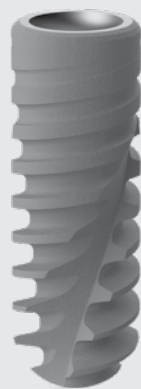


# ICX-IMPERIAL IN A SMILEBOX.

THE DIGITAL ICX-WORKFLOW.



EVERYTHING  
FROM ONE  
SOURCE



Starting with the planning of the drilling guides, the implants, abutments, connecting materials to the dental prosthesis.

Everything from one source. On time and reliable to your surgery appointment.

DIGITAL. DENTAL. FINAL.

**medentis**  
medical

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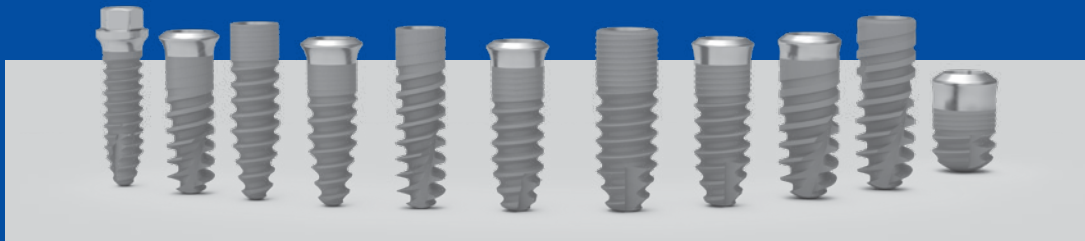
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medical

## ALEXANDER SCHOLZ

CEO, Shareholder  
and founder of  
medentis medical

### ICX-IMPERIAL IS THE NEXT STEP WITH THE EVOLUTION OF IMPLANTOLOGY.

Thanks to our complete treatment concept ICX-IMPERIAL  
- IN A SMILEBOX, give you as a master dentist the opportunity to treat your patients at the highest level - digital, dental and final.



# ICX-IMPERIAL IN A SMILEBOX. ||||

medentis medical designs with trend-setting implantology products, which involved all dental practices.

Discover the next step in the digital and dental evolution of implantology.

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IN A SMILEBOX
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IN A SMILEBOX  
Summary



## THE DIGITAL ICX-WORKFLOW.

LEADING THROUGH INNOVATION.

**medentis**<sup>®</sup>  
medical



## ICX IN A SMILEBOX

EVERYTHING  
FROM ONE  
SOURCE

Starting from the planning of the drilling guide, implants, abutments through the connecting materials to the dental prosthesis.

Our ICX-IMPERIAL® digital implant treatment concept now enables practitioners to obtain “everything from one source”. medentis supplies you with the DVT planning and the drilling guides, the implants and the abutments and the milled provisional directly for your surgery.

On time for your surgery appointment, you will receive up to three drilling guides, a printed 3D model, all the implants and abutments you need, as well as the CAD/CAM-milled ICX-SmileBridge and the perfect fixing material!

# ICX-IMPERIAL IN A SMILEBOX.

Everything from one source.  
On time and reliable for your surgery appointment.



ICX-IN A SMILEBOX · SINCE 2014

THE EVOLUTION  
OF IMPLANTOLOGY.



**medentis**<sup>®</sup>  
medical

# ICX-IMPERIAL — IN A SMILEBOX.

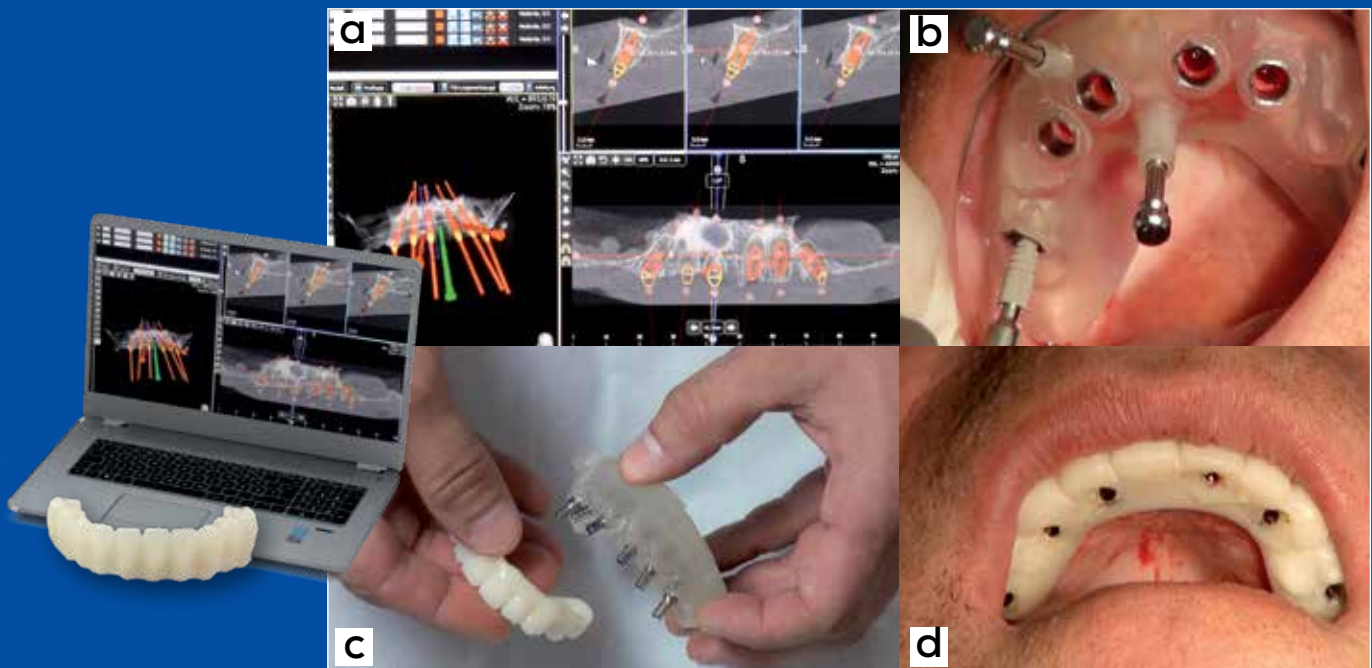


Fig. 1:

- a. Planning of the case according to the „6-ON-ICX“ concept in the ICX-MAGELLAN® software based on CT/DVT images
- b. Full-guided insertion of the ICX implants through the surgical template (3D printed and glued-in with titanium drill sleeves)
- c. 3D-printed model including already inserted model analogues, angled abutments, abutments and 3D-milled PMMA\*1 temporary (ICX-SmileBridge®)
- d. Inserted ICX-SmileBridge®

## THE MASTER CONCEPTION FOR ALL INDICATIONS.



Since 2014, medentis medical has been offering dentists an innovative, digital complete system for the immediate treatment of patients, which combines the advantages of the ICX-MAGELLAN® software for the safe and detailed planning of a surgical guided implantation with the CAD/CAM technology-generated ICX-SmileBridge® (PMMA\*1-provisional).





**Step 1: Fixed ICX-Magellan® drilling template**



**Step 2: Guided and drilling stop through the ICX-Magellan® drilling guide**



**Step 3: Guided and stopped implant insertion**



**Step 4: Positioning of the implant according to hex control**



**Step 5: Fixation of the angled ICX-multi® abutments**



**Step 6: ICX-multi® abutments before inserting the titanium abutments**



**Step 7: ICX-multi® protection caps/ use for wound closure**



**Step 8: Fitting the individualised titanium abutments**



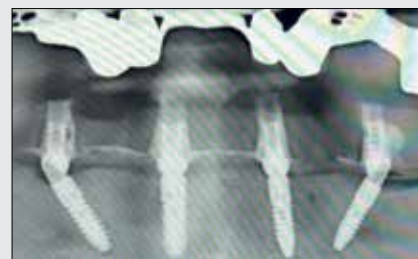
**Step 9: Fixation of the ICX-SmileBridge®**



**Step 10: ICX-SmileBridge® before final insertion**



**Step 11: Occlusal screw connection of the ICX-SmileBridge®**



**Step 12: Control OPG Post-OP**



**Step 13: Post-OP image after X-ray control**

**CASE STUDY: THE DIGITAL ICX-IMPERIAL® WORKFLOW:  
4-ON-ICX WITH THE ICX SAFETYGUIDE SYSTEM AND  
IMMEDIATE RESTORATION WITH AN ICX-SMILEBRIDGE®.**

**Practitioner: Dr. med. Uwe Jaenisch, Praxis Dres,**  
Berliner Str. 59, 16540 Hohen Neuendorf/Germany  
medentis medical GmbH



Follow the link to the OP video:  
The digital ICX-IMPERIAL workflow:  
4-on-ICX



# ICX-IMPERIAL IN A SMILEBOX.



DIGITAL ICX-IMPERIAL®



## ICX-IMPERIAL = Durability.

### Implant treatment planning with the digital ICX-IMPERIAL® workflow

The introduction of the completely digitised ICX-IMPERIAL® workflow enables users to treat a patient with implants and fixed prostheses on the same day.

A fundamental basis of the ICX-IMPERIAL® workflow is simply the planning with the assistance of the ICX-MAGELLAN® system on the basis of the three-dimensional X-ray data and further scans, if necessary.

With the registration of the DVT images in the ICX-MAGELLAN® software, the practitioner can use the patient's data, the dentist can generate a computer simulation of the implantation, including the provisional restoration, in advance of the actual operation. As an option, this can also be generated in the form of an individual planning proposal by the ICX-MAGELLAN® team of medentis medical GmbH. In addition, the 3D image data are also used for planning and preparing the full-guided drilling template for guided implant bed preparation, for manufacturing the 3D model and for the individual design and preparation of the implant bed. The 3D model as well as the individual design and manufacture of the ICX-SmileBridge® (page 6, Fig. 1).

At the agreed surgery date, the ICX implants can finally be inserted according to the drilling protocol, whereby the position, axis and rotational position are predefined due to the ICX guide template fixed by pins. The ICX prosthetic components are inserted on the same day and the ICX SmileBridge® is fitted without tension using the "passive-fit" method. Since data sets from the radiological template, the wax-up or the old restoration are used to fabricate the temporary, there is no need for time-consuming grinding.



## WORKFLOW

Altogether, thanks to the innovative ICX-IMPERIAL® workflow, precision can be increased and the often imprecise “manual” implementation of planning and treatment steps can be avoided. A prosthetic solution fits almost perfectly, and the foundations are laid for a more careful (minimally invasive) procedure, that delivers a safe and efficient implantation result.

### Price comparison dental implantology and implant prosthetics from various manufacturers

Nowadays, modern dental implantology offers patients and users numerous gentle and safe methods, although there are significant differences in terms of the difficulties associated with the treatment measures and the time and costs involved, both for the practitioner and for patients. So there are at present only a few manufactures in the field of restorative dentistry, who provide for implantologist, an holistic treatment concept.

The ICX-IMPERIAL® from medentis medical GmbH offers master implantologists, in addition to preoperative prefabricated prosthetic components and the individually manufactured “ICX-SmileBridge®”. in addition to an individual planning proposal.

*At the moment, practitioners have the option with help from medentis GmbH to choose from among 11 ICX-IMPERIAL® bundles, the appropriate product combination for the respective patient product combination for each patient case.*

The total price for a complete upper/lower jaw with 6 standard ICX implants and angled MULTI abutments is currently € 1,777.00.

Besides an individual planning proposal, this price also includes the drilling guides the 3D model, the implants, the prefabricated abutment elements, the model analogue, the cementation materials and the ICX-SmileBridge®.

*A similar concept is very difficult to find on the market and is almost impossible to copy.*

Additionally, there are the FAIR total costs even for a bridge construction on 5 ICX implants for € 1,116.00. In contrast, with other manufacturers,

users have to make do without the option of an external planning proposal and/or the additional provision with the final temporary restoration at a significantly higher price level, compared to medentis medical GmbH.

### Benefits for patients and practitioners in comparison to concepts of other manufacturers

*The digital implant treatment concept ICX-IMPERIAL® now enables practitioners to obtain “everything from a single source”*

“medentis supplies the DVT planning and the drilling guides, the implants the abutments and the milled temporary directly to the operating room”, summarised managing director Alexander Scholz in mid-April 2018 at the ICX Regional Symposium in Berlin and explained: “ If you work with ICX-IMPERIAL®, you will receive up to three surgical guides at the time of the surgery, a printed 3D model, all the necessary implants, abutments and as well as the CAD/CAM-milled ICX-SmileBridge® and the perfect fixing material!”. The innovative ICX-IMPERIAL concept represents a bridge between implant planning and the actual treatment of their patients.

Using the 3D implant planning software ICX-MAGELLAN®, the surgeon has the possibility to visualise the simulate the forthcoming operation on the computer and thus obtains a high degree of planning reliability and predictability of the implantation result. This way it is possible to avoid surprises. Especially with regard to the in situ bone situation, which can be avoided.

As a dentist, you are much more relaxed about the operation”. In addition, the numerous features of the 3D software enable an optimal visualisation of the final result, so the dentist can present the patient with the final result, even before the patient what he or she will look like with the final denture before the actual procedure.

Due to the desired accuracy of fitting, the prefabricated ICX MAGELLAN® drill guide can be precisely inserted or fixed in the patient’s mouth. The extraordinary fit of the of the ICX-MAGELLAN® drill guide provides the patient with excellent oral comfort.

The practitioner has a considerable time advantage, this increases the treatment safety and speed of the implant surgery.

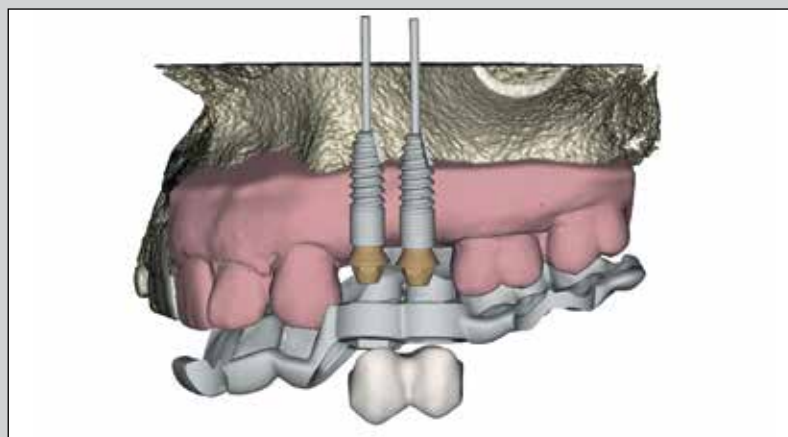
In general, the ICX-IMPERIAL® workflow can shorten cost-intensive treatment and operation times, as well and avoid additional operations. As a result, the patient can receive fixed teeth in one day\*<sup>4</sup>. In addition, with ICX IMPERIAL® the preoperatively presented dental prosthesis corresponds to the patient's wishes in terms of functionality times.

Therefore, this congenial treatment concept for immediate implant placement thus leads to a considerable in the daily routine of the practice and reduction in chair occupancy times. ■

1\* PMMA: Polymethylmetacrylate | \* 3All prices plus VAT. \* 4sufficient primary stability of the implants provided

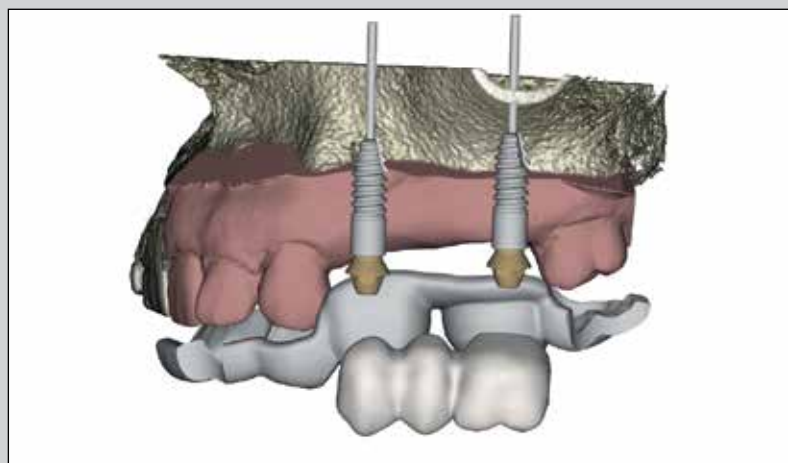
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7. Vietor K: Backward planning without DVT, a no-go? In: Anna Barfuß: Responsible radiography. In dentalmagazin 11/2016



**Fig. 2: ICX-IMPERIAL package 8**

For the complete price of 503.00 €\*<sup>2</sup> you get everything included: 1 x individual ICX Magellan® planning proposal/ 1 x individual ICX Magellan® drilling guide/ incl. up to 14 drilling & up to 6 fixation sleeves/ 2 x ICX implants/ 2 x ICX-MULTI® abutments/ 2 x ICX-MULTI® prosthetic abutments, titanium/ 2 x ICX model analogues/ 1 x printed Magellan® 3D model/ 1 x ICX-SmileBridge® 2-unit



**Fig. 3: ICX-IMPERIAL package 10**

For the complete price of 532.00 €\*<sup>3</sup> you get everything included: 1 x individual ICX-Magellan® planning proposal/ 1 x individual ICX Magellan® drilling guide/ incl. up to 14 drilling & up to 6 fixation sleeves/ 2 x ICX implants/ 2 x ICX-MULTI® abutment/ 2 x ICX-MULTI® prosthetic abutments, titanium/ 2 x ICX model analogues/ 1 x printed Magellan®

THE EVOLUTION  
OF IMPLANTOLOGY.

ICX-IMPERIAL  
IN A SMILEBOX.

# ICX-IMPERIAL WORKFLOW

## Overview in 15 steps



**1)** Impression taking/model production and recording in STL format



**2a)** Patients with more than 3 natural, unprovided teeth - have wax-up made by technician (set up and ground in) and take in STL format



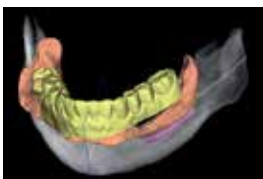
**2b)** Patients with less than 3 natural, unprovided teeth - Fabricate double scan denture



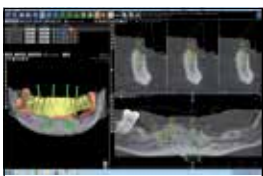
**3)** Referral to the radiologist:

3a) - Creation of a Dicom 3.0 file of the complete jaw (only for patients with more than three natural, unprovided teeth)

3b) - Creation of a double scan by using double scan prosthesis and scan of the prosthesis in Dicom 3.0 format (only for patients with less than three natural, unprovided teeth)

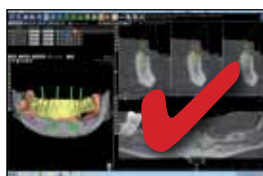


**4)** Modell-Scan and wax-up scan or denture scan are registered with Dicom 3.0 file registered in the ICX-MAGELLAN software



**5a)** Digital implantation with the ICX-MAGELLAN software by the dentist/ Practitioner/MKG surgeon (continue to step 7)

**5b)** Digital implantation using the ICX MAGELLAN software by the ICX expert team (continue to step 6).

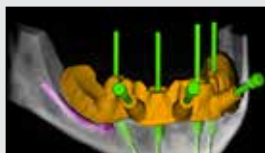


**6)** Control and approval of the implant planning

# ICX-IMPERIAL WORKFLOW



## Overview in 15 steps



**7)** Design of the ICX-MAGELLAN drilling guide.



**8)** Precise 3D printing of the drilling guide with cemented titanium drill sleeves.



**9)** Printing of the 3D model and exact positioning of the model analogues



**10)** Design and milling of the ICX-SmileBridge (temporary restoration) in modern, high-quality multicolour plastic.



**11)** All components are put together (ICX implants only on request) for free express shipping



**12)** ICX-MAGELLAN-surgery with ICX-MAGELLAN

See application  
example page 20/21

**13)** Alignment of the ICX implants according to the drilling protocol



**14)** Insertion of the prepared ICX prosthetic parts



**15)** Insertion and cementation of the ICX-SmileBridge with a dual-curing composite

# Case option 1 (remaining teeth $\geq$ 3 natural teeth)



## Checklist for ordering an ICX-MAGELLAN drilling template

### Case option 1 (remaining teeth $\geq$ 3 natural teeth)

- Creating a Dicom 3.0 image of the patient in DVT or CT

The recommended layer thickness of the recording: 0.15

Scan the patient with the mouth open (blocking 5-10 mm).  
This avoids difficulties during subsequent processing due to radiation artefacts from the opposing jaw.



Please follow the specifications of the device manufacturer.

Do not compress the data set and save it without a viewer  
in the raw data set.

- Presentation of the current oral situation



Take an impression with a high-quality impression material.

Pour the impression with Scan plaster.

Take a model with a dental scanner.

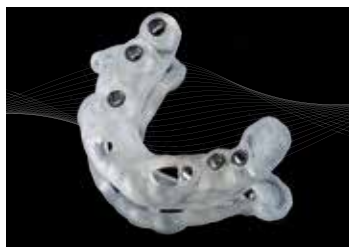


Export file as STL file.

(The images can also be created immediately digitally with an intraoral scanner (output as STL file).

## Case option 2

(residual teeth ≤ 3 natural teeth or  
complete treatment of the remaining dentition with metal)



### Checklist for ordering an ICX-MAGELLAN drilling template

Case option 2 (remaining teeth ≤ 3 natural teeth or complete  
restoration of the remaining dentition with metal)

- Double scan

- Creation of a Dicom 3.0 image of the patient in the DVT or CT with X-ray template  
(see fabrication of X-ray template)

Recommended layer thickness of the exposure: 0.15



Ensure that the drilling guide is correctly positioned.

Perform the patient scan with the mouth open (blocking 5 -10 mm). This avoids difficulties in the subsequent processing due to radiation artefacts from the opposing jaw as far as possible. Please follow the instructions of the appliance manufacturer. Do not compress the data set and save it without a viewer in the raw data set.

- Create a Dicom 3.0 image of the radiographic guide in the DVT or CT.

Scan X-ray guide without patient.



**Caution:** There must be no metal in or on the X-ray guides!

Insert the template into the CT/DVT in a similar orientation as in the position with the patient. It is advisable to fix the template on a carrier that is as transparent to X-rays as possible (e.g. cellulose products such as cardboard kidney trays, cardboard, etc.). - No metal or plastic bases



Follow the specifications of the appliance manufacturer.

Recommended layer thickness of the recording: 0.15

Do not set HD quality. Select child setting.

Set View of View to OK.



Save dataset uncompressed and without viewer in raw dataset.

# ICX-IMPERIAL WORKFLOW

## FABRICATION OF A DOUBLE SCAN PROSTHESIS

### 1) - from an existing prosthesis without metal



- mark the existing acrylic denture (without metal) buccally below the acrylic teeth



- With a small rose drill (Ø 1.5 mm) mill the marked points approx. 4.5 mm into the denture base.



- Position a gutta-percha pin in the prepared denture hole. Let the end protrude a little and shape it as a ball (size of a plastic pin head).
- send the patient to the DVT or CT scan.



- Instead of the gutta-percha pins, you can also use radiopaque balls. Mark the position of the existing scan prosthesis as described above. Roughen the prosthesis slightly at the marked points. Glue on the radiopaque spheres.



Click here to go directly to the video:  
THE DOUBLE SCAN - Which scans  
do I need for my patient?

# ICX-IMPERIAL WORKFLOW



## FABRICATION OF A DOUBLE SCAN PROSTHESIS

### 2) - from an existing prosthesis with metal



- reline the existing prosthesis in the patient's mouth



- take an alginate impression of the prosthesis and send it to your dental laboratory
- have the impression moulded in the laboratory



- Please reinforce metal bases with some pink plate wax



- take some plasticine and mould the prosthesis on the newly created model.

- Now pour clear or pink plastic into the insulated hollow mould that has been made.
- After demoulding, you now have a metal-free guide, which you can further process as described in point 1) can be further processed into a scanning guide.

### 3) - if there is no prosthesis

- produce a diagnostic wax-up
- make sure that the wax-up fits the palate very well and that there are no cavities.
- Now attach the scan markers as described under point 1).

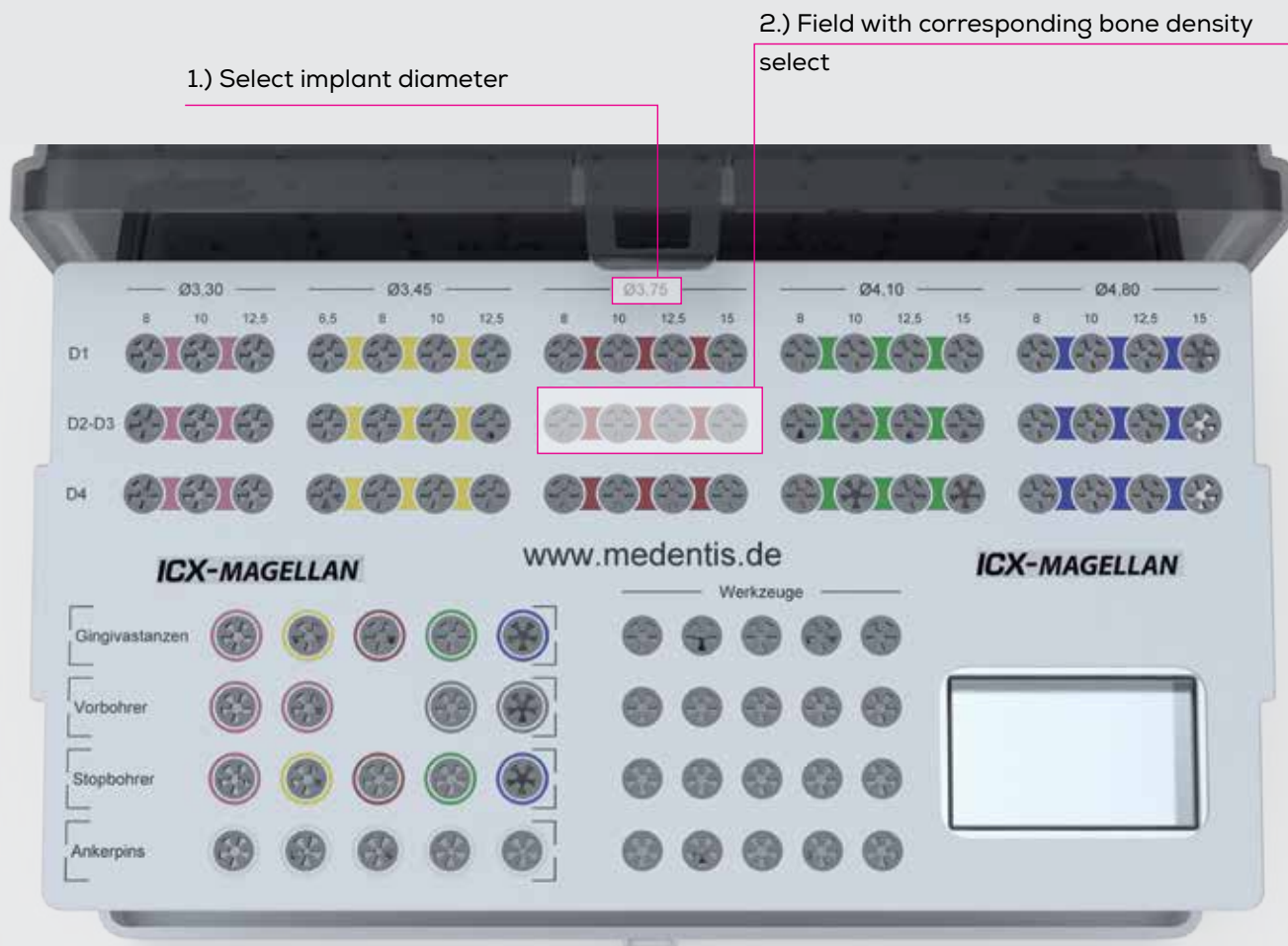
## DRILLING PROTOCOL & APPLICATION EXAMPLE:

Drilling protocol - ICX-MAGELLAN  
on the ICX implant  $\varnothing$  3.75 x 12.5mm

ICX-Implant  $\varnothing$  3.75 x 12.5mm

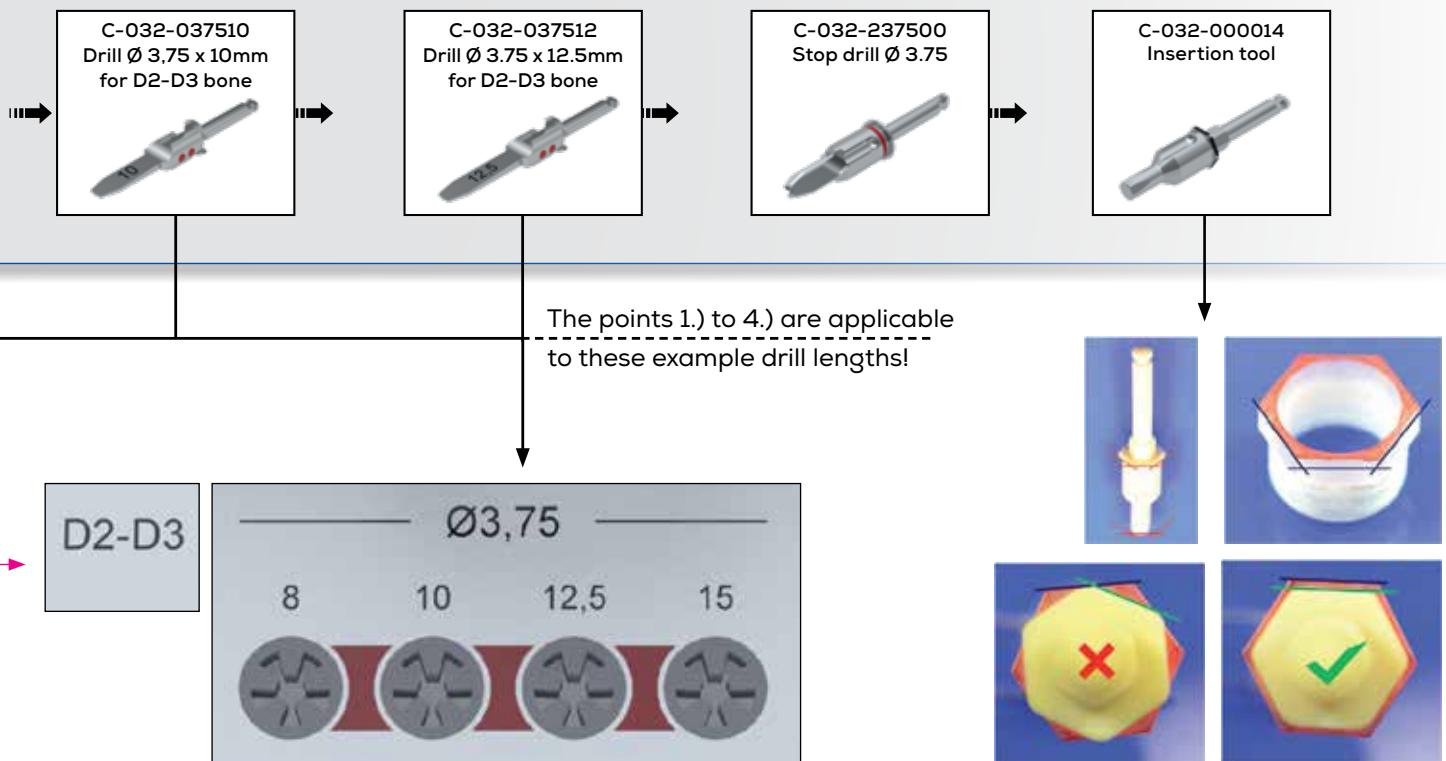


Explanation of the application example - procedure is  
applicable to all ICX implant diameters and bone thicknesses



## DRILLING PROTOCOL & APPLICATION EXAMPLE:

### Drilling protocol - ICX-MAGELLAN on the ICX implant $\varnothing$ 3.75 x 12.5mm



3.) Start with the smallest drill length (8mm)

4.) Proceed with each additional drill until the desired implant length  
(in the example here: 12.5mm) is reached.

**IMPORTANT NOTICE:** The stop drill is mandatory as the last drilling sequence!

5.) Implant insertion: For ICX implants take art. no.: C-032-000014  
for ICX-plus implants take Art.-No.: C-032-000015  
(The insertion instrument for ICX-plus can be recognised by the yellow ring!)

6.) Drill speed: All drills except BLUE 500 rpm - BLUE: 400 rpm - Gingiva punch: 15 rpm

## ICX-IMPERIAL

View and learn –  
in the medentis Academy.

Not only free of charge but also educational. For all dentists who work in implantology – at the medentis Academy you will find indications, professionally filmed by medentis and presented by experienced ICX users.

You will also find a large number of ICX-IMPERIAL of web-OPs for various indications.

Please click here and let us show you  
ICX-IMPERIAL – IN A SMILEBOX.

### WATCH NOW!

<https://medentis-akademie.de/video/der-digitale-icx-imperial-workflow-4-on-icx>

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OF IMPLANTOLOGY.

# PRAKTIKERN FÜR PRAKTIKER.

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ICX-Imperial: Sofortimplantation 4-on-ICX im OK

2 Jahren ago

7 2,792



Postoperative Begleitung & finale Versorgung.

3 Jahren ago

6 3,492



# ICX-IMPERIAL IN A SMILEBOX.

# ICX-IMPERIAL · IN A SMILEBOX

EXPERIENCE THE NEXT STEP IN THE DIGITAL  
AND DENTAL EVOLUTION OF IMPLANTOLOGY.

The digital implant treatment concept ICX-IMPERIAL® now enables practitioners to obtain „everything from one source“.

medentis delivers the DVT planning and the drilling templates, the implants and the abutments and the finished milled temporary directly to the surgery. You will receive up to three drilling templates, a printed 3D model, all required implants and abutments as well as the CAD/CAM-milled ICX-SmileBridge® and the perfect luting material on time for the surgery appointment!



From the planning of the drilling template, the implants, the abutments to the connecting materials to the dental prosthesis.

---

The introduction of the fully digitalised ICX-IMPERIAL® workflow enables users to provide a patient with implants and fixed dentures on the same day.

An essential basis of the ICX-IMPERIAL® workflow is simply the planning with the help of the ICX-MAGELLAN® software on the basis of the three-dimensional X-ray data and, if necessary, further scans. Overall, the ICX-IMPERIAL® workflow can both shorten cost-intensive treatment and operation times and avoid additional operations. As a result, the patient can receive fixed teeth in one day\*<sup>4</sup>. In addition, ICX-IMPERIAL® ensures that the functionality and aesthetics of the preoperatively presented dentures correspond to the patient's wishes.

This congenial treatment concept for immediate implantation thus leads to a considerable simplification in the daily practice routine and to a reduction in chair occupancy times. ■

# ICX-IMPERIAL IN A SMILEBOX



ALL  
FROM  
ONE  
HAND.



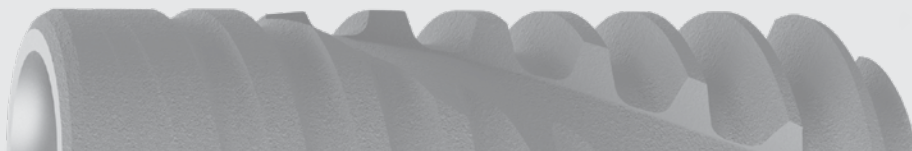
ILEBOX.

# ICX-IMPERIAL IN A SMILEBOX. ||||



## THE EVOLUTION OF IMPLANTOLOGY.

## THE DIGITAL ICX-WORKFLOW.



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