THE DENTAL
SOLUTIONS
COMPANY™

Dentsply
Sirona

inLab

Dental Lab Freedom Of Choice

dentsplysirona.com

Content

inLab: dental lab freedom of choice

CAD/CAM with inLab – now you have freedom of choice for scanning, designing and fabrication. Your dental lab is all set for the future with new high-performance inLab components. Scanners, software and production units are now optimally coordinated and even more in tune with the dental technician's needs. Together they ensure the greatest variety of materials for a broad range of indications and user-friendly applications. In addition, Sirona Connect gives you access to the largest 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.

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.

Demonstrated accuracy

The inEos X5 was developed by Dentsply Sirona according to the highest quality standards for optical measuring systems. It has quickly become established on the market as the reference scanner. The inEos X5 ensures greatest accuracy for all digitization work of interest to the dental technician — from the palate to the tip of the scanbody.

Precision

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 ± 2.8 µm, and on standard "inlay" test specimens, 1.3 ± 0.4 µm.

New: Implant level screw-retained implant suprastructures

With inLab CAD SW 16.0, the application range of the inEos X5 is extended to implant level screw-retained bridges and bars at implant level for implant systems by Dentsply Implants, Nobel Biocare, and Straumann. More implant systems will follow.

The scan data generated by the inEos X5 can be flexibly forwarded downstream to continue the process:

- Design with inLab CAD SW 16.0 (Implantology Module) and direct transfer to infiniDent for central production
- Design with inLab CAD SW 16.0 (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 production

Reliable implant-supported rehabilitations

For screw retained bridges and bars, depending on the implant connection type, we distinguish between the scanbody inPost (for multi-unit abutments) and the ATLANTIS™ 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.
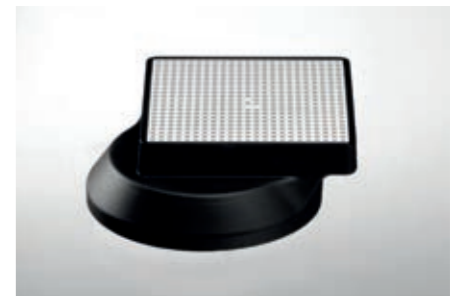
The special inEos X5 high-precision calibration set ensures the highest level of scanning accuracy. Quality assurance documents and protocols can be exported in PDF format for archiving.

reddot award 2014 winner

product design award 2014

GERMAN DESIGN AWARD SPECIAL 2016

sirona

inEos X5

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 unique 5-axis scanning technology, combined with a large working area.
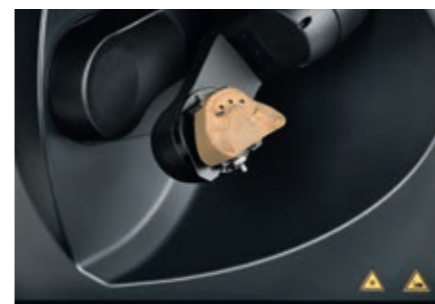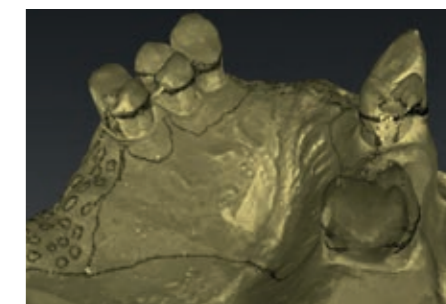

Implants
Using the new one-piece scanbody (inPost or FLO-S) and the implant scanning strategy, implant positions can be determined with high precision even in extended screw-retained restorations.

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.
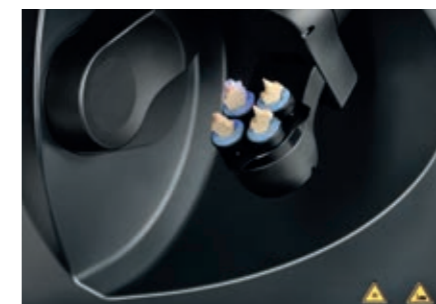

Texture scan
Marks on the model are detected for visual support, for example in partial-denture design using the inLab CAD software.

Impression scan
The inEos X5 scans many different shapes and sizes of impression trays with no difficulty.
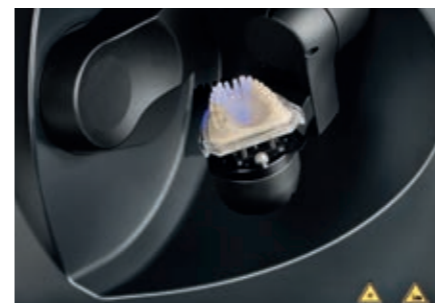

Multi-die scanning
Up to four prepared dies are scanned automatically and inserted into the digital model with no manual interaction.
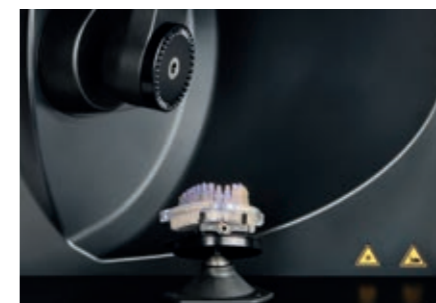

Wide operating range
Allows the positioning of most common articulators and gives fast, unobstructed access to the scan object.

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.

Open scanner
The model data collected with inEos X5 can be exported in STL format.

inLab CAD SW 16.0: Dental design requires good software

The new inLab CAD SW 16.0 software is even more closely aligned with the requirements of CAD/CAM systems in the dental laboratory. As a separate CAD component, the software is independent of the scanning and production unit. inLab CAD SW 16.0 accommodates need-based indications with its optimized design processes and user-friendly interface.

You have a broad range of indications beyond basic applications you can select with inLab CAD SW 16.0. Four software modules cover the most important indications. You remain entirely 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.

Need-based design

inLab CAD SW 16.0 Basic Module*
- Inlays, onlays, veneers, full crown, bridges, copings, bridge frameworks, multilayer
- All design tools
- Jaw-Oriented Biogeneric Settings (J.O.B.S.)
- Tooth databases
- Virtual insertion
- Virtual articulator
- Smile design
- Gingiva elements
- Access to Sirona Connect
- New: inLab check of the design data for stress sensitivity

inLab CAD SW 16.0 Implantology Module**
- Screw-retained bridges and bars on multi-unit abutments
- Custom Abutments (zirconia or titanium)
- Surgical guides (integrated implantology)
- New: Implant level screw-retained bridges and bars

inLab CAD SW 16.0 Removable Dental Prosthesis Module**
- Cast-metal framework
- Telescopes, bars, attachments
- New: Custom impression trays
- New: Splints

**inLab CAD SW 16.0 Interface Module****
- One license for all available interfaces
- Flexible integration of the inLab CAD software into nearly all existing CAD/CAM equipment

* Required for all other modules. ** Requires the inLab CAD SW 16.0 Basic Module

inLab CAD SW Basic Module:
Your tools for efficient design

The inLab CAD SW 16.0 Basic Module covers the basic indications and provides all required design tools as well as access to digital impressions with Sirona Connect. In addition, inLab users benefit from unique features and applications, such as the jaw-oriented biogeneric reconstruction method and the restoration analysis of inLab Check.
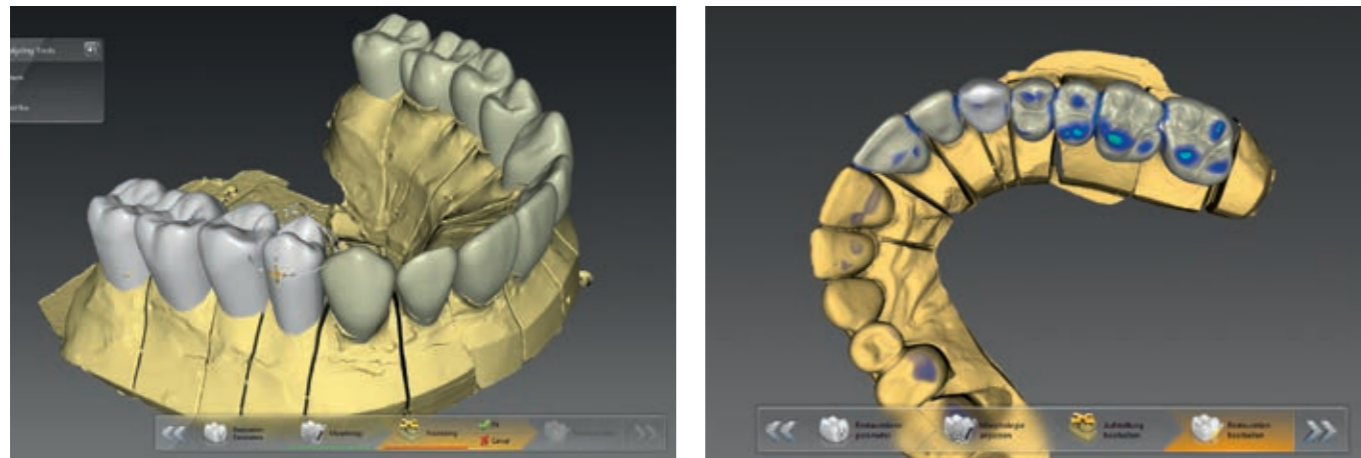
J.O.B.S. — Jaw-Oriented Biogeneric Settings

The unique jaw-oriented biogeneric procedure that reconstructs teeth faithfully. The inLab CAD software includes the positions and morphologies of the existing teeth in its analysis and generates initial patient-specific, fully contoured proposals — for single anterior or posterior teeth as well as for extended bridges and multiple restorations. This saves valuable time by eliminating the need for elaborate design adjustments.
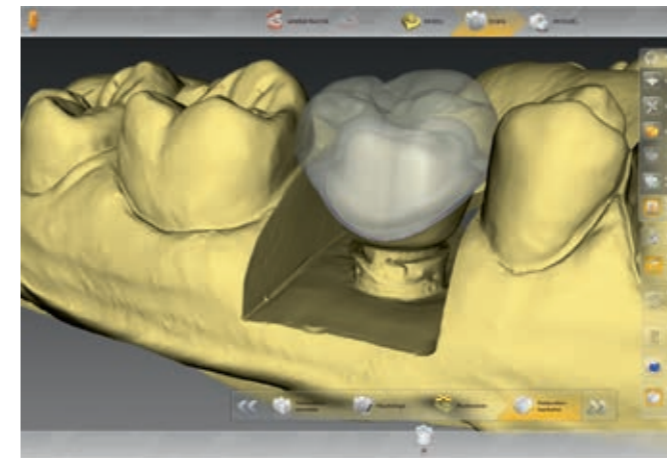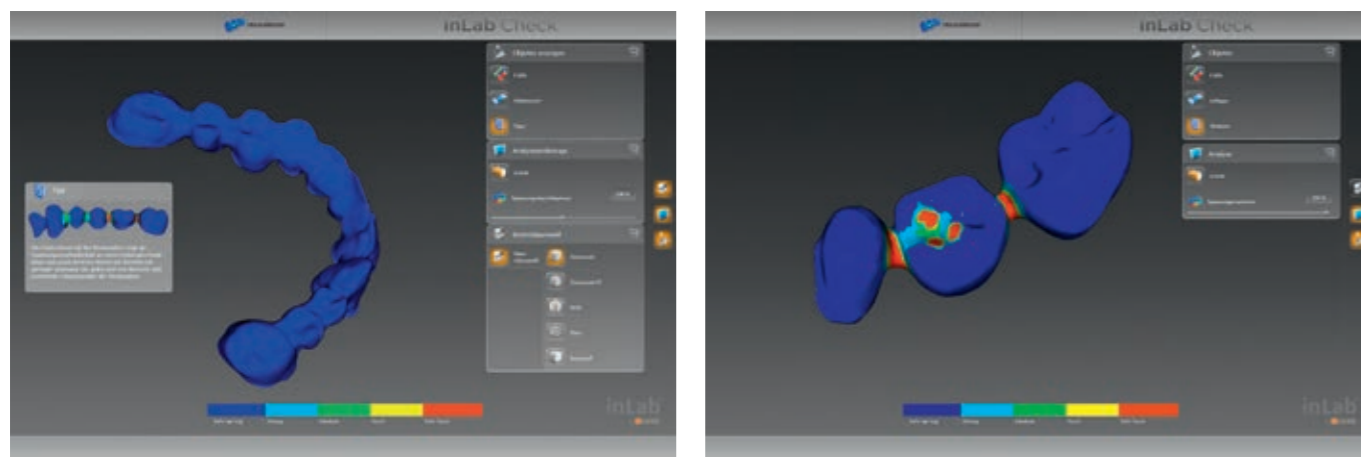

Virtual insertion

Simultaneous design of several restoration levels in complex cases.

Virtual articulator

Visualization of the complete paths of movement to determine the static and dynamic contact surfaces for correct functional occlusion.


New: inLab Check

This new inLab CAD software plugin is the first dental CAD/CAM analysis software, that evaluates restorative designs possible critical regions using a FEM stress-calculation method, taking account of the selected material:

• Recognized industry model

• Identification of stress-sensitive areas and visualization on a color scale

• Optimal support for large and complex cases or designs for confined spaces

Gingiva design

Separate design element for producing restorations with a gingival component.
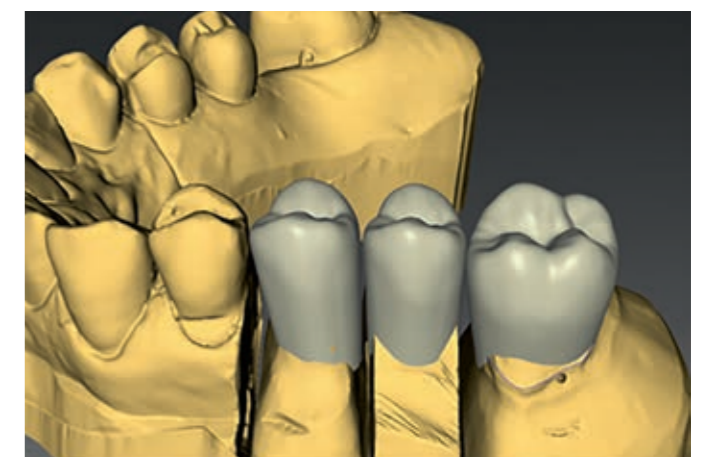

New: Third premolar

Exchanging tooth forms, whether with restricted space or large gaps, opens new possibilities to design esthetical appealing dental prosthesis in all situations. The „third premolar" function along with the possibility to exchange tooth forms, allows for one to always design a suitable and appropriate restoration.

inLab CAD SW Implantology Module: Sophisticated prosthetics

Custom abutment, screw-retained bridges and bars, surgical guides: The inLab CAD SW 16.0 Implantology Module includes all the necessary CAD tools and features for custom restorations on single and multiple implants and for the design of surgical guides. For the seamless transfer to the inLab MC X5 and inLab MC XL production units or, alternatively for export to Dentsply Sirona's central production or other production systems.
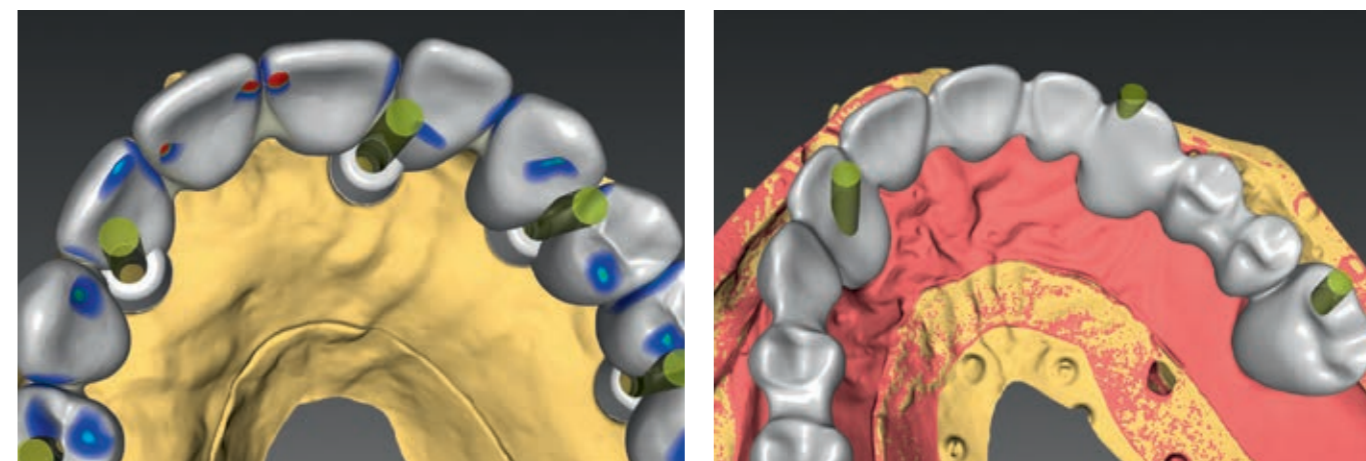
For more flexibility, the tooth setup and implant suprastructure can be designed separately. Teeth can be positioned independently of the implant situation, according to the bite situation and the esthetics of the case.
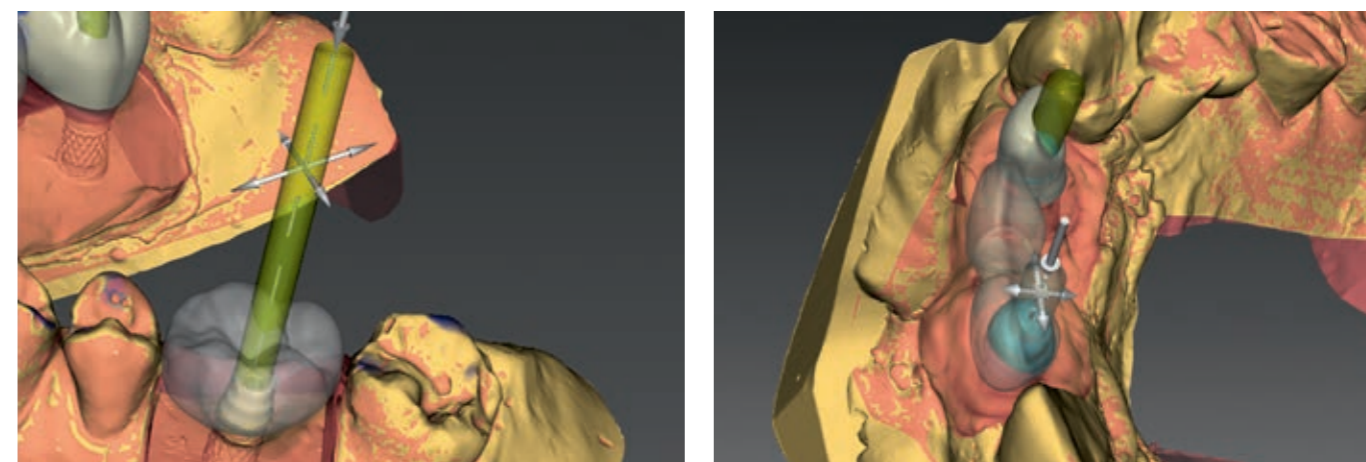
The screw-channel tool can be used to generate hole geometries like those for screw access channels. The channels can be freely positioned, and their angle and diameter can be adjusted as required. A handy tool to create, for example, extended directly screw-retained restorations on scanned standard abutments.

Implant level screw-retained bridges and bars
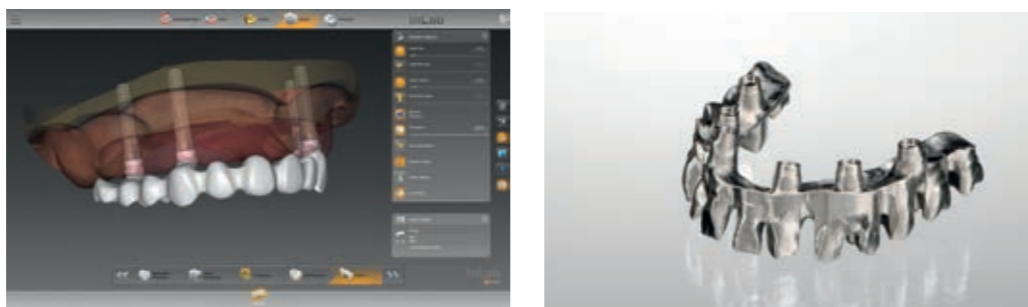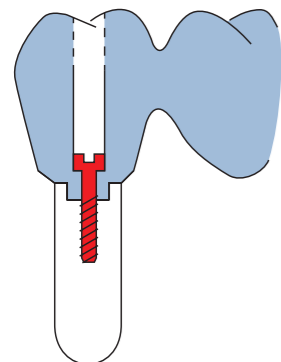
Implant-supported bridges and bars can be professionally designed at implant level based on highly accurate inEos X5 scan data. The inLab CAD SW 16.0 guides operators through the design process one step at a time. The design data set can be sent to infiniDent* or as provided as STL export via the inLab Interface Module for the production using an appropriate CAD/CAM production unit. Alternatively, inEos X5 scan data can also be transmitted to ATLANTIS™ for further design and finalization steps.*

Screw-retained bridges and bars on multi-unit abutments and adhesive caps
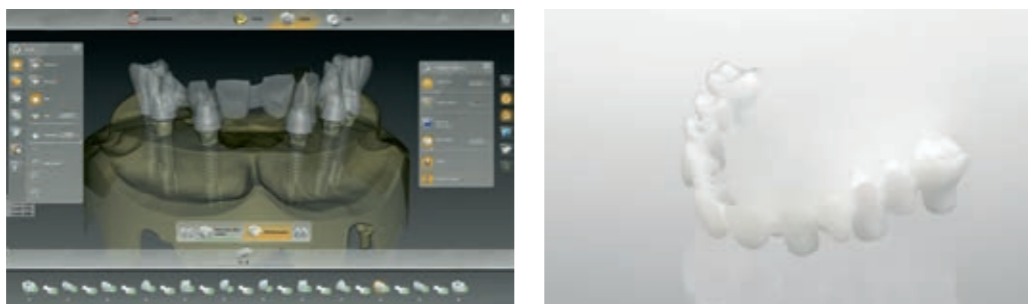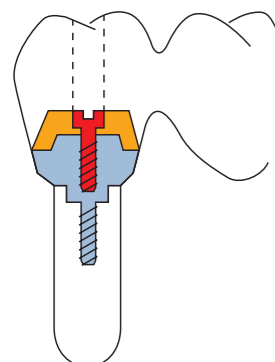
For in-house production with, e.g., the inLab MC X5 (zirconium oxide or PMMA), directly screw-retained bridges or bars on multi-unit abutments from nt-trading and Medentika are designed with inLab CAD SW 16.0. The model scanner inEos X5 uses the special inPost scanbody by Dentsply Sirona to determine the exact implant position.

## Custom abutments on TiBase adhesive base or from titanium preforms
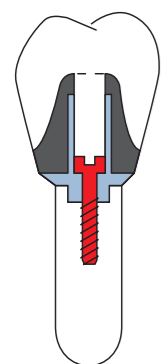
Custom zirconium oxide abutments for adhesive connection to TiBase by Dentsply Sirona CAD/CAM are designed either directly or top-down, i.e., the fully contoured designs can be split into crown or crown coping and abutment.

New: It is now possible for the first time with inLab to produce custom one-piece titanium abutments based on TiBase scans with the inEos X5 and design with inLab CAD SW 16.0 for subsequent finalization with, e.g., the inLab MC X5.

Surgical guides for integrated implantology

With inLab CAD SW 16.0, you can design and produce custom surgical guides in your laboratory, quickly and at low cost. Part of the integrated implant planning with the 3D X-ray systems from Dentsply Sirona, the CAD/CAM surgical guide is the ideal basis for planning the surgical procedure.
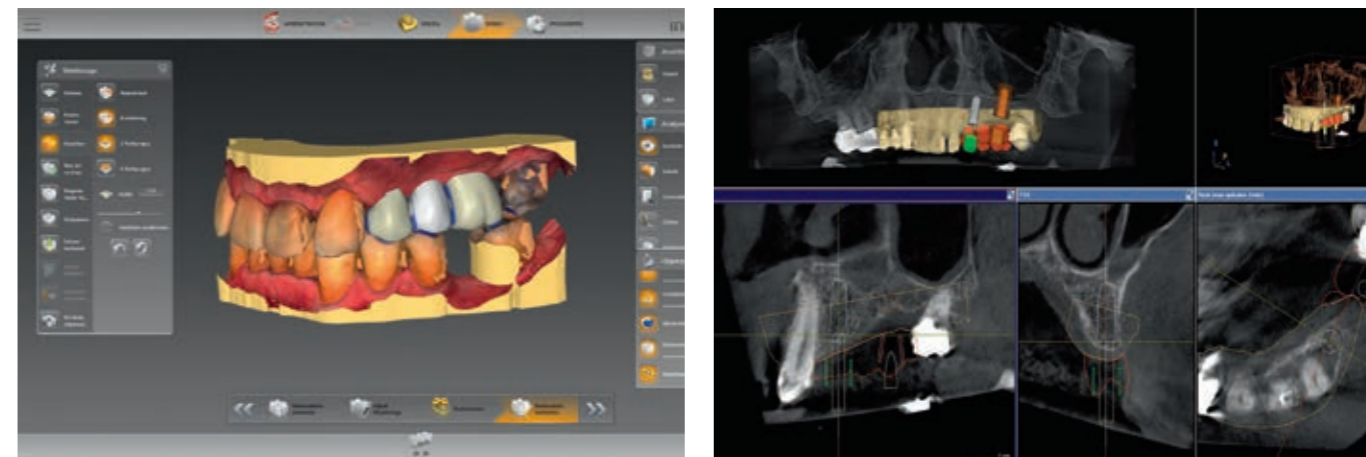
A prerequisite is an optical impression of the intraoral situation, taken on the working cast (e.g., with the inEos X5) or by way of a digital intraoral impression. In addition, a restoration is designed for implant planning based on prosthetic aspects. These optical data are then exported.*

The optical data are merged with the 3D X-ray data (Orthophos SL 3D, XG 3D, or Galileos) for subsequent implant planning and output as *.cmg.dxd planning file.

The *.cmg.dxd planning file is imported into the inLab CAD software for designing the surgical guide.* The design of the surgical guide can be customized for large spans with one or more bores.

The template can then be milled in-house (e.g., with the inLab MC X5 or inLab MC XL**) or by way of an STL export for production with a 3D printer.***

* The services of ATLANTIS™ and infiniDent will first start as a beta phase for selected customers and, after successful completion, will be available for all users.

* The required interface is included in the inLab CAD SW 16.0 Implantology Module.
** inLab MC XL is limited to drilling surgical guides with a maximum of one bore.
*** inLab CAD SW 16.0 Interface Module required.

inLab CAD SW Removable Dental Prostheses Module: Results in a few steps

With inLab Software 16.0 you can quickly and safely design cast-metal partial dentures for permanent restorations, as well as splints and trays. Using the optional Interface Module of the inLab CAD software, you retain your flexibility during subsequent production steps.
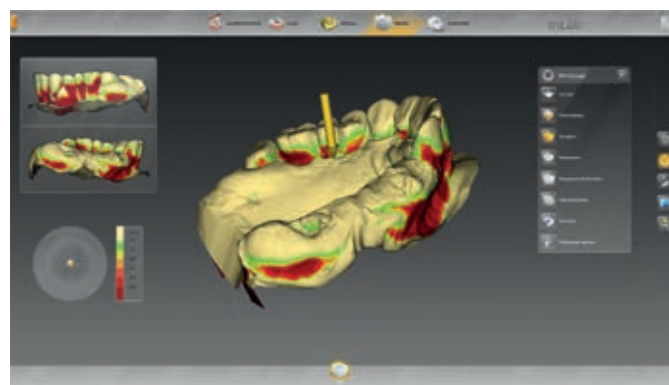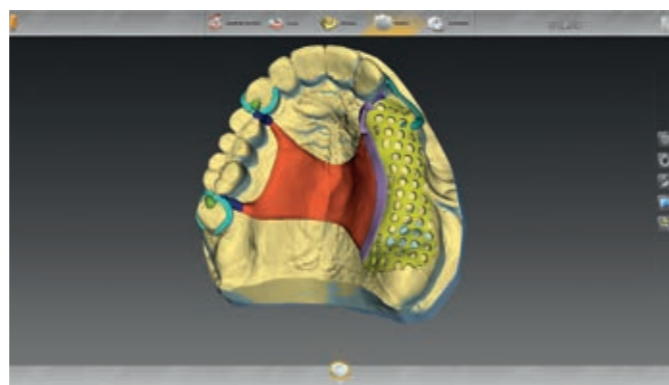
Cast-metal framework

The framework and clasps of the planned restoration are outlined on the cast and scanned with the inEos X5.
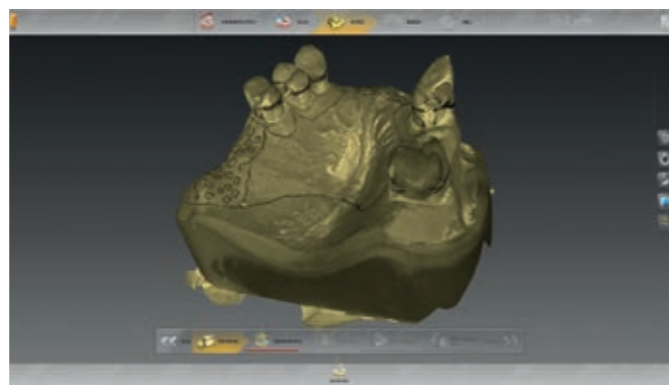
Line textures are displayed on the 3D model in the software.

Undercuts are visualized by colored undercut alerts.

The user interface provides access to all the necessary design modes for the individual design of the partial denture,

The design tools are used for customization.

STL export of the design data set*, implementation in wax for subsequent casting or direct production using the laser sintering process (e.g., by infiniDent).

* inLab CAD SW 16.0 Interface Module required

New: Splint
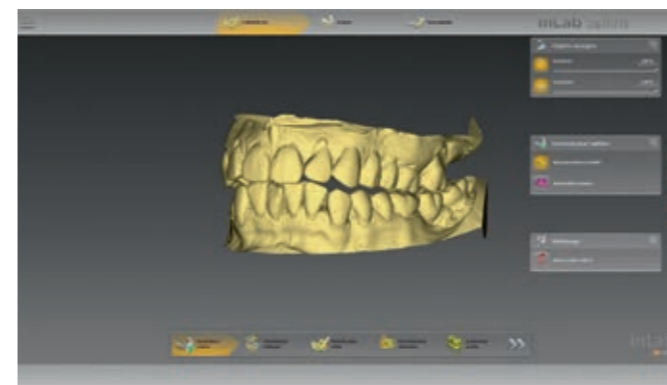
With the inLab CAD SW and the inEos X5, the intraoral situation and vertical dimensions are scanned and transmitted to the inLab Splint software plugin. Alternatively, STL scan data can be used.*
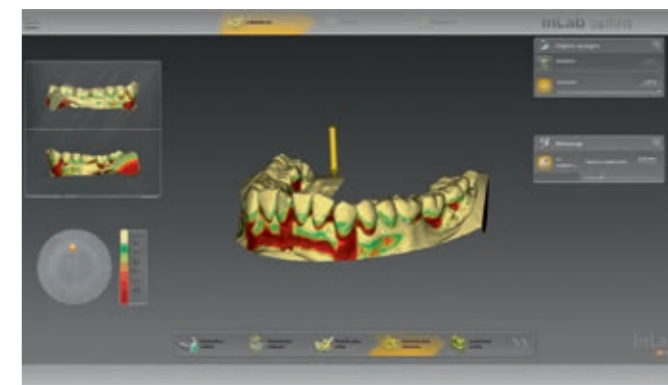
Undercuts on the cast are visualized by colored undercut alerts.
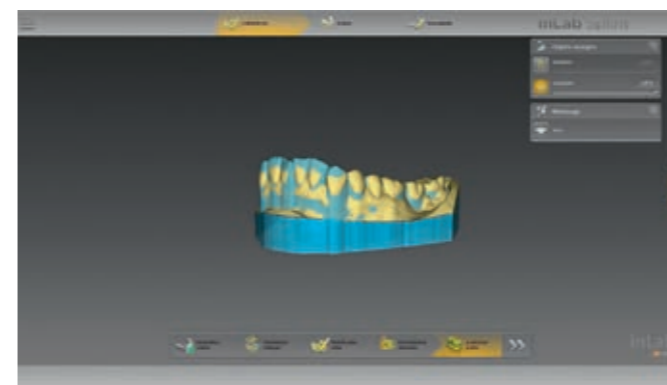
The undercuts are automatically blocked out with wax. In addition, wax can be applied individually.
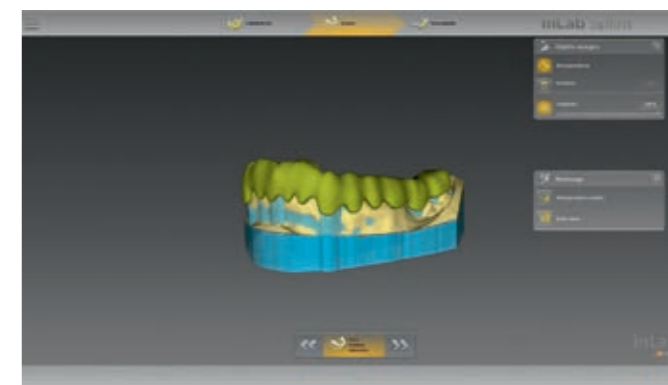
The splint itself can be customized.
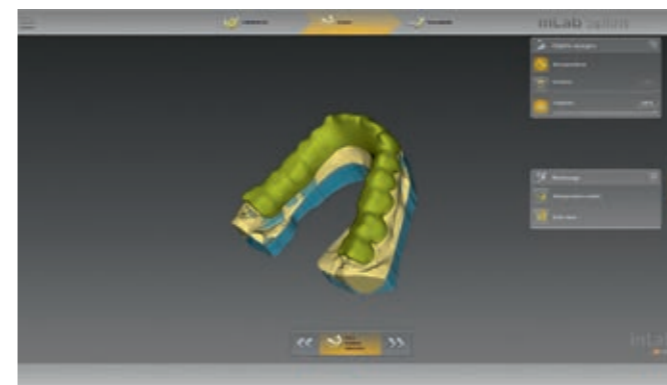
Various tools are available to take account of the counterbite.

The splint design can be exported as an STL file and subsequently produced by milling or by an additive process.

* inLab CAD SW 16.0 Interface Module required

New: Individual impression tray
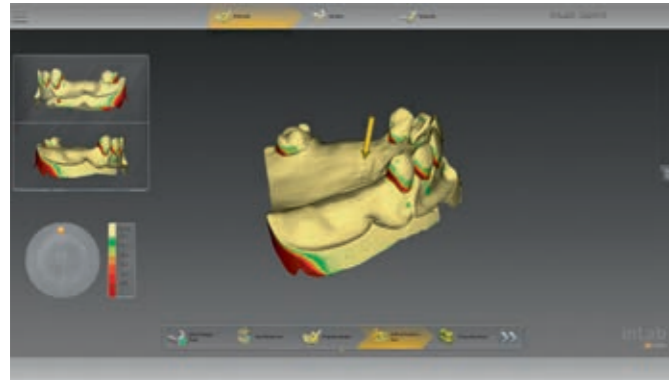
Undercuts on the cast are visualized by colored undercut alerts.
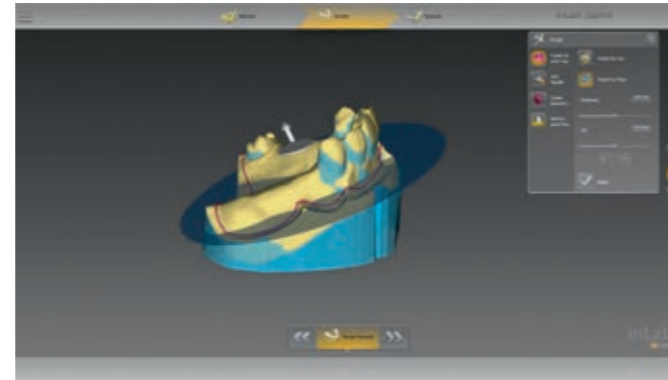
Using intelligent tools, the contours of the tray can be defined quickly.
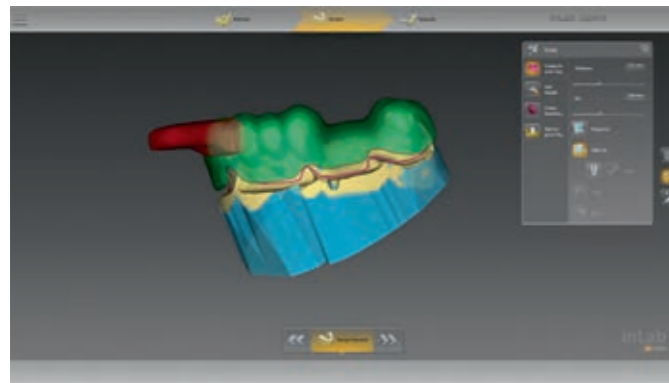
Once the tray design has been proposed, various handles can be added.
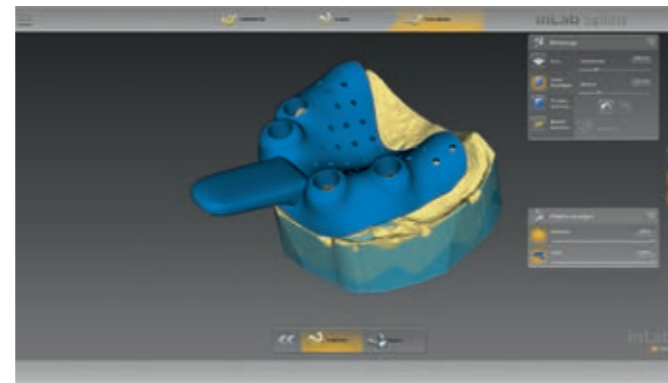
For custom implant impressions, a screw channel hole can be placed on the implant position of the impression post.
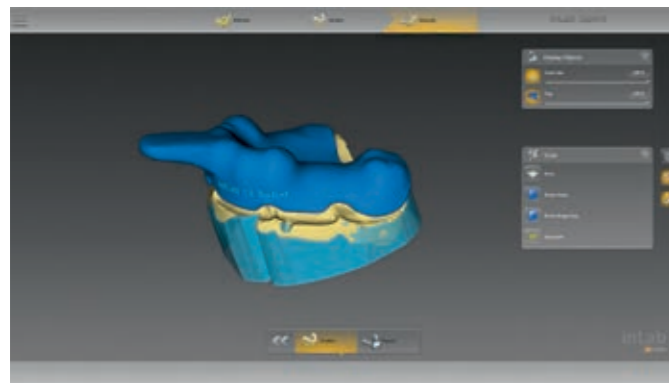
The final step merges all the previously defined elements. In addition, a hole pattern for flowable impression material can be provided.

The tray design can be exported as an STL file and subsequently produced by milling or by an additive process.

Other applications
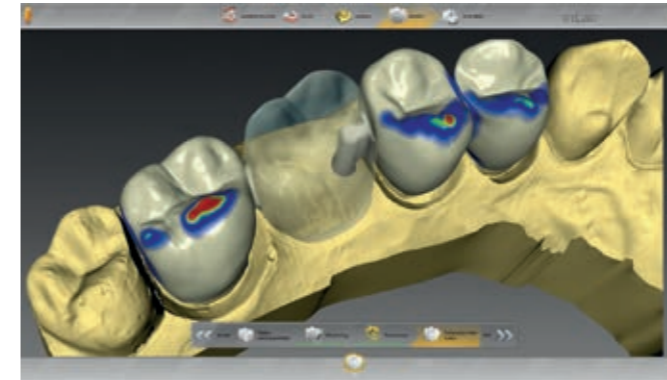
Custom dividing attachments
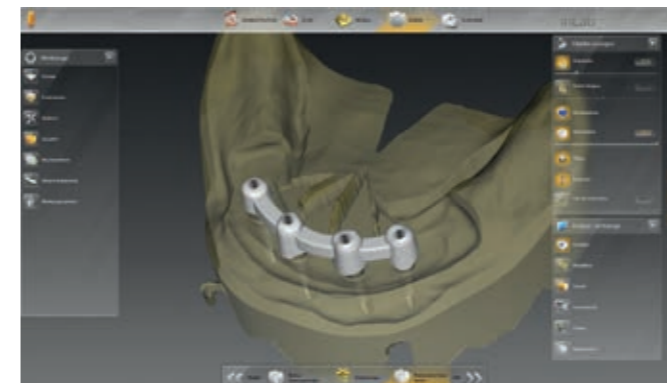
Standard bar shapes for implementation in zirconia or metal
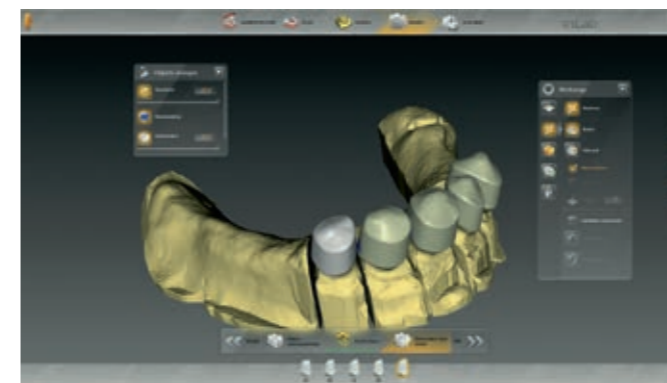
Custom primary telescope and conical crowns

inLab CAD SW Interface Module: Staying flexible

With inLab CAD SW 16.0 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 to use individual solutions from other manufacturers.

inLab is open

The optional Interface Module of inLab CAD SW 16.0* 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 16.0 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 Sirona Connect intraoral scan data, e.g., to design using different CAD software
- STL export of designed model data, e.g., to an external model production facility

	Scanning	Design	Production
	CEREC AC Connect	Sirona Connect	infiniDent
Dentsply Sirona	inEos X5	inLab CAD SW	inLab MC X5 inLab MC XL
	STL	STL	STL
External suppliers	Extraoral scanner/ intraoral scanner	Software	Machine

Simplified representation.
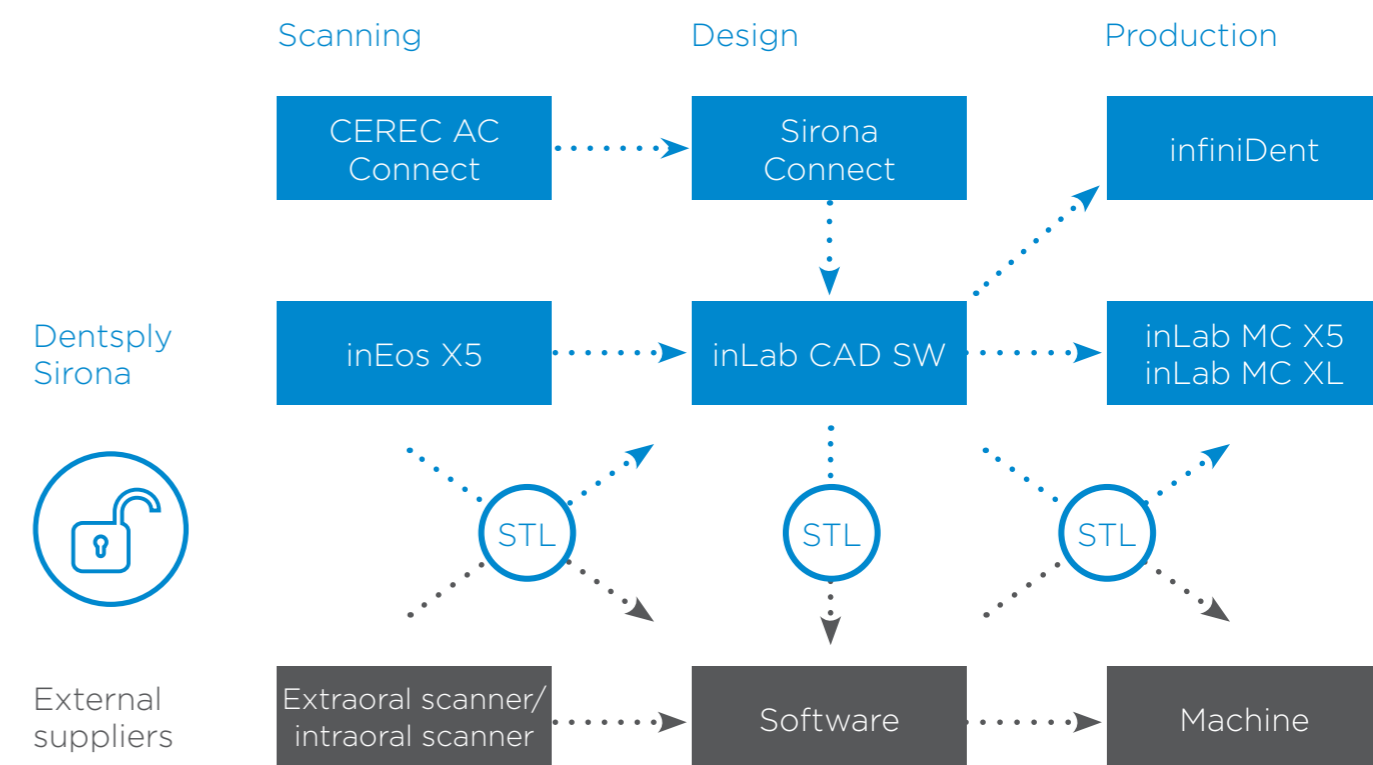
* Requires inLab CAD SW 16.0 Basic Module

inLab MC X5: Greater freedom

The inLab MC X5 five-axis was designed as a universal production unit to meet dental laboratory requirements for cost-efficient production. Dentsply Sirona offers your laboratory more independence in terms of material and indications as well as the processing of external CAD data.

Large variety of materials

The inLab MC X5 is a universal production unit for processing zirconia, polymers, composites, wax and sintering metal, as well as glass and hybrid ceramics. The dental laboratory basically has the free choice of material and can also choose among the best CAD/CAM material partners of Dentsply Sirona for high-quality materials to which the inLab MC X5 processes were specifically adapted.

Broad range of indications

The range of applications for the inLab MC X5 continues to grow, allowing the dental laboratory an ever more productive use of its capital investment. Different processed disk heights and working angles provide flexibility in the production of implant-supported restorations with highly divergent screw channel axes or preparation angles.

Open concept

The inLab MC X5 is an open production unit. It is the perfect complement to the inLab components inEos X5 and inLab software but can also be used to process other STL restoration data, including implant-supported restorations with screw access channels. Having its own CAM module, the unit can be connected flexibly to other CAD systems.

Attractive design

The high-quality design of the inLab MC X5 with its smooth surfaces and flowing edges is impressive and discourages staining. The simple, software-assisted cleaning feature is complemented by an intelligent suction concept and a concealable tool magazine. Its modern technical design and sturdy construction is a real eye-catcher in the dental laboratory.

Material partners:

Production unit — perfection in detail

Wet or dry

The inLab MC X5 can be used for dry or wet production depending on the material and indication. Thirty years of experience in the wet processing of glass ceramics make this the ultimate professional machine for the wet grinding of fully contoured restorations from final-strength monolithic materials. Alternating between wet and dry production, e.g., from glass ceramics to zirconia, is fast and uncomplicated.

Disks and Blocks

The inLab MC X5 processes standard disks (ø 98.5 mm, up to 30 mm height*) and blocks in a single machine. Changing from discs to blocks takes just a few seconds. The special multi-block holder can accommodate up to six blocks of various materials, offering maximum productivity even with multiple single-tooth restorations.

* Requires inLab CAM SW 16.1 service pack

Metal

A clean and safe alternative to conventional casting is milling NPM sintering metal blanks with the inLab MC X5 based on digital restoration data. New: The inLab MC X5 is capable of milling one-piece custom titanium abutments made of prefabricated Medentika PreFaces® abutment preforms – directly in the dental laboratory*.

Spindle Touch

The unique inLab MC X5 technology is able to capture the position of blocks with the utmost precision to make the most economical use of materials. Mesoblocs and prefabricated titanium abutment preforms are machined efficiently.
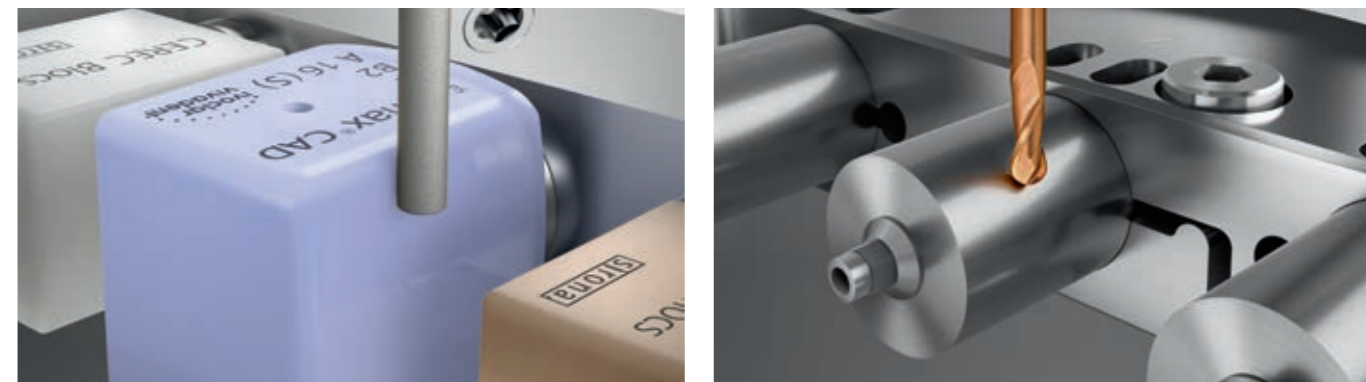
* In approved countries

The right tool for every application

inLab MC X5 tool-changing concept

The fully automated tool changer accepts up to six tools per process. The tool magazine is specific to the material prepared and managed in the inLab CAM software. The intelligent sister tool management optimizes the tools' service life and reduces downtime. For additional ease of use and user safety, the material classes employ a consistent color code on tools, tool magazines, the CAM software, and the inCoris disks from Dentsply Sirona.

Material-specific tools

Depending on whether it is for wet or dry processing, different tools are used. The cutting geometries and coatings of the diamond grinders and carbide burs are have been optimized for different indications and materials and provide for outstanding surface results and margins. The coated zirconia milling burs have a significantly longer service life compared to uncoated burs and achieve smoother surfaces.

Grinder for glass and hybrid ceramics

Diamond 0.6 | Diamond 1.4 | Diamond 1.2 | Diamond 2.2

Burs for PMMA, wax, PEEK

Bur 0.5 PMMA | Bur 1.0 PMMA | Bur 2.5 PMMA

Burs for sintering metal

Bur 0.5 Sintering Metal | Bur 1.0 Sintering Metal | Bur 2.5 Sintering Metal

Diamond-coated burs for zirconia

Bur 0.5 ZrO$_2$ DC | Bur 1.0 ZrO$_2$ DC | Bur 2.5 ZrO$_2$ DC

Burs for composite resin

Bur 0.5 Composite | Bur 1.0 Composite | Bur 2.5 Composite

Burs for titanium

Bur 1.0 Metal | Bur 2.0 Metal
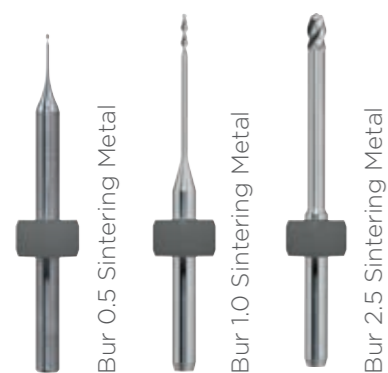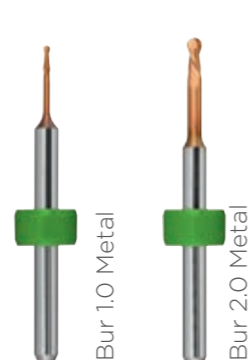
Touch Remote Control

The program steps and menus relevant to operation are arranged such as to minimize the number of taps. The entire range of CAM software functions for machine operation can be accessed comfortably directly at the machine, on a tablet PC, complete with tool management, machine configuration, process initiation, service functions, etc.

inLab MC XL:
Open for precision and speed

inLab MC XL is the fast wet milling and grinding unit with many production options for your dental laboratory. You benefit from high speed and precision and can switch from grinding to milling in just a few steps. The large selection of materials and many uses give you particularly flexible and efficient production options.
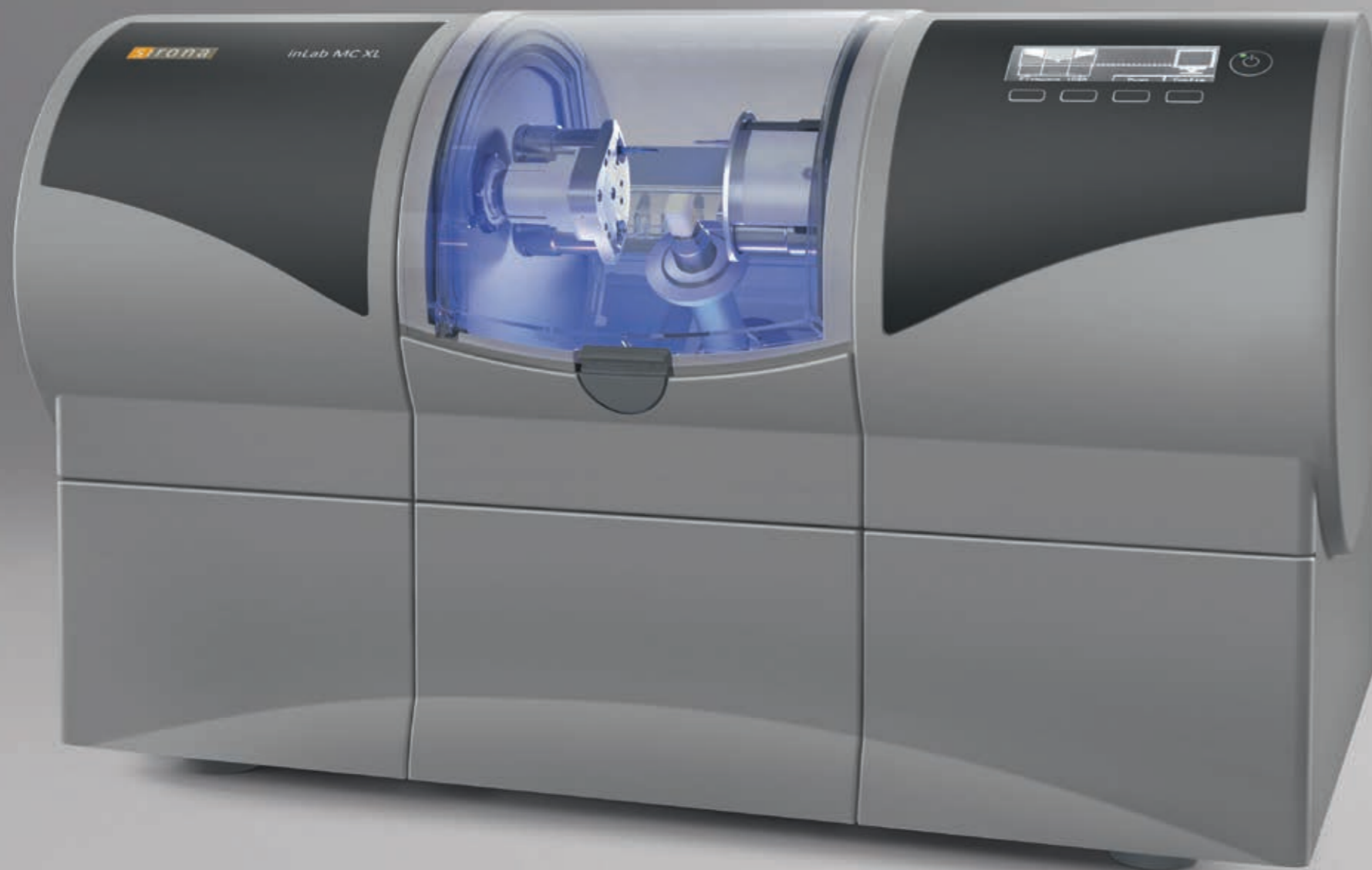
inLab high-speed grinding

Glass- and hybrid ceramic restorations can be produced at a previously unachievable speed with simultaneous double four-axis processing. A fully contoured Celtra Duo crown takes less than 10 minutes. This is a key success factor for potential new business models that can call for providing digital impression orders within an hour.

Precision processing

The inLab MC XL is characterized by precise wet machining. Especially when processing glass ceramics, the grinders use can be as small as 0.6 mm — for restorations with maximum detail in the occlusal and interproximal areas and at the preparation margin.

Wide selection of materials

As with all CAD/CAM production units from Dentsply Sirona, inLab MC XL lets you benefit from a large selection of materials. Dentsply Sirona CAD/CAM materials and those of our material partners are optimally coordinated for high-speed processing.

Open for imported STL restoration data

inLab MC XL produces restorations perfectly in tune with the inLab CAD software. Alternatively, you can import restorations in STL/XML format from other CAD software such as exocad®, 3Shape®, etc.*

Material partners:

Dentsply Sirona CAD/CAM   Dentsply Sirona Prosthetics   VITA   ivoclar vivadent: passion vision innovation   3M   SHOFU   MERZ DENTAL   GC   kuraray Noritake   COLTENE

*Limited range of indications

inLab CAM SW 16.0:
Efficient production processes

Two devices — one perfect workflow: The inLab CAM software has been specially developed for the Dentsply Sirona inLab MC X5 and inLab MC XL milling units. All essential process steps, system configurations and integrated service functions can be carried out quickly and easily via the user-friendly interface. In addition, the software provides the quality management of a dental laboratory with a valuable documentation tool that stores all essential information on job history, workpieces produced, and materials used.

Exemplary efficiency and safety

• Immediate milling start after order setup; no waiting for milling paths to be calculated

• Graphical tool and process start management with an easy-to-grasp display of workpieces, tools and service hours, required magazines, etc.

• inCoris disk management via QR codes:
One-time webcam scan for the automated acquisition of materials data — disk names, colors, heights, lots, sintering contraction and other information in the workpiece overview of the CAM software
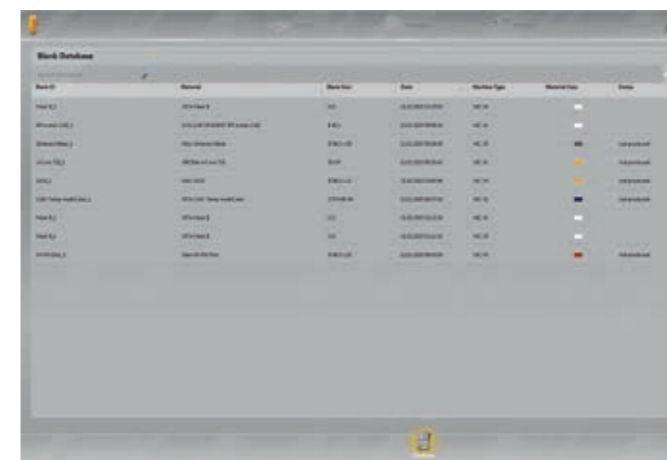
Maximum material utilization

• Extensive positioning functions for all available axles for optimum workpiece utilization and with automatic collision control

• Automatic tilting of restorations to match available disk heights

• Automatic undercut detection and individual adaptation

• Multi-block management — positioning of up to six blocks of different materials in one order
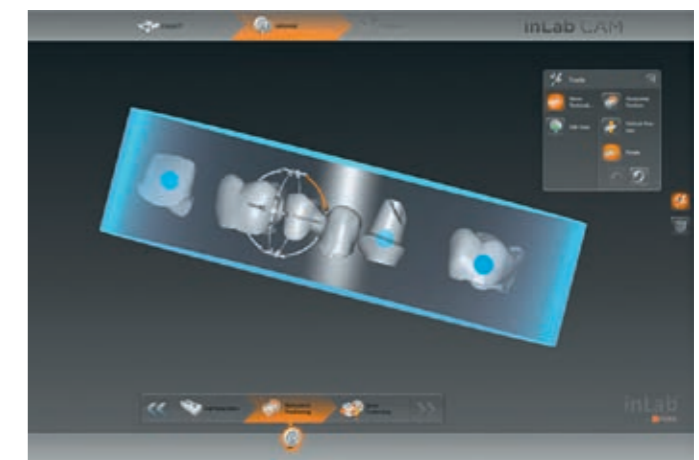
Open for imported STL data

• XML-based STL import of restoration data from 3Shape (* .3ox) and exocad (*.constructioninfo) covering essential element data such as restoration type, preparation lines, insertion paths, screw access channels, tooth numbers, etc.

• Advanced STL indication range: import of complex designs, complete with semi-automatic screw access channel detection and manual preparation line editing

• Clean preview and easy data entry

Machine and tool management

• Material-specific milling and grinding strategies for occlusal and interdental finishing details, surface quality, or width reduction of support pins

• Individual determination of levels of detail for different production modes (number of process steps, path distances, and processing speeds)

• Touch-optimized operating functions via tablet PC

infiniDent:
Multiple technologies meet multiple materials

infiniDent is the central service partner for in-house and commercial dental laboratories for the production of restorations and dental casts. Thanks to a 24-hour production schedule, laboratories with Dentsply Sirona or other open systems receive simple, quick and inexpensive access to factory-made dentures "made in Germany." Whether you use the inLab software, the inEos X5 with third-party software, or a complete CAD/CAM system, infiniDent will complement your inLab components perfectly and help you become productive.

Using the latest in CAD/CAM technology and validated processes, infiniDent offers solutions from a single source: crown and bridge frameworks in a variety of materials, implant abutments, and physical working models based on digital impressions. All products come with a comprehensive warranty. As part of Dentsply Sirona, infiniDent and can place over 25 years of CAD/CAM experience at your disposal.

Open milling center

As an open CAD/CAM service provider, infiniDent has always worked with a wide variety of open data formats. infiniDent thus works not only with Dentsply Sirona data formats but also with digital data exported from other CAD software programs.

infiniDent is an Authorized Milling Center of VITA Zahnfabrik, a validated Authorized Milling Partner of Ivoclar Vivadent AG, and certified according to DIN ISO 13485: 2012.

infiniDent. More than just a perfect complement.

Export digital design data directly from your inLab CAD SW 16.0 Removable Dental Prostheses Module or use STL data from an external system.

Design one-piece custom abutments and implant screw-retained bridges made of titanium and cobalt-chromium directly in the Implantology Module of inLab CAD SW 16.0.

Create custom splints with the inLab Splint plug-in for inLab CAD SW 16.0 and have them speed-milled by infiniDent.
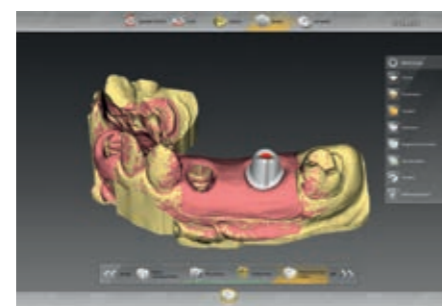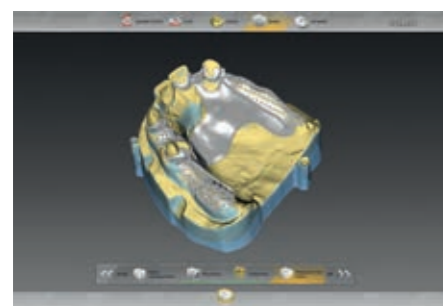
inDividual PF
Because the conventional casting technique does not fit CAD/CAM

Fast and cost-saving production of removable clasp dentures made of cobalt-chromium using the infiniDent laser-sintering process. Optimized production process requiring minimal manual reworking in the laboratory.

inDividual TI/NPM
Because precision does not have to be expensive

Using validated processes, infiniDent implements your design data from CE-certified materials: No extra cost for additional software or extensive training sessions.

Ortho SL
A good basis for orthodontic work

Production of precise acrylic models as a basis for orthodontic work from Dentsply Sirona or third-party digital impression data.

ISO 13485
certified

CE

Metal-free restorations

Partly/fully edentulous jaw

Working casts

NPM restorations

VITA
AUTORISIERTES
FRÄSZENTRUM
2017

AUTHORIZED
MILLING PARTNER
of
ivoclar
vivadent

▶ For more information, visit www.infinidentservices.com or contact our dental customer service at +49 6151 3961818 (also via WhatsApp) or at service@infinidentservices.com.
Note: infiniDent is not available in all countries.

The fastest sintering furnace
Two-In-One: inFire HTC speed

The high-temperature furnace is suitable for all sintering materials that have been validated for processing with the inLab production units. It is equipped with special speed sintering programs and also allows the sintering of non-precious metals — in a single chamber.

**inFire HTC speed
for sintering zirconia and NPM**
This variant allows the sintering furnace to be reconfigured from zirconia sintering to sintering non-precious metal — within a matter of seconds. The inCoris CC and inCoris CCB materials are densely sintered in an argon atmosphere after finishing.
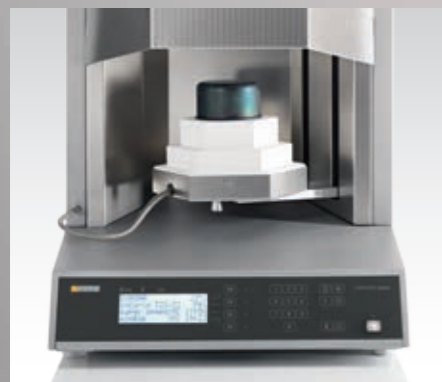
Turn on — Select program — Start sintering process

The inFire HTC speed is especially easy to operate: In addition to the conventional long-term sintering process, crowns, copings, bridges and frameworks made of zirconia can be sintered using shortened speed processes as needed.

Sintering ceramics and sintered metal — 2 in 1

• Sintering zirconia and a pre-sintered non-precious metal in one furnace
• Pre-programmed for the sintering materials from Dentsply Sirona* and material partners
• Special metal sintering bell integrated into the package

High level of flexibility

• Speed and SuperSpeed programs or conventional long-term sintering
• 90-minute speed sintering for single-tooth restorations and for bridges**
• Free programming for long-term and speed sintering
• "Dry & Speed" speed sintering with pre-drying

Time and cost savings

• Just 10 minutes for superspeed sintering of zirconia copings and crowns**
• Timer function for "overnight sintering"
• Simultaneous sintering of up to 60 units

* For a validated program for Cercon, see the Cercon instructions for use
** Net sintering time for inCoris TZI and inCoris ZI

CAD/CAM materials: Diversity at its best

The inLab MC X5 and inLab MC XL laboratory units cover a wide range of indications — now and in the future. They support a broad selection of materials available on the market. Whether blocks or disks – you are completely free in your choice of materials. The inLab milling and grinding strategies are optimized for the high-quality materials of Dentsply Sirona and its material partners continually — ensuring reliable, high-quality results.

Materials from Dentsply Sirona CAD/CAM:

inCoris discs

Standard-size disks (98.5 mm) in classic (inCoris ZI), translucent (inCoris TZI), and pre-shaded translucent (inCoris TZI C) zirconium oxide, as well as for the production of surgical guides (inCoris PMMA guide) and non-precious metal sintering production (inCoris CCB).

inCoris blocs

Zirconium oxide blocks (inCoris ZI, inCoris TZI and inCoris TZI C) and NPM sintering metal blocks (inCoris CC) in various sizes.

CEREC Blocs C and PC

Feldspar ceramic in VITA Classic shades for inlays, onlays, veneers, and full crowns. Polychromatic version (PC) for natural enamel-dentin-cervical layering.

CEREC Blocs C In

Blocks for anterior tooth restorations with an inner high-chromatic dentin core covered by a translucent layer of enamel.

Materials from Dentsply Sirona Prosthetics:

Cercon® disks

Cercon with True Color Technology – unparalleled shade accuracy when it comes to reproducing the classic 16 VITA* shades (98 and 105 mm).

Cercon ht – high translucent zirconia for a wide range of indications in the anterior and posterior region (1200 MPa).

Cercon xt – extra high translucency with a lifelike esthetics especially for the anterior region (750 MPa).

PMMA disks

Provisional PMMA (Polymethylmethacrylat) disks for complex restorations or when a long healing period is required. Available as a shaded and multilayer version in 16 VITA* shades and bleach. Efficient milling, easy polishing, natural fluorescence, biocompatible.

Burnout PMMA disks to create for precise casting or pressing of metal and all-ceramic frameworks. Can be tried-in in the patients mouth.

Waxs disks

High quality wax disks ideal for precise casting or pressing of metal and all-ceramic frameworks. Burns out clean without residue.

Celtra® Duo blocks

The new generation of high strength glass ceramics – Zirconia-reinforced lithium silicate (ZLS). A unique combination of excellent esthetics and high strength, excellent VITA* shade matching and simple and fast processing.

* VITA is a trademark of VITA Zahnfabrik

▶ For more information about the CAD/CAM materials offered by Dentsply Sirona CAD/CAM and Dentsply Sirona Prosthetics, please request your dealer.

CAD/CAM materials from Dentsply Sirona:

Dentsply Sirona CAD/CAM

Dentsply Sirona Prosthetics

Sirona Connect
Digital impressions from dentist to laboratory

Digital impression has a name: Sirona Connect by Dentsply Sirona — by far the most innovative and reliable solution for dentists and dental technicians who want to connect more intimately with the digital dental world of tomorrow. With the economic design of operations in practice and laboratory for high-quality aesthetic restorations — for the benefit of the patient.

As a leading technology provider in the field of intraoral digital impressions, Dentsply Sirona offers not only one of the best intraoral cameras on the market but a globally proven and time-tested digital impression system: CEREC. Having become established for chairside fabrication of prosthetic restorations in a single appointment, CEREC is also the number one in providing digital links to the dental laboratory — for flexible treatment strategies in challenging and complex indications.

CEREC Omnicam: Impressions made easy

The smallest intraoral camera established on the market provides powder-free scanning and easy operation. Thanks to its sleek design and small camera head, the posterior jaw areas can be accessed without any problems.

• Fluid acquisition procedure
• Intuitive and ergonomically optimized application
• Coating-free recording of natural teeth and gingiva
• Precise impression data shown as a naturally colored 3D display
• No follow-up costs

Sirona Connect for the dental practice

Benefits for the dentist
• Patient-oriented, modern treatment concept
• Maximum treatment comfort: No gagging reflex
• Particularly user-friendly
• Efficient and fast process: Scan and send
• Optimal integration into the practice workflow and subsequent generation of laboratory orders
• Proven laboratory quality for the benefit of the patient

Benefits for the dental laboratory
• Precise fabrication of dental prostheses based on digital intraoral impression data
• Saves time through immediate and direct consultation with the dentist during the patient appointment
• Flexible production options for more economic leeway
• Optimization potential in terms of logistics costs, complaints management, hygiene, model-free production options

Design service for CEREC users

But what is shipped from the laboratory must not always be the finished restoration. Via the digital Design Service, laboratories can receive intraoral data via the Sirona Connect portal, design the desired workpiece using the inLab software, and return the design data set to the CEREC practice for finalization. This digital service saves valuable chairside time and harnesses and rewards the dental technician's expertise.

The digital workflow with Sirona Connect

| Dental office | Sirona Connect | Dental lab |

SIRONA CONNECT PORTAL

Scan — Check — Send — Receive — Feedback

Design with inLab CAD SW
Export to other CAD software

Production with inLab production units
Central production — External production such as infiniDent
Production with other CAD/CAM production unit

Finishing — Delivery
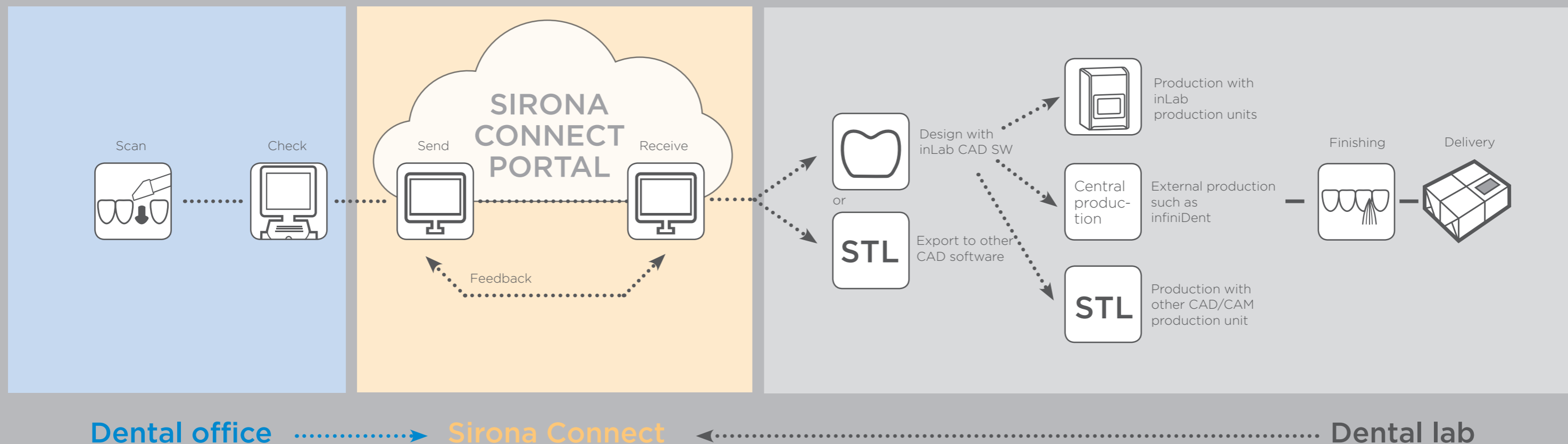
Any dental laboratory can benefit from the digital workflow with Sirona Connect. The direct data transfer, effected free of charge, is more precise, more hygienic and faster than any impression trays. You can focus on your core competence: the production of high-quality restorations. Open interfaces give you a free hand in your production processes.

Flexible by design

Upon receipt and verification of Sirona Connect orders, the dental laboratory can immediately start with designing the workpiece in the inLab CAD software. Alternatively, the 3D model data set can be exported via the optional inLab STL interface for design in a different CAD software program.

Flexibility in model production

Due to the ongoing improvements in high-quality CAD/CAM materials for monolithically fabricated dentures, a physical working model can be dispensed with in many cases where digital impression data are available.

If desired, the 3D model data received can be sent to infiniDent's central production facility (Dentsply Sirona) or, using the STL data export function, to an alternative model production center, such as a 3D printer.

Flexibility in production

A choice of two highly effective production units is available for an integrated CAD/CAM process within the inLab system – free and comprehensive in their selection of materials, open and productive:

• inLab MC X5: 5 axes, dry and wet machining, milling and grinding, block and disk processing

• inLab MC XL: 4 axes, wet machining, milling and grinding, block processing, high-speed production

The inLab software is open. This means: Either the dental laboratory takes care of the further production route directly after data reception and STL export to another CAD software program. Or the design is first made with the inLab CAD software and then exported to a third-party production unit.

Or the assistance of the infiniDent central production facility (Dentsply Sirona) may be enlisted for further processing of design data obtained directly from the inLab software or the STL data transferred from other CAD software.

Technical specifications

inEos X5	
Dimensions (W × H × D) in mm	474 × 735 × 460
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)

inFire HTC speed with SuperSpeed and metal sintering option (EU)	
Accessories	• Speed-sintering tray, crucible fork and tray • Sintering beads, zirconia • Superspeed crucible, superspeed cover, crucible fork, refractory crucible tray
Options	• NPM sintering beads • Sintering tray system for the inCoris CC NPM • Argon gas management
Program types	• Speed • Superspeed • Conventional sintering • Pre-drying and speed sintering • Pre-drying, individually programmed • Service program: Cleaning the oven chamber and reconstructing the silica layer of the heating elements. • Auto-start function
Dimensions (W × H × D)	500 × 802 × 565 mm
Weight	80 kg
Supply voltage	200–240 V
Supply frequency	50/60 Hz
Rated capacity	2,500 W
Maximum sintering temperature	1.650 °C

Indications	inLab MC X5	inLab MC XL
Veneers, inlays, onlays, crowns, copings	×	×
Bridge frameworks, bridges	×	×
Full jaw bridges	×	–
Telescope crowns, attachments, bars	×	×
Abutments milled from mesoblocs	×	×
Abutments milled from disks	×	–
Abutments milled from titanium preform*	×	–
Implant bridges	×	–
Splints	×	–
Surgical guide (single)	×	×
Surgical guide (multiple)	×	–
Models	–	×

For processing restorations based on STL/XML import data, a restricted range of indications applies.

	inLab MC X5	inLab MC XL
General		
W × H × D	590 × 810 × 580 mm	700 × 425 × 420 mm
Weight	87 kg	43 kg
Required compressed-air pressure	min. 7 bar	–
Required compressed-air volume	min. 50 l/min**	–
Noise level	< 63 dB(A)	< 65 dB(A)
Kinematics		
Axes	5	4
Angle of incidence for A-axis	360°	± 180°
Angle of incidence for B-axis	±30° **	15°
Material types		
Blocs	40 × 19 × 12 mm	85 × 40 × 22 mm
Max. number of block per process	6	1
Discs (shape)	98/98.5 mm with collar	–
Discs (height)	up to 30 mm***	–
Material openness	Yes	Not explicit
Tool management		
Automatic tool change	Yes	No
Max. number of tools per Process	6	2(4)
Changeable tool magazines controlled in SW	Yes	No
Material types		
Zirconium oxide	×	×
PMMA	×	×
Wax	×	–
Composite	×	×
Hybrid ceramics	×	×
Glass ceramics (with wet option)	×	×
Lithium disilicate ceramics (with wet option)	×	×
CoCr sintered	×	×
Titanium preforms	×	–

* In approved countries ** 80 l/min recommended *** As of inLab CAM SW 16.1 service pack

Procedural Solutions

Preventive
Restorative
Orthodontics
Endodontics
Implants
Prosthetics

Enabling Technologies

CAD/CAM
Imaging
Treatment Centers
Instruments

Dentsply Sirona

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