easy

# **≅giro**form<sup>®</sup> quadrant plate



# Straightforward and versatile

- ✓ The standardized plate size is ideally suited to partial impressions both left or right quadrant casts. No more trimming or grinding required
- ✓ Drill holes for pins can be positioned at underside and will thereby facilitating insertion, casting and removal from the articulator
- ✓ The Vertex® adapter enables direct connection to Vertex® articulators

# **≡giro**form<sup>®</sup> duplicating flask



### Versatile and resilient

- ✓ Can be used universally for single segments, multiple segments or the entire tooth arch
- ✓ By using refractory ceramic pins, the duplicate models can be produced. from stump investment material
- ✓ Saves on refractory stump investment material and duplicating silicone by reducing the duplication area
- ✓ Pronouned anterior tooth positions can also be duplicated by extending the labial area

# **≅alpen**rock

# Super hard gypsum for the optimal fabrication of precision models

The super hard Class 4 gypsum is suitable for the production of tooth arches, single stumps and control models. Processing and expansion properties perfectly match Giroform model production processes.



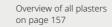






- ✓ Expansion properties (hardening expansion of only 0.08 %) perfectly match Giroform model production
- ✓ Splinter-free processing and high pressure-resistance
- ✓ Easy pouring due to shaker effect
- ✓ Stable without shaker effect (thyxotrop)
- ✓ Comfortable processing through snap-set
- ✓ Extremely long 7-minute processing period
- ✓ Rapid completion of hardening after 12 minutes
- ✓ Rapid final hardness after 35 minutes
- ✓ Possible to scan, e.g. for strip light scanners such as the Ceramill Map





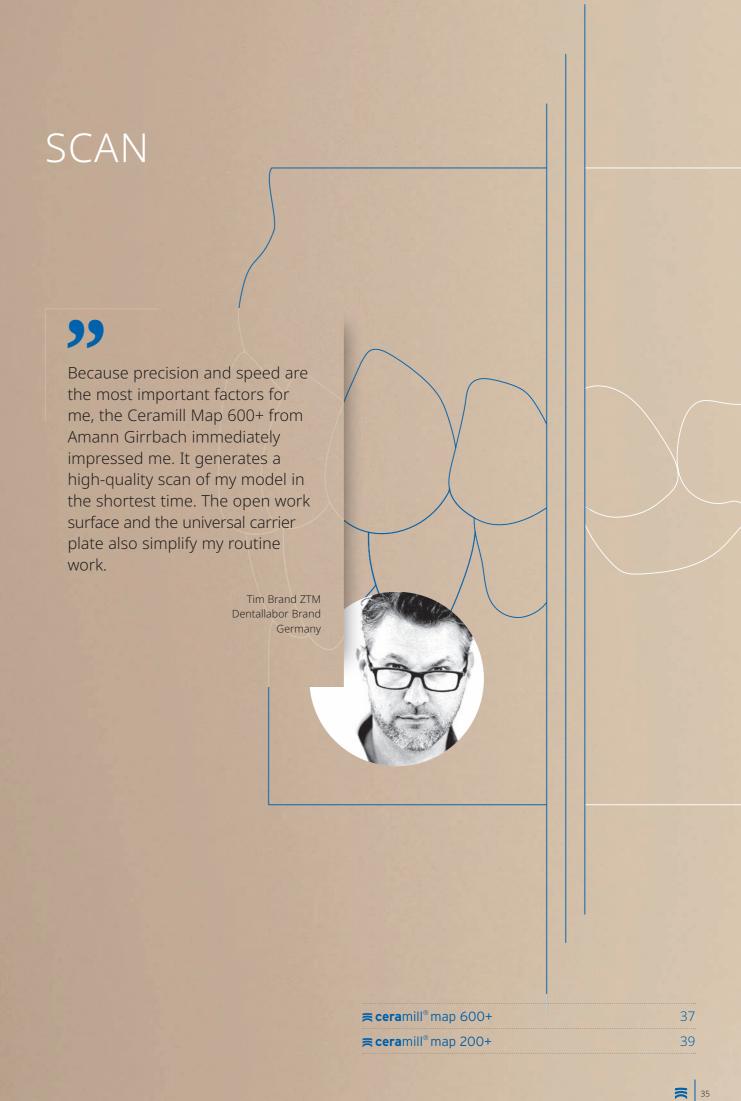


Four colours: pastel, saffron, gold,





Easy to handle



# The new scanner generation has many new and innovative features

The technologically innovative Map product portfolio was develop to satisfy the specific needs and requirements of dental laboratories and clinics. The intelligent and efficient scanner solutions from Amann Girrbach enable precise scanning of the most diverse indications. The precision of the digital impressions is extremely important for subsequent process steps to fabricate high-quality and perfectly fitting restorations. The new features and the different scanner designs open up fascinating new possibilities that can be perfectly integrated into every laboratory.

### **ALL FUNCTIONS AT A GLANCE**





	FUNCTION	<b>≅cera</b> mill®map 200+	<b>≈cera</b> mill®map 600+
INTELLIGENT	Multi-Die	0	0
	Intelligent Multi-Die	0	0
	Texture and Color Scan	0	0
	Universal Scan	0	0
	Free scanning sequence	0	0
	Auto-Articulation	0	0
	All-In-Scan		0
	Optical autofocus (automatic positioning of model)		0
Œ(	Blue-Light-Technologie		0
PRECISE	HD-Scan		0
EFFICIENT	Impression Scan / Triple Tray / Full arch	0	0
	Splitex-Integration	0	0
	Open scanning	0	0
	DNA Speed Scanning	0	0
	Articulator Scan		0
	Fixator Scan		0
	DNA High Speed matching	0	O

The new generation of scanners comes with many new and innovative features that greatly increase the performance, scanning accuracy, and scanning speed and thus ensures the greatest positive impact for every dental laboratory.



### **SPEED-UP MATCHING**

The improved calculation algorithms in the software generate significant improvements in the speed of the matching process. The active waiting time can thus be reduced by up to 50%.

- ✓ Faster calculation algorithm
- ✓ Significant improvement in the matching speed
- ✓ Depending on the indication, between 30% and 50% faster



### **AUTO-ARTICULATION**

The computing space feature automatically allocates the previously scanned upper and lower jaws, which means that the vestibular scan step can be omitted. By optimizing the working routine, the total scanning process can be accelerated and the active waiting time reduced to a minimum

Automatic allocation of upper and lower jaws without an additional vestibular scan



# FREE SCANNING SEQUENCE

The "Free Scan Sequence" ensures the workflow is dynamic and offers greater flexibility when scanning. The user can make decisions depending on the situation and determine the scan sequence specifically for the current case. This increases working comfort while also positively impacting the working rhythm.

- Enables situation-dependent and flexible working
- Positively impacts working comfort and rhythm

### **NEW SCANNER GUI**

The user interface is derived from the design of Ceramill Mind. This brings the advantages of a clear and user-friendly display that makes working with the software faster and more comfortable.

✓ Adaptation of the software interface to the new Ceramill Mind design

# The fully automatic high-performance scanner for open articulator scanning

The new Ceramill Map 600+ high-performance scanner from the DNA generation offers intelligence, efficiency and maximum precision.

≅ceramill®map 600+

The scanner features an integrated universal carrier plate for all common types of articulator, which saves time-consuming plate changes. Due to Splitex integration, all the accessory components of the Map port-folio can be used.

The intelligent scan height control automatically moves the object to be scanned into the best possible scan area, thus offering the user increased process reliability, maximum convenience and protection against incorrect use. The new drive technology with an automatic Z-axis ensures ultra-precise - and fast travel movement.

The highly sensitive industrial 3D sensor with Blue Light technology ensures outstanding depth of field and a scanning accuracy of 4 µm.



- ✓ Integrated, universal fixator for all common types of articulators ensures maximum flexibility
- ✓ Intelligent scan height control for optimum model alignment in the scan field offers the highest possible process reliability
- ✓ The Ultra HD industrial camera with 3D sensor and blue-light technology ensures a very high scanning resolution and highly reproducible results
- $\checkmark$  DNA HIGH Speed Matching enables workflows that are up to 20% faster and minimal waiting times in the laboratory







Speed-up matching

Auto-articulation

Free scanning sequence



New scanner GUI

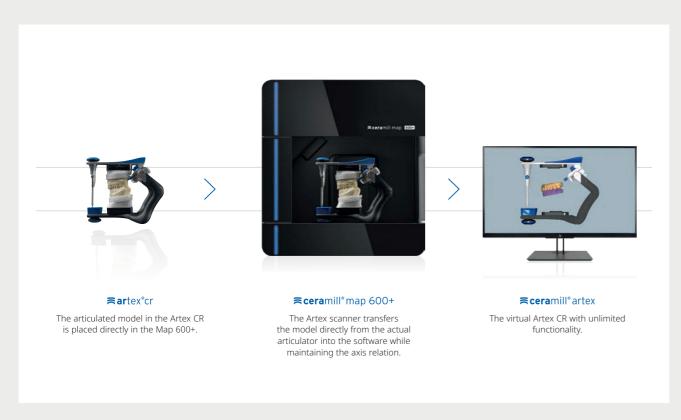


New industrial camera



**≅cera**mill®

# Articulator scan



To utilize the advantages of the virtual articulator, a 1:1 conversion of the model situation is required from the real articulator into a data set. The Ceramill Map 600+ enables scanning articulated models directly in the articulator without prior transfer to a transfer station. During the scanning process, the model is transferred from the actual articulator to the software while retaining the axis relation. A wide variety of articulator types can be positioned and precisely scanned without any additional accessories on the integrated multifunctional support plate. This offers the user maximum convenience and speed.

- ✓ Maximum precision through condyle-related scanning in the Artex workflow
- ✓ Convenient and time-saving handling without any accessory components
- ✓ Maximum precision due to ideally arranged scanning field



### **NEW INDUSTRIAL CAMERA**

The new 3.2 MP industrial camera (equivalent to a 9.6 MP RGB camera) that is used for the Map 600+ guarantees high resolution, particularly in the critical marginal area. In addition to the qualitative improvement in the scanning image, the scanning process can also be accelerated by up to 20% when the scanner is used in combination with a premium PC.

- ✓ Higher resolution, particularly in marginal areas
- ✓ Up to 20% faster

# Entry-level scanner compact, precise, quick

Ceramill Map 200+ is a fully automatic 2-axis stripe-light scanner, ideal for entry into CAD/CAM technology due to its uncomplicated handling with simultaneous high precision. It is also suitable for all users who want to produce cost-effective, precise scan data. Equipped with newly developed DNA speed scanning strategies and high-resolution 3D sensors it shares the same standards of precision and speed with the bigger version Ceramill Map 600+. In combination with the automatic user guidance Ceramill Map 200+ brings together convenience and precision on a compact footprint of 390x360x310mm.

Ceramill Map 200+ has an open interface, so that scans (STL files) can also be loaded in other CAD programmes.



- ✓ Maximum precision with a minimum footprint
- ✓ DNA speed scanning reduces scan times by up to 50%
- ✓ Open interface and automatic user guidance







Speed-up matching

Auto-articulation

Free scanning sequence



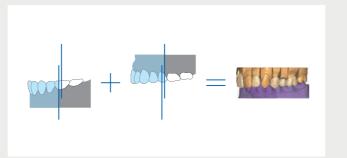
New scanner GUI

### **IMPRESSION SCAN**



Fully automated workflow for scanning impressions

### **AUTO-ARTICULATION**



- ✓ Automatic allocation of upper and lower jaws without an additional vestibular scan
- Maximum time savings and maximum comfort-manual interruption to the lab workflow is almost entirely a thing of the past

### **ALL-IN**



Digitization of a quadrant model in just two scanning steps as well as automatic alignment of up to 3 single stumps

### **INTELLIGENT MULTI DIE - UP TO 12 STUMPS**



Scanning up to 12 stumps and assigning the correct jaw position in one run with the Ceramill M-Die  $\,$ 

### FREE SCANNING SEQUENCE



- ✓ Enables situation-dependent and flexible working
- ✓ Positively impacts working comfort and rhythm

### **AUTOFOCUS OPTICAL**



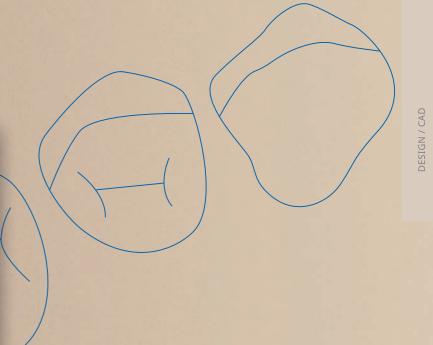
Positioning of the model in the optimal measuring field

# DESIGN / CAD

))

With the Amann Girrbach's
Ceramill Mind, every member of
my laboratory staff can be involved
in digital dental technology. In
addition, for the professionals
among us, the software offers
virtually unlimited design and
manufacturing options in the
Ceramill product family.

Michael Stegmeier MDT Stegmeier Zahntechnik Germany



**a** ceramill® mind42Crowns and bridges46Implant prosthetics58Full-denture prosthetics64

# The intelligent design software – developed according to dental technology logic



Module for crowns and bridges

### **≅ cera**mill® artex

The virtual articulator – the functional interface between manual and digital technology.



Module for crowns and bridges

# **≅ cera**mill<sup>®</sup> mindforms

Ceramill library teeth by Knut Miller.



Module for crowns and bridges

### **≅ cera**mill®m-splint

Fabricate functional and accurately fitting therapeutic splints.



Module for crowns and bridges

### **≈ cera**mill® microshell

Fabricate temporary eggshell restorations quickly and easily.



Upgrade module for implant prosthetics

### **≈ cera**mill® m-plant\*

Fabricate customised abutments and screw-retained bridges digitally using the Ceramill system.



Upgrade module for implant prosthetics

### **≈ cera**mill®m-gin

Safe, error-free and in record time to the implant-supported bridge with gingival section.



Upgrade module for implant prosthetics

### **≈ cera**mill® m-smile

Ceramill M-Smile – the software module for esthetic planning.



Upgrade module for implant prosthetics

# **≈ cera**mill® m-bars

Design customised Ceramill Sintron (CoCr) or wax bars.

The Ceramill Mind design software, developed by Amann Girrbach in close collaboration with dental technicians, meets all requirements. Perfectly coordinated to the Ceramill Map scanner Ceramill Mind has been seamlessly integrated in the system architecture of the Ceramill system and is characterised by easy handling, process reliability and precision. The user guidance of the CAD program, which is oriented along common laboratory routines, considerably simplifies the process of frame fabrication and covers a comprehensive spectrum of indications from crowns and bridges to complex implant work or full dentures. Features and areas of application are progressively refined, allowing the Ceramill Mind to be upgraded by a large number of software modules.









Module for crowns and bridges

## zrs for ≅ ceramill

Comprehensive library of beautiful natural teeth including the anterior tooth collection "Anteriores" by Dr. Jan Hajtó.



Upgrade module for crowns and bridges

### **≈ cera**mill® m-build

Digital model fabrication using the Ceramill Motion 2 and NextDent 5100 for Ceramill.



Upgrade module for crowns and bridges

### **≈ cera**mill® trusmile

The module for natural reproduction of the tooth shade gradient already during the design.



Upgrade module for crowns and bridges

### **≅ cera**mill® m-pass

The import module for jaw movement data from external systems.



Upgrade module for implant prosthetics

### **≅ cera**mill<sup>®</sup> dicom viewer

Communication and visualisation module based on Dicom data.



Upgrade module for full dentures

### **≈ cera**mill® d-flow

Design of full dentures – precise, customised and aesthetic.



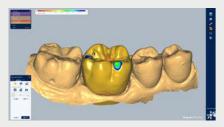
Upgrade module for partial dentures

### **≈ cera**mill® m-part

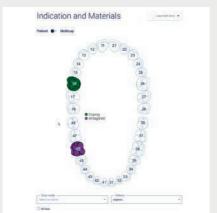
Software module for preparing customised partial denture frameworks.

# Ceramill Mind base package

### **AUTO-MORPHING AND AUTO-ANTAGONIST**



Automatic adaptation to the tooth anatomy through Auto-Morphing



Automatic selection of the antagonist in the opposing jaw

- ✓ Automatic adaptation of the shape to its environment reduces the detailing effort of the CAD designer in the subsequent "free-form" steps
- ✓ Automatic adaptation of the tooth anatomy to the antagonist for a better fit and optimal movement results
- ✓ Automatic selection of the antagonist increases time efficiency and convenience during creation

# **INDICATIONS**



Anatomically reduced crowns and bridges, fully anatomical crowns and bridges



**Ceramill Mind** Inlays, onlays, veneers



**Ceramill Mind** Telescope crowns, attachments

### **LIBRARY TEETH**



Ceramill Mindforms by AG

### Other libraries:

- AG Generic
- VITA Physiodens
- Prittidenta

44

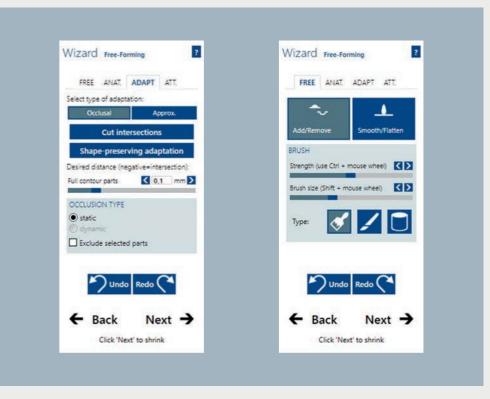
### **CERAMILL WIZARD**



Automatic user guidance through the design process

# Ceramill Wizard – design easily, reliable and efficiently.

Ceramill Mind Wizard was developed to orientate the Ceramill Mind user guidance as closely as possible to the dental technology workflow. As a floating window the Wizard not only guides the user accurately and efficiently through the entire design process but also shows the tools available to optimise the design outcome.



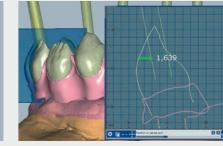
### **CERAMILL WIZARD FUNCTIONS**



Grid and ruler for better orientation



Cutting back selected areas for customised porcelain veneering



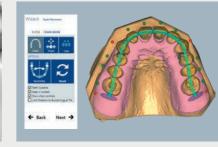
Fading in section plane with measuring instrument for better control of material thicknesses



Copy or mirror teeth to produce a uniform tooth shape/structure in a jaw



Connect contact surfaces with each other for more aesthetic interdental spaces



Move teeth as if splinted for quicker, easier positioning of the teeth

Ceramill Mind is available in the following languages:







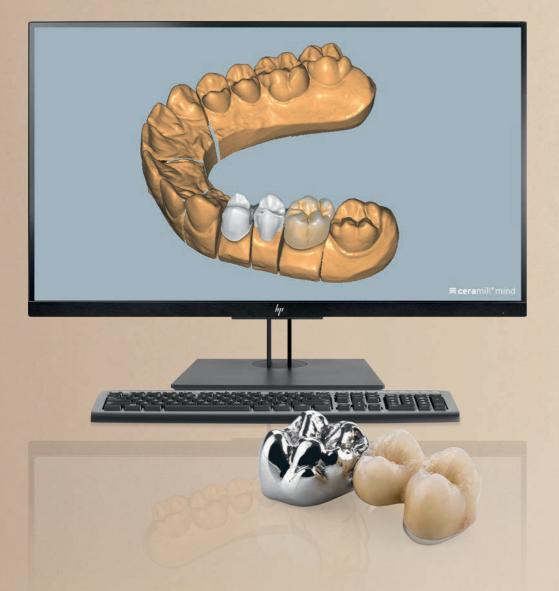






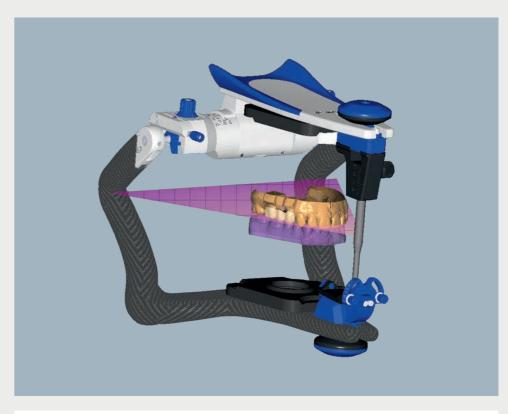
# Design conventional standard indications precisely and efficiently.

Crowns and bridges belong to the conventional standard restorations of every dental or practice laboratory. Crown and bridge restorations in the anterior and posterior regions can be guickly, easily and precisely planned using the diverse functions of the Ceramill Mind CAD software. This includes not only the virtual Artex CR articulator as an indispensible basic tool for the fabrication of interference-free restorations but also the numerous application options of the Ceramill Mind Wizard, which accelerate and simplify the design process and also include reliable preparation margin detection as well as an automatic bridge and connector design. Custom-loadable tooth libraries, e.g. with the Knut Miller teeth from the tooth mould atlas "Individualis naturae dentis" complete the function portfolio for functional and aesthetic crown and bridge prosthetics.



# Virtual Artex CR – the functional interface between manual and digital prosthetic dentistry

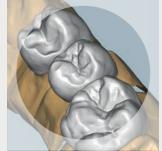
With manual production of dental prosthesis working with the articulator is standard for dental laboratories. In order to achieve the same quality of the works virtually, it is only logical and consistent to enable this by means of a CAD/CAM system. The virtual articulator "Ceramill Artex" serves as a bridge between manual and digital techniques. The model pair in the Artex articulator is transfered to the Map 600+ -scanner while holding the same Artex mode by means of the Ceramill Transferkit; it is subsequently scanned-in in the appropriate proportion. The movement options of the Artex CR are thus synchronised digitally and manually. Interfering structures can already be removed, reducing time-consuming grinding in at the chairside to a minimum.



- ✓ The virtual articulator offers the same functional scope as compared to the real Artex CR
- $\checkmark$  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 veneering porcelain is automatically planned during the design guarantees an optimum framework base for a veneer with high stability and uniform layer thickness



Fully anatomical design



Fully anatomical design



Adjustment modes at the virtual Artex CR

# 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 (0 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)



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

# Digital facebow – now integrated 100% – from the dental practice straight to the laboratory

zebris for Ceramill can be used as a digital facebow, but offers numerous other functions in addition. Thus the JMA Optic system forms the basis for virtually any indication – from single restorations to scanning model-free with an intraoral scanner as well as large-span restorations or splints. The automatic data transfer to the Ceramill System and the resulting direct transfer into the articulator, allows zebris for Ceramill to be ideally integrated into the daily workflow and reduces manual post-processing of the restoration. Overall, the result is a simple, safe workflow that can be used profitably in everyday work.



# DENTAL TECHNICIAN

### **ZEBRIS JMA**



✓ I. Real movement ✓ II. Facebow 2.0

### **CERAMILL M-PASS**



✓ Import and visualization✓ of individual dynamic patient data

# FINAL INSPECTION



Condyle-related transfer of the maxillary position into the physical articulator with the transfer stand



- ✓ Facebow 2.0
- ✓ Displays the upper jaw in the correct position to the patient condyles in the virtual articulator



- ✓ Automatic articulator programming
- Determination and automatic transfer of articulator parameters to the virtual articulator
- Exact recording of the jaw and mouth situation leads to individual, precisely fitting results and to a reduction in reworking in the lab
- ✓ Fast transfer of the individual situation to the digital system thanks to full integration into the Ceramill system
- $\checkmark$  Perfect bite situation thanks to a coordinated system from the recording to trying-in of the restoration

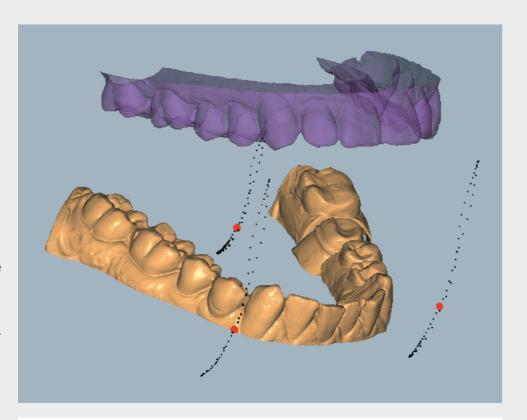
# Import module for jaw movement data from external systems

The Ceramill M-Pass software upgrade module offers the possibility of transferring complex temporomandibular joint movements exactly into digital form.

With the Ceramill M-Pass software upgrade module, the data output from Zebris for Ceramill and Prosystom is imported into the Ceramill system and processed without any losses.

By importing the data, the virtual articulator CR is automatically programmed and the patient-specific individual jaw movements can be simulated.

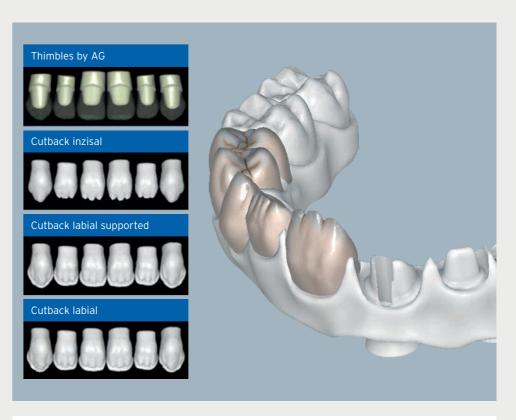
In addition, Zebris for Ceramill fully integrates the digital facebow into the Ceramill system. By importing the Zebris data, the models are automatically placed in the correct position in the virtual articulator.



- $\checkmark$  Ideal transfer of complex temporomandibular joint movements into the digital design
- ✓ Situation transmission through special bite fork
- $\checkmark$  Perfect bite situation due to coordinated system from recording to try-in
- ✓ Compatible with Zebris for Ceramill or Prosystom
- ✓ The digital facebow is completely integrated into the Ceramill System with Zebris for Ceramill

# Ceramill library teeth with cutback shapes and an optimized thimble library

Based on his bestseller, the tooth shape atlas "individualis naturae dentis", dental technician Knut Miller has developed library teeth for the Ceramill Mind software, which are specifically tailored to the needs of CAD design. Ceramill Mindforms 2.0 including cutback tooth shapes and an optimized Thimbles Library form a valuable basis for the construction of reduced or fully anatomical dentures as well as a stump library for highly profitable All-on-X work meeting the highest functional and esthetic aspects. The characteristic and natural surface morphology and topography as well as the fine details of the library teeth significantly facilitate and accelerate the design of occlusal surfaces and fissures.



- ✓ Create highly esthetic restorations safely and easily no special anatomical
- $\checkmark$  High time and cost savings through reproducible esthetics without costly free-forming
- ✓ Tooth shapes of high natural authenticity through finest details and structures
- ✓ Effortlessly simple and wizard-guided to a highly profitable All-On-X restoration through the optimized Thimbles by AG stump library



Zebris for Ceramill Ceramill M-Pass



Incisal cut-back

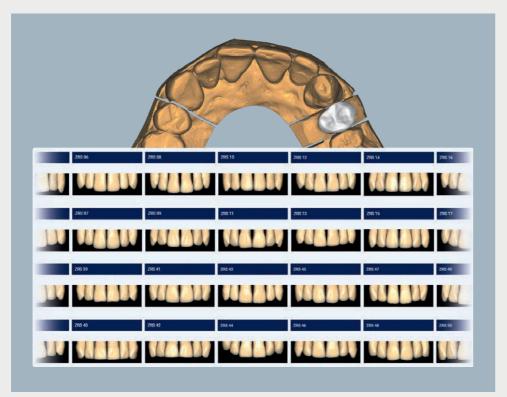




# Tooth library ZRS for Ceramill comprehensive library of beautiful natural teeth

For those who prefer an even wider choice, the add-on module Tooth library ZRS for Ceramill provides an additional comprehensive library of beautiful natural teeth including 61 sets of upper-jaw anterior teeth, 19 sets of lower-jaw anterior teeth, 19 sets of upper-jaw posterior teeth and 19 sets of lower-jaw posterior teeth. The add-on module is the perfect esthetic basis for your restorative designs with its comprehensive tooth libraries. You can easily and individually make adjustments to all predefined teeth for maximum flexibility. All library teeth are replicated fully anatomically and according to their natural morphology to achieve optimal

The tooth library includes the anterior tooth collection "Anteriores" by Dr. Jan Hajtó. To assist technicians in using the library, a full color book, poster, and models for each set of teeth are available from third parties.



- ✓ Major time savings and esthetic restorations at the touch of a button
- ✓ Adapting predefined teeth easily and individually provides maximum flexibility
- ✓ Optimal result due to stored full contour tooth shapes which can be reduced according to the natural morphology

# Therapeutic splints – functional and accurately fitting

The Ceramill M-Splint was specially developed for the fabrication of customised therapeutic splints, which can be fabricated accurately fitting with interference-free functionality with the aid of the Ceramill Artex articulator. Once the design is complete, the splints can be fabricated from Ceramill Splintec PMMA blanks using Ceramill 5X milling machines.

As a Class 2a medical device Ceramill Splintec is suitable for long-term use.

Tooth-colored anatomical occlusal splints can be fabricated as a pretreatment option for complex prosthetic rehabilitation.



- ✓ High saving in time and process reliability due to digitally predictable, reproducible results and controllable design parameters
- $\checkmark$  Industrially prefabricate material with a high surface quality reduces discoloration and plaque accumulation to a minimum
- ✓ Individually adjustable design parameters reduce manual finishing work
- ✓ Precise occlusal contacts ensure functional splint design
- ✓ Maximum convenience: Time-consuming manual fabrication is no longer required this prevents the associated harmful vapours
- ✓ Predictable results and thus significant improvement in patient acceptance
- ✓ More safety due to the restoration of the occlusal plane and tooth morphology and additionally easy evaluation of esthetics and phonetics
- ✓ Easy trial of the definitive restoration and comfortable adaptation of the situation to the final restoration after splint treatment



Anatomical splint



Easy, reproducible splint fabrication using Ceramill CAD/CAM

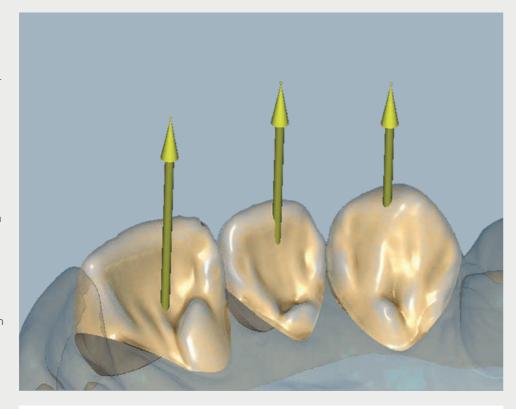


Ceramill Splintec therapeutic splints accurately fitting and interference-free

# Aesthetically high-quality temporary eggshell restorations for immediate treatment

Ceramill Microshell is an upgrade module for the fabrication of thin, patient-specific temporary eggshell restorations as aesthetic, high-quality immediate treatment even before preparation.

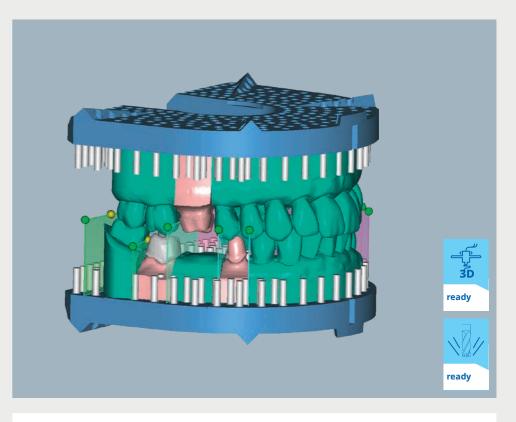
A virtual preparation margin is defined paragingivally on the as yet unprepared teeth on the scanned anatomical model. The temporary restoration designed later is produced as a shell of uniform thickness and the outer form of the unprepared tooth of the patient situation or library teeth. The final temporary restoration can be quickly fabricated with the aid of the temporary eggshell restoration immediately after preparation.



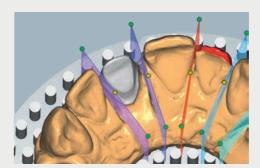
- ✓ Easy, quick fabrication of aesthetically high-quality, very thin temporary eggshell
- $\checkmark$  Patient-specific fabrication of temporary restorations is possible even before preparation
- ✓ Design requires minimum time

# Digital model fabrication

Ceramill M-Build is a software module for digital model fabrication based on intraoral scan data. The Ceramill Mind upgrade is always used to full effect if indications require manual working stages or controls using a model. Without loss of precision and using the method familiar from the manual working technique, Ceramill M-Build ensures the fabrication of interference-free sectioned models using CAD/ CAM and integrates seamlessly into the existing process chain of Ceramill system components. Implementation of the milled models is performed with Ceramill M-Plast - a special modeling resin for Ceramill CAD/CAM. Implementation of the printed models is performed with the 3D Print Material NextDent Model 2.0.



- ✓ Maximum comfort through simple and fast fabrication of high-precision 3D printed models or milled saw-cut models
- $\checkmark$  Increase in quality due to reduction in the sources of errors, e.g. plastic deformation of the impression material, plaster expansion
- $\checkmark$  Seamless, digital workflow ensures efficient, cost-effective working processes with maximum value creation
- ✓ No waiting times due to external production





Printed models with removable stumps

# **≅cera**mill®m-smile

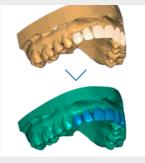


# Software module for esthetic planning

The Ceramill M-Smile software upgrade module in combination with the Ceramill Mind design software now allow esthetic planning, CAD design and fabrication to be modeled in a continuous digital workflow. By starting the digital design process with the esthetic planning with Ceramill M-Smile, the range of indications goes far beyond a mock-up. This allows using Smile Design as starting point for any type of digital dental indication.



- $\checkmark$  Visualization of the final restoration already before fabrication of the denture
- $\checkmark$  Increases the satisfaction and acceptance of the patient by transferring esthetic planning into real life pictures
- $\checkmark$  The inclusion of facial proportions as well as predefined auxiliary lines simplifies esthetic planning
- $\checkmark$  Automatic transfer into 3D design and the wizard guided Ceramill workflow for maximum comfort
- ✓ Full flexibility: Applicable for all available indication types
- ✓ A mock-up model allows the dental technician to test the restoration in advance for more safety and customer satisfaction



View of the shade gradient when nesting using Ceramill TruSmile



Preview of final situation



# **≅cera**mill®fds

# **≅cera**mill®aps

# Ceramill Advanced Prosthetics Solutions.

Digitalization of dental restorative workflows is still rapidly driving changes in the dental lab business. Crowns and bridges are for the most part fabricated almost entirely digitally these days. This means that it is increasingly important that laboratories extend their digital workflows to include more complex restorations such as full arch implants and full dentures.

Since its inception, Amann Girrbach has been a pioneer of the digital in house movement in the laboratory. With the Ceramill Advanced Prosthetics Solution, Amann Girrbach rockets digital dental workflows to the next level. The Ceramill Advanced Prosthetic Solutions Program currently covers three complex indications that are fully integrated into the Amann Girrbach CAD/CAM system and provide customers with a smooth, easy, and reliable workflow.



# Ceramill Full Denture System – 360°- full dentures in the maxilla and mandible or single-jaws are possible

Mission accomplished: with the possibility of now also milling dental arches/segments and the option of 3D printing capabilities, the Ceramill Full Denture System offers the broadest range of digital denture fabrication options in the industry - from highest quality, highly individual milled dentures to cost efficient 3D printed dentures. Here, the users benefit from integrated, easy-to-implement workflows, validated materials and processing tools.

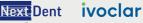
TRY-IN	DENTURE BASE	TEETH	
OPTION 1	OPTION 1	OPTION 1	Esthetics
			Estirents
VITA VIONIC Wax + prefabricated teeth	VITA VIONIC Wax	Prefabricated teeth (Merz Dental, VITA VIONIC, VITA VIGO)	
OPTION 2	OPTION 2	OPTION 2	
	hotion tase	Dont	Esthetics
Monoblock VITA VIONIC Wax Try-In ProArt CAD Try-In by Ivoclar	VITA VIONIC Base, PMMA Ivotion Base by Ivoclar, PMMA	Individually milled dental arches/ segments, Ivotion Dent Multi by Ivoclar	
OPTION 3	OPTION 3	OPTION 3	
			Esthetics
Monoblock 3D printed	Denture base 3D printed	Individual dental arches*/ segments 3D printed	
All options for try-ins from high quality milled wax or PMMA to cost efficient 3D printing	All options for denture bases from manual finishing with wax base to direct milling in PMMA and cost efficient 3D printing	All options for the denture teeth ranging from prefabricated teeth ("gold standard") to individually milled or 3D printed dental arches/	

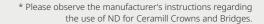
## **AUTHORIZED MATERIAL PARTNER:**











segments

# Software and hardware components for the Ceramill FDS

Full-denture prosthetics

# **Eceramill**® d-flow

Design of full dentures taking all functional and aesthetic parameters into consideration.



Full-denture prosthetics

# **≅cera**mill® d-set

Patented denture tooth blanks with commercially available, high-quality denture teeth and Ceramill D-Wax blank for fabricating the wax base.



VITA VIONIC® SOLUTIONS

VITA VIONIC° VIGO







### Accessories

### **Tooth libraries**

Tooth libraries for D-Set denture tooth blanks and tooth libraries for tooth arches / tooth segments available on AG.Live.



Full-denture prosthetics

**≈cera**mill® motion 2 5x **≈cera**mill® motion 3 **≅cera**mill® matik

5-axis hybrid machine for wet and dry processing. High Speed 3D printer NextDent 5100 for Ceramill.



Full-denture prosthetics

# 3D print materiall

Try-In and Denture 3D+.



Accessories

# Accessories

Blank holders and milling tools for perfect fabrication.



### amanngirrbach.com/downloads 7

# VITA VIONIC – official Ceramill CAD/CAM system partner

### DIGITALISE THE **PATIENT SITUATION**



Functional scanning and digitalisation of patient data with Artex articulators and Ceramill transfer kit

### SCANNING



Scanning of the patient data using the Ceramill Map 600+ scanner

### **DESIGNING**



Design of the full denture using the Ceramill D-Flow software

**BASAL AND OCCLUSAL ADAPTATION IF NECESSARY** 



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

### MILLING (WET) **IN ACRYLIC OR WAX**



VITA VIONIC blanks

### **CONNECTING USING** WAX OR ADHESIVE



VITA VIONIC BOND - for fixation of the denture teeth in the acrylic base

### **CONTROL**



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

- ✓ **Time saving:** Full dentures 100 % digital, no manual pressing procedure
- ✓ **Safety:** Try-in at the patient mouth using the monoblock denture feature
- ✓ Full denture knowledge integrated: 4 different setting up concepts available in the CAD software
- ✓ **Highly individual:** Position of denture teeth can be customized in the CAD Software
- ✓ Process safety: 100% integrated in Ceramill FDA for a smooth workflow
- ✓ **Quality:** Due to minimal residual monomer of the resin denture bases

# **VITA VIONIC® SOLUTIONS**

VITA VIONIC VIGO®



VITA VIONIC Frames



VITA VIONIC Wax for the try-in and VITA VIONIC Base for the resin denture base



VITA VIONIC Bond - Fixation components for denture teeth and VMLC Flow finishing components

# **≅cera**mill®m-part



# Individual digital partial denture frameworks

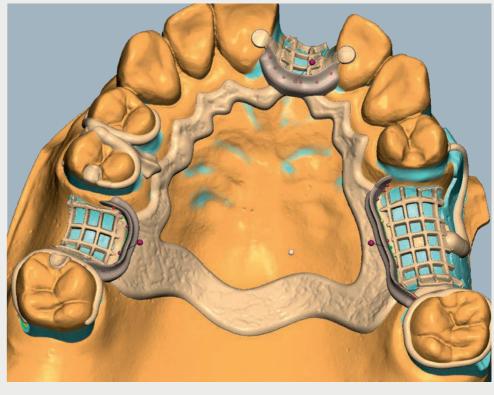
The Ceramill M-Part software module was developed specifically for preparing customized partial denture frameworks for the milling and printing process.

The dental technician's dental experience is transferred directly into the digital environment, making the laboratory workflows considerably easier.

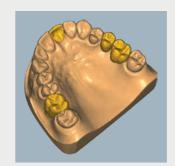
The coordinated workflow in the Ceramill Mind and the option of digital backward planning lead to a perfect design of the frameworks for partial dentures.

Blocking of undercuts is performed automatically and at the push of a button. The connectors and clasp arms are created according to individual parameters, thus offering greater process safety in the laboratory.

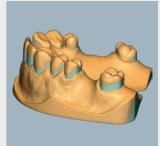
Retention grids are automatically blocked with a defined value and are therefore optimally prepared for later completion in resin.



- ✓ High time gains through automatic blocking of undercuts at the push of a button and reproducibility just-in-time
- $\checkmark$  Economic efficiency in the laboratory fabricating frameworks for partial dentures digitally without great effort at good prices
- $\checkmark$  Process safety & efficiency through matched workflow and easy-to-check design results
- ✓ Digital backward planning offers a high safety level for framework design



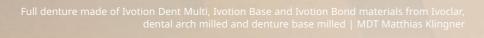
Virtual backward planning



Precise identification of the prosthetic equator and the thus resulting undercuts as well as automatic blocking of the undercuts in defined insertion direction



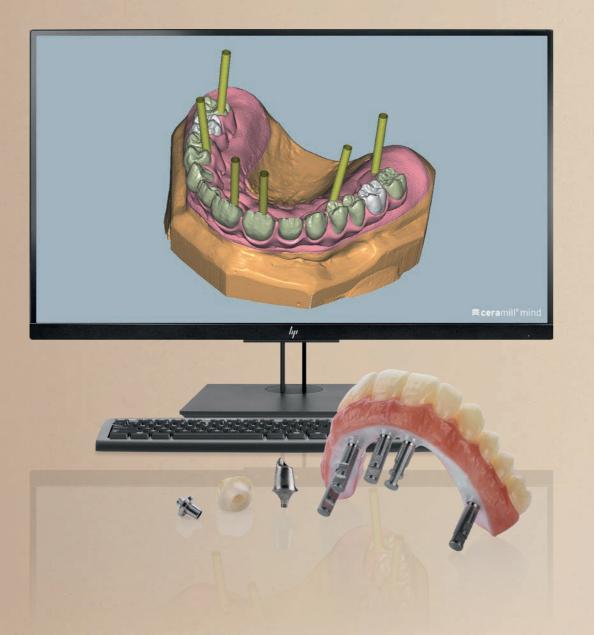
Optimal clasp and connector design as well as easy profile design of the transition between metal and acrylic



# **≅cera**mill®aps

# Fabrication of customised abutments, screw-retained bridges and bar constructions.

Increased demands on aesthetics and quality of life ensure unabated continuing advances in implantology. An ideal approach to bring high demands with low costs under one hat is fabrication of customised titanium abutments in the laboratory. With the in-house concept surrounding the Ceramill milling units and the CAD software Ceramill Mind, Amann Girrbach makes it possible to manufacture abutments for all common implant systems and techniques with maximum precision and with full value creation.



# **≅cera**mill® mind

# Ceramill implant prosthetics upgrade modules

Upgrade module

\*\*Ceramill\*\* m-plant\*\*

Fabricate customised abutments and screw-retained bridges digitally using the Ceramill system.

\*\*Ceramill\*\* m-gin

Fabricate an implant bridge with gingiva section reliably, quickly and very easily.

Upgrade module

# **Eceramill**® m-bars

Design customised bars made from Ceramill Sintron (CoCr) or wax.





Accessory

# Accessories for implant prosthetics

Titanium bases for individual single abutments and multipontic, screw-retained restorations as well as titanium abutment blanks for all common implant systems.



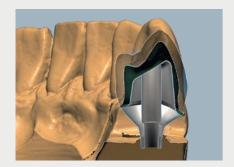
Accessories for the fabrication of implant-supported restorations can be found in our "Ceramill Implant Prosthetics" catalogs or online at amanngirrbach.com/downloads

<sup>\*</sup>ATTENTION: Commercial use of this software is restricted to FDA compliant workflows or licensed dentists.



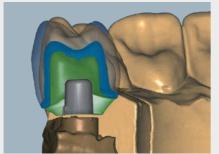
# Customised implant abutments for all conventional systems and techniques

Ceramill M-Plant is an upgrade module for the Ceramill Mind design software and upgrades it with the function to design customised titanium and hybrid abutments as well as customised, screw-retained bridges on conical titanium bases made from zirconium oxide, CoCr sinter metal, PMMA (stained), wax, titanium, CoCr (milled). Corresponding libraries of all common implant systems are available for Ceramill M-Plant, which are continuously being expanded.



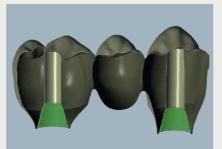
CUSTOMISED, ONE-PIECE TITANIUM ABUTMENTS

Fabrication of individual, one-piece titanium abutments in the Wizard guided Ceramill workflow.



**CUSTOMISED HYBRID ABUTMENTS** 

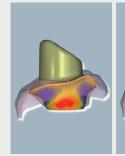
Fabrication of individual abutments on titanium bases.



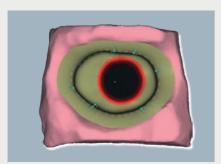
MULTI-UNIT, SCREW-RETAINED BRIDGES AND BAR CONSTRUCTIONS

Fabrication of multi-pontic, screw-retained bridges and bar constructions on titanium bases

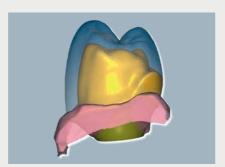
The clearly structured design of the user interface enables an effortless and easy contruction of abutments and bridge restorations. The different functions available for the free and flexible design of abutment and emergence profile provide a high degree of freedom for the customised design and natural aesthetics of the final restoration.



Customised adaptation of the gingival emergence profile.



Contouring of abutments with rotational security and analogous to the shape of the natural tooth.



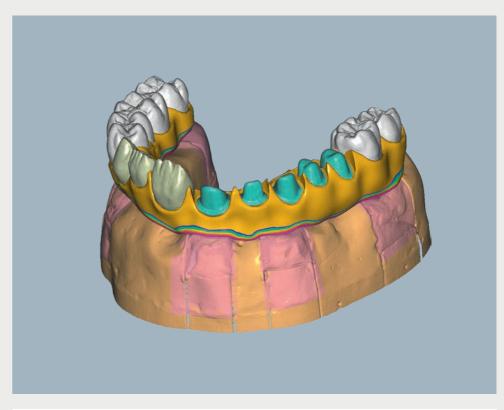
Possibility of automatic, customised design of the collar for supporting the porcelain.

# REAX Full Contour & Hybrid – the safe, fast, digital and easy route to the screw-retained bridge with gingiva portion

With the Ceramill M-Gin software module, it is possible to design the supra-construction as well as the individual crowns in only a single software step and without manual post-finishing within a coordinated and validated digital workflow. The combination of specially coordinated design parameters and a variety of validated materials make this Ceramill workflow unique. With the Ceramill Mindforms digital tooth library, which includes a Cutback as well as an optimized Thimble Library, all conceivable design variations can be reliably produced in first-class quality, regardless of whether they are monolithically, anatomically or vestibularly reduced.

REAX Full Contour - enables full zirconia frames with a large span and gingiva to be fabricated using the high-strength yet highly esthetic zirconia Zolid HT+ / Zolid Gen-X. The automatic cutback option and 5-axis ultra high definition milling machines provide for an unmatched esthetic appeal.

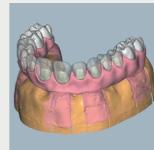
REAX Hybrid - with an unmatched variety of design options as well as validated materials and in cooperation with leading industry partners, REAX Hybrid represents the next level of advanced CAD/CAM in the Ceramill System.



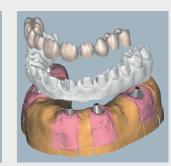
- ✓ Highly profitable restorations with maximum individuality in record time
- $\checkmark$  Matched processes and materials create maximum safety and efficiency
- ✓ Special design parameters and validated milling strategies reduce rework to a minimum
- $\checkmark$  No limits for individual esthetic, therapeutic and efficiency requirements



Setup of the teeth and free forming of the gingival regions



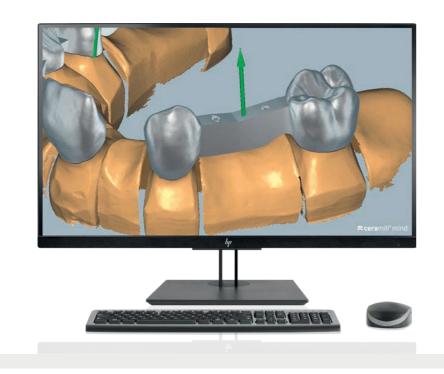
Automatic cutback and Thimble function



Designing the supra-construction and the individual crowns in a single step

# Inhouse fabrication of customised bars

Ceramill M-Bars enables the fabrication of individual bars in various materials. Very different bar designs, placement of attachments and retention as well as punching out of holes can also be implemented. The bar can then be fabricated inhouse using 5-axis milling machines.



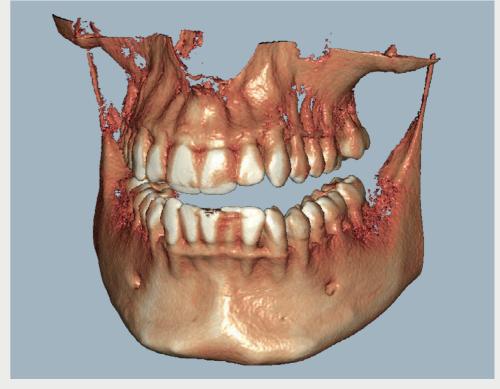
- ✓ Precise and efficient in-house fabrication of stress-free, implant-supported screw-retained bars on titanium bases
- $\checkmark$  Great saving in time due to direct influence on the cross section, shapes and geometries of the bars during the design – no time-consuming manual modelling required
- ✓ Diverse design and customisation possibilities due to freely adjustable parameters, e.g. height, thickness, lingual and buccal angle, minimum height and thickness
- ✓ Process reliability because of predictable, reproducible results thanks to digital fabrication and controllable design parameters

# Visualisation and communication software based on Dicom data

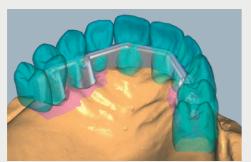
The Ceramill Mind upgrade module "Ceramill Dicom Viewer" is a visualisation and communication software. It enables data from CT or CBCT machines (Dicom format) to be imported, displayed and merged with STL data. The visualisation of superficial and deeper-lying anatomical structures of the patient, which this makes possible, enables easier, more precise communication between the dentist and laboratory.

Patient data stored as an STL data set can be accessed in the Ceramill Mind for control or information, e.g. during the design of abutments.

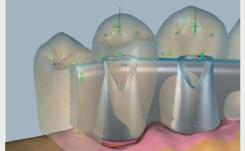
The Dicom Viewer is not intended for diagnostic or medical purposes.



- $\checkmark$  Visualisation of Dicom formats and merging with STL data in the Ceramill Mind CAD
- ✓ Quality assured patient treatment due to easier, more precise communication between the dentist and laboratory
- $\checkmark$  Control and information possibility during the design, e.g. of abutments



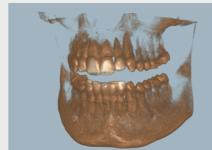
Situ scan ensures easy bar positioning



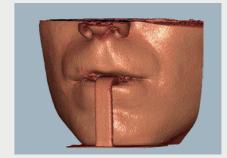
Custom-adjustable parameters such as height, thickness, lingual/buccal angle, minimum height/thickness and other diverse customisation options



Dicom data as 3-dimensional radiographic image



Display of deep lying structures



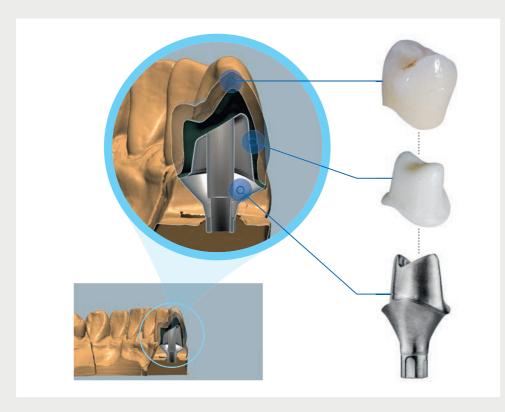
Visualisation of superficial facial structures

# Titanium abutment blanks with prefabricated connection geometry

The Ceramill Ti-Forms process stands for the processing of titanium abutment blanks with pre-fabricated connection geometries, which can be individually designed with the Ceramill M-Plant module. The blanks are available for a wide range of conventional implant systems, which is continuously extended.

The Ceramill portfolio has been extended to include original titanium abutment blanks, which can be processed highly precisely inhouse by Ceramill users with unlimited service, support and guarantee.

Other blanks with original connection geometries in validation.



- ✓ Smooth workflow ensures efficient, cost-effective working processes with highly precise final results
- $\checkmark$  Free, flexible design of abutment and emergence profile for a high degree of customised design
- ✓ Extended product portfolio by prosthetic components from implant manufacturers with unlimited service, support and guarantee provisions



















Further compatible implant systems can be found in our "Ceramill Implant Prosthetics" catalogs or online at amanngirrbach.com/downloads 7

### **CERAMILL TI-FORMS**

Implant manufacturer	Implant systems
Altatec®	Camlog <sup>®</sup> , Conelog <sup>®</sup>
BEGO Implant Systems®	Semados® S / RI / RS / RSX
BIOMET 3i®	External Hex
Bredent Medical®	SKY®
DENTSPLY Implants®	ASTRA TECH OsseoSpeed® EV, ASTRA TECH OsseoSpeed® TX, XIVE® S
Medentis Medical®	ICX®
Nobel Biocare®	Brånemark®, NobelActive®-Nobel- Replace® Conical, NobelReplace® Tapered
Straumann®	Bone Level®, Tissue Level®
Zimmer Dental®	Tapered Screw-Vent®

### TITANIUM ABUTMENT BLANKS FROM IMPLANT MANUFACTURERS

Implant manufacturer	Implant systems
Straumann	BoneLevel®
Straumann	SynOcta <sup>®</sup>
MIS®*	C1, V3, Seven, M4
BEGO	Semados® SC/SCX/RS/RSX/RI**
Neodent*	WS, HE, IIPlus, GM, CM
Paltop*	SP, NP, Conical, WP
FMZ*	alphatech®
SIC Invent*	SICace®, SICmax®, SICtapered, SICvantage® max, SICvantage® tapered

- \* All components for implant systems not listed in our catalogs are to be obtained from the manufacturer.
- \*\* With platform switching design.

Availability of product subject to local registration.

# Inhouse fabrication of customised, one-piece titanium abutments

The titanium abutment blanks that are available for a wide range of conventional implant systems achieve outstanding surface quality thanks to the rotational milling technique and multi-axis processing in the blank holder specially constructed for the Ceramill Matik. In contrast to conventional milling in which the blank generally remains in a static position, the blank rotates continuously around its own axis during multipass milling. This not only saves the travel paths of the cutters but also ensures that material is removed uniformly and homogeneously and creates surfaces with an equally precise and smooth finish.

Only a special adapter is required which can be used to upgrade already installed Ceramill milling machines with a wet milling function for processing blanks.

More information on the Ceramill

amanngirrbach.com/downloads 7



- $\checkmark$  High saving in time and maximum value creation thanks to inhouse fabrication
- $\checkmark$  High precision of the abutments due to prefabricated implant-connection geometries
- ✓ Maximum protection for the industrially manufactured implant interface by only gripping the abutment on the face side
- ✓ Outstanding surface quality thanks to the rotational milling technique (Ceramill Motion 2 + 3) and multi-axis processing (Ceramill Matik)
- ✓ Blanks available for all conventional implant systems



Ti-Forms process as well as accessories for the fabrication of implant-sup-Wet machining of a titanium abutported restorations can be found in ment blank using the "rotary milling" our "Ceramill Implant Prosthetics" catalogs or online at



Titanium abutment blank and titanium abutment milled with the TI-Forms process

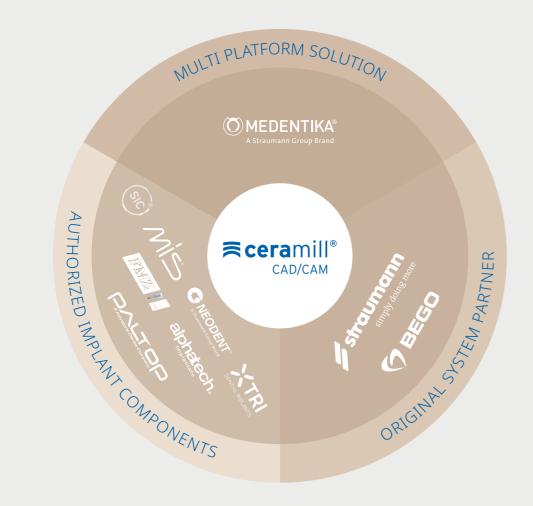


Ceramill Ti-Forms upgrade kit for Ceramill Matik



# Implant prosthetics for Ceramill CAD/CAM

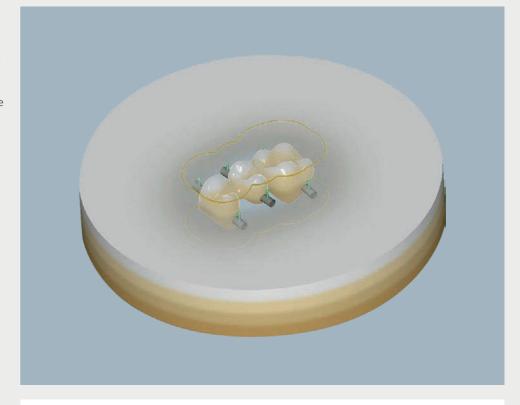
An extremely wide product portfolio is available for the fabrication of implant-supported restorations with the system components of our Ceramill implant prosthetic range. We are individually adapting our range perfectly coordinated to your requirements or options. In accordance with the holistic philosophy 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.



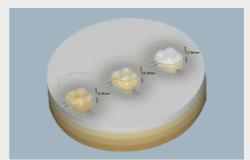
# Designing and nesting in true shades

Restorations are visualised with a natural shade gradient using Ceramill Trusmile and displayed like the finished restoration in the CAD and CAM software. Scans or precision attachments such as telescope crowns or bars can also be reproduced specific to the material via Ceramill Trusmile.

This already imparts an over-all impression of the final result during preparation and ensures a better aesthetic orientation during the design process.



- ✓ Visualisation of restorations with natural tooth shade gradient
- $\checkmark$  Aesthetic orientation for technician and patient already during design
- $\checkmark$  Easy nesting and placing of designs in Multilayer blanks thanks to realistic (shade-) display of blanks and design



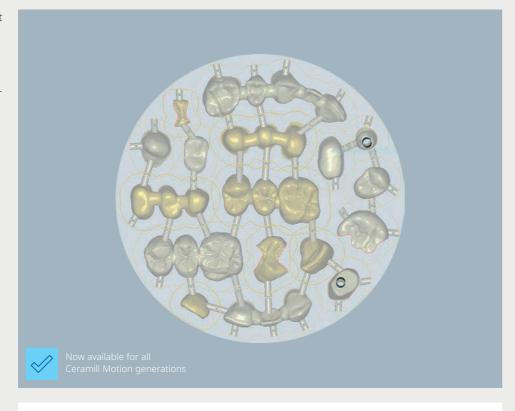
Realistic visualisation of the shade gradient of Zolid FX Multilayer



Material-specific visualisation of Ceramill Sintron

# Inhouse milling with premium performance, usability and precision

The automatic and transparent user interface of the Ceramill Match 2 CAM software form the basis for a reliable and easy operation. Even users with less experience can quickly and easily create milling programs for the production of various indications. An elaborated collision control (and evasion) of Ceramill Match ensures a high degree of process reliability.



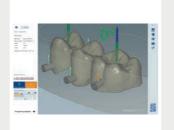
- ✓ Easy positioning and aligning of frameworks in the blank
- ✓ Easy changing of the position, size and alignment of connectors
- ✓ Speedy calculation of milling paths
- $\checkmark$  Sinter cushion in thermodynamically optimum design shape for accurately fitting sintering of long-span zirconia restorations



Intelligent nesting concept according to the VITA classical shade guide



Processing of VITABLOCS® TriLuxe forte with rendered representation of the shade gradient

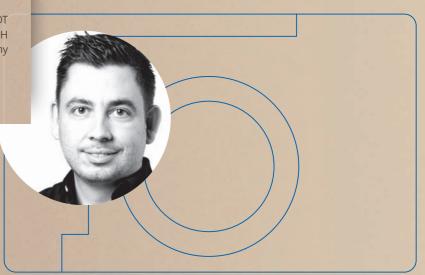


Easy positioning of the connector posts on the designs

# PRODUCTION / CAM

Ceramill CAD/CAM machines simplify my daily business enormously. Every day I am impressed again by the fit, the milling speed, and the surface quality!

> Peter Ewert MDT Zahntechnik Ewert & Service GmbH Germany



<b>≋ cera</b> mill® matik	78
<b>≈ cera</b> mill® motion 3	80
<b>≈ cera</b> mill® motion 2	82
<b>≈ cera</b> mill®therm DRS	90
<b>≈ cera</b> mill®therm 3	91
<b>≅ cera</b> mill® argotherm 2	92

The right solution for everyone!

**≈cera**mill® motion 3

digitally flexible

 $(\approx)(\checkmark)(5X)$ 

**≅cera**mill® motion 2

proven

**⊘**(5X)

**AUTOMATION / FLEXIBILITY** 

the 24/7 production unit

# Light years ahead – the Ceramill milling machine portfolio



Maximum precision across the entire versatile range of materials and indications, future-proof and maximum ease of operation form the basis of the Ceramill machine concept.

Furthermore, the machine concept supports you in your impressive trade through its stable, low-vibration design, continuous software updates and machine-guided workflows\*.

In addition to dental perfection, development focuses on the simplification of management and production processes, all based on the specially developed control technology.

Ease of use and intuitive interaction create valuable time that dental technicians, laboratory managers and everyone else involved in the fabrication of dental restorations can devote to value-adding activities.

### The product advantages of the **Ceramill milling machine portfolio:**

- ✓ Maximum spectrum of indications and materials for a maximum return on investment
- ✓ Maximum time savings through well thought-out and validated processes - by dental technicians for dental
- ✓ Digital transparency in capacity, material and production management for maximum delivery reliability and optimal utilization of resources

### **PERFECT RESTORATION QUALITY -**BY DENTAL TECHNICIANS - FOR DENTAL TECHNICIANS





**AG.**LI**?**E

### SMART, STRAIGHTFORWARD AND DIGITAL -THE NEW COMFORT IN OPERATION AND MANAGEMENT

The Ceramill Motion 3 and the Ceramill Matik open the door to the digital world for users. The main focus in development was placed on simplifying the handling of CAD/CAM fabrication.

The first field related to user-friendliness, where user interaction with the machine was revolutionized most notably. Whereas in the past, users had to refer to operating instructions, maintenance manuals and other written documents, the essential operating, servicing, handling and maintenance steps can now be conveniently tracked and implemented step by step on the screen, supported by images and videos. Menu navigation is kept simple and intuitive here and is additionally supported by technical aids (e.g. RFID for tools and material holders) to ensure a maximum level of safety in the fabrication process.









**NEW** Mark III **≅cera**mill®matik

# Time is on your side

Ceramill Matik opens up a still unique segment within the digital dental world. As the first full service unit, it combines three machines in one. Apart from the actual processing station, the system also performs the functions of a fully automated stock management system as well as a machine cleaning device.

The support in loading, cleaning and in material management allows massive time savings in everyday laboratory routines. Furthermore, additional software tools help to make optimum use of the materials and the tools. Due to RFID, it does not matter whether the resources to be used are placed inside or outside the system.

Yet another highlight is the newly designed 5X machining station. In development, for example, the main focus was on the maximum diversity of indications and materials. Ceramill Matik therefore offers innovative processing methods such as the patented carving mode (60% time saving), thrilling (production of one-piece abutments) and speed milling of acrylic materials, as well as the maximum material range from hard and brittle block materials to zirconium and PMMA materials and metal materials.



- ✓ Maximum time savings in resource management through automatic management of tools and materials
- ✓ Highest possible convenience due to autonomous wet and dry change and automatic cleaning
- ✓ Full range of applications due to maximum indication and material portfolio
- ✓ Future-safe due to constant software development and expandable holder portfolios
- ✓ Whether titanium or CoCr produce hard metals in top quality



Integrated and RFID-controlled



Convenient tool trays for easy loading and changing



Autonomous cleaning due to

# #Primetime – with a full focus on the essentials

The Ceramill Matik supports everyday laboratory routines with the complex administration of tools, materials and jobs, so that the user can focus on value-creating activities. As a result, the dental technician regains his/her role as the pacesetter in the digital manufacturing process - not the machine.

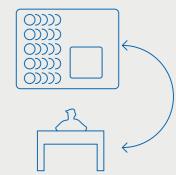
### **CONVENTIONAL CAD/CAM MACHINE**

Productive working time:

60 % 100%

Material changes, tool changes, cleaning processes and inventory management dictate the everyday routine of the dental technician.

# LABORATORY WORKFLOW

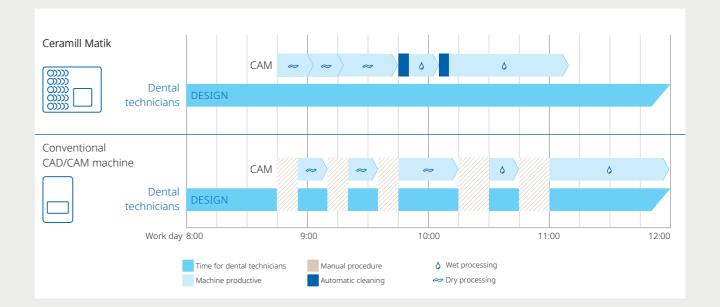


### **CERAMILL MATIK**

Productive working time:



Full focus on the value-creating activities.



**≅cera**mill®

# Milestone in the digitization of dentures

With the Ceramill Motion 3, you will be adding the world's most intelligent hybrid machine to your laboratory. The 5-axis milling unit not only combines wet and dry processing in a single machine, but also enables an end-toend digital workflow. On the one hand, this provides you with a maximum diversity of materials and indications. On the other hand, its digital features enable you to manage your laboratory infrastructure in an uncomplicated manner and to optimize it on an ongoing basis.

With the integrated camera, our Support will assist you in remote mode to let you continue working as quickly as possible after interruptions due to irregularities in the milling process. The intuitive HMI and guided CAD/CAM production and maintenance allow you to focus entirely on your core business. In addition, the tools and blank holders of the Ceramill Motion 3 are equipped with RFID technology, thus ensuring process reliability and enormously simplifying the handling of tools and consumables. The automatic reminder function for maintenance, care and service cycles provides for additional reliability and a long service life of the machine and leaves the operator free to focus on the essentials. The innovative machining strategies for rotary milling, such as the Carving or Detailing Mode, round off the versatility of the system, which is also available as an upgradeable dry version.



- ✓ Access the world's smartest 5-axis hybrid machine, anytime and anywhere
- ✓ Maximum user-friendliness and process reliability due to HMI and RFID technology
- ✓ Maximized service life through guided service workflows
- ✓ Fully automated dental arch restorations of the highest quality due to innovative carving and sculpturing technology (C-Clamp)

### AG.Live - the digital interface

The gateway to the digital environment

### Direct user interface 10" the digital communication unit

Intuitive operation for maximum comfort

### Autocalibration -

equals convenient quality assurance

Automatic calibration for permanent highest restoration quality

### RFID tools and material holders the resource manager

RFID for maximum process reliability and optimal management

### Interior HD camera - full view

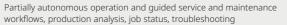
Camera for optimal support

### C-Clamp – the sculptor

Maximum attention to detail also given in the peripheral area









C-Clamp - the sculptor given in the peripheral area

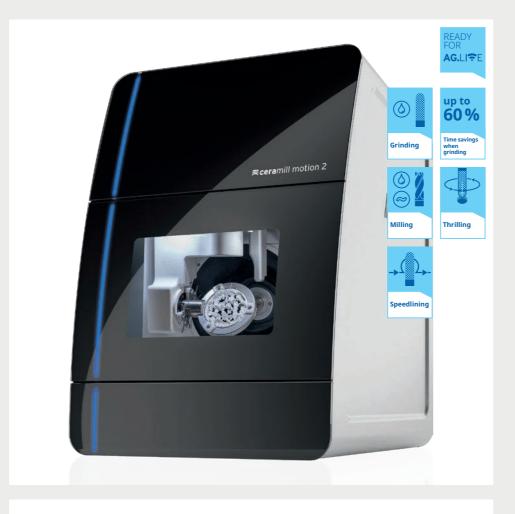
**NEW** Mark IV **≈cera**mill®motion 2

# The hybrid evergreen

When launched in 2012, the Ceramill Motion 2 5-axis milling unit redefined the industry standard in terms of technical capabilities, fabrication diversity and quality. As one of the first milling machines that could be used for both dry and wet fabrication, the Ceramill Motion 2 has always advanced in line with the requirements of its users.

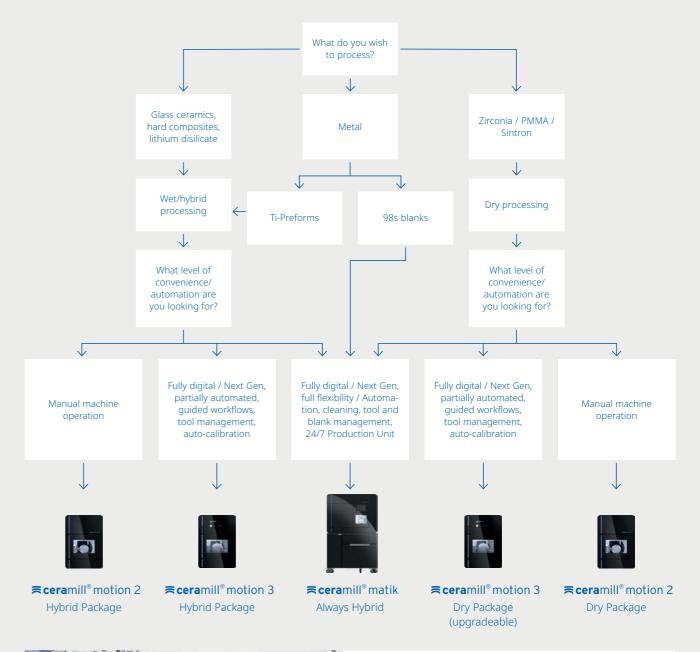
Wet and dry processing in a single compact machine keeps the value creation chain almost completely in-house. Thanks to the innovative DNA control technology and the robust machine concept, the Ceramill Motion 2 is a futureproof guarantor for cost-effectiveness and precision. From its market launch to today, countless customers trust in its reliability. Worldwide, this generation of machines has thus clocked up over 10 million effective operating hours, making it the most successful upgradeable hybrid platform of all times.

This success story will be continued in 2022 - with the Ceramill Motion 2 DRY Package. This machine, which is designed purely for dry processing, impresses with fast machining times, maximum quality and an unbeatable ROI, just like the hybrid machine.



- ✓ Perfectly fitting results owing to high-performance DNA milling strategies specifically developed for the processing of dental materials
- ✓ Maximum material and indication diversity
- ✓ Intelligent machine design ensures optimum protection of all electronic components during wet operation
- ✓ Future-proof due to continuous software updates with our Protection Plans

# Which machine suits me best





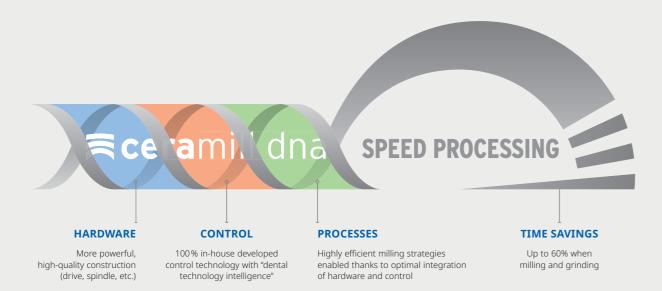
### Engineered, produced, and tested in Austria

Our milling machines are fully created inhouse and exclusively at Amann Girrbach headquarters in Koblach, Austria. Based on our decades of experience in CNC technology and strong development skills we have the expertise to develop and manufacture our machines inhouse from scratch.

**≅cera**mill®

# DNA Generation. Power + Dental intelligence = Performance

Thanks to in-house development of all the elementary components, and particularly the new control units, we can meticulously adapt our milling units to the specific requirements of dental technology and continuously refine them. An unmistakable profile results from the precision, speed, and CAM processes, which are precisely adapted to the mechanical properties of dental materials – we call this the "Ceramill DNA".

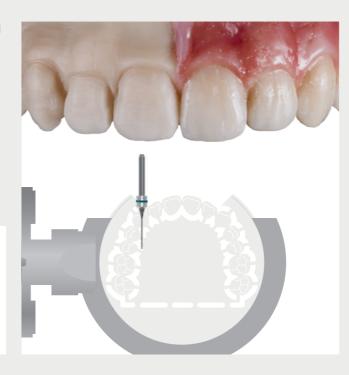


# UHD Sculpturing – Pure Esthetics

The stability of the milling machines and a specifically developed C-Clamp holder in combination with the optimal milling strategies ensure perfect detailing of anterior and posterior tooth restorations.

Here, the material blanks can be machined vertically to accommodate fine structures during CAD/CAM fabrication, e.g. for highly detailed anterior tooth restorations. This makes tedious reworking and the grinding of connectors in highly esthetic areas a thing of the past.

- Maximum time savings during reworking due to CAD/CAM detailing of previously inaccessible restorations
- Stable holders, stable machine setup and validated milling strategies for a highly esthetic results, also on the tooth surfaces



# Ceramill milling strategy

# HIGH DEFINITION CAD/CAM FOR ALL MATERIALS AND INDICATIONS

Thanks to the interplay of highly precise (super-) high-frequency spindles, meticulously developed milling strategy and ultra-thin HD cutters the entire range of millable Ceramill CAD/CAM materials can be processed to a high level of quality that sets new standards.

- ✓ Maximum detail work for highest possible esthetics
- Most delicate structures for minimal preparation and post-processing of the restoration



# Processing direction Grinding path Design Block material Parallel grinding Quadrant grinding Carving mode Speedlining 0 5 10 15 20 25 30 35 40 min

### **SPEEDLINING**

In speedlining, the block is ground line by line from front to back. As a result, the connector (weak point) is fabricated only at the end of the roughing process. This means that the grinding process always has the highest possible stability during processing. In conjunction with the new grinding tools, even higher machining speeds are also possible while maintaining maximum precision at the same time.

- ✓ Faster than carving
- ✓ More stable tools = more precise processing possible
- The machining process is more stable and easy-going overall than with carving = easier to use for the operator

### **ROTO RFID DIAMANT-BLGS**

Using the new Roto RFID diamond BLGs provides all the advantages of the speedlining strategy. The carbide core allows for faster milling times with an optimized number of cutters (3 Rotos) compared to carving (4 Rotos) to achieve the same precise, high-quality results while lasting as long or even longer than carving Rotos.



≅ceramill®

							ILL IG (				M	AT	ERI	AL															
	Art. No.	Description	Ring color	Mikro 4X	Mikro 5X	Mikro IC	Motion 2	Motion 3	Matik	Motion DRS	Zolid Zirconia	Ceramill Sintron	Ceramill M-Plast	Ceramill PMMA	Ceramill PEEK	Ceramill Wax	Ceramill Splintec	Ceramill TI-Preforms	Starbond Ti5	Ceramill CoCr	Glass ceramic	Lithium disilicates	Hybrid ceramics	Composite - disc	Hybrid - block	Ultaire® AKP	VITA VIONIC Denture	VITA VIONIC WAX	VOCO Grandio Disc
10	760660	Roto RFID 2.5 ZI	grey		0	_		0		_	0								01			_	_		_	_			
23	760661	Roto RFID 1.0 ZI	grey		0			0			0																		
1115	760662		grey		0			0			0																		
15-	760663	Roto RFID 0.3 ZI	grey		0		0	0			0																		
	760664		blue		0		0	0				0																	
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5	_	Roto RFID 0.6 Sintron	blue		0		0	0				0																	
5	760667		blue		0		0	0				0																	
	760668				0		0	0						0	0														
5	760669		green		0			0						0															
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M	760671	Roto RFID 0.3 PMMA	green	0	0	_	0	0										0											
	760672		black			0		0										0											
	760673	Roto RFID 1.0 Ti	black			O	0	0										0	0										
	751004	Roto RFID 2.0 Diamond BLG	orange						0																0				
	751006	Roto RFID 1.0 Diamond BLG	orange				0		0												0	0	0	0	0				0
100	751008	Roto RFID 0.4 Diamond BLG	orange			_	0		0	0											0	0	0	0	0				0
-	760676	Diamond RFID 1.8	orange				0	0													0								
-	760677	Diamond RFID 1.4	orange				0															0							
-	760678	Diamond RFID 1.0	orange			0		0													0	0							
-	760679	Diamond RFID 0.4	orange			0	0	0	0												0	0	0						
11	760680	Roto RFID 2.5 SC	yellow		0		0	0	0							Δ	0												
	760681	Roto RFID 1.0 SC	yellow				0	0	0							$\triangle$													
	760682	Roto RFID 0.6 SC	yellow				0	0	0							$\triangle$													
5	760683	Roto RFID 0.3 SC	yellow				0	0	0							$\triangle$													
H H	760684	Roto RFID 2.5 DMB DC	white	0	0	0	0	0	0														0	0					0
10	760685	Roto RFID 1.0 DMB DC	white	0	0	0	0	0	0														0	0					0
	760686	Roto RFID 0.6 DMB DC	white	0	0	0	0	0	0														0						
(16)	760687	Roto RFID 0.3 DMB DC	white	0	0	0	0	0	0														0						
-	760688	Roto RFID 2.5 CoCr	brown						0											0									
	760689	Roto RFID 1.5 CoCr	brown						0											0									
16	760690	Roto RFID 1.0 CoCr	brown						0											0									
5		Roto RFID 1.5 Telescope	brown						0											0									
15		Roto RFID 2.5 PMMA Denture					0	0																			0		
5		Roto RFID 1.5 PMMA Denture						0																			0		
15		Roto RFID 1.2 Drill	green					0																					
16		Roto RFID 1.0 Wax Denture	red					0					0															0	
1		Roto RFID 3.0 Wax Denture	red					0					0															0	
ii.		Roto RFID 2.5 Model	red				0						0															9	
16		Roto RFID 2.5 Model					0						0																
H.		Roto RFID 2.0 Model	red	0	0				0		0	0	J	0	0														
10			purple					0			0					0													
No.		Roto RFID 0.6 ST **	purple		0			0			0				0														
100		Roto RFID 1.5 T-Shape **	purple	O	0			0			0			O	0	O													
		Roto RFID 2.0 T-Shape	purple		0			0			0	0																	
		Roto RFID 1.8 T-Shape	purple		0			0						0	0														
		Roto RFID calibration pin	purple		0		0	0		0																			
	760702	Roto RFID 3.0 Titan	black						0										0										
	760703	Roto RFID 2.0 Titan	black						0										0										
	760704	Roto RFID 1.5 Titan	black						0										0										
	760705	Roto RFID 1.2 F Titan	black						0										0										
	760706	Roto RFID 1.0 Titan	black						0										0										
-	760707	Roto RFID 1.2 R Titan	black						0										0										
	751010	Roto RFID 2.5 DC BLM	grey							0	0			0															
	751011	Roto RFID 1.0 DC BLM	grey							0				0															
		Roto RFID 0.6 DC BLM	grey								0			0															
18119	10.012	TO THE OLD DE DEIVI	53								_			_															

# □ Only possible with Ceramill Matik, Ceramill Motion 2, Ceramill Motion 3 △ Only possible with Ceramill Matik \* Also possible with Tri Implants \*\* Only possible with InCADCAM

Full flexibility -	thanks to	interchangeable	holders
<i>J</i>		<u> </u>	

	Sceramill® motion 2	Sceramill® motion 3	<b>© matik</b>
HOLDERS			
Blank holder 98 mm	179294	181360	181211
Blank holder C-Clamp	179247	181361	181209
Block holder UN mandrel	3-fold 179260*  9-fold 179248*  12-fold 179290*	3-fold 181362 9-fold 181366	4-fold 181213
Block holder DRS mandrel	179249	3-fold 181363 9-fold 181367	4-fold 181219
Blank holder Ti-Preforms	179278	181364	181214
Blank holder D-Set	179283	181365	181216
Blank holder Metal			181218

<sup>\*</sup> only in conjunction with 760975





### **≅cera**mill®therm

<b>Scera</b> mill® motion 2 dry	<b>≲cera</b> mill® motion 2 hybrid	<b>⋒cera</b> mill® motion 3	<b>cera</b> mill® matik
<b>€</b> (5X)	<b>⊘ () (5X)</b>	<b>⊘ () (5X</b> )	<b>⊘</b> (∆)(5X

CERAMILL MATERIAL	MATERIAL	MILLING		GRINDING ING, THRI	
Ceramill Sintron	CoCr sinter metal	~	~	~	~
Ceramill Zirconia (LT, HT, SHT)	Zirconia	~	~	~	~
Ceramill Wax	Milling wax	~	٥	٥	٥
Ceramill A-Cast	Acrylic, transparent	~	٥	٥	٥
Ceramill A-Temp/Ceramill A-Temp Multilayer	Acrylic, PMMA stained	~	٥	٥	٥
Ceramill A-Splint	Splints-acrylic, PMMA	~	٥	٥	٥
Ceramill M-Plast	Model plastic	~	٥	٥	0
Ceramill Ti-Forms	Titanium		٥	٥	0
Ceramill PEEK	Polyetheretherketone		٥	٥	0
VITA SUPRINITY® PC	Lithium silicate ceramic, zirconium-oxide reinforced		٥	٥	0
VITA ENAMIC®	Hybrid ceramic		٥	٥	0
VITABLOCS® Mark II / TriLuxe forte	Glass-ceramic		٥	٥	0
IPS e.max CAD	Lithium disilicate ceramic		٥	٥	٥
IPS empress CAD	Glass-ceramic		٥	٥	٥
Mogucera for Ceramill	Hard metal				~

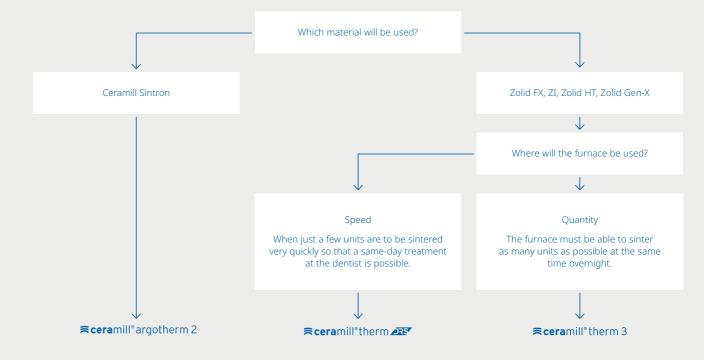
INDICATIONS				
Crown/bridge anatomically reduced	0	0	0	0
Crown/bridge fully anatomical	0	0	0	0
Implant bridge with gingiva section	0	0	0	0
Inlay/Onlay/Veneer	0	0	0	0
Overpress fully anatomical	0	0	0	0
Telescope	0	0	0	0
Attachment	0	0	0	0
Titanium abutment (customised)		0	0	0
Bridge on conical titanium bases	0	0	0	0
Multi-unit, screw-retained restoration on titanium bases	0	0	0	0
Bar on titanium base	0	0	0	0
Bite raising appliance	0	0	0	0
Eggshell temporary restoration	0	0	0	0
Full denture		0	0	0
Digital model fabrication	0	0	0	0

# Overview and explanation of the entire portfolio

Regardless of whether users want speed sintering or traditional sintering – Amann Girrbach offers a wide range of optimal sintering furnaces to satisfy individual needs and requirements.



### WHICH FURNACE IS RIGHT FOR ME?



 $<sup>\</sup>ensuremath{\,^\star}$  Speed-sintering cycle may vary depending on the type of material

# Rapid sintering-system – fast, esthetic, efficient.

The new Ceramill Therm DRS super-speed sintering furnace allows the sintering of small zirconium oxide restorations in approx. 20 minutes. The intuitive operating concept offers the suitable sintering program for every indication and thus significantly increases comfort in everyday routine. Unlike conventional sintering furnaces, this furnace uses a high-performance heating element, which exceeds all expectations in terms of speed, flexibility and energy efficiency. In addition, the super-speed sintering furnace stands out from the crowd with its slim design and compact construction as well as combining the most important process steps in the fabrication of zirconium oxide restorations in a single unit: pre-drying, sintering and glazing. This makes the Ceramill Therm DRS the ideal addition and maximizes flexibility in everyday laboratory routines.



- ✓ Speed-sintering cycle of restorations with Zolid DRS in approx. 20 minutes without any relevant loss of esthetics and strength
- ✓ Innovative operating concept with individual sintering programs provides high comfort and safe work processes
- $\checkmark$  Ideally suited for the rapid provision of single-tooth restorations through perfect workflow integration

FEATURES	INDICATIONS	SINTERING PROGRAM	MATERIAL
	Single-tooth crown	20 min	<b>≅zolid</b> drs
High-Speed Sintering	3-unit bridge	30 min	<b>≅zolid</b> drs
3	Single-tooth crown, 3-unit bridge*	60 min	<b>≅zolid</b> gen-x
Speed sintering	Single-tooth crown, 3-unit bridge	120 min	<b>≡zolid</b> fx
Multifunctional	Glazing, automatic drying, automatic coolir	ng, free sintering of other materials	

### \*Zolid Gen-X is also released for the Zolid DRS 20 or 30 minutes program. This may result in slight color deviations (lighter).

# Fully automatic high-performance furnace for final sintering of distortion-free zirconia frameworks

Using the Ceramill Therm 3 high-temperature furnace zirconia frameworks obtain their final density and the resulting, outstanding material characteristics. For sintering, the objects are placed onto sintering beads, which ensures a frictionless sintering process and thus distortion-free frameworks. The Ceramill Therm 3 offers high process reliability due to constant temperature control and homogeneous temperature distribution in the firing chamber. 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.

Users have 250 available sintering programme spaces, 4 of which are already pre-programmed with validated AG sintering programmes.



- ✓ High process reliability due to constant temperature control, homogeneous temperature distribution in the firing chamber
- ✓ Maximum process reliability due to optimally coordinated, fully-automated sintering programmes for different restoration sizes
- ✓ 250 sintering programme spaces, 4 of which are validated AG programmes
- √ 3 stackable sintering bowls for maximum utilisation of the furnace
- ✓ Minimum required space and installation time (supply required)
- ✓ Sintering at the press of a button very easy operation with touch-screen technology
- ✓ Clear display of the sinter curve and sinter status





For optimum utilization of the furnace, the Ceramill Therm 3 features a large sintering chamber volume for 120 units, in which 3 sintering bowls can be stacked on top of each other. With the aid of the sintering tongs, the sintering bowls are transferred easily and safely into and out of the furnace.

# Shielding gas sinter furnace and flood chamber for Ceramill Sintron

The CoCr sintering furnace Ceramill Argotherm 2 is an integral part of a system with optimally coordinated components for processing the sinter metal Ceramill Sintron. Only the perfect adaptation of sinter metal, processing in the CAD/CAM system and completion in the sintering furnace ensure consistently high material quality – especially if it involves the mechanical properties and (micro-) structure of the finished restoration. Easy to operate at the press of a button, the Ceramill Argotherm 2 controls the sinter programme of the milled CoCr units.

The "core" of the system, the removable Ceramill Argovent 2 sinter chamber, ensures minimal consumption of argon gas and homogeneous, distortion-free sintering of the restorations.



- $\checkmark$  Constantly high sinter quality thanks to the specially developed sinter programme
- $\checkmark$  Integrated compressed-air and shielding gas monitoring ensure maximum process reliability and minimum shielding gas consumption
- ✓ Sintering at the press of a button easy to operate using touch-screen technology with sinter-progress and time-remaining display
- ✓ Capacity per sinter cycle: up to 40 units



Ceramill Sintron-blanks before sintering process



Restoration milled from Ceramill Sintron with and without polishing



Veneered and polished Ceramill Sintron restoration

# PRODUCTION / 3D PRINTING

"

With the 3D printing solution for Ceramill, I can ideally expand my workflow to include this innovative production variant. In addition to the accustomed ease of operation, I am particularly fascinated by the precision and production speed of the system.

Julien Krämer MDT Krämer Dental Germany



NextDent for **≅ cera**mill®



# NextDent 5100 for Ceramill a unique cooperation.

3D Systems meets Amann Girrbach. 3D printing meets dental workflow. Together, 3D Systems and Amann Girrbach have created a unique system solution for the dental market. By pooling the core competencies of both system partners, 3D printing for the first time enables a dental and fully integrated workflow for the fabrication of dental products and aids.

The combination of the Ceramill workflow with the NextDent 5100 3D printer and the associated 3D Sprint software solution offers the user a plug & play system solution with comprehensive software access. The large selection of compatible NextDent 3D printing materials stands for a maximum range of applications in everyday laboratory work, which is further simplified by clever material management and matching post-processing options.





# Wide range of indications and materials for maximum ROI

During the course of system coordination, all process components such as 3D printer, accessories and post-processing were carefully coordinated with each other. Special attention was paid to the validation of the materials.

The multitude of printable materials and the associated broad spectrum of indications promises maximum flexibility and costeffectiveness. Predefined and integrated process parameters ensure simple and safe handling as well as assured quality of the restorations. The entire production and post-processing procedure is designed intuitively and reduced to just a few steps in everyday laboratory routine - for maximum efficiency with minimum expenditure of time.



Crowns, bridges, partial dentures



Crowns, bridges

NextDent Ortho IBT



Models

INTEGRATED

NextDent **Try-In** 

Mock-Up

INTEGRATED



Prosthetic bases

Indirect bonding trays

VALIDATED

NextDent Ortho Rigid



Bite splints

VALIDATED

NextDent SG / Orange



Drilling templates

NextDent **Gingiva Mask** 



Flexible gingiva masks

VALIDATED



Individual trays

VALIDATED





# Unique. Future-proof. Validated.

or model scans. for maximum pro- tation function for ensures efficient

results.

cess reliability.

The combination of the familiar Ceramill workflow, the high-speed Figure 4<sup>™</sup> technology of the NextDent 5100 for Ceramill, a validated material portfolio and proven post-processing methods provides a simple, coordinated and safe process. This unique workflow enables the user to achieve long-term cost and time savings in resin-based indications. Furthermore, Figure 4<sup>™</sup> technology will in future map additional indications and workflows in the NextDent 5100 for Ceramill system.

### DATA INPUT CERAMILL MIND 3D SPRINT **NEXTDENT 5100 PRINTABLE** CLEANING LIGHT CURING VALIDATED FOR CERAMILL FOR CERAMILL **MATERIALS PROCESS** RESULTS Digitization of the Defined material Guided fabrication Sophisticated Comprehensive Defined ultrasonic Light curing device initial situation by selection and workflow, auto and coordinated material portfolio cleaning times and adapted to the for maximum flexi- processing recom- material with means of intraoral design parameters support and orien- barcode system

bility and econom- mendations for

optimal printing and reproducible ical use of the 3D optimum material times for precise,

defined curing

reproducible and

standard-compli-

ant results.

✓ Safety and time savings in everyday laboratory routine due to the automatic transfer of design data in combination with an intelligent nesting concept

workflows.

- Excellent printing results in highest precision due to coordinated workflows, machines, materials and accessories
- Rapid amortization due to maximum material and indication spectrum as well as low investment and fixed costs



# The high-speed 3D printer for dental materials

The high-speed-3D printer NextDent 5100 for Ceramill with the groundbreaking Figure 4™ technology stands for high productivity at first-class speed at a price that is affordable for practically all dental laboratories.

In addition to perfect restoration results, the 3D printer scores with enormous time savings due to the revolutionary Figure 4™ technology and the oxygen-permeable membrane in the material tray. The low pull-off forces between the membrane and the construction platform ensure a distortion-free printing process and excellent results. A gentle separation process enables the use of filigree support structures, which can not only be separated easily and without tools in the post-processing process, but also in a time-saving manner.

And last but not least, the NextDent 5100 for Ceramill convinces with its simple single-hand handling. The integrated color display can also be operated with gloves and both the construction platform and the material tray are easily accessible and user-friendly during application.





AG.LI⊋E

- ✓ Up to 3x faster printing due to Figure 4<sup>™</sup> technology for high productivity and flexibility
- ✓ Low pull-off forces due to an oxygen-permeable membrane ensure a long service life of the material tray, easy separation of the support structures and distortion-free results
- $\checkmark$  Easy handling due to touch screen and single-hand operation of accessories such as the construction platform and material tray



Thanks to a defined mixing process with fixed stirring times, the LC-3D Mixer ensures stable and homogeneous material conditions before printing



The LC-3D Print Box is a post-curing UV light box to ensure a quick and uniform curing cycle



# CAD/CAM MATERIAL

We at the Amsterdam Dental Group strive to provide the best for our patients. The wide variety of materials in Amann Girrbach's CAD/CAM portfolio has enabled us to select the ideal material for each clinical situation.

> Harold Baumgarten DMD Amsterdam Dental Group USA

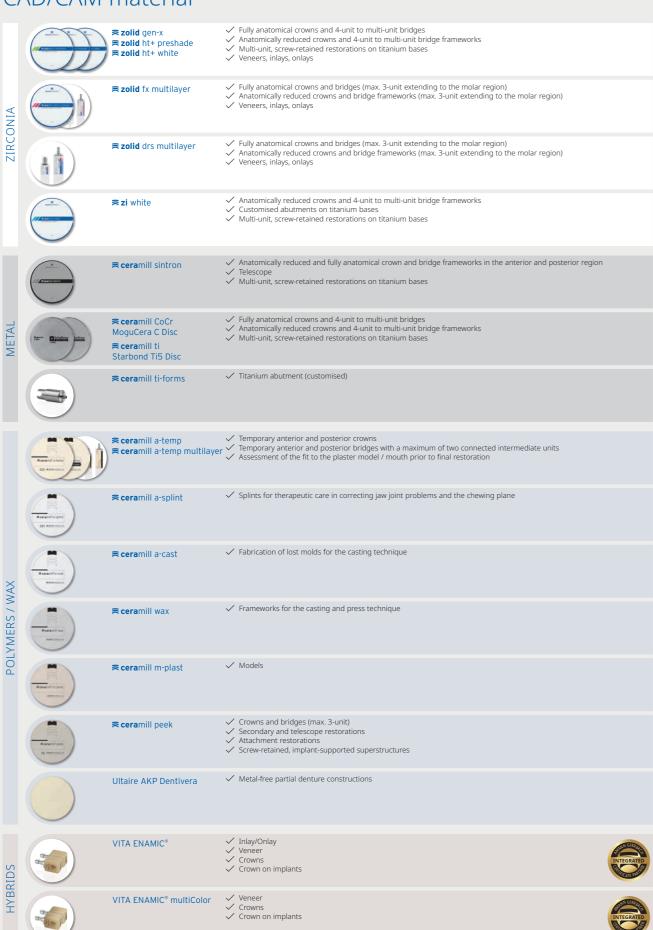


Zolid DNA Zirconia	102	Polymers/Wax	12
<b>≈ zolid</b> gen-x multilayer	109	<b>≅ cera</b> mill® a-temp / a-temp multilayer	13
<b>≡ cera</b> mill® zolid ht+ preshades	110	<b>≅ cera</b> mill® a-splint	13
<b>≈ cera</b> mill® zolid ht+ white	111	<b>≅ cera</b> mill® a-cast	13
<b>≈ cera</b> mill® zolid fx multilayer	113	<b>≅ cera</b> mill® wax	13
<b>≈ zolid</b> drs multilayer	114	<b>≅ cera</b> mill® peek	13
≅zi	115	<b>≅ cera</b> mill® m-plast	13
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NextDent for Ceramill

143

# CAD/CAM material





# CAD/CAM material – authorized for Ceramill



Zirconia is considered the first choice for dentures of high esthetic standards due to its wide range of possible applications, biocompatibility and optical adaptability. With the Zolid brand of zirconia blanks, Amann Girrbach offers the right material for every zirconia-based indication to fabricate restorations with long-term stability and natural esthetics economically and efficiently.



# Versatile, economic, process relabile.

93

The material properties of Zolid Gen-X ensure that I have a safe and reproducible production process for every restoration. The high strength of the material of 1000 MPa means that it is an absolute all-rounder for routine laboratory use.

Benjamin Votteler, MDT Dentaltechnik Votteler GmbH & Co Germany



"

Working with Zolid HT+ blew my mind – the combination of strength and translucency combines the advantages of Zolid and Zolid FX in a single material. With Zolid HT+, my REAX restorations are getting an unbelievable Esthetic Boost.

> Alexander Wuensche, CDT Zahntechnique USA



I have never seen integrated esthetics before in a monolithic zirconium oxide. Zolid FX Multilayer is a game changer!

> Lucas Lammott, CDT M31 Dental Studio





# Zirconium oxide made in-house. Manufacturing of Zolid DNA blanks.

Zirconium oxide (ZrO<sub>2</sub>) is obtained from zirconium silicate (ZrSiO<sub>4</sub>) which is treated in an elaborate chemical process to form a white crystalline powder. The addition of organic binders allows the powder to be pressed to form blanks that retain their processing properties as a result of a downstream pre-sintering process. At our development and production site "Dentustry One" at our headquarters in Austria, we have state-of-the-art production plants at our disposal where we process zirconium oxide into blanks using defined and certified processes under the most stringent test conditions. Prior to release for manual or mechanical processing by our end customers, each individual blank is subject to a comprehensive quality control procedure. In this way, we ensure continued high material quality with excellent processing properties.









### **SHADE AND PROCESS RELIABILITY**

Aesthetically and functionally perfect restorations. Amann Girrbach developed and produced zirconia blanks with the brand name Ceramill solely and exclusively with this intention. We examine our materials for absolute shade stability according to the VITA classical shade guide with extensive tests and meticulously coordinated these to all software and hardware components. We therefore guarantee the highest shade and process reliability for the entire fabrication procedure.



### **EFFICIENCY AND ECONOMY**

Economic, efficient processes are a cornerstone of our product and corporate philosophy. These are based on completely integrated system components, which make your working processes easy and efficient. Amann Girrbach provides its customers with a versatile and economic and coloring solutions with which you can meet all the requirements in terms of aesthetics and range of indications.

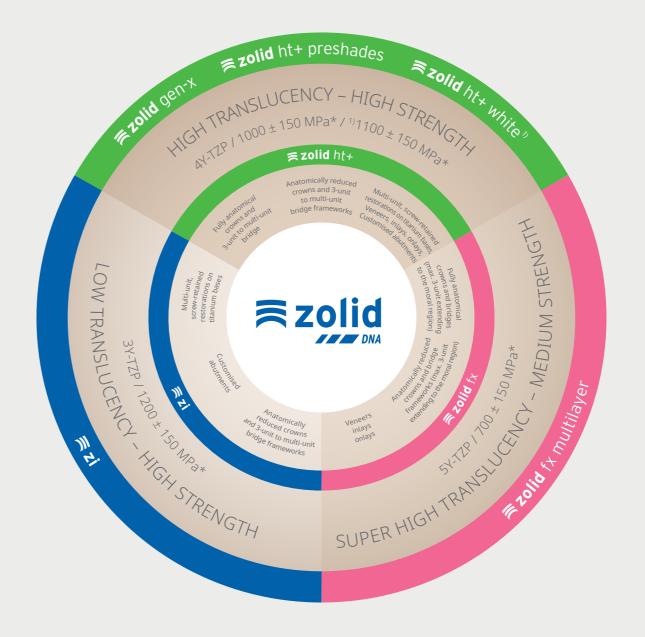


### **QUALITY**

Zircon oxide ≠ zircon oxide. If the zirconia blanks on the market are assessed according to their chemical composition, hardly any differences are noticeable. However, the mechanical and optical characteristics are largely determined by the manufacturing process of the material overall concept comprising zirconia blanks for us the decisive argument for in-house production of zirconia blanks. This allows us to guarantee a secure, quality manufacturing process and constantly high material quality.



# One system – all possibilities.



- ✓ Wide range of indications and customization options due to white, pre-shaded and multilayer blanks in different levels
- ✓ Finely coordinated shade concepts according to the VITA classical shade guide guarantee accurate, reproducible results
- ✓ In-house blank production at the Austrian site with state-of-the-art manufacturing technology assures excellent and consistently high quality standards
- ✓ Comprehensive training offer for processing the Zolid DNA generation
- ✓ Certificate of authenticity and 10-year warranty for all Zolid restorations used. More on the subject at zolid.amanngirrbach.com

<sup>\*</sup>Average of three-point bending test as defined in DIN EN ISO 6872, R&D AmannGirrbach

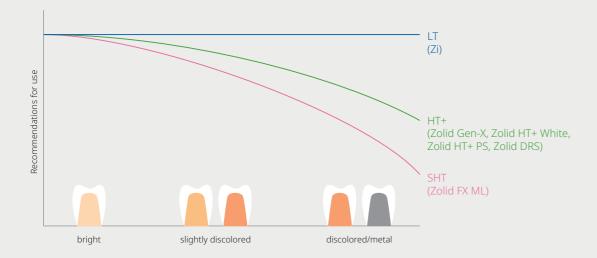


# Esthetic management and processing

The optimum zirconium oxide for an indication is determined by a host of different factors. Esthetic requirements, the position of the denture in the patient's mouth or the shade of the stump have a decisive influence on the choice of material. The more precisely the shade of the stump, the material and the indication are matched, the more predictable and esthetically accurate the final result will be realized.

STUMP SHADE	TRANSLUCENCY	PRODUCT	PRO	CESS	ING		IND	ICATI	ON					
			Brush /immersion technique	Staining technique	Cutback technique	Layering technique	Veneer	Inlay	Onlay	Anterior and posterior crown	3-pontic bridge (incl. molar region)	Multi-pontic bridge	Hybrid abutment	Hybrid abutment crown
Bright	SHT	Zolid FX Multilayer	0	0	0		0	0	0	0	0			0
Bright – slightly discolored		Zolid Gen-X Multilayer	0	0	0	0		0	0	0	0	0	0	0
	HT+	Zolid HT+ Preshades	0	0	0	0		0	0	0	0	0	0	0
		Zolid HT+ White	0	0	0	0		0	0	0	0	0	0	0
		Zolid DRS Multilayer	0	0	0	0	0	0	0	0	0		0	0
Bright – discolored/metal	LT	ZI White	0			0				0	0	0	0	0

### RECOMMENDATIONS FOR USE OF AMANN GIRRBACH ZIRCONIUM OXIDE IN TERMS OF STUMP SHADE AND DEGREE OF TRANSLUCENCY



# ≅zolid

# Technical data

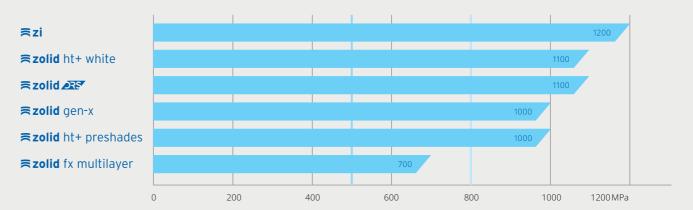
### FLEXURAL STRENGTH

3-point flexural strength [MPa] DIN EN ISO 6872. The higher the flexural strength of zirconia (ZrO<sub>2</sub>) the better the stability under masticatory loading.

- Klasse 5 > 800 MPa according to DIN EN ISO 6872\*
- Klasse 4 > 500 MPa according to DIN EN ISO 6872\*\*

Source: Amann Girrbach R&D

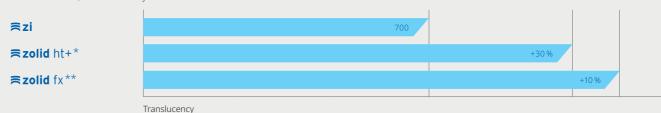
- \* Minimum requirement for the fabrication of 4- to multi-pontic bridges; \*\* Minimum requirement for the fabrication of 3-pontic bridges



### **TRANSLUCENCY**

The higher the translucency the more permeable the material is to light (translucent).

- \* Zolid HT+ White, Zolid HT+ Preshade, Zolid Gen-X, Zolid DRS
- \*\* Zolid FX White, Zolid FX Multilayer



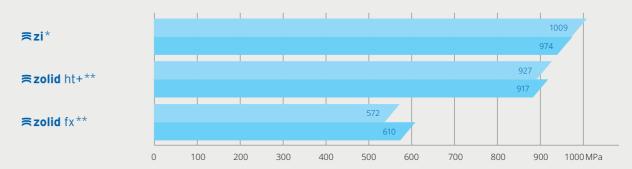
### **RESISTANCE TO AGEING**

4-point flexural strength [MPa] DIN EN ISO 6872. Consistent strength values (Weibull module) after simulated mechanical ageing (1.2 million cycles, 100 N).

prior to mechanical aging

after mechanical aging

Results/references:\* LMU Munich; \*\* Amann Girrbach R&D











## **≅zolid** gen-x multilayer



# High translucency zirconia (HT+)

Zolid Gen-X puts an end to the time-consuming search for the right blank for the popular restoration, quite simply because the latest blanks of the Zolid DNA generation are true all-rounders!

Zolid Gen-X combines all the advantages of the Zolid HT+ product group: the excellent esthetic properties and outstanding mechanical values allow exceeding any indication limitations.

In addition, Gen-X possesses a natural color gradient that takes the blank to a new level in terms of efficiency and esthetics.

### **INDICATIONS**

- ✓ Fully anatomical crowns and 3-unit to multi-unit bridge
- Anatomically reduced crowns and 3-unit to multi-unit bridge frameworks
- ✓ Multi-unit, screw-retained restorations on titanium bases
- ✓ Veneers, inlays, onlays
- ✓ Customised abutments



- Reduced complexity in everyday laboratory routines through multi-indication application possibilities
- ✓ The flowing color and translucency gradient is a perfect imitation of nature
- ✓ Due to flexural strength of over 1000 MPa, a large variety of indications such as single unit crowns up to multi-unit bridges can be realized
- ✓ The new features and all clinically proven benefits of Zolid HT+ are combined in a single material

Tecrifical data	
Flexural strength (3-point)*	1000±150 M
Flexural strength (4-point)*	900±150 M
Modulus of elasticity	≥200G
Coefficient of thermal expa	nsion
(CTE 25-500°C)	10.5 ± 0.5 x 10 <sup>-6</sup>
Chemical solubility	< 100 µg/c

Vickers hardness

Chemical composition

≥99
6-7
≤5
≤0.5
≤1

1300±200 HV10



Sintering in the Zolid DNA workflow at 1450°C/h



Easy finalization with 16 A-D VITA shades and Ceramill Stain & Glaze



# High-translucent zirconia (HT+)

Zolid HT+ is a highly translucent zirconium oxide which combines high mechanical characteristics with outstanding aesthetics. With its extreme edge stability, Zolid HT+ allows delicate margin design when processed with CAD/CAM. Available in 16 VITA classical tooth shades, the processing of Zolid HT+ Preshades guarantees an efficient workflow with maximum colour stability, even for large-span bridges. The range of 16 Zolid HT+ Preshade blanks allows achieving all 16 VITA tooth shades with only 7 blanks using the Ceramill Stain & Glaze Essential Kit and by applying a sophisticated stain technique.

# **INDICATIONS AMANNGIRRBACH** ✓ Fully anatomical crowns and 3-unit to multi-unit bridge ✓ Anatomically reduced crowns and 3-unit to multi-unit bridge frameworks ≅ ceramill®zolid ht+ preshade ✓ Multi-unit, screw-retained HIGH TRANSLUCENT ZIRCONIA restorations on titanium bases ✓ Veneers, inlays, onlays ✓ Customised abutments

- ✓ High level aesthetics with a natural look due to increased translucency
- ✓ High efficiency and maximum colour stability through pre-stained blanks
- ✓ A strength of 1,000 MPa enables a broad spectrum of indications
- ✓ Intelligent staining concept with Ceramill Stain & Glaze allows achieving 16 VITA shades with only 7 blanks

# High-translucent zirconia (HT+)

Zolid HT+ is a highly translucent zirconium oxide which combines high mechanical characteristics with outstanding translucency. Even complex structures such as implant-supported bridges with a gingival component radiate the vitality of natural tooth substance.

The optimized manufacturing process also has a positive effect on the milling aspects of processing. Otherwise nothing has changed in processing - Zolid HT+ is integrated harmoniously into the Amann Girrbach zirconium oxide fabrication workflow. The "new formula" Ceramill Liquids are matched perfectly to Zolid HT+ and achieve highly esthetic color shade results corresponding to the VITA shade guide.



- ✓ Full indication spectrum through high flexural strength of 1,100 MPa
- ✓ Top level aesthetics with natural look due to increased translucency
- ✓ Optimised processing integrated harmoniously into the AG zirconium oxide workflow

### Technical data

Flexural strength (3-point)*	1000 ± 150 MPa	
Flexural strength (4-point)*	900 ± 150 MPa	
Modulus of elasticity	≥200 GPa	
Coefficient of thermal expansion		
(CTE 25-500°C)	$10.4 \pm 0.5 \times 10^{-6}  \text{K}^{-1}$	
Chemical solubility	<100 µg/cm²	
VC 1 1 1	4200 - 2001   1/40	

### Chemical composition

	Mass percentage
ZrO2 + HfO2 + Y2O3	≥99
Y <sub>2</sub> O <sub>3</sub>	6-7
HfO <sub>2</sub>	≤5
Al <sub>2</sub> O <sub>3</sub>	≤0.5
other oxides	-1



High efficiency and maximum color stability due to pre-stained blanks in 16 VITA colors

\*Average of three-point bending test as defined in DIN EN ISO 6872, R&D Amann Girrbach; \*\*see instructions "Staining technique"



Ceramill Stain & Glaze stains and glazing materials for "16 from 7 concept"\*\* or for final aesthetic



≅ zolid

Due to the high strength, up to 14-pontic bridges can be fabricated with Zolid HT+ Preshades

### Technical data

Flexural strength (3-point)*	1100±150 MPa
Flexural strength (4-point)*	1000 ± 150 MPa
Modulus of elasticity	≥200 GPa
Coefficient of thermal expar	nsion
(CTE 25-500°C)	$10.4 \pm 0.5 \times 10^{-6}  \text{K}^{-}$
Chemical solubility	<100 µg/cm
Vickers hardness	1300 ± 200 HV10

### Chemical composition

	Mass percenta
ZrO <sub>2</sub> + HfO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub>	≥
Y <sub>2</sub> O <sub>3</sub>	6.7 - 7
HfO <sub>2</sub>	
Al <sub>2</sub> O <sub>3</sub>	≤(
other oxides	



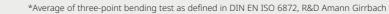
Perfectly customised colour shade results with "new formula" Ceramill



Outstanding edge stability through optimised processing properties



Perfect for implant-supported





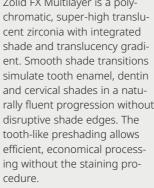




# Polychromatic, super-high translucent zirconia (SHT)

Zolid FX Multilayer is a polychromatic, super-high translucent zirconia with integrated shade and translucency gradient. Smooth shade transitions simulate tooth enamel, dentin and cervical shades in a naturally fluent progression without disruptive shade edges. The tooth-like preshading allows efficient, economical processing without the staining pro-

Restorations can be further customized after sintering to achieve more aesthetic results using stains and glazing porcelains of the Ceramill Stain & Glaze kit.



# **INDICATIONS**

- ✓ Fully anatomical crowns and bridges (max. 3 units extending to the molar region)
- ✓ Veneers, inlays, onlays



- ✓ Continuous shade and translucency gradient for smooth shade transitions without shade edges, and natural aesthetics
- $\checkmark$  High bending strength in comparison with glass-ceramics enables fabrication of up to 3-unit bridges, including in the molar region
- $\checkmark$  Intelligent nesting concept guarantees accurate matching of the VITA shades and economic working in the lab

112	Ceramill Zolid FX ML   Dental Inpulse

Technical data Flexural strength (3-point)\* 700±150 MPa Flexural strength (4-point)\* 600±150 MPa Modulus of elasticity ≥200 GPa Coefficient of thermal expansion (CTE 25-500°C)  $10.1 \pm 0.5 \times 10^{-6} \, \text{K}^{-1}$ 1300 ± 200 HV10 Vickers hardness

Chemical composition

	Mass percentage
ZrO <sub>2</sub> + HfO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub>	≥99
Y <sub>2</sub> O <sub>3</sub>	8.5-9.5
HfO <sub>2</sub>	≤5
Al <sub>2</sub> O <sub>3</sub>	≤0.5
other oxides	≤1



Intelligent nesting concept according to the VITA classical shade guide



Ceramill Stain & Glaze stains and glaze porcelains for final aesthetic

<sup>\*</sup>Average of three-point bending test as defined in DIN EN ISO 6872, R&D Amann Girrbach

# High translucency zirconium oxide (HT+)

The specifically developed Zolid DRS material in combination with the specially developed speed sintering furnace ensure a fast and safe workflow from start to finish. Be it for the daily sintering of crowns and bridges, the quick zirconium crown in between or as a backup solution – the Ceramill Therm DRS can be integrated effectively into the daily laboratory routine.

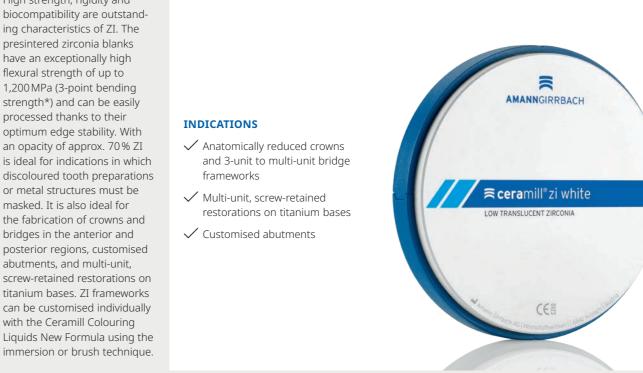
Zolid DRS forms the perfect basis for restorations which are sintered in approx. 20 minutes. Perfectly matched to the 16 VITA shades and with natural color and translucency gradients, this material quarantees safe and efficient processes. The different block sizes allow fabrication of up to 3-pontic bridges.

# **INDICATIONS\*** ✓ Fully anatomical crowns and bridges (max. 3 units extending to the molar region) ✓ Anatomically reduced crown and bridge frameworks (max. 3 units extending to the molar region) ✓ Veneers, inlays, onlays Customised abutments \*Due to the delivery form (block form) of Zolid DRS, bridges of up to three pontics only can

- ✓ The natural translucency with integrated color gradient creates natural restorations in next to no time
- $\checkmark$  The 16 shades, which are perfectly matched to the VITA shade guide, ensure unerring and esthetic results for the laboratory
- ✓ Despite the shortened sintering time, there is no relevant influence on esthetics or strength for restorations up to 3 pontics

# Low translucent zirconia (LT)

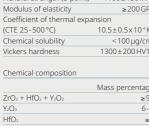
High strength, rigidity and biocompatibility are outstanding characteristics of ZI. The presintered zirconia blanks have an exceptionally high flexural strength of up to 1,200 MPa (3-point bending strength\*) and can be easily processed thanks to their optimum edge stability. With an opacity of approx. 70 % ZI is ideal for indications in which discoloured tooth preparations or metal structures must be masked. It is also ideal for the fabrication of crowns and bridges in the anterior and posterior regions, customised abutments, and multi-unit, screw-retained restorations on titanium bases. ZI frameworks can be customised individually with the Ceramill Colouring Liquids New Formula using the

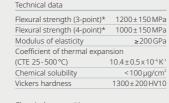


- ✓ Particularly suitable for wide-span frames due to the high bending strength of 1,200 MPa
- ✓ Optimum edge stability and millability
- ✓ High biocompatibility, strength and rigidity
- ✓ Customisable using Ceramill Liquid colouring liquids

Technical data	
Flexural strength (3-point)*	1100±150 MPa
Modulus of elasticity	≥ 200 GPa
Coefficient of thermal expa	nsion
(CTE 25-500°C)	10.5 ± 0.5 x 10 <sup>-6</sup> K <sup>-1</sup>
Chemical solubility	< 100 µg/cm²
Vickers hardness	1300 ± 200 HV10

Chemical composition	
	Mass percentage
ZrO <sub>2</sub> + HfO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub>	≥99
Y <sub>2</sub> O <sub>3</sub>	6-7
HfO <sub>2</sub>	≤5





Chemical composition

	Mass percentage
ZrO <sub>2</sub> + HfO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub>	≥99
Y <sub>2</sub> O <sub>3</sub>	4.5-5.6
HfO <sub>2</sub>	≤5
$Al_2O_3$	≤0.5
other oxides	≤1



Ceramill Liquid CL & Ceramill Liquid New Formula Staining Solutions for ZI White



Ceramill Stain & Glaze stain and glaze materials for final aesthetic customisation

<sup>\*</sup>Average of three-point bending test as defined in DIN EN ISO 6872, R&D Amann Girrbach

<sup>\*</sup>Average of three-point bending test as defined in DIN EN ISO 6872, R&D Amann Girrbach

# **≡esthetic** management

# As esthetics are not happenstance



"AG Esthetic Management" makes the fabrication of highly esthetic restorations from zirconium oxide easier than ever before for users of the Zolid system. The focus is on simplifying and optimizing all work after milling the restoration. The clearly illustrated instructions for use and numerous video tutorials guide users through the process step by step. In addition, users have a wide range of courses and online webinars at their disposal. Add to this the new products and aids that make daily work with zirconium oxide considerably easier for the user.

- $\checkmark$  A systematic solution, which, thanks to the consistent expansion of the AG precision chain, creates a significantly more convenient fabrication process for Zolid restorations
- ✓ Highly esthetic and reproducible results thanks to detailed guidelines and numerous video tutorials ensure satisfied dentists and patients
- $\checkmark$  Maximum efficiency and safety thanks to the broad spectrum of aids for optimum processing of restorations made of Zolid zirconium oxide



Matched materials - Ceramill A-Temp and Zolid zirconium oxide



Remove and Refine – finishing zirconium oxide, simple and safe



Internal Finish – maximum individuality owing to coordinated staining liquids and accessories



External Finish – the perfect finish due to optimal tools



# CAD/CAM materials for the highest requirements.

The quality of restoration materials decisively influences the aesthetics and durability of restorations and thus significantly contributes to the well-being of the patient. The abundance of CAD/CAM materials available on the market today enables restorations to be fabricated with ever more specific materials optimized for the respective indication. With materials from the Ceramill material portfolio you work with the highest quality restoration materials. We combine materials developed and produced in-house at Amann Girrbach headquarters in Austria with materials of selected cooperation partners with which we expand and complete in our product portfolio for you in close collaboration. Discover the range of Ceramill materials for yourself and your patients!





Ceramill Sintron has maximized the cost efficiency of my laboratory.

> Łukasz Sopałowicz, CDT Lider-Tech Laboratory





This biocompatible sintering metal has a very good bonding strength and can be used for both metal frames and full-contour crowns.

> Atsushi Hasegawa, CDT Organ Dental Lab



Ceramill Sintron has become indispensable in my laboratory.

> Jörg Schönthal, CDT Dentaltechnik Dr. Lerner Germany









### **≈cera**mill sintron®

# Mill CoCr – as easily as wax.

High innovation strength is incorporated in the Ceramill Sintron CoCr sinter metal. The non-precious metal revolutionises the manufacturing process, as the wax-like texture of the Ceramill Sintron blanks allows them to be effortlessly dry milled on inhouse benchtop machines such as the Ceramill Motion. The labourintensive and error-prone casting procedure and therefore time-consuming manual working stages are no longer required. The sinter process is also extremely easy: the press of a button is sufficient for producing a framework with excellent structure quality. Maximum process reliability produces homogeneous, distortion-free frameworks without contraction cavities. Using the new Ceramill Sintron it is possible to achieve predictable, reproducible fit and framework quality. Ceramill Sintron can be veneered using any CoCr framework porcelain.

### **INDICATIONS**

- ✓ Telescope and conical crowns
- ✓ Multi-unit, screw-retained restorations on titanium bases
- Anatomically reduced and fully anatomical crown and bridge frameworks in the anterior and posterior region



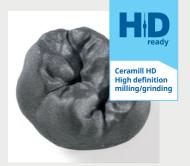
- $\ensuremath{\checkmark}$  Wax-like texture for minimum cutter wear and effortless milling in the dry mode
- ✓ Easy handling thanks to easy reworking and fi nishing of milled restorations in the green state
- ✓ Maximum process reliability thanks to homogeneous, distortion-free framework
- $\checkmark$  Excellent strength values, bonding strength and biocompatibility



Ceramill Sintron was developed in collaboration with the Fraunhofer

Technical data	
Elongation at rupture	30
Proof stress (Rp 0.2%)	450 MF
Modulus of elasticity	200 GF
Coefficient of thermal expansion	
(CTE 25-500 °C)	14.5 x 10 <sup>-6</sup> ł
Vickers hardness	270 HV1
Tensile strength (Rm)	900 MF

	Mass percentag
Cobalt (Co)	6
Chrome (Cr)	2
Molybdenum (Mo)	
Organic binder	
(for blanks in blank condition	on) 1-
Further elements (Mn, Si, F	e) <
Further elements (C)	< 0
The alloy does not contain	nickel, beryllium,
gallium or cadmium accord	ling to DIN EN
ISO 22674.	



Ceramill Sintron crown milled and sintered in Ceramill HD quality

# DICAM MATERI

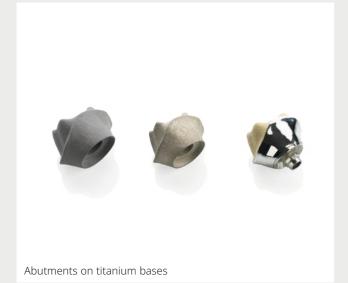
# Ceramill Sintron indication overview













# Intelligent shielding gas sintering for Ceramill Sintron

Ceramill Argotherm 2 is a high-temperature furnace, specially developed for sintering Ceramill Sintron restorations and optimally coordinated with the components of the Ceramill CAD/CAM system. This is because only the perfect adaptation of sinter metal, processing in the CAD/CAM system and completion in the sinter furnace ensures consistently high material quality - especially when it involves the mechanical properties and the structure of the finished restoration.

Easy to operate at the press of a button, the Ceramill Argotherm 2 controls the sinter programme of the milled CoCr units and guarantees predictable and distortion-free results without contraction cavities. The "core" of the system, the removable sinter chamber Ceramill Argovent, ensures minimal consumption of argon gas and homogeneous, distortion-free sintering of the restorations.

The compact furnace with minimum space requirements is used as a benchtop model and cools actively after sintering.



- ✓ Constantly high sinter quality thanks to the specially developed sinter program
- ✓ Integrated compressed-air and shielding gas monitoring ensure maximum process reliability and minimum shielding gas consumption
- ✓ Sintering at the press of a button easy to operate using touch-screen technology with sinter-progress and time-remaining display
- ✓ Capacity per sinter cycle: up to 40 units

Amann Girrbach has developed a special zircon oxide float sintering disk for the fabrication of long-span bridges. Support pins and sintering bars on the restoration keep the framework stable during sintering and ensure predictable, accurate results.







Ceramill Float Sintering

# CoCr hard metal milling with the Ceramill Matik

With the introduction of the Ceramill Matik, Amann Girrbach offers a milling machine for processing hard metal CoCr blanks. We recommend the exclusive use of CoCr blanks validated by Amann Girrbach with the Ceramill Matik, as the MoguCera C Disc from Scheftner Dental was tested and validated on the Ceramill Matik. This ensures a safe process and consistently good results when using the hard metal CoCr blank. MoguCera C Disc is based on an established ceramic alloy that is used in the conventional casting technique. Due to the excellent metal-ceramic bond, the MoguCera C Disc can also be used for frames for subsequent ceramic veneering.

### **INDICATIONS**

- ✓ Anatomically reduced and fully anatomical crown and bridge frameworks in the anterior and posterior region
- ✓ Telescope and conical crowns
- ✓ Multi-unit, screw-retained restorations on titanium bases
- ✓ Customised abutments



- ✓ Validated process when using MoguCera C Disc on the Ceramill Matik
- $\checkmark$  Excellent metal-ceramic bond for possible ceramic veneering of the CoCr restoration
- Excellent strength values, bonding strength, and biocompatibility
- ✓ Maximum process safety due to homogeneous and distortion free frames

# Titanium hard metal milling with the Ceramill Matik

With further enhancements and software updates to the Ceramill Matik, Amann Girrbach offers a milling machine for processing hard metal titanium blanks. It is recommended to only use the titanium blanks validated & tested by Amann Girrbach with the Ceramill Matik. This ensures a safe process and consistently good results when using the hard metal titanium blank. Due to the excellent metal-ceramic bond, the Starbond Ti5 Disc can also be used for frames for subsequent titanium-ceramic veneering



- ✓ Validated process when using the Starbond Ti5 Disc on the Ceramill Matik
- ✓ Excellent metal-ceramic bond for possible ceramic veneering of the titanium restoration
- Excellent strength values, bonding strength, and biocompatibility
- ✓ Highest process safety due to homogeneous and distortion-free machines

Validated material on the Ceramill Matik

Technical data	
Elongation at break	12%
Yield strength (Rp 0.2%)	413 MPa
Tensile strength	597 MPa
E-modulus (E)	206 GPa
Vickers hardness	288HV10
Density	8.3 g/cm <sup>3</sup>
CTE (20-500 °C)	14.5 x 10 6 K-1
CTE (20-600 °C)	14.8 x 10 <sup>-6</sup> K <sup>-1</sup>
Laser-weldable	Yes
Type (DIN FN ISO 22674)	4

Chemical composition	
	Mass percentage
Co	65
Cr	28
Мо	5
C, Si, Nb, Mn, Fe	<1

Validated material on the Ceramill Matik

Technical data	
Elongation at break	151
Yield strength (Rp 0.2%)	837 MP
Tensile strength	921 MP
Vickers hardness	330HV5/3
Density	4.4 g/cn
Melting point	1.650°
CTE (20-600 °C)	10.3 x 10 <sup>-6</sup> k
Type (DIN EN ISO 22674)	

Chemical composition	
	Mass percentage
Ti	89.4
Ai	6.2
V	4
N, C, H, Fe, O	< 0.4

# Ti-Forms

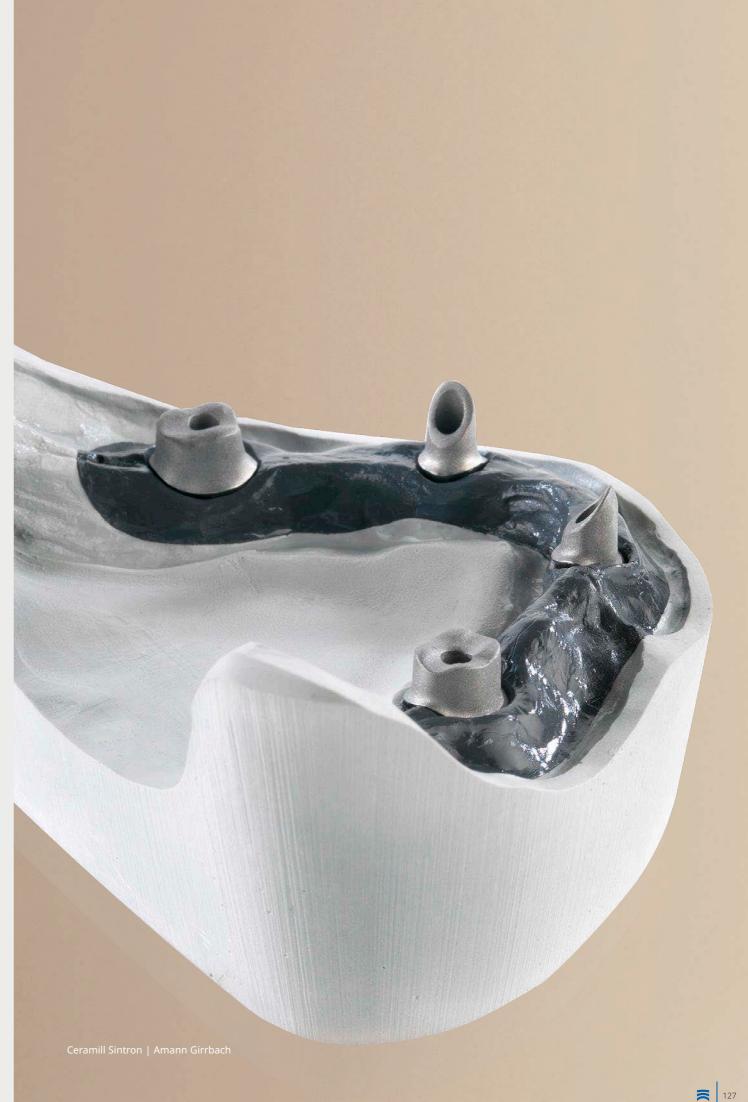
The Ceramill Ti-Forms process stands for the processing of titanium abutment blanks with pre-fabricated connection geometries, from which individual one-piece titanium abutments can be fabricated in-house. The blanks that are available for a wide range of conventional implant systems achieve outstanding surface quality thanks to the technology and the Ceramill TI-Form process of rotational milling (Ceramill Motion 2 and 3) and multi-axis processing (Ceramill Marik) and are characterized by high biocompatibility due to the use of the established material Ti6Al4V (medical grade 5, ASTM 136).



- ✓ High level of biocompatibility due to the proven material Ti6Al4V (medical grade 5, ASTM 136)
- $\checkmark$  Titanium abutment blanks available for all common implant systems
- $\checkmark$  Safe and precise due to industrially prefabricated implant connection geometries
- $\checkmark$  High time and cost savings as well as low tool wear thanks to the rotational milling technique (Ceramill Motion 2 and 3) and multi-axis processing (Ceramill Matik)

Technical data	
Average linear CTE	9.3 x 10 <sup>-6</sup> K <sup>-1</sup>
Thermal conductivity at 20°C	7.1 W/mK
Density	4.43 g/cm <sup>3</sup>
Tensile strength (Rm)	860 N/mm <sup>2</sup>

Chemical composition	
	Mass percentage
Aluminium (Al)	5.5-6.75
/anadium (V)	3.5-4.5
ron (Fe)	max. 0.3
Oxygen (O)	max. 0.2
Carbon (C)	max. 0.08
Nitrogen (N)	max. 0.05
Hydrogen (H)	max. 0.015
litanium (Ti)	rest



# CAD/CAM materials for the highest requirements.

Along with premium zirconia and metals, Amann Girrbach also has a large product portfolio of polymers and waxes. The PMMA-based materials are carried in the A-Line and impress thanks to their wearing time of up to one year. The products Ceramill A-Temp and Ceramill A-Temp Multilayer were adapted directly to the shading of the zirconia Zolid FX Multilayer in regard to the tooth shades. The various materials in the A-Line as well as the other polymers and waxes mean that Amann Girrbach opens up the possibility of using these materials for the most diverse indications. From Ceramill PEEK for clasp-retained removable partial dentures to Ceramill Wax for lost molds. For every indication, there is precisely the right product!





The new Ceramill A-Temp is an absolute must for every laboratory. The perfect shade determination between the temporary and the final Zolid zirconium oxide restoration is impressive it makes work fun!

> Alfonso Blanco Pose, DT Cyro Blanco Tecnica Dental Uruguay





The simple processability of the new material for splints, Ceramill A-Splint, and the smooth and homogeneous surface achieved immediately after the milling process ensures high wearing comfort for the patient.

> Łukasz Sopałowicz, CDT Lider-Tech Laboratory Poland



The material properties of Ceramill A-Temp Multilayer and its shade gradient that is perfectly coordinated with the zirconium oxide from Amann Girrbach mean that every user can achieve highly esthetic results.

Luís Manuel Rocha Saraiva, CDT









### **≅cera**mill®a-temp

### **≅cera**mill®a-temp multilayer

# Temporary acrylic

Ceramill A-Temp, an easy to process acrylic, is suitable for long-term temporary restorations. Ceramill A-Temp is available as a monochromatic blank and as a "multilayer" with shade gradient from dentine to incisal. A-D shades of A-Temp blanks coordinated with Zolid DNA Generation ensure high-end aesthetics and reliable, familiar processes. Conventional cutters and trimmers as well as polishing pastes can be used for preparation and polishing. A-Temp temporary restorations can be fabricated fully anatomically and can also be veneered with conventional crown and bridge resins. They are suitable for checking the fit and functionality of the actual restoration before it is finished, whereby the tooth-coloured material increases the acceptance of the try-in.



- ✓ Highest esthetics due to perfectly matched VITA A-D shades for the Zolid DNA Generation
- $\checkmark$  Acrylic for long-term temporary restorations with a wearing time of up to one year
- $\checkmark$  The new block shape as a solution for smaller restorations and to lower stock costs

Flexural strength (3-point)	> 135 MPa
Density	1.19 g/cm <sup>3</sup>
Vickers hardness	24 HV0.2
Water uptake	<25µg/mm³
Chemical solubility	< 0.6 µg/mm³
Residual monomer content	< 1 %

# Splints-acrylic

The transparent PMMA blanks Ceramill A-Splint used for fabricating therapeutic splints can be easily and reproducibly milled. Available in three heights and as a Class 2a medical device, Ceramill A-Splint is suitable for long-term use of up to 3 years. The industrially prefabricated splint material provides high oral comfort and also impresses due to its neutral taste and odour. The high surface quality reduces discoloration and plaque accumulation to a minimum.

### **INDICATIONS**

✓ Splints for therapeutic care in correcting jaw joint problems and the chewing plane



- ✓ Process reliability and massive time savings due to digital fabrication process
- ✓ Industrially manufactured, homogeneous splint material guarantees optimum wearing comfort due to neutral taste and odor
- $\checkmark$  Acrylic for long-term application with a wearing time of up to one year

# Transparent acrylic

Ceramill A-Cast is a transparent acrylic for processing using CAD/CAM technology. Ceramill A-Cast is suitable for processing with casting and pressing techniques. Through residue-free combustion, Ceramill A-Cast ensures reproducible and efficient CAD/ CAM fabrication of crowns and bridges, which are subsequently cast or pressed in the conventional way.



- ✓ Simple and reproducible CAD/CAM fabrication
- $\checkmark$  Contamination-free casting results due to residue-free combustion
- ✓ Industrially prefabricated material (free of air pockets and pores)

Flexural strength (3-point)	> 100 MPa
Density	1.19 g/cm <sup>3</sup>
Vickers hardness	24 HV0.2
Water absorption	<25 µg/mm³
Chemical solubility	<0.7 µg/mm³
Residual monomer content	< 1 %
Chemical composition	
PMMA (polymethyl methacryla	ate)

Flexural strength (3-point)	> 100 MPa
Density	1.19 g/cm <sup>3</sup>
Vickers hardness	24 HV0.2
Chemical composition	241100

# Milling Wax

Ceramill Wax milling wax can be processed user-friendly and reproducibly. The easy handling properties of the material are impressive: no smearing or melting of the material or clogging of the cutter. This creates accurately fitting final results, which facilitate the subsequent casting and press procedures. Ceramill Wax burns out without residue during the preheating process.

Amann Girrbach supplies Ceramill Wax in two colours. Users can choose between white and grey.

# **INDICATIONS ≡cera**mill® wax $\checkmark$ Frameworks for the casting and press technique

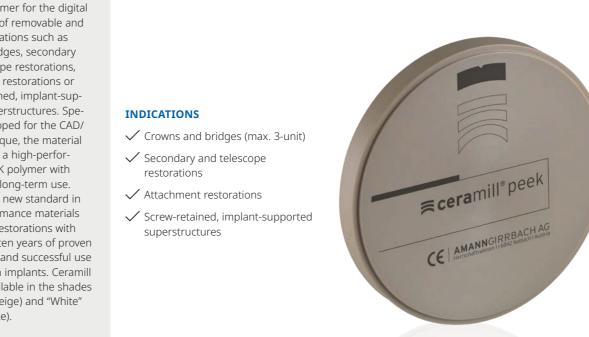
 $\checkmark$  Virtually no cutter wear or clogging of the cutter by wax

# ✓ Easy, reproducible CAD/CAM-controlled fabrication of wax patterns facilitate the casting and press techniques

# $\checkmark$ Burnout without residue ensures perfect casting results

# PEEK polymer

Ceramill PEEK is a high-performance polymer for the digital fabrication of removable and fixed restorations such as crowns, bridges, secondary and telescope restorations, attachment restorations or screw-retained, implant-supported superstructures. Specially developed for the CAD/ CAM technique, the material is based on a high-performance PEEK polymer with ensures its long-term use. PEEK sets a new standard in high-performance materials for dental restorations with more than ten years of proven experience and successful use with human implants. Ceramill PEEK is available in the shades "Natural" (beige) and "White" (cream white).



- ✓ High resistance to wear, abrasion and corrosion
- $\checkmark$  Bone-like modulus of elasticity for high strength with simultaneous flexibility
- ✓ A combination of strength and low weight ensures pleasant oral comfort
- ✓ Metal-free and biocompatible ideal for patients with a metal allergy

Technical data	
Dripping point	100-120°C
Flash point	>220°C
Density at 23°C	0.92 - 0.96 g/cm <sup>3</sup>
Viscosity at 120 °C	>120 MPa
Shade	grey and white
Chemical composition	
Polyethylene wax	

Technical data	
Flexural strength	170 MPa
Flexural modulus	4GPa
Solubility	insoluble
Melting point	343°C
Self-ignition temperature	595°C
Chemical composition	
Polyetheretherketone	

# Model resin

Ceramill M-Plast is a polyurethane model resin for digital fabrication of precision models. The material can be extremely easily dry milled and its high fracture resistance and shape and abrasion stability are also impressive features. After processing, a precise model is created with a flawless, detailed surface, which retains its dimensions even with steam cleaning.



- $\checkmark$  High dimensional stability without water absorption
- ✓ Excellent edge stability and millability
- ✓ Very low tool wear

### Technical data 61 MPa Flexural strength Shore D hardness Compressive strength 46 MPa Temperature stability 1.00 g/cm<sup>3</sup> Density Chemical composition

Polyurethane

# Aryl ketone polymer

As a validated dental system partner of Myerson®, Amann Girrbach optimizes the fabrication process of metal-free removable partial dentures. This gives Ceramill users the exclusive opportunity to consistently create partial denture designs in a digital workflow, and in record time.

This revolution is made possible by two elements. One is the millable high-performance polymer Ultaire® AKP from Myerson®, which was specifically designed as a metal substitute for partial dentures. The other is the Ceramill M-Part software module. The module includes specially developed CAD strategies which are essential for prosthetic success, since the new material, unlike metal, has different design requirements. Specifically designed CAM milling strategies guarantee the required quality and precision of the surfaces.



- ✓ High time savings through subtractive in-house production and minimal manual reworking of partial denture frameworks at the push of a button and reproducibility
- ✓ Profitability: lucrative production of digital partial dentures at good prices and with little effort
- ✓ Process reliability & efficiency through fully integrated process and coordinated workflow

Flexural strength	148 MPa
Modulus of elasticity	3.5 GPa
Density	1.30 g/cm <sup>3</sup>
Density	1.50 g/ci
Chemical composition	

Grandio disc was integrated into the Ceramill workflow by AG with optimized design parameters as well as milling and grinding strategies.

As the material is already fully polymerized, the firing process required for ceramics is no longer necessary, so that it can be processed directly after the CAM process.

Grandio disc is available in seven shades and two levels of translucency (LT and HT).

# Hybrid ceramic



- ✓ Maximum filler content (86 wt.%)
- $\checkmark$  Excellent physical properties with regard to flexural strength and abrasion
- ✓ Ideal for grinding, even with thin edges
- $\checkmark$  No firing necessary

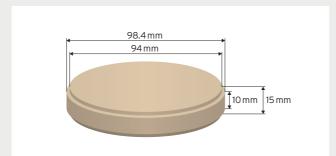
**INDICATIONS** 

✓ Crowns, inlays, onlays, veneers

and implant-supported crowns

- ✓ Tooth resemblance to perfection
- ✓ Best polishability and reparability
- ✓ Based on nano-hybrid technology

Technical data	
Flexural strength	333 MPa
Vickers hardness	154.6 HV
Coefficient of thermal expa	nsion
(CTE 25-50°C)	16.0 x 10 <sup>-6</sup> K <sup>-1</sup>
Modulus of elasticity	18.28 GPa
Water absorption	13.6 µg/mm³
Water solubility	<0.1 µg/mm³
Radiopacity	308 %AI



Dimensions of the blank

### Hybrids/Ceramics

# CAD/CAM materials for the highest demands.

The hybrid and ceramic blocks are optimal for fabricating single crowns, veneers, inlays, or onlays. Their high translucency means that esthetic results are guaranteed. With the materials from the Ceramill portfolio, the user works with restoration materials of the highest quality. Materials from in-house development and production at Amann Girrbach headquarters in Austria are combined with materials from selected partners with whom we expand and complete our product portfolio in a close collaboration–for the comfort and maximum flexibility of our customers!



### VITA VITA ENAMIC®

# Hybrid ceramic

VITA ENAMIC® hybrid ceramic blocks are characterized by a dual network structure, which combines the positive properties of composite and ceramic. With this material the dominating ceramic network is reinforced by a polymer network with both networks fully integrated. Analogous to the Ceramill material range VITA ENAMIC® blanks have been optimally incorporated in the Ceramill CAD/CAM system workflow. VITA ENAMIC® is available in five 3D Master shades and two levels of translucency. VITA ENAMIC® multicolor for Ceramill are CAD/CAM blanks which feature an integrated, finely nuanced colour gradient from the neck to the edge. The blank with AG holder is available in five common VITA shades.

### **INDICATIONS**

Crowns, inlays, onlays, veneers and crowns on implants



- ✓ Enormous loading capacity due to absorption of the masticatory forces
- ✓ High reliability and integrated crack-stop function
- ✓ Excellent edge stability
- ✓ The multicolor blank also excels by virtue of natural shade effects due to its integrated shade gradient

150-160 MF
1.5 MPa√
30 GF
2.5 GF
2
Mass percentag
Mass percentag 58-6

Technical data

	Mass percentage
SiO <sub>2</sub>	58-63
Al <sub>2</sub> O <sub>3</sub>	20-23
Na <sub>2</sub> O	9-11
K <sub>2</sub> O	4-6
B <sub>2</sub> O <sub>3</sub>	0.5-2
CaO	<1
7rO <sub>2</sub>	<1







### **VITA VITA SUPRINITY® PC**

# Zirconia-reinforced lithium silicate ceramic

VITA SUPRINITY® PC is a zirconia-reinforced lithium silicate ceramic (ZLS)\* and the product of a new glass-ceramic material generation. It is characterized by a particularly fine-grain and homogeneous microstructure, which ensures an excellent material quality and therefore consistently high loading capacity and long-term reliability. In addition, the material has outstanding processing characteristics such as easy grinding and polishing properties. Integrated translucency, fluorescence and opalescence provide an optimal basis for impressively natural aesthetic restorations.

\* This material class is a joint development of VITA Zahnfabrik, DeguDent GmbH and the Fraunhofer Institute for Silicate Research ISC.

### **INDICATIONS**

Crowns, veneers, inlays, onlays and superstructures on implants



Technical data	
Flexural strength (3-point)	~420 MP
Modulus of elasticity	~70 GF
Coefficient of thermal expa	insion
(CTE 25-500°C)	11.9-12.3 x 10-6 H
Chemical solubility	~40 µg/cn
Softening temperature	~800°
Hardness	~ 7000 MF
Transformation temperatu	re (TG) ~620°

Chemical composition	
	Mass percenta
SiO <sub>2</sub>	56-
Li <sub>2</sub> O	15-
ZrO <sub>2</sub>	8-
P <sub>2</sub> O <sub>5</sub>	3
Al <sub>2</sub> O <sub>3</sub>	1
K <sub>2</sub> O	1
CeO <sub>2</sub>	0
Pigmentes	0

- $\checkmark$  Excellent material quality thanks to fine-grained, homogeneous microstructure
- ✓ Zirconia proportion ensures a constantly high loading capacity and long-term reliability
- ✓ Translucency, fluorescence and opalescence guarantee aesthetic results

### **VITA** VITABLOCS® Mark II & TriLuxe forte

# Feldspar ceramic

### VITABLOCS® MARK II

The very fine structure of the Mark II and the industrial sinter process are the reasons for the good polishability and excellent enamel-like abrasion characteristics of restorations fabricated using VITABLOCS® Mark II. The material and processing technology advantages of feldspar ceramic, which have been verified by scientific studies, correlate with more than 9 million restorations that have now been fabricated to date using Mark II very fine-structure feldspar ceramic blocks.

### VITABLOCS® TRILUXE FORTE

VITABLOCS® TriLuxe forte is a VITABLOCS® generation with four levels of shade intensity based on the VITABLOCS® Mark II, which have been successfully proven a million times over in clinical use for more than 20 years. The shade transition from enamel to cervical area layer is even finer nuanced in 4 layers: enamel-dentine-intensive dentine-cervical layer, with a greater accentuation of the chroma in the cervical area. In combination with the cervically increasing fluorescence this also ensures a natural shade effect, even with thin layer thicknesses.

### **INDICATIONS**

Crowns, inlays, onlays, veneers



Technical data	
Flexural strength	154±15 MPa
Modulus of elasticity	45 ± 0.5 GPa
Coefficient of thermal expansion	
(CTE 25-500°C)	~9.4±0.1 x 10 <sup>-6</sup> K
Density	2.44±0.01 g/cm
Transformation zone	780-790°C

Chemical composition	
	Mass percentage
SiO <sub>2</sub>	56-64
Al <sub>2</sub> O <sub>3</sub>	20-23
Na <sub>2</sub> O	6-9
K <sub>2</sub> O	6-8
CaO	0.3-0.6
TiO <sub>2</sub>	0.0-0.1

- ✓ Good polishability and excellent enamel-like abrasion properties
- ✓ No crystallization firing required
- $\checkmark$  Very good translucency characteristics and chameleon effect

# Multitude of materials of the NextDent 5100 for Ceramill excellent results due to meticulous validation.

The large selection of compatible NextDent 3D printing materials stands for a maximum range of applications in everyday laboratory work, which is further simplified by clever material management and matching post-processing options. To provide assured quality of the restorations, special attention is paid to the validation of the materials and easy handling due to predefined and integrated process parameters. The entire production and post-processing procedure is designed intuitively and reduced to just a few steps in everyday laboratory routine – for maximum efficiency with minimum expenditure of time. The diversity and the associated wide range of dental indications ensure maximum flexibility and cost-effectiveness in everyday laboratory work.



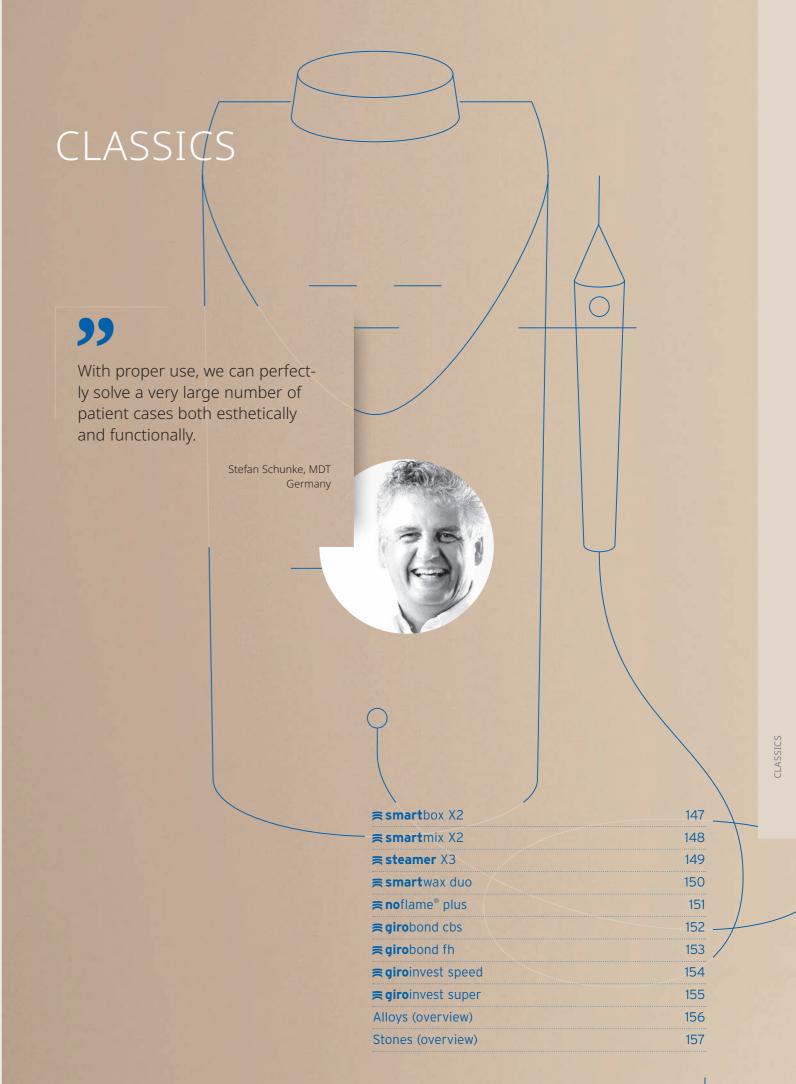
# 3D print resins

# Material range for 3D printing

MATERIAL	THE MOST IMPORTANT FEATURES AT A GLANCE	THE MOST IMPORTANT INDICATIONS
NextDent for Ceramill Model 2.0 3D print material	<ul> <li>✓ High hardness and fracture resistance</li> <li>✓ Produced generatively</li> <li>✓ Highest precision and detail definition</li> </ul>	<ul> <li>✓ Models with removable stumps (solid or hollow)</li> <li>✓ Dental models for prosthetic restorations</li> <li>✓ Dental models for orthodontic appliances</li> <li>✓ Diagnostic and demonstration models</li> </ul>
NextDent for Ceramill Cast 3D print material	<ul> <li>✓ High stability of the printed structures</li> <li>✓ Burns out residue-free for optimum result</li> </ul>	✓ Casting / pressing technique
NextDent for Ceramill C&B MFH 3D print material	<ul> <li>✓ High strength and wear resistance</li> <li>✓ Natural esthetics due to different colors and coordinated translucency</li> <li>✓ Biocompatible MD Class IIa material</li> </ul>	✓ Temporary crowns and bridges
NextDent for Ceramill Denture 3D+3D print material	<ul> <li>✓ Significantly lower shrinkage than standard PMMA materials for best fit results</li> <li>✓ Available in different colors for individual results</li> <li>✓ Biocompatible MD Class IIa material</li> </ul>	✓ Denture bases
NextDent for Ceramill Try-In 3D print material	✓ Best choice for checking digitally designed prosthetic bases with individually designed tooth setups ✓ Biocompatible MD Class I material	✓ Try-in prosthetics

# Material range for 3D printing

MATERIAL	THE MOST IMPORTANT FEATURES AT A GLANCE	THE MOST IMPORTANT INDICATIONS
NextDent for Ceramill SG (Surgical Guide) 3D print material	<ul> <li>Easy insertion of the drilling sleeves due to highest precision</li> <li>Can be sterilized with standardized autoclaving protocols</li> <li>Biocompatible MD Class I material</li> </ul>	✓ Drilling templates
NextDent for Ceramill Tray 3D print material	<ul> <li>✓ Quality impressions with high precision in next to no time</li> <li>✓ Compatible with all types of impression materials</li> <li>✓ Biocompatible MD Class I material</li> </ul>	✓ Individual trays
NextDent for Ceramill Ortho IBT 3D print material	✓ Easy positioning and application of orthodontic brackets due to precise and flexible splint material ✓ Biocompatible MD Class I material	✓ Orthodontic transfer splints
NextDent for Ceramill Ortho Rigid 3D print material	<ul> <li>✓ Fast fabrication of precisely fitting splints</li> <li>✓ Biocompatible MD Class IIa material</li> </ul>	✓ Splints
NextDent for Ceramill Gingiva Mask 3D print material	<ul> <li>✓ Easy fabrication of flexible parts such as gingival masks</li> <li>✓ Best results in combination with Model 2.0</li> </ul>	✓ Gingival masks



### **≅smart**box X2

# Powerful trio for creating the perfect plaster model.

Amann Girrbach offers specifically developed and perfectly coordinated solutions for every single work step in model fabrication – from the Smartbox X2 for perfect dosing to the Smartmix X2 for the correct mixing results, and the Steamer X3 for cleaning instruments and objects.



### Plaster cannot be sifted more efficiently

The Smartbox X2 guarantees the consistently high quality of the dosing result and is easy to use. Due to its high savings potential, the machine pays for itself in just a few months.

With its patented dosing technology, the gypsum is sprinkled very finely into the mixing bowl, which significantly improves the homogeneity of the mixed material..



- $\checkmark$  Time, material and plaster savings of 20 to 25 %
- $\checkmark$  Finely sprinkled plaster using the patented plaster dosage technology
- ✓ Easy operation error-free working for everyone
- ✓ Reproducible mixing ratio at the push of a button, accurate to within a gram
- $\checkmark$  Integrated scales automatically measure the dosage or for manual weighing
- ✓ Enables clean and dust free operation
- ✓ Various beaker volumes available



Easy to fill the silo at the machine



One switch for everything – multi-functional dial / button



Fine plaster curtain due to new dosage technology

# Perfect mixture results thanks to patented mixing blade geometry and amazingly simple operating concept

The universal and future-proof vacuum-mixing machine with the amazingly simple operating concept. No matter whether for the rapid production of homogeneous plasters, investment materials or paste-like



- ✓ Homogeneous and reproducible mixing results with optimal parameters
- $\checkmark$  Fast access to all storable mixing parameters such as mixing time, speed, direction of rotation, interval time, premixing, pre-evacuation, post-vacuum and program name
- ✓ Easy handling for fast program selection and programming
- ✓ Space saving, can be used as a free-standing or wall unit

### Universal steam cleaner

The Steamer X3 is a highquality, universal steam cleaner for cleaning small objects such as metal frameworks and dies as well as articulators or instruments.



- ✓ Large stainless steel tank with 3.7 liter capacity
- $\checkmark$  Efficient and reliable cleaning at 4 bar and 140 °C
- ✓ Highest reliability due to the use of high-quality components
- ✓ Clear function display, e.g. the minimum water quantity
- ✓ Smooth, rounded surfaces for easy cleaning
- ✓ Drain valve positioned at the very bottom guarantees complete rinsing of limescale deposits in the tank
- ✓ Floor mounted or wall mounted

### **SMARTMIX MIXING BEAKER**

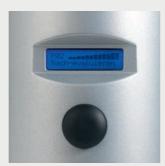
The patented mixing blade geometry of the Smartmix mixing beaker ensures optimal mixing results in all areas of application. By means of both horizontal and vertical revolution of the materials to be mixed, perfect homogeneity of mixture results is achieved.



Rounded beaker base for easy



Patented mixing apparatus geometry, Post-vacuum-function





Steamer X3 is filled without funnel



The ergonomic hand piece is always



Sealing lid without vulnerable

# Efficient modeling station for working with two handpieces

This unit is suitable for all kinds of modeling and waxup work and is unbeatable in combination with the Waxjet when making full dentures. For each handpiece, 3 different temperatures within the range of 50-220 °C/122-428° F can be programmed and simply switched over. This improves the soft and above all stressfree treatment of the various types of waxes.

In doing so, the excellent thermal conductivity of the instrument alloy used for the probes (more than 20 times the thermal conductivity of stainless steel) plays an important role as well.



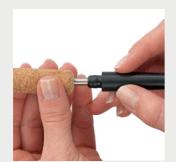
- ✓ Duo-option, i.e. two different handpieces are ready for use at the same time
- √ 3 individually programmable temperatures for each handpiece
- ✓ Simple and safe exchange mechanism of the modeling tips
- ✓ Fast operational and heated instruments
- ✓ Anti-twist cables that are insensitive to heat
- ✓ Waxjet for fast wax-up in full denture prosthetics

### Simple, mobile, clean – the "electric bunsen burner"

With the Noflame Plus it is no longer necessary to use conventional Bunsen burners or alcohol/gas burners when waxing up. The waxing up instrument is heated in the coil opening by induction in a matter of seconds using minimum energy consumption. This excludes carbon collecting on the waxing up instrument or in the sculpting wax. Standard waxing up instruments can be used.



- ✓ Mobile and immediately operational, no gas required
- ✓ Handling as usual, no adjustment required
- $\checkmark$  Eliminates the risks of getting burned or causing fire
- ✓ No heat emission into the environment; does not consume oxygen
- ✓ Clean, i.e. no soot particles on instrument and/or material
- ✓ Saves 75% of energy expenses; saves the environment
- $\checkmark$  Ideal conditions, to be used even at the dental office



Change of probes without the risk



Simple adjustment of individual



Waxjet available as an optional device



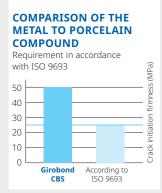
Within seconds, the modelling instrument is heated



Replaceable protective caps keep the coil opening clean

## Modern NiCrMo bonding alloy for crown and bridge work

Carbon-free, type 3 NiCrMo bonding alloy for crowns and bridges. Due to the dispersion with Niobium, Girobond CBS is easy to polish. Biocompatible thanks to the high Mo content. According certificates are available.







Girobond CBS metal framework with porcelain facing (Dental lab Müssle, Pforzheim/Germany)

- ✓ Carbon-free NiCrMo-bonding alloy for crown and bridge works (type 3)
- $\checkmark$  Good compatibility and reliability just like NBS, but softer (HV10 185) and thus easier
- ✓ Safe, easily workable, cost-effective material
- ✓ Optimised production process ensures high homogeneity
- ✓ Easy to cast by any method
- ✓ Carbon-free and thus no risk of crack formation; perfectly suitable for laser welding
- ✓ Due to a CTE value of 13.8 x 10<sup>-6</sup> K<sup>-1</sup> (25-500 °C), bonding of veneering ceramics is safe and trouble-free
- ✓ Corrosion resistance has been proven by the Centre of Dentistry, Oral Medicine and Maxillofacial Surgery, University of Tübingen (Germany)
- $\checkmark$  No overheating of the melt due to melt reflection

# The ideal denture base alloy for the complete range of removable dental restorations

Extra-hard, suitable for laser welding and easy to model these are the requirements on a superior model casting alloy. With Girocrom FH, these requirements have become reality – a carbon-free alloy with excellent mechanical properties.

Laser welding offers dental technicians the advantages of modern joining technology and, at the same time, means maximum biological compatibility to the patient. Due to their carbon content, conventional alloys precipitate carbides during laser welding. These, in turn, have a quality-reducing effect on the welding seams and involve cracks and fractures.





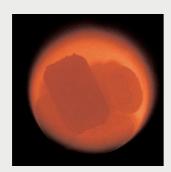
with clasps, Dental Lab Müssle, Pforzheim/Germany



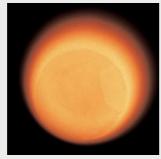
Girosolder out of CoCr, 3.6g as solder rods mended for soldering of CoCrMo alloys

- ✓ Extra-hard denture base alloy
- ✓ Improved stability
- ✓ Suitable for all kinds of removable restorations
- ✓ Carbon-free and, thus, ideal for laser welding
- $\checkmark$  Easy processing and polishing; relatively low Vickers hardness HV10 of 350
- ✓ Excellent biocompatibility and corrosion resistance

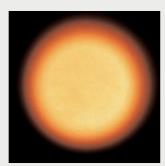
### **MELTING BEHAVIOR OF GIROBOND NBS/CBS**



Begin of the melting; the casting

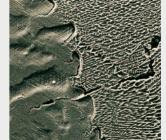


The molten metal starts to burst; However, some shadows are still



The surface of the molten metal shines; The metal is completely molten - Casting has to be effected

### PROOF STRESS PROOF STRESS RP 0.2% (MPa) -DIFFERENT COCR-ALLOYS FOR PARTICAL DENTURE 750 700 650 600 550



Cracks caused by carbide precipitation Laser weld without any cracks in a CoCrMo alloy containing carbon





152

Giroinvest Speed is a phosphate-bonded precision investment for the model casting technique.



- $\checkmark$  Phosphate-bonded precision investment for model casting
- $\checkmark$  Can be heated up either with the shock-heat method or conventional heating with delay
- $\checkmark$  20 minutes setting time using the shock-heat method; the mold is subsequently placed into the preheated furnace heated up to a maximum temperature of 850 °C; ready for casting after 60 min
- ✓ Casting without casting ring possible
- ✓ Smooth casing surfaces and excellent fit due to the shock-heat method
- ✓ Expansion is regulated by adjusting the liquid concentration
- $\checkmark$  The large 4kg package size is based on the capacity of the Smartbox Invest and therefore makes storage easier

# A precise and controllable universal investment with a wide scope of expansion (1.2 to 4.0 percent by volume)

Unique: Giroinvest Super is an investment suitable for a wide range of applications. It can be used for crown and bridge works, high-gold-bearing, precious metal alloys. Not only the work becomes noticeably easier and more efficient during the use of this investment; storage is considerably facilitated as well.

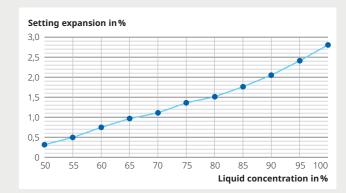
By changing the mixing ratio of water and liquid, the expansion range can be variably adjusted from 1.2 to 4.0 vol%. The precise adjustability in the lower and upper expansion area makes this investment perfectly suitable for press ceramics as well as non-precious metal alloys.







- ✓ For PM alloys, NPM alloys and press ceramics
- ✓ For inlays, crowns, and bridges
- $\checkmark$  For conventional heating and shock-heat method
- ✓ Also suitable for ringless systems
- $\checkmark$  Extremely wide scope of expansion
- ✓ Neat and smooth casting surfaces
- ✓ Flexible and priceworthy use
- ✓ Reproducible casting results
- ✓ The large pack size of 4kg is tailored to the capacity of the Smartbox Invest and facilitates stocking



# All alloys at one sight



781610





		CoCr-ALLOY				
	Bondir	ng alloys	Model casting alloys			
Product name	<b>≅giro</b> bond*nbs	<b>≅giro</b> bond®cbs	<b>≅giro</b> bond®fh			
Description	The proven classical alloy: carbon-free CoCrMo bonding alloy	Modern NiCrMo bonding alloy for crown and bridge work	The ideal CoCr model casting alloy			
of crack development since carbon-free  High homogeneity within the batches and good reproducibility thanks to the optimized production process  Suitable for casting with any standard  High strength  Good melting and casting properties  Carbon-free, thus perfectly suitable for laser welding		<ul> <li>Extra-hard quality, fracture-resistant clasps</li> <li>Suitable for modelling delicate frameworks</li> <li>Easy to model and polish (fine-grained structure)</li> <li>Carbon-free, thus perfectly suitable for laser welding</li> </ul>				
TECHNICAL/PHYSICAL	DATA					
Proof stress Rp 0.2% [MPa]	620	400	700			
Tensile strengtht Rm [MPa]	850	650	880			
Modulus of elasticity E [GPa]	210	180	220			
Elongation at rupture A [%] 14	14	45	5			
Vickers hardness HV10			350			
Casting temperature [°C]			ca. 1450			
Melting rangel Solidus [°C]	1350	1270	1346			
Melting rangel Liquidus [°C)	1422	1356	1388			
Density [g/cm3]	8.6	8.4	8.2			
CTE 25-500 °C [x 10 <sup>-6</sup> K <sup>-1</sup> ]	14.1	13.8				
CTE 25-600 °C [x 10 <sup>-6</sup> K <sup>-1</sup> ]	14.3	14				
CHEMICAL COMPOSITION	ON IN % BY MASS					
	Co 62.4	Ni 63.5	Co 59			
	Cr 25.5	Cr 24	Cr 32			
	Mo 5.1	Mo 10	Mo 6			
	W 5.2		Si 1.3			
	Si 1.1	Si 1.5				
Other < 1%	Nb, Fe, N	Nb, Mn	Mn, N, Nb, W			
	CE-certified and free of nickel, beryllium,	gallium and carbon				
ART. NO.						
AKI. NU.						

781690

721250

# All Stones at one sight











				<b>CONTRACT</b>		600000
TECHNICAL/PHYSICAL DATA						
Application	Dental arch, pre- cision sectioned models	Dental arch, pre- cision sectioned models	Situation model, opposing jaw	Master model, opposing jaw	Plaster for full denture pros- thetics	Articulation plaster
Product	Alpenrock High-strength dental stone  CAD/CAM sultable	Girocko Synthetic Superstone	<b>Girostone</b> Synthetic Superstone	<b>Girodur</b> Synthetic Superstone	<b>Giroplast</b> Synthetic Superstone	<b>Artifix</b> Synthetic plaste
Class	4	4	4	4	3	3
Colour	gold pastell saffron grey	gold, grey	rosé pastell yellow	white	blue	white
Mixing ratio (Powder : Water)	100:20	100 : 20	100 : 22	100 : 23	100:30	100:30
Sprinkling time (s)	15	10-20	15	15	15	15
Soaking time (s)	30	10-20	30	30	30	30
Mixing time in vacuum (s)	30	30	30	30	30	30
Working time (min)	7	5-6	6	5	4	3
Setting time (min)	12	12	10	10	10	4
Remove from the impression (min)	35	40	35	30-45	30-45	-
Linear setting expansion after 2 h after 24 h	0.08	0.10	0.10 0.13	0.10	< 0.20	0.03
Compression strength EN 26873 (MPa)	59	> 60	60	< 50	30	20
Hardness (MPa)	262	> 250	180	< 150	80	50
Bending tensile strength (MPa)	12	8	8	7		5
Content (kg)	20 (5x4)	20 (5x4)	20	20	20	20
Order no.	711110 711120 711130 711140	711160 711161 711170 711171	711021 711022 711023	711105	711050	711217

1000 g Laboratory pack

# ORDERING INFORMATION CLASSIC











### **Artex articulators**

217310	Artex Typ CN	
217320	Artex Typ CT	
218750	Artex Typ CPR	
218760	Artex Typ CR	
217360	Artex Typ BN	
218730	Artex Arcon clip	
217330	Modell plate blue (pair) incl. retention discs	
217331	Modell plate blue	50 pcs.
215250	Retention Disks	100 pcs.
299991	Individual engraving on Artex	
217333	Support pin C screwable	





### **Dentist Kit**

Select one of the four Artex articulators for the Splitex plate set,

the Artex facebow and the Splitex transfer stand.
217310, 217320, 218750, 218760
Artex (CN, CT, CPR, CR)
216100C Splitex Plate Set
218600 Artex Facebow
216240 Splitex Transfer Stand





### Dentist Mini Kit

Artex Facebow, Splitex Transfer Stand

4	218600	Artex Facebow
4	216240	Splitex Transfer Stand





Free choosable Artex articulator, Splitex Plate Set, Counter Plates, Retention Disk, Splitex Key

		,		
217310, 2	217320, 21875 Artex (CN, CT,	*		
	. , ,	, ,		
216100C	Splitex Plate S	et		
216235	Counter Plate	S		100 pc
216150	Retention Disl	ks		
216010C	Splitex key			



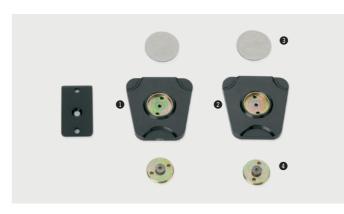


### Splitex Keys

216010C Splitex key for Artex, 126 mm, C-Version

216010 Splitex key for Artex, 116 mm

216011 Splitex Spacer Plate +10 mm (required for new serial 126 mm)



### **Splitex Disc Set**

216100C	1 – 6 Plate Set, C-Version	
216100	Plate Set (without picture)	
216110C	Base Plate (TOP) without magnet	
216120C	2 Adjust. Plate mandibular without magnet	
216150	3 2 Retention Disks	100/pkg
216111C	4 2 mounting plates with screws	
216170	1 screw set max./mand.	2/pkg
216140	Magnets	6 pcs





### Splitex Counter Plate

The shock-resistant plastic material reliably adapts the Splitex plinth plate without distortion. Both plates are suitable for multiple use. The Premium quality (white) offers a higher accuracy (<  $10 \mu m$ ).

- ✓ Always available for quick, precise adaptation at the plinth plate
- ✓ Prevents the risk of ill fit since no plaster expansion takes place
- $\checkmark$  Tight, even model fixation, but nevertheless allowing safe removal

216230	Premium white	10/pkg.
216235	Classic black	100/pkg.
216150	Retention Disks, Ø 36.5 x 1.5 for Splitex	100/pkg.







Technical data Dimension: 160x160x160mm Weight: 700 g Finish: Aluminium anodize

### **Artex/Splitex Mounting Articulator**

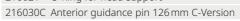
The mounting articulator is not used as an articulator, but can be understood as a device which protects this precision instrument. Since models can be freely exchanged between similarly-calibrated articulators, they do not need to be transported in the articulator but can be transferred using mounting articulators which are similarly calibrated to the same model settings.

- ✓ Safeguards articulators against water and plaster dirt
- ✓ Compatible with all types of facebow and transfer systems
- ✓ Centric and vertical height are fixed using rigid hinge axis/incisal pins

-Version

✓ Easy removal of the models due to a detachable magnet in the

216020	Splitex Mounting Articulator
216020C	Splitex Mounting Articulator, 126 mm Carbon-
216021	O-Ring for head support





### Splitex Master Platform Set (3 parts)

For the production of Splitex Counter plates made from surplus stone. Magnetically connects to the Splitex plates.

216200	• Set, 3-parts	
216150	2 Retention Disk	100/pkg.
216220	Rubber frames for socket	3/pkg.
216141	1 Magnet (built-in)	



### **Splitex Mounting Glue**

For the controlled fixing of the mandibular adjustment plate in the articulator. Creates the smallest gap width possible, no shrinkage, safe adhesion.

✓ Economical, easy to use, and removable for renewed adjustment

	, , ,	,
513111	11 g Mounting Glue	
513120	2 150 ml Cleaner for Glued Areas	



### **Artex Separating Spray**

Silicone-based separating spray for Metal, Stone, keeps Articulator and model plates clean.

743040	Artex Separating Spray	400 ml



### **Artex-Modell Plate**

Artex model plates enable easy and quick retaining due to integrated magnets in the upper and lower part of the Articulator. Suited for multiple use.

217330	Modell plate blue incl. retention discs (pair)	
217331	Modell plate blue	50/pkg.
215250	Retention discs	100/pkg.







### Dr. Behrend Type Clinometer

Adjustable Perspex® shield furnished with several vertical lines and two horizontal lines, for transferring physiognomic esthetic parameters. Once adjusted to the facebow, the horizontal lines can be aligned to match the eyes and the line of the anterior teeth, using the rotary control. The tooth position as determined is represented as an angle, and can be transferred to the articulator in the laboratory to recreate the position of the anterior teeth.

- ✓ Determines asymmetries and compensates them during set-up
- ✓ Supplies the technician with important esthetic information
- ✓ Helps to prevent remakes, improves function and esthetics

219960C 1 "Operatory" Clinometer

219950 2 "Laboratory" Clinometer

218110C Pin holder

217131 Cranked pin for Artex







### Centrofix® according to Dr. Lüth (€

Intra-oral centric registration with vertically adjustable tracing ball: Corrects the vertical distance during registration and locks the determined centric position without plaster by means of an adjustable clamp. German Patent 4014975, US Patent 5.188.529.

- ✓ Time-tested support pin methodology safe functional results
- ✓ All relevant information in one session: moulding, jaw relation/ vertical distance, axial relation, aesthetics template
- ✓ Stable and reliable registrations and information for your lab

242700 **0** - **0** 242710 • Writing board broad 242720 Writing board narrow 242740 **3** Pin carrier 242750 4 Tracing ball long 242751 **⑤** Tracing ball short 242760 6 Adjustable clamp 242780 **①** Cross 242790 **3** Combination wrench 242810 **9** Copper writing platelets 242830 • Distance piece (plastic hose)









### Artex Set-Up Index Key for the maxilla

This facilitates average-value alignment of the endentulous maxilla at the remaining anatomical fold in the throat. The vertical adjustment of the support fork and the reciprocal bar facilitate improved individual positioning of the model.

- ✓ Semi-individual positioning in the articulator without facebow
- ✓ Basic version with screw thread, or conversion plate for the Splitex System

216255C incl. thread (Thread version) for Carbon-Version





### Artex Set-Up Index Key for the mandible

Fundamental scale for average-value alignment of the endentulous mandible model at the symphysis and retromolar pads.

217700 **1** with thread

217700C 2 with thread, 126 mm for Carbon-Version

216250C Setup index key with Splitex, 126 mm for Carbon-Version





### **Artex Set-Up Templates**

Guide for set-up of full dentures according to the Spee/Wilson occlusion curve. The horizontally and vertically adjustable device with occlusal plane indicator and adjustable inclination supports the different templates.

- ✓ Flat template for average-value mounting of dentulous models
- √ 4 radius for adjustment to different tooth/set-up concepts

Screw or magnet version, to be ordered separately or as a s				
	217730	Setup template, "thread"		
	217730C	Template holder, thread for Carbon-Version		
	217740	Template flat		
	217741	Template R 100		
	217742	Template R 125		
	217744	Template R 140		
	217746	Template R 160		
	216260	Setup template with Splitex profile		
	216260C	2 Template holder with Splitex, 126 mm for Carbon-Version		

OrdNo.	Spherical cap radius	Molar cusps	Tooth type	Tooth manufacturer
217746	160 mm	30-35°		
217744	140 mm	25-28°	Poly-Star Lux HK, Creapearl 2, Creopal, Biodent, Articron	Creation, Merz Dental, De Trey, Lindauer Zähne, Ivoclar, Weithaas, VITA
			Orthognat	
217742	125 mm	15-16°	n, t, k, Odilux	
217741	100 mm	0°	Orthocal	Lindauer Zähne



### **Artex Anterior Guidance**

Special accessory which fits in all Artex Articulators, to mechanically individualize/program the anterior area.

- ✓ Micrometer pin to exactly raise/lower the anterior guidance in steps
- ✓ Individual anterior guidance using radially guided pin with infinitely variable table plate (protrusion 0-40°, laterotrusion 0-70°, turning to right and left)
- ✓ Cranked pin provides for unhindered access during anterior set-up and maintains clear sightlines

217586 **6** Support pin

217589 • Anterior guidance pin

217589C Anterior guidance pin, C-Version

217585 **8** Anterior guidance pin complete

217585C **3** Anterior guidance pin for Carbon-Version

218170C 4 Individ. anterior guidance, 0-70° protrusion, 0-40° laterotrusion pin, table, adjusting bolt for Carbon-Version

218162 9 Heightener 10 mm for radial pin

218120C • Radial pin, C-Version

218135C Radial pin insert, angled

217260 • Artex Incisal needle

218140 **1** Artex Incisal plate incl. 218141, 218142

218141 **1** Table adapter 10°

218142 **1** Table adapter 20°

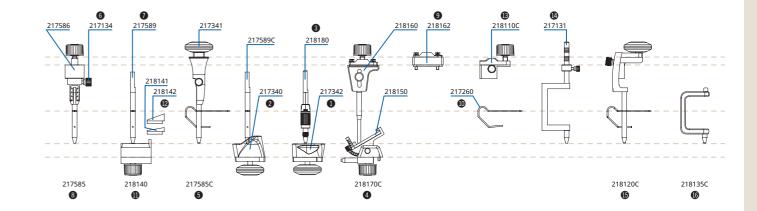
217340 Plate anatomical for Carbon-Version

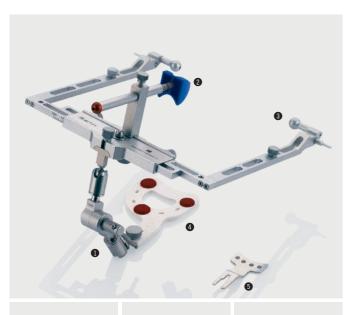
(40° protrusiv; 30-40° laterotrusiv)

217342 • Standard incisal plate 0° for Carbon-Version

218110C @ Pin holder

217131 Micrometer pin





### Artex Facebow (€

218600	0 - 0	
218620	1 Joint Support	
218680	2 Leipzig Nasion	
218607	3 Porus Buttons "Standard", pair	
217650	4 Artex Quickbite	10/pkg.
217928	<b>3</b> Tray Handle	

#### Optional accessory:

218609	Porus Buttons long, pair	
218610	Axis-plane Pointer w. screw	
218635	Carrier for Facebow Cadiax compact, pair	
218690	Nasion vertically adjustable	
217650	4 Artex Quickbite	10/pkg.
217928	<b>1</b> Tray Handle	5/pkg.
217611	Bite fork partial two-pack	2/pkg.
217695	Nasion adapter, blue (for cushioned Leipzig nasion)	



### Bite Tabs (€

Thermoplastic pellets on self-adhesive foil to cover the metal bite fork for facebow registration.

642150 Bite Tabs, 180 Tabs





### **Artex Transfer Stand**

For safe transport of the facebow registration to the lab. The universal joint with bite fork is removed from the facebow and inserted into the reception of the transfer stand. There, the registration is fixed in plaster. The detachable transfer table safely and unshakeably takes this important patient information to the lab.

218670C • Transfer Stand with table for carbon version

216240 2 Splitex Transfer Stand complete





### **Artex Transfer Table**

The detachable part of the transfer stand, either with screw for model plates or furnished with Splitex magnetic plate. Several transfer tables are necessary in case of short registration intervals (whereas only one facebow and one transfer stand are required).

- ✓ Saves money since only one facebow is sufficient
- ✓ Saves plaster work at the practice but ensures safe transport to the lab
- 217671C Transfer Table for carbon version
- 216270 2 Transfer Table with Splitex Profile





### **Artex Transfer Jig**

Another direct alternative to the transfer stand and to the direct facebow transfer. The universal joint with bite fork is attached to the jig holding the registration in axis relation while fixed at the bottom part of the Artex articulator.

- ✓ Direct and safe model transfer without additional steps
- ✓ Reasonable solution at the practice saves one "plaster cycle"

218631 Artex Transfer Jig





### Artex Bite Fork Support/Telescoping Legs

Infinitely variable bite fork support (see picture above). The magnetic plinth is compatible with all conventional articulators.

- ✓ Fits all types of articulators, either fixed with screw or magnetically
- ✓ Height adjustment by means of a thread, fine adjustment by telescopes

The telescoping legs are screwed in to support the facebow anteriorly during the direct transfer of the facebow registration into the articulator. A level helps to adjust the facebow horizontally to the table plane.

217685 Bite Fork Support

217624 1 2 Telescopic Legs 2 + Level



217991 Artex case with foam rubber padding (without content)



### Artex iTero

The Artex iTero model adapter set enables direct transfer of a set of models created from iTero scan data to the Artex Carbon articulator.

216310 Artex iTero model adapter (set)



### **Zebris for Ceramill**

LCDI IS IO	Ceranini
221500	Zebris for Ceramill
221501	Zebris transfer stand
221502	Para-occlusal attachment
221527	Para-occlusal attachment for deep bite
221503	Zebris bitefork
221504	Zebris bitefork adapter
999560	Protection Plan Zebris for Ceramill 1 year
179703	Ceramill M-Pass
221520	Zebris for Ceramill database configuration
221521	Zebris for Ceramill CSV export
221522	Zebris for Ceramill license upgrade
Note: new so	oftware modules and attachments will be available in April 2023

Ask your contact partner for detailed information.





Technical data Dimension: 67x35x46mm Weight: 157 a

### **Artex Noplast**

Artex Type NK for easy mechanical model fixation without plaster. The freely movable model plate safely holds the model in place according to the conventional method with a model table. With help of female thread screws, bars/joint discs rigidly block the relation, strain-free and distortion-free.

- ✓ Time-saving interim solution for model analysis/discussion
- ✓ For the making of individual trays/templates and for orthodontic
- ✓ To check the function of Co-Cr cases on investment models
- ✓ Spares valuable working articulators if used for interim steps (but it may not, and cannot, replace the model plaster for definite restorations!)

217480C Noplast for Artex Carbon



### Spray marker

Green occlusion spray with food-grade ingredients. Develops only little spray-dust, fully water-soluble.

- ✓ Homogenous spray pattern
- ✓ Allows for precise dosing
- ✓ High selectivity

541390 Spray marker green



#### Technical data Dimension: 120x90x110 mm Weight: 480 g Finish: Alluminium anodized







For the expert and artistic processing of the "triple-tray technique" by the dental technician. This way allows to directly transfer the impression into the position-safe auxiliary Artigator articulator, regardless of the cranium/axis relation.

- ✓ Sturdy unit with safe centric and Artex "click" lock
- ✓ Performs average-value movements as well as immediate sideshift (ISS)
- ✓ Full frontal access for proper adjustability thanks to the crank pin
- ✓ Direct segment model in magnetic pin plate
- ✓ Replaces four work steps with one, saves half the plaster consumption
- ✓ Quick amortization due to enormous time and material saving

218950 • Artigator incl. 2 Base Plates blue

### Accessory:

-		
218941	Artigator – Base plate blue	50 pcs.
218933	Artigator base collar	
218931	4 Artigator pin plates U (upper)	
218932	Artigator pin plates L (lower)	



### Technical data Dimension: 250x183x370mm Weight: 9.6 kg Mains supply: 230(100/115)V/0.32W Motor speed: 2,800 min Laser class: 3A < 5mW

### Giroform pin drill

**Giroform Starter Kit** 

176701 Giroform pin drill

Delivery volume: Tungsten carbidge burr 176710, Universal plate holder 176713, impression carrier 176733, Tubular socket wrench 176702, holding pin 176703, screw driver for adjustment 176004

176710 Giroform-Tungsten Carbide Burr

176713 Universal plate holder

176733 Giroform-Impression carrier



#### 576702 Giroform Starter Kit 176710 • Tungsten carbide burr 176733 2 Impression Carrier 2x 321070 **3** NT-Cutter 576450 **5** Giroform-Pins 1,000/pkg. 576461 **6** Giroform putty Putty 1 kg 576710 • Giroform base plate Premium+ 5767501 **8** Giroform secondary plate XL with magnet 576765 **9** Adjustment plate clear 2/pkg. 50/pkg. 2.35 mm



### Giroform Base Plates, 100/pkg. 576710 • Premium+ L (incl. metal disc) 576745 Premium+ XL (incl. metal disc) 576747 Premium+ L blue (incl. metal disc) 576720 **②** Classic L 576740 Classic XL 576726 3 Classic L blue 576765 • Adjustment plate L



roform	Secondary Plate
76750	L with magnet

815330 **®** Arbor band, grain 120

576766 Adjustment plate XL

990252 **@** Timer

576750	L with magnet	50/pkg.
576751	XL with magnet	50/pkg.



### **Giroform Pins**

576450	Giroform Pins	1,000/pkg.
576451	Giroform Pins	10,000/pkg.



50/pkg.







### **Giroform Quadrant Base Plate**

Shape retaining acrylic base plate for Quadrant impressions.

576770 Giroform Quadrant base plate 100 pcs.



### Giroform Adapter for Vertex®

Adapter for usage in the Giroform base mounting plates in Vertex® single-use articulators.

576790	Giroform adapter for Vertex® articulators	100 pcs.
Vertex® is a	registered trademark of Dentsply Ceramco	



### Giroform pin drill

Conical hard metal drill, cutting geometry perfectly matches the Giroform base plate material.

✓ Short chips smooth cladding

176710 Giroform pin drill



### **Giroform Putty**

Silicone putty for placing and blocking the mould on the mould carrier, saves plaster as well as subsequent trimming and grinding, pleasant

✓ Great time-savings as a result of quick blocking

✓ Multifunctional

576461	Tub	1 kg
576465	Bucket	5 kg



### **Giroform Magnets and Sockets**

Magnet Ø 31.9 x 6 mm, including socket and retention disc. Allowing removal of the model and reposition in the articulator. Independent system use.

512511	Magnetic plates Ø 20x6mm	100/pkg.
512512	Sockets Ø 25x7.5mm	100/pka.



### Giroform magnetic discs

- Edged, Ø 31.9 x 1.5 mm for universal usage,
- 2 Stainless steel flat, edged Ø 36.5 x 1.5 mm for Splitex counter plates
- **3** Ø 25 x 1.0 centric bore and M3–countersunk screw for Giroform Classic base plates

215660	Retention discs cranked Ø 31.9 x 1.5	100/pkg.
216150	<ul> <li>Retention discs stainless steel</li> <li>Ø 36.5 x 1.5 for Splitex</li> </ul>	100/pkg.
576716	<ul><li>■ M3-Retention discs for Giroform Classic</li><li>Ø 25x1.0 incl. screws</li></ul>	100/pkg.



### **Giroform Space retainer foil**

Provides enough space for pins and magnet. Stabilizes the base plate in the area of the splitcast profile.

6805	Giroform Space retainer foil	50/pkg.



### **Giroform Base Collar**

Used Giroform Base Plates which have already been drilled can be used to make master casts.

576950	Base Collar L-Komb
576961	Rase Collar XI





### **Giroform Duplication Flask**

For the duplication of refractory dies varying in size from single segments up to the complete dental arch. Suitable for Giroform base plate L.

576670 Giroform Duplication Flask



### **Giroform Refractory Pin**

Removable conical ceramic pins, inserted into the base plate, are used in refractory duplication.

576480	Giroform Refractory Pin	25/pkg.







### Technical data

Dimension: 335x240x590mm Weight: 16.5 kg Mains supply: 100/115/230 V, 50/60 Hz Machine rating: 95 W Capacity powder: approx. 8 kg Time to allot 20 ml : 100 g approx. 30 s

### Smartbox X2

116170 Smartbox X2, 230 V (115 V = 116170V115)

Delivery volume: Basic unit with integrated 8 kg plaster container, 31 water container,

116101	Protection cover	
117201	Beaker distance piece	2 pcs.



#### Technical data

Dimension: 250x160x350mm (without stand) Weight machine: 8.5 kg Weight stand: 7.9kg Mains supply: 100/115/230V, 50/60 Hz Machine rating: 210W Delivery rate: 15.8 l/min Vacuum power: -800 mbar



#### Smartmix X2

115700 Smartmix X2 wall mounting 230 V Delivery volume: basic unit with beaker 500 ml, for wall-mounting, drilling template, 4 screws with dowels, 1 replacement filter

115730	Stand for Smartmix X2	
115620	Beaker with mixing blade	100 ml
115630	Beaker with mixing blade	250 ml
115640	Beaker with mixing blade	500 ml
115650	Beaker with mixing blade	750 ml
115660	Beaker with mixing blade	1000 ml
115621	Beaker	100 ml
115631	Beaker	250 ml
115641	Beaker	500 ml
115651	Beaker	750 ml
115661	Beaker	1000 ml
115701	Spare filter for Smartmix X2	5/pkg.



### Technical data

Dimension: 275 x 265 x 455 mm Weight: 12.5 kg Mains supply: 230V/50 Hz /115V/60 Hz Machine rating: 1600W / 1000W F-fuse: T10A Boiler volume: 3.71 Vapor pressure: 4.0 bar Warm-up time: approx. 25 min

### Steamer X3

116910 Steamer X3 230 V

Delivery volume: Mounting template, Instruction for use, Test strips for measuring water hardness, 1 x 250 ml bottle of Kalk-X descaling liquid Power cord, Set of safety cap gaskets (white teflon gasket and silicone gasket)

,		
116811	Kalk-X Liquid descaling agent	4x250 ml
516330	Clean Steamer	
516340	StymoNet	
116911	Sealing lid	
116912	Seal for lid	
516338	Steamer X3-adapter	

### Spare parts:

516332	Lid handle insulation
516333	Steam inlet insulation
516334	Hinged lid insulation



### StymoNet

Self-locking tweezers with fine-mesh stainless plastic net to fix delicate objects such as ceramic teeth; inlays etc. during cleaning with saturated steam.

516340 StymoNet



### **Noflame Plus**

116250 Noflame Plus

Delivery volume: basic unit with power cable, 2 protective covers

116210 Protective caps

#### Technical data

Dimension: 195x85x83mm Weight: 600 g Mains supply: 230 V/50 Hz/130 W



### Smartwax Duo

116270 Smartwax Duo, basic unit

Delivery volume: control unit with mains adaptor, handpiece with cord (116280), probe small incl. handle (116281), cotton role holder

116280 Handpiece with cord

### Technical data

Dimension: 130x150x50mm Cable length of handpiece: 1.8 m

Electrical specifications of mains adaptor: 110 - 230V 50/60 Hz

Output: 6 V. Power: 12 W

Temperature range: 50 - 220 °C / 122 - 428 °F - switchable



### Accessories:

116281 • Probe small incl. handle

116282 Probe large incl. handle

116283 3 Needle incl. handle

116284 4 Beaver tail incl. handle

116285 **⑤** Knife incl. handle

116286 6 Spoon incl. handle



The Waxjet in action – e.g. during filling of the gingivobuccal fold. Rapidly ready for use - one touch is enough



### Waxjet (pat. pend. ZTM Jonas)

Intelligent solution for application of wax. The continuous wax supply via the unique feeding mechanism of the Waxjet allows the dental technician to quickly apply a big amount of wax. The fluidized wax gets through the concave probe to the tip and the quantity of the wax can be determined individually by the technician – depending on, how quickly the wax wire is put forward with the help of the driving pulley.

✓ Twice the speed of wax up work = 50% saving of time

 $\checkmark$  No annoying wax taking up

✓ For quick superficial fusing and application of wax

116287 Waxjet incl. handle

641060 Waxjet wire pink / 6.0 / 280 g





Classical super hard Class 4 gypsum for the production of tooth arches, single stumps and control models. The expansion is ideally matched to Giroform model creation. The expansion is ideally matched to Giroform model fabrication.

711110	3 gold	20 kg carton (5 x 4 kg bag)
711120	1 pastel	20 kg carton (5 x 4 kg bag)
711130	2 saffron	20 kg carton (5 x 4 kg bag)
711140	<b>●</b> grey	20 kg carton (5 x 4 kg bag)



#### Girocko

Girocko is a synthetic, Class 4 high-strength dental stone – also ideal for fabricating models using Giroform.

711160	gold	20 kg carton (5 x 4 kg bag)
711170	grey	20 kg carton (5 x 4 kg bag)



Synthetic class 4 super-hard plaster, universal for all prosthetic applications, material of choice for situation and master models - also for fully prosthetic working models due to its low brittleness.

✓ Cost-efficient high-quality super-hard plaster in 3 colours

711021	rosé	20 kg carton
711022	pastel	20 kg carton
711023	yellow	20 kg carton



### Girodur

Synthetic class 4 super-hard plaster for stump and master models.

✓ Low-price alternative to all precision model types

711105	white	20 kg carton
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### Giroplast

High-strength synthetic plaster for full prostheses, especially for plastic extrusion techniques (e.g. polyan). The great working pressure during insertion of the plastic material into the container requires high pressure-resistance to counteract deformation.

- ✓ High strength for plastic extrusion
- ✓ Expansion values adjusted to full prostheses

711050	blue	20 kg carton



White synthetic articulation plaster with minimum expansion, suitable for manual and machine mixing. Indication: working models articulating, orthodontic models rebasing, fixation of milling bases, bite registration and indexes.

711217 Artifix	20 kg carton
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### Abrasive belt/mandral

For pre-trimming of model stumps and trimming of tooth arches.

✓ Quick, efficient and vibration-free removal of material

815300	Mandral cylindrical	
815310	Grain 80, ISO 070, length 11 mm	50/pkg.
815330	Grain 120, ISO 070, length 11 mm	50/pkg.
815340	Grain 240, ISO 070, length 11 mm	50/pkg.



### **Model boxes**

Deep-drawn transparent box for transporting dental models, self-locking, with 2 foam rubber cushions.

- ✓ Various sizes and heights, also for plastic bases
- ✓ Cost-efficient bulk packaging of 30 pieces each (10x3 units)

511430	small	78 x 70 x 45 mm
511450	large	90x80x60mm
511460	x-high	90x80x80mm



### **Girosolve Pro**

Plaster dissolution with high dissolving speed and capacity, for all kinds of plasters and plaster-bonded investments. Dissolves and removes plaster remainders from dentures, impression trays, mixing bowls, and cast objects.

- ✓ Higher effectiveness and economy, ontrol through bubble activity
- ✓ No acids, neutral pH-value, suitable for all materials
- ✓ Efficiency multiplies if used in an ultrasonic bath
- ✓ Disposal of used solution through the sewage system

714050 Girosolve Pro 21 bottle



Ceramill Sep - Thinner and more reliable coating, lemon-scented

### **Ceramill Sep**

Isolates the modelling resins Ceramill Gel/Pontic from gypsum and stump varnish (especially Giroform Die Link).

760561 Ceramill Sep





### Ceramill Gel/Pontic

Light-hardening modelling synthetics for crowns and intermediate

760514 • Ceramill Gel – light-hardening synthetic modelling material for crowns, green, 3g

760522 ② Ceramill Pontic – light-hardening synthetic modelling material for intermediate bridge elements, blue, 3 g 2/pkg.









### **Giroinvest Speed**

Phosphate-bonded precision investment for model-casting.

724070	Giroinvest Speed Powder	5x4kg bags = 20kg
724072	Giroinvest Speed Powder	$100 \times 200 \mathrm{g}$ bags = $20 \mathrm{kg}$
724081	Giroinvest Liquid	11





Phosphate-bonded precision investment for crown, bridge and inlay work and pressable porcelain.

781670	Giroinvest Super Powder	40 x 150 g-bags = 6 kg
781680	Giroinvest Super Powder	50 x 100 g-bags = 5 kg
781685	Giroinvest Super	2x4 kg
724090	Giroinvest Super Liquid	11



### **Girobond CBS**

781690	Girobond CBS	1,000 g
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### Girosolder

Dental solder for cobalt-based alloys

781630 Girosolder, 3.6 g lot in bars



### **Girocrom FH**

721250	Girocrom FH	1,000g
		-13

# ORDERING INFORMATION DIGITAL

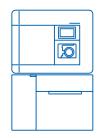












Ceramill	Map 200+	Map 600+	Motion 2	Motion 3	Matik
Art.Nr.	179130NC	179560N	179250	179350PRO	181200PRO
Dimensions D/W/H (mm)	390×360×310	415×424×469	595×530×780	595×530×780	780×1265×2000
Weight (kg)	11	25	78	78	520
Power supply (V/A)	100-240 / 50-60 Hz	100-240 / 50-60 Hz	100-230V/50-60Hz	100-230V/50-60Hz	100 -240V
E-fuse	T2x1.6A	T2x1.6A	T3.15A / T6.3A	T3.15A / T6.3A	T3.15A / T6.3A
Output (W)	60	60	750	750	750
Compressed air connection			6 bar 50 L/min	6 bar 50 L/min	7 bar 200 L/min, available at short notice 400 L/min
Engine speed (U/min <sup>-1</sup> )			100,000	100,000	100,000
Torque (Ncm)			9.2	9.2	11.2
Collet chuck (Ø mm)			3	3	3
Sound level (max. dbA)			60	60	60
Accuracy (µm)	<6	<4	<10	<10	<10
Axes	2	3	5	5	5+4
Recommended installation site	Table, no direct sunlight	Table, no direct sunlight			
Recommended temperature (°C)	18-30°C	18-30°C	18-30°C	18-30°C	18-30°C

### **Ceramill Mindserve**

Ceramill Mindserve is a data server for networking several Ceramill CAD/CAM workstations. The Ceramill Mindserve is available as a 2 or 4 terabyte version and stores 15,000 or 30,000 data records – an external hard drive automatically ensures reliable data back-up in a 24 hour tact. The compact server links up to 10 Ceramill workstations using a conventional network connection and thus enables easy, central management of customer data as well as streamlining workflows. Different patient cases can be simultaneously processed via several workstations, which achieves optimum utilisation of the machines and efficient handling of orders.



- ✓ Easy, efficient management of customer data, complaints etc.
- ✓ Easy installation using Plug&Play connection\*
- $\checkmark$  Automatic back-up on additional external hard drive
- ✓ 2TB/4TB hard drive enables archiving and securing of up to 15,000/30,000 data records
- ✓ Certified hard drives mirrored in real time
- Networking of up to 10 Ceramill workstations for optimum utilisation of the machines

### System requirements:

- ✓ Internet connection (50 Mbit/s) to guarantee data transmission to the M-Center and remote maintenance of the system.
- ✓ Flat rate is recommended
- $\checkmark$  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.



PC technical data*	PC Premium
Art.Nr. Set	179071
Processor speed/model	Intel i9 10900X
Memory	32 GB RAM
Hard drive	1 TB SSD
Graphics	8 GB
Operating system	Windows 10
Monitor	27 inch
Recommended installation site	away from the floor, not on the wall

<sup>\*</sup> may change depending on the development statu

 $<sup>\</sup>mbox{\ensuremath{^{\star}}}$  assuming the customer's IT administrator provides the system requirements







### Technical data

EN 60519-2: Class 0

Temperature: +5 - +40 °C Humidity: 80%

Ambient conditions

Dimensions (DxWxH): 468x461x480 mm Weight: 30 kg Electrical connections: V/Hz 220-240/50-60 Power: 3.5 kW Fuse (fast): 15 A Degree protection – IP20

Thermal protection class according to DIN

### **Ceramill Therm 3** Sintering furnace

178380 Ceramill Therm 3

Delivery volume: Ceramill Therm 3 sintering furnace, sintering bowl, Therm 3 tongs, Sintering pearls 200 g, Ø 1 mm

#### Accessories Therm 3:

178311 Sintering pearls 200 g, Ø 0.5 mm, for ZI and Zolid
31
170201 A Targer for Thomas 2 sintaging hours
178381 • Tongs for Therm 3 sintering bowl
470000 ATL 0
178382 ② Therm 3 stackable sintering bowl
170202 Thorm 2 7olid stackable cintering houl
178383 Therm 3 Zolid stackable sintering bowl

#### Accessories Therm:

	178360	Stackable sintering bowl	1 pc.			
	178370	Zolid Stackable sintering bowl	1 pc.			
178360 and 178370: stackable only in Ceramill Therm (178350)						
	178361	Tongs for Therm sintering bowl				



### **Technical data**

Dimensions (DxWxH) incl. service unit: 468 x 461 x 480 mm Weight: 30 kg Flectrical connections: V/Hz 220-240/50-60 Power: 3.5 kW Fuse (fast): 15 A Degree protection - IP20 Thermal protection class according to DIN EN 60519-2: Class 0 Ambient conditions: Temperature: +5 - +40 °C Humidity: 80%

### Ceramill Argotherm 2

Sintering furnace for Ceramill Sintron

178740 Ceramill Argotherm 2 (incl. Ceramill Argovent 2) Delivery volume: Sinter furnace Ceramill Argotherm 2, sinter chamber Ceramill Argovent 2

178745	Ceramill Argovent 2
	(incl. in Ceramill Argotherm 2 delivery)

Delivery volume: sinter base, sintering tray, sinter hood, shielding gas retort, sinter beads, Argovent 2 tongs

178748	Ceramill Argovent 2 sintering tray					
178749	Ceramill Argovent 2 sinter hood					
178754 Ceramill Argovent 2 tongs						
178755	Sinter beads Argovent 2	150 g				
178756	Floatsinterdisk 2					



### Technical data

Dimensions (DxWxH): 390x300x484mm Weight: 50 kg Power rating: 230V / 50-60Hz Max. output: 3.5 kW Max. temperature: 1.600°C

### **Ceramill Therm DRS**

181900 Ceramill Therm DRS

### Accessories/replacement parts:

181901	Accessory case	
178755	Sintering pearls	
181902	Forceps	
181903	Sintering bowl	
181904	Sintering base	
181905	Firing tray	
761936	Ceramic pins	10 pcs
181906	Cooling plate	
181907	Heating element	
181908	Thermoelement	



### Technical data

Dimensions: 406 x 280 x 423 Weight: 16 kg, Performance: 1000 W Electrical connection values (V/A/Hz): 230/3.6/50-60, 115/7.0/50 Suction Power: 56.6 L/sec., Volume: max. 52 dbA, Filter bag size: 10 Liter Hose Ø: 38 mm, Hose length: 1.8 m Adapter diameter: conical, 37-38 mm HFPA micro filter (97,97%). Filter class H12, dust class M

### **Ceramill Airstream**

✓ Extractor for Ceramill milling units

✓ May also be used for other devices with attached adapter

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



### Technical data

Dimensions: 656x518x651 mm Weight: 36 kg Electrical connection values: 100-230V/T 1.0A / 50-60Hz Power: 150W

### **Ceramill Coolstream**

Integrated coolant preparation for Ceramill Motion 2 in the trolley.

178641 Coolstream Tank

178642 Coolstream Cart

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



### **Cooling Liquid**

178650-NTR Cooling Liquid



#### **Ceramill Scanmarker**

Ceramill Scanmarker 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 extra-oral use.

760562 Ceramill Scanmarker 50 ml



### **BD Key Scan Holder**

Impression holder for scanning impressions in the Baltic Denture System. Suitable for all Map 200/Map 400/Map 600 generations. (Only in conjunction with 179138/179139 Impression

179134 BD Key Scan Holder



### **Ceramill Code Scanner**

- Scanning the IntelliCode automatically transfers all relevant blank information to the Match software
- ✓ Easy finding of blanks already created in the database

179195 Ceramill Code Scanner Requirement: Ceramill Match 2



### Multi Die Halter

For scanning up to 12 stumps in a single scanning process. Suitable for all Map 200/Map 400/Map 600 generations. (Only in conjunction with the universal support plate).

179136 M-Die Map 200

179137 M-Die Map 400/600



### **Ceramill Fixator**

For the digitization of models with jaw relation. Suitable for all Map 400/Map 600 generations.

179113 Ceramill Fixator



### **Automatic impression holder**

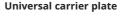
Impression holder with automatic tilting function. Suitable for all Map 200/Map 400/Map 600 gen-

179138 Impression Holder Map 200 179139 Impression Holder Map 400/600

### All In holder

Holder for digitizing a quadrant model. Suitable for Map 600 scanner.





For scanning different model systems. Suitable for all Map 200/Map 400/Map 600 generations.

179125	Universal support plate set incl. fixing pins and spring
179118	Universal support plate
179119	Fixing pins incl. fixing spring



179135 All-In Bar



### **Ceramill Mind Ultimate Bundle**

CAD Software full version including all modules (excl. Ceramill Mindforms 179700)

181150 Ceramill Mind Ultimate Bundle



Ceramill M-Smile

Upgrade for Ceramill Mind

179704 Ceramill M-Smile



### **Ceramill Mind**

CAD Software Base version

179150 Ceramill Mind



### Ceramill M-Plant

Upgrade for Ceramill Mind

179152 Ceramill M-Plant

Attention: Commercial use of this software is restricted to FDA compliant workflows or licensed



### **Ceramill Artex**

Upgrade for Ceramill Mind

179151 Ceramill Artex



#### Ceramill M-Gin

Upgrade for Ceramil Mind

179145 Ceramill M-Gin



### Ceramill Mindforms 2.0 by Knut Miller

Upgrade for Ceramill Mind

179700 Ceramill Mindforms 2.0 by Knut Miller



### **Ceramill M-Bars**

Upgrade for Ceramill Mind

179166 Ceramill M-Bars



### **Ceramill Mindforms Cutback Extension** by Knut Miller

Upgrade for Ceramill Mind (Upgrade for Knut Miller library existing customers)

179701 Ceramill Mindforms Cutback Extension by Knut Miller



### **Ceramill Dicom Viewer**

Upgrade for Ceramill Mind

179146 Ceramill Dicom Viewer



### **Ceramill M-Splint**

Upgrade for Ceramill Mind

179165 Ceramill M-Splint



### **Ceramill D-Flow**

Upgrade for Ceramill Mind

179147 Ceramill D-Flow



### Ceramill Microshell

Upgrade for Ceramill Mind

179148 Ceramill Microshell



### **Ceramill M-Pass**

Upgrade for Ceramill Mind

179703 Ceramill M-Pass



### **Ceramill M-Build**

Upgrade for Ceramill Mind

179167 Ceramill M-Build



### **Ceramill M-Part**

Upgrade for Ceramill Mind

179702 Ceramill M-Part



### **Ceramill Mind Trusmile**

Upgrade for Ceramill Mind

179155 Ceramill Mind Trusmile



### **ZRS for Ceramill**

Upgrade for Ceramill Mind

179705 ZRS for Ceramill

#### \* Ceramill Mind Artex, Ceramill Microshell, Ceramill Mind TruSmile Ceramill ZRS Library

\*\* Includes all available modules, except Knut Miller (can be purchased

optionally)

### Ceramill Mind: Purchase or rental – depending on requirements

Our highly qualified Research & Development team is constantly improving and expanding the capabilities of the Ceramill System. In regular updates you will receive numerous new options and thus keep your system and therefore your business fit for the future. You benefit from these upgrades with both a Performance Plan and an

### Among other things, the upgrades include:

- New indications, workflows and functions for optimized and more efficient ways of working
- Integration of new materials as well as milling tools and holders
- Process optimization, for example through more efficient milling

### PERFORMANCE PLAN

The Performance Plan is a rental model that includes the annual CAD/CAM basic software license including the modules you select, as well as regular software upgrades.

You **purchase** the basic CAD/ CAM software license as well as the desired modules and conclude a plan for regular software upgrades.

	BASIC	EXPERT	MASTER	PURCHASE + UPGRADES
Software license fees	~	~	~	~
Software upgrades	~	~	~	Upgrade plan to be concluded separately
Modules included	4*	+3 in addition according to choice	all**	can be customized

Dongle Art. No.

179156

179150

179164

181156 181150

181151

Art. No.

980600

With the purchase or rent of the "Ceramill Mind + Ceramill Match 2 Master Bundle" you will receive the complete package of all upgrade modules (for scope see page 182).

**CERAMILL SOFTWARE PURCHASE** 

Description

Description

Ceramill Mind + Match 2

Ceramill Mind - CAD SW

Ceramill Match 2-CAM-Dongle

Ceramill Mind Master-Bundle

on an existing Mind dongle

**Upgrade Plan** (obligatory in year 1, optional from year 2)

Upgrade Plan Mind + Match 2

980600UB Upgrade Plan Mind + Match 2 – Master-Bundle

Upgrade Plan Mind

Upgrade Plan Match 2

980601UB Upgrade Plan Mind – Master-Bundle

Ceramill Mind + Match 2 Master-Bundle

Ceramill Match 2 Upgrade (license), to activate Match 2

### **CERAMILL SOFTWARE RENTAL**

### Performance Plan (obligatory)

active Upgrade Plan.

Art. No.	Description
996000-BASIC	Performance Plan – Mind + Match 2 BASIC
996000-EXPERT	Performance Plan – Mind + Match 2 EXPERT
996000-MASTER	Performance Plan – Mind + Match 2 MASTER
996001-BASIC	Performance Plan – Mind BASIC
996001-EXPERT	Performance Plan – Mind EXPERT
996001-MASTER	Performance Plan – Mind MASTER
996002	Performance Plan – Match 2

### **Dongle** (necessary for activation of software rental)

Art. No. Description 996900 Dongle Rental License Mind+Match 2 Necessary for 996000-BASIC/996000-EXPERT

996900-MASTER Dongle Rental License Mind+Match 2 MASTER Necessary for 996000-MASTER 996901 Dongle Rental License Mind Necessary for 996001-BASIC/996001-EXPERT 996901-MASTER Dongle Rental License Mind MASTER

996902 Dongle Rental License Match 2

Option to upgrade the software to the current status after ≥1 year without an Upgrade Plan. The Refresh Fee is purchased together with the 1 year Upgrade Plan for the corresponding dongle.

Art. No. Description Software Upgrades Refresh Fee 999570

### **Software Zebris for Ceramill** (obligatory for 3 years)

Description

996009 Performance Plan – Software Zebris

183









### Blank holder Ceramill material 98

for Ceramill Matik, Ceramill Motion 3, Ceramill Motion 2

179294	Blank holder 98 Motion 2 5
181211	Blank holder 98 production

181360 Blank holder 98 M3







### Blank holder rotational milling Ti-Preform/rotary milling cutters

for Ceramill Matik, Ceramill Motion 3, Ceramill Motion 2

179278 Blank holder rotational milling Ceramill Motion 2

181214 Blank holder for Ti-Preform production

181364 Blank holder for Ti-Preform M3







### Blank holder Ceramill D-Set

for Ceramill Matik, Ceramill Motion 3, Ceramill Motion 2 5X

179283 Blank holder denture teeth

181216 Blank holder denture teeth production

181365 Blank holder denture teeth M3









### Blank holder glass ceramic and hybrid blocks (3-fold)

for Ceramill Motion 3, Ceramill Motion 2

179249 Blank holder IV (3-fold) M2

179260 Blank holder glass ceramic and hybrid blocks (3-fold)

181362 Blank holder UN (3-fold) M3

181363 Blank holder IV (3-fold) M3







### Blank holder glass ceramic and hybrid blocks (9-fold)

for Ceramill Motion 3, Ceramill Motion 2

179248 Blank holder UN (9-fold) M2

181366 Blank holder UN (9-fold) M3

101300 Blank Holder ON (3-10ld) N

181367 Blank holder IV (9-fold) M3





for Ceramill Motion 2

179290 Blank holder glass ceramic and hybrid blocks (12-fold)





### Blank holders glass ceramics and hybrid blocks (4-fold)

for Ceramill Mati

181213 Blank holder blocks UN production

181219 Blank holder blocks IV production



### Blank holder metal

for Ceramill Matik

181218 Blank holder metal production







### Blank holder C-Clamp

for Ceramill Matik, Ceramill Motion 3, Ceramill Motion 2 4X/5X

179247 Blank holder C-Clamp M2

181361 Blank holder C-Clamp M3

181209 Blank holder C-Clamp Matik

## Adapter glass and hybrid ceramic blocks (3-fold) for Ceramill material 71 blank holder

for Ceramill Motion 2

179245 Adapter for hybrid blocks (3-fold)



### **GCER Universal Bonding Kit**

Bonding aid for bonding glass ceramic blanks or lithium disilicate blanks with the Amann Girrbach holder incl. 2 attachments for different blank sizes  $(10 \times 12 \times 15, 12 \times 14 \times 18)$ 

760973 • GCER Universal Bonding Kit

760974 ② Universal holder for glass ceramic blanks



### Blank holder glass ceramic blanks (triple) incl. storage rack

For clamping glass ceramic blanks or lithium disilicate blanks into the Ceramill Motion 2

179260 Blank holder glass ceramic blanks (triple) incl. storage rack for Ceramill Motion 2 5X

179281 Blank holder glass ceramic blanks (triple)

incl. storage rack for Ceramill Motion 2 4X



### Upgrade Kit Ceramill Ti-Forms Ceramill Motion 2

760100 Upgrade Kit Ceramill Ti-Forms Ceramill Motion 2

### Scope of delivery:

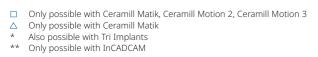
179278 Blank holder rotational milling cutter

760673 Roto RFID 1.0 Ti

760672 Roto RFID 2.0 Ti

179285 Storage rack

				CERAMILL DNA MILLING UNITS																								
	Art.			Mikro 4X	Mikro 5X	Mikro IC	Motion 2	Motion 3	Matik	Motion DRS	Zolid Zirconia	Ceramill Sintron	Ceramill M-Plast	Ceramill PMMA	Ceramill PEEK	Ceramiii wax	Ceramill TI-Preforms	Starbond Ti5	Ceramill CoCr	Glass ceramic	Lithium disilicates	Hybrid ceramics	Composite - disc	Hybrid - block	Ultaire® AKP	VITA VIONIC Denture	VITA VIONIC WAX	
Min.	No.	Description	Ring color	_	-	2				2		U	U	U	U	) (		Ś	U	U	-	<u> </u>	-	I	$\rightarrow$	>	>	Ė
	760660	Roto RFID 2.5 ZI	grey	0	0		0	0	0		0		-	+	+	+	+	-	-		-	⊢	$\vdash$					
100	760661	Roto RFID 1.0 ZI	grey	0	0		0		0		0		-	+	+	+	+	+	-			-	-					
10	<b>760662</b>	Roto RFID 0.6 ZI	grey	0	0		0	0	0		0		-	+			+	+	-			⊢	$\vdash$					
	760663	Roto RFID 0.3 ZI	grey	0	0		0		0		0		+	+	+	+	+	+	-			$\vdash$	$\vdash$			Н		H
	760664		blue	0	0		0	0	0			0	-	-	+	+	+	-				$\vdash$	$\vdash$			H		
	760665		blue	0	0		0		0			0	-	-	+	+	+	+			-	-	-					
1 10	_	Roto RFID 0.6 Sintron	blue	0	0		0		0			0	-	+	+	+	+	+	-			-	-					
	760667	Roto RFID 0.3 Sintron	blue	0	0				0			0	-			+	+	+	-		-	⊢	$\vdash$					H
	760668	Roto RFID 2.5 PMMA	green	0	0		0	0	0					0 0		+	+	-	-		-	⊢	$\vdash$					
	760669	Roto RFID 1.0 PMMA	green	0	0		0	0	0			Н	-	0 0	_	+	+	-	-			⊢	$\vdash$			Н		
-	_	Roto RFID 0.6 PMMA	green	0	0		0	0	0				-	0 (	0	+	+	-	-			-	$\vdash$					
100	760671	Roto RFID 0.3 PMMA	green	0	0		0		0					+	+	+	+	+	-		-	-	-					H
	760672		black	-		0	0	0	0				-	+	+	+	С	-	-			⊢	$\vdash$					
in the		Roto RFID 1.0 Ti	black	+		0	0	0	0	_		H	-	+	+	+	С	0	-			<u>_</u>	$\vdash$			Н		H
	751004		orange	-			0	0	0			H	-	-	+	+	+	+	-	0	-	_	-	0				H
	751006		orange	-			0	0	0				-	-	+	+	+	+		0	0	-	-	0				(
Name of Street, or other party of the street, or other party or other party of the street, or ot	751008	Roto RFID 0.4 Diamond BLG	orange	+			0	0	0	O			-	+	+	+	+	+	-	0	-	-	0	O				(
	760676	Diamond RFID 1.8	orange	+		0	0	0	0				-	+	+	+	+	+	-	0	0	-	-					
	760677	Diamond RFID 1.4	orange	-		0	0	0	0			H	-	+	+	+	+	+	-	0	-	0	-					
10 (d)	760678	Diamond RFID 1.0	orange	-		0	0	0	0			H	-	-	+	+	+	+	-	0	-	0	-					
NA PROPERTY OF THE PARTY OF THE	760679	Diamond RFID 0.4	orange	+		0		0	0				-	+	+			+	-	0	0	0	-					H
	760680	Roto RFID 2.5 SC	yellow	-	0		0	0	0				-	-	-	7 (	)	+				-	-					
Maria Caracteristics	760681	Roto RFID 1.0 SC	yellow	+			0	0	0				-	+	-	7	+	+	-		-	⊢	$\vdash$					
	760682	Roto RFID 0.6 SC	yellow	+			0	0	0			H	-	-	-	2	+	-		H	-	-	$\vdash$					
NE SE	760683	Roto RFID 0.3 SC	yellow				0	0	0			Н	-	+			+	+	-			_	_			Н		H
IICAN		Roto RFID 2.5 DMB DC	white	_	0		0	0	0				-	+	+	+	+	+	-			0	-					(
ICIO		Roto RFID 1.0 DMB DC	white	0	0	0	0	0	0				-	+			+	+	-			0	+					(
MC NO.		Roto RFID 0.6 DMB DC	white	0	0	0	0	0	0				-	+	+	+	+	+	-			0	-					
ICH STATE OF THE S		Roto RFID 0.3 DMB DC	white	0	O	0	0	O	0			Н	-	+	+	+	+	+				0	$\vdash$			Н		H
	760688		brown	+					0				-	+	+	+	+	-	0		-	⊢	$\vdash$					
100		Roto RFID 1.5 CoCr	brown	-					0				-	+		+	+	+	0			-	-					
		Roto RFID 1.0 CoCr	brown	+					0				-	+	+	+	+	+	0			⊢	$\vdash$					
		Roto RFID 1.5 Telescope	brown	+			_		0			H	-	+	+	+	+	+	0		-	⊢	$\vdash$					H
		Roto RFID 2.5 PMMA Denture	pink	-				0				H	-	+	+	+	+	+	-		-	⊢	$\vdash$			0		
		Roto RFID 1.5 PMMA Denture	pink	-				0					-	+	+	+	+	+			-	⊢	-			0		
		Roto RFID 1.2 Drill	green	+				0						+	+	+	+	+	-		-	$\vdash$	-					H
		Roto RFID 3.0 Way Denture	red	+				0					0	+	+	+	+	-				-	-				0	
1 10		Roto RFID 3.0 Wax Denture	red	+				0	0				0	+	+	+	+	+	-			$\vdash$	$\vdash$				0	
100		Roto RFID 2.5 Model	red	-				0					0	+	+	+	+	-	-			⊢	$\vdash$			Н		
		Roto RFID 2.0 Model	red					0	_				0			+	+	+	-			$\vdash$	$\vdash$			Н		H
10		Roto RFID 1.2 ST °	purple	_	0			0			0	-	_	0 0		_	+	+	-			-	-					
110		Roto RFID 0.6 ST *** Roto RFID 1.5 T-Shape ***	purple		0			0			0		-	-	0 0	-	+	-	-			$\vdash$	-					
			purple		0			0			0		+		0 (	7	+	+		H		$\vdash$	-					
		Roto RFID 2.0 T-Shape	purple	+	0			0			U	0	+	+	+	+	+	+	$\vdash$	H		$\vdash$	$\vdash$	$\vdash$				
D		Roto RFID 1.8 T-Shape	purple	-	0			0				$\vdash$	+	0 (	U	+	+	-	-			$\vdash$	-	-		H		
		Roto RFID calibration pin	purple	-	0		0	0		0		$\Box$	+	+	+	+	+	-				$\vdash$	-					H
	_	Roto RFID 3.0 Titan	black	-					0				4	+	+	+	+	0	+			-	-	-				
	_	Roto RFID 2.0 Titan	black	-					0				4	+	+	+	+	0	-			-	-					
		Roto RFID 1.5 Titan	black						0			Н	4	4	+	+	+	0	-			-	-					
		Roto RFID 1.2 F Titan	black	-					0			$\vdash$	_	_	+	+	+	0	-			$\vdash$	$\vdash$					
	_	Roto RFID 1.0 Titan	black	-					0			$\Box$	+	+	+	+	+	0	+			-	-	-				
100		Roto RFID 1.2 R Titan	black	-					0	L	L		_	_	+	+	+	0				-	-					H
		Roto RFID 2.5 DC BLM	grey	-						0		H	-	0	+	+	+	-				-	-					
		Roto RFID 1.0 DC BLM	grey	-							0	Ш	-	0	_	$\perp$	+	-		L	-	$\vdash$	_					
an a	751012	Roto RFID 0.6 DC BLM	grey							0	0			0														





### NextDent 5100 for Ceramill

3D printer Nextdent 5100 for Ceramill

181600 NextDent 5100 - AG

### Scope of delivery:

-			
1	81600	NextDent 5100 - AG	1 pc.
1	81602	Resin Tray – ND 5100	1 pc.
1	81604	Printer Platform – ND 5100	2 pcs.
1	81605	Filter, Carbon – ND 5100	1 pc.
1	81606	Filter, Intake – ND 5100	1 pc.
1	81607	Punch Tool – ND 5100	1 pc.
1	81608	Platform Scraper – ND 5100	1 pc.
1	81609	Brush scourig - crimp brass – ND 5100	1 pc.
1	81610	Part Cleaning Brush – ND 5100	1 pc.
1	81611	Resin Mixer – ND 5100	1 pc.



### **Printer Pedestal**

Stand for Nextdent 5100 for Ceramill

181601 Printer Pedestal



### NextDent LC-3D Print Box

Post-curing furnace for 3D printing materials

181800 NextDent LC-3D Print Box – AG



### NextDent LC-3D Mixer

Stirring device for mixing 3D printing materials

181810 NextDent LC-3D Mixer - AG



### **Resin Tray Kit**

Material tray including Storage Garage Kit

181602 Resin Tray – ND 5100

### Storage Garage Kit

For safe storage of the filled material tray

181603 Storage Garage Kit – ND 5100





### **Printer Platform**

Construction platform

181604 Printer Platform – ND 5100



### Filter, Carbon

181605 Filter, Carbon – ND 5100



### Filter, Intake

181606 Filter, Intake – ND 5100



### **Punch Tool**

Aid for separating printed objects from the construction platform

181607 Punch Tool – ND 5100



### **Platform Scraper**

Cleaning tool

181608 Platform Scraper – ND 5100



### **Brush scourig - Crimp Brass**

Cleaning tool

181609 Brush scourig - crimp brass – ND 5100



### **Part Cleaning Brush**

Cleaning tool

181610 Part Cleaning Brush – ND 5100



### **Resin Mixer**

Material mixer for material tray

181611 Resin Mixer - ND 5100



### **NextDent Cast**

3D print material for casting / pressing technique

NPAGCAPU01000 NextDent Cast / Purple 1,000 g



### **NextDent Ortho Rigid**

3D print material for bite splints

NPAGORBL01000 NextDent Ortho Rigid 1,000 g



### NextDent C&B MFH

3D print material for temporary crowns and bridges

NPAGCMN101000 NextDent C&B MFH / N1 1,000 g NPAGCMN1.501000 NextDent C&B MFH / N1.5 1,000 g NPAGCMN201000 NextDent C&B MFH / N2 1,000 g NPAGCMN2.501000 NextDent C&B MFH / N2.5 1,000 g NPAGCMN301000 NextDent C&B MFH / N3 1,000 g NPAGCMBL01000 NextDent C&B MFH / BL 1,000 g



### **NextDent Ortho SG**

3D print material for drilling templates

NPAGSGOR01000 NextDent SG / Orange 1,000 g



### NextDent Gingiva Mask

3D print material for gingival masks

NPAGGMPI01000 NextDent Gingiva Mask 1,000 g



### **NextDent Tray**

3D print material for individual trays

NPAGTRBL01000 NextDent Tray / Blue 1,000 g NPAGTRPI01000 NextDent Tray / Pink 1,000 g



### NextDent Model 2.0

3D print material for models

NPAGM2PE01000 NextDent Model 2.0 / Peach 1,000 g NPAGM2WH01000 NextDent Model 2.0 / White 1,000 g NPAGM2GR01000 NextDent Model 2.0 / Grey 1,000 g



### NextDent Try-In

3D print material for try-ins

NPAGTITI001000 NextDent Try-In / TIO 1,000 g NPAGTITI101000 NextDent Try-In / TI1 1,000 g NPAGTITI201000 NextDent Try-In / TI2 1,000 g



### **NextDent Ortho IBT**

3D print material for orthodontic transfer splints

NPAGOICL01000 NextDent Ortho IBT 1,000 g



### NextDent Denture 3D+

3D print material for prosthetic bases

3D print material for	prostrictic bases	
NPAGD3DP01000	NextDent Denture 3D+/	
	Dark Pink	1,000 g
NPAGD3OP01000	NextDent Denture 3D+/	
	Opaque Pink	1,000 g
NPAGD3CP01000	NextDent Denture 3D+/	
	Classic Pink	1,000 g





Zolid Gen-X Multilayer (16 A-D VITA + 2 Bleach shades)

### Zolid Gen-X Multilayer

Preshaded HT+ zirconia blanks

766618	○ Zolid Gen-X ML BL3 71x14	h=14mm	1 pc.
766619	○ Zolid Gen-X ML BL3 71x16	h=16mm	1 pc.
766621	○ Zolid Gen-X ML BL3 71x20	h=20mm	1 pc.
766636	○ Zolid Gen-X ML A2 71x14	h=14mm	1 pc.
766637	○ Zolid Gen-X ML A2 71x16	h=16mm	1 pc.
766639	○ Zolid Gen-X ML A2 71x20	h=20mm	1 pc.
766645	○ Zolid Gen-X ML A3 71x14	h= 14mm	1 pc.
766646	○ Zolid Gen-X ML A3 71x16	h=16mm	1 pc.
766648	○ Zolid Gen-X ML A3 71x20	h=20mm	1 pc.
766654	Colid Gen-X ML A3.5 71x14	h=14mm	1 pc.
766655	○ Zolid Gen-X ML A3.5 71x16	h=16mm	1 pc.
766657	☐ Zolid Gen-X ML A3.5 71x20	h=20mm	1 pc.
766672	○ Zolid Gen-X ML B1 71x14	h=14mm	1 pc.
766673	○ Zolid Gen-X ML B1 71x16	h=16mm	1 pc.
766675	○ Zolid Gen-X ML B1 71x20	h=20mm	1 pc.
766681	○ Zolid Gen-X ML B2 71x14	h=14mm	1 pc.
766682	○ Zolid Gen-X ML B2 71x16	h=16mm	1 pc.
766684	○ Zolid Gen-X ML B2 71x20	h=20mm	1 pc.
766708	☐ Zolid Gen-X ML C1 71x14	h=14mm	1 pc.
766709	☐ Zolid Gen-X ML C1 71x16	h=16mm	1 pc.
766711	☐ Zolid Gen-X ML C1 71x20	h=20mm	1 pc.
766717	☐ Zolid Gen-X ML C2 71x14	h=14mm	1 pc.
766718	☐ Zolid Gen-X ML C2 71x16	h=16mm	1 pc.
766720	☐ Zolid Gen-X ML C2 71x20	h=20mm	1 pc.
766744	○ Zolid Gen-X ML D2 71x14	h=14mm	1 pc.
766745	○ Zolid Gen-X ML D2 71x16	h=16mm	1 pc.
766747	☐ Zolid Gen-X ML D2 71x20	h=20mm	1 pc.

767757	○ Zolid Gen-X BL1 98x12 F	h=12mm	1 pc.
767525	O Zolid Gen-X BL1 98x14 F	h=14mm	1 pc.
767526	O Zolid Gen-X BL1 98x16 F	h=16mm	1 pc.
767758	O Zolid Gen-X BL1 98x18 F	h=18mm	1 pc.
767527	O Zolid Gen-X BL1 98x20 F	h=20mm	1 pc
767759	O Zolid Gen-X BL1 98x22 F	h=22mm	1 pc
767760	O Zolid Gen-X BL1 98x25 F	h=25mm	1 pc
767528	O Zolid Gen-X BL3 98x12 F	h=12mm	1 pc
767529	O Zolid Gen-X BL3 98x14 F	h=14mm	1 pc
767530	O Zolid Gen-X BL3 98x16 F	h=16mm	1 pc
767531	O Zolid Gen-X BL3 98x18 F	h=18mm	1 pc
767532	O Zolid Gen-X BL3 98x20 F	h=20mm	1 pc
767533	O Zolid Gen-X BL3 98x22 F	h=22mm	1 pc
767534	O Zolid Gen-X BL3 98x25 F	h=25mm	1 pc
767535	O Zolid Gen-X A1 98x12 F	h=12mm	1 pc
767536	O Zolid Gen-X A1 98x14 F	h=14mm	1 pc
767537	O Zolid Gen-X A1 98x16 F	h=16mm	1 pc
767538	O Zolid Gen-X A1 98x18 F	h=18mm	1 pc
767539	O Zolid Gen-X A1 98x20 F	h=20mm	1 pc
767540	O Zolid Gen-X A1 98x22 F	h=22mm	1 pc
767541	O Zolid Gen-X A1 98x25 F	h=25mm	1 pc
767542	O Zolid Gen-X A2 98x12 F	h=12mm	1 pc
767543	O Zolid Gen-X A2 98x14 F	h=14mm	1 pc
767544	O Zolid Gen-X A2 98x16 F	h=16mm	1 pc
767545	O Zolid Gen-X A2 98x18 F	h=18mm	1 pc
767546	O Zolid Gen-X A2 98x20 F	h=20mm	1 pc
767547	O Zolid Gen-X A2 98x22 F	h=22mm	1 pc
767548	O Zolid Gen-X A2 98x25 F	h=25mm	1 pc
767549	O Zolid Gen-X A3 98x12 F	h=12mm	1 pc
767550	O Zolid Gen-X A3 98x14 F	h=14mm	1 pc
767551	O Zolid Gen-X A3 98x16 F	h=16mm	1 pc
767552	O Zolid Gen-X A3 98x18 F	h=18mm	1 pc
767553	O Zolid Gen-X A3 98x20 F	h=20mm	1 pc
767554	O Zolid Gen-X A3 98x22 F	h=22mm	1 pc
767555	O Zolid Gen-X A3 98x25 F	h=25mm	1 pc
767556	O Zolid Gen-X A3.5 98x12 F	h=12mm	1 pc
767557	O Zolid Gen-X A3.5 98x14 F	h=14mm	1 pc
767558	O Zolid Gen-X A3.5 98x16 F	h=16mm	1 pc
767559	O Zolid Gen-X A3.5 98x18 F	h=18mm	
767560	O Zolid Gen-X A3.5 98x20 F	h=20mm	1 pc 1 pc
767561	O Zolid Gen-X A3.5 98x22 F	h=22mm	1 pc
767562	O Zolid Gen-X A3.5 98x25 F	h=25mm	1 pc
767563	O Zolid Gen-X A4 98x12 F	h=12mm	
767564	○ Zolid Gen-X A4 98x14 F	h=14mm	1 pc
767565	○ Zolid Gen-X A4 98x14 F	h=14mm	1 pc
	O Zolid Gen-X A4 98x18 F		1 pc
767566		h=18mm	1 pc
767567	O Zolid Gen-X A4 98x20 F	h=20mm	1 pc
767568	O Zolid Gen-X A4 98x22 F	h=22mm	1 pc
767569	O Zolid Gen-X A4 98x25 F	h=25mm	1 pc

767570			
	O Zolid Gen-X B1 98x12 F	h=12mm	1 pc.
767571	O Zolid Gen-X B1 98x14 F	h=14mm	1 pc.
767572	O Zolid Gen-X B1 98x16 F	h=16mm	1 pc.
767573	O Zolid Gen-X B1 98x18 F	h=18mm	1 pc.
767574	O Zolid Gen-X B1 98x20 F	h=20mm	1 pc.
767575	O Zolid Gen-X B1 98x22 F	h=22mm	1 pc.
767576	O Zolid Gen-X B1 98x25 F	h=25mm	1 pc.
767577	O Zolid Gen-X B2 98x12 F	h=12mm	1 pc.
767578	O Zolid Gen-X B2 98x14 F	h=14mm	1 pc.
767579	O Zolid Gen-X B2 98x16 F	h=16mm	1 pc.
767580	O Zolid Gen-X B2 98x18 F	h=18mm	1 pc.
767581	O Zolid Gen-X B2 98x20 F	h=20mm	1 pc.
767582	O Zolid Gen-X B2 98x22 F	h=22mm	1 pc.
767583	O Zolid Gen-X B2 98x25 F	h=25mm	1 pc.
767584	O Zolid Gen-X B3 98x14 F	h=14mm	1 pc.
767585	O Zolid Gen-X B3 98x16 F	h=16mm	1 pc.
767586	○ Zolid Gen-X B3 98x20 F	h=20mm	1 pc.
767587	O Zolid Gen-X B4 98x14 F	h=14mm	1 pc.
767588	O Zolid Gen-X B4 98x16 F	h=16mm	1 pc.
767589	O Zolid Gen-X B4 98x20 F	h=20mm	1 pc.
767590	O Zolid Gen-X C1 98x14 F	h=14mm	1 pc.
767591	O Zolid Gen-X C1 98x16 F	h=16mm	1 pc.
767592	O Zolid Gen-X C1 98x20 F	h=20mm	1 pc.
767593	O Zolid Gen-X C2 98x12 F	h=12mm	1 pc.
767594	O Zolid Gen-X C2 98x14 F	h=14mm	1 pc.
767595	O Zolid Gen-X C2 98x16 F	h=16mm	1 pc.
767596	O Zolid Gen-X C2 98x18 F	h=18mm	1 pc.
767597	O Zolid Gen-X C2 98x20 F	h=20mm	1 pc.
767598	O Zolid Gen-X C2 98x22 F	h=22mm	1 pc.
767599	O Zolid Gen-X C2 98x25 F	h=25mm	1 pc.
767600	O Zolid Gen-X C3 98x14 F	h=14mm	1 pc.
767601	O Zolid Gen-X C3 98x16 F	h=16mm	1 pc.
767602	○ Zolid Gen-X C3 98x20 F	h=20mm	1 pc.
767603	O Zolid Gen-X C4 98x14 F	h=14mm	1 pc.
767604	O Zolid Gen-X C4 98x16 F	h=16mm	1 pc.
767605	O Zolid Gen-X C4 98x20 F	h=20mm	1 pc.
767606	O Zolid Gen-X D2 98x12 F	h=12mm	1 pc.
767607	O Zolid Gen-X D2 98x14 F	h=14mm	1 pc.
767608	O Zolid Gen-X D2 98x16 F	h=16mm	1 pc.
767609	O Zolid Gen-X D2 98x18 F	h=18mm	1 pc.
767610	○ Zolid Gen-X D2 98x20 F	h=20mm	1 pc.
767611	O Zolid Gen-X D2 98x22 F	h=22mm	1 pc.
767640	○ Zolid Gen-X D2 98x25 F	h=25mm	1 pc.
767612	O Zolid Gen-X D3 98x14 F	h=14mm	1 pc.
767612	O = 11.1 a	h=16mm	
	O Zolid Gen-X D3 98x16 F		ī ρc.
767613	○ Zolid Gen-X D3 98x16 F ○ Zolid Gen-X D3 98x20 F	h=20mm	
767613 767614			1 pc.
767613 767614 767615	O Zolid Gen-X D3 98x20 F	h=20mm	1 pc. 1 pc. 1 pc. 1 pc.





Ceramill Zolid HT+ Preshades (16 A-D VITA shades)

### Ceramill Zolid HT+ Preshades

Preshaded SHT zirconia blanks

Preshade	d SHT zirconia blanks						
766032	○ Ceramill Zolid HT+ PS BL 71x14	h=14mm	1 pc.	767672	○ Ceramill Zolid HT+ PS BL 98x14 F	h=14mm	1 pc.
766033	○ Ceramill Zolid HT+ PS BL 71x16	h=16 mm	1 pc.	767673	○ Ceramill Zolid HT+ PS BL 98x16 F	h=16 mm	1 pc.
766035	○ Ceramill Zolid HT+ PS BL 71x20	h=20 mm	1 pc.	767674	○ Ceramill Zolid HT+ PS BL 98x20 F	h=20 mm	1 pc.
766039	○ Ceramill Zolid HT+ PS A1 71x14	h=14mm	1 pc.	767676	○ Ceramill Zolid HT+ PS A1 98x14 F	h=14mm	1 pc.
766040	○ Ceramill Zolid HT+ PS A1 71x16	h=16 mm	1 pc.	767677	O Ceramill Zolid HT+ PS A1 98x16 F	h=16 mm	1 pc.
766042	○ Ceramill Zolid HT+ PS A1 71x20	h=20 mm	1 pc.	767679	○ Ceramill Zolid HT+ PS A1 98x20 F	h=20 mm	1 pc.
766046	○ Ceramill Zolid HT+ PS A2 71x14	h=14mm	1 pc.	767681	O Ceramill Zolid HT+ PS A2 98x14 F	h=14mm	1 pc.
766047	○ Ceramill Zolid HT+ PS A2 71x16	h=16 mm	1 pc.	767682	○ Ceramill Zolid HT+ PS A2 98x16 F	h=16 mm	1 pc.
766049	○ Ceramill Zolid HT+ PS A2 71x20	h=20 mm	1 pc.	767684	○ Ceramill Zolid HT+ PS A2 98x20 F	h=20 mm	1 pc.
766053	○ Ceramill Zolid HT+ PS A3 71x14	h=14 mm	1 pc.	767686	○ Ceramill Zolid HT+ PS A3 98x14 F	h=14 mm	1 pc.
766054	○ Ceramill Zolid HT+ PS A3 71x16	h=16 mm	1 pc.	767687	○ Ceramill Zolid HT+ PS A3 98x16 F	h=16 mm	1 pc.
766056	○ Ceramill Zolid HT+ PS A3 71x20	h=20 mm	1 pc.	767689	○ Ceramill Zolid HT+ PS A3 98x20 F	h=20  mm	1 pc.
766060	○ Ceramill Zolid HT+ PS A3.5 71x14	h=14 mm	1 pc.	767691	O Ceramill Zolid HT+ PS A3.5 98x14 F	h=14mm	1 pc.
766061	○ Ceramill Zolid HT+ PS A3.5 71x16	h=16 mm	1 pc.	767692	○ Ceramill Zolid HT+ PS A3.5 98x16 F	h=16 mm	1 pc.
766063	○ Ceramill Zolid HT+ PS A3.5 71x20	h=20 mm	1 pc.	767694	○ Ceramill Zolid HT+ PS A3.5 98x20 F	h=20  mm	1 pc.
766067	○ Ceramill Zolid HT+ PS A4 71x14	h=14 mm	1 pc.	767695	○ Ceramill Zolid HT+ PS A4 98x14 F	h=14 mm	1 pc.
766068	○ Ceramill Zolid HT+ PS A4 71x16	h=16 mm	1 pc.	767696	○ Ceramill Zolid HT+ PS A4 98x16 F	h=16 mm	1 pc.
766070	○ Ceramill Zolid HT+ PS A4 71x20	h=20 mm	1 pc.	767697	○ Ceramill Zolid HT+ PS A4 98x20 F	h=20  mm	1 pc.
766074	○ Ceramill Zolid HT+ PS B1 71x14	h=14 mm	1 pc.	767699	○ Ceramill Zolid HT+ PS B1 98x14 F	h=14 mm	1 pc.
766075	○ Ceramill Zolid HT+ PS B1 71x16	h=16 mm	1 pc.	767700	○ Ceramill Zolid HT+ PS B1 98x16 F	h=16 mm	1 pc.
766077	○ Ceramill Zolid HT+ PS B1 71x20	h=20 mm	1 pc.	767702	○ Ceramill Zolid HT+ PS B1 98x20 F	h=20  mm	1 pc.
766081	○ Ceramill Zolid HT+ PS B2 71x14	h=14 mm	1 pc.	767704	○ Ceramill Zolid HT+ PS B2 98x14 F	h=14 mm	1 pc.
766082	○ Ceramill Zolid HT+ PS B2 71x16	h=16 mm	1 pc.	767705	○ Ceramill Zolid HT+ PS B2 98x16 F	h=16 mm	1 pc.
766084	○ Ceramill Zolid HT+ PS B2 71x20	h=20 mm	1 pc.	767707	○ Ceramill Zolid HT+ PS B2 98x20 F	h=20 mm	1 pc.
766088	○ Ceramill Zolid HT+ PS B3 71x14	h=14 mm	1 pc.	767708	○ Ceramill Zolid HT+ PS B3 98x14 F	h=14 mm	1 pc.
766089	○ Ceramill Zolid HT+ PS B3 71x16	h=16 mm	1 pc.	767709	○ Ceramill Zolid HT+ PS B3 98x16 F	h=16 mm	1 pc.
766091	○ Ceramill Zolid HT+ PS B3 71x20	h=20  mm	1 pc.	767710	○ Ceramill Zolid HT+ PS B3 98x20 F	h=20  mm	1 pc.
766095	○ Ceramill Zolid HT+ PS B4 71x14	h=14 mm	1 pc.	767711	O Ceramill Zolid HT+ PS B4 98x14 F	h=14 mm	1 pc.
766096	○ Ceramill Zolid HT+ PS B4 71x16	h=16 mm	1 pc.	767712	O Ceramill Zolid HT+ PS B4 98x16 F	h=16 mm	1 pc.
766098	○ Ceramill Zolid HT+ PS B4 71x20	h=20 mm	1 pc.	767713	O Ceramill Zolid HT+ PS B4 98x20 F	h=20 mm	1 pc.
766102	○ Ceramill Zolid HT+ PS C1 71x14	h=14 mm	1 pc.	767714	O Ceramill Zolid HT+ PS C1 98x14 F	h=14 mm	1 pc.
766103	○ Ceramill Zolid HT+ PS C1 71x16	h=16 mm	1 pc.	767715	○ Ceramill Zolid HT+ PS C1 98x16 F	h=16 mm	1 pc.
766105	○ Ceramill Zolid HT+ PS C1 71x20	h=20  mm	1 pc.	767716	O Ceramill Zolid HT+ PS C1 98x20 F	h=20  mm	1 pc.
766109	○ Ceramill Zolid HT+ PS C2 71x14	h=14 mm	1 pc.	767718	○ Ceramill Zolid HT+ PS C2 98x14 F	h=14 mm	1 pc.
766110	○ Ceramill Zolid HT+ PS C2 71x16	h=16 mm	1 pc.	767719	○ Ceramill Zolid HT+ PS C2 98x16 F	h=16 mm	1 pc.
766112	○ Ceramill Zolid HT+ PS C2 71x20	h=20  mm	1 pc.	767721	○ Ceramill Zolid HT+ PS C2 98x20 F	h=20  mm	1 pc.
766116	○ Ceramill Zolid HT+ PS C3 71x14	h=14 mm	1 pc.	767722	○ Ceramill Zolid HT+ PS C3 98x14 F	h=14 mm	1 pc.
766117	○ Ceramill Zolid HT+ PS C3 71x16	h=16 mm	1 pc.	767723	○ Ceramill Zolid HT+ PS C3 98x16 F	h=16 mm	1 pc.
766119	○ Ceramill Zolid HT+ PS C3 71x20	h=20  mm	1 pc.	767724	○ Ceramill Zolid HT+ PS C3 98x20 F	h=20  mm	1 pc.
766123	○ Ceramill Zolid HT+ PS C4 71x14	h=14 mm	1 pc.	767725	○ Ceramill Zolid HT+ PS C4 98x14 F	h=14 mm	1 pc.
766124	○ Ceramill Zolid HT+ PS C4 71x16	h=16 mm	1 pc.	767726	○ Ceramill Zolid HT+ PS C4 98x16 F	h=16 mm	1 pc.
766126	○ Ceramill Zolid HT+ PS C4 71x20	h=20  mm	1 pc.	767727	O Ceramill Zolid HT+ PS C4 98x20 F	h=20 mm	1 pc.
	○ Ceramill Zolid HT+ PS D2 71x14	h=14 mm	1 pc.	767729	○ Ceramill Zolid HT+ PS D2 98x14 F	h=14 mm	1 pc.
766131	○ Ceramill Zolid HT+ PS D2 71x16	h=16 mm	1 pc.	767730	○ Ceramill Zolid HT+ PS D2 98x16 F	h=16 mm	1 pc.
766133	○ Ceramill Zolid HT+ PS D2 71x20	h=20  mm	1 pc.	767732	○ Ceramill Zolid HT+ PS D2 98x20 F	h=20 mm	1 pc.
	○ Ceramill Zolid HT+ PS D3 71x14	h=14 mm	1 pc.	767733	○ Ceramill Zolid HT+ PS D3 98x14 F	h=14 mm	1 pc.
	○ Ceramill Zolid HT+ PS D3 71x16	h=16 mm	1 pc.	767734	O Ceramill Zolid HT+ PS D3 98x16 F	h=16 mm	1 pc.
	○ Ceramill Zolid HT+ PS D3 71x20	h=20  mm	1 pc.	767735	O Ceramill Zolid HT+ PS D3 98x20 F	h=20  mm	1 pc.
	○ Ceramill Zolid HT+ PS D4 71x14	h=14 mm	1 pc.	767736		h=14mm	1 pc.
766145	○ Ceramill Zolid HT+ PS D4 71x16	h=16 mm	1 pc.	767737	O Ceramill Zolid HT+ PS D4 98x16 F	h=16 mm	1 pc.
766147	○ Ceramill Zolid HT+ PS D4 71x20	h=20  mm	1 pc.	767738	○ Ceramill Zolid HT+ PS D4 98x20 F	h=20 mm	1 pc.





### Ceramill Zolid HT+ White

HT zirconia blanks

766010 Ceramill Zolid HT+ White 71x12 h=12mm 1 pc 767665 Ceramill Zolid HT+ White 98x12 F h=12mm 1 pc	766009
766010 ○ Ceramill Zolid HT+ White 71x12 h=12mm 1 pc. 767665 ○ Ceramill Zolid HT+ White 98x12 F h=12mm 1 pc	766010
766011 ○ Ceramill Zolid HT+ White 71x14 h=14mm 1 pc. 767666 ○ Ceramill Zolid HT+ White 98x14 F h=14mm 1 pc	766011
766012 Ceramill Zolid HT+ White 71x16 h=16mm 1 pc. 767667 Ceramill Zolid HT+ White 98x16 F h=16mm 1 pc	766012
766013 ○ Ceramill Zolid HT+ White 71x18 h=18mm 1 pc. 767668 ○ Ceramill Zolid HT+ White 98x18 F h=18mm 1 pc	766013
766014 Ceramill Zolid HT+ White 71x20 h=20mm 1 pc. 767669 Ceramill Zolid HT+ White 98x20 F h=20mm 1 pc	766014
766016 ○ Ceramill Zolid HT+ White 71x25 h=25mm 1 pc. 767670 ○ Ceramill Zolid HT+ White 98x25 F h=25mm 1 pc	766016





### Ceramill Zolid FX Multilayer

Stained, polychromatic SHT zirconia blanks

Stairieu, p	DOIYCHTOTHALIC SHT ZITCOTHA DIATIKS				
761733	○ Ceramill Zolid FX ML 0/A1 71 S	h=14mm	1 pc.	767633	рс.
761734	○ Ceramill Zolid FX ML 0/A1 71	h=16mm	1 pc.	767634 O Ceramill Zolid FX ML 0/A1 98x16 F h=16 mm 1	рс.
761735	○ Ceramill Zolid FX ML 0/A1 71 L	h=20 mm	1 pc.	767635	pc.
761737	○ Ceramill Zolid FX ML A2/A3 71 S	h=14mm	1 pc.	767636 • Ceramill Zolid FX ML A2/A3 98x14 F h=14mm 1	pc.
761738	○ Ceramill Zolid FX ML A2/A3 71	h=16mm	1 pc.	767637 O Ceramill Zolid FX ML A2/A3 98x16 F h=16 mm 1	pc.
761739	○ Ceramill Zolid FX ML A2/A3 71 L	h=20 mm	1 pc.	767638	рс.
761741	○ Ceramill Zolid FX ML A3.5/A4 71 S	h=14mm	1 pc.	767639 • Ceramill Zolid FX ML A3.5/A4 98x14 F h=14mm	pc.
761742	○ Ceramill Zolid FX ML A3.5/A4 71	h=16mm	1 pc.	767640 Ceramill Zolid FX ML A3.5/A4 98x16 F h=16 mm 1	рс.
761743	○ Ceramill Zolid FX ML A3.5/A4 71 L	h=20 mm	1 pc.	767641 O Ceramill Zolid FX ML A3.5/A4 98x20 F h=20 mm 1	рс.
761745	○ Ceramill Zolid FX ML 0/B1 71 S	h=14mm	1 pc.	767642	рс.
761746	○ Ceramill Zolid FX ML 0/B1 71	h=16mm	1 pc.	767643 O Ceramill Zolid FX ML 0/B1 98x16 F h=16 mm 1	рс.
761747	○ Ceramill Zolid FX ML 0/B1 71 L	h=20 mm	1 pc.	767644 O Ceramill Zolid FX ML 0/B1 98x20 F h=20 mm 1	рс.
761749	○ Ceramill Zolid FX ML B2/B3 71 S	h=14mm	1 pc.	767645 • Ceramill Zolid FX ML B2/B3 98x14 F h=14mm 1	рс.
761750	○ Ceramill Zolid FX ML B2/B3 71	h=16mm	1 pc.	767646	pc.
761751	○ Ceramill Zolid FX ML B2/B3 71 L	h=20 mm	1 pc.	767647 O Ceramill Zolid FX ML B2/B3 98x20 F h=20 mm 1	рс.
761753	○ Ceramill Zolid FX ML B3/B4 71 S	h=14mm	1 pc.	767648	pc.
761754	○ Ceramill Zolid FX ML B3/B4 71	h=16mm	1 pc.	767649 • Ceramill Zolid FX ML B3/B4 98x16 F h=16 mm 1	рс.
761755	○ Ceramill Zolid FX ML B3/B4 71 L	h=20 mm	1 pc.	767650 Ceramill Zolid FX ML B3/B4 98x20 F h=20 mm 1	pc.
761757	○ Ceramill Zolid FX ML C1/C2 71 S	h=14mm	1 pc.	767651	рс.
761758	○ Ceramill Zolid FX ML C1/C2	h=16mm	1 pc.	767652	рс.
761759	○ Ceramill Zolid FX ML C1/C2 71 L	h=20 mm	1 pc.	767653	pc.
761761	○ Ceramill Zolid FX ML C3/C4 71 S	h=14mm	1 pc.	767654 • Ceramill Zolid FX ML C3/C4 98x14 F h=14mm 1	pc.
761762	○ Ceramill Zolid FX ML C3/C4	h=16mm	1 pc.	767655	pc.
761763	○ Ceramill Zolid FX ML C3/C4 71 L	h=20 mm	1 pc.	767656	pc.
761765	○ Ceramill Zolid FX ML D2/D3 71 S	h=14mm	1 pc.	767657	рс.
761766	○ Ceramill Zolid FX ML D2/D3	h=16mm	1 pc.	767658	рс.
761767	○ Ceramill Zolid FX ML D2/D3 71 L	h=20 mm	1 pc.	767659	рс.
761769	○ Ceramill Zolid FX ML D3/D4 71 S	h=14mm	1 pc.	767660 Ceramill Zolid FX ML D3/D4 98x14 F h=14mm 1	рс.
761770	○ Ceramill Zolid FX ML D3/D4	h=16mm	1 pc.	767661	рс.
761771	○ Ceramill Zolid FX ML D3/D4 71 L	h=20 mm	1 pc.	767662	рс.







### Ceramill ZI White

### LT zirconia blanks

760172	○ Ceramill ZI 71 XS	h=12 mm	1 pc.
760173	○ Ceramill ZI 71 S	h=14mm	1 pc.
760174	○ Ceramill ZI 71	h=16 mm	1 pc.
760176	○ Ceramill ZI 71 M	h=18 mm	1 pc.
760184	○ Ceramill ZI 71 L	h=20 mm	1 pc.
760175	○ Ceramill ZI 71 XL	h=25 mm	1 pc.

767619	○ Ceramill ZI 98x10 F	h=10 mm	1 pc.
767620	○ Ceramill ZI 98x12 F	h=12 mm	1 pc.
767621	○ Ceramill ZI 98x14 F	h=14mm	1 pc.
767622	○ Ceramill ZI 98x16 F	h=16 mm	1 pc.
767623	○ Ceramill ZI 98x18 F	h=18 mm	1 pc.
767624	○ Ceramill ZI 98x20 F	h=20 mm	1 pc.
767625	○ Ceramill ZI 98x25 F	h=25 mm	1 pc.



### Ceramill Zolid FX Multilayer

Polychromatic, super-high translucent zirconia,

Block form u	niversal mandrel for third-party systems		
761854	Ceramill Zolid FX ML 0/A1 C20 UN	20x19mm	3 pcs.
761855	Ceramill Zolid FX ML 0/A1 B40 UN	40 x 19 mm	3 pcs.
761857	Ceramill Zolid FX ML A2/A3 C20 UN	20x19mm	3 pcs.
761858	Ceramill Zolid FX ML A2/A3 B40 UN	40 x 19 mm	3 pcs.
761860	Ceramill Zolid FX ML A3.5/A4 C20 UN	20x19mm	3 pcs.
761861	Ceramill Zolid FX ML A3.5/A4 B40 UN	40 x 19 mm	3 pcs.
761863	Ceramill Zolid FX ML 0/B1 C20 UN	20x19mm	3 pcs.
761864	Ceramill Zolid FX ML 0/B1 B40 UN	40x19mm	3 pcs.
761866	Ceramill Zolid FX ML B2/B3 C20 UN	20x19mm	3 pcs.
761867	Ceramill Zolid FX ML B2/B3 B40 UN	40x19mm	3 pcs.
761869	Ceramill Zolid FX ML B3/B4 C20 UN	20x19mm	3 pcs.
761870	Ceramill Zolid FX ML B3/B4 B40 UN	40x19mm	3 pcs.
761872	Ceramill Zolid FX ML C1/C2 C20 UN	20 x 19 mm	3 pcs.
761873	Ceramill Zolid FX ML C1/C2 B40 UN	40 x 19 mm	3 pcs.
761875	Ceramill Zolid FX ML C3/C4 C20 UN	20x19mm	3 pcs.
761876	Ceramill Zolid FX ML C3/C4 B40 UN	40x19mm	3 pcs.
761878	Ceramill Zolid FX ML D2/D3 C20 UN	20 x 19 mm	3 pcs.
761879	Ceramill Zolid FX ML D2/D3 B40 UN	40 x 19 mm	3 pcs.
761881	Ceramill Zolid FX ML D3/D4 C20 UN	20x19mm	3 pcs.
761882	Ceramill Zolid FX ML D3/D4 B40 UN	40x19mm	3 pcs.





### Zolid DRS Multilayer

Polychromatic high translucent zirconia blanks

,	3								
Block form u	universal mandrel				Mandrel Ivo	clar			
766490		C20 UN	20x19mm	3 pcs.	766490		C20 DR	20x19mm	3 pcs.
766492	☐ Zolid DRS BL1	B40 UN	40x19mm	3 pcs.	766492	☐ Zolid DRS BL1	B40 DR	40x19mm	3 pcs.
766500		C20 UN	20x19mm	3 pcs.	766500	△ Zolid DRS BL3	C20 DR	20x19mm	3 pcs.
766502		B40 UN	40x19mm	3 pcs.	766502	△ Zolid DRS BL3	B40 DR	40x19mm	3 pcs.
766505	🖰 Zolid DRS A1	C20 UN	20x19mm	3 pcs.	766505	🖺 Zolid DRS A1	C20 DR	20x19mm	3 pcs.
766507	🖰 Zolid DRS A1	B40 UN	40x19mm	3 pcs.	766507	🖰 Zolid DRS A1	B40 DR	40x19mm	3 pcs.
766510	☐ Zolid DRS A2	C20 UN	20x19mm	3 pcs.	766510	🖺 Zolid DRS A2	C20 DR	20x19mm	3 pcs.
766512	🖒 Zolid DRS A2	B40 UN	40x19mm	3 pcs.	766512	☐ Zolid DRS A2	B40 DR	40x19mm	3 pcs.
766515	☐ Zolid DRS A3	C20 UN	20x19mm	3 pcs.	766515	☐ Zolid DRS A3	C20 DR	20x19mm	3 pcs.
766517	☐ Zolid DRS A3	B40 UN	40x19mm	3 pcs.	766517	☐ Zolid DRS A3	B40 DR	40x19mm	3 pcs.
766520	☐ Zolid DRS A3.5	C20 UN	20x19mm	3 pcs.	766520	🖺 Zolid DRS A3.5	C20 DR	20x19mm	3 pcs.
766522	☐ Zolid DRS A3.5	B40 UN	40x19mm	3 pcs.	766522	☐ Zolid DRS A3.5	B40 DR	40x19mm	3 pcs.
766525	☐ Zolid DRS A4	C20 UN	20x19mm	3 pcs.	766525	🖺 Zolid DRS A4	C20 DR	20x19mm	3 pcs.
766527	☐ Zolid DRS A4	B40 UN	40x19mm	3 pcs.	766527	🖺 Zolid DRS A4	B40 DR	40x19mm	3 pcs.
766530	☐ Zolid DRS B1	C20 UN	20x19mm	3 pcs.	766530		C20 DR	20x19mm	3 pcs.
766532	🖺 Zolid DRS B1	B40 UN	40x19mm	3 pcs.	766532	☐ Zolid DRS B1	B40 DR	40x19mm	3 pcs.
766535	☐ Zolid DRS B2	C20 UN	20x19mm	3 pcs.	766535		C20 DR	20x19mm	3 pcs.
766537	☐ Zolid DRS B2	B40 UN	40x19mm	3 pcs.	766537	☐ Zolid DRS B2	B40 DR	40 x 19 mm	3 pcs.
766540	☐ Zolid DRS B3	C20 UN	20x19mm	3 pcs.	766540		C20 DR	20x19mm	3 pcs.
766542	☐ Zolid DRS B3	B40 UN	40x19mm	3 pcs.	766542	☐ Zolid DRS B3	B40 DR	40 x 19 mm	3 pcs.
766545	🖺 Zolid DRS B4	C20 UN	20x19mm	3 pcs.	766545	☐ Zolid DRS B4	C20 DR	20x19mm	3 pcs.
766547	☐ Zolid DRS B4	B40 UN	40x19mm	3 pcs.	766547	☐ Zolid DRS B4	B40 DR	40 x 19 mm	3 pcs.
766550	☐ Zolid DRS C1	C20 UN	20x19mm	3 pcs.	766550	☐ Zolid DRS C1	C20 DR	20x19mm	3 pcs.
766552	☐ Zolid DRS C1	B40 UN	40x19mm	3 pcs.	766552	☐ Zolid DRS C1	B40 DR	40 x 19 mm	3 pcs.
766555	☐ Zolid DRS C2	C20 UN	20x19mm	3 pcs.	766555	☐ Zolid DRS C2	C20 DR	20x19mm	3 pcs.
766557	🖺 Zolid DRS C2	B40 UN	40x19mm	3 pcs.	766557	☐ Zolid DRS C2	B40 DR	40 x 19 mm	3 pcs.
766560	☐ Zolid DRS C3	C20 UN	20x19mm	3 pcs.	766560	☐ Zolid DRS C3	C20 DR	20x19mm	3 pcs.
766562	☐ Zolid DRS C3	B40 UN	40x19mm	3 pcs.	766562	☐ Zolid DRS C3	B40 DR	40 x 19 mm	3 pcs.
766565	🖰 Zolid DRS C4	C20 UN	20x19mm	3 pcs.	766565	☐ Zolid DRS C4	C20 DR	20x19mm	3 pcs.
766567	☐ Zolid DRS C4	B40 UN	40x19mm	3 pcs.	766567	☐ Zolid DRS C4	B40 DR	40 x 19 mm	3 pcs.
766570	☐ Zolid DRS D2	C20 UN	20x19mm	3 pcs.	766570	☐ Zolid DRS D2	C20 DR	20x19mm	3 pcs.
766572	☐ Zolid DRS D2	B40 UN	40x19mm	3 pcs.	766572	☐ Zolid DRS D2	B40 DR	40 x 19 mm	3 pcs.
766575	☐ Zolid DRS D3	C20 UN	20x19mm	3 pcs.	766575	☐ Zolid DRS D3	C20 DR	20x19mm	3 pcs.
766577	🖰 Zolid DRS D3	B40 UN	40x19mm	3 pcs.	766577	🕹 Zolid DRS D3	B40 DR	40x19mm	3 pcs.
766580	🖰 Zolid DRS D4	C20 UN	20x19mm	3 pcs.	766580	🖰 Zolid DRS D4	C20 DR	20x19mm	3 pcs.
766582	🖰 Zolid DRS D4	B40 UN	40x19mm	3 pcs.	766582	🖰 Zolid DRS D4	B40 DR	40x19mm	3 pcs.



### **Zolid Green-State Finishing Kit**

Rotary instruments for dental technicians for preparing sintering metal or zirconia in the pre-sintered state

875520 Zolid Green-State Finishing Kit

### Scope of delivery:

Scope or a	elivery:	
875521	Separating cutter for removing from the blank	1 pc
875523	Universal polisher for smoothing the surface	5 pcs
875524	<b>3</b> Fissure cutter squared for creating fissures	2 pcs
875526	Diamond flame for reworking fissures	5 pcs
875527	Diamond parallel for creating labial texture	5 pcs
875528	<ul><li>Polishing disc without mandrel for thinning out the crown margin</li></ul>	10 pcs
875529	Polisher grenade for grinding of connectors	5 pcs



### Zolid Sinter-State Polishing Kit – Lab Kit

Zircon oxide-polishing set for the dental technician

875540 Zolid Sinter-State Polishing Kit – Lab Kit

### Scope of delivery:

875541	High gloss diamond polisher, lens	1 pc.
875542	2 Diamond polisher, lens	1 pc.
875543	3 High gloss diamond polisher, lab swivel	2 pcs.
875544	Diamond polisher lab swivel	2 pcs.
875545	Abrasive inverted conical	2 pcs.
875546	6 Abrasive conical	2 pcs.



### **Zolid Polishing Dent-Kit**

Zircon oxide-polishing set for the dentist

875557 Zolid Polishing Dent Kit update

### Scone of delivery:

Scope of a	elivery:	
875551	<ul><li>Smoothing and pre-polishing, swivel</li></ul>	2 pcs.
875552	High gloss polishing, swivel	2 pcs.
875553	3 Abrasive	2 pcs.
875554	Gloss polishing, flame	2 pcs.
875555	High gloss polishing, flame	2 pcs.
875556	<b>6</b> Diamond	1 pc.



### **Zolid Preparation Dent-Kit**

Rotary instruments for dentists

875530 Zolid Preparation Dent-Kit

Scope of d	elivery:	
875531	Diamond Egg Fine	5 pc
875532	Diamond Egg Coarse	5 pc
875533	Diamond Torpedo Fine	5 pc
875534	Diamond Torpedo Coarse	5 pc
875535	Diamond Conical Fine	5 pc
875536	Abrasive Arkansas FG	5 pc



### **All-Bright Diamond Paste**

Polishing paste

761938 All-Bright Diamond Paste 11 g



### Liquid FX Set

Colouring liquids for Zolid FX White

761400 Liquid FX Set

Content: A2, A3, A3.5, B3, OR, GR, RO, VIO, Ceramill Dimmer Liquid Small, Ceramill Liquid Brush Size 1, Ceramill Liquid Brush Size 3, plastic tweezers, eight paint cans, timer

### Colouring liquids à 100 ml:

761401	Liquid FX A1
761402	Liquid FX A2
761403	Liquid FX A3
761404	Liquid FX A3.5
761405	Liquid FX A4
761406	Liquid FX B1
761407	Liquid FX B2
761408	Liquid FX B3
761409	Liquid FX B4
761410	Liquid FX C1
761411	Liquid FX C2
761412	Liquid FX C3
761413	Liquid FX C4
761414	Liquid FX D2
761415	Liquid FX D3
761416	Liquid FX D4

### Effect shades à 100 ml:

761417	Liquid FX OR
761418	Liquid FX GR
761419	Liquid FX RO
761420	Liquid FX GIN
761421	Liquid FX VIO
761422	Liquid FX BL



### Ceramill Liquid "new formula" Set

Colouring liquids for Zolid HT+ White

760469 Ceramill Liquid "new formula" Set

Content: A2, A3, A3.5, B3, OR, GR, RO, VIO, Ceramill Dimmer Liquid Small, Ceramill Liquid Brush Size 1, Ceramill Liquid Brush Size 3, plastic tweezers, eight paint cans, timer

### Colouring liquids à 100 ml

760430	Ceramill Liquid A1
760432	Ceramill Liquid A2
760433	Ceramill Liquid A3
760434	Ceramill Liquid A3.5
760435	Ceramill Liquid A4
760436	Ceramill Liquid B1
760437	Ceramill Liquid B2
760438	Ceramill Liquid B3
760439	Ceramill Liquid B4
760440	Ceramill Liquid C1
760442	Ceramill Liquid C2
760443	Ceramill Liquid C3
760444	Ceramill Liquid C4
760445	Ceramill Liquid D2
760446	Ceramill Liquid D3
760447	Ceramill Liquid D4

### Effect shades à 50 ml

760485	Ceramill Liquid RO new formula
760486	Ceramill Liquid GIN new formula
760487	Ceramill Liquid VIO new formula
760488	Ceramill Liquid OR new formula
760489	Ceramill Liquid GR new formula





### Ceramill Liquid CL

Colouring liquids for ZI White

### Colouring liquids à 100ml:

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

### Effect shades à 100 ml:

760476	Ceramill Liquid CL OR
760477	Ceramill Liquid CL GR



### **Fasthetix Liquid Starter Essential**

Staining solutions suitable for the fast staining technique for Zolid FX White, Zolid HT+ White and ZI White

761397 Fasthetix Liquid Starter Essential

Contents: A1, A2, A3, A3.5, B1, B2, C2, D3, Ceramill Dimmer Liquid Small, Ceramill Liquid Eye blue, Ceramill Liquid Brush Size 1, Ceramill Liquid Brush Size 3, plastic forceps, timer





### **Accessories Ceramill Liquid**

Zirconia Stain Brush Size 3 (1 pc.)

760449	Ceramill Dimmer Liquid Refill (thinner)	1 pc.
760450	Ceramill Liquid staining tin	10 pcs.
760480	Ceramill Liquid Eye complete set	4x25ml
760478	Ceramill Liquid Brush Size 1	4 pcs.
760479	Ceramill Liquid Brush Size 3	4 pcs.

761939	Zirconia Stain 3 in 1 Brush Kit (3-part)	1 pc
	Brush for applying the Zolid liquids	
Contents: Zi	rconia Stain Brush Size 1 (1 pc.), Zirconia Stain Brush Size 2 (1 pc.),	



### Ceramill Stain & Glaze Kit

Stains and glaze porcelains for customisation of zirconium oxide

760349 Ceramill Stain & Glaze Kit update, 19 pieces

### Scope of delivery:

760351	Ceramill Stain yellow	4 g
760352	Ceramill Stain orange	4 g
760353	Ceramill Stain blue	4g
760354	Ceramill Stain grey	4 g
760355	Ceramill Stain white	4g
760369	Ceramill Stain violett	4 g
760363	Ceramill Stain red	4 g
760364	Ceramill Stain gingiva	4 g
760365	Ceramill Stain brown	4 g
760366	Ceramill Stain eggshell	4 g
760367	Ceramill Stain bleach	4 g
760368	Ceramill Stain dark brown	4 g
760356	Ceramill Stain A	4g
760357	Ceramill Stain B	4 g
760358	Ceramill Stain C	4g
760359	Ceramill Stain D	4 g
760360	Ceramill Glaze (glaze porcelain)	4g
760361	Ceramill Stain & Glaze Working Liquid Liquid for mixing the stain and glaze powders 25 ml	25 ml
760362	Ceramill Stain & Glaze Reflow Liquid Liquid for restoring the initial consistency	8ml

760038 Ceramill Stain & Glaze Essential Kit, 12 pieces

### Scope of delivery:

p u		
760351	Ceramill Stain yellow	4g
760353	Ceramill Stain blue	4 g
760354	Ceramill Stain grey	4g
760369	Ceramill Stain violett	4g
760366	Ceramill Stain eggshell	4g
760356	Ceramill Stain A	4g
760357	Ceramill Stain B	4g
760358	Ceramill Stain C	4g
760359	Ceramill Stain D	4g
760361	Ceramill Stain & Glaze Working Liquid Liquid for mixing the stain and glaze powders 25 ml	25 ml
760362	Ceramill Stain & Glaze Reflow Liquid	8ml





### Optimum Brush Line – ceramic brushes

Brush with lightweight, ergonomic aluminum handle with innovative spring activation system in the brush tip for the perfect design

761895	Optimum Spring Master Kit, Size 6 (4-part)	1 pc.
Brush, Stain	897 Optimum Spring Ceramic Brush, Size 6 (1 pc.); 761899 Optimum (1 pc.); 761900 Optimum Ceramic Brush, Opaque (1 pc.); 761901 Opti sh, Contour (1 pc.)	

761896	Optimum Spring Ceramic Brush, Size 4	1 pc.
761897	Optimum Spring Ceramic Brush, Size 6	1 pc.
761898	Optimum Spring Ceramic Brush, Size 8	1 pc.
761899	Optimum Ceramic Brush, Stain	1 pc.
761900	Optimum Ceramic Brush, Opaque	1 pc.
761901	Optimum Ceramic Brush, Contour	1 pc.
761902	Optimum Replacement Brush Tip, Size 4	1 pc.
761903	6 Optimum Replacement Brush Tip, Size 6	1 pc.
761904	Optimum Replacement Brush Tip, Size 8	1 pc.
761905	Optimum Replacement Brush Tip, Contour	1 pc.
761906	Optimum Replacement Brush Tip, Stain	1 pc.
761907	<b>10</b> Optimum Replacement Brush Tip, Opaque	1 pc.







### **Revolution Brush Line**

Brush with lightweight, ergonomic aluminum handle

761911	Revolution Master Kit, Size 6 (4-part)	1 pc	
Content: 761913 Revolution Ceramic Brush, Size 6 (1 pc.); 761915 Revolution Ceramic Brush, Stain (1 pc.); 761916 Revolution Ceramic Brush, Glaze (1 pc.); 761917 Revolution			
Ceramic Brush, Contour (1 pc.)			

761912	Revolution Ceramic Brush, Size 4	1 pc.
761913	Revolution Ceramic Brush, Size 6	1 pc.
761914	Revolution Ceramic Brush, Size 8	1 pc.
761915	Revolution Ceramic Brush, Stain	1 pc.
761916	Revolution Ceramic Brush, Glaze	1 pc.
761917	Revolution Ceramic Brush, Contour	1 pc.
761918	Revolution Replacement Brush Tip, Size 4	1 pc.
761919	6 Revolution Replacement Brush Tip, Size 6	1 pc.
761920	● Revolution Replacement Brush Tip, Size 8	1 pc.
761921	Revolution Replacement Brush Tip, Contour	1 pc.
761922	Revolution Replacement Brush Tip, Stain	1 pc.
761923	Revolution Replacement Brush Tip, Glaze	1 pc.



### **Instrument Bench Stand**

For storing brushes

761930	Instrument Bench Stand	1 pc.



### CAD Artistry Mixing Palette – ceramic mixing palette

Palette for mixing ceramic materials

761927	CAD Artistry Mixing Palette	1 pc.
761935	Nylon Sheet for CAD Artistry Palette	1 pc.
761940	Absorbent Strips CAD Artistry Palette	2 pcs.



### eg Fix

Firing paste made of PCW fibers is suitable for firing ceramic and metallic restorations

761928	Pea Fix 12cc Box	3 pcs.



### **Texture Eyes**

Copper paste for the visualization of morphology and surface texture

761929	Texture Eyes 10 ml	1 pc.



### Crown Holder Complete Kit

Products for safe processing of zirconium oxide

761931	Crown Holder Complete Kit	1 pc.
761932	White Gum Material	1 pc.
761941	Black Gum Material	1 nc



### **Honeycomb Stand and Ceramic Pins**

Products for safe processing during the firing process

761934	Honeycomb Stand inkl. 10 Ceramic Pins	1 pc
761936	Ceramic Pins	10 pc
761937	Alumina Pins (ideal for implant work, due to special shape)	4 pc
	(	1



### Ceramomix Zirconia Spatula

Ceramic spatula made of zirconia for optimal and contamination-free mixing of ceramic materials.

761933	Ceramomix Zirconia Spatula	1 pcs.





### **Ceramill Sintron**

CoCr blanks

761101R	○ Ceramill Sintron 71 XXS	h=10 mm	1 pc.	767517	○ Ceramill Sintron 98x10 F
761102R	○ Ceramill Sintron 71 XS	h=12 mm	1 pc.	767518	O Ceramill Sintron 98x12 F
761103R	○ Ceramill Sintron 71 S	h=14mm	1 pc.	767519	O Ceramill Sintron 98x14 F
761104R	○ Ceramill Sintron 71	h=16 mm	1 pc.	767520	○ Ceramill Sintron 98x16 F
761105R	○ Ceramill Sintron 71 M	h=18 mm	1 pc.	767521	○ Ceramill Sintron 98x18 F
761106R	○ Ceramill Sintron 71 L	h=20 mm	1 pc.	767522	○ Ceramill Sintron 98x20 F
761107R	○ Ceramill Sintron 71 XL	h=25 mm	1 pc.	767523	○ Ceramill Sintron 98x25 F



### Ceramill CoCr, Mogucera C Disc

CoCr blanks

138110	○ MoguCera C Disc 10 mm	h=10 mm	1 pc
138112	○ MoguCera C Disc 12 mm	h=12 mm	1 pc
138113	○ MoguCera C Disc 13.5 mm	h=13.5 mm	1 pc
138116	○ MoguCera C Disc 16 mm	h=16 mm	1 pc

h=10 mm 1 pc.

h=20 mm 1 pc.

h=25 mm 1 pc.

1 pc.

1 pc.

1 pc.

1 pc.

h=12 mm

h=14 mm

h=18 mm

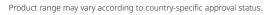
h=16 mm



### Ceramill Ti, Starbond Ti5 Disc

Titan blanks

136510	O Starbond Ti5 Disc 10 mm	h=10 mm	1 pc.
136512	O Starbond Ti5 Disc 12 mm	h=12 mm	1 pc.
136513	O Starbond Ti5 Disc 13.5 mm	h=13.5 mm	1 pc.
136516	O Starbond Ti5 Disc 16 mm	h=16 mm	1 pc.









### Ceramill A-Temp

Stained PMMA

761330	○ Ceramill A-Temp A1 71x14	h=14mm	1 pc.	761350	○ Ceramill A-Temp A1 98x14	h=14 mm	1 pc.
761331	○ Ceramill A-Temp A1 71x16	h=16 mm	1 pc.	761351	O Ceramill A-Temp A1 98x16	h=16 mm	1 pc.
761332	○ Ceramill A-Temp A1 71x20	h=20  mm	1 pc.	761352	○ Ceramill A-Temp A1 98x20	h=20 mm	1 pc.
761333	○ Ceramill A-Temp A2 71x14	h=14 mm	1 pc.	761353	○ Ceramill A-Temp A2 98x14	h=14 mm	1 pc.
761334	○ Ceramill A-Temp A2 71x16	h=16 mm	1 pc.	761354	○ Ceramill A-Temp A2 98x16	h=16 mm	1 pc.
761335	○ Ceramill A-Temp A2 71x20	h=20  mm	1 pc.	761355	○ Ceramill A-Temp A2 98x20	h=20 mm	1 pc.
761336	○ Ceramill A-Temp A3 71x14	h=14 mm	1 pc.	761356	○ Ceramill A-Temp A3 98x14	h=14 mm	1 pc.
761337	○ Ceramill A-Temp A3 71x16	h=16 mm	1 pc.	761357	○ Ceramill A-Temp A3 98x16	h=16 mm	1 pc.
761338	○ Ceramill A-Temp A3 71x20	h=20 mm	1 pc.	761358	○ Ceramill A-Temp A3 98x20	h=20 mm	1 pc.
761339	○ Ceramill A-Temp A3.5 71x14	h=14 mm	1 pc.	761359	○ Ceramill A-Temp A3.5 98x14	h=14 mm	1 pc.
761340	○ Ceramill A-Temp A3.5 71x16	h=16 mm	1 pc.	761360	○ Ceramill A-Temp A3.5 98x16	h=16 mm	1 pc.
761341	○ Ceramill A-Temp A3.5 71x20	h=20  mm	1 pc.	761361	○ Ceramill A-Temp A3.5 98x20	h=20 mm	1 pc.
761342	○ Ceramill A-Temp B2 71x14	h=14 mm	1 pc.	761362	○ Ceramill A-Temp B2 98x14	h=14 mm	1 pc.
761343	○ Ceramill A-Temp B2 71x16	h=16 mm	1 pc.	761363	○ Ceramill A-Temp B2 98x16	h=16 mm	1 pc.
761344	○ Ceramill A-Temp B2 71x20	h=20 mm	1 pc.	761364	○ Ceramill A-Temp B2 98x20	h=20  mm	1 pc.
761345	○ Ceramill A-Temp C2 71x14	h=14 mm	1 pc.	761365	○ Ceramill A-Temp C2 98x14	h=14 mm	1 pc.
761346	○ Ceramill A-Temp C2 71x16	h=16 mm	1 pc.	761366	○ Ceramill A-Temp C2 98x16	h=16 mm	1 pc.
761347	○ Ceramill A-Temp C2 71x20	h=20  mm	1 pc.	761367	○ Ceramill A-Temp C2 98x20	h=20  mm	1 pc.





### Ceramill A-Temp Multilayer

Stained PMMA with shade gradient

761040	○ Ceramill A-Temp ML 0/A1 71x14	h=14 mm	1 pc.	761055	O Ceramill A-Temp ML 0/A1 98x14	h=14mm	1 pc.
761041	○ Ceramill A-Temp ML 0/A1 71x16	h=16 mm	1 pc.	761056	O Ceramill A-Temp ML 0/A1 98x16	h=16 mm	1 pc.
761042	○ Ceramill A-Temp ML 0/A1 71x20	h=20  mm	1 pc.	761057	O Ceramill A-Temp ML 0/A1 98x20	h=20  mm	1 pc.
761043	○ Ceramill A-Temp ML A2/A3 71x14	h=14 mm	1 pc.	761058	O Ceramill A-Temp ML A2/A3 98x14	h=14 mm	1 pc.
761044	○ Ceramill A-Temp ML A2/A3 71x16	h=16 mm	1 pc.	761059	O Ceramill A-Temp ML A2/A3 98x16	h=16 mm	1 pc.
761045	○ Ceramill A-Temp ML A2/A3 71x20	h=20  mm	1 pc.	761060	O Ceramill A-Temp ML A2/A3 98x20	h=20  mm	1 pc.
761046	○ Ceramill A-Temp ML B2/B3 71x14	h=14 mm	1 pc.	761061	O Ceramill A-Temp ML B2/B3 98x14	h=14mm	1 pc.
761047	○ Ceramill A-Temp ML B2/B3 71x16	h=16 mm	1 pc.	761062	O Ceramill A-Temp ML B2/B3 98x16	h=16 mm	1 pc.
761048	○ Ceramill A-Temp ML B2/B3 71x20	h=20 mm	1 pc.	761063	O Ceramill A-Temp ML B2/B3 98x20	h=20  mm	1 pc.
761049	○ Ceramill A-Temp ML C1/C2 71x14	h=14 mm	1 pc.	761064	O Ceramill A-Temp ML C1/C2 98x14	h=14mm	1 pc.
761050	○ Ceramill A-Temp ML C1/C2 71x16	h=16 mm	1 pc.	761065	O Ceramill A-Temp ML C1/C2 98x16	h=16 mm	1 pc.
761051	○ Ceramill A-Temp ML C1/C2 71x20	h=20  mm	1 pc.	761066	O Ceramill A-Temp ML C1/C2 98x20	h=20 mm	1 pc.





### Ceramill A-Temp

Stained PMMA

Block form universal mandrel for third-party systems					Mandrel Ivoclar				
761248	☐ Ceramill A-Temp A1	B40 UN	40 x 19 mm	3 pcs.	768124	Ceramill A-Temp A1	B40 DR	40 x 19 mm	3 pcs.
761249	☐ Ceramill A-Temp A2	B40 UN	40 x 19 mm	3 pcs.	768125	Ceramill A-Temp A2	B40 DR	40 x 19 mm	3 pcs.
761250	☐ Ceramill A-Temp A3	B40 UN	40 x 19 mm	3 pcs.	768126	☐ Ceramill A-Temp A3	B40 DR	40 x 19 mm	3 pcs.
761251	☐ Ceramill A-Temp A3.5	B40 UN	40 x 19 mm	3 pcs.	768127	Ceramill A-Temp A3.5	B40 DR	40 x 19 mm	3 pcs.
761252	☐ Ceramill A-Temp B2	B40 UN	40 x 19 mm	3 pcs.	768128	☐ Ceramill A-Temp B2	B40 DR	40 x 19 mm	3 pcs.
761253	☐ Ceramill A-Temp C2	B40 UN	40 x 19 mm	3 pcs.	768129	Ceramill A-Temp C2	B40 DR	40 x 19 mm	3 pcs.
761259	☐ Ceramill A-Temp A1	B55 UN	55 x 19 mm	3 pcs.	768130	☐ Ceramill A-Temp A1	B55 DR	55x19mm	3 pcs.
761260	☐ Ceramill A-Temp A2	B55 UN	55 x 19 mm	3 pcs.	768131	Ceramill A-Temp A2	B55 DR	55 x 19 mm	3 pcs.
761261	☐ Ceramill A-Temp A3	B55 UN	55 x 19 mm	3 pcs.	768132	☐ Ceramill A-Temp A3	B55 DR	55 x 19 mm	3 pcs.
761262	☐ Ceramill A-Temp A3.5	B55 UN	55 x 19 mm	3 pcs.	768133	Ceramill A-Temp A3.5	B55 DR	55 x 19 mm	3 pcs.
761263	☐ Ceramill A-Temp B2	B55 UN	55 x 19 mm	3 pcs.	768134	☐ Ceramill A-Temp B2	B55 DR	55x19mm	3 pcs.
761264	☐ Ceramill A-Temp C2	B55 UN	55 x 19 mm	3 pcs.	768135	☐ Ceramill A-Temp C2	B55 DR	55x19mm	3 pcs.





### Ceramill A-Splint

Splint acrylic, PMMA

Jp ac.	pinic del jiicj i mini i					
761080	○ Ceramill A-Splint 71x14	h=14 mm	1 pc.			
761081	○ Ceramill A-Splint 71x16	h=16mm	1 pc.			
761082	○ Ceramill A-Splint 71x20	h=20 mm	1 pc.			
761084	O Ceramill A-Splint 98x14	h=14 mm	1 pc.			
761085	O Ceramill A-Splint 98x16	h=16mm	1 pc.			
761086	O Ceramill A-Splint 98x20	h=20 mm	1 pc.			





### Ceramill A-Cast

Transparent acrylic, PMMA

761070	○ Ceramill A-Cast 71x14	h=14mm	1 pc.
761071	○ Ceramill A-Cast 71x20	h=20 mm	1 pc.
761075	O Ceramill A-Cast 98x14	h=14mm	1 pc.
761076	O Ceramill A-Cast 98x20	h=20 mm	1 pc.





≈ ceramill* wax
AMAARIOS PACIFIA ACI
Ceramill Wax grey

Ceramill Wax grey
■ Ceramil* wax
Ceramill Wax white

### **Ceramill Wax**

Wax blank

760307	○ Ceramill Wax grey 71 XS	h=13 mm	1 pc.
760302	○ Ceramill Wax grey 71 L	h=20 mm	1 pc.
760315	○ Ceramill Wax white 71 XS	h=13 mm	1 pc.
760313	○ Ceramill Wax white 71 L	h=20 mm	1 pc.
760524	O Ceramill Wax grey 98x14 N	h=14mm	1 pc.
760525	O Ceramill Wax grey 98x20 N	h=20 mm	1 pc.
760527	O Ceramill Wax white 98x14 N	h=14mm	1 pc.
760528	O Ceramill Wax white 98x20 N	h=20 mm	1 pc.





-	ceramili*peek	
Ceramill PEEK N	atural	



### Ceramill PEEK

Polyetheretherketone

	,			
	760405	○ Ceramill PEEK Natural 71x13	h=13 mm	1 pc.
	760406	○ Ceramill PEEK Natural 71x20	h=20 mm	1 pc.
	760393	○ Ceramill PEEK White 71x13	h=13 mm	1 pc.
	760394	○ Ceramill PEEK White 71x20	h=20 mm	1 pc.
	760409	O Ceramill PEEK Natural 98x12	h=12 mm	1 pc.
	760410	O Ceramill PEEK Natural 98x20	h=20 mm	1 pc.
	760403	○ Ceramill PEEK White 98x12	h=12 mm	1 pc.
	760404	○ Ceramill PEEK White 98x20	h=20 mm	1 pc.



Ceramill PEEK White



### Ceramill M-Plast

Model resin

760519	○ Ceramill M-Plast 71	h=30 mm	1 pc.
760516	O Ceramill M-Plast 98x30 N	h=30 mm	1 pc.





### **Ceramill Test**

Test blank

760301	○ Ceramill Test 71x20	h=20 mm	1 pc.
760300	O Ceramill Test 98x20	h=20 mm	1 pc.





### **Ultaire AKP Dentivera for Ceramill**

High-performance polymer

SSO003	O Ultaire AKP Dentivera White	h=18 mm	1 pc.
SSO004	O Ultaire AKP Dentivera White	h=24 mm	1 pc.
SSO005	O Ultaire AKP Dentivera Beige	h=18 mm	1 pc.
SSO006	O Ultaire AKP Dentivera Beige	h=24 mm	1 pc.



### VITA ENAMIC® for Ceramill

761201	☐ VITA ENAMIC®, EM-14, 0M1-T	12x14x18mm 5 pcs.
761202	☐ VITA ENAMIC®, EM-14, 1M1-T	12x14x18 mm 5 pcs.
761203	☐ VITA ENAMIC®, EM-14, 1M2-T	12x14x18 mm 5 pcs.
761204	☐ VITA ENAMIC®, EM-14, 2M2-T	12x14x18 mm 5 pcs.
761205	☐ VITA ENAMIC®, EM-14, 3M2-T	12x14x18 mm 5 pcs.
761211	☐ VITA ENAMIC®, EM-14, 0M1-HT	12x14x18mm 5 pcs.
761212	☐ VITA ENAMIC®, EM-14, 1M1-HT	12x14x18 mm 5 pcs.
761213	☐ VITA ENAMIC®, EM-14, 1M2-HT	12x14x18 mm 5 pcs.
761214	☐ VITA ENAMIC®, EM-14, 2M2-HT	12x14x18 mm 5 pcs.
761215	☐ VITA ENAMIC®, EM-14, 3M2-HT	12x14x18 mm 5 pcs.



MIC® multiColor		

### VITA ENAMIC® multiColor for Ceramill

761321	UITA ENAMIC® multiColor, EMC-14, 1M1-HT	12x14x18	5 pcs.
761322	UITA ENAMIC® multiColor, EMC-14, 1M2-HT	12x14x18	5 pcs.
761323	UITA ENAMIC® multiColor, EMC-14, 2M2-HT	12x14x18	5 pcs.
761324	UITA ENAMIC® multiColor, EMC-14, 3M2-HT	12x14x18	5 pcs.
761325	UITA ENAMIC® multiColor, EMC-14, 4M2-HT	12x14x18	5 pcs.



ITABLOCS®	Mark II	for	Ceramill

760051	☐ VITABLOCS® Mark II, I12, A1C	10x12x15mm	5 pcs.
760052	☐ VITABLOCS® Mark II, I12, A2C	10x12x15 mm	5 pcs.
760053	☐ VITABLOCS® Mark II, I12, A3C	10x12x15 mm	5 pcs.
760054	☐ VITABLOCS® Mark II, I12, 1M2C	10x12x15 mm	5 pcs.
760055	☐ VITABLOCS® Mark II, I12, 2M1C	10x12x15 mm	5 pcs.
760056	☐ VITABLOCS® Mark II, I12, 2M2C	10x12x15 mm	5 pcs.
760057	☐ VITABLOCS® Mark II, I12, 3M2C	10x12x15 mm	5 pcs.
760060	☐ VITABLOCS® Mark II, I14, A1C	12x14x18 mm	5 pcs.
760061	☐ VITABLOCS® Mark II, I14, A2C	12x14x18 mm	5 pcs.
760062	☐ VITABLOCS® Mark II, I14, A3C	12x14x18 mm	5 pcs.
760063	☐ VITABLOCS® Mark II, I14, 1M2C	12x14x18 mm	5 pcs.
760064	☐ VITABLOCS® Mark II, I14, 2M1C	12x14x18 mm	5 pcs.
760065	☐ VITABLOCS® Mark II, I14, 2M2C	12x14x18mm	5 pcs.
760066	☐ VITABLOCS® Mark II, I14, 3M2C	12x14x18 mm	5 pcs.



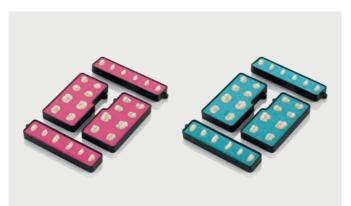


### VITABLOCS® TriLuxe forte for Ceramill

760070	☐ VITABLOCS® TriLuxe forte, TF12, A1C	10x12x15 mm	5 pcs
760071	☐ VITABLOCS® TriLuxe forte, TF12, A2C	10x12x15mm	5 pcs
760072	☐ VITABLOCS® TriLuxe forte, TF12, A3C	10x12x15 mm	5 pcs
760080	☐ VITABLOCS® TriLuxe forte, TF14, A1C	12x14x18mm	5 pcs
760081	☐ VITABLOCS® TriLuxe forte, TF14, A2C	12x14x18 mm	5 pcs
760082	☐ VITABLOCS® TriLuxe forte, TF14, A3C	12x14x18 mm	5 pcs



761001	VITA SUPRINITY® PC, PC-14, 0M1-T	12x14x18 mm 5 pcs.
761002	VITA SUPRINITY® PC, PC-14, A1-T	12x14x18 mm 5 pcs.
761003	VITA SUPRINITY® PC, PC-14, A2-T	12x14x18 mm 5 pcs.
761004	VITA SUPRINITY® PC, PC-14, A3-T	12x14x18 mm 5 pcs.
761005	VITA SUPRINITY® PC, PC-14, A3.5-T	12x14x18 mm 5 pcs.
761006	VITA SUPRINITY® PC, PC-14, B2-T	12x14x18 mm 5 pcs.
761007	VITA SUPRINITY® PC, PC-14, C2-T	12x14x18 mm 5 pcs.
761008	VITA SUPRINITY® PC, PC-14, D2-T	12x14x18 mm 5 pcs.
761021	VITA SUPRINITY® PC, PC-14, 0M1-HT	12x14x18 mm 5 pcs.
761022	VITA SUPRINITY® PC, PC-14, A1-HT	12x14x18 mm 5 pcs.
761023	VITA SUPRINITY® PC, PC-14, A2-HT	12x14x18 mm 5 pcs.
761024	VITA SUPRINITY® PC, PC-14, A3-HT	12x14x18 mm 5 pcs.
761025	VITA SUPRINITY® PC, PC-14, A3.5-HT	12x14x18 mm 5 pcs.
761026	VITA SUPRINITY® PC, PC-14, B2-HT	12x14x18 mm 5 pcs.
761027	VITA SUPRINITY® PC, PC-14, C2-HT	12x14x18 mm 5 pcs.
761028	VITA SUPRINITY® PC, PC-14, D2-HT	12x14x18 mm 5 pcs.



### Ceramill D-Set patented denture tooth blanks

### VITA - VITA VIONIC® FRAME<sup>2</sup>

VITApan Excell DD Frame A1, A2, A3, A3.5, B3, D3 VITApan Lingoform DD Frame A1, A2, A3, A3.5, B3, D3

#### /lerz Dental¹

Polystar® Selection Edition anteriors A1, A2 light, A3 light, B1, B2

DeltaForm® posteriors A1, A2, A3, B1, B2

All other classic V-shades and BL1-BL4 available upon request.

1) to be ordered directly from the manufacturer

2) available from Amann Girrbach; product information in separate order information



### Starter Kit Hardware for Ceramill FDS / VITA VIONIC

760020 Starter Kit Hardware for Ceramill FDS / VITA VIONIC

### Scope of delivery:

179283	Blank holder M2 5X D-Set	1 pc.
760631	Roto 1.0 Red	1 pc.
760633	Roto 3.0 Red	1 pc.
760609	Roto DMB DC 1.0	1 pc.
760608	Roto DMB DC 2.5	1 pc.
760642	Roto 2.5 pink	1 pc.
760643	Roto 1.5 pink	1 pc.
760630	Roto SF1.2 Green	1 pc.
760301	Ceramill Test (20 mm)	1 pc.
179977	Spindle cap M2 3.0	1 pc.
179285	Storage bar blank holder	1 pc.

# SERVICES





James Rushton Head of Global Service

### Dear reader,

It is a very exciting time in the world of service. The need for exceptional quality in products and service in the dental world has never been higher; nor has Amann Girrbach ever had such an opportunity to deliver on that promise. As we enter the most digitally supported year in our history, we are motivated by the challenge of delighting and exceeding our partner expectations on every service interaction. We are committed to pushing the envelope on what it means to deliver extraordinary service to our dental professionals and thank you for trusting us with your business.

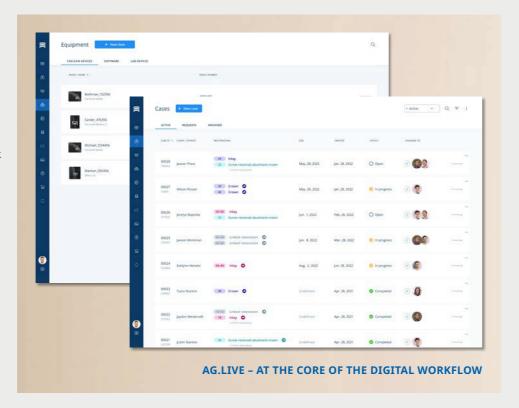
### AG.LITE

# Simple, open connection of dental data and systems.

Amann Girrbach is all about supporting laboratories and dental practices in organizing digital dental workflows. With the AG.Live cloud platform, this project reaches a new dimension. AG.Live helps to manage all digital activities locally and to connect with an ever expanding global network of digital dental professionals.

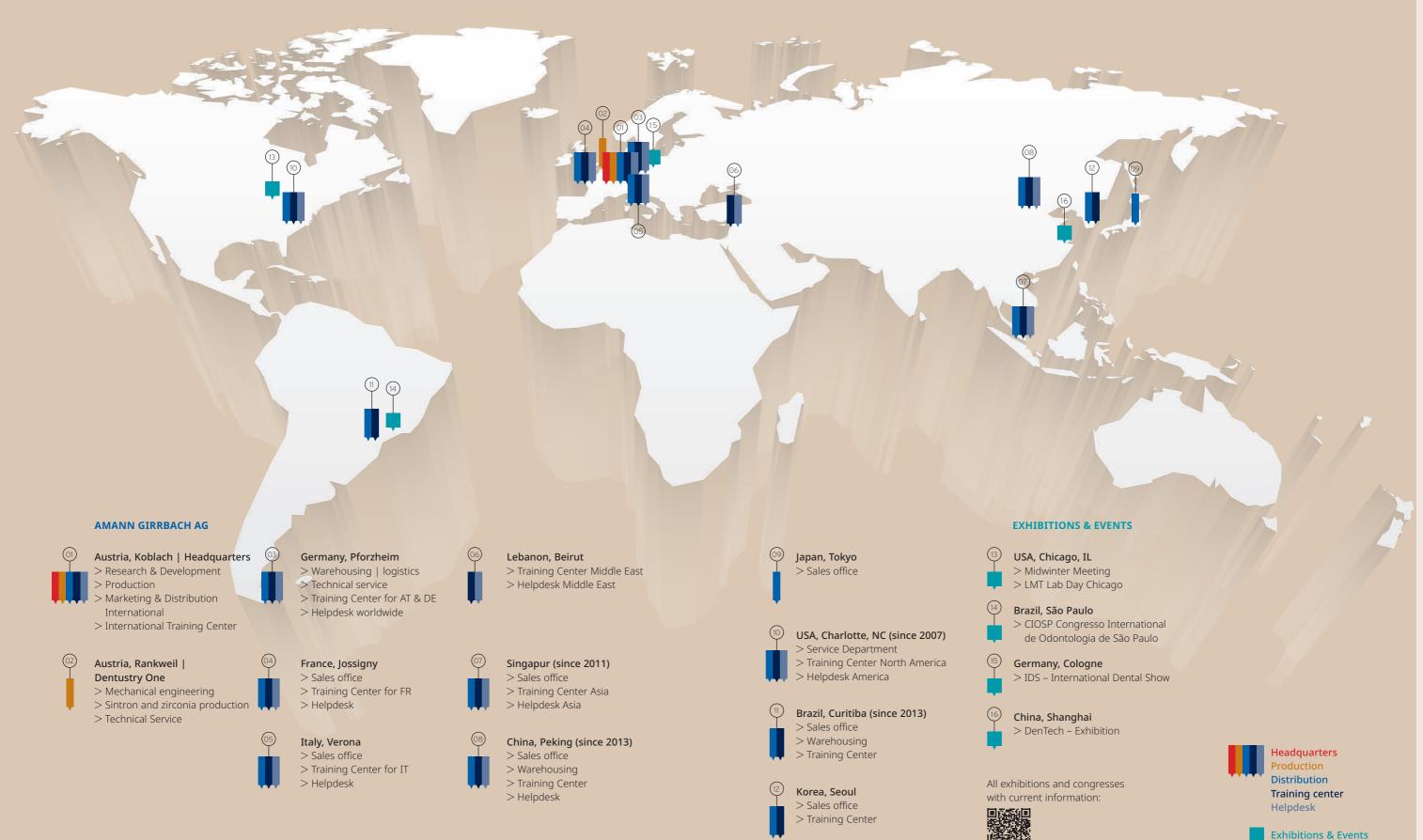
Clearly structured. Centralized. Digital. To support our digital workflows and to provide optimal networking of the laboratory and dental practice, Amann Girrbach has developed the AG.Live cloud platform, which offers case and infrastructure management at a level of consistency and efficiency that has never been achieved before. All new and existing products from Amann Girrbach are connected to AG.Live to ensure a perfect workflow and seamless collaboration between laboratory and clinic – for dentistry with ease.

This makes it possible, for example, to offer high-quality direct restorations in collaboration with the laboratory or chairside in one's own practice. Here, the expertise of the dental technician is always just a click away for dentists, which allows for new business models such as design service in the laboratory in addition to the proven collaboration in the area of fabrication processes.





# We are close to you





## Digital education at its best

Ongoing product innovations, frequent training events, and suggestions from our customers and partners led us to establish the AG Academy.

We will gradually expand our range of analog training courses with live and on-demand webinars, videos, and a host of additional specialist content so that we can supplement our product portfolio with a digital knowledge platform. An essential function of the AG Academy will be to close any interdisciplinary gaps using the learning content provided, renowned academic lecturers, trainers, and key opinion leaders from actual practice. In this way, AG Academy safeguards the worldwide availability and consistently high standards that are demanded by the Ceramill community.



### THE SCOPE OF SERVICES OF THE AG ACADEMY AT A GLANCE



CAD/CAM curriculum



Live & on-demand webinars & training courses



Video archive



Blog



Special events

- ✓ Top quality training courses worldwide
- ✓ Learn at any time of day, anywhere, and at your own pace
- ✓ Extensive, academically-supported CAD/CAM curriculum and training content that showcases the Ceramill process and dental workflows
- Renowned key opinion leaders in the industry, various cooperation partners and universities, as well as long-standing trainers from Amann Girrbach guarantee top-class, certified learning content
- ✓ Interdisciplinary full service, across all indications and workflows

### LEARNING MODULES AND CAD/CAM CURRICULUM

Participants are introduced to the learning content in a coordinated program using various modules and techniques such as video tutorials and interactive training sessions by Amann Girrbach trainers, specialists, and renowned university lecturers. Industry, academic institutions, as well as laboratories and dentists provide sound and validated knowledge with direct practical relevance.



All graduates receive a certificate after successful participation including a performance review.

### **BASIC CURRICULUM:**







Ø®









- Impression - Artiscan
- Matching - Intraoral scan





- Data import (Zebris)

- Indications - AG.Live
- Materials



### CAD



- Tools - Expert Mode
- Bridges
- Restoration design





- Nesting

- Maintenance / Services



### **REWORKING/FINISH**



- Sintern/Sintering furnaces
- Learning Objective Check

### **BE PART OF THE AG ACADEMY**

Register to receive detailed information.



academy.amanngirrbach.com/en 🖊



### **≋ag** services

### Systematic training

Training in the accustomed Amann Girrbach quality, selected speakers, a wide range of nationwide courses and special in-depth courses. Through a modular training concept that includes both classic faceto-face courses and digital elements, your knowledge will be expanded step by step.

We are also prepared for individual requests. Contact us for an individual (online) training with one of our speakers.

Regardless of whether you are a beginner or an "old hand", the Amann Girrbach training program offers a wide range and the right course opportunity for every situation:

- Course at the training center
- Online training
- Course in the laboratory/ in the practice
- Further training at events

We would be pleased to advise you on the right choice of your course. You can also book directly online and see immediately whether the desired course still has places available.





# Nationwide on-site

## CERAMILL HELPDESK. TARGETED AND SUCCESSFUL HELP FOR CAD/CAM USERS

The Ceramill Helpdesk provides information and help from installation to case-related problem solutions. A highly qualified international team of dental technicians are at the ready with a high degree of expert knowledge and competence in solving problems.

By phone or desktop sharing, we are directly in your laboratory and thus offer a high instant solution rate that makes you productive quickly. Ceramill customers receive full support via the Ceramill Customer Center.



- ✓ Contact via telephone or C3 Service Portal with return call directly from the specialist
- ✓ Practical assistance when ordering
- ✓ Case-related problem solving
- ✓ Answering questions via e-mail and telephone
- ✓ Online support through desktop sharing we show you the next steps live on your screen

### TECHNICAL SERVICE. YOUR POINT OF INFORMATION AND ACCEPTANCE FOR REPAIR AND SERVICE ISSUES

Our in-house service comes into play for small devices or in "tricky cases". They are also all ears for service inquiries about Amann Girrbach devices and systems.

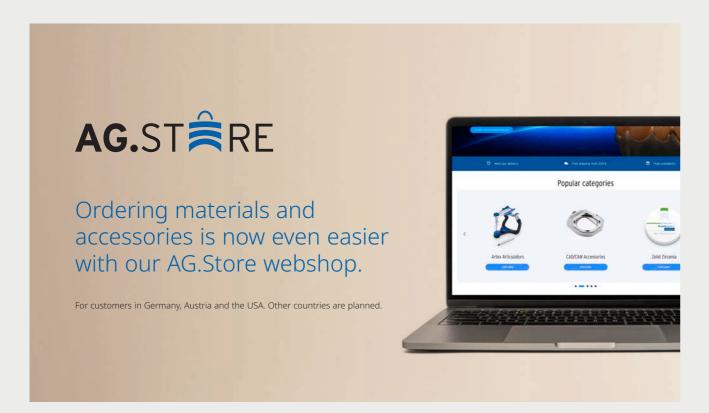
Rental devices are available on request during the repair period in order to keep up the production process at all times.

During the repair period of Ceramill milling units you will receive discounted conditions at the Ceramill M-Center.



### **≅cera**mill®m-center

### Simple. Online.





The AG.Store is available 24/7 regardless of location. You decide when and where you wish to shop.



AG.Store enables easy and uncomplicated repurchasing - without long searches, directly from your ordering history.



Never miss deadlines again because a product is out of stock. AG.Store displays product availability at a glance and you can immediately choose a stocked alternative.

### **AG.STORE ACCESS**

All existing Amann Girrbach customers have been activated in advance for the AG.Store. To use the store, enter your e-mail address and assign a password once. The standard payment terms and methods are automatically attached to the account. In addition, both the list price as well as the customer-specific prices are indicated.

Users not yet registered as an Amann Girrbach customer can quite simply create an account under "Registration" or place an initial order directly.

## The production center for almost all indications and materials: expert, precise, and fast

The M-Center of Amann Girrbach considers itself to be a reliable partner for laboratories and provides an optimal supplement to the fabrication of dental products.

Decide for yourself whether to opt for being simply a scanner customer or a complete system customer, for example, with increased incoming orders or machine downtime.

By means of an optimally coordinated system of precise fabrication systems and exclusive material portfolio, we guarantee dental restorations of the highest quality.

Experienced and specifically trained CAD/CAM dental technicians ensure products with consistently high quality that is safeguarded by quality testing conducted in parallel with production.



- ✓ Wide range of indications and materials
- ✓ Optimally coordinated system made by Amann Girrbach
- ✓ Lucrative discount scale system (discounts starting from just 11 units)
- ✓ Production times within 24 hours
- ✓ Express delivery by 12:00 p.m. on the following day
- ✓ Excellent service provided by specially trained CAD/CAM dental technicians
- ✓ Security: 5 year warranty



### **UPLOAD DATA QUICK AND EASY AT AG.LIVE:**

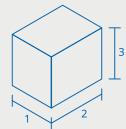
Workflow for Ceramill users: The data are transferred via the workflow of the CAD software Ceramill Mind to AG.Live and from there to the Ceramill M-Center.

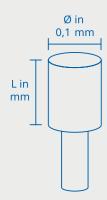
### **WORKFLOW FOR USERS OF OTHER SYSTEMS:**

After completing registration in AG.Live, the Ceramill M-Center can be selected as a production partner. The patient case is then created. After entering the production data in STL format, the data can be uploaded to the Ceramill M-Center.

In both cases the order is confirmed with an e-mail notification

## 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/lengthxwidthxheight:

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

If this is not the case, the differing indications are clearly defined (e.g. diameter = Ø, 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.

### TERMS AND CONDITION

Please find our Terms and Conditions at www.amanngirrbach.com







### **DENTISTRY UNIFIED**

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