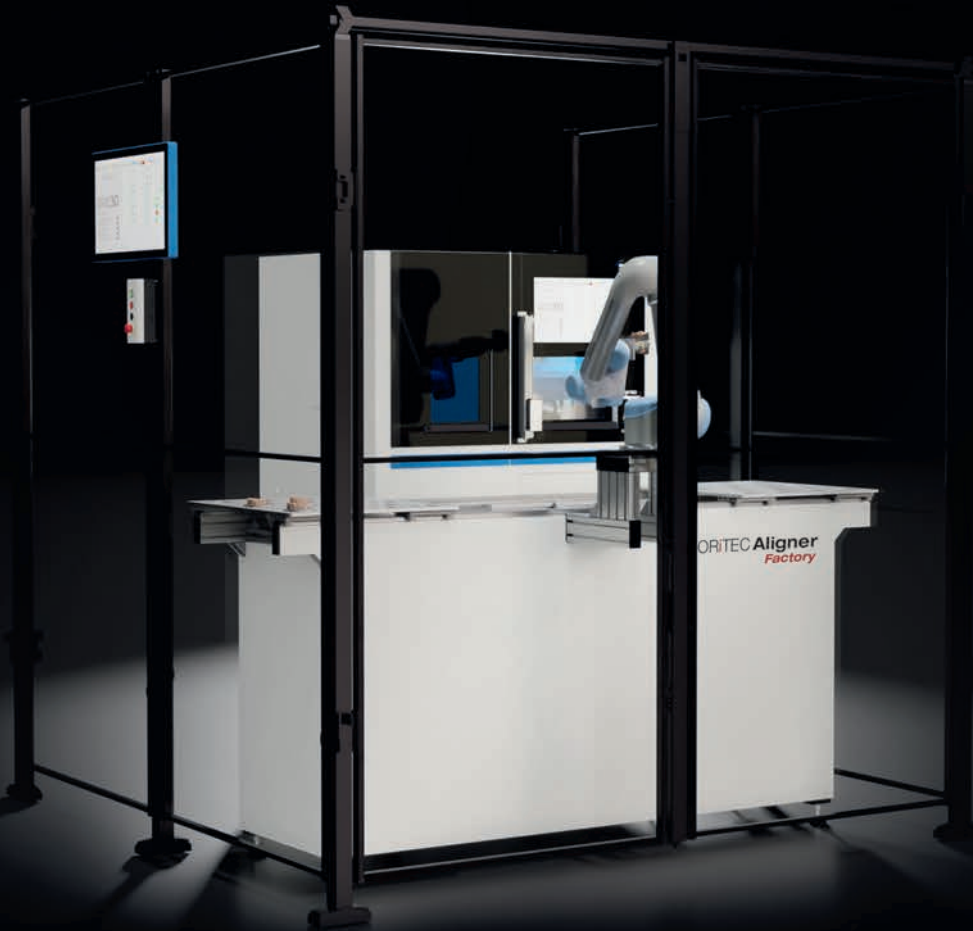




imes-icore[®]
Dental & Medical Solutions



CORiTEC[®] **Aligner** series

THE STAND-ALONE
**total solution for
aligner production**

TRIMMING | LASERING | AUTOMATING



The CORiTEC® **Aligner series**

The CORiTEC **Aligner** machine system offers a complete CAD/CAM system for the production of transparent aligner trays based on the proven CORiTEC 350i series. The consistent system integration makes the CORiTEC **Aligner** series a „stand-alone“ complete solution that leaves nothing to be desired. The advantageous price/performance ratio leads to rapid return of your investment (ROI).

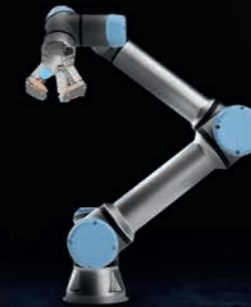
The CORiTEC **AlignerL** system also offers the option of automated laser marking. In addition to the possibility of manual operation, the optional equipment with a 6-axis robot allows fully automated loading and unloading. With its double gripper, it performs two actions in one production step, thus significantly reducing the production cycle times. Through the higher degree of automation, a significant increase in efficiency can be achieved, which means that this machine system can be operated with an amazing profitability.



CORiTEC®
Aligner



CORiTEC®
AlignerL



Robot
Automation



Pallets
Automation

CORiTEC® Aligner

THE STAND-ALONE SOLUTION FOR ALIGNER

The CORiTEC **Aligner** / **AlignerL** milling machines can be expanded into a partially or fully automated unit by means of a robot-magazine combination. The storage capacity of the magazine unit can be increased individually. This allows significant improvements in independent production and efficiency, while reducing the manual operating effort. The upstream and fully automated CAM workflow, combined with the networking of all system components, allows fully automated job processing.



- 5 AX
- 6 mm / 20x
- Temperature control
- Touchscreen
- Start button
- Light
- Control panel
- STARTER KIT
- optional
- ION
- optional

Expandable through robot automation



JOB RECOGNITION
via QR scanner

INTUITIVE CONTROL
through touch screen

SIMPLEST
BLANK LOADING
through magnet
clamping technology



LARGE, EASY
TO CLEAN
WORKING
CHAMBER

INTEGRATED
IONIZER AND
OPTIMIZED
SUCTION DEVICE



CORiTEC® Aligner

HIGHLIGHTS

- Job recognition via QR scanner
- Fully automated tool changer
- Simplest blank loading due to magnetic clamping technology
- Intuitive control by touch screen
- Zero point clamping system
- Special milling tool for excellent cutting edge quality
- Large, easy-to-clean working chamber
- Compact design

PET-G film

ABA three layer film

Base plate



Laser marking



Model blank



Zero-point clamping system



Crown, Bridge



Inlay, Onlay Veneer



Hybrid Abutment



Splint



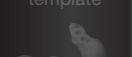
Full Denture



Modell



Drilling template



Model casting



Bridge



Telescopic technology



Abutment



Hybrid machining

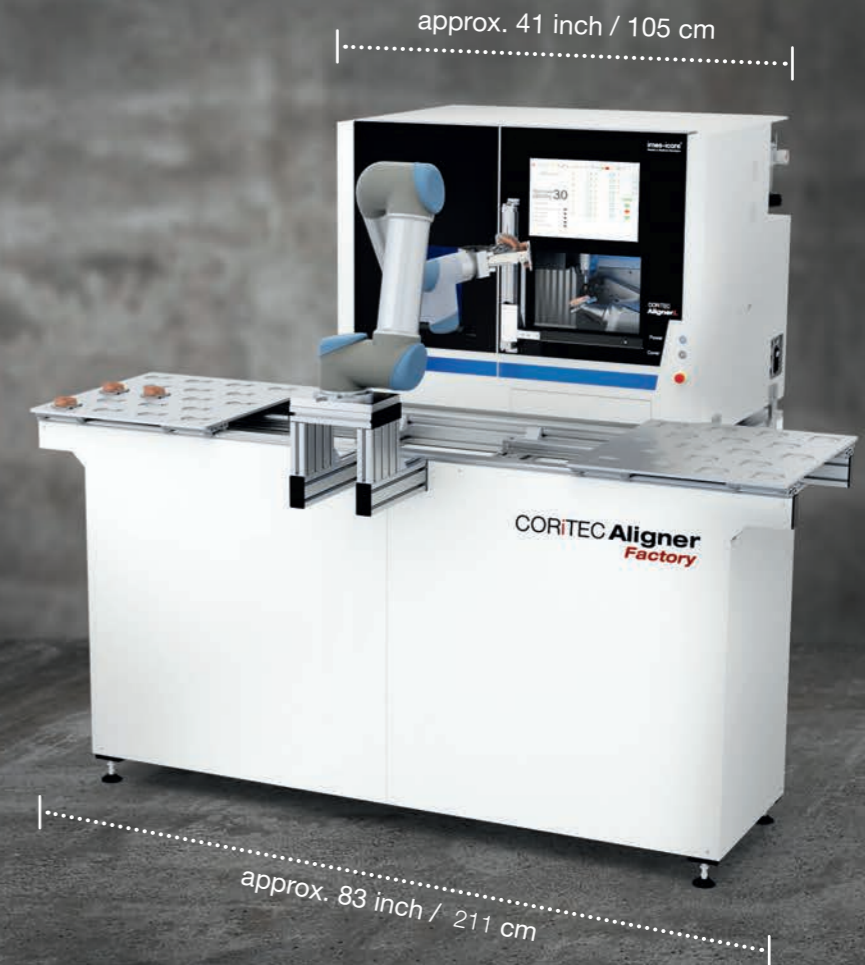
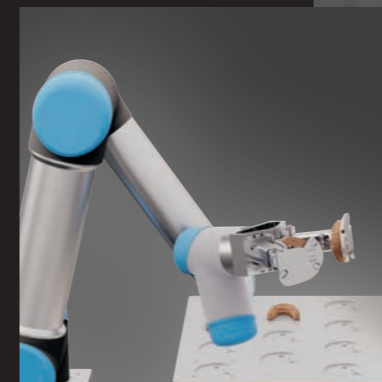
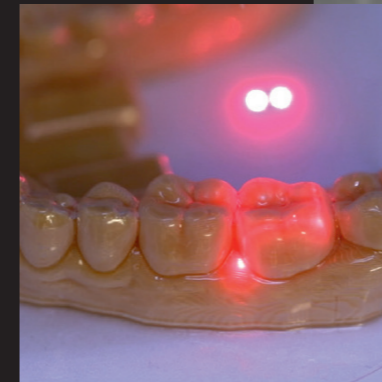
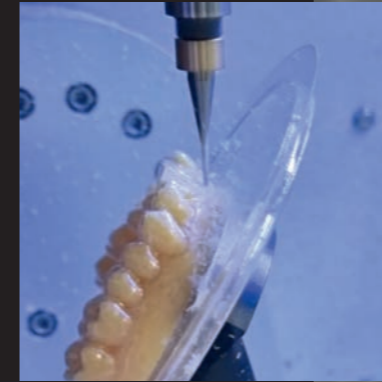


CORiTEC® AlignerL

SPECIFIC INDIVIDUALIZATION WITH MAXIMUM AUTOMATION

The CORiTEC **AlignerL** system also offers the possibility of automated laser marking of the aligner. This enables a higher degree of automation and specific individualization of the aligner. The unambiguous assignment of the lower and upper jaw splints with the accompanying treatment marking are thus guaranteed for the patient.

Due to its compact design, the CORiTEC **AlignerL** offers automation advantages with 5-axis milling performance in the smallest possible space. The system has an integrated touchscreen monitor which allows intuitive operation of the control software.



- 5 AX
- 6 mm
20x
- Temperature control
- Touchscreen
- Automation
- Starburst icon
- Control panel
- STARTER KIT
- optional
- ION
- optional

Expandable through robot automation



SIMPLEST BLANK LOADING
through magnet clamping technology

ERGONOMIC
OPERATION
by touchscreen
(integrated PC)

AUTOMATED
INDIVIDUAL LASER
MARKING



LARGE, EASY
TO CLEAN
WORKING
CHAMBER

CORiTEC® AlignerL

HIGHLIGHTS

- Job recognition via QR scanner
- Zero point clamping system
- Simplest blank loading due to magnetic clamping technology
- Ergonomic operation by touch screen control (PC integrated)
- Individualization through automatic laser marking
- Fully automated tool changer
- Special milling tool for excellent cutting edge quality
- Large, easy-to-clean working chamber

PET-G film

ABA three layer film

Base plate



Laser marking



Model blank



Zero-point clamping system



Crown, Bridge



Full Denture



Bridge



Inlay, Onlay Veneer



Modell



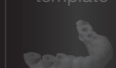
Telescopic technology



Hybrid Abutment



Drilling template



Abutment



Splint



Model casting



Hybrid machining



Extension through CORiTEC® Aligner *Factory*

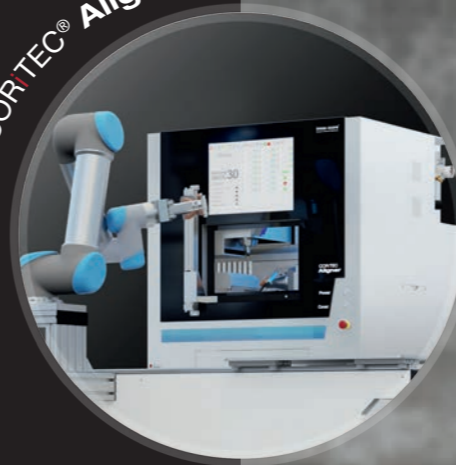
PRODUCTIVITY AND RESULTS

The 5-axis milling systems CORiTEC **Aligner** and **AlignerL** can be optionally equipped and retrofitted with an automatic loading and unloading system. The special machine table guarantees a stable base for high-precision milling and laser results. The optional 6-axis robot for the automatic loading and unloading of the aligner is mounted on a special base frame with a tray capacity of up to 80 magazine positions. This highly compact design minimizes space requirements. The operation of more than one machine with one robot is also possible.

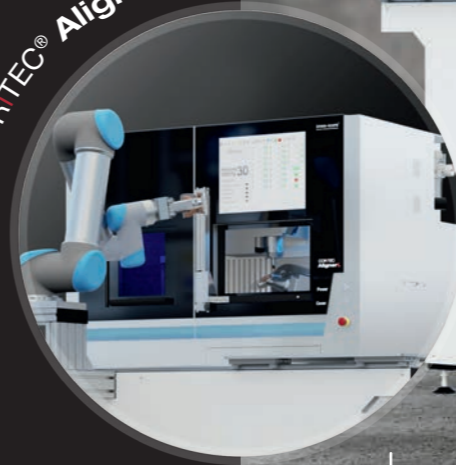
HIGHLIGHTS

- Collaborative 6-axis robot
- Double gripper system optimizes cycle times
- Compact design
- Modular system
- Expandable storage capacity
- Loading of several machines with one robot possible
- Fully automated loading and unloading
- Tray capacity of up to 80 magazine positions

Suitable for CORiTEC® Aligner



Suitable for CORiTEC® AlignerL



approx. 83 inch / 211 cm

5 AX

6 mm
20x



optional

ION

optional

CORiTEC® Aligner STARTERKIT

THE UPGRADE FOR YOUR EXISTING MACHINE!

Do you already have a CORiTEC 350i **PRO** or **PRO+** series milling system? Simply expand it with the CORiTEC **Aligner** Starter Kit. Thanks to its holder system with integrated zero-point clamping system, you can start your aligner production in just a few steps.

- 1x tool case
- 1x holder set with integrated zero point clamping system
- 5x base plate to hold the blanks
- 5x special milling tool



CORiTEC® 350i **PRO/PRO+** series

+



CORiTEC® Starter Kit

=



Mixed operation
of dental and
aligner applications

Expand the functionality of your 350i machine...

...AND STAY FLEXIBLE!



Integrated workflow...

...WITH OPEN INTERFACES

A sophisticated, coordinated workflow for all the processes required for the aligner production guarantees professional results for the highest demands. Integrated and validated sub-systems form a perfect process chain to produce aligner in a cost-effective way.



Scanner

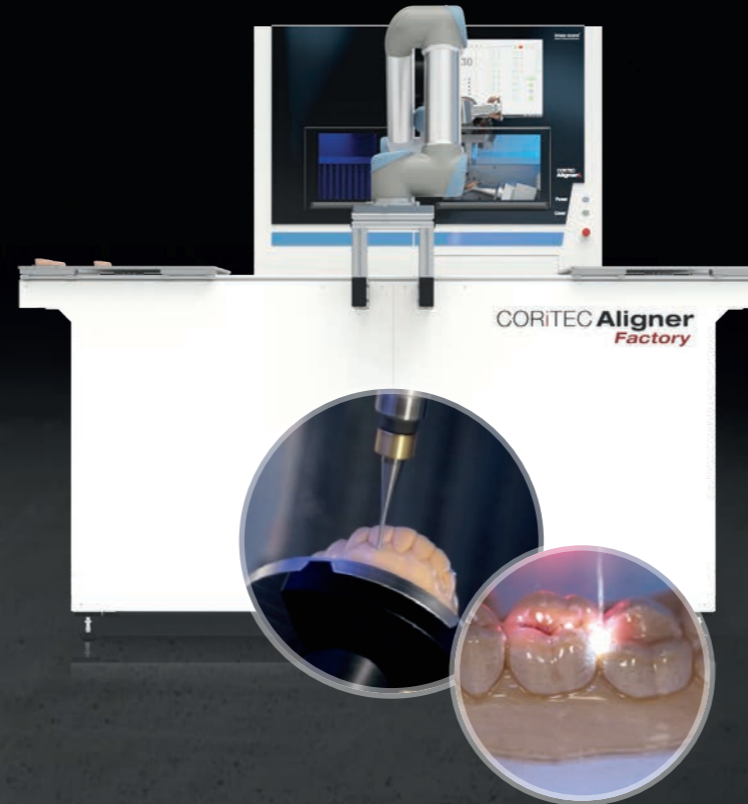


CAD/CAM



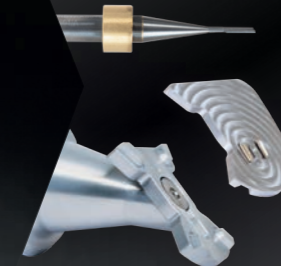
Printing process

3D Printing
Thermoforming
Work preparation



Tools

Special cutter
Base plates
Holder with
zero point
clamping system



Result

Post-processing
Polishing
Packing



Applications | Holder | Accessories

THERAPEUTIC SPLINTS

- Occlusal splints, bleaching splints
- Snoring splints, aligner
- Simple and high-quality implementation using the CAD/CAM process



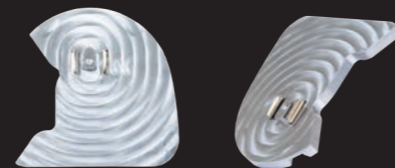
ALIGNER HOLDER SET

- Incl. integrated zero point clamping system
- Enables 5-axis machining
- Extension of the technical possibilities of your existing milling machine of the CORITEC 350i PRO/PRO+ series



BASE PLATE

- Precise attachment of the blank via quick click pickup
- Anti-twist protection of the blank
- Precise and easy placement within the machine



QR SCANNER

- Automatic identification of job IDs by means of integrated 2D scanner



Tools | Materials

T112 MILLING TOOL

- Perfect cutting edges
- Milling and deburring in one pass

T112 - 1.5 | 6.0 mm
Radius cutter (single cutter, slide coating)

T112

PET-G

ABA

1.5 mm Ø

6 mm

up to 25 mm

Blade

Art.-No. 526041 1506

THERMOFORMING SHEET BLANKS

- Machining of blanks in diameter 120 mm or 125 mm
- as PET-G or ABA three-layer film in different thicknesses
- Square blanks in the format 125 x 125 mm possible

Ø x thickness (mm)	
120/125 x 0.4	120/125 x 1.0
120/125 x 0.5	120/125 x 1.3
120/125 x 0.625	120/125 x 1.5
120/125 x 0.7	120/125 x 2.0
120/125 x 0.8	



System software Remote DENTAL 3.0/ Job manager software

The machine is operated via the integrated touchscreen display with the proven Remote DENTAL 3.0 control software. All important functions and control elements can be found in one overview and the intuitive graphic interface design thus enables language-neutral operation. The Remote DENTAL 3.0 system software impresses with its effortless management of tools as well as its automatic tool monitoring and sister tool function. For a smooth workflow, all important sub-areas are automatically integrated by the job management software.

FEATURES

- Automation of the workflow between the sub-processes
- Generation of a QR code
- Data handling (database)
- Matching of the ID with the milling and laser file
- Control of scanner and laser
- Control of the CNC process as well as the optional robot handling

Simplest operation due to the Remote DENTAL 3.0 system software



iCAM
Aligner

CAM software CORiTEC® iCAM Aligner

As a fully automated black box solution, the CORiTEC iCAM **Aligner** application is the key to the simple and ideal calculation of milling data. With the integrated collision control, the milling process can be safely monitored in advance. The seamless connection to the CORiTEC milling machines offers optimal connectivity for perfect results.

FEATURES

- Fully automated black box solution
- Optimal milling strategy
- Integrated collision control
- Networking with the CORiTEC milling machines

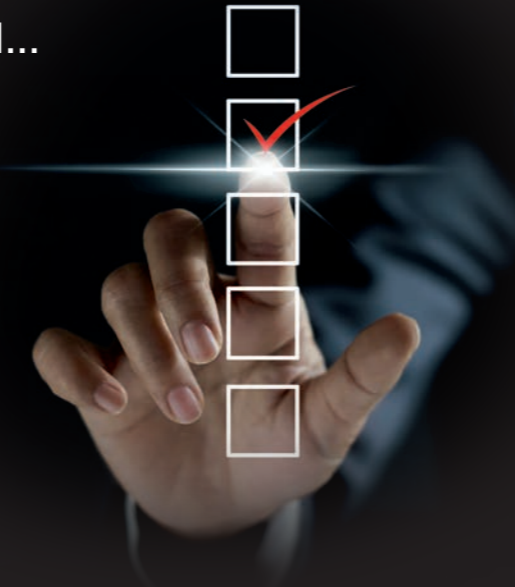
Simple and ideal milling data calculation



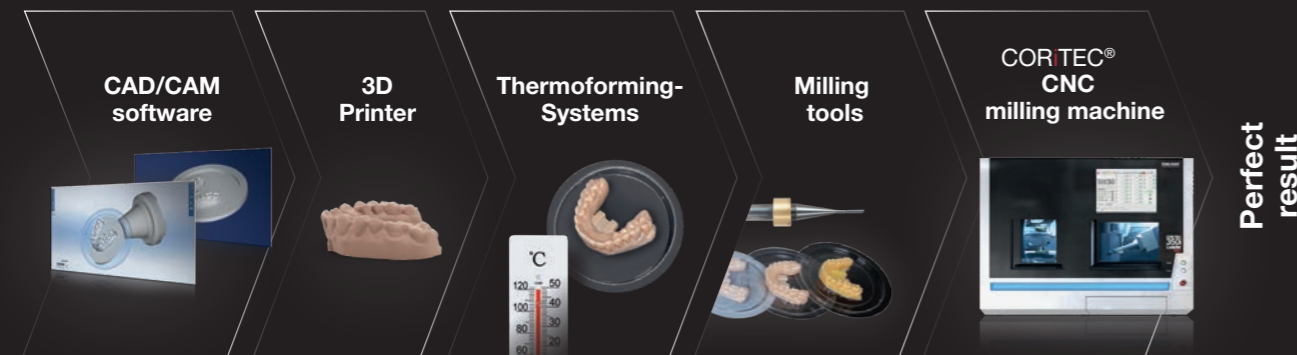
COORDINATED OVERALL PROCESS THROUGH...

...proven systems

A powerful and high-precision CNC machine is the basic prerequisite for the automated dental production process. However, optimized CAD/CAM milling strategies tailored to the machine, high-end milling tools, the right materials, and high-performance 3D printers and thermoforming systems are what make the difference in daily operations. Above all, these proven processes result in maximum productivity, enabling you to meet the extremely regulatory requirements of our time. Our CAD/CAM experts are available to provide you with know-how as well as advice and support.



Highest process reliability by combination of components to a seamless workflow:



Machine tables



Machine tables, especially developed for the needs of the different machine types convince with their stable and mobile design.

The two sizes pallet automation offered an optimal footprint for the machine systems of the COR TEC **Aligner** series.

Machine table T1	Machine table T2	Pallet automations	
30.3 x 36.6 x 31.1 inch 770 x 930 x 790 mm W x H x D	41.7 x 36.6 x 31.1 inch 1060 x 930 x 790 mm W x H x D	83 x 41.1 x 21.3 inch 2108 x 1045 x 540 mm W x H x D	
COR TEC® Aligner COR TEC® 350i COR TEC® 350i PRO COR TEC® 350i PRO+	COR TEC® AlignerL COR TEC® 350i Loader COR TEC® 350i Loader PRO COR TEC® 350i Loader PRO+	COR TEC® Aligner COR TEC® 350i COR TEC® 350i PRO COR TEC® 350i PRO+	COR TEC® AlignerL COR TEC® 350i Loader COR TEC® 350i Loader PRO COR TEC® 350i Loader PRO+

Suction systems



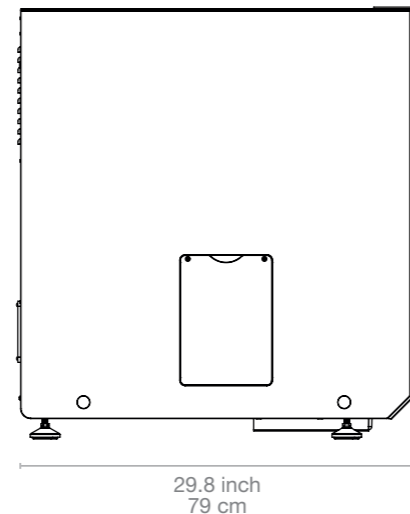
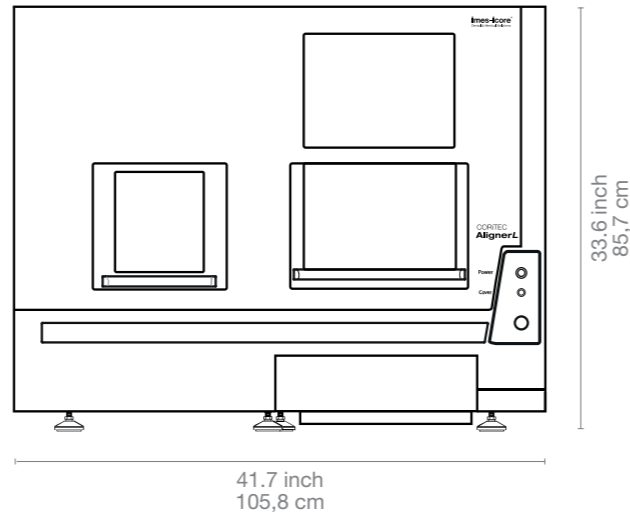
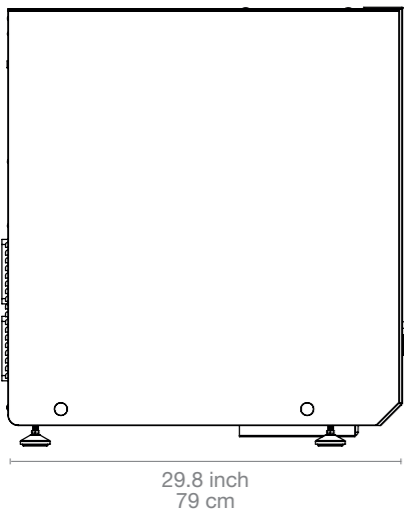
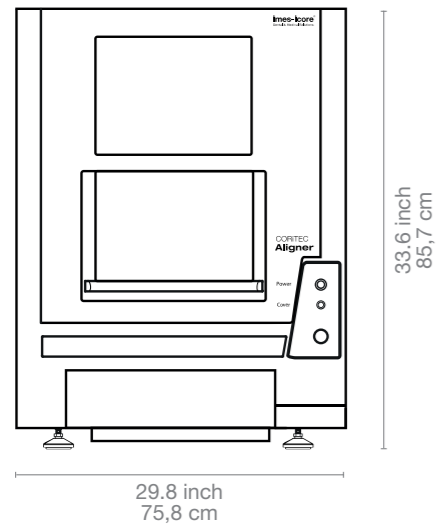
iVAC eco+

- Quiet running
- Special features: fits into machine tables T1 and T2

iVAC eco+	
Volume flow	260 m ³ /h
Output	1200 W
Filter system	Dust drawer, HEPA filter
Filter volume	25 l
W x D x H	7.3 x 18.1 x 29.5 inch 7.3 x 440 x 460 x 750 mm
Supply voltage	115 V/230 V

Dimensions

CORiTEC® Aligner / AlignerL



CORiTEC® Aligner series in numbers

CORiTEC® Aligner

CORiTEC® AlignerL

Mechanics /electronics

Base structure	Polymer concrete	Polymer concrete
Number of axes and operation type	5 axes, simultaneous machining	5 axes, simultaneous machining
Rotation angle	A-axis 360°, B-axis 115°	A-axis 360°, B-axis 115°
Spindle	High-frequency spindle	High-frequency spindle
Maximum spindle speed / spindle power	60.000 rpm 1.0 kW	60.000 rpm 1.0 kW
Spindle cooling	Air cooled	Air cooled
Zero point clamping system	Yes	Yes
QR scanner	Yes	Yes
Laser function	-	Yes
Tools	Milling and grinding tools with 6 mm shaft	Milling and grinding tools with 6 mm shaft
Tool changer	20-times	20-times
Tool length control	≤ 0.002 mm precision	≤ 0.002 mm precision
Integrated PC	Windows based	Windows based
Monitor	Integrated 15" touchscreen	Integrated 15" touchscreen
Illumination	3 LED status colors / LED illumination	3 LED status colors / LED illumination
Software	Remote DENTAL 3.0	Remote DENTAL 3.0
Compressed air supply*	6.5 – 9.0 bar @ 80 l/min 95 – 130 PSI @ 2,9 cf/min	6.5 – 9.0 bar @ 80 l/min 95 – 130 PSI @ 2,9 cf/min

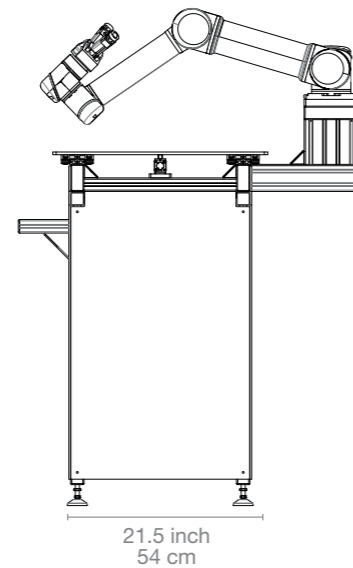
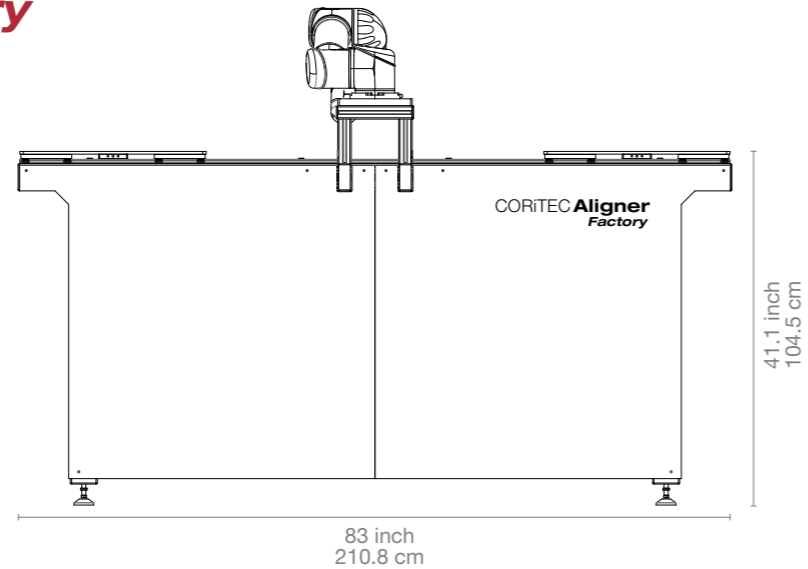
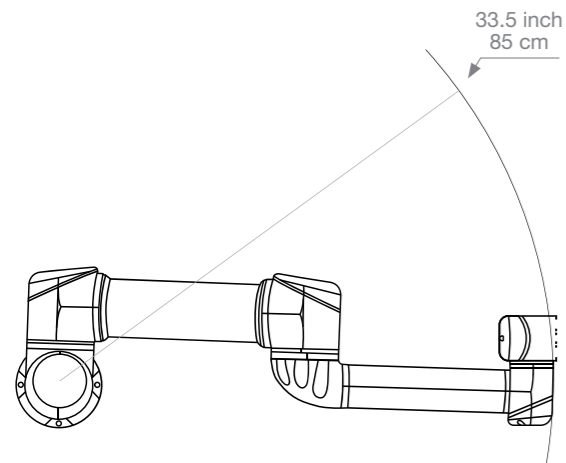
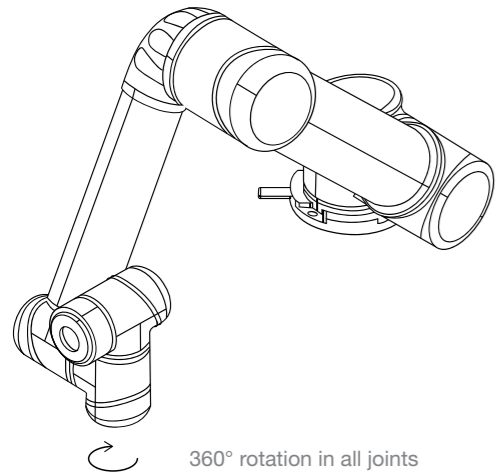
Connecting requirements

Weight	180 to 210 kg / 496.13 lbs	225 to 255 kg / 496.13 lbs
Width x depth x height	29.8 x 31.1 x 33.7 inch 758 x 790 x 857 mm	46.6 x 31.1 x 33.7 inch 1058 x 790 x 857 mm
Supply voltage / frequency	100 V – 240 V / 50/60 Hz	100 V – 240 V / 50/60 Hz

*according to ISO 8573.1:2010 class 3.4.3

Dimensions

CORiTEC® Aligner *Factory*



CORiTEC® Aligner *Factory* in numbers

Weight	18.4 kg
Load capacity	5 kg
Range	33.5 inch / 850 mm
Rotation of the joints	+/- 360°
Speed	Joint: Max 180°/sec. Tool: Approx. 1 m/sec.
Repeatability	+/- 0.1 mm
Footprint	Ø 5.9 inch / 149 mm
Degree of freedom	6 rotating joints
Control cabinet size (W x H x D)	18.7 x 16.7 x 10.6 inch 475 mm x 423 mm x 268 mm
I/O ports	10 each digital on/off 4 each analog on/off
I/O power supply	24 V 1200 mA in the control cabinet 12 V/24 V 600 mA in the tool
Communication	TCP/IP 100 Mbit: IEEE 802.3u, 100BASE-TX Ethernet socket & Modbus TCP
Programming	graphical user interface 12" lightweight touch screen with wall mount
Sound	Low noise
IP classification	IP54
Power consumption	approx. 200 watts per average program
Collaboration operation	tested according to EN ISO 10218-1:2006, par. 5.10.1/5.10.5
Material	Aluminum, ABS plastic
Temperature	Working temperature from 0 – 50°C
Supply	100 – 240 V, 50/60 Hz

[6.0 meter cable between robot and control cabinet]

[4.5 meter cable between touch screen and control cabinet]

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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