Zirkonzahn®

Human Zirconium Technology

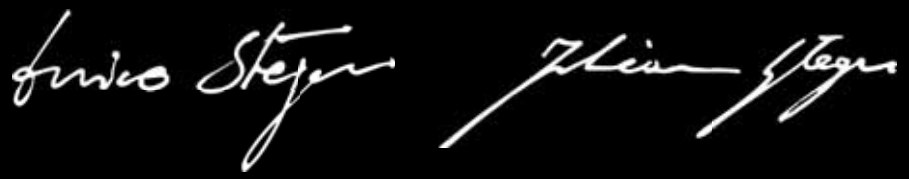
100% READY TO FACE THE FUTURE

Open CAD/CAM systems

ENGLISH

Zirkonzahn®

The main goal of our work is to provide quality,
perfection, precision and clever solutions at the right price.
Standardised production processes, accuracy and precision
are our tools, and our commitment to quality
is our driving force. Our development process never stops.
We are impartial in our search for unconventional,
practical solutions. Together we forge ideas,
create visions and work hard on their implementation.



Zirkonzahn®

OUR OPEN MILLING UNITS

M1 SOFT MILLING UNIT

- 5+1 AXES
- COMPACT
- 2x4 TOOL CHANGER
- 4x COMPOSITE OPTIONAL
- JAWPOSITIONER OPTIONAL
- IONISER OPTIONAL

M1 WET MILLING UNIT

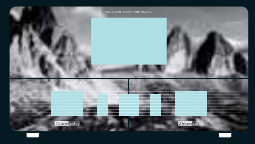
- 5+1 AXES
- COMPACT
- 2x4 TOOL CHANGER
- WET
- 4x GLASS/COMPOSITE
- JAWPOSITIONER OPTIONAL
- IONISER OPTIONAL

M1 WET HEAVY METAL MILLING UNIT

- 5+1 AXES
- COMPACT
- 2x4 TOOL CHANGER
- COUNTER BEARING
- WET
- METAL
- 4x GLASS/COMPOSITE
- JAWPOSITIONER OPTIONAL
- 3x RAW-ABUTMENT® OPTIONAL
- IONISER OPTIONAL

M2 WET HEAVY METAL MILLING UNIT

- 5+1 AXES
- 21x TOOL CHANGER
- COUNTER BEARING
- WET
- METAL
- STAND-ALONE
- SELF-CLEANING
- TOOL DETECTOR
- 3x TOOL STORAGE OPCIONAL
- 4x GLASS/COMPOSITE OPTIONAL
- JAWPOSITIONER OPTIONAL
- 3x RAW-ABUTMENT® OPTIONAL
- IONISER OPTIONAL
- BLANK REPOSITIONER OPTIONAL
- DRY ONLY OPTIONAL
- INTEGR. WATER COLLECTING TRAY



M2 DUAL WET HEAVY METAL MILLING UNIT

- 5+1 AXES
- 2x21 TOOL CHANGER
- COUNTER BEARING
- WET
- METAL
- STAND-ALONE
- SELF-CLEANING
- 2 CHAMBERS
- TOOL DETECTOR
- 21x TOOL STORAGE
- 4x GLASS/COMPOSITE OPTIONAL
- JAWPOSITIONER OPTIONAL
- 3x RAW-ABUTMENT® OPTIONAL
- IONISER OPTIONAL
- BLANK REPOSITIONER OPTIONAL
- INTEGR. WATER COLLECTING TRAY

M4 WET HEAVY METAL MILLING UNIT

- 5+1 AXES
- DOUBLE GUIDE
- 2x16 TOOL CHANGER
- WET
- METAL
- 4-BLANK-PLATE
- 2-BLANK-PLATE
- 1x10 GLASS/COMPOSITE
- 1x10 RAW-ABUTMENT®
- JAWPOSITIONER OPTIONAL
- 2x5 RAW/GLASS OPTIONAL
- IONISER OPTIONAL
- PERFORMANCE SPINDLE OPTIONAL
- STAND-ALONE OPTIONAL
- TOOL DETECTOR OPTIONAL

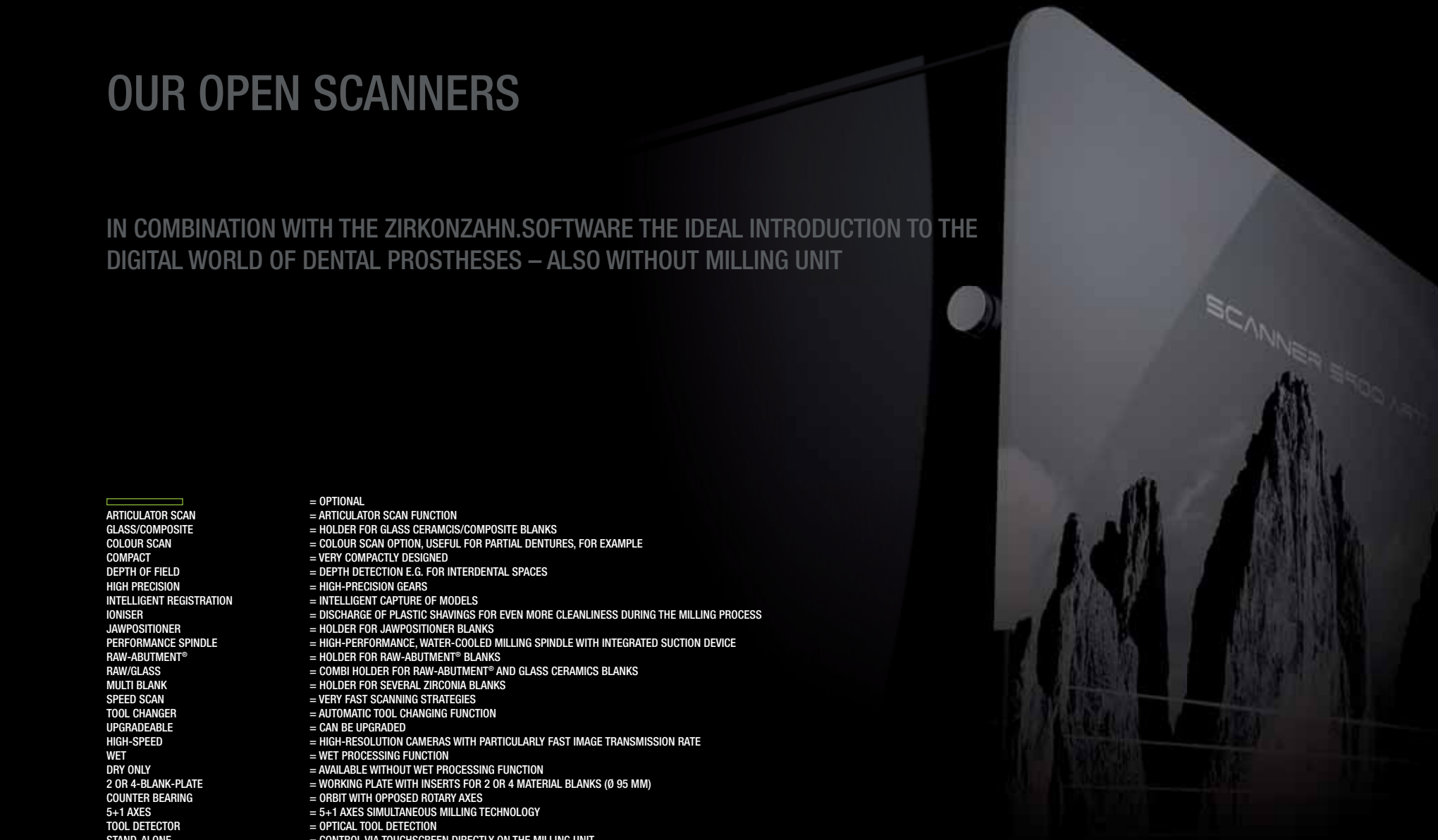
M5 HEAVY METAL MILLING UNIT

- 5+1 AXES
- MULTITASKING
- DOUBLE GUIDE
- 16x TOOL CHANGER
- METAL
- LASER OPTIONAL
- JAWPOSITIONER OPTIONAL
- 3x RAW-ABUTMENT® OPTIONAL
- 16x SPINDLE SOFT + TOOL CHANGER OPTIONAL
- 4x WET + GLASS/COMPOSITE OPTIONAL
- IONISER OPTIONAL

Zirkonzahn®

OUR OPEN SCANNERS

IN COMBINATION WITH THE ZIRKONZAHN.SOFTWARE THE IDEAL INTRODUCTION TO THE DIGITAL WORLD OF DENTAL PROSTHESES – ALSO WITHOUT MILLING UNIT



	= OPTIONAL
ARTICULATOR SCAN	= ARTICULATOR SCAN FUNCTION
GLASS/COMPOSITE	= HOLDER FOR GLASS CERAMCIS/COMPOSITE BLANKS
COLOUR SCAN	= COLOUR SCAN OPTION, USEFUL FOR PARTIAL DENTURES, FOR EXAMPLE
COMPACT	= VERY COMPACTLY DESIGNED
DEPTH OF FIELD	= DEPTH DETECTION E.G. FOR INTERDENTAL SPACES
HIGH PRECISION	= HIGH-PRECISION GEARS
INTELLIGENT REGISTRATION	= INTELLIGENT CAPTURE OF MODELS
IONISER	= DISCHARGE OF PLASTIC SHAVINGS FOR EVEN MORE CLEANLINESS DURING THE MILLING PROCESS
JAWPOSITIONER	= HOLDER FOR JAWPOSITIONER BLANKS
PERFORMANCE SPINDLE	= HIGH-PERFORMANCE, WATER-COOLED MILLING SPINDLE WITH INTEGRATED SUCTION DEVICE
RAW-ABUTMENT®	= HOLDER FOR RAW-ABUTMENT® BLANKS
RAW/GLASS	= COMBI HOLDER FOR RAW-ABUTMENT® AND GLASS CERAMICS BLANKS
MULTI BLANK	= HOLDER FOR SEVERAL ZIRCONIA BLANKS
SPEED SCAN	= VERY FAST SCANNING STRATEGIES
TOOL CHANGER	= AUTOMATIC TOOL CHANGING FUNCTION
UPGRADEABLE	= CAN BE UPGRADED
HIGH-SPEED	= HIGH-RESOLUTION CAMERAS WITH PARTICULARLY FAST IMAGE TRANSMISSION RATE
WET	= WET PROCESSING FUNCTION
DRY ONLY	= AVAILABLE WITHOUT WET PROCESSING FUNCTION
2 OR 4-BLANK-PLATE	= WORKING PLATE WITH INSERTS FOR 2 OR 4 MATERIAL BLANKS (Ø 95 MM)
COUNTER BEARING	= ORBIT WITH OPPOSED ROTARY AXES
5+1 AXES	= 5+1 AXES SIMULTANEOUS MILLING TECHNOLOGY
TOOL DETECTOR	= OPTICAL TOOL DETECTION
STAND-ALONE	= CONTROL VIA TOUCHSCREEN DIRECTLY ON THE MILLING UNIT
SELF-CLEANING	= AUTOMATIC SELF-CLEANING FUNCTION
2 CHAMBERS	= INDIVIDUALLY CONFIGURABLE AND SEPARATE MILLING CHAMBERS
TOOL STORAGE MAGAZINE	= TOOL CHAMBER WITH SLOTS FOR NEW AND USED ELABROATION TOOLS
BLANK REPOSITIONER	= BLANK RESPOSITIONER CLAMPING RING FOR THE EXACT REPOSITIONING OF MATERIALS BLANKS WITH MILLED STRUCTURES IN THE ORBIT

S300 ARTI SCANNER

- 2X HIGH-SPEED
- ARTICULATOR SCAN
- INTELLIGENT REGISTRATION
- SPEED SCAN
- COMPACT
- COLOUR SCAN

S600 ARTI SCANNER

- 2X HIGH-SPEED
- ARTICULATOR SCAN
- INTELLIGENT REGISTRATION
- HIGH PRECISION
- SPEED SCAN
- UPGRADEABLE
- COLOUR SCAN

S900 ARTI SCANNER

- 3X HIGH-SPEED
- ARTICULATOR SCAN
- INTELLIGENT REGISTRATION
- HIGH PRECISION
- SPEED SCAN
- UPGRADEABLE
- DEPTH OF FIELD
- COLOUR SCAN

M1 COMPACT LINE MILLING UNITS

The entire M1 Compact Line is particularly compact and space saving. It can be combined in an optimal way with the Zirkonzahn scanners and the user-friendly Zirkonzahn.Software. The chosen version determines which restorations can be processed with which materials.

M1 ABUTMENT

M1 SOFT

M1 WET

M1 WET HEAVY METAL

Zirkonzahn®

M1 ABUTMENT MILLING UNIT

With the M1 Abutment milling unit it is possible to produce individual titanium abutments out of precast titanium abutment blanks (Raw-Abutments®) in a fast way.

M1 SOFT MILLING UNIT

The M1 Soft milling unit is particularly suitable for the dry processing of soft materials such as Sintermetall and zirconia.

Zirkonzahn®

M1 WET MILLING UNIT

With the integrated wet processing function, up to four glass ceramic blanks can be milled in a single milling process.

M1 WET HEAVY METAL MILLING UNIT

With its orbit with opposed rotary axes (A and B) and the integrated wet processing function, the M1 Wet Heavy Metal milling unit is ideal for the milling of hard metals such as titanium.

Zirkonzahn®

NEW! M2 WET HEAVY METAL MILLING UNIT

- *Flexibly configurable open milling unit with 5+1 axes simultaneous milling technology; open data formats can be imported and further processed*
- *For processing all materials and all kinds of restorations (zirconia, resin, wax, Sintermetall, cobalt-chrome, titanium, Raw-Abutments® prefabricated titanium abutment blanks, glass ceramics and composite) with wet processing function, optionally available also without wet processing function (M2 Dry Heavy Metal)*
- *Stand-alone solution: can be controlled via integrated PC with touchscreen directly on the milling unit, elaboration tools can be loaded and milling processes or calibration processes can be started*
- *3D software for operating the milling unit and for a facilitated technical support*
- *Live-view of the milling process via webcam*
- *High-performance milling spindle with optimised cooling water supply for particularly gentle material elaboration*
- *CAD/CAM milling bur 6 mm and orbit with opposed rotary axes (A and B) for a stable elaboration process; the elaboration time can be varied by selecting different surface qualities*
- *Contamination-protected tool chamber with automatic 21-compartment tool changer function; additional tool holders for the storage of up to 63 tools can be added (optional)*
- *Optical tool detection: the optical identification of elaboration tools ensures that the right tools are selected for each milling operation. Milling errors caused by incorrect tool selection are thus eliminated*
- *Spaciously designed, optimally illuminated and easily accessible and visible processing area*
- *Automatic self-cleaning function at the end of the milling process*
- *During the elaboration of resins, the Ioniser (optional) ensures a clean milling unit by discharging the plastic shavings. This results in more cleanliness during the milling process and increases the machine performance thanks to the shorter cleaning time*
- *The Blank Repositioner (optional, at extra charge) is used in combination with a special orbit for the removal and the reclamping of material blanks at exactly the same position in the orbit, e.g. for their post-processing*
- *Water Collecting Tray as space-saving water collection container optionally available*

Video

The M2 stands for more user comfort and more flexibility. All dental materials can be processed precisely and particularly cleanly in the M2 Wet Heavy Metal milling unit.
The processing area is spaciously designed, optimally illuminated and easily accessible and viewable. Equipped with an automatic self-cleaning function, it can be kept clean in a quick and easy way.
The Blank Repositioner (optional) consists of an outer and inner clamping ring and permits to remove material blanks with milled structures from the orbit; the structures can be checked for fit and the blanks can be clamped again in exactly the same position for post-processing.

The optical tool detection ensures greater safety during milling. Thanks to the optical identification of the elaboration tools it can be ensured that the correct tools are used.

Zirkonzahn®

NEW! M2 DUAL WET HEAVY METAL MILLING UNIT

- *Open two-chamber milling unit with 5+1 axes simultaneous milling technology; open data formats can be imported and further processed*
- *Separate milling chambers enable sequential wet and dry processing of the materials without in-between cleaning*
- *For processing all materials and all kinds of restorations (zirconia, resin, wax, Sintermetall, cobalt-chrome, titanium, Raw-Abutments® prefabricated titanium abutment blanks, glass ceramics and composite)*
- *Stand-alone solution: can be controlled via integrated PC with touchscreen directly on the milling unit, elaboration tools can be loaded and milling processes or calibration processes can be started*
- *3D software for operating the milling unit and for a facilitated technical support*
- *Live-view of the milling process via webcam*
- *High-performance milling spindle with optimised cooling water supply for particularly gentle material elaboration*
- *CAD/CAM milling bur 6 mm and orbit with opposed rotary axes (A and B) for a stable elaboration process; the elaboration time can be varied by selecting different surface qualities*
- *Perfect tool organisation for up to 63 tools (optional) thanks to contamination-protected tool chamber with automatic tool changer function*
- *Optical tool detection: the optical identification of elaboration tools ensures that the right tools are selected for each milling operation. Milling errors caused by incorrect tool selection are thus eliminated*
- *Spaciously designed, optimally illuminated and easily accessible and visible processing areas*
- *Automatic self-cleaning function at the end of the milling process*
- *During the elaboration of resins, the Ioniser (optional) ensures a clean milling unit by discharging the plastic shavings. This results in more cleanliness during the milling process and increases the machine performance thanks to the shorter cleaning time*
- *The Blank Repositioner (optional, at extra charge) is used in combination with a special orbit for the removal and the reclamping of material blanks at exactly the same position in the orbit, e.g. for their post-processing*
- *Water Collecting Tray as space-saving water collection container optionally available*

Video

The two separate milling chambers are the distinctive feature of the M2 Dual Wet Heavy Metal milling unit. The materials can be elaborated serially wet and dry without cleaning time. With the automatic self-cleaning function, the milling unit is ready for use again very quickly after the elaboration process.

The milling chambers are each equipped with an automatic tool changer. In the contamination-protected extra large tool chamber, used and new elaboration tools can be perfectly organised and stored.

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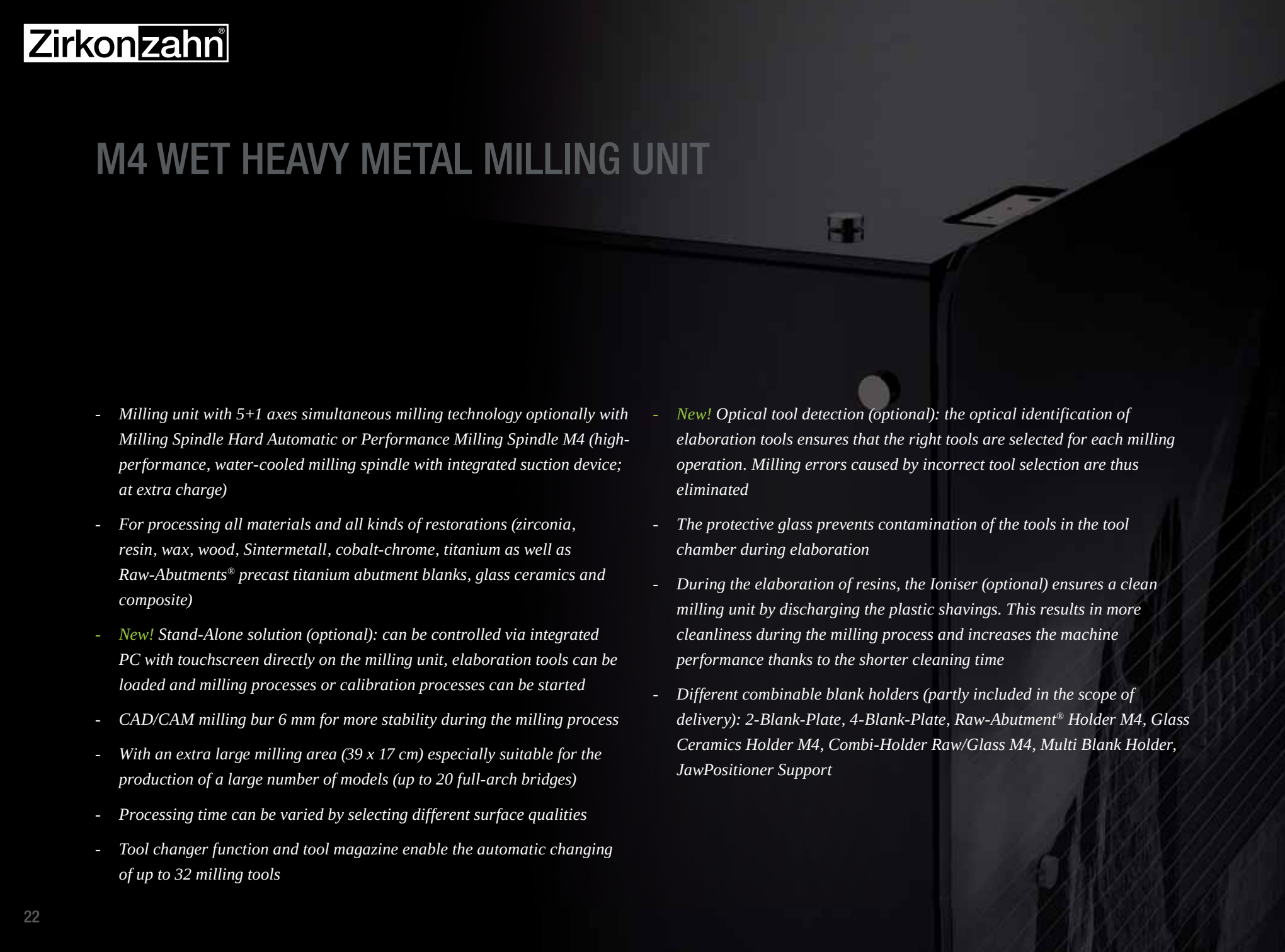
M4 WET HEAVY METAL MILLING UNIT



- *Milling unit with 5+1 axes simultaneous milling technology optionally with Milling Spindle Hard Automatic or Performance Milling Spindle M4 (high-performance, water-cooled milling spindle with integrated suction device; at extra charge)*
- *For processing all materials and all kinds of restorations (zirconia, resin, wax, wood, Sintermetall, cobalt-chrome, titanium as well as Raw-Abutments® precast titanium abutment blanks, glass ceramics and composite)*
- *New! Stand-Alone solution (optional): can be controlled via integrated PC with touchscreen directly on the milling unit, elaboration tools can be loaded and milling processes or calibration processes can be started*
- *CAD/CAM milling bur 6 mm for more stability during the milling process*
- *With an extra large milling area (39 x 17 cm) especially suitable for the production of a large number of models (up to 20 full-arch bridges)*
- *Processing time can be varied by selecting different surface qualities*
- *Tool changer function and tool magazine enable the automatic changing of up to 32 milling tools*
- *New! Optical tool detection (optional): the optical identification of elaboration tools ensures that the right tools are selected for each milling operation. Milling errors caused by incorrect tool selection are thus eliminated*
- *The protective glass prevents contamination of the tools in the tool chamber during elaboration*
- *During the elaboration of resins, the Ioniser (optional) ensures a clean milling unit by discharging the plastic shavings. This results in more cleanliness during the milling process and increases the machine performance thanks to the shorter cleaning time*
- *Different combinable blank holders (partly included in the scope of delivery): 2-Blank-Plate, 4-Blank-Plate, Raw-Abutment® Holder M4, Glass Ceramics Holder M4, Combi-Holder Raw/Glass M4, Multi Blank Holder, JawPositioner Support*

Video

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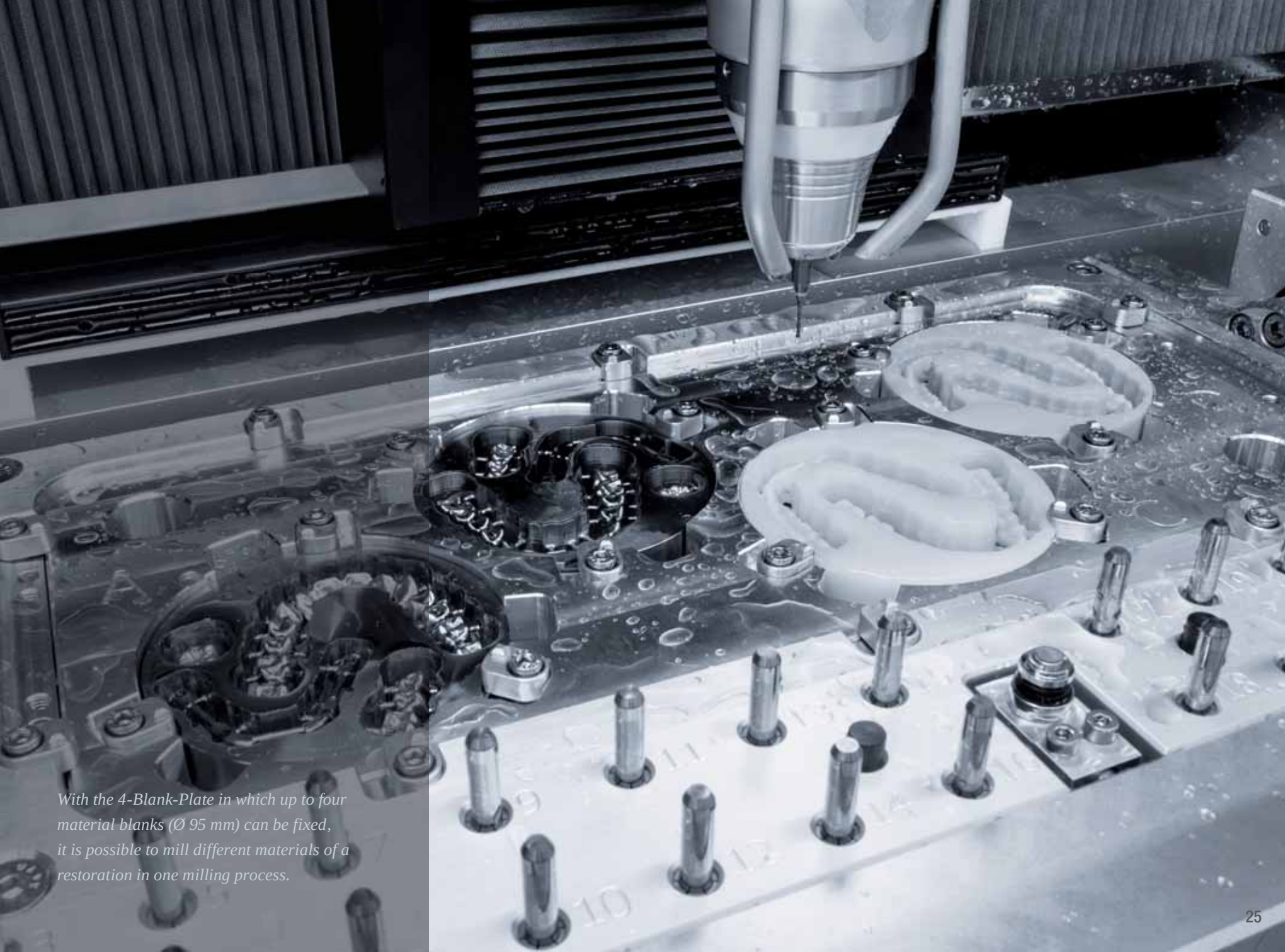
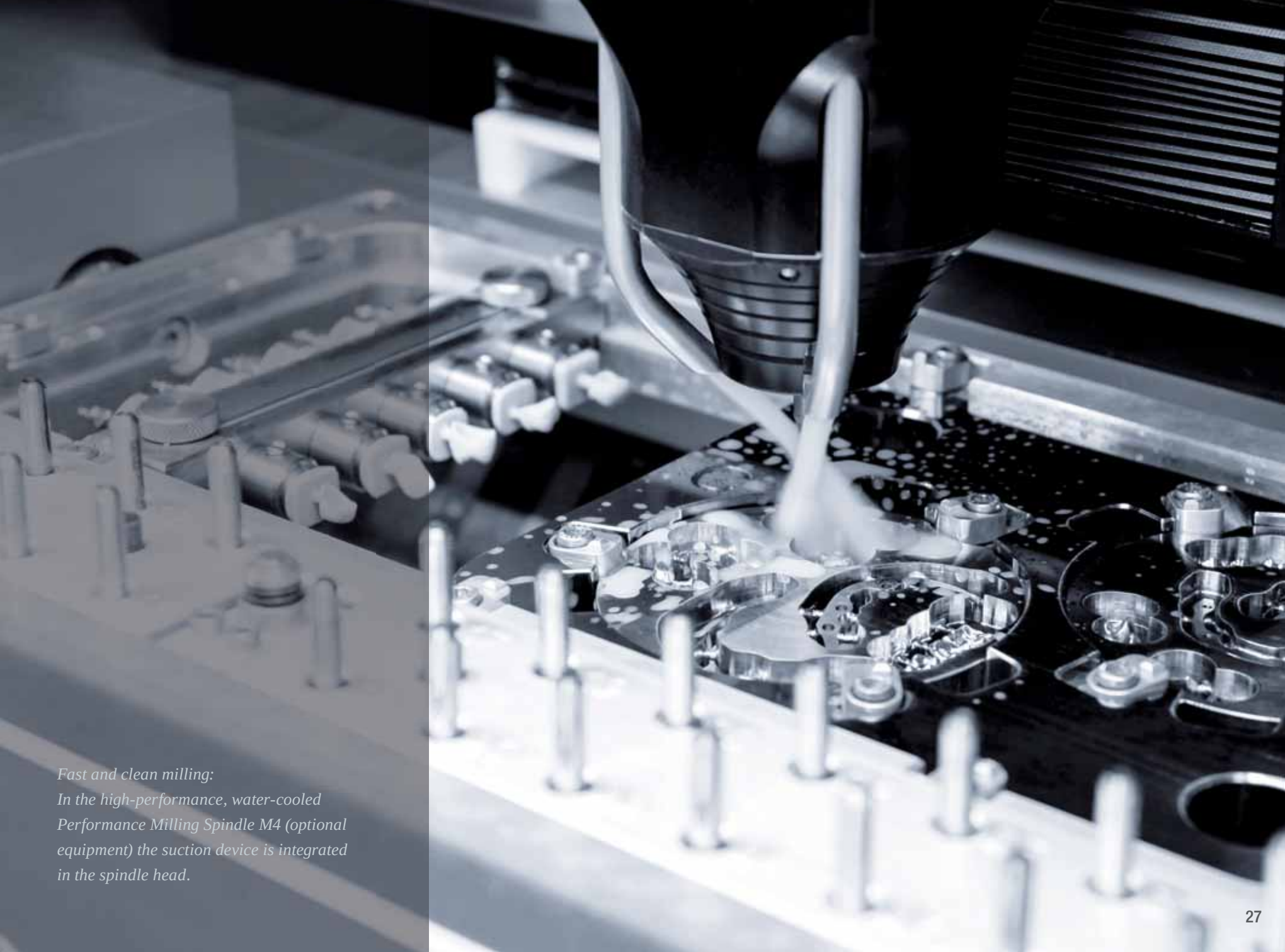
The Model Blank M4 was exclusively developed for the manufacture of a large number of models. Up to 20 full-arch bridges can be made out of one material blank.



With the 4-Blank-Plate in which up to four material blanks (Ø 95 mm) can be fixed, it is possible to mill different materials of a restoration in one milling process.

Zirkonzahn®

By fixing the respective holders in the workpiece table, up to 30 Raw-Abutments® or glass ceramic blanks can be milled in a single milling process.

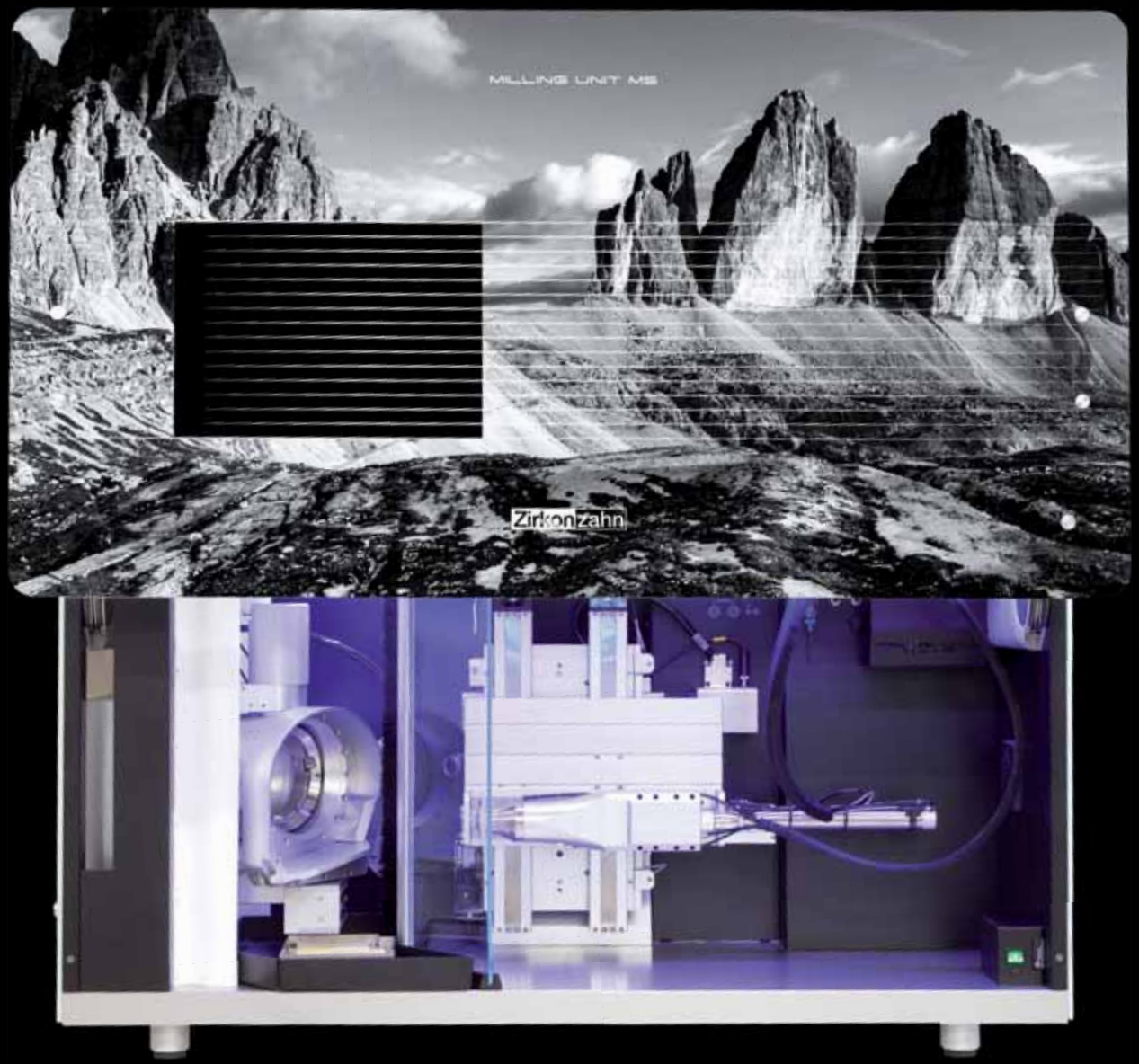


Fast and clean milling:
In the high-performance, water-cooled Performance Milling Spindle M4 (optional equipment) the suction device is integrated in the spindle head.

Zirkonzahn®

M5 HEAVY METAL MILLING UNIT

- *Milling unit with 5+1 axes simultaneous milling technology and Milling Spindle Hard Automatic or Milling Spindle Soft M5*
- *CAD/CAM milling bur 6 mm for more stability during the milling process*
- *For processing zirconia, resin, wax, wood, Sintermetall, cobalt-chrome as well as titanium, Raw-Abutments®, glass ceramics and composite, depending on the equipment*
- *During the elaboration of resins, the Ioniser (optional) ensures a clean milling unit by discharging the plastic shavings. This results in more cleanliness during the milling process and increases the machine performance thanks to the shorter cleaning time*
- *Tool changer function with 16-compartment tool magazine*
- *Individual extension options, e.g. wet processing function Wet Grinding/ Wet Milling M5, Raw-Abutment®/Glass Ceramics Holder, Multi Blank Holder, JawPositioner Support*


MILLING UNIT M5
Zirkonzahn

The Milling Spindle Hard Automatic permits the easy elaboration of all soft and hard materials (partly with wet processing function).

ZIRKONZAHN

Zirkonzahn®

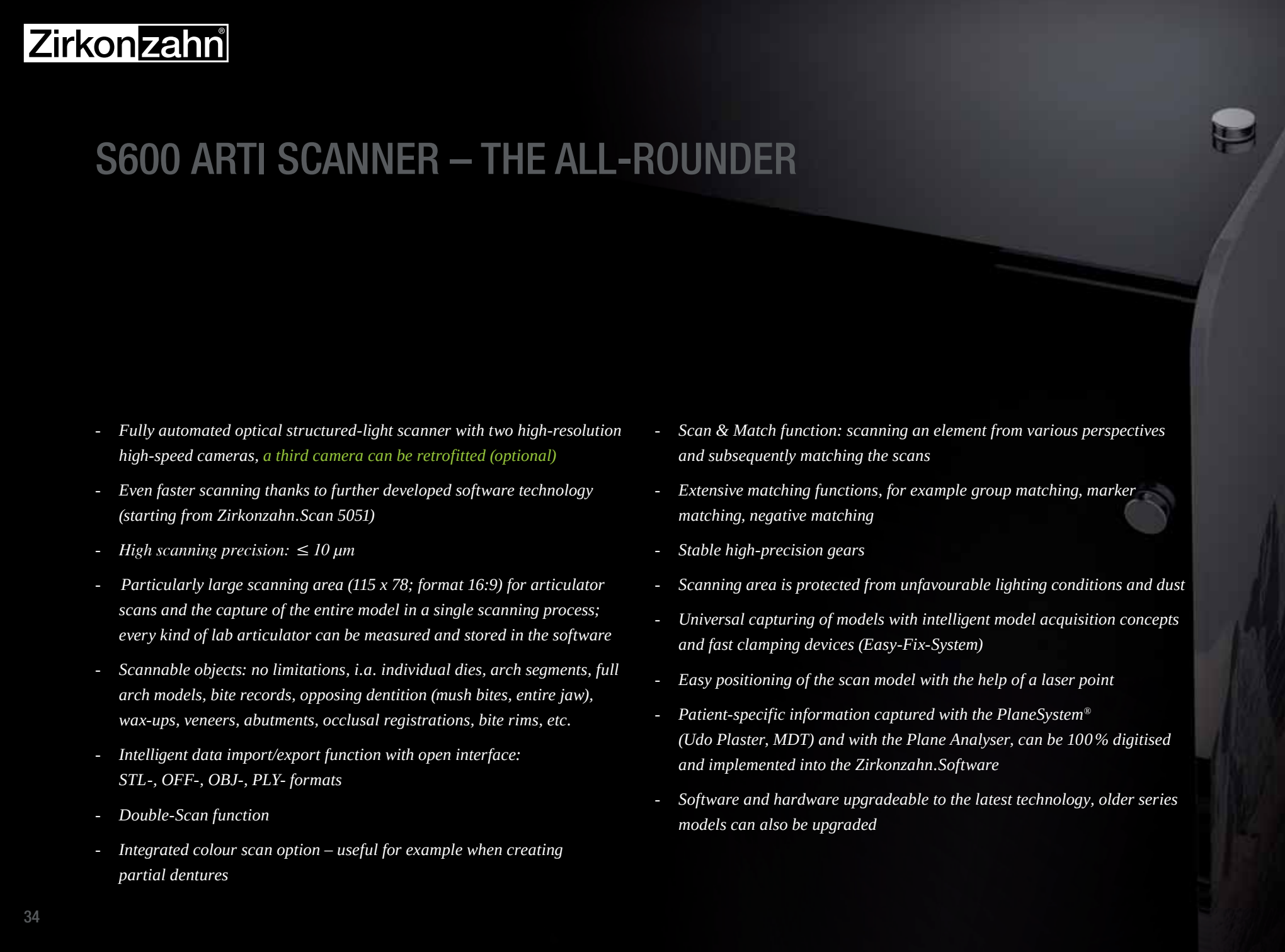
S300 ARTI SCANNER – COMPACT WITH ARTICULATOR SCAN

- *Especially compact fully automated optical structured-light scanner with two high-resolution high-speed cameras*
- *Even faster scanning thanks to further developed software technology (starting from Zirkonzahn.Scan 5051)*
- *High scanning precision: ≤ 10 µm*
- *Particularly large scanning area (115 x 78; format 16:9) for articulator scans and the capture of the entire model in a single scanning process; every kind of lab articulator can be measured and stored in the software*
- *Scannable objects: no limitations, i.a. individual dies, arch segments, full arch models, bite records, opposing dentition (mush bites, entire jaw), wax-ups, veneers, abutments, occlusal registrations, bite rims, etc.*
- *Intelligent data import/export function with open interface: STL-, OFF-, OBJ-, PLY- formats*
- *Double-Scan function*
- *Integrated colour scan option – useful for example when creating partial dentures*
- *Scan & Match function: scanning an element from various perspectives and subsequently matching the scans*
- *Extensive matching functions, for example group matching, marker matching, negative matching*
- *Universal capturing of models with intelligent model acquisition concepts and fast clamping devices (Easy-Fix-System)*
- *Patient-specific information captured with the PlaneSystem® (Udo Plaster, MDT) and with the Plane Analyser, can be 100% digitised and implemented into the Zirkonzahn.Software*
- *The compact lightweight construction (18 kg) makes it ideal when only limited space is available or for mobile use*


SCANNER S300 ARTI
Zirkonzahn

Zirkonzahn®

S600 ARTI SCANNER – THE ALL-ROUNDER

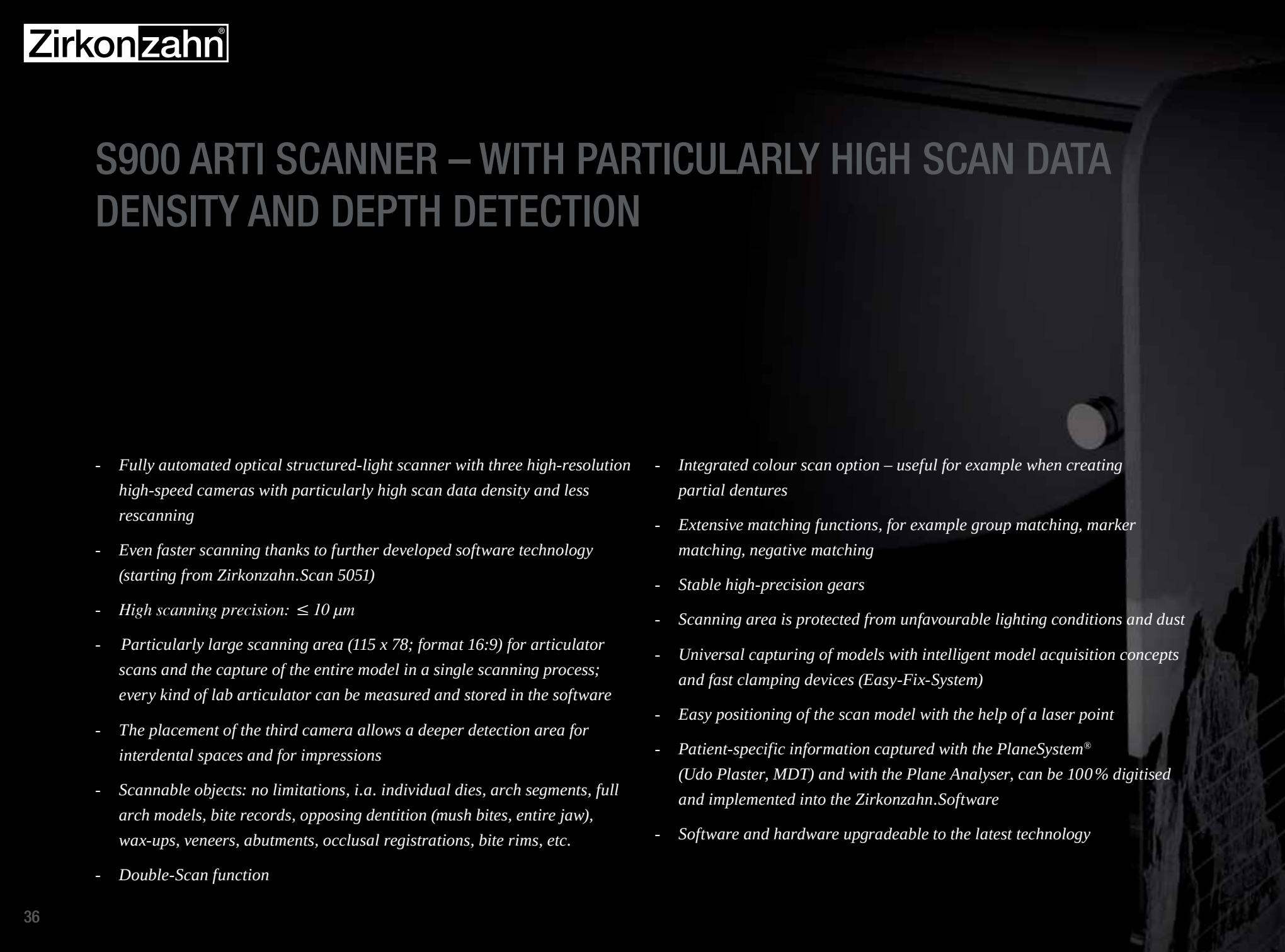


- *Fully automated optical structured-light scanner with two high-resolution high-speed cameras, a third camera can be retrofitted (optional)*
- *Even faster scanning thanks to further developed software technology (starting from Zirkonzahn.Scan 5051)*
- *High scanning precision: ≤ 10 µm*
- *Particularly large scanning area (115 x 78; format 16:9) for articulator scans and the capture of the entire model in a single scanning process; every kind of lab articulator can be measured and stored in the software*
- *Scannable objects: no limitations, i.a. individual dies, arch segments, full arch models, bite records, opposing dentition (mush bites, entire jaw), wax-ups, veneers, abutments, occlusal registrations, bite rims, etc.*
- *Intelligent data import/export function with open interface: STL-, OFF-, OBJ-, PLY- formats*
- *Double-Scan function*
- *Integrated colour scan option – useful for example when creating partial dentures*
- *Scan & Match function: scanning an element from various perspectives and subsequently matching the scans*
- *Extensive matching functions, for example group matching, marker matching, negative matching*
- *Stable high-precision gears*
- *Scanning area is protected from unfavourable lighting conditions and dust*
- *Universal capturing of models with intelligent model acquisition concepts and fast clamping devices (Easy-Fix-System)*
- *Easy positioning of the scan model with the help of a laser point*
- *Patient-specific information captured with the PlaneSystem® (Udo Plaster, MDT) and with the Plane Analyser, can be 100% digitised and implemented into the Zirkonzahn.Software*
- *Software and hardware upgradeable to the latest technology, older series models can also be upgraded*

CAN BE RETROFITTED WITH A THIRD CAMERA

Zirkonzahn®

S900 ARTI SCANNER – WITH PARTICULARLY HIGH SCAN DATA DENSITY AND DEPTH DETECTION



- *Fully automated optical structured-light scanner with three high-resolution high-speed cameras with particularly high scan data density and less rescanning*
- *Even faster scanning thanks to further developed software technology (starting from Zirkonzahn.Scan 5051)*
- *High scanning precision: ≤ 10 µm*
- *Particularly large scanning area (115 x 78; format 16:9) for articulator scans and the capture of the entire model in a single scanning process; every kind of lab articulator can be measured and stored in the software*
- *The placement of the third camera allows a deeper detection area for interdental spaces and for impressions*
- *Scannable objects: no limitations, i.a. individual dies, arch segments, full arch models, bite records, opposing dentition (mush bites, entire jaw), wax-ups, veneers, abutments, occlusal registrations, bite rims, etc.*
- *Double-Scan function*
- *Integrated colour scan option – useful for example when creating partial dentures*
- *Extensive matching functions, for example group matching, marker matching, negative matching*
- *Stable high-precision gears*
- *Scanning area is protected from unfavourable lighting conditions and dust*
- *Universal capturing of models with intelligent model acquisition concepts and fast clamping devices (Easy-Fix-System)*
- *Easy positioning of the scan model with the help of a laser point*
- *Patient-specific information captured with the PlaneSystem® (Udo Plaster, MDT) and with the Plane Analyser, can be 100% digitised and implemented into the Zirkonzahn.Software*
- *Software and hardware upgradeable to the latest technology*


SCANNER SR00 ARTI
Zirkonzahn

MOCK-UP SUPPORT EASY-FIX-SYSTEM

FOR THE QUICK CAPTURING OF ALL COMMON MODELS IN THE S300 ARTI, S600 ARTI AND S900 ARTI SCANNERS

- *The Easy-Fix model holder has been designed for possible upgrades at any time and is therefore equipped for future developments.*
- *The Model Position Detector allows digital capturing of height, position and alignment of models in the scanner. The software automatically brings model and antagonist into the correct position. Then the fine adjustment can be performed additionally, using the Fine-Adjustment function in the software.*
- *Due to the flexible holding pins of the Easy-Fix model holder, models can be fixed in the scanner in no time without time-consuming screwing and unscrewing. The models can simply be clamped into the holder and scanned.*
- *The Easy-Fix Clamping Claw permits the fixing of smaller models (e.g. half models).*
- *With the Multi-Die Holder, dies that are close to each other and that normally would require two scans can be scanned in a single scan process.*
- *The Transfer Fork Face Hunter can be fixed in the scanner via the Easy-Fix holder and the Multi Marker Plate, allowing 3-D face scans (Face Hunter) to be matched in the software on model scans*

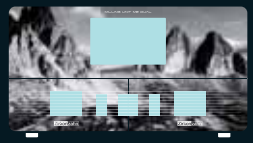
Video

Zirkonzahn®

TECHNICAL SPECIFICATIONS




	M1 ABUTMENT MILLING UNIT	M1 SOFT MILLING UNIT	M1 WET MILLING UNIT	M1 WET HEAVY METAL MILLING UNIT
Weight	105 kg	105 kg	107 kg	110 kg
Width	48 cm	48 cm	48 cm	48 cm
Height	69 cm	69 cm	69 cm	69 cm
Depth	61 cm	61 cm	61 cm	61 cm
Casing	Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150
Processing axes	4	5+1	5+1	5+1
Electrical power	600 W	600 W	600 W	600 W
Operating voltage	100–240V	100–240V	100–240V	100–240V
Power input	2.6 A (5.5 A)	2.6 A (5.5 A)	2.6 A (5.5 A)	2.6 A (5.5 A)
Chuck	Ø 6 mm	Ø 3 mm	Ø 6 mm	Ø 6 mm
Spindle speed	Depending on equipment	Depending on equipment	Depending on equipment	Depending on equipment
Torque	13 Ncm	8 Ncm	13 Ncm	13 Ncm
Workpiece	e.g. Raw-Abutments®	Ø 95 mm	Ø 95 mm	Ø 95 mm



M2 WET HEAVY METAL MILLING UNIT	M2 DUAL WET HEAVY METAL MILLING UNIT	M4 WET HEAVY METAL MILLING UNIT	M5 HEAVY METAL MILLING UNIT
160 kg	240 kg	350 kg	210 kg
78 cm	125 cm	123 cm	123 cm
69 cm	69 cm	69 cm	69 cm
62 cm	62 cm	84 cm	53 cm (plus connection for suction unit)
Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150
5+1	5+1	5+1	5+1
600 W	600 W	1500 W	600 W
100–240V	100–240V	100–240V	100–240V
2.6 A (5.5 A)	2.6 A (5.5 A)	6.5 A (13.5 A)	2.6 A (5.5 A)
Ø 6 mm	Ø 6 mm	Ø 6 mm	Ø 6 mm
Depending on equipment	Depending on equipment	Depending on equipment	Standard version: max. 50.000 R.p.m.
13 Ncm	13 Ncm	13 Ncm	13 Ncm
Ø 95 mm	Ø 95 mm	Model Blank M4 (39 x 17 cm) Ø 95 mm, Raw-Abutments®	Ø 95 mm

Zirkonzahn®

TECHNICAL SPECIFICATIONS

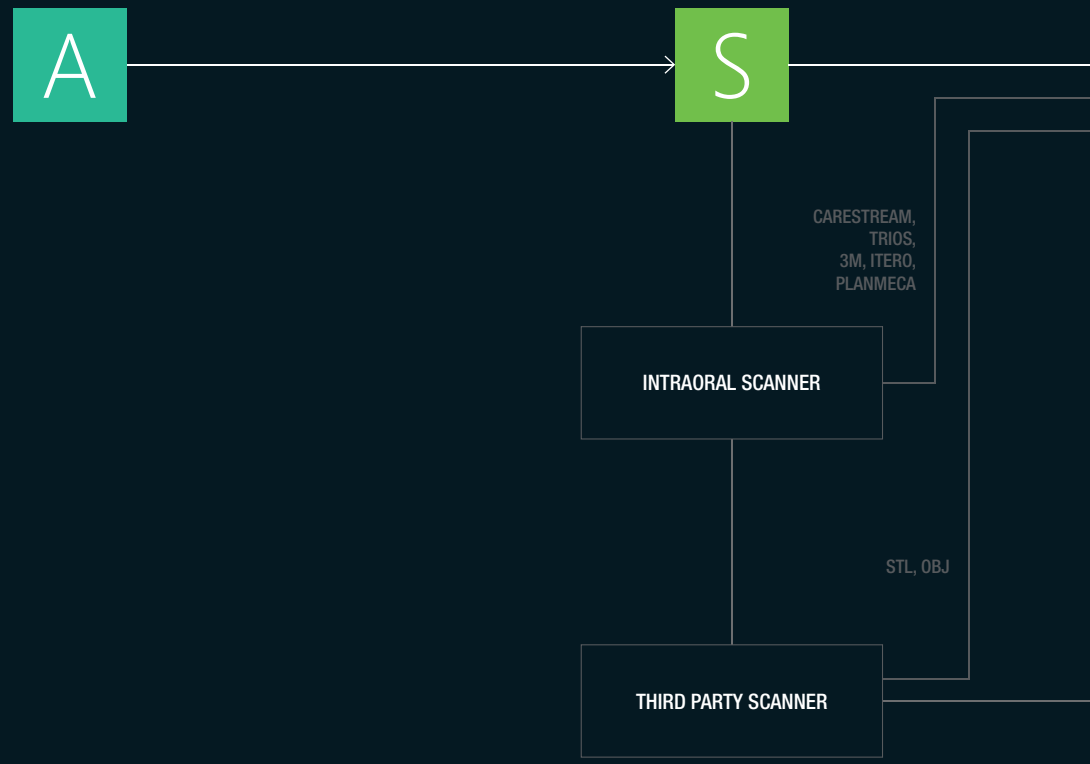
	S300 ARTI SCANNER	S600 ARTI SCANNER	S900 ARTI SCANNER
Weight	18 kg	56 kg	56 kg
Width	26 cm	48 cm	48 cm
Height	58 cm	69 cm	69 cm
Depth	44 cm	41 cm	41 cm
Casing	Partly Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150	Hardened Securit glass UNI ISO 12150
Cameras	2	2 or 3 (can be retrofitted)	3
Processing axes	2	2	2
Electrical power	200 W	200 W	200 W
Operating voltage	100–240V	100–240V	100–240V
Power input	0.9 A (1.9 A)	0.9 A (1.9 A)	0.9 A (1.9 A)

WHAT IS YOUR STYLE?

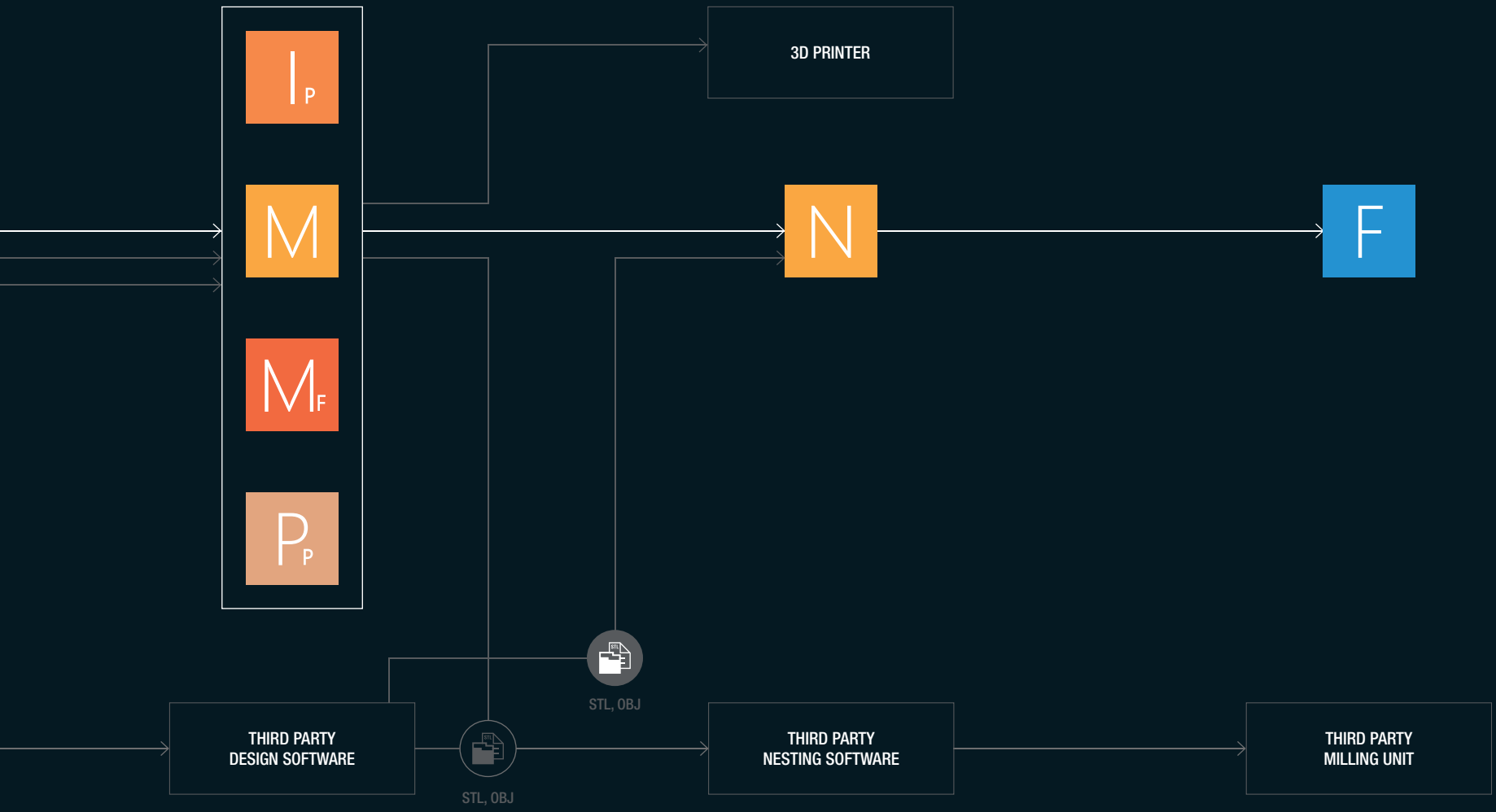
ALL SYSTEMS AVAILABLE IN INDIVIDUAL GLASS DESIGNS

ZIRKONZAHN IS OPEN

With our products we offer a complete solution for the fabrication of quality dental restorations. We develop and manufacture all necessary components from hardware to software, materials and elaboration tools here in South Tyrol. Only in this way can we perfectly coordinate the individual production steps with each other. Our software, scanners and the Face Hunter facial scanner generate open data formats (e.g. STL, OBJ). The data is therefore generally compatible with all open CAD software, milling units or 3D printers. Of course, also open scan data or modelling data from other manufacturers can be processed with our Zirkonzahn software, nested and implemented in our Zirkonzahn milling units.



ZIRKONZAHN.Archiv A ZIRKONZAHN.Scan S ZIRKONZAHN.Modellier M ZIRKONZAHN.Implant-Planner I



ZIRKONZAHN.Modifier

ZIRKONZAHN.Partial-Planner

ZIRKONZAHN.Nesting

ZIRKONZAHN.Fräsen

THIRD PARTY IMPORTING MODULE

CAD/CAM STL-IMPORT SOFTWARE MODULE

Zirkonzahn®


ZIRKONZAHN.Updater
Zirkonzahn
CAD/CAM
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Shop
More
Open
Close
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F
Fräsen
H
Help
U
Update

ZIRKONZAHN.SOFTWARE

When developing the Zirkonzahn.Software we adapted the strict standards of our proven products to design and functionality of our software. The user interface is clearly structured, has a simple design and is the same for each software component, which makes it the cornerstone for a familiar and reliable application. When it comes to the creation of different features, our developing team, which obviously includes also dental technicians, follows a practical and result-oriented principle, which guarantees the greatest possible freedom of choice and processing. Furthermore, complex technological processes are designed in a comprehensive and transparent way. The user can decide whether he wants to use a step by step guide or if the wants to proceed individually.

The different software programmes with the corresponding modules are not only matched to each other but also to the related hardware components. This ensures a 100% smooth work process for the dental technician and the dentist – from the patient registration, articulation, modellation, realisation, to the insertion of the restoration in the patient's mouth. Proven manual and digital working techniques can be combined in order to achieve the best possible patient care.

ZIRKONZAHN.SOFTWARE – OVERVIEW

A

ZIRKONZAHN.ARCHIV

- *The intelligent menu helps to create and organise the various cases in a well-arranged manner; creation of sub-projects possible*
- *The name of the dentist, the patient, the dental technician and the kind of restoration can be saved and displayed again at any time*
- *If desired, patient photos and 3D face scans can be imported via Drag & Drop function*
- *3D viewer as well as several display options are integrated*
- *Custom-specific parameters and individual databases can be stored with unencrypted data*

S

ZIRKONZAHN.SCAN

- *By registering the lab articulator, models are displayed in the correct position in the virtual articulator and the reference planes are shown*
- *All current articulators are digitally stored*
- *Digital articulation and retransfer into the physical articulator*
- *Fast working: Parallel calculation of other data during the scanning process*
- *Scan & Match function: Scanning an element from various perspectives and subsequent matching of the scans*
- *Possibility to match all available patient data: (photos, 3D facial scans, converted X-ray data, intraoral scan data)*
- *Intelligent data import/export function with open interface*

M

ZIRKONZAHN.MODELLIER

- *For the digital designing of all dental restorations*
- *Numerous software modules available*
- *All modules are compatible with PlaneSystem®, Plane Analyser and Face Hunter*
- *Implementation of vast libraries (implant systems, attachments, bars, tooth libraries)*
- *All current data formats can be imported, processed and exported*
- *All reference planes are automatically transferred from Zirkonzahn.Scan*

ZIRKONZAHN.NESTING

- *Axis-oriented nesting programme for the ideal positioning of dental restoration data in the milling blank*
- *Realistic representation of coloured materials*
- *Economical, material-optimised and time-saving strategies; optical simulation of the result*
- *Faster milling path calculation with "Parallel Calculation" function*
- *Collision Detection function*
- *Mechanical adjustment of the friction with telescopes without manual post processing*
- *STL import function with manual adjustment of important parameters*
- *Creation of individual blank libraries*

ZIRKONZAHN.IMPLANT-PLANNER

- *3D implant planning software on the basis of matched patient data (DICOM data, intraoral scans, model scans and 3D facial scans etc.)*
- *Compatible with open DICOM data of any CT and CBCT device*
- *Import and export of scan data as well as open data formats (STL, OBJ, OFF, etc.)*
- *Implant libraries with implant-prosthetic components for all common implant systems as well as drilling sleeve library*
- *Module for converting DICOM data into STL data and module for impression trays*
- *Version for dentists with all function-relevant tools for implant planning*
- *Version for the lab: implant planning, surgical guides; CAD-interface*

ZIRKONZAHN.FRÄSEN

- *Milling software with intelligent milling algorithms for very precise milling results*
- *Improved 3D visualisation of the whole milling process and of single milling unit components*
- *Simplified, intuitive use thanks to user interface with Drag & Drop function*
- *Creation of user profiles; individual blank libraries out of Zirkonzahn.Nesting can be implemented*
- *Optimised calibration procedure with virtual axis adjustment*
- *Intelligent "Stop & Go" milling with memory function*
- *Smart reminder for maintenance intervals*
- *Optimised tool management and optical tool detection*

Zirkonzahn®

ZIRKONZAHN.PARTIAL-PLANNER

- *Software for partial dentures*
- *Automatic blocking out of the model in the defined path of insertion*
- *Workflow integration: Already designed structures can be imported and modified (e.g. telescopic structures)*
- *Free design of clasps, retentions, supports and basic connections with various surface textures*
- *Digital structure libraries*
- *Import of pontics and shaping of the metal protective support for the insertion of milled veneers*

ZIRKONZAHN.TRAY

- *Step-by-step guided, open software for the fabrication of individual impression trays*
- *Open STL data format – compatible with various manufacturing types (e.g. 3D printing) and systems*
- *Individual design possibilities (edges, dimensions, retentions, recesses) possible*
- *Adjustable tool sizes for rapid design*
- *Various holders and holder sizes can be selected*
- *Labelling function – Holder can be personalised with lettering*

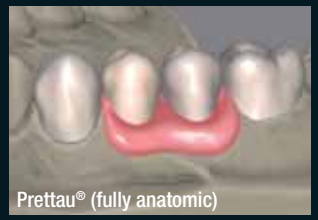
ZIRKONZAHN.MODIFIER

- *Software for the virtual tooth set-up with new set-up concepts and extensive individual design options*
- *Natural pairing of upper jaw teeth and lower jaw teeth*
- *Newly designed virtual articulator room: Simulation of different occlusal concepts (e.g. sequential movement according to Slavicek) and of natural abrasion patterns*
- *Ortho-preview! Preview of tooth movements including visualisation of the gingiva*
- *Multi-view management for the individual combination of different situation views*
- *Simulation of static face scans as 3D animated mouth movement*

CAD/CAM SOFTWARE MODULES FOR ALL ZIRKONZAHN MILLING UNITS

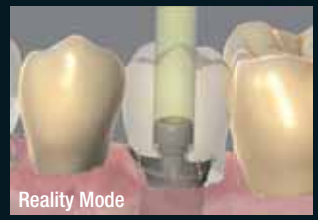
BASIC


Inlays/Onlays/Veneers


Prettau® (fully anatomic)

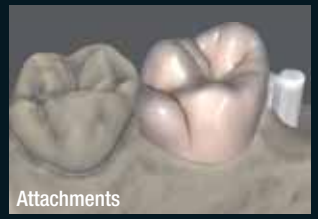

Wax-up/Situ/Mirror imaging


Virtual articulator

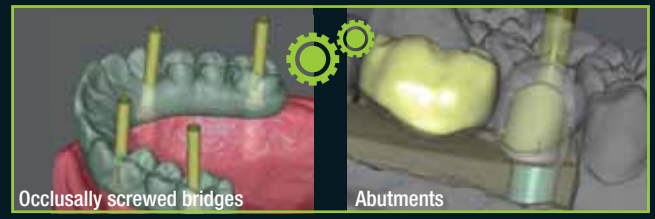

Reality Mode

ADVANCED


Telescopic Crowns


Attachments

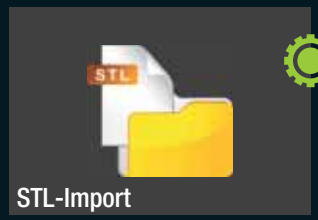

Bars


Occlusally screwed bridges

Abutments

MASTER


Overpress crowns and overpress bridges



STL-Import


Jewellery


Bite Splints


Eggshell Temporary


Model Maker

Only works in combination

Is recommended as unit

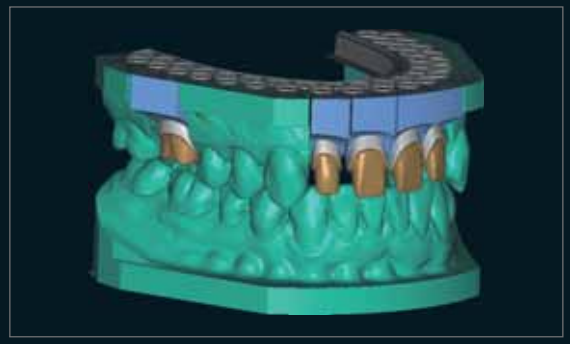
Is recommended as unit

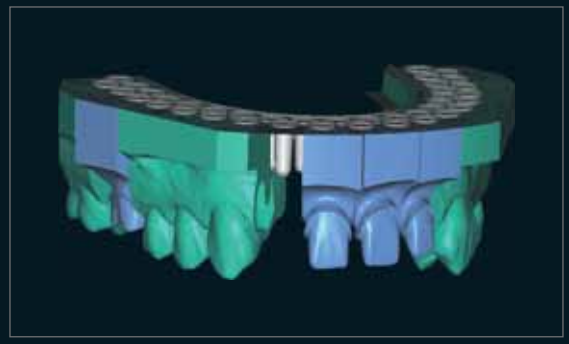
Additional modules

Zirkonzahn®

NEW! THE CAD/CAM MODEL MAKER SOFTWARE MODULE

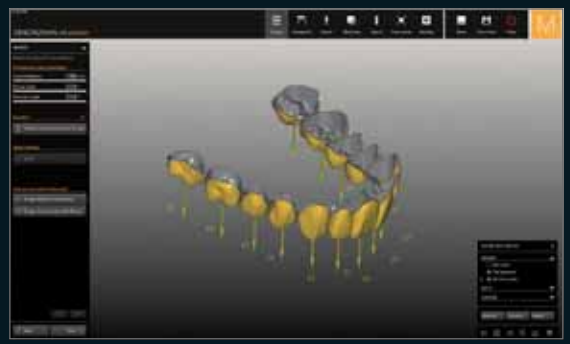
- *Module for the manufacture of different physical models (e.g. Geller models, models with implant analogues, dies, full-arch bridges) based on intraoral scan data as well as impression scans and model scans*
- *Customised setting of the parameters: e.g. distance between model and die, model thickness etc.)*
- *Automatic margin and undercut identification (ditching)*
- *Exportable data for manufacturing models with 3-D printers*
- *Creation of positioning pins for transferring the digitally recorded occlusion into the laboratory articulator*
- *In combination with the Zirkonzahn.Implant-Planner: Service package for the dentist consisting of implant model, impression tray, surgical guide and temporary restoration*

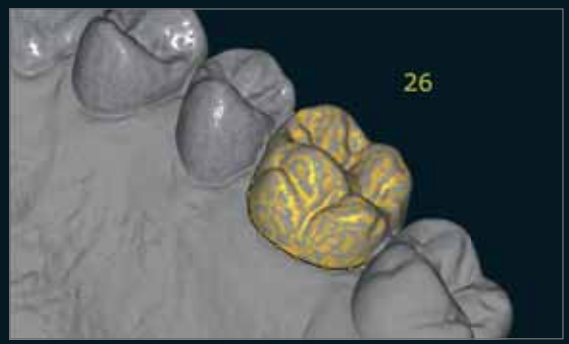




THE CAD/CAM EGGSHELL TEMPORARY SOFTWARE MODULE

- *Module for the manufacture of individual eggshell temporaries*
- *Aesthetically pleasing and individually designed immediate restoration*
- *Adjustable parameters: preparation depth, preparation form and wall thickness*
- *Can be designed extremely thin (0.3 mm) and is easily adaptable*
- *Allows import of intraoral scan data*





Zirkonzahn®

THE CAD/CAM BITE SPLINTS SOFTWARE MODULE

- *Module for the manufacture of bite splints*
- *Dynamic splint guidance in combination with the virtual articulator*
- *Individual shaping*
- *Adjustable parameters, e.g. blocking out of undercuts, wall thickness*
- *Especially recommended with the Therapon Transpa, Prime, Prime Transpa, Temp Premium Flexible and Temp Premium Flexible Transpa resins*

THE CAD/CAM REALITY MODE SOFTWARE MODULE

- *Module for realistic 3D representations of restoration, tooth colours, gingiva and model*
- *Can be combined with 3-D facial scans (Face Hunter)*
- *Detailed representation for much greater planning reliability*
- *Better consultation of dentist and patient thanks to a preview of the planned restoration*

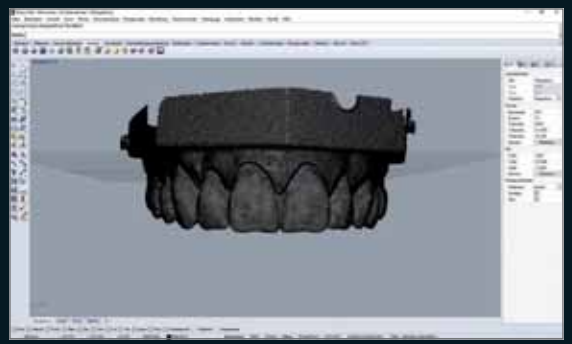
Zirkonzahn®

THE CAD/CAM VIRTUAL ARTICULATOR SOFTWARE MODULE

- *Module for jaw movement simulation in the articulator*
- *Physical lab articulator can be virtually registered via the Zirkonzahn scanner*
- *All current articulators are digitally stored*
- *All movements are recreated virtually*
- *Dynamic adaptation of constructed contact points to the antagonist taking into account the masticatory movements*
- *New! Individual patient-specific jaw movement data (Plane Analyser) can be imported and used (additional module required)*

THE CAD/CAM IMPORTATION OF STL-FILES SOFTWARE MODULE

- *Module for the modification of milling parameters, for nesting and milling of finalised tooth restoration files of other producers in an open STL format (crowns, bridges, inlays/onlays/veneers, bars, screw-retained restorations, bite splints, surgical guides, models, telescopes, jewellery)*
- *With surface analysis for the identification and manual adjustment of important parameters such as preparation lines, screw channels etc.*
- *Nesting and milling of individual abutments in precast titanium abutment blanks Raw-Abutments® possible*

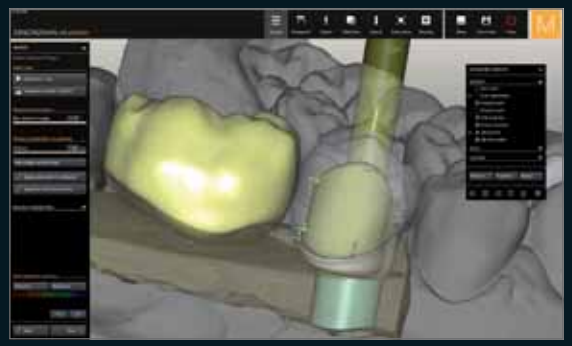


Zirkonzahn®

THE CAD/CAM ABUTMENTS SOFTWARE MODULE

- *Module for the manufacture of individual abutments and their emergence profile*
- *Design of abutments by taking into account the secondary construction; adjustable crown bottom parameters*
- *Semi-transparent display of the outer tooth form, which makes the creation of abutments much easier*
- *Supports all common implant systems stored, which can be constructed either as directly screwed or as bonded titanium bases*

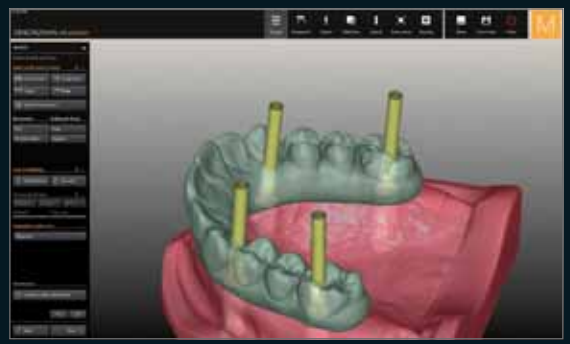
Attention – only works in combination with the CAD/CAM Occlusally Screwed Bridges software module

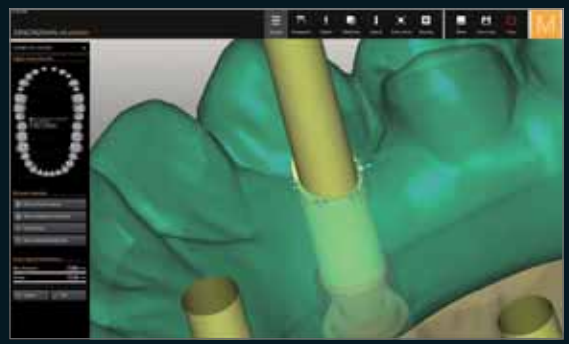


THE CAD/CAM OCCLUSALLY SCREWED BRIDGES SOFTWARE MODULE

- *Module for the creation of occlusally screwed bridges and bars*
- *Free shaping of the emergence profile, taking into account the anatomic tooth shape and gingiva*
- *With the help of the scanbodies, the software calculates the alignment of the implants and uses it for the exact alignment of the screw channels*
- *Creation of threaded screw channels in the zirconia structure for sealing the restoration with sealing screws (made of Screw Blank) in the patient's mouth. The restoration can be easily removed by unscrewing the screws with the extractor*

Attention – only works in combination with the CAD/CAM Occlusally Abutments software module

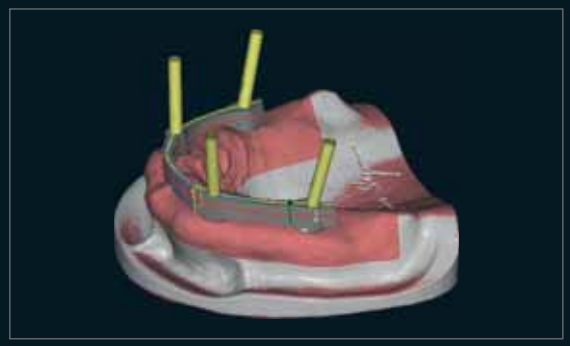


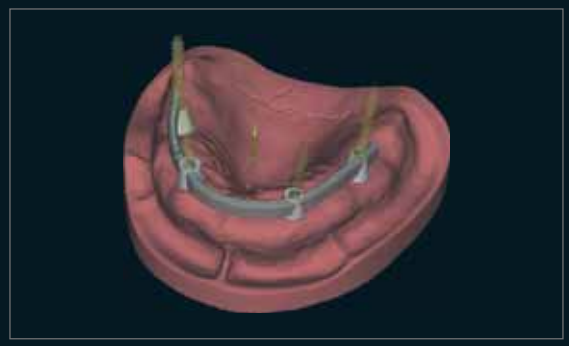


Zirkonzahn®

THE CAD/CAM BARS SOFTWARE MODULE

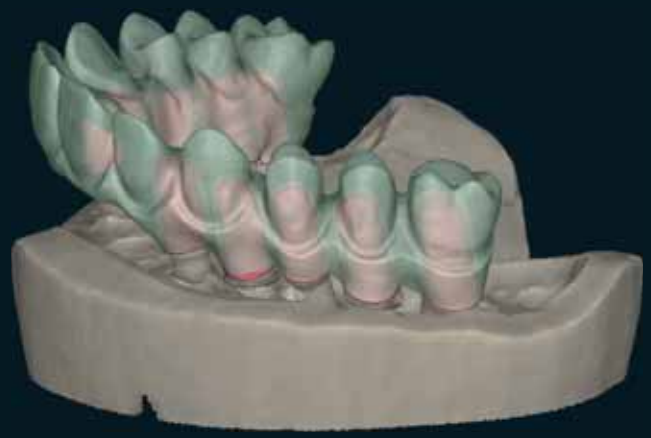
- *Module for the individual manufacture of primary and hybrid bars (also implant-supported)*
- *Freely customisable emergence profile*
- *Semi-transparent display of the outer tooth form or separate situation scans, this greatly facilitates the manufacture of bars*
- *Different bar profiles are already included and can easily be modified*
- *Adjustable parameters: height, thickness, lingual and buccal angle, as well as many other individualisation options*
- *Fixing of attachments and retentions is possible as well as blanking out holes and anchorages*

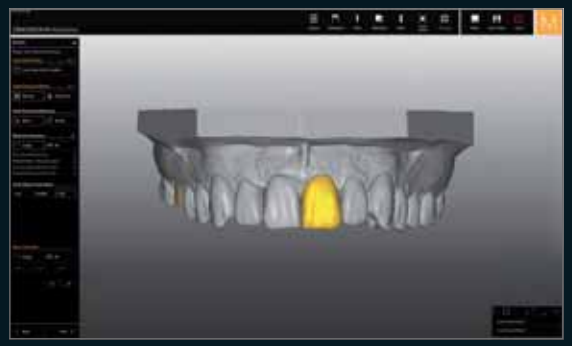


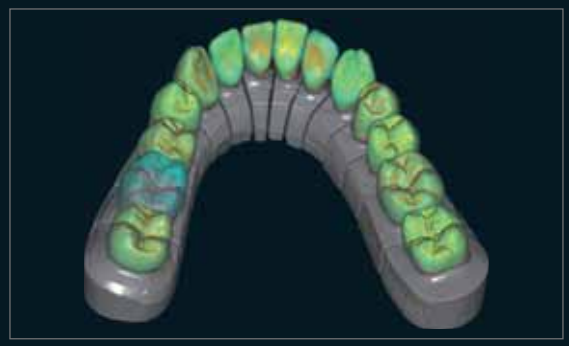


THE CAD/CAM WAX-UP/SITU/MIRROR IMAGING SOFTWARE MODULE

- *Module for virtual copying of scanned wax or resin modelations (double scan) or single teeth and the creation of virtual wax-ups*
- *The existing situation can be directly taken from a situation model. This way, aesthetically pleasing models can be used as anatomical template or be combined with the tooth sets or individual areas of the Heroes Collection virtual tooth library*
- *Time-saving and perfect copying of the opposing teeth is made possible through mirroring*
- *Creation of a virtual wax-up with gingival tissue; customisable with screw channels*



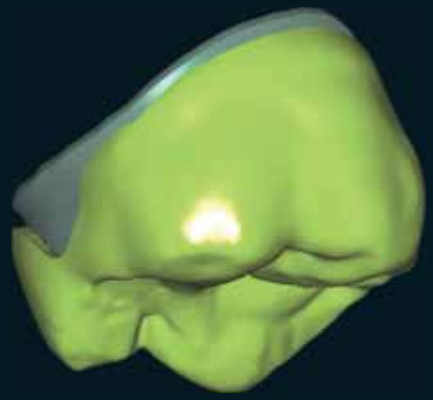


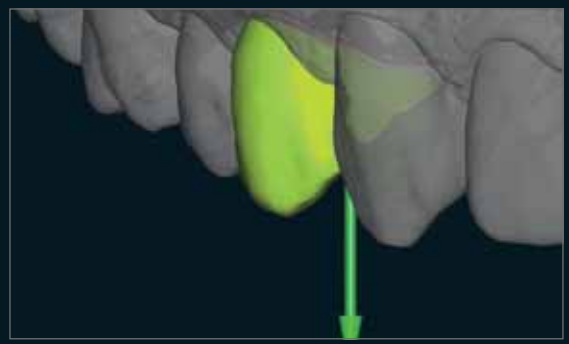


Zirkonzahn®

THE CAD/CAM OVERPRESS CROWNS AND OVERPRESS BRIDGES SOFTWARE MODULE

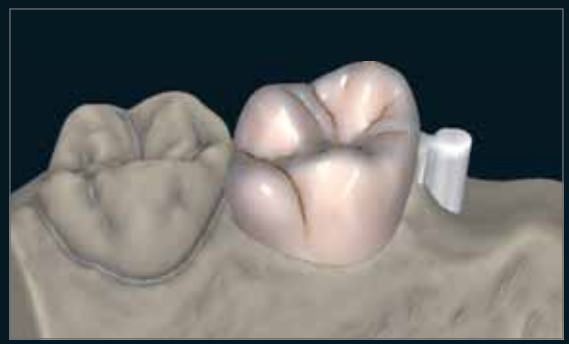
- *Module for the manufacture of virtual overpress crowns and overpress bridges*
- *Adjustable parameters: anatomic reduction, minimum thickness, lingual band, minimum thickness of primary structure and secondary structure*
- *Parallel design of primary frameworks and anatomic overpress elements possible*





THE CAD/CAM ATTACHMENTS SOFTWARE MODULE

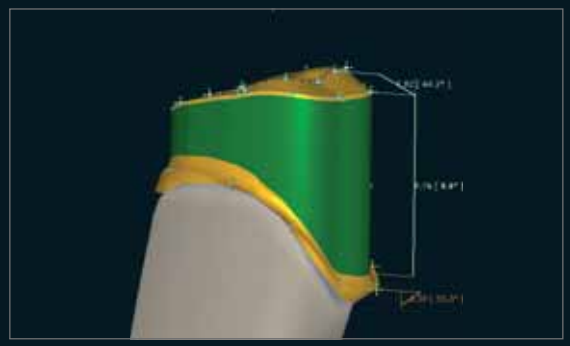
- *Module for the manufacture of attachments*
- *Extensive library with different shapes; shapes can be individually adapted to the gum; individual attachments can be stored*
- *Possibility of blocking out attachment forms*
- *Bridge segmenting option for cases with highly divergent abutments that prevent a single path of insertion*

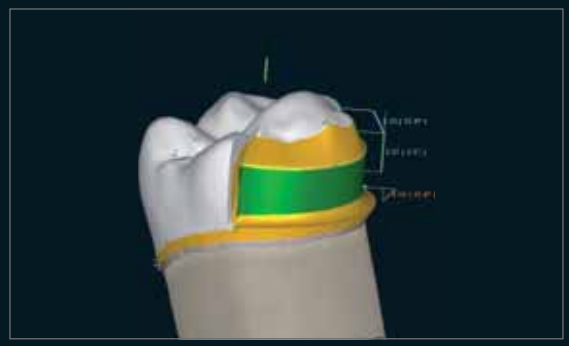


Zirkonzahn®

THE CAD/CAM TELESCOPIC CROWNS SOFTWARE MODULE

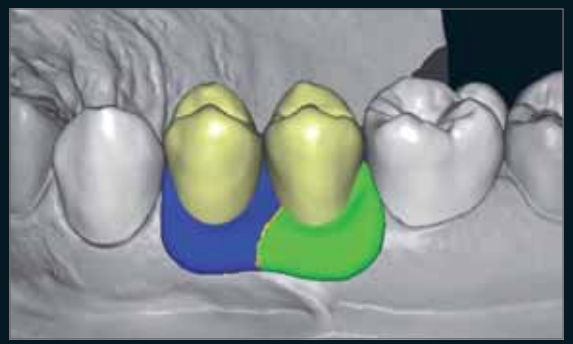
- *Module for the individual creation of one or more telescopic or conical crowns*
- *Individual adjustment of the friction's surface angle is possible*
- *Ring telescopes with occlusal surface can be constructed*
- *Possibility to design the telescopic or conical crowns partially*
- *Telescopic/conical crowns can be designed on implants*
- *Fully anatomical crowns and telescope combinations are also possible*
- *New! Mechanical post-treatment of the friction; primary and secondary parts can be milled in a single milling process*





THE CAD/CAM PRETTAU® (FULLY ANATOMIC) SOFTWARE MODULE

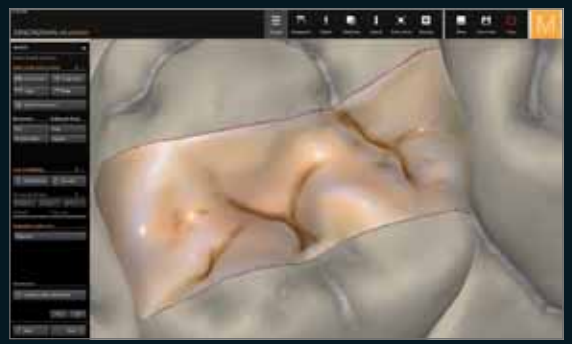
- *Module for the manufacture of fully anatomical or reduced restorations with full or partial gingival areas*
- *Multiple shrinking, moving or fixing of single gingival tissue parts possible (e.g. interdental space)*
- *Free shaping of the emergence profile, taking into account the anatomic tooth shape and gingiva*



Zirkonzahn®

THE CAD/CAM INLAYS/ONLAYS/VENEERS SOFTWARE MODULE

- *Module for the modelation of inlays, onlays and veneers*
- *For the manufacture of inlays, veneers or Maryland bridges*
- *Adjustable parameters: e.g. cement space, inlay border width, milling bur diameter, minimum thickness*
- *For fully anatomical or reduced design for veneering with ceramics*



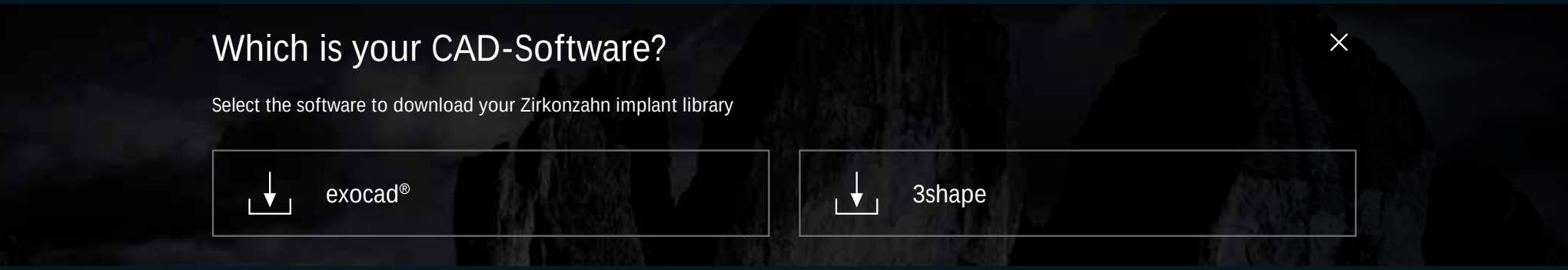
More information about the Heroes Collection

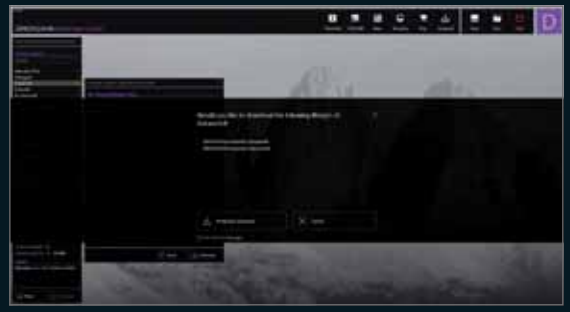
HEROES COLLECTION VIRTUAL TOOTH LIBRARY

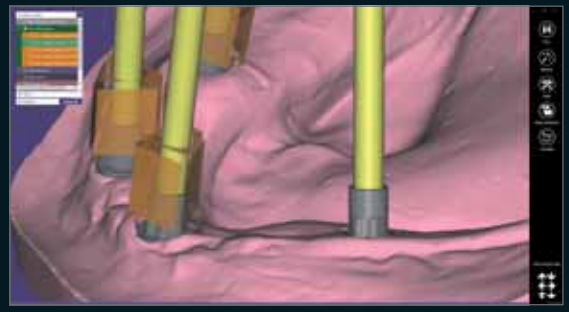
- *Aesthetic base for any kind of restoration: single crowns, small bridges, fully anatomical bridges (Prettau® Bridges), complete dentures*
- *10 natural and aesthetically pleasing tooth sets (upper and lower jaw)*
- *Fully anatomical or in four virtual Cut-Back designs FIRE, WATER, AIR, EARTH for veneering with ceramics*
- *Rooted teeth libraries*
- *Individual adjustments for any patient possible*
- *Different occlusal concepts can be realised, e.g. anterior or posterior tooth guidance*

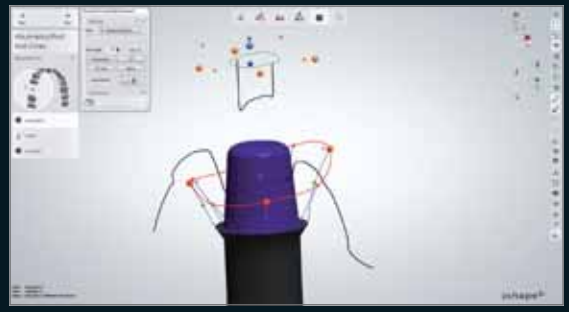
ZIRKONZAHN LIBRARY DOWNLOAD CENTER

- *Programme for importing and organising all of Zirkonzahn's implant components in the 3shape or exocad® design software*
- *Fast download: implant libraries can be downloaded individually*
- *Always up to date: automatic update information for newly available implant components or system components*



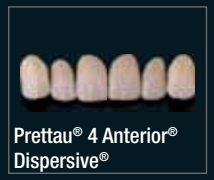






MATERIAL DIVERSITY


Prettau® 4 Anterior®


Prettau® 4 Anterior® Dispersive®


Prettau® 2


Prettau® 2 Dispersive®


Prettau®


ICE Translucent


Temp Prime


Temp Prime Transpa


Temp Premium


Temp Premium Transpa


Multistratum® Flexible


Temp Premium Flexible

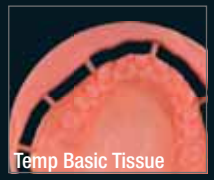

Temp Premium Flexible Transpa


Temp Premium Flexible Bleach


Denture Gingiva/ Denture Gingiva Flexible


Therapon Transpa

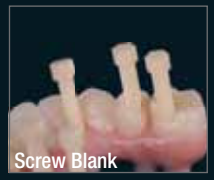

Temp Basic


Temp Basic Tissue


Temp Basic X-Ray


Temp Basic Transpa


Temp Basic Bleach


Screw Blank


Tecno Med


Tecno Med Mineral

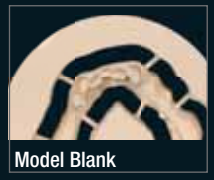

Tecno Med Mineral Tissue


Tecno Med Mineral Dentine


Burnout


Try-In & Burnout


Try-In I, II & III


Model Blank


Wax

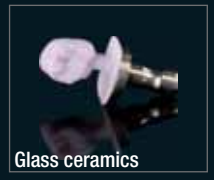

Sintermetall


Chrom-Cobalt / Chrom-Cobalt Soft


Titan


Raw-Abutment®


Wood


Glass ceramics


Composite

Zirkonzahn®

EVERYTHING FROM A SINGLE SOURCE – OUR SOLUTIONS

CAPTURING SYSTEMS	CAD/CAM SYSTEMS	MATERIALS	IMPLANT PROSTHETICS
PLANESYSTEM® (IN COLLABORATION WITH UDO PLASTER)	MILLING UNITS	ZIRCONIA MATERIALS	LABORATORY ANALOGUES
PS1 ARTICULATOR	SCANNERS	RESINS	SCANMARKER AND SCANANALOGS
PLANE ANALYSER	SOFTWARE	METALS	WHITE SCANMARKER
FACE HUNTER		WAXES	RAW-ABUTMENTS®
			TITANIUM BASES AND MUA

ELABORATION TOOLS	FURTHER PROCESSING	DEVICES
MILLING BURS	COLOUR LIQUIDS	SINTERING FURNACES
DIAMOND BURS	CERAMICS	TITANIUM SPECTRAL-COLOURING ANODIZER
POLISHERS	STAINS	METAL COLOURIZER
	VENEER RESINS	DRYING LAMPS
		ZIRKOGRAPH

OUR WORKFLOW – FOR THE GOOD OF THE PATIENT

From the patient registration to the insertion of the restoration in the patient's mouth – example of an implant-supported Prettau® Bridge made of Prettau® 2

Capturing the individual patient planes with the PlaneSystem® (Udo Plaster, MDT) as well as 3D digitisation of the patient with the Face Hunter facial scanner.

Digitisation of the situation by means of intraoral scans, digitised impressions or model scans (e.g. with the S900 ARTI scanner).

The patient data (photos, 3D scans, X-ray data, etc.) is transferred in the correct position into the Zirkonzahn. Scan software. The patient is then digitally articulated.

A first aesthetic and functional set-up is then made in the Zirkonzahn.Modifier software using the rooted teeth library from the Heroes Collection virtual tooth library.

The tooth set-up and the gingiva are adjusted to the defined implant planning. The immediate restoration is milled in Multistratum® Flexible resin.

Using the milled JawPositioner positioning pattern, it is possible to replicate the digitally articulated situation in the analogue environment and to check it in the physical PS1 articulator.

After the verification, the fabricated immediate restoration, the surgical guide and the model are handed over to the dentist who places the implants and inserts the immediate restoration.

To create the final zriconia restoration, the situation is captured again after the healing phase using an impression or by taking an intraoral scan and is then transferred into the Zirkonzahn.Modellier software.

HIGHLIGHT!

The workflow can be designed in different ways according to the patient data provided and the personal working method. By using patient-individual reference points that have been captured in their correct position, it is possible to combine analogue and digital working steps and to transfer one to the other.

On the basis of all digitally assembled patient data, the aesthetic design and the bone structure, the dentist determines the optimal implant position in the Zirkonzahn.Implant-Planner software.

Based on the defined implant positions, the fabrication of drilling template, model and immediate restoration can be started in the laboratory. The components are digitally designed ...

... and then milled with the Zirkonzahn milling unit out of the corresponding material. The surgical guide, for example, is milled out of the transparent Therapon Transpa resin.

ScanAnalogs are then placed in the fabricated implant model that is only used to check the fit of surgical guide and immediate restoration.

The necessary modifications for the final restoration are made in the software. Alternatively, a further resin prototype can be milled before creating the final zirconia restoration.

The final restoration is precisely milled out of zirconia in the corresponding Zirkonzahn milling unit. The milled structure is then coloured (depending on the material) and sintered.

The restoration is characterised manually before handing it over to the dentist for the insertion into the patient's mouth.

Final Prettau® Bridge made of Prettau® 2 in-situ: the patient is provided with a long-lasting, highly aesthetic restoration.

DIE ZIRKONZAHN SCHULE – OUR EDUCATION CENTERS

Because we love what we do, it is a matter of the heart to pass on what we know. We build training centers all around the world. Our best students are trained to become teachers, in order to share the technologies and the whole knowledge we accumulated and to assure our clients an innovative edge with the help of our ideas.

More information about our course programmes

Zirkonzahn®

100% READY TO FACE THE FUTURE

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