

NANOIMPLANT®

world's first implant made from pure nanostructured titanium

Timplant®

Dental Implants

Timplant®

Dental Implants

NANOIMPLANT®

DENTAL IMPLANT SYSTEM



interior thread

abuttment

antirotation crown element

gingival part

intraosseal part 8, 10, 12 and 14 mm
Ø 2,4 mm and Ø 3,5 mm

thread – high primary stability

self-drilling thread groove

etched wettable surface
of nanostructured titanium



NANOIMPLANT® is the international trade mark

NANOIMPLANT®

- world's first implant made from pure nanostructured titanium

DENTAL IMPLANT SYSTEM NANOIMPLANT®

Fully nanostructured titanium represents the 3rd millennium materials having excellent mechanical parameters. The grain size comes down to 1-100 nm. Due to the increased surface activity (wettability) a better surface adherence of proteins and osteoinductivity factors are provided.

The NANOIMPLANT® is characteristic by its excellent strength, high material purity, increased primary retention and easy procedure of implantation.

Thanks to high purity titanium of 99% the risk of possible allergization by metallic ions is minimized.

NANOIMPLANT® with diameter of only 2.4 mm is designed to have the same mechanical strength comparable to the 3.5 mm Timplant® titanium implants. In situations of alveolar crestal deficiencies the NANOIMPLANT® is a perfect choice e.g. for single post restorations.

NANOIMPLANT® is produced in 8, 10, 12 and 14 mm length of the intraosseal part - coding is A08, A10, A12 and A14. The highly polished gingival platform is connected to the hexagonal and conical prosthetic implant head, where the internal thread should be used for a removable screw fixation of the prosthetic frame.

Novelty – NANOIMPLANT® T - T for Thick – with diameter of intraosseal part 3.5 mm, gingival and prosthetic part is the same as in diameter 2.4 mm. It is manufactured in lengths 8, 10, 12 and 14 mm with coding A08T, A10T, A12T and A14T. For its implementation it is necessary to order the drill N126T and depth gauge N166T.

High primary stability is achieved by an increased thread design. Special etching makes the surface roughness 2.4 times higher and increases by the same ratio also the adhesion surface.

NANOIMPLANT® - STERILIZATION

1. The implant NANOIMPLANT® is delivered STERILE in PP nonpyrogenic containers - attached to special titanium implant holders. Sterilization is performed by gamma radiation.

NANOIMPLANT® - PREPARATION

1. Rise the mucoperiosteal flap or gain bone access by the with use of use of gingival trephine.
2. Mark the desired insertion point by the initial globe bur.
3. The recommended gap between two implants has to be at least 5 mm.
4. There is only one drill to perform the entire preparation - external continuous cooling is recommended. Drill depth is indicated by marks on the drill shaft indicating the depth of 10, 12 a 14 mm to the drill nose. In dense bone quality D1 and D2 an additional +1 mm of depth drilling is recommended. In the maxilla and less dense bone the drilling should be -1 mm less than the implant length.
5. The drilling depth should be checked by the depth gauge.

NANOIMPLANT® - INSERTION

1. Take the implant by the cylindrical threadless part with the holding tweezers and unscrew the implant holder.
2. Put the hexagonal implant head into the nut wrench.
3. Insert the implant tip into the predrilled bone tunnel in the same direction as the hole was drilled.
4. Tighten the implant clockwise by fingertips force.
5. The thread is made directly by the thread blades during insertion.
6. To tighten the implant use fully the wrench handle, the polished implant neck has to be just underneath the bone level.
7. Remove the nut and wrench.
8. Perform X- ray checkup.
9. A protection cup should be attached by the fixation screw

NANOIMPLANT® - TAKING IMPRESSION

1. Place the impression cap on the implant head properly
2. Check whether the connection is exact and tight
3. Take the impression
4. Insert the model post into the impression cap
5. Check that it does NOT move
6. Plaster cast



N 111 Gingival Trephine



N 101 Initial globe bur



N 126 Conical preparation drill



N 166 Depth gauge



N551 Wrench



N 711 Wrench nut

N 636 Surgical Tray Organizer



P12 Prosthetic implant



P 15 Impression cap



P 16 Impression Cap



P 18 Modelling Cap



P 19 Modelling Cap



P 20 Protective Cap



P 22 - P 25 Elongation screw



P 03 Fixing screw



N 646 Tweezers

NANOIMPLANT® - SURGICAL TRAY ORGANIZER

1. Gingival Trephine - for flapless surgery
2. The initial globe bur - used for marking of the desired insertion point
3. Conical preparation drill - calibration depth marks 10, 12 and 14 mm
4. Depth gauge - for checking of the drilling depth
5. Wrench nut - for implant insertion
6. Wrench - for full tightening of the implant
7. The holding tweezers - for unscrewing the implant from the implant holder
8. Surgical tray - for keeping the instruments and for sterilization

NANOIMPLANT® - ACCESSORIES

1. Prosthetic implant post- for transferring the implant position to the model
2. Impression cap - takes the exact implant position of the implant in the impression
3. Fully burnable modelling cap - makes precise wax modelling easier
4. Protective cap - attached to the implant head for protection until the crown is ready
5. Elongation screw - enlarging the gingival neck to 2, 3, 4 and 5 mm.

Demonstration, surgery and prosthetic procedures of NANOIMPLANT® implant system are available on video.

Development of the NANOIMPLANT® implant system and research of nanotitanium properties is performed in cooperation with the Charles University in Prague, with the Department of Dentistry of the Medical Faculty in Pilsen, with the VSB - Technical University of Ostrava and with the State Technical Aviation University of Ufa.

Production of NANOIMPLANT® implant system is realised according to the international standards EN ISO 9001 and EN ISO 13485 and certificates label CE₁₀₁₄.

NANOIMPLANT® - World's newest development in nanostructured titanium medical application

NANOIMPLANT® - Unbeatable in strength compared to other titanium alloys implants

NANOIMPLANT® - Contains 99% pure nanostructured titanium

NANOIMPLANT® - Extraordinary biological behavior especially speeding up osteo-integration

NANOIMPLANT® - Best primary retention granted by High thread design

NANOIMPLANT® - Indication for single post restoration

NANOIMPLANT® - Self tapping Implant

NANOIMPLANT® - Wettable surface

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