imes-icore®
Dental & Medical Solutions

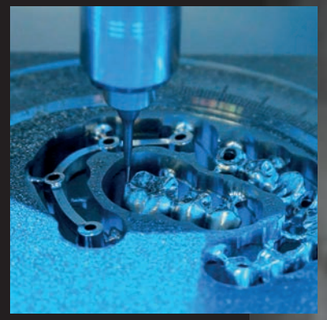
CORiTEC 650i

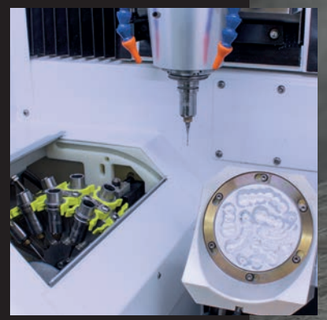
CORiTEC 650i / 650i Loader

WITH FUTURE-ORIENTED TECHNOLOGY

We developed the CORiTEC 650i and CORiTEC 650i Loader machine systems for the area of PREMIUM machines and PREMIUM requirements. The systems are offered with very attractive pricing and are equipped with high-quality industrial milling technologies, such as granite structure, linear drives in the linear axes, torque motors in the rotary axes, as well as digital absolute length measuring systems, and powerful main spindles. The machine concept impresses with its precise, vibration-free and dynamic motion sequences in the demanding and complex metal working processes. All other relevant materials can also be milled or ground with high quality using this machine system.

The CORiTEC 650i loader includes a fully integrated automatic 16-fold blank changer. This enables you to operate the machine system at full capacity around the clock without supervision, while maintaining consistent high precision. Thus, the machine system is ideally suited for large labs and milling centers where these high-quality standards and large quantities are at the forefront.



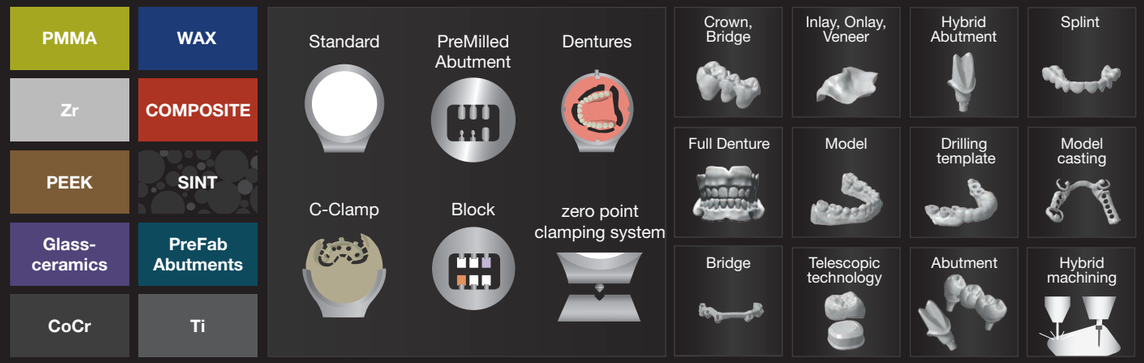


WET
DRY
5 AX
6 mm
32x
16x
ION

CORiTEC 650i

HIGHLIGHTS

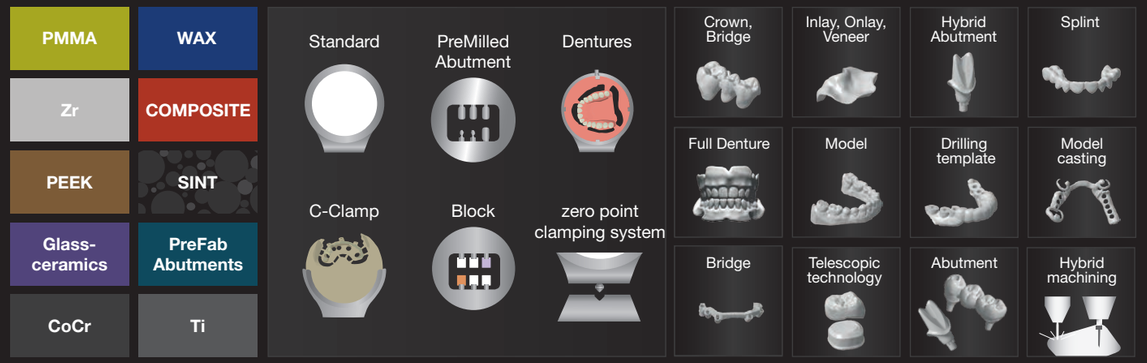
- Solid axis construction made of polished natural granite for 5-axis simultaneous machining in high dynamics for high-precision milling results
- Absolute, high-resolution measuring systems in all axes (0.5 µm)
- High-frequency spindle up to 50.000 rpm and 3.2 kW power, with HSK 25 tool holder
- High precision due to integrated temperature compensation
- Optional HighFlow cooling/filter system with coolant treatment
- Optional coolant suction system
- Optimized tool and blank changer
- Hybrid machining without additional measurement



CORiTEC 650i Loader

HIGHLIGHTS

- Fully integrated automatic 16-fold blank changer
- Production around the clock
- Hybrid machining (Precise remilling of LPBF work)
- Ideally suited for large labs and milling centers
- Absolute, high-resolution measuring systems in all axes (0.5 µm)
- High-frequency spindle up to 50.000 rpm and 3.2 kW power with HSK 25 tool holder
- High precision due to integrated temperature compensation
- Optional HighFlow cooling/filter system with coolant treatment
- Optional coolant suction system
- Optimized tool and blank changer
- Hybrid machining without additional measurement



Applications & holder

C-CLAMP

- Enables 5-axis machining up to 90 degrees axis adjustment
- Extends the technical possibilities of your milling machine
- End face machining

MANUFACTURE OF DENTAL PROSTHESES

- Dentsply Sirona Dentures

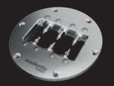
PREFABRICATED ABUTMENTS

- Short production times
- Production of abutments in very simple processes
- High accuracy of fit due to prefabricated implant interface

NT-Preform® Abutment (nt-trading)

PreFace® Abutment (Medentika)

MED-Preform® Abutment (medentis)



DESS Abutmentholder

ELOS premilled Abutment System

THERAPEUTIC SPLINTS

- Bite splints, bleaching splints
- Snoring splints, aligners
- Simple and high-quality implementation in CAD/CAM processes

HYBRID MACHINING - SINTERING AND MILLING

- Milling post-processing of finished restorations using the LPBF method
- High precision milling combined with low-cost LPBF process
- Compatible with most LPBF systems

GRINDING OF CAD/CAM BLOCKS

- New 6-fold adapter enables effective production
- Exchangeable strips for different adapter systems
- Crowns, onlays, inlays, veneers, bridge frameworks etc.

IMPLANT-SUPPORTED BRIDGES AND BARS / ONE-PIECE ABUTMENTS

- Highest fitting accuracy due to new CAM technologies (ReFit)
- Stress-free fit even with larger spans
- Easy production due to high degree of automation with coordinated CAM software

BIOHPP ELEGANCE PREFABS

- Individual hybrid abutment on PEEK basis
- BioHPP for permanent dentures, free of metal, oxide and monomer
- Homogeneous combination of titanium and BioHPP

MILLING OF MODEL CASTS

- Production in burnout materials, PEEK or directly in CoCr
- Allergy-free and lightweight model casting when using PEEK
- Cost-efficient

MILLED IMPLANT MODELS

- DIM (Digital Implant Model) from nt-trading
- Precisely positionable
- 2-part implant analog

MODEL MILLING

- Model fabrication in CAD/CAM process
- High reproducibility and precision
- Model fabrication with digital impression by intraoral scanner

CORiTEC® 650i series TOOLS

T1/T6 - 3.0 l 6.0 mm
radius milling tool short (l = 15 mm)

T1 Ti
T6 CoCr
3,0 mm ∅ 6 mm
up to 15 mm
Blades
Art.-No. 526029 3006

T11 - 2.5 l 6.0 mm
radius milling tool (single blade, slide coated)

T11 PMMA WAX PEEK
2,5 mm ∅ 6 mm
up to 25 mm
Blade
Art.-No. 530004 2506

T2/T7 - 2.0 l 6.0 mm
radius milling tool short (l = 12 mm)

T2 Ti
T7 CoCr
2,0 mm ∅ 6 mm
up to 15 mm
Blades
Art.-No. 526029 2006

T11/T13 - 2.5 l 6.0 mm
radius milling tool

T11 PMMA WAX
T13 Zr
2,5 mm ∅ 6 mm
up to 25 mm
Blades
Art.-No. 526019 2506

T3/T8 - 1.5 l 6.0 mm
radius milling tool short (l = 12 mm)

T3 Ti
T8 CoCr
1,5 mm ∅ 6 mm
up to 15 mm
Blades
Art.-No. 526029 1506

T12 - 1.0 l 6.0 mm
radius milling tool (single blade, slide coated)

T12 PMMA WAX PEEK
1,0 mm ∅ 6 mm
up to 25 mm
Blade
Art.-No. 530004 1006

T4/T9 - 1.0 l 6.0 mm
radius milling tool short (l = 9 mm)

T4 Ti
T9 CoCr
1,0 mm ∅ 6 mm
up to 15 mm
Blades
Art.-No. 526029 1006

T12/T14 - 1.0 l 6.0 mm
radius milling tool

T12 PMMA WAX
T14 Zr
1,0 mm ∅ 6 mm
up to 25 mm
Blades
Art.-No. 526019 1006

T5/T10 - 1.5 l 6.0 mm
shaft milling tool short (l = 12 mm, four blades)

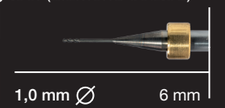
T5 Ti
T10 CoCr
1,5 mm ∅ 6 mm
up to 15 mm
Blades
Art.-No. 526002 1506

T13/T40/T50 - 2.5 l 6.0 mm
radius milling tool (diamond coated)

T13 Zr
T40 SINT
T50 COMP
2,5 mm ∅ 6 mm
up to 25 mm
Blades
Art.-No. 526013 2506

T14/T41/T51 - 1.0 l 6.0 mm
radius milling tool (diamond coated)

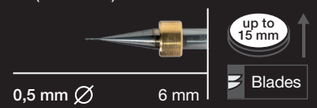
T14 Zr
T41 SINT
T51 COMP



Art.-No. 526013 1006

T19 - 0.5 l 6.0 mm
shaft milling tool (l = 4 mm)

T19 UNIVERSAL



Art.-No. 526001 0506

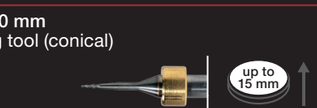
T15/T42/T52 - 0.6 l 6.0 mm
radius milling tool (conical)

T15 PMMA WAX Zr
T42 SINT
T52 COMP

Art.-No. 526019 0606

T20 - 0.6 l 6.0 mm
radius milling tool (conical)

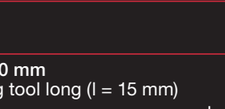
T20 Ti CoCr



Art.-No. 526003 0606

T16 - 1.5 l 6.0 mm
radius milling tool long (l = 15 mm)

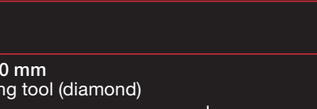
T16 PMMA WAX PEEK



Art.-No. 526019 1506

T21 - 2.5 l 6.0 mm
radius grinding tool (diamond)

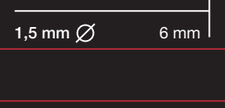
T21 glass ceramics



Art.-No. 526005 2506

T17 - 1.5 l 6.0 mm
shaft milling tool (l = 15 mm)

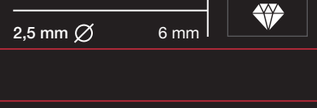
T17 PMMA WAX Zr



Art.-No. 526001 1506

T22 - 1.0 l 6.0 mm
radius grinding tool (diamond)

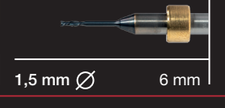
T22 glass ceramics



Art.-No. 526005 1006

T18 - 0.5 l 6.0 mm
radius milling tool (l = 4 mm)

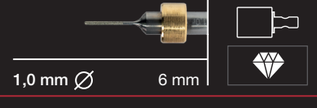
T18 UNIVERSAL



Art.-No. 526026 0506

T23 - 0.6 l 6.0 mm
radius grinding tool (conical, diamond)

T23 glass ceramics



Art.-No. 526005 0606

T26 - 3.0 l 6.0 mm
radius milling tool long (l = 20 mm)

T26 Ti CoCr

Art.-No. 526030 3006

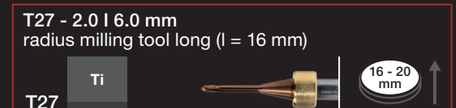
T32 - 0.6 l 6.0 mm
radius milling tool long (l = 12 mm)

T32 PMMA WAX Zr

Art.-No. 526012 0606

T27 - 2.0 l 6.0 mm
radius milling tool long (l = 16 mm)

T27 Ti CoCr



Art.-No. 526030 2006

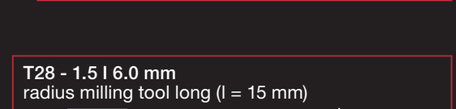
T33/ T43/ T53 - 0.3 l 6.0 mm
radius milling tool (conical)

T33 PMMA WAX Zr
T43 SINT
T53 COMP

Art.-No. 526019 0306

T28 - 1.5 l 6.0 mm
radius milling tool long (l = 15 mm)

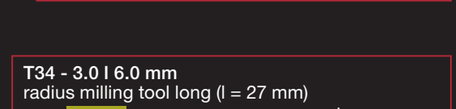
T28 Ti CoCr



Art.-No. 526030 1506

T34 - 3.0 l 6.0 mm
radius milling tool long (l = 27 mm)

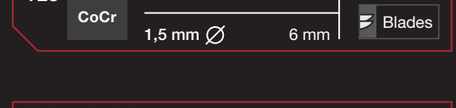
T34 PMMA WAX



Art.-No. 526012 3006

T29 - 1.0 l 6.0 mm
radius milling tool long (l = 11 mm)

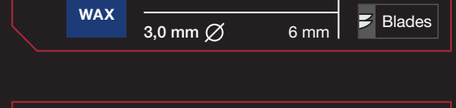
T29 Ti CoCr



Art.-No. 526030 1006

T35 - 2.0 l 6.0 mm
radius milling tool long (l = 20 mm)

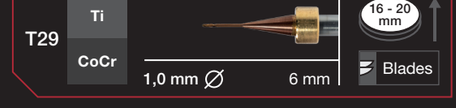
T35 PMMA WAX



Art.-No. 526012 2006

T30 - 4.0 l 6.0 mm
shaft milling tool long (l = 32 mm, single blade, slide coated)

T30 PMMA WAX PEEK



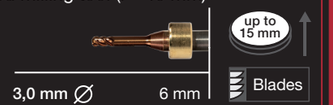
Art.-No. 526012 4006

T60 - 3.0 l 6.0 mm
highspeed milling tool short (l=15 mm)

T60 Ti

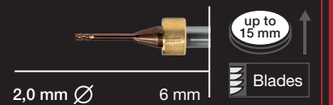
Art.-No. 530031 3006

T61 - 3.0 l 6.0 mm
Quattro speed milling tool (l = 15 mm)



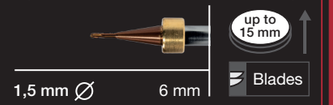
Art.-No. 526025 3006

T62 - 2.0 l 6.0 mm
torus milling tool (r = 0,2 mm, l = 16 mm, four blades)



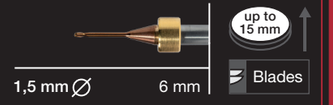
Art.-No. 526025 2006

T63 - 1.5 l 6.0 mm
torus milling tool (r = 0,08 mm, l = 7 mm, two blades)



Art.-No. 526025 1506

T64 - 1.5 l 6.0 mm
torus milling tool (r = 0,08 mm, l = 15 mm, two blades)

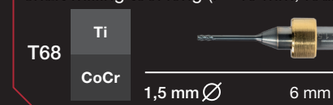


Art.-No. 526028 1506

T67 - 2.0 l 6.0 mm
shaft milling tool short (l = 7 mm, four blades)

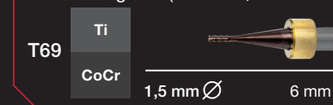
Art.-No. 526002 2006

T68 - 1.5 l 6.0 mm
shaft milling tool long (l = 15 mm, four blades)



Art.-No. 526021 1506

T69 - 1.5 l 6.0 mm
shaft milling tool (l = 7 mm, four blades)

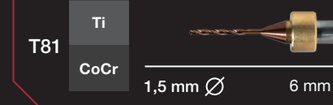


Art.-No. 530032 1506

T80 - 2.5 l 6.0 mm
drilling tool (l = 22 mm)

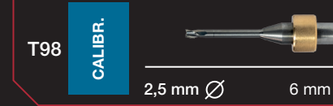
Art.-No. 526023 2506

T81 - 1.5 l 6.0 mm
drilling tool (l = 18 mm)



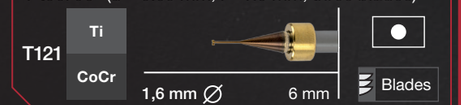
Art.-No. 526023 1506

T98 - 2.5 l 6.0 mm
shaft milling tool (l = 20 mm, three blades)



Art.-No. 526024 2506

T121 – Ø 1.6 x 0.7 l 6.0 mm
T-tool 90° (d = 0.65 mm, l = 7.5 mm, three blades)



Art.-No. 530040 1606

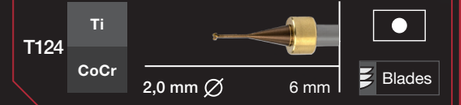
T122 – Ø 1.7 x 0.7 l 6.0 mm
T-tool 90° (d = 0.65 mm, l = 8.0 mm, three blades)

Art.-No. 530040 1706

T123 – Ø 1.8 x 1.0 l 6.0 mm
T-tool 90° (d = 0.9 mm, l = 7.1 mm, three blades)

Art.-No. 530040 1806

T124 – Ø 2.0 x 1.0 l 6.0 mm
T-tool 90° (d = 1.0 mm, l = 9.5 mm, three blades)



Art.-No. 530040 2006

CORiTEC® 650i series TOOLS

Materials

priti® MULTIDISC (ZIRCONIUM DIOXIDE)

High-end zirconia for highest mechanical and aesthetic demands. Indications up to 16-unit bridges, max. 3-unit bridges only with High Translucent.

Wide range of colors and heights available.

	Transclucence	Strength
Multi Translucent	49-40 %	80 - 1150 MPa
High Translucent	49 %	> 650 MPa
Extra Translucent	45 %	> 1150 MPa
Translucent	40 %	> 1150 MPa
Opaque	35 %	> 1150 MPa

CORiTEC NEM (NON-PRECIOUS METALS)

Burn-on non-precious metal dental milling alloys for the fabrication of e.g. up to 16-unit bridges, implant-supported superstructures etc.

CORiTEC NEM is characterized by excellent mechanical properties and good machinability.

CoCr M6 disc

molybdenum containing
type 4 alloy (EN ISO 22674)

CoCr W8 disc

tungsten containing
type 4 alloy (EN ISO 22674)

Scan yourself to priti®multidisc
and CORiTEC materials!
www.pritidenta.com

CORiTEC SPLINT COMFORT POLYMERS

Extremely comfortable and biocompatible material for the fabrication of therapeutic splints such as occlusal or stabilization splints. For maximum comfort it becomes more flexible at mouth temperature.

Available in 16 mm and 20 mm.

CORiTEC SPLINT BASIC POLYMERS

Crystal clear material for the fabrication of therapeutic splints and drilling templates. Good machinability.

Available in 16 mm and 20 mm.

CORiTEC TEMP PMMA DISC

An excellent material to work with that is suitable for long-term temporaries with up to three years of wear and that also contains intrinsic color gradients.

Available in 8 vita shades in 16 mm and 20 mm.

CORiTEC GUM PMMA DISC

For gingiva replacement, available in 25 mm.

Scanner COMPATIBLE WITH exocad

CORiTEC i3Dscan eco

- All-round carefree package for newcomers or small laboratories
- Simple, fast, low-priced
- Very compact design

CORiTEC i3Dscan color

- Automatic object guidance into the measuring field
- Modern touch-operation design
- The 180-degree opening offers a large working area

CORiTEC i3Dscan color HR

- Enormously high scanning efficiency and precision (4 µm)
- Color Texture scan
- Blue-Light LED & High resolution camera (2.8 MP)
- All modules included in the scope of delivery

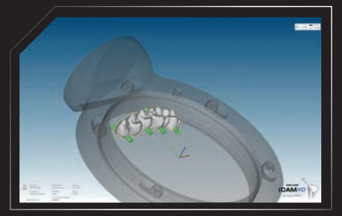
CAM Software

CORiTEC iCAM V5 smart

- All strategies optimized for 5-axis simultaneous machining
- Automatic exchange of implant connections (ReFit option)
- No annual license fees
- Fully automatic and easy operation with “Wizard Workflow“

CORiTEC iCAM HD

- hyperDENT based CAM software
- Flexible payment model (purchase or subscription model)



Suction systems

iVAC PRO+

The industrial extraction system with brushless motor, volume flow of 280 m³/hr, adjustable capacity, filter system with Teflon filter cartridge and large dust drawer, automatic compressed air self-cleaning is suitable for all dental milling machines from imes-icore®.

iVAC PRO+	
Volume flow	280 m³/hr
Output	1200 W
Filter system	Teflon filter cartridge,automatic cleaning feature
Filter volume	15 liters/56.78 gpm (dust drawer)
Width x depth x height	13.8 x 13.8 x 39.4 inch / 350 x 350 x 1000 mm
Supply voltage	115 V/230 V
Special features	compressed air self-cleaning system

iVAC silent PRO

The iVAC silent PRO convinces with its compact design with high-quality technology at an affordable price. Equipped with Teflon filter cartridge with automatic cleaning and dust drawer with 8 liter volume. With a volume flow of 240m³/hour suitable for the milling machines CORITEC one, 150i, 250i and 350i. The iVAC silent PRO fits into the imes-icore T1 and T2 machine tables.

iVAC silent PRO	
Volume flow	240 m³/hr
Output	1610 watt
Filter system	Teflon filter cartridge, automatic cleaning feature
Filter volume	8 liters / 30.28 gpm
Width x depth x height	10.6 x 21.2 x 21.1 inch / 270 x 540 x 535 mm
Supply voltage	115 V - 230 V

Sintering Furnaces

iSINT eco

The **iSINT eco** offers high-quality technology as well as suitable accessories for high demands at a fair price. Compact and with a small footprint, the **iSINT eco** sintering oven still has sufficient capacity for a sintering bowl Ø 100 mm for approx. 25 units. The door stop can be mounted right and left.

iSINT PRO

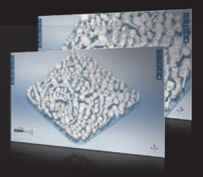
A larger sintering capacity of up to 80 single crowns is offered by the new **iSINT** PRO. With a heating system of four high-quality molybdenum disilicide (MoSi2) heating elements, you can choose between conventional long-term sintering or SPEED sintering at a rate of up to 99 °C/min/ 210.20°F/min. The **iSINT** PRO is operated with a simple and convenient program control. The programs are indicated on a 4-line LCD display. A timer function for overnight sintering or the use of pre-drying programs for shaded zirconium restorations offer further options. In addition, three service programs are available for easy maintenance of the sinter furnace.

	iSINT eco	iSINT PRO
Number of heating elements	4	4
Display	7-segment	4-line LCD
Number of program memories	9	30
Combustion chamber capacity	1 x 100	2 x 120
Max. heating rate	30°C/min / 86°F/min	99 °C/min / 210.20°F/min
Power in W	1300	3200
Lift function	No	Yes
Speedsintering	No	Yes

CORiTEC 650i
IN THE HYBRID MACHINING PROCESS!

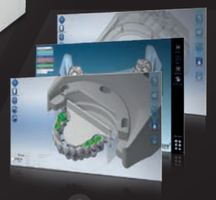
Scanner

iCAM AM Hybridmodul



CORiTEC AM100

CAM Slicer/Hybrid



LPBF-System

3D-Measurement

Materials

Tools

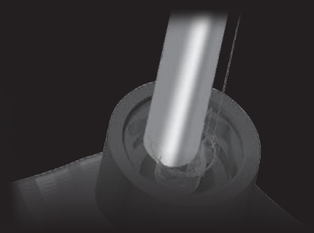
Result

Special solutions
Hybrid machining

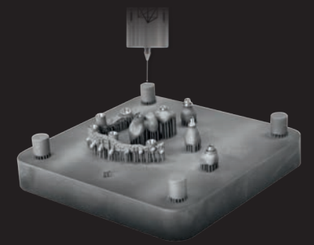
CORiTEC 650i FOR LPBF FINISH MACHINING

The high-precision CORiTEC 650i is the perfect milling system for the post-processing of 3D printed jobs using the LPBF technology. The process, developed in collaboration with technology partners, includes the complete process chain from design and 3D printing to remilling and polishing. Crowns, bridges and even highly complex frame works can be manufactured in a costoptimized way using the additive manufacturing. The interfaces are processed to a perfect fit and surface quality in the subsequent milling process.

The subtractive post-processing procedure is implemented in a special workflow and using integrated 3D-Measurement technology inside the CORiTEC 650i. Optimized holders with a proved zero-point clamping system are used to hold the building plates in the machine. The orientation and position of plates is realized by defined geometries and 3D measurement functions. In combination with the CORiTEC 650i, this process can basically be applied to any LPBF system and to various CAM Systems.



Adapted
CAM strategies



Precise
3D-Measurement

Milling results
with high surface quality

Position shifts and rotations are detected by 3D measurement using specified reference bodies. The calculation of correction values is performed in the background and then transmitted to the CAM software.

1 LPBF system + 2 CAM-Software + 3 CORiTEC 650i milling machine

Compatible with among others the following LPBF installations:

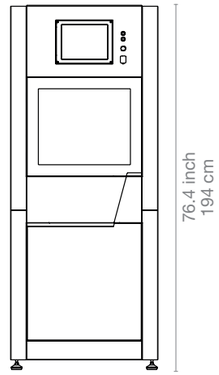
sisma
TRUMPF
CONCEPTLASER

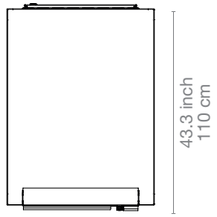
Compatible with among others the following CAM systems:

worknc Dental
CIM system
FOLLOW-ME! TECHNOLOGY GROUP

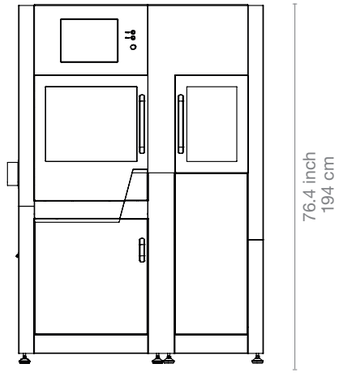
Dimensions

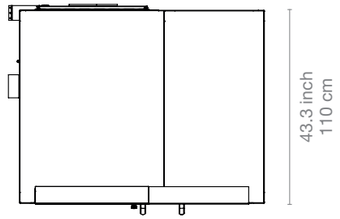
CORiTEC 650i





CORiTEC 650i Loader





In numbers

	CORiTEC 650i	CORiTEC 650i Loader
Mechanics / electronics		
Number of axes and operation type	5 axes, simultaneous machining	5 axes, simultaneous machining
Rotation angle	A-axis 360°, B-axis 130°	A-axis 360°, B-axis 130°
Spindle / power	High-frequency spindle / 3.2 kW	High-frequency spindle / 3.2 kW
Spindle cooling	Water cooled	Water cooled
Maximum spindle speed	50.000 rpm	50.000 rpm
Tools	HSK 25	HSK 25
Tool changer	32-fold	32-fold
Tool length control	≤ 0.002 mm precision	≤ 0.002 mm precision
Blank changer	-	Up to 16 blanks
Integrated computer hardware	Windows based	Windows based
Monitor	Integrated 15“ touch screen	Integrated 15“ touch screen
Illumination	3 LED status colors	3 LED status colors
Software	Remote DENTAL 3.0	Remote DENTAL 3.0
Air pressure	6-9 bar / 87-130 PSI constantly supply, 150 liters/min / 567.75 gpm/min	6-9 bar / 87-130 PSI constantly supply, 160 liters/min / 605.60 gpm/min
Cooling liquid	19 liter / 71.92 gpm integrated	19 liter / 71.92 gpm integrated
Connecting requirements		
Weight	625 kg / 1378.13 lbs	930 kg / 2050.65 lbs
Width x depth x height	30.9 x 43.3 x 76.4 inch 785 x 1100 x 1940 mm	52.1 x 43.3 x 76.4 inch 1324 x 1100 x 1940 mm
Line voltage / frequency	400 V - 3 stages / 50/60 Hz	400 V - 3 stages / 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 of 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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