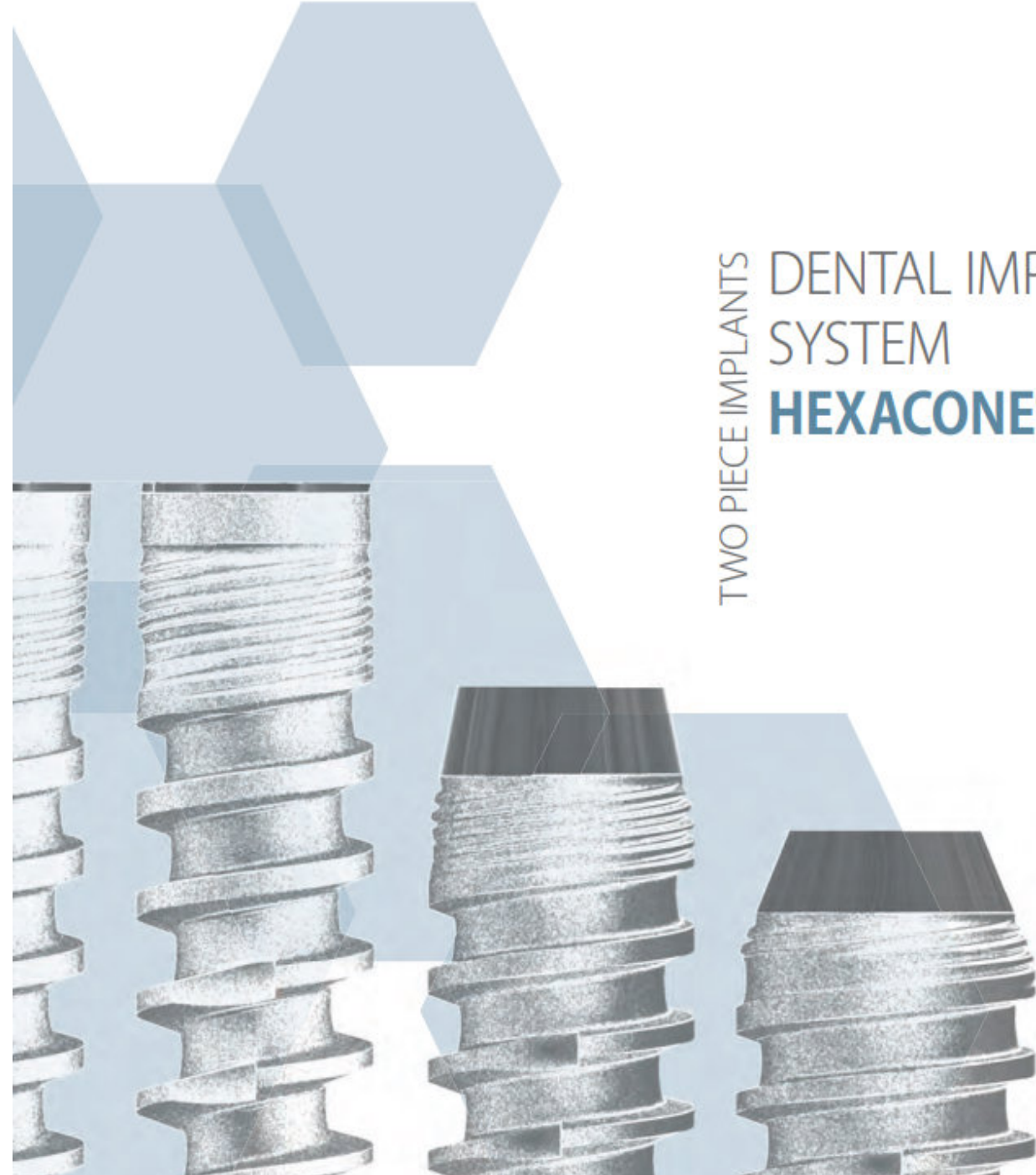


IHDEDENTAL 

TWO PIECE IMPLANTS

DENTAL IMPLANT
SYSTEM
HEXACONE®



"FOR ME, IMPLANTOLOGY BEGINS
WHERE OTHERS HAVE GIVEN UP."

- Dr. Stefan Ihde



Dr. Ihde Dental has been a reliable partner for over 60 years providing a wide range of implant systems and consumables. We supply dentists and dental technicians with precisely coordinated materials and systems, which are easy and reliable to use. We always ensure high quality and an excellent price-performance ratio so that you can guarantee allround treatment for your patients that is cost-effective and highly efficient. The following catalog gives you an overview and all the essential information about our implant systems. You can also contact us personally any time using the phone numbers provided. Further information can be found on our websites:

www.implant.com || www.ihde-dental.de || www.ihde.com

The company was founded in 1954 in Berlin by the dental technician Klaus Ihde. The company relocated to Bavaria in the 1960s. At the end of the 1980s, Dr. Ihde Dental GmbH (Germany) and Dr. Ihde Dental AG (Switzerland) were formed from the Klaus Ihde retail company. Ihde Dental is now represented in four locations in Europe and over 45 countries. The company group is one of the most innovative implant companies in the world – based on new developments and patents issued or pending.

The core activities of Ihde Dental are the development, procurement and distribution of medical products. We use a large number of suppliers in consumables, but we have produced implants in our own factory for many years. All components are manufactured quickly, precisely and economically thanks to state-of-the-art production technology and well-equipped machinery.

Our partners

Users and customers provide us with many new ideas and excellent suggestions. Collaboration with our customers is extremely important to us. Contact us at any time if you have any improvements or questions. Your ideas and opinions help us all to meet the daily wishes of patients to a greater and better extent. We also put the needs of the patient first.

Our market performance and work ethic

Since it was founded, the company has focused on innovative ideas and advanced technology, premium quality, an excellent price-performance ratio, optimal patient and user friendly products and durability. Our range combines the latest findings from research and practices in many countries around the world.

Customer orientated to us means – **available for you!**

- We provide training courses, refresher courses and user advice.
- We provide customers with comprehensive and technically sound advice.
- We also visit you in your practice upon request.

**Please call us to arrange an appointment
or send us an email.**

IHDEDENTAL 

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THE ADVANTAGES OF TRADITIONAL HEXACONE® IMPLANTS

Secure anti-rotation
through high precision
internal hexagon

Apical expanded
bone thread

Excellent stability in all
bone qualities: double
condensation

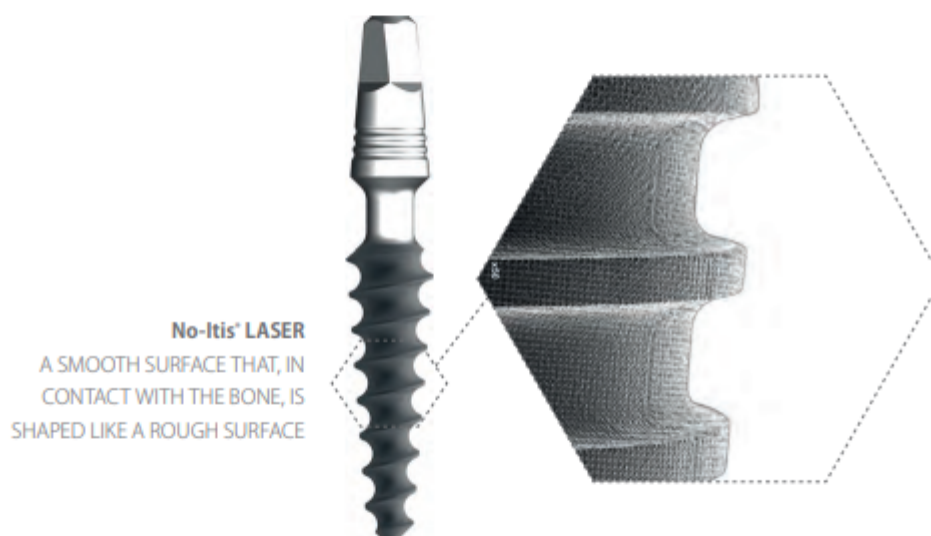
Universal application
for fixed and removable
prosthodontics

Abutment alignment
and 100% tightness
through the taper

No-Itis® LASER – THE NEW SURFACE GENERATION

The new surface treatment for Dr. Ihde Dental AG implants is created with the latest generation of robotic tools for laser ablation. This new technology of high precision creates roughness in the implant through a mesh of hemispherical micrometric pores, with a defined, always identical size and shape and with a symmetrical distribution.

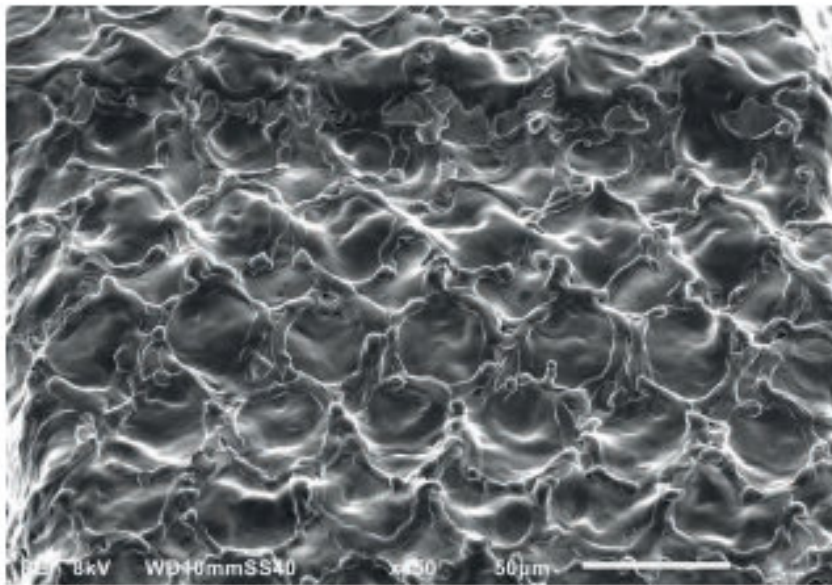
The result is a more adequate topography, which provides the most suitable conditions for the osseointegration of the implant, but at the same time it is, and behaves like, a smooth surface at a micrometric (cellular) level. This means that while bone grows well on this surface, the adhesion of bacteria to the same surface is significantly reduced.



In the 1990s, rough surfaces on dental implants became increasingly popular – while the risk of bacterial adhesion was blissfully disregarded. This caused the appearance of a new disease, peri-implantitis, which severely compromises the survival of the implants in the long term and which, as a result, requires a renewed intervention on a dissatisfied patient, wasting time and increasing costs. Surfaces like that are not patient-friendly!

The use of the laser technology we developed allows us to create an exactly defined micromorphology on the treated surface, leaving no residue and without altering the properties or composition of the titanium alloy. This creates a mesh of very perfect cavities in terms of the (hemispherical) shape and its dimensions (of 20 to 30 μm), as well as their distance and distribution. The surface of these cavities as well as the retentions created by laser ablation are smooth as experienced by the bacteria, a characteristic that is assumed to improve the resistance of the implant against bacterial colonisation. This characteristic might also radically limit the incidence of peri-implantitis. In contact with the bone, however, the laser-ablated surface behaves like a rough surface. Rough implants (e.g., KOS®, Hexacone®) and smooth implants (e.g., BCS®, KOS®) therefore have the same recovery rate.

No-Itis® LASER
THE SURFACE THAT INCREASES SURVIVAL RATIOS



Rugosity (Ra)	Definition
$\leq 0,4 \mu\text{m}$	Smooth
$0,5 - 1,0 \mu\text{m}$	Machined
$1,0 - 2,0 \mu\text{m}$	Moderately rough
$> 2,0 \mu\text{m}$	Rough

Rugosity (Ra)	No-Itis® Laser
$0,9 \mu\text{m}$	Smooth

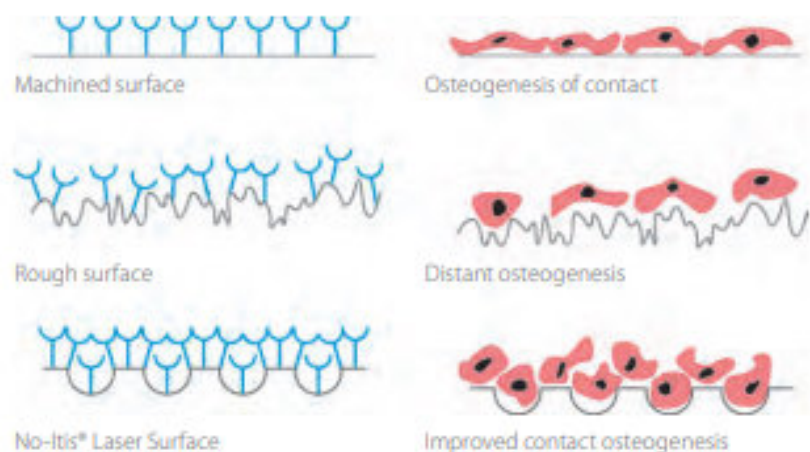
According to the classification of surface roughness by Albrektsson and Wenneberg, the Ra value corresponds to a smooth surface, and our lasered surface actually has the characteristics and many of the advantages of a smooth implant surface. The NO-ITIS® LASER surface allows the adhesion of the uniform and extended fibrin clot, which then leads to the formation of woven bone. The distribution and size of the concavities favours the accommodation and activity of the osteoblasts, promoting effective osseointegration

No-Itis® LASER

THE MOST ADVANCED SURFACE A SAFE ANSWER AGAINST PERI-IMPLANTITIS, MAINTAINING THE OSSEOINTEGRATION LONG TERM

STABLE FIBRIN MESH

With the NO-ITIS® LASER, as with traditional rough surface, fibrin filaments are almost exclusively attached to surface peaks forming bridges between them (distance osteogenesis). On the NO-ITIS® LASER surface, fibrin forms as a well developed and defined grid mesh even within the concavities, which favours colonisation of the osteogenic cells directly on the surface of the implant (contact osteogenesis).



MAXIMUM CONTACT OSTEOGENESIS

Thanks to the good cell adhesion, a normal fibrin mesh can be created, adapted and extended on the surface of the NO-ITIS® LASER. This process activates the formation of osteonal bone, also directly in contact with the implant.

No-Itis® LASER A UNIQUE SURFACE

No-Itis® LASER

THE IDEAL SURFACE FOR IMMEDIATE
OR EARLY LOADING

surface in a stable and uniform manner. This process activates the formation of bone directly in contact with the implant, resulting in a more dynamic and favourable osseointegration, with greater BIC (Bone implant Contact), and it allows true bone engineering.

- Smooth implant surface
- Less bacterial adhesion

➔ LOWER RISK OF INFECTIONS

- Increased fibrin adhesion
- More contact osteogenesis on a larger surface

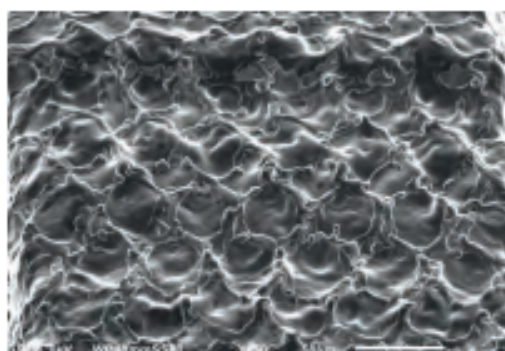
➔ PERFECT OSSEOINTEGRATION

RAPID OSSEOINTEGRATION

The perfectly symmetrical and reproducible topography of the NO-ITIS® LASER surface attracts a greater number of osteogenic cells, allowing them to settle and to proliferate on the implant

No-Itis® LASER – A CLEAN SURFACE

Unlike standard-surface implants (sandblasting and etching, or blasting and anodising), the implants with the NO-ITIS® LASER surface have a completely clean surface without residues nor contaminants. Due to this modern manufacturing process, no residues of jet particles or traces of the chemicals (acids) or anodisation (oxides) used in the etching process can come into contact with the implant. Eliminating the anodisation also eliminates the risk that the top layer of the coloured implant dissolves mechanically.



No-Itis® LASER

A CLEAN SURFACE

No-Itis® LASER – THE IDEAL SURFACE FOR BONE CONTACT

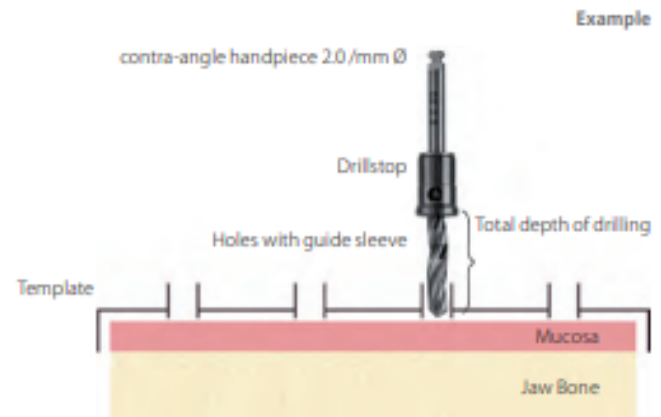
The total cleanliness of the NO-ITIS® LASER allows the endosseous implant surface to be increased without having to accept the disadvantages of all the traditional methods for surface roughening.

This new surface generation can coexist for some time with others developed by Ihde Dental AG, while regularization of production and stocks, and therefore any reference may not be available on the new No-Itis® Laser surface.

PREPARATORY WORK FOR TEMPLATE APPLICATION

1. Ask your laboratory to prepare a drill template with the determined drillholes for the pilot drills. To be on the safe side, you can ask the laboratory to insert guide sleeves (REF BFH) into the drillholes, which specify the exact drill direction. Please use a 2.0 / 2.2 mm Ø drill for the pilot drilling.
2. For the following drill sequences you can use drill stops, which can be attached and tightened to the drill according to the length of drilling channel. Gingival thickness and template height are taken into account as needed. Thanks to the extremely high cutting efficiency of our drills, no ascending drilling sequences will usually be required.

Recommended RPM: 2000-5000. Apply sufficient cooling and allow the cooling to reach the working blades of the drills.



General note: Hexacone® implants are used as compression screws. In order to achieve a good bone condensation and implant stability, the drilling should be carried out thinner than the core diameter of the implant. The minimal diameter of the drill depends on the bone density. It is therefore not possible to advise drill-sequences which fit all bone-qualities. Typically in the soft maxillary bone only small drill-diameters are used (e.g. the usage of D051 only, for Hexacone® implants with 3.3 - 5.5 mm diameter), whereas in the highly mineralized lower jaw a specific drill sequence with respect to the mineralization of the bone is necessary. For insertion under pressure use the Handgrip. Due to technical reasons Hexacone® 2.9 mm is not available with expanded apical thread. HC2 implants with diameters 2.9 and 3.3 mm as well as 3.7 mm are not for use as single tooth restoration.

SURGERY

1. Recommended drill sequence

HC 2.9
(Head diameter 3.2 mm)



Step drill

or

DFN 2.9 15

The use of DFN is done without previous pilot drill.
Max. torque during insertion of HC 2.9: 35 Ncm.



HC 3.3



DFN 2.9 13

DFN 2.9 15

(hard bone: DFN 3.4/DFLN 3.4)
Max. torque during insertion of HC 3.3: 40 Ncm.



HC 3.7



DS 2
Pilot drill

DS 2.8
Pilot drill

Max. torque during insertion of HC 3.7: 45 Ncm.



HC 4.5 mm
HC 4.5 mm 6+2



DS 2
Pilot drill

DFN 3.0

(DFN 3.4)

(C-Drill 3.7)
(Corticalis drill)

Max. torque during insertion of HC 4.5 mm: 50 Ncm.



HC 5.5 mm
HC 5.5 mm 6+2



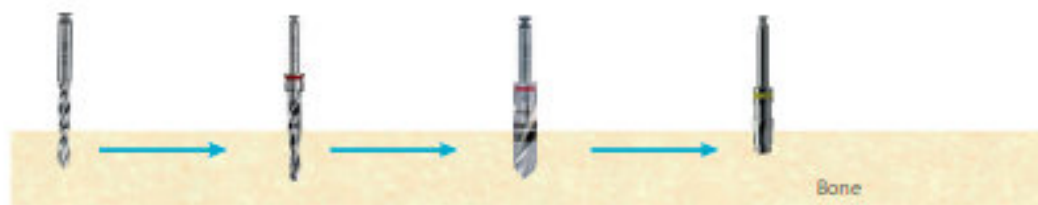
DS 2
Pilot drill

(DFN 3.4) /
DFN 3.7

DFN 4.2 - 4.5

(C-Drill 4.2 - 4.5)
(Corticalis drill)

Max. torque during insertion of HC 5.5 mm: 55 Ncm.



DS 2
Pilot drill

DFN 3.7

DFN 5.5

(CSBL 4.8)

Max. torque during insertion of HC 5.5 mm: 60 Ncm.



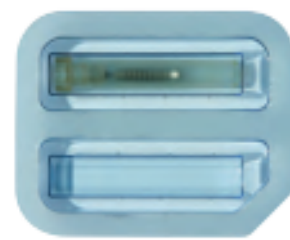
2. Implant packaging



Original packaging



Open the blister using the flap.
Remove the label and stick it into
the patients record.



The blister (secondary packaging)
contains the implant in a sterile tube
(primary package).

3. Remove the implant from its packaging

1. Open the lid.
2. The implant is fixed to the lid by a break joint.
3. Remove the implant without touching the inner wall of the tube.



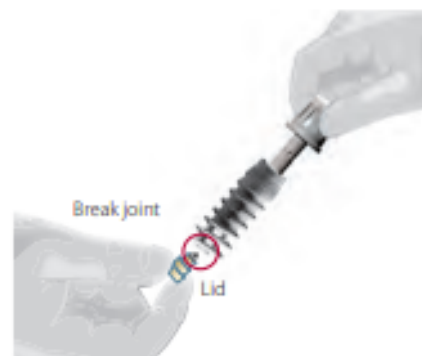
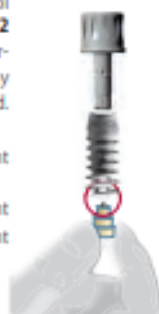
4. Handling

Attach the insertion tool to the implant by holding the top, to
which the implant is secured, with your other hand.

Alternative: Firmly attach the assembled contra-angle hand-
piece instrument IT 2.5 M to the implant. For ratchets ITL 2.5 can
be used as well.

After you have attached the insertion tool, firmly hold the lid in
your hand and break the implant off the top along the break joint.
Then insert the implant into the drill hole as much as possible.

Insertion tool
IT 1 or IT 2
Make sure the hexagon is in the
correct position and that the tool is fully
inserted.
Hexacone® Implant
Break joint
Lid with implant mount



5. Insertion

Using the ratchet screw the implant clockwise into the cavity.

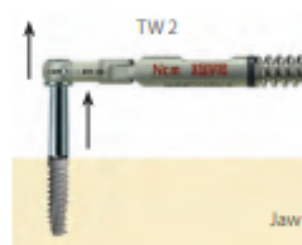
The endosseous part of the implant must be **completely** covered by the bone.

After insertion the implant can be turned by a $\frac{1}{4}$ rotation backwards in order to relieve the bone and allow blood access to the implant site.



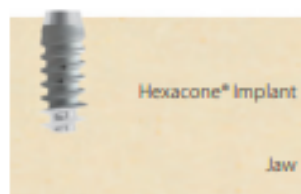
6. Remove insertion tool from implant

Remove the insertion tool from the implant.



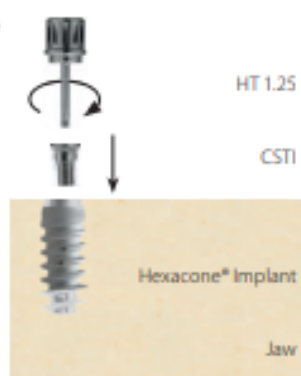
7. Result

Result: A correctly inserted implant



8. Post-operative treatment

Close the implant with the suitable surgical cover screw.



After healing:
Remove the surgical cover screw.



9. Handgrip

Use of Handgrip and Hexacone® adapter.



Break off the holder.



Insert the implant with axial pressure while turning.



Max. insertion torque for diameter

2.9 mm	30 Ncm
3.3 mm	40 Ncm
3.7 mm	50 Ncm
4.5/5.5 mm	60 Ncm

10. Pick Up Impressions

Impression taking with an A-silicone such as Safeprint® by Dr. Ihde Dental. The use of open and closed impression tray is possible.

10.1 Pick-up-procedure with an individual impression tray.

Hex tool HT 1.25

Tightening of the
impression post HLT

Hexacone® Implant



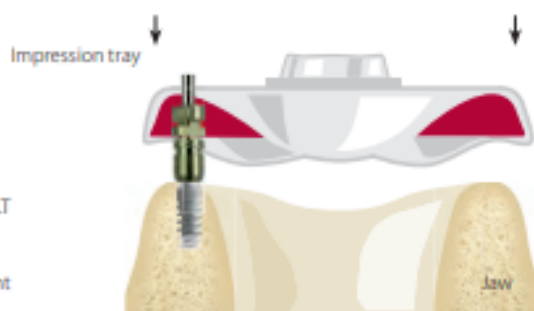
10.2 Prior to the impression

For pick up impressions the tray is inserted over the impression post until the screw peaks out on the other side and becomes accessible for the HEX-tool.

The impression post HLT must not necessarily be unscrewed from the implant in order to remove the impression tray. It can be repositioned later as well.

Impression post HLT

Hexacone® Implant



10.3 Taking the impression

Disengage HLT from the implant: HLT remains in the impression

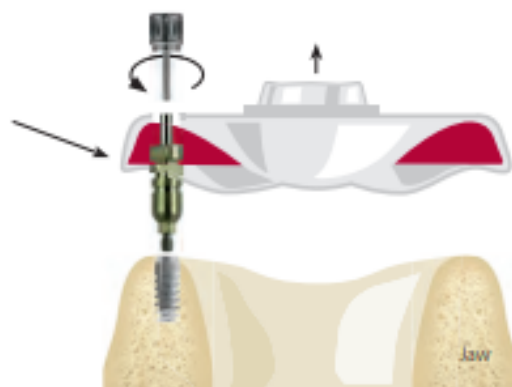
After the impression is taken, the implant is closed with a healing abutment (Gingiva former - straight or anatomic) and the impression is sent to the laboratory.

Loosen screw with HT 1.25

Window in impression tray

HLT

Hexacone® Implant



10.4 Preparation of the impression tray for model fabrication

Screw analog against the impression post.

Fasten the laboratory analog in the impression using HT 1.25

HLT

IA

