



**imes-icore**<sup>®</sup>  
Dental & Medical Solutions



# CORiTEC<sup>®</sup> preMill Manufacturing System

QUALITY ASSURANCE THROUGH 510(K) CLEARANCE

# The validated complete Package CORiTEC® preMill

INCLUDING ALL VALIDATED ADDITIONAL COMPONENTS

## CORiTEC o<sup>n</sup>le preMill System Package:

- CORiTEC milling machine
- Case incl. 1-fold preMill holder, 6 preMills of your choice incl. abutment screw, CORiTEC iCAMHD software, CAD library, tool/milling tool set



## CORiTEC 150i PRO preMill System Package:

- CORiTEC milling machine
- Case incl. 6-fold preMill holder, 6 preMills of your choice incl. abutment screw, CORiTEC iCAMHD software, CAD library, tool/milling tool set

# The CORiTEC® preMill Manufacturing Systems

WHAT  
ARE THE  
DIFFERENCES?



CORiTEC o<sup>n</sup>le preMill

CORiTEC 150i PRO preMill

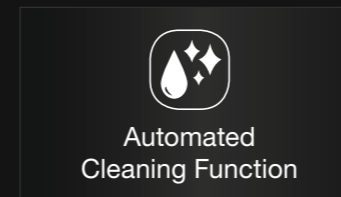
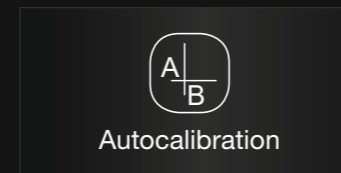
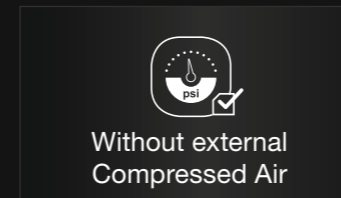
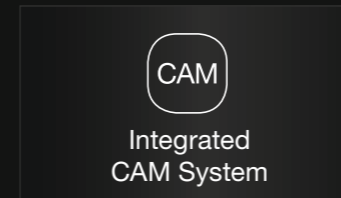
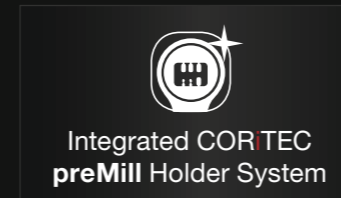
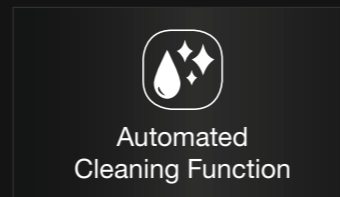
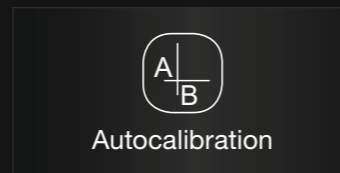
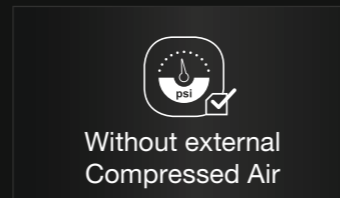
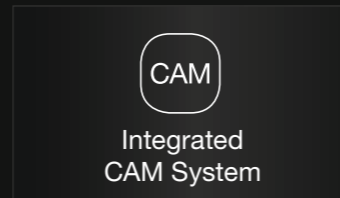
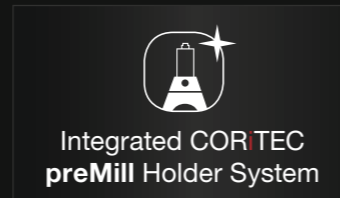
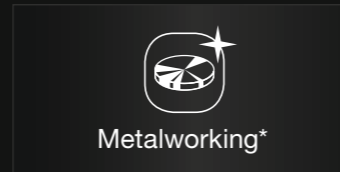
	CORiTEC o <sup>n</sup> le preMill	CORiTEC 150i PRO preMill
Machining axes	4 axes	5 axes
Touchscreen	✓	✓
Integrated PC	✓	✓
Premilled abutments	✓ (CoCr/Ti)	✓ (CoCr/Ti)
Wet processing	✓	✓
Dry processing	-	✓
Metal processing	✓ (Abutments)	✓ (Abutments/Blanks)
Integrated water tank	✓	✓
Autocalibration	✓	✓
Automated cleaning function	✓	✓
Clamping system	Single holder	98 mm Blank holder
Adapter system	Single holder Blocks/preMills	6-fold Blocks/preMills/Blanks
Automatic tool changer	6-fold	10-fold

# CORiTEC® one preMill System

UNLIMITED FREEDOM WHEN  
MILLING OR GRINDING BLOCKS  
OR CORiTEC PREMILLS



Thanks to the precise rotation axis, CORiTEC preMills and blocks can be machined with optimum quality using the turn-grind process. The automatic 6-fold tool changer ensures full flexibility in material selection.



# CORiTEC® 150i PRO preMill System

5-AXIS DRY OR WET MILLING OF  
ALL MATERIALS FROM BLANKS,  
BLOCKS OR CORiTEC PREMILLS



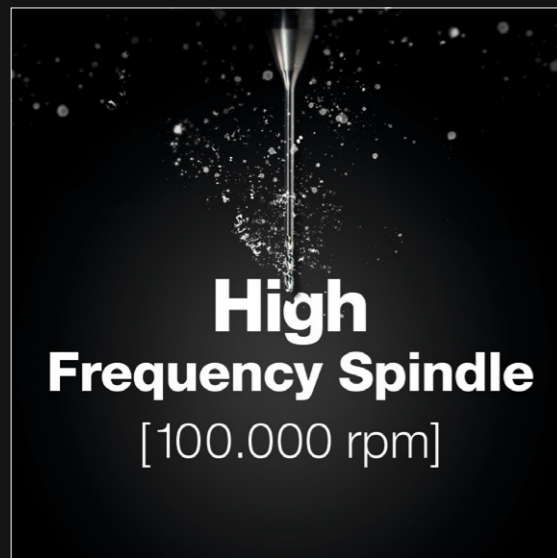
Every restoration is produced with optimum precision, and at the same time the flexibility opens up virtually free choice of materials and indications. Milling or grinding of blanks in zirconia, plastic and metal is possible, as is the processing of CAD/CAM blocks as well as blanks or CORiTEC preMill abutments. The CORiTEC 150i PRO preMill offers an unrivaled range of applications in the smallest possible space.

\*Validated and optimized for preMill machining

# The CORiTEC® preMill Systems

MORE PERFORMANCE, MAXIMUM FLEXIBILITY  
AND EXTENDED APPLICATION POSSIBILITIES  
WITH LOW SPACE REQUIREMENTS

The new powerful and durable high-frequency spindle with 860 watts and 100,000 rpm offers an exceptional ratio of performance, speed and precision. Thanks to the quick-change clamping system, the various holder systems can be changed quickly - while maintaining the same precision. This eliminates the need for time-consuming calibrations.



**High  
Frequency Spindle**  
[100.000 rpm]



**Manual Quick  
Clamping  
System**


// CORiTEC 150i PRO preMill

Powered by **HyperDent**



Inclusive  
validated + optimized  
**CAM Strategy**

// Dental CAM [CORiTEC® 150i PRO preMill]



**CORiTEC® preMill  
Abutments + Tools**

// CORiTEC preMill Systems

A WIDE RANGE OF CORiTEC  
IMPLANT SYSTEMS WITH  
FULL COMPATIBILITY TO  
THE HOLDER SYSTEM AND THE  
INTEGRATED CAM SOFTWARE

Easy identification  
by means of lot and part number



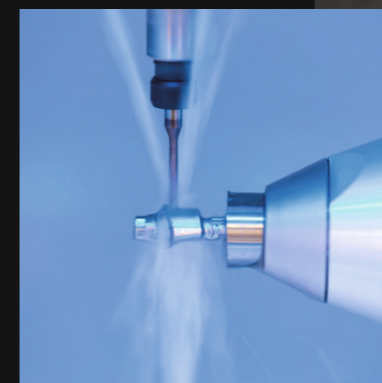
# CORiTEC® one preMill

## THE INTELLIGENT PRACTICE LAB SOLUTION

The new CORiTEC one preMill is the perfect choice for processing all common CAD/CAM blocks and CORiTEC preMill abutments. With the new extremely stable axis kinematics, the machine is also capable of milling premilled abutments in high quality.

The high-quality cast aluminum construction ensures maximum stability with lowest space requirements. An integrated powerful PC along with 10.1" HD touchscreen display supports comfortable and ergonomic operation. A single block holder with six tool change positions guarantees an intelligent, economical, safe and fast machining process with the highest quality.

In combination with all open scanners, the CORiTEC one preMill is ideal for all dental practices, practice laboratories and clinics. As a supplementary system for the specialized processing of glass ceramics, zirconia, composite and in particular for premilled abutments, the CORiTEC one preMill leaves nothing to be desired for clinics, laboratories and milling centers.



More applications possible!



- WET
- DRY
- 4 AX
- 3 mm  
6x
- Temperature control icon
- Touchscreen icon
- Block holder icon
- Person icon
- Tool holder icon
- ION

# CORiTEC® one preMill

## HIGHLIGHTS

- Metalworking\*
- Minimal footprint
- Integrated PC
- Autocalibration
- Short payback time
- Integrated CAM system
- Automatic cleaning function
- Extremely short grinding and milling times
- Integrated, validated CORiTEC preMill holder system
- Novel closed mono-block cast body for stability and precision
- Self-sufficient operation without external compressed air
- High precision due to integrated temperature compensation
- Perfect for machining CORiTEC preMill abutments as well as all common block materials

\*for preMill machining

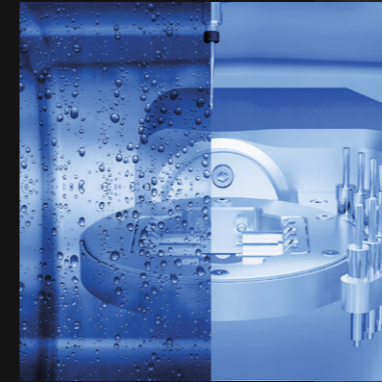


PMMA	WAX	1-fold holder (blocks/premilled abutments)	Abutment/ Hybrid Abutment	Crown, Bridge
Zr Pre-sintered	Zr Full dense sintered		Inlay, Onlay Veneer	
PEEK	COMPOSITE	Model casting	Model	Drilling template
Glass ceramics	Premilled Ti- Abutment		Model casting	Bridge
Premilled CoCr- Abutment			Telescopic technology	

# CORiTEC<sup>®</sup> 150i PRO preMill

## THE FLEXIBLE MILLING SYSTEM IN CONFINED SPACES

The extremely stable design of the mono-block cast body enables precise machining in round and block form as well as CORiTEC preMill abutments for all common materials. The machine's small dimensions and 5-axis simultaneous technology thus offer a unique ratio of machine size to functionality. Convince yourself of the performance of the CORiTEC 150i PRO preMill for your laboratory!



More applications possible!



- WET
- DRY
- 5 AX
- 3 mm / 10x
- Temperature control icon
- Touchscreen icon
- Material tray icon
- Person icon
- Material tray icon
- ION

# CORiTEC® 150i PRO preMill

## HIGHLIGHTS

- Integrated preMill holder system
- Integrated Dental CAM System
- Wet and dry machining possible
- Short payback time
- Minimal footprint
- Autocalibration
- Automated cleaning function
- Semi-open blank holder "C-Clamp" (optional)
- Metal machining of blanks and CORiTEC preMill abutments
- High precision due to integrated temperature compensation
- Novel, closed mono-block cast body for highest stability and precision

ERGONOMIC  
HANDLING  
simple graphical  
touchscreen operation

HALF-OPEN  
BLANK HOLDER  
"C-CLAMP"  
(OPTIONAL)

WET AND DRY  
PROCESSING POSSIBLE

EASY CLEANING  
fully coated  
enclosed wet cell

POWERFUL PERFORMANCE  
high end spindle for milling  
and grinding work up to  
100.000 rpm

INTEGRATED  
WATER TANK  
AND FILTRATION

INTEGRATED  
TEMPERATURE COMPENSATION



PMMA	WAX	Standard	PreMilled Abutment	Dentures	Abutment	Hybrid Abutment	»»	
Zr	COMPOSITE							
PEEK	PreFab Abutments	C-Clamp	Block	Manual clamping system	Crown, Bridge	Inlay, Onlay Veneer	Model	Full Denture
Glass-ceramics	Ti							
CoCr					Model	Drilling template	Model casting	Telescopic technology





MORE PERFORMANCE & MAXIMUM FLEXIBILITY

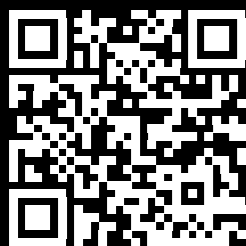
**for more possibilities**

# CORiTEC® preMill Tools | 3 mm shaft



The CORiTEC tool set is included in the scope of delivery for the CORiTEC preMill manufacturing systems, so that precise machining can be started immediately!

ALL TOOLS  
AND MATERIALS –  
JUST SCAN HERE...



**T2/T7 - 2.0 | 3.0 mm**  
radius milling tool (l = 12 mm)

T2	Ti		up to 15 mm
T7	CoCr		Blades

2.0 mm Ø      3 mm

Art.-No. 530029 2003

**T3/T8 - 1.5 | 3.0 mm**  
radius milling tool (l = 12 mm)

T3	Ti		up to 15 mm
T8	CoCr		Blades

1.5 mm Ø      3 mm

Art.-No. 530029 1503

**T4/T9 - 1.0 | 3.0 mm**  
radius milling tool (l = 9 mm)

T4	Ti		up to 15 mm
T9	CoCr		Blades

1.0 mm Ø      3 mm

Art.-No. 530029 1003

**T58/T59 - 2 | 3.0 mm**  
highspeed, 15 mm

T58	Ti*		up to 15 mm
T59	CoCr*		Blades

2 mm Ø      3 mm

Art.-No. 530031 2003

\* T58 – Machining of preMill abutments  
T59 – Machining of blanks up to 15 mm and preMill abutments

Example illustration of NobelReplace RP // \*Registered trademark // Not a company of Imes-icore GmbH

# Compatible CORiTEC preMill Platforms for Implant Systems

All CORiTEC blanks, which are available in all implant systems, are supplied without exception including the corresponding abutment screw. When ordering the complete CORiTEC 150i PRO preMill or CORiTEC ONE preMill system, six blanks of your choice are included in the delivery.

The range of CORiTEC preMill blanks is continuously being expanded with compatible platforms for implant systems.

Please feel free to contact us if you need a different platform. Or take a look at the current status via the QR code.



Manufacturer	Implant Type
Dentsply Sirona	Astra Tech EV Astra Tech TX XiVE
HROSSEN	Osstem ET
Nobel Biocare™	Branemark System CC NobelActive Replace Tri-channel
straumann	Bone Level Neodent Grand Morse Standard Tissue Level
ZIMMER BIOMET	Certain Ex Hex Screw-vent (TSV)

...and more.

# CORiTEC® SmartControl

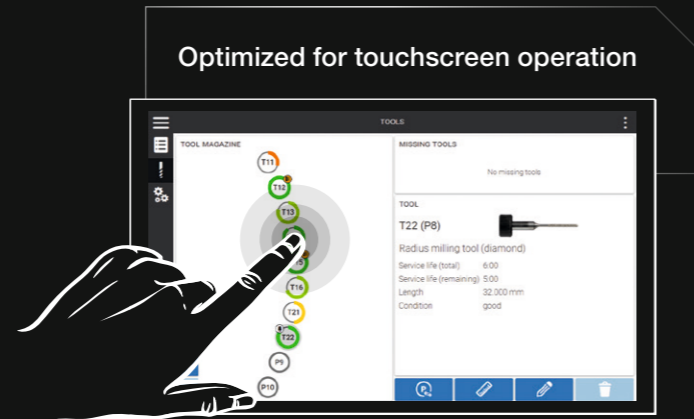
## SMART CONTROL OF MACHINE SOFTWARE

### SmartControl: one touch ahead!

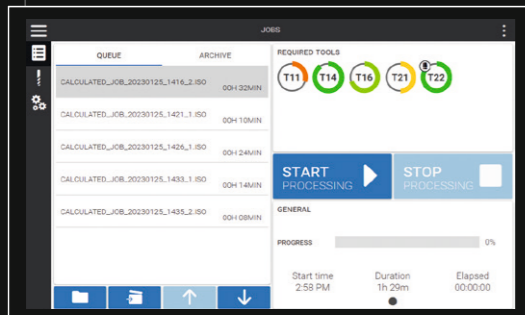
The newly developed control software SmartControl enables absolutely intuitive operation of our milling machines – from selecting the job to milling to querying the machine status. The self-explanatory and optimized handling makes it possible to start operating the machine in the shortest possible time. Starting a milling process requires only two clicks – you benefit from the smart time savings for your workflow!

### FEATURES

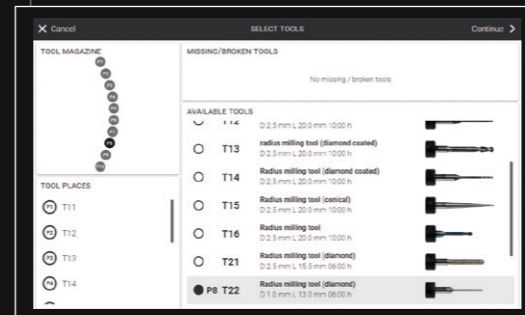
- Modern design and simple touch operation
- Intelligent selection of milling jobs
- Easy tool and material loading
- Autocalibration of the machine
- Wizard guided cleaning and maintenance
- Connection to our Dental Smart Market (DSM)
- Multilingual program interface
- Automatic update function



### Automated transfer of information from the CAM software



### Ideal tool management



# CORiTEC® iCAMHD Software

The CORiTEC **iCAMHD** software is included in the scope of delivery of both complete systems.

- High degree of automation
- Support for order management
- Fast training through intuitive workflow
- Individual management of processing options
- Automatic update function
- Creation of individual quality standards
- Strategies for tool path generation
- Complete collision monitoring
- Free runtime in the first year including updates and support! Renewal for one additional further year against an update/support fee

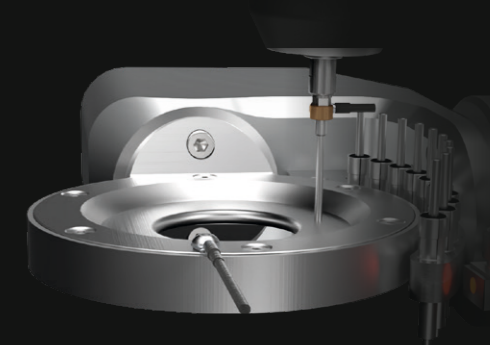


	CAMHD <i>one</i>	iCAMHD <i>eco</i>
<b>Milling Machine</b>	CORiTEC <i>one</i> preMill	CORiTEC 150i <i>PRO</i> preMill
<b>Number of axes</b>	4 axes	5 axes
<b>Materials</b>	Glass ceramics, Titanium (preforms), PMMA, Zirconia, Composites, CrCo	Glass Ceramics, Titanium (preforms), PMMA, Zircon, Composites, Wax, CrCo, Peek
<b>Indications</b>	Hybrid Abutments, Hybrid Abutment Bridges, Crowns/Bridges, Inlays/Onlays/Veneers, Preforms	Hybrid Abutments, Hybrid Abutment Bridges, Crowns/ Bridges, Inlays/Onlays/ Veneers, Preforms, Bite Splints, Models, Telescopes, Drilling Templates
<b>Functionality</b>	All Standard functions	All Standard functions
<b>Optional</b>		Denture Modul

## Autocalibration

### READY CALIBRATED PREMILL SYSTEM

Fast, precise, cost-efficient – autocalibration enables dentists as well as dental technicians to handle quickly and easily to ensure lasting precision without compromise. The autocalibration is included in the starter kit, which can be ordered separately.



# Full integrated workflow

510(K) CLEARED COMPLETE SYSTEM



\*Not included in delivery



THE VALIDATED COMPLETE SOLUTION

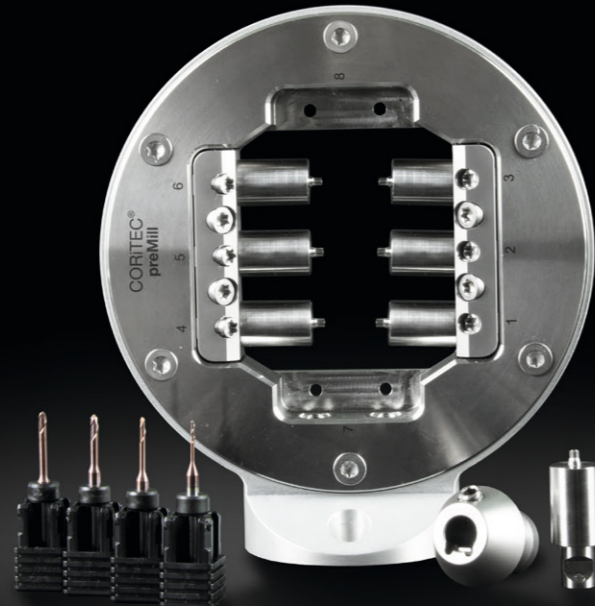
## Perfect Abutments for Practices & Laboratories

# Validation Advantages

The advantages of validation are obvious! Precisely coordinated components and strategies create a guided certified workflow. Reproducible results can thus be created quickly and reliably. The 510(k) clearance is coordinated for in-house milling of CORiTEC preMills on the CORiTEC milling machines.

## HIGHLIGHTS

- Complete and open for the most important implant platforms
- Digital workflow solutions for major implant indications
- Suitable for in-house or outsourced production
- Coordinated clamping and calibration systems for CORiTEC milling machines/holders/adapters
- Validated and optimized CAM strategies for CORiTEC milling machines/preMills/tools
- Batch-certified preMills incl. unique marking for individual identification
- Libraries for exocad and 3Shape with associated parameters
- Optimized tools for coordinated manufacturing processes, quality and precision
- Defined milling results for reproducible results



# Regulations and Risk Minimizations through validation



In the US, the FDA classifies customer-specific milling as the manufacture of a Class II medical device. Labs milling custom implant abutments with CAD/CAM technology must either commission a validated milling center (VMS) with a listing of the facility and devices, and implement a Quality Management System or use products with a 510(k) pre-market clearance and registration with a validated digital workflow.

## THE LIABILITY RISKS ARE GREAT AND CAN BE COSTLY IN THE EVENT OF NON-COMPLIANCE:

- Production stop of product lines for laboratories are possible
- Investments in subsequent equipment and approvals become a burden
- Profitability decreases



## Your Solution

The use of the FDA-cleared CORiTEC preMill abutments inside imes-icore validated workflow is essential for laboratories to produce custom abutments on-site. It ensures compliance with legal regulations, assists in creating restorations that meet the highest standards of safety and effectiveness, and reduces the risk of liability issues for the laboratory.



# CORiTEC® preMill Abutment


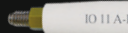




## CUSTOMIZED SOLUTION WITH ADDED VALUE AND GROWTH FOR LABORATORIES AND PRACTICES

The CORiTEC preMills are supplied with abutment screw, compatible libraries, modules and holders. This enables dental technicians and dentists in the laboratory and dental practice to manufacture customized one-piece abutments made of titanium with full control over quality and time – fully in accordance with FDA regulations.

### ADVANTAGES

- Follows the natural morphology of the soft tissue
- Supports the gingiva and creates a root-shaped emergence
- Allows angulation for alignment of the prosthetic crown
- Adapts to the anatomical shape of the crown, providing perfect support and a larger bonding surface
- Allows a natural transition from the implant to the prosthetic crown
- Increases the value in the laboratory

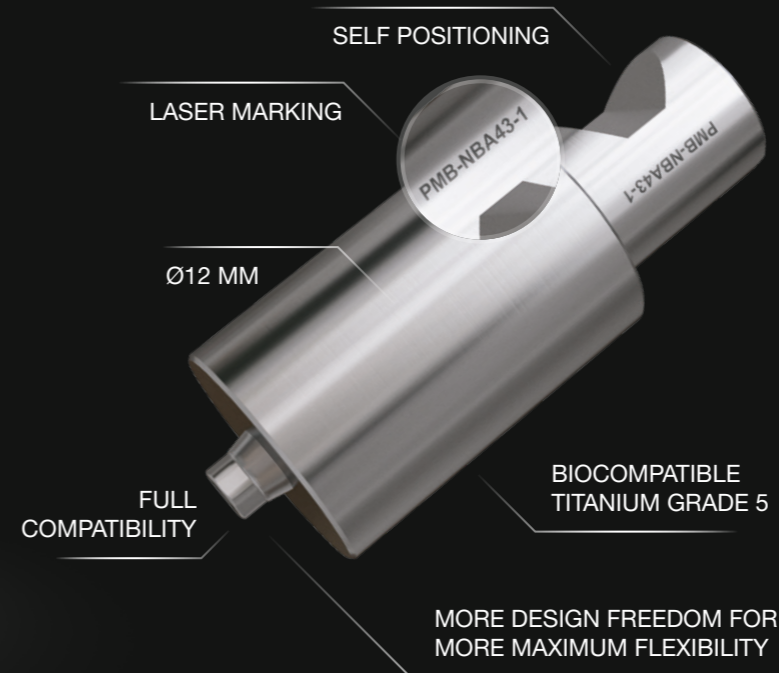
### Components of CORiTEC preMill System

	Library
	Scan Body
	Hybrid Base (Ti-bases)
	Prosthetic Screws
	Analog for Printed Models (PMA)
	preMill Abutment



### FEATURES

- **Self-positioning stable mounting system** for optimal positioning on the holder
- **Laser marking with batch and part number** for easy identification before and after the milling process and for legal traceability
- **Full compatibility** due to precision fit of the screw on the original interface
- **Self-locking screws** prevent loosening from the module
- **Modular design of the holder** (easy assembly, cleaning and easy replacement)
- **One-tool concept** simplifies mounting of the holder, modules and CORiTEC preMills by using a Torx 20 tool

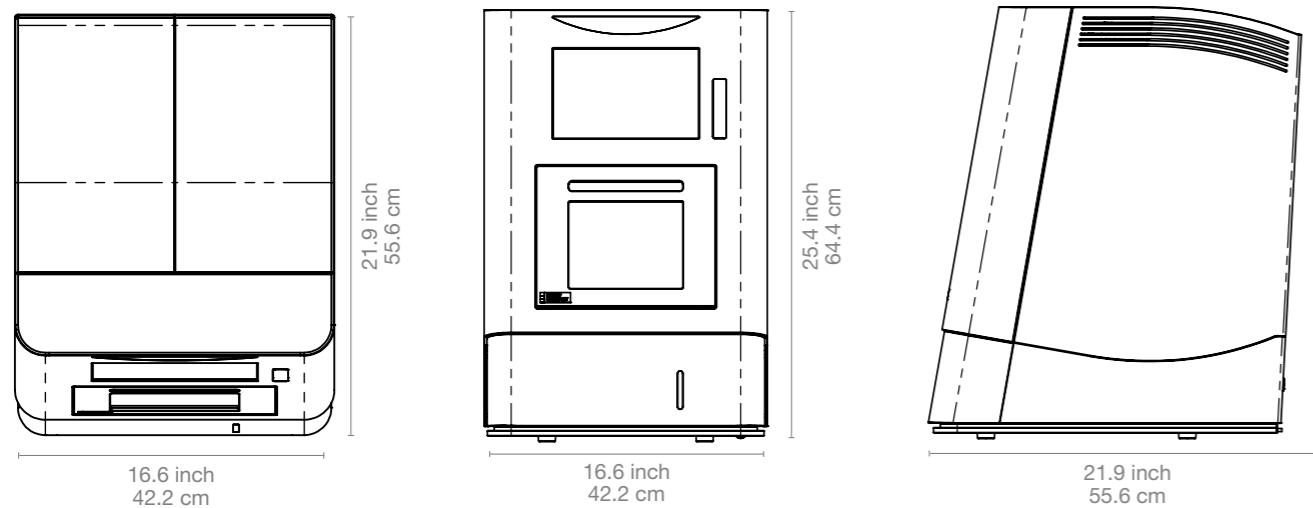


### EXTRAS

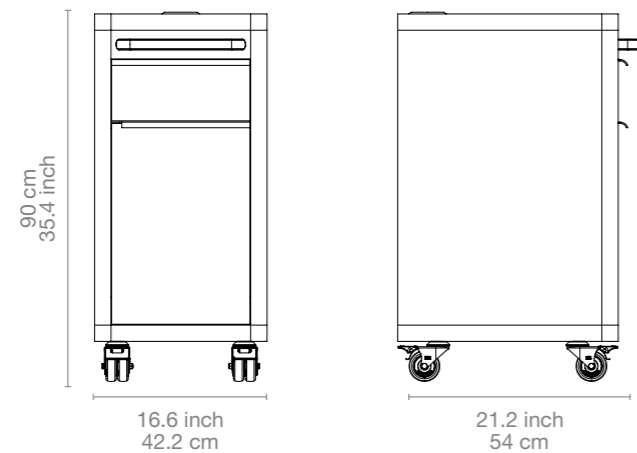
- **High degree of design freedom** due to minimal gingival height and improved library geometry
- **Perfect implant emergence profile**, as no widening of the emergence profile above the implant diameter is required
- **Smooth transition area** significantly reduces manual reworking
- **Perfect CAM interaction** due to automatic nesting by implementation of metadata

# Dimensions

## CORiTEC® one preMill



## Machine table T0

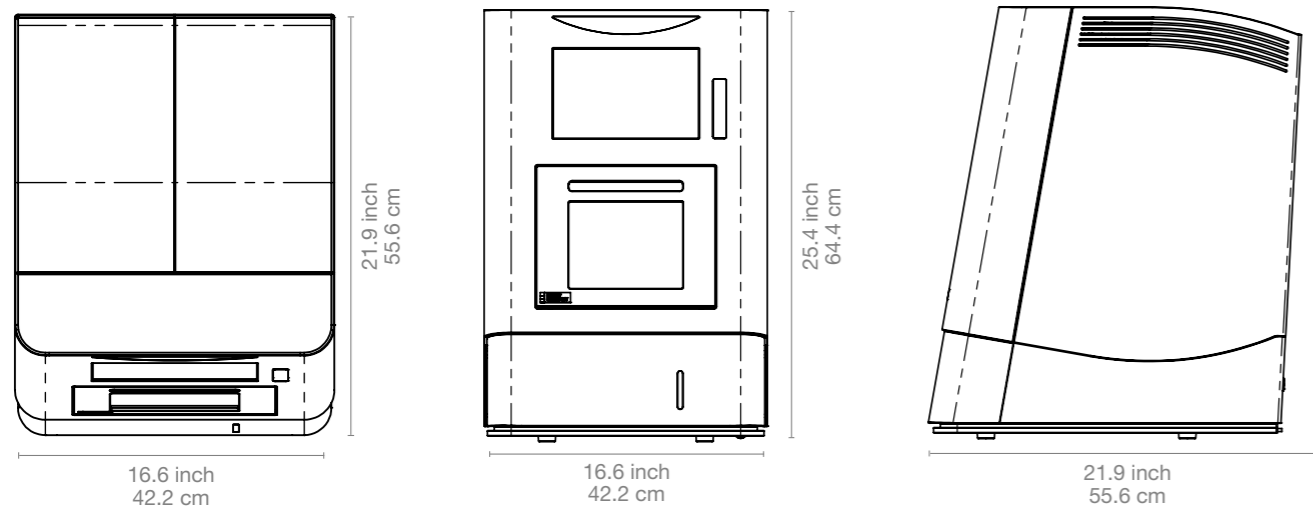


# In numbers

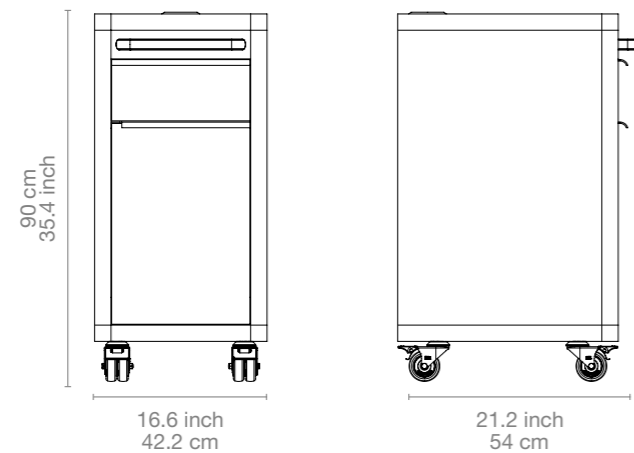
Mechanics/electronics	
Number of axes / operation type	4 axes, simultaneous processing
Angle of rotation	A-axis 360°
Spindle	High-frequency spindle
Maximum speed / spindle power	100.000 rpm, 860 watt
Tools	Milling and grinding tools with 3 mm tool shaft
Tool changer	6-fold
Tool length control	≤ 0.002 mm precision
Integrated PC	Windows based
Display	Integrated 10"1" touchscreen
Illumination	Dynamic LED illumination
Software	SmartControl integrated CNC software
Air pressure	No external air pressure needed
Cooling liquid	3 liter/11.36 gpm integrated
Connecting requirements	
Weight	77 kg / 169.8 lbs
Width x depth x height	16.6 x 21.9 x 25.4 inch / 422 x 556 x 644 mm
Line voltage / frequency / maximum power	100 V - 230 V / 50/60 Hz / 500 watt

# Dimensions

## CORiTEC® 150i PRO preMill



## Machine table T0



# In numbers

### Mechanics/electronics

Number of axes and operation type	5 axes, simultaneous processing
Rotation angle	A-axis 360°, B-axis 130°
Spindle / power	High-frequency spindle / 860 W
Maximum spindle speed	100.000 rpm
Tools	Hilling and grinding tools with 3 mm tool shaft
Tool changer	10-fold
Tool length control	≤ 0.002 mm precision
Integrated PC	Windows based
Monitor	Integrated 10'1" touchscreen
Illumination	Dynamic LED illumination
Software	SmartControl integrated CNC software
Air pressure	3 bar/43.5 PSI, 50l/min/189.25 gpm/min
Cooling liquid	3 liter/11.36 gpm integrated

### Connecting requirements

Weight	75 kg / 165.38 lbs
Width x depth x height	16.6 x 21.9 x 25.4 inch / 422 x 556 x 644 mm
Line voltage/frequency	100 V - 240 V/50/60 Hz



# Sales and Support Partner worldwide



Represented for you in over 100 Countries.

imes-icore® GmbH has been a leading manufacturer and technology partner since 2003 in the field of dental CAD/CAM systems and solutions.

With its unique range of dental milling and grinding systems, imes-icore® offers a perfect selection for all individual requirements for dental laboratories, milling centres and dental practices of all sizes.

Our Open-System product philosophy makes it possible to easily integrate our milling machines into your existing workflow and to integrate them with your open scanners and your CAD/CAM software. We are open for your material selection.

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