

inLab

CAD/CAM solutions for the dental lab

dentsplysirona.com/inLab





Content

inEos X5	06
Digital impression	10
Connect Case Center	12
inLab CAD Software	14
inLab MC X5 and inLab MC XL	18
inLab Profire	20
Technical data	22

inLab – freedom of choice for the dental lab

CAD/CAM with inLab – you have freedom of choice for scanning, designing and manufacturing. Scanners, software and production units are coordinated and in tune with the dental technician's needs. Together, the components offer a wide range of indications, material diversity and high user-friendliness. In addition, Connect Case Center gives you access to a large installed base of digital intraoral impression systems. inLab is open and STL interfaces permit flexibility when integrating existing CAD/CAM solutions for independent and cost-efficient production processes.

The digital workflow

The combination of powerful CAD/CAM components: Dentsply Sirona is committed to developing innovative quality products and coordinated solutions within carefully validated processes in order to provide comprehensive, secure digital workflows for all prosthetic work carried out in dental labs.

inLab users benefit not only from the powerful hardware and software components of the inLab system. They can also access and integrate the broad portfolio of Dentsply Sirona along the entire digital process chain, whether by connecting to outstanding intraoral scan technology or using quality work materials for processing with the inLab system.



inEos X5 – One scanner, all options

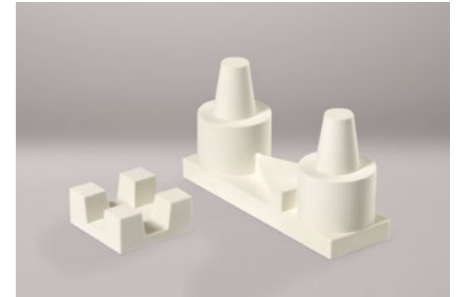
The inEos X5 allows you to make scans for all indications and is your lab specialist for every digitization task. The open scanner combines simple operation with object-specific scanning strategies – for complete freedom of application.



Proven accuracy

The inEos X5 was developed by Dentsply Sirona according to high quality standards for optical measuring systems. The scanner ensures high accuracy for all digitization work of interest to the dental technician – from the palate to the tip of the scanbody.

The accuracy of the results of the inEos X5 with inLab CAD SW 16 was verified according to DIN EN ISO 12836:2015. The demonstrated accuracy on standard “bridge” test specimens was at $2.1 \pm 2.8 \mu\text{m}$, and on standard “inlay” test specimens, $1.3 \pm 0.4 \mu\text{m}$.



Implant level screw-retained implant suprastructures

For screw-retained bridges and bars at implant level, the scan data generated with inEos X5 can be flexibly transferred to the further process:

- Design with inLab CAD Software (Implantology Module)* and export of the STL/SCI files (Interface Module) to a third-party supplier capable of processing these files
- Transfer of the inEos X5 scan data to Atlantis® for design and fabrication
- Transfer of open inEos X5 scan data (STL) for subsequent design with other suitable CAD software

Reliable implant-supported restoration



For screw retained bridges and bars, depending on the implant connection type, we distinguish between the scanbody inPost (for multi-unit abutments) and FLO-S (for implant level screw-retained restorations).



The special scanning strategy for long-span, implant level screw-retained suprastructures determines implant positions with high precision in terms of both position and angle.



The special inEos X5 high-precision calibration set ensures the highest level of scanning accuracy. Quality assurance documents and protocols can be exported in PDF format for archiving.

* Available for implant systems from Dentsply Sirona, Camlog, Nobel Biocare and Straumann. Further implant systems will follow.

Scanning quality – “Made in Germany”

All inEos X5 components were specifically developed in Germany for dental application and produced according to strict quality standards. The scanner ensures precise digital acquisition for all preparation types with its robotic arm and 5-axis scanning technology, combined with a large working area.



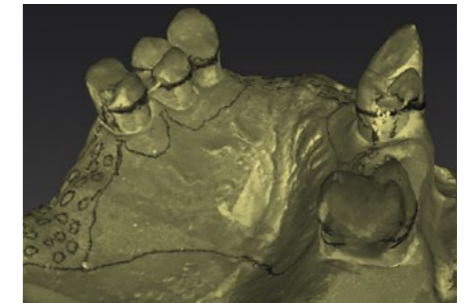
Implants

Using the one-piece scanbody (inPost or FLO-S) and the implant scanning strategy, implant positions can be determined with high precision even in extended screw-retained restorations.



Triple-tray scan

The lower and upper jaw together with the bite registration can be scanned from a triple-tray impression tray for smaller jobs.



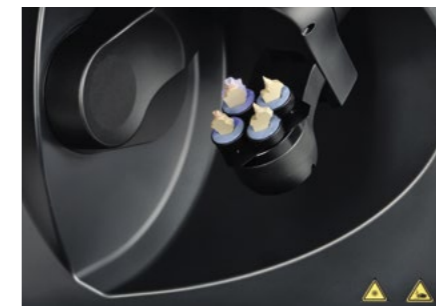
Texture scan

Marks on the model are detected for visual support, for example in partial framework design using the inLab CAD Software.



Impression scan

The inEos X5 easily scans many different shapes and sizes of impression trays.



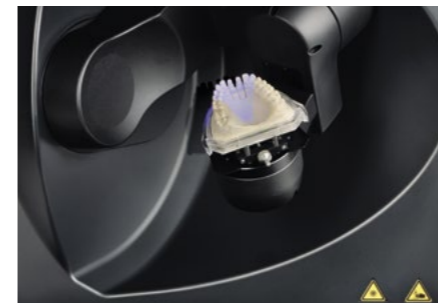
Multi-die scanning

Up to four prepared dies are scanned automatically and inserted into the digital model with no manual interaction.



Wide operating range

Allows the positioning of most common articulators and gives fast, unobstructed access to the scan object.



Rapid scanning

Full-arch models are digitized in less than 60 seconds thanks to the large scanning field.



Manual scanning

Smaller jobs with only a few prepared teeth can be scanned quickly and efficiently in manual mode.



Workflows

Seamless inLab system integration. Open for STL export. Validated workflow with exocad®.

Digital impression with Dentsply Sirona – The perfect starting point

Accurately capturing the clinical situation paves the way to first-rate prosthetic results. As a complete digital reflection of the intraoral situation, the virtual model opens up a world of possibilities for indications and workflows in practices and labs.

Primescan by Dentsply Sirona is the perfect starting point. The intraoral scanner impresses with extremely high performance that pleases clinicians and lab technicians alike.



Primescan – Engineered for superior performance

The intraoral camera is easy to use, has extremely accurate sensors, and creates 3D models in true color and with unsurpassed resolution. Primescan also enables digital workflows for all types of work done between the practice and the lab.

Excellent scan results

Outstanding accuracy and reliable quality no matter which indication or materials ensures a perfect fit for any restoration or appliance. Even scanning of deep cavities, steep inclines and surfaces like metal crowns are possible. Plus, digital models are less prone to errors than analog casts and reduce the need of rework.

Time saving

With Primescan you can take a full arch scan in less than one minute and a quadrant scan in just seconds, which allows shorter treatment time and immediate control of the scan results.

Ease of use

Impression taking with Primescan is easy and intuitive. This procedure can be delegated, saving time and bringing more joy to the user in the dental office. Primescan comes with the mobile acquisition center with long battery charge.



For more details on Primescan features please refer to website: dentsplysirona.com/primescan

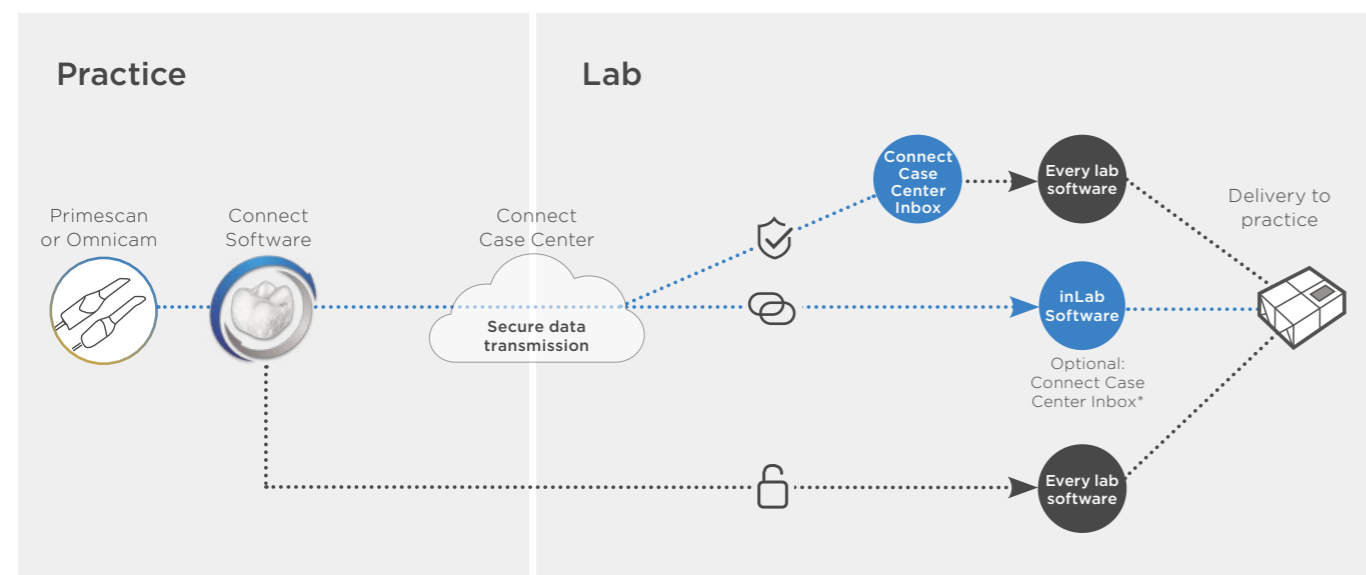


Freedom of collaboration – Secure data transmission with the Connect Case Center

Dentsply Sirona offers clinicians and labs a sophisticated workflow tailored to meet their needs in a digital collaboration. Connect Case Center – Dentsply Sirona’s unique portal for fast and easy collaboration – gives dentist the option to transmit data securely and also anonymized, if desired.

Enhanced communication – No additional costs

- Simple and safe data transfer within seconds compliant to HIPPA and GDPR
- The dental laboratory receives information immediately by e-mail confirming receipt of the order
- Review and discussion of the 3D model on the screen simultaneously during the patient consultation allowing for an immediate correction of the impression or the preparation without the need for an additional appointment
- Convenient transmission of additional data (patient images, screen shots, etc.)
- No license fees



Flexibility for the digital lab

- 🔗 inLab Software users benefit especially from the seamless integration of Connect Case Center in the inLab CAD Software
- 🔒 Labs with other CAD Software can securely receive complete digital patient case – thanks to validated processes with the Connect Case Center Inbox*
- 🔓 Alternatively, every lab can also receive 3D data models as open STL files

Connect Case Center – Coordinated processes with inLab

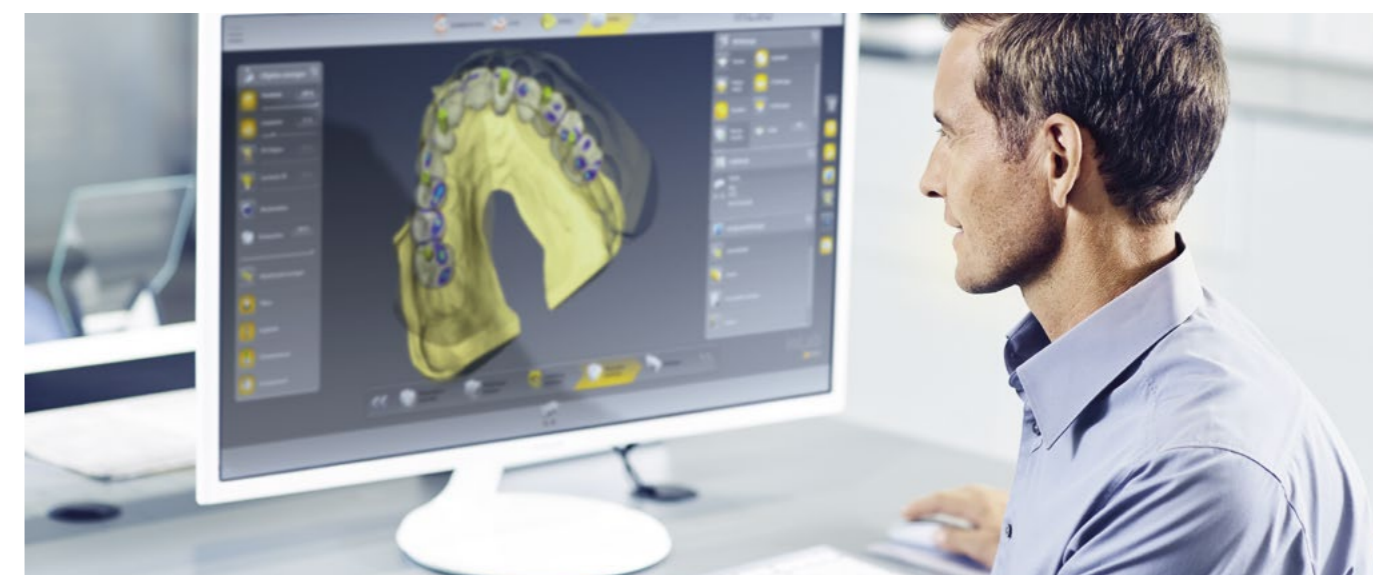
Even with the inLab CAD Software Basic Module, dental labs that have completed the one-time registration have direct access to the Connect Case Center Portal – the transfer platform for digital impressions generated by Dentsply Sirona intraoral scanners.

From dental office to inLab lab

- Direct access to the Connect Portal from the inLab CAD Software
- Convenient and secure receipt of scan, restoration and order data
- Transmission of additional data, such as patient images
- Chat function and integrated Skype connection for in-person information sharing
- Optional access via Connect Case Center Inbox*

From one inLab lab to another

- Convenient and secure receipt of scan, restoration and order data
- Secure transmission of inLab scan data or finished restoration data from one lab to another, directly from the inLab Software
- Expanded production capacities and use of outside expertise
- Use and/or offer design services for labs
- Order-specific chat via Connect Portal



Design service by inLab labs for CEREC practices

A large share of digital impressions are transmitted by CEREC users to dental labs via the Connect Case Center. This provides additional dental expertise for complex or esthetically demanding orders. However, the products leaving the laboratory don't always have to be finished restorations. For example, with the digital Design Service, labs can receive an intraoral data set via the Connect Case Center portal, design the required work with their inLab Software, and return the restoration data to the CEREC practice for final processing. A digital service by labs that can save valuable treatment time in practices while leveraging dental expertise.

* Connect Case Center Inbox can be used optionally and is included in inLab Software Basic Module. All Dentsply Sirona intraoral scanners include a Connect Case Center Inbox license.

inLab CAD Software – Dental design requires good software

The inLab CAD Software is a separate CAD component and is independent of the scanning and production unit. inLab CAD SW convinces with needs-based indications and user-friendly application.

You have a broad range of indications beyond basic applications you can select with inLab CAD SW. Four software modules cover the most important indications. You remain free to decide if and when you would like to add an available update – no dongle counters, no mandatory updates, no expiration date, and no annual license fee.



Design as needed

inLab CAD SW Basic Module*

- Inlays, onlays, veneers, full crown, bridges, copings, bridge frameworks, multilayer, models
- All design tools
- 1:1 copy mode
- Multilayer Gingiva
- Jaw-Oriented Biogeneric Settings (J.O.B.S.)
- Tooth databases
- Virtual insertion
- Virtual articulator
- Smile design
- Gingiva elements
- Access to Connect Case Center
- inLab check of the design data for stress sensitivity

inLab CAD SW Implantology Module**

- Screw-retained bridges and bars on multi-unit abutments
- Custom Abutments (zirconia or titanium)
- Implant level screw-retained bridges and bars
- Surgical guides (integrated implantology)

inLab CAD SW Removables Module**

- Full denture
- Partial framework
- Custom impression trays
- Splints
- Telescopes
- Bars
- Individual attachments

inLab CAD SW Interface Module**

- One license for all available interfaces
- Flexible integration of the inLab CAD Software into nearly every existing CAD/CAM equipment

* Required for all other modules. ** Requires the inLab CAD SW Basic Module

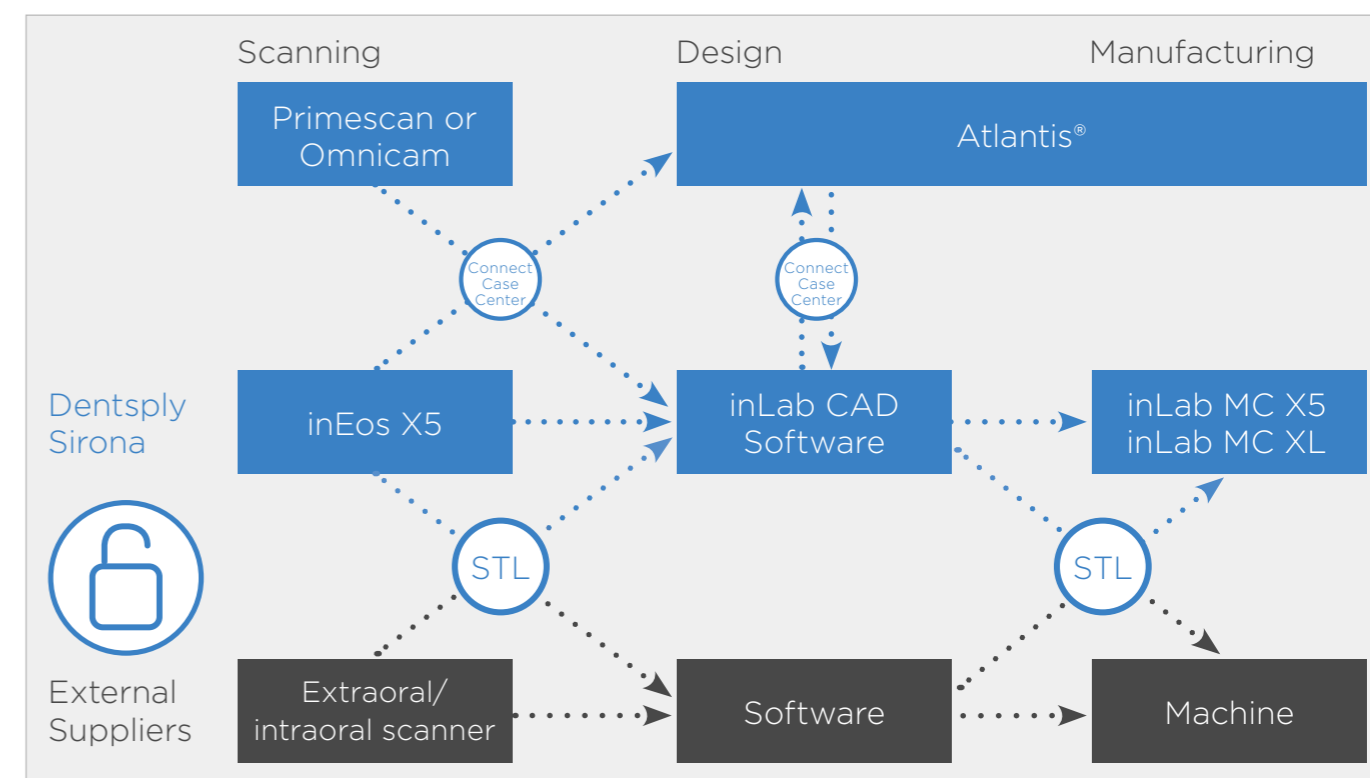
inLab CAD Software Interface Module – Staying flexible

With inLab CAD software you can decide on a case-by-case basis whether to complete the entire CAD/CAM process with the inLab components from Dentsply Sirona or use individual solutions from other manufacturers.

inLab is open

The optional Interface Module of inLab CAD SW gives you more versatility for your CAD/CAM infrastructure. Example:

- STL import of scan data (extraoral and intraoral scanner), e.g., for design with inLab CAD SW and production with the inLab MC X5 or inLab MC XL.
- STL export of inLab restoration data, e.g., for processing on other production units
- STL export of designed model data, e.g., to an external model production facility



Manufacturing with inLab

inLab MC X5 and inLab MC XL are designed to meet dental requirements in labs and focus on economic and effective production processes: inLab MC X5 as a universal 5-axis production unit for wet and dry production of blocks and disks; inLab MC XL as an effective milling and grinding unit for quick and accurate results.

Users of both machines benefit from a wide range of materials and can select from the high-quality materials of Dentsply Sirona and its CAD/CAM material partners for which the production processes of inLab MC X5 and inLab MC XL are optimized.



Wide range of indications

The application range for inLab MC X5 enables dental labs to make productive use of their equipment. Processable disc height and setting angles offer flexibility for manufacturing implant restorations with heavily diverging screw channels or abnormally shaped stumps.

Accurate high-speed grinding with inLab MC XL

The simultaneous, dual 4-axis processing with inLab MC XL offers a wide range of production options and the outstanding accurate wet processing. Glass and hybrid ceramic restorations can be produced with high speed, allowing for same-day service for urgent cases.

The processing of glass ceramics involves diamond burs up to 0.6 mm diameter – for restorations with the high regard to detailed occlusal surfaces and smoother surfaces, interdental areas and for the preparation margin.

inLab CAM Software for efficient production control

Two machines – one workflow: The inLab CAM Software was specifically developed for use with the Dentsply Sirona production machines inLab MC X5 and inLab MC XL. Thanks to the user-friendly interface, all necessary work steps, system configurations and integrated service functions can be carried out quickly and easily. Additionally, the software offers a valuable documentation tool for the quality management, with all essential information on job history, finished elements, and materials.

Open

inLab MC X5 and inLab MC XL complement the inLab components inEos X5 and inLab Software. For more flexibility when connecting to other CAD/CAM systems, the inLab CAM Software can also accept STL data imports and XML-based STL files from restoration data generated in 3Shape (*.3ox). Moreover, the validated interface with exocad® (*.constructioninfo) enhances the reliability of production processes in the digital workflow.

Material partners:



VITA



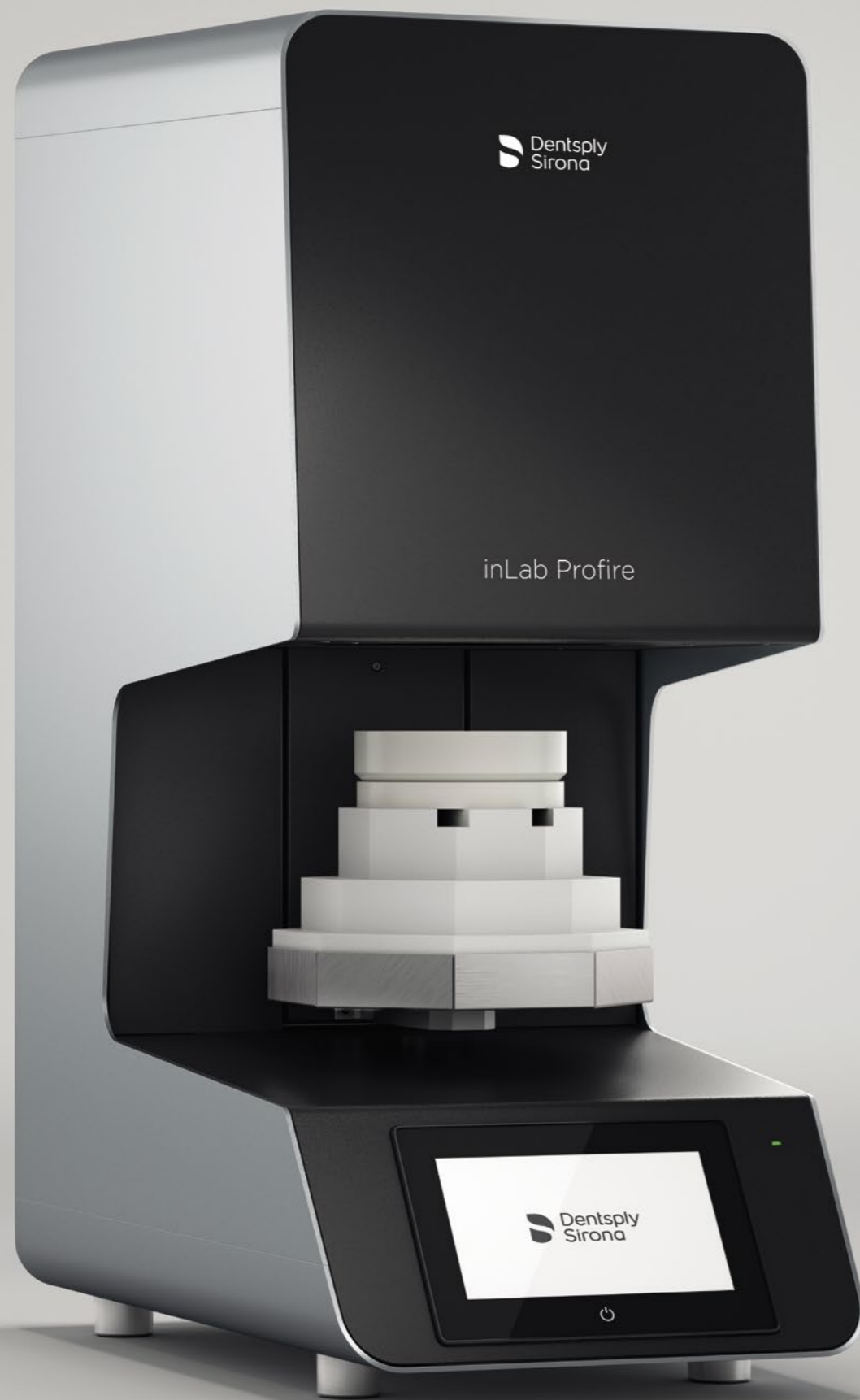
3M



COLTENE

Kuraray
Noritake

GC



inLab Profire sinter furnace – Powerful & comfortabel

A reliable and powerful sintering furnace is essential for CAD/CAM-fabricated zirconium oxide and non-precious metal restorations. The inLab Profire sinter furnace from Dentsply Sirona combines proven process technology and convenient operation – for more process reliability and reproducible sintering results in the dental laboratory.

High-grade heating elements that have been tested in long-term tests as well as homogeneous temperature distribution in the furnace chamber provide precise temperature control throughout the sintering process, for high quality sintering outcomes and reproducibility.

The touch display provides convenient operation and enables quick and easy execution of all furnace functions. The user interface clearly displays program status and possible interactions..

Powerful

- Conventional long-term sintering of zirconium oxide
- Speed sintering for single restorations, frameworks and bridges
- “Dry & Sinter” – Sintering with pre-drying which can be easily activated before each process

Flexible

- Sintering of zirconium oxide and sinter metal* with just one furnace
- Quick and easy transition between sintering zirconium oxide and sinter metal

Reliable

- Preprogrammed for validated sinter materials from Dentsply Sirona
- Optional free programming for long-term and speed sintering of zirconium oxide
- Automatic argon monitoring for correct argon flow for sinter metals

Time-saving

- Quick heating rate (up to 120 °C/min.)
- Programmable autostart feature
- Simultaneous sintering of up to 60 pieces** when stacking two sintering bowls



* For validated sinter metal only

** For zirconium oxide; depends on the size of restorations and sinter supports

Technical data




Primescan	
Dimensions (WxDxH) in mm	50.9 x 58.8 x 253 mm
Weight	457 g (plastic sleeve) 524.5 g (metal sleeve)
Scanner tip (W x H)	22.5 x 20.7 mm
Mirror sleeve (L)	110 mm
Scan procedure	Dynamic depth scan (up to 20 mm)
Powder-free	yes
Scans shiny metal surfaces (gold, amalgams, etc.)	yes
Scans in color	yes
Photorealistic scans	yes
Shade detection	yes (not available with single-use sleeve and for autoclave solution)
Can be heated to prevent fogging	yes, internally active
Heating time	a few minutes after starting the AC
Full arch scan* (upper, lower, bite registration, model calculation)	approx. 2-3 min
Disinfectable with wipes	yes
Autoclavable**	yes
High Level Disinfection	yes
Dry heat sterilization	yes
Single-use sleeves	yes

* Depending on experience and routine with the system.


** Only applicable for autoclave sleeve.



inEos X5	
Dimensions (WxDxH) in mm	474 x 460 x 735 mm
Weight	40 kg
Voltage rating	100-240 V
Power consumption	150 W
Scanning process	Digital structured-light projection
Scanned materials	All popular dental stones (except for highly absorbent, reflective, or transparent materials)
Connectivity	USB 2.0
Ethernet LAN	Via the scanner PC: LAN/WiFi (optional)

General	inLab MC X5 	inLab MC XL 
Dimensions (WxDxH) in mm	590 x 580 x 810 mm	700 x 420 x 425 mm
Weight	87 kg	43 kg
Required compressed air pressure	min. 7 bar	-
Required compressed air volume	min. 50 l/min*	-
Noise level	<63dba	<65dba
Kinematics		
Axes	5	4
Setting angle for A axis	360°	+/-180°
Setting angle for B axis	+/-30°	15°
Material shapes		
Blocks	40 x 19 x 12 mm	85 x 40 x 22 mm
Max. number of blocks per process	8	1
Discs (shape)	98/98.5 mm with collar	-
Discs (thickness)	up to 35 mm	-
Open material choice	yes	not explicit
Tool management		
Automatic tool change	yes	no
Max. number of tools per process	6	2 (4)
Changeable tool magazines controlled in software	yes	no
Material types		
Zirconium oxide	x	x
PMMA	x	x
Wax	x	-
Composite	x	x
Hybrid ceramics	x	x
Glass ceramics (with wet option)	x	x
Lithium disilicate ceramics (with wet option)	x	x
CoCr sintered	x	x
Titanium preforms	x	-

* 80l/min. recommended

inLab Profire 	
Dimensions (WxDxH) in mm	360 x 534 x 780 mm
Weight	approx. 65 kg
Supply voltage	200-240 V
Mains frequency	50/60 Hz
Nominal capacity	3500 W
Maximum sinter temperature	1,650°C
Accessories	Sintering beads for Zirconia, Sintering tray speed for Zirconia, Tray holder, Tray fork
Options	Sintering beads for sinter metal, Sintering tray for sinter metal, External gas hose*
Program types	Speed, Conventional sintering, Pre-drying and speed sintering, Service program, Autostart feature

* Required protective gas purity: argon 4.6 (99,996%)

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