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CORTEX DYNAMIC IMPLANT

Specification:

Grade 4 Titanium implant with diameters: 3.3, 3.8, 4.2, 5.0, 6.0 and lengths: 8, 10, 11.5, 13, 16 mm.

Anatomic description: the implant is formed with converging thread with two beginning points of thread on the implant body.

The implant body consists of three cones:

1. The implant body proper: A change in the angle of convergence depends on the length of the implant.
2. Cone of the external thread track is located at an obtuse angle to the cone of the implant body.
3. Cone of the implant neck: the implant is formed with a thread at its neck which is formed with two fine thread beginnings; moreover the thread is broadened in a form of a cone to the implant diameter size.

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Thread shape

The thread is broadened in the direction from the apical edge of the implant to the implant neck with the thread pitch 2.4 mm (1.2 mm per thread) (two beginnings).

The implant neck thread: double-beginnings thread with a pitch of up to 0.6 (0.3 per thread).

The edge of the implant apex is rounded.



Internal interface

Hexagon: the hexagon is 2.44 deep and it is formed with internal thread of 2.15 mm for fixing the abutment and the superabutment units 1-72"

Depth of insertion:

Along the implant length

The implant surface is treated by injecting dry/wet Aluminum Oxide and etching in hydrofluoric and sulphuric acids and acidity neutralizing. The remains of the materials used for treatment are flushed and the surface is cleaned.

Packing: will be executed in a clean 10000 class room.

Sterilization: pasteurization by γ -rays

Advantages of the implant

The difference between the implant body cones and the external thread size enables minimal lowering of the bone and the implant installation through preserving the gap between the implant and the bone during the entire procedure of installation (the implant). To achieve this, the depth of the thread insertion in the apical area associated with the bone exceeds the size of the implant neck area thereby pushing the bone in the horizontal plane (direction).

Owing to the variable thickness of the tread tension is generated along the implant installation path in such a manner that the thread wire that slides into the previous thread wire path causes vertical (upright) compression of the bone.

The dense thread in the implant neck improves the primary stabilization of the implant. This fact is of a great importance, in particular for sinus lift whenever the bone is thin and the major part of the **stabilization load** is applied to the implant neck.



The rounded apex reduces the risk of tearing the membrane by the thread during the implant installation in case of a closed sinus lift.

Phase at the edge of the implant neck is designated for moving away the gap of the implant connection with the abutment from the implant neck and minimizing the implant neck compression around the gap.

The internal interface enables connection of the superstructure at an angle suitable for prosthetic rehabilitation and prevents rotation of the superstructure members.

As a result of the implant surface treatment rough surface is generated, which increases the surface of the implant contacting with the bone in order to create Osseo Integration.

Etching with acids and flushing for removal of contaminating substances and generation of oxidation layer.

Sterilization and pasteurization

Designated to decontaminate product

Applications

In case of a thin alveolar bone for installation of implants in the maxillary anterior segment with buccal undercut, sinus lift, low density bone by minimal bone removal and inserting at a high moment.

In case of dense cortical bone, for installation of implants in a thin bone, sinus lift in cases when immediate load is applied.

Immediate implant installation after tooth extraction is possible owing to the anatomic configuration of the implant abutment.



CORTEX CLASICC IMPLANT

Specification:

Grade 4 titanium implant with diameters: 3.3, 3.8, 4.2, 5.0, 6.0 and lengths: 8, 10, 11.5, 13, 16 mm.

Anatomic abutment: the implant is characterized by cylindrical thread with a single beginning on the implant body.

The implant body comprises three cones.

1. The implant body: Cylindrical contour of the implant with the thread contour different from the external contour of the implant.
2. Cone of the implant neck: The neck thread of the implant has two fine threading beginnings with a cone-shaped broadening of the tread to the implant diameter size. At the implant neck edge there is a variable angle phase in accordance with the implant diameter.
3. Apex: the edge of implant apex is rounded.

Thread shape

The thread is broadening from the apical edge of the implant towards the implant neck with the thread pitch 1.2 mm (a single beginning).

The implant neck thread: double-beginnings treading with a pitch of up to 0.6 (0.3 per a thread).

The edge of the implant apex is rounded.



Internal interface:

Hexagon: the depth of the hexagon is 2.44 with internal thread of 2.15 mm for fixing the abutment and superstructure members 1-72"

Depth of insertion:

Along the implant length

The implant surface is treated by injecting dry/wet Aluminum Oxide and etching in hydrofluoric and sulphuric acids and acidity neutralizing. The remains of the materials used for treatment are flushed and the surface is cleaned.

Packing: will be executed in a clean room 10000 class.

Sterilization: pasteurization by γ -rays

Advantages of the implant

The difference between the size of the implant body and the external threading enables minimal bone lowering and the implant insertion through preserving the interval between the implant and the bone during the entire procedure of the implant installation. To achieve this, the depth of the thread penetrating in the apical area is bigger than in the neck area of the implant thereby the bone is pushed in the horizontal plane.

Owing to the variable thickness of the tread tension along the implant installation path is generated in such a manner that the thread wire that slides into the previous thread wire path causes vertical (upright) compression of the bone.



The dense thread in the implant neck improves the primary stabilization of the implant which is of a great importance in particular for sinus lift whenever the bone is thin and the most of the stabilization load is applied to the implant neck.

The rounded apex reduces the risk of tearing the membrane by the thread during implant installation in case of a closed sinus lift.

Phase at the edge of the implant neck is designated for moving away the gap of the implant connection with the construction from the implant neck and minimizing the implant neck compression around the gap.

The internal interface enables connection of the superstructure at an angle suitable for prosthetic rehabilitation and prevents rotation of the superstructure members.

As a result of the implant surface treatment rough surface is generated that increases the surface of the implant contacting with the bone in order to create Osseo Integration.

Etching with acids and flushing for removal of contaminating substances and generation of oxidation layer.

Sterilization and pasteurization

Designated to decontaminate product



Applications

In case of a dense alveolar bone, sinus lift and in cases when immediate load is applied.

Implant installation immediately after tooth extraction is possible owing to the anatomic abutment of the implant.

CORTEX SMART ONE PIECE IMPLANT

Specification:

Grade 4 titanium implant with diameters: 3.0, 3.3 and lengths: 10, 13, 16 mm.

Anatomic abutment: the implant has a conical thread with one beginning point on the implant body.

The implant comprises three elements.

1. The implant body: Cylindrical contour of the implant with a thread contour different from the external contour of the implant.

2. Cone of the implant neck: The part outside the bone to which the soft tissue of biological width is connected.
3. The cylindrical implant head with four faces is designated for prosthetic rehabilitation and it protrudes inside the mouth above the soft tissue.

Thread shape

The thread is broadening from the apical edge of the implant towards the implant neck with the thread pitch 1.2 mm (one beginning).

The implant neck is smooth and polished tapered or straight.



The implant head is conical (tapered) or straight along the gums line changing in a conic way with a 4 faces finish at a height of 3 mm.

Depth of insertion into the bone: To the implant neck.

The implant surface is treated by injecting dry/wet Aluminum Oxide and etching in hydrofluoric and sulphuric acids and acidity neutralizing. The remains of the materials used for treatment are flushed and the surface is cleaned.

Packing: will be executed in a clean room 10000 class.

Sterilization: pasteurization by γ -rays

Advantages of the implant

The difference between the implant body cones and the external thread size enables minimal lowering of the bone and the implant installation through preserving the gap between the implant and the bone during the entire procedure of installation (the implant). To achieve this, the depth of the thread insertion in the apical area associated with the bone exceeds the size of the implant neck area thereby pushing the bone in the horizontal plane.

The implant abutment: the neck and the prosthetic abutment formed as a single unit prevent generation of a gap in the area of the implant neck thereby assisting in preserving the bone from compression and generating the contact between the soft tissue and the implant neck. At present the implant abutment is solid and rigid and the use of small diameter implants is expected to be a success.

The implant is installed in a single surgical operation without the need in additional surgical operations.

CORTEX
dental implants

As a result of the implant surface treatment rough surface is generated, which increases the surface of the implant contacting with the bone in order to create osseointegration.

Etching with acids and flushing for removal of contaminating substances and generation of oxidation layer.

Sterilization and pasteurization

Designated to decontaminate product

Applications

In case of a very dense alveolar bone, in cases of implantation in a very thin bone in cases when immediate load is applied and reduced mesiodistal gap .

Implant installation immediately after teeth extraction is possible owing to the anatomic configuration of the implant abutment.

Temporary implant can be used

CORTEX ABUTMENTS:

Straight profile implants

Conductive abutment: made from Titanium, available in two sizes.

1. For implants with diameter of 3.3, 3.8, 4.2 mm
2. For implants with diameter of 5, 6 mm



The abutment is connected to the implant through a hex connection. The neck region of the mount – 1.3 mm, converging body with bevel area and opposite vertical slot which is parallel to the hexagon faces.

A 2.5 mm high hexagon inside the abutment is used to insert a driver for the implant installation together with the abutment.

A peripheral locking slot located 1 mm below the abutment bevel, a 1.72" thread titanium fastener goes through the abutment. In addition internal tapping is used to prevent the screw from falling inside the abutment.

Advantages of the abutment

1. Can be used with two platforms – normal and narrow
2. The bevel area and the counter slot prevent the superstructure rotation and tight contact of rehabilitation on the abutment.
3. Peripheral tightening (contact) annulus (ring) enables precise press insertion and mounting of the coping healing cap or temporary reconstruction
4. Internal hexagon enables the implant leading to the implant installation area using the driver that fastens the implant after the abutment removal from it, either by means of a manual driver or a driver that is connected to hand unite
5. Internal tapping configuration prevents the fastening screw disengagement from the implant.



6. The abutment serves as a channel that provides for prevention of the contact and friction of the additional members with the internal hexagonal of the implant.

Aesthetical direct abutment

Similar to the previous abutment with the following additional elements: the anatomically configured abutment neck with ascending and descending shoulder. The height of the neck that varies in a range from 1 to 4 mm is available in four different sizes.

Optionally peripheral contact annulus can be provided in the upper third of the abutment in order to tighten the superstructure to the prosthesis such as coping, healing cap and temporary corona.

Angular 15 and 25° abutment.

Angular abutments

Titanium Abutment is available in two sizes:

- a. for implants with a diameter of 3.3, 3.8 and 4.2
- b. for implants with a diameter of 5 and 6

The abutment neck has an anatomic configuration with an ascending and descending shoulder. The height of the neck that varies in a range from 1 to 4 mm is available in four different heights. The body converges at an angle of 15 or 25° with an option of peripheral annulus (ring) for fixing the prosthetic superstructure members.

The driver of the fastening (tightening) screw starts above the anatomical shoulder at the abutment wall.



A short-head tightening screw with: internal tapping is used to prevent the screw from falling.

Coping

The coping is made from is available in four configurations

1. Matching the conducting abutment
2. Straight anatomical configuration
3. Angular configuration – 15°
4. Angular configuration – 25°

Internal relief ring on the internal surface which is locked on the locking (tightening) annulus of the abutment provides for precision, retentions over

the external surface designated to fix the coping in the imprint material is designated for imprinting at the abutment level.

- Press coping

- Cylindrical coping body with three bevel areas and three peripheral slots for retention and prevention of rotation inside the imprinting form, hexagon which is connected to the internal hexagon of the implant

- Cylindrical pin with slots along its length, 5 mm long with an external ring at the locking edge inside the internal tapping of the implant made from stainless steel is designated for making imprints at the implant level.

Plastic healing cap made from derelin 500 is available in four configurations

1. Matching the conducting abutment
2. Straight anatomical configuration
3. Angular configuration – 15°
4. Angular configuration – 25°

Internal relief ring on the internal surface which is locked on the locking (tightening) annulus of the abutment provides for precision.



The external surface is smooth.

Healing cap for molding made from derail 500 is available in four configurations.

1. Matching the conducting abutment
2. Straight anatomical configuration
3. Angular configuration – 15°
4. Angular configuration – 25°

The cap is formed without internal ring with a smooth external surface.

Mold structure

Four configurations of mold structure will be available: each having two sizes.

1 and 2 – Deralin 500 body the first one with a hexagon and the second one with a fixed connection with titanium tightening screw.

3 and 4 – Deralin 500 body with a Titanium connector 3 - with a hexagon and

4 – round with titanium tightening screw.

The use:

Designated for abutments engraving in the laboratory or screwed-on coronas in dental laboratories, made from noble metals.

Ball connector

Made from Titanium grade 4

Designated for two coronas for a wide and a narrow platform, available at five heights from 0 to 5 mm



The connection to a cylindrical implant, the body connecting with a screw (thread 1-72") connected to an implant are made as a single unit.

The connector is formed with a conical neck with variable trans-mucosal height.

The round connector head with a diameter of 2.2 – 2.5 mm at the upper part of the internal hexagonal head at a depth of 1.3 mm.

Hexagon adaptor for the coating cap, tightening screws of the abutments with external locking ring which is locked in a metal cradle connected to the removable prosthesis.

The metal cradle made from stainless steel is formed as a cylinder with a slot inside it in order to fasten the silicon ring at the external side, retentions for the connection with the acrylic of the prosthesis.

Coating head

The head is made from Grade 4 Titanium (designated for coating the implant during recovery and knitting with the bone for two stages adjusted to a wide platform (4.5) and/or 3.8 mm.

The length of the screw: 6 mm

Thread: 1-72"

Round coating head.



Healing cap

Made from Grade 4 Titanium and designated for coating the implant during recovery and knitting with the bone for two stages or after the implant

exposure and the soft tissue recovery period in two stages matching a wide platform (4.5) and/or 3.8 mm.

The length of the screw: 6 mm

Thread: 1-72"

Round coating head.

At the center there is a 1-72" hexagon at a depth of 1.5 mm.

Similar (analogous) products

1. A 303 stainless steel piece with cylindrical external configuration has three bevel areas and two peripheral slots for retention and prevention of rotation in plaster.

The hexagonal internal area fits two types of implant platforms – the narrow 3.8 and the wide 4.5.

2. Analog matching the aesthetic abutment. The body matches the implant similar to internal tapping for a connection screw of gold coping at its edge. The diameter shall be checked in the catalogue.
3. Analog matching product, similar to No. 1 with its upper part fitting the configuration of the plastic conductive abutment or both.
4. Analogous products



Connection abutment

1. Made from 4 grade Titanium. In order to match two platform sizes it has a hexagonal neck of a conical abutment at a height of 0.5, 1.5 and 2.5 mm that forms a peripheral shoulder in the conically beveled abutment body at the hexagonal abutment neck level. Its internal part matches a XXX long tightening screw with a variable neck diameter and it is fit to the internal part of the implant, tightening the aesthetic abutment to the implant. The screw head is external to the abutment at a height of 15 with internal tapping to the screw of the corona connection.
2. Plastic head for aesthetic Deralin 500 abutment with its internal part matching the aesthetic abutment and in the external part – a small variable diameter straight cylinder at a variable height, see Alpha Bio PST page 28.

Standard screw abutment system

The Titanium system matches two implant platforms. It is connected to the implant at a height of 1-72 without HEX. The conical abutment neck is at a height of 0.3. The body shape is cylindrical with a diameter of 4 mm and variable height from 2 to 5 mm.

In the upper part the radius with internal tapping in the center of the head intended for tightening the screw of the plastic head for molding with the internal part matching the upper part of the abutment with external configuration identical to the plastic for the connection abutment molding. The Titanium connection screw with the head at a height 2.2 mm and diameter of 2.9 mm. Hex in the upper part fits Hex 1.25