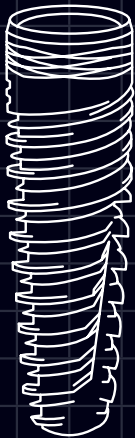




Superior Implant Technology

AB DENTAL IMPLANTS

ADVANTAGES & SURGICAL MANUAL



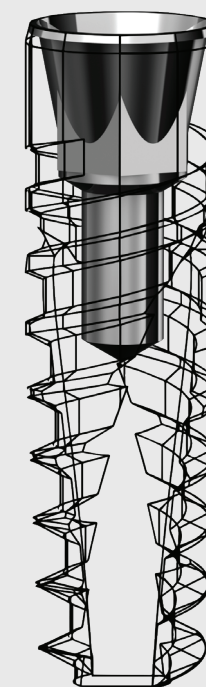
END-TO-END IMPLANT SOLUTIONS

AB Dental is an international, dynamic, innovative company, providing the dentist a complete solution for all dental implants needs.

AB Dental offers a wide range of implants, prosthetic products, tools, accessories and CAD/CAM solutions, required for the dentist to perform an accurate and successful treatment.

AB Dental is committed to its customers satisfaction and guarantees long term success using its Implants, based on the highest international standards, the strictest quality control measures and more than 10 years of follow-up. AB Dental's implants were found to have excellent results of durability and safety in a recent report that was received as part of the company's PMCF (Post-Market Clinical Follow-up) study.

This booklet will present AB Dental's various implants and their unique design, characteristics, advantages and indications, to meet the needs of each dentist and patient.



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AB DENTAL A COMPLETE IMPLANT SOLUTION

AB DENTAL OFFERS A UNIQUE MODEL TO THE MARKET WHICH PROVIDES THE DENTIST WITH A COMPLETE SOLUTION

- A wide range of implants, prosthetic products, tools, accessories and CAD/CAM solutions required for the dentist to perform an accurate and successful treatment.
- Computerized implant planning.
- 3D printing of surgical guides.
- Custom individual implants using laser-sintering technology.
- In-house training center fully equipped for lectures and hands-on trainings and webinars for our customers all over the world.

WITH A MISSION TO LEAD THE MARKET WITH THE NEXT GENERATION OF SMART DENTAL TECHNOLOGY AND SOLUTIONS, WE PROVIDE MORE THAN JUST SERVICES - WE HOLD OURSELVES TO THE HIGHEST STANDARDS OF CARE.

We believe that the human resource is one of the most important resources of a company, it is the basis of good relationship with our customers. Good service must start from within the company, throughout all company levels, in order to give the best service to our customers.

AB Dental adheres to the highest international standards and has obtained approvals from regulatory agencies in multiple countries: FDA (USA), CE (Europe), Russia Federation, AMAR (Israel), Chinese FDA, India FDA, Taiwan FDA, Australian TGA, Ukraine and more.

MATERIAL

All AB Dental implants are made of Titanium alloy Ti-6Al-4V ELI in accordance with ASTM-F136-02 standard specification.

Titanium alloy is a proven ideal implant material:

- Able to integrate almost completely with the bone.
- Bio-friendly.
- Provides favorable mechanical qualities (strength, endurance).
- Can be precisely fabricated (precision measured in microns) to ensure a range of implants that meet the requirements for optimizing stability in the widest range of patients (considering the dimensions and state of health of an individuals' bone and gums).

BIOLOGICAL SURFACE

AB Dental implants undergo a special treatment of Biological blasting with Calcium Phosphate for surface roughening, to enhance the direct attachment of the bone to the implant (Osseointegration), to remove harmful aluminum remnants and achieve clean implant surface.

Next, the implants undergo SLA (sandblasted with large-grits, acid-etched) treatment, and lastly, they are sterilized by Gamma irradiation.

AB GUIDEDSERVICE

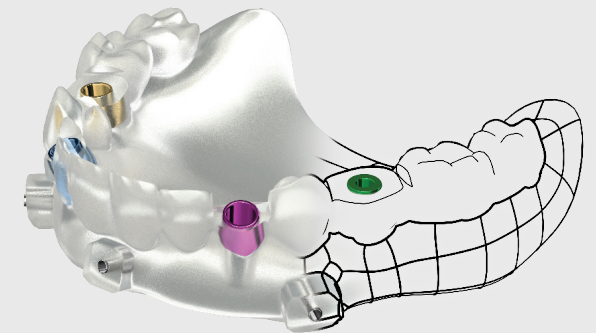
THE ULTIMATE GUIDE FOR PRECISE IMPLANTATIONS

ABGUIDEDSERVICE will give you anything you need for implantation in one package with one click:

- Preparation of a treatment plan according to your instructions.
- 2D and 3D images of the plan in ABDenpax web-based technology.
- Digital production of a surgical guide, directly from the planning software.
- A complete color-coded drill kit that provides all the tools you'll need, with no measurements needed during surgery.

9 Reasons Why ABGUIDEDSERVICE

- Maximum accuracy
- Relating to prosthetics
- All calculations and measurements before surgery
- Flapless in many cases
- Minimally invasive
- Can save bone augmentation and sinus lift
- Angled implants
- Surgery takes less time
- Abutments and healing caps planned



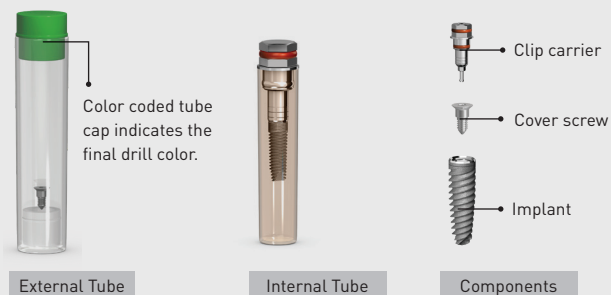
IMPLANT PACKAGE CONTENT

Bone level implants:

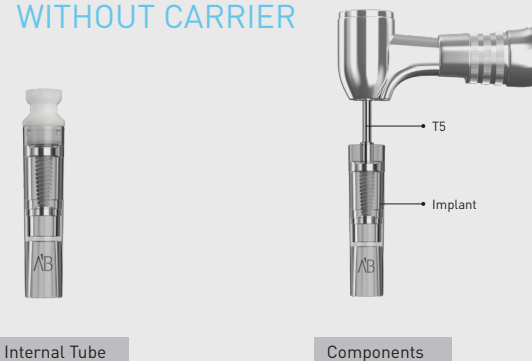
PACKAGE CONTENT

AB Dental Implants can be provided in a package with or without an implant carrier.

WITH CARRIER

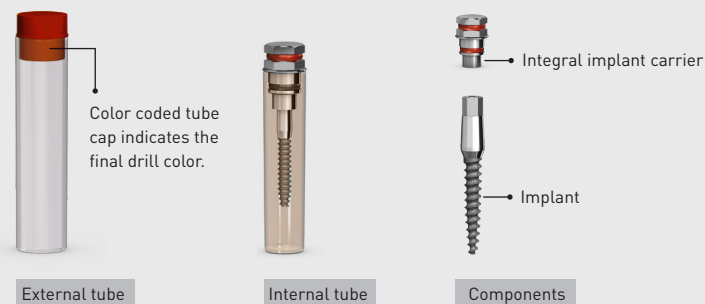


WITHOUT CARRIER



One-piece implants:

PACKAGE CONTENT



Color-coded tube caps indicate the final drill color:

Tube top cap colors	Final drill size
○	2.0
●	2.8
●	3.2
●	3.65
●	4.0
○	4.5
●	5.0
●	5.5

IMPLANTATION PROTOCOL

Maintain the sterility of the implant after removing the implant from its double wrapping.

The implant should be screwed manually via the carrier.

Extract the carrier and follow insertion of the implant inside the osteotomy by implant drivers tools as required.

Take the implant out of the package using a gripping implant driver and screw the implant inside the osteotomy as required.

The Implants are available with / without carrier:

Implants with carrier

- For dentists who prefer the manual feel of the torque.

Implants without carrier

- For dentists who prefer not to touch the implant for hygienic reasons or would rather depend on the contra-angle's torque.

BASIC IMPLANTOLOGY

STEP BY STEP

GENERAL RECOMENDED DRILLING PROCEDURE FOR ALL IMPLANTS

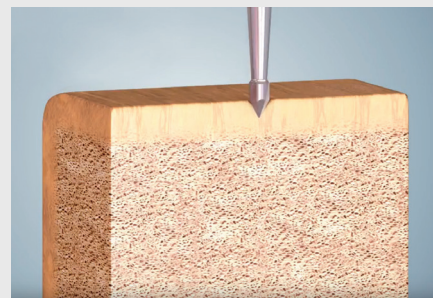
After gathering all needed medical and dental information, reaching a diagnosis, in conjunction with X-rays and/or CT scan, assuring that the patient is suitable for an implant-based rehabilitation per your best professional discretion and determining a treatment plan approved by the patient - continue to the next step: implantation.

Surgically expose the bony surface.

Determine the position for the implant placement.

Using our marking drill make a marking guide hole, down into the cortical bone to the level of the neck beneath the drill cutting head. Do not attempt to drill deeper with the marking drill.

Using the guide hole for position, the color-coded drill will be utilized to drill the osteotomy to the desired depth. The color coding on the drills indicates their diameter.



The drill protocol for all implant start with Ø2.0 mm drill. In case preferred, for small diameter implant smaller diameter drills can be used.

The drills are used in graduated order to slowly increase the diameter of the osteotomy until the desired diameter is reached. This will allow safe progression and decrease trauma to the surrounding bony structures.

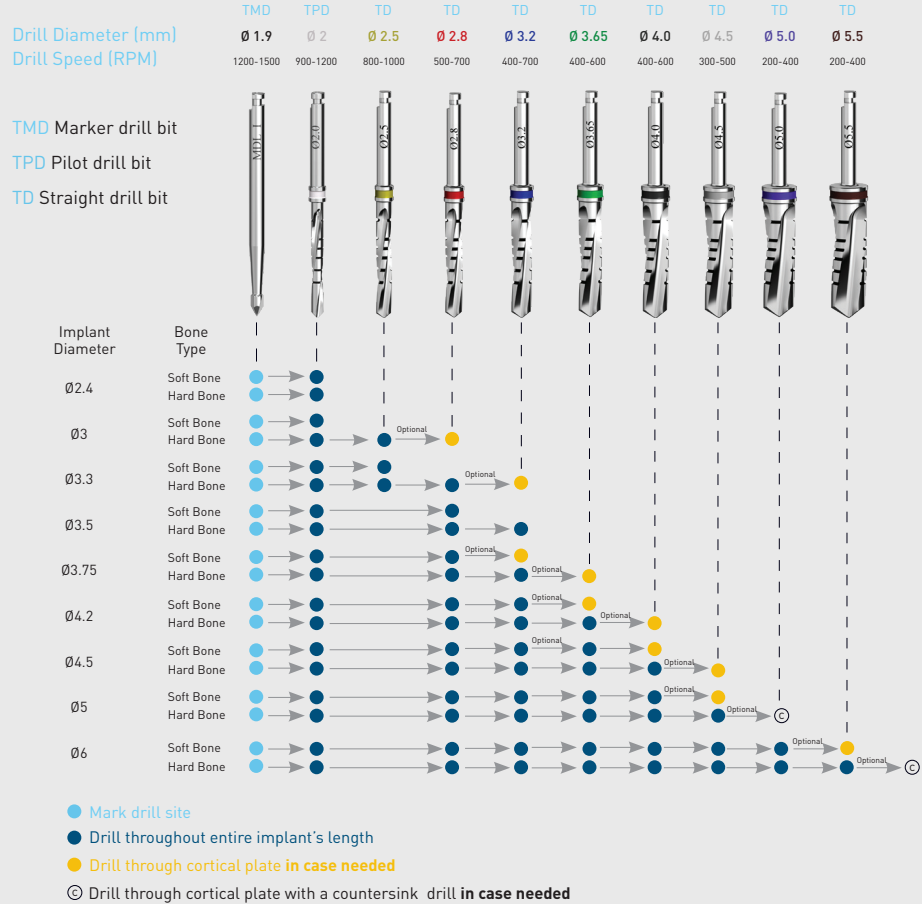
The accurate depth of the osteotomy is determined by the length of each particular implant and is indicated by the depth lines around each drill, in order to allow good position of the implant in the bone so that its proximal end is flush with the alveolar ridge.

Final drill color (for hard bone) should correspond to Implant's Tube Cap color.

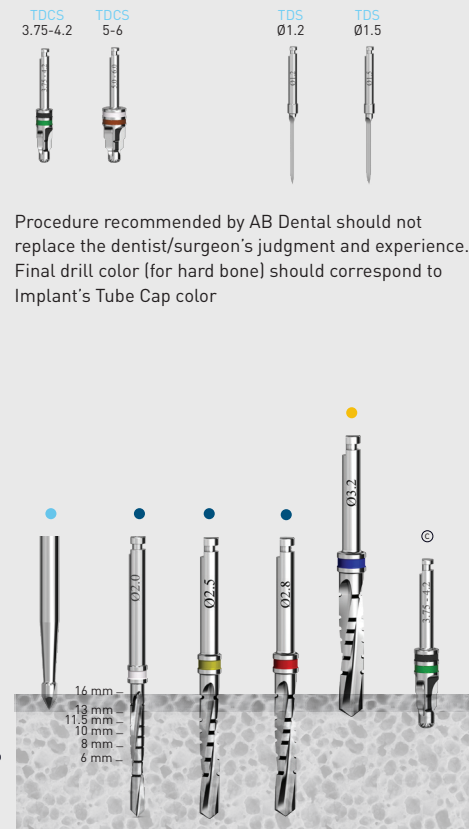
Note: Do not insert an implant with a carrier all the way to the final depth, but to 2/3 of the depth, and then continue manually with a ratchet.

DRILLING PROTOCOL

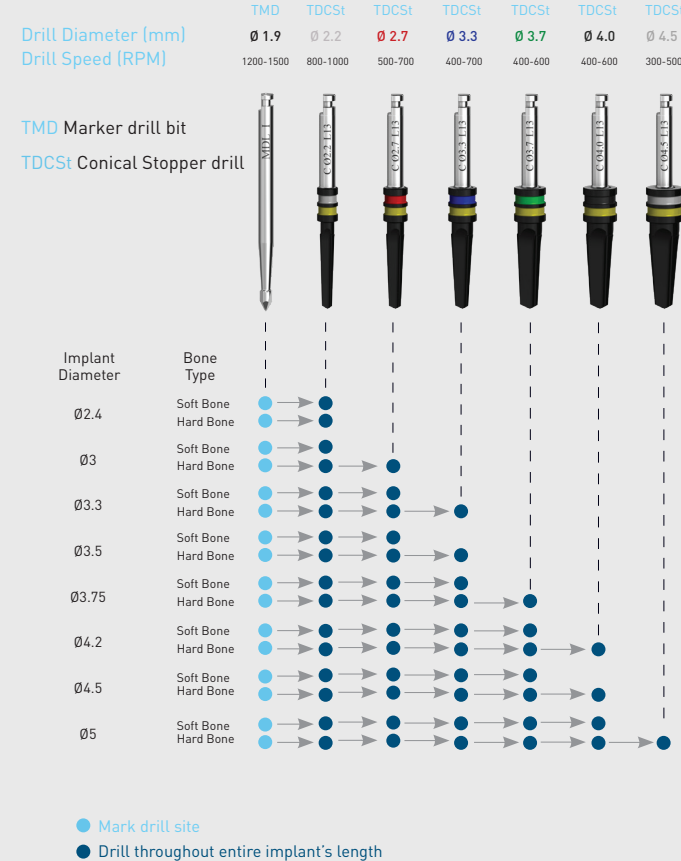
RECOMMENDED STRAIGHT DRILL PROTOCOL



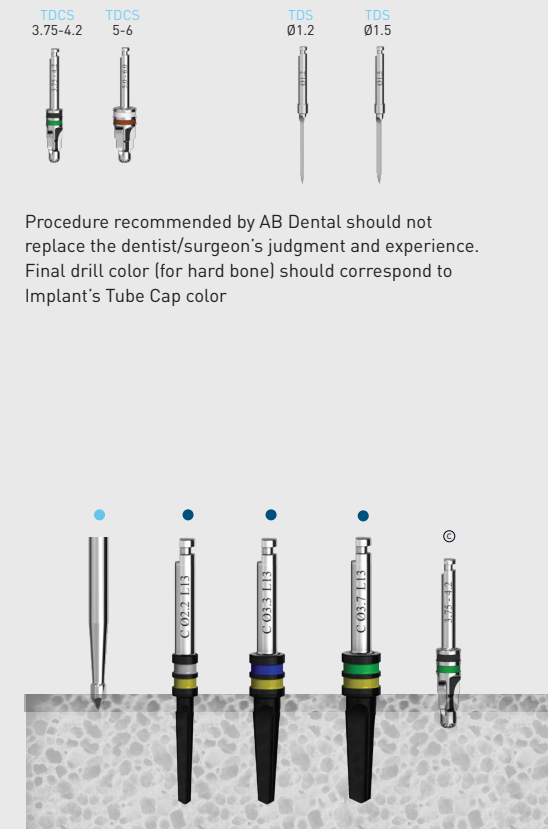
OPTIONAL DRILLS



RECOMMENDED CONICAL STOPPER DRILL PROTOCOL



OPTIONAL DRILLS



BONE DENSITY TYPE 1

- Dense trabeculae.
- Sparse blood supply.
- Risk of breaking and heating.

Attention: Drilling in type 1 bone should be performed gradually, not continuously, to prevent:

- Bone over-heating.
- Trabeculae destruction.
- Implant failure.

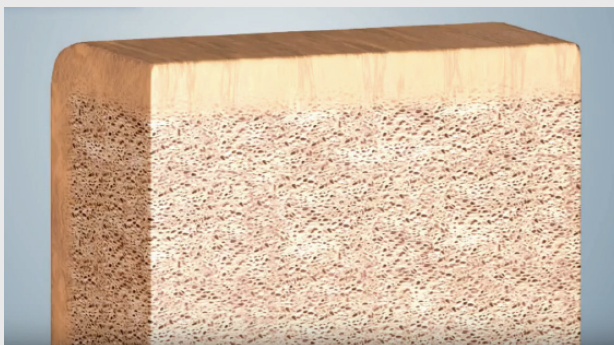
Drill with up-and-down movements to the required length, staying no more than 4 seconds in the osteotomy each drilling.

1. Start with TMD-1.9 Marker Drill Bit to mark the implant placement, to a depth of 2mm.
2. Continue drilling gradually with up-and-down movements with TPDD-2.0 Pilot Coated Drill Bit up to the required length.
3. Continue drilling gradually with up-and-down movements with TDD-2.8 Coated Drill Bit to the required length, and then continue the drilling sequence according to the intended implant's diameter.
4. The recommended final drill should be 0.1mm shorter than the implant's diameter.
5. Recommended: countersink drill to avoid cervical absorption and to allow easy insertion of the implant without pressure.
6. Insertion of the implant with two steps forward - one step back, to allow better blood supply to the bone around the implants.

Recommended implant type: gentle threaded - i2, i22.

Note: For all bone types:

It is recommended to insert the implant into the trabecular bone, and not the cortical bone, in order to avoid interruption of blood supply.

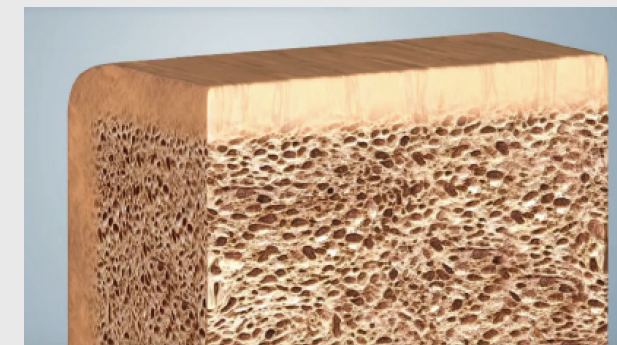


BONE DENSITY TYPE 2

- Ideal for implant placement.
- Drilling can be performed continuously.

1. Start with TMD-1.9 Marker Drill Bit to mark the implant placement, to a depth of 2mm.
2. Continue drilling with TPDD-2.0 Pilot Coated Drill Bit up to the required length.
3. Continue drilling with TDD-2.8 Coated Drill Bit to the required length, and then continue the drilling sequence according to the intended implant's diameter.
4. The recommended final drill should be 0.5mm less than the implant's diameter.

Recommended implant type: gentle threaded - i2, i22.

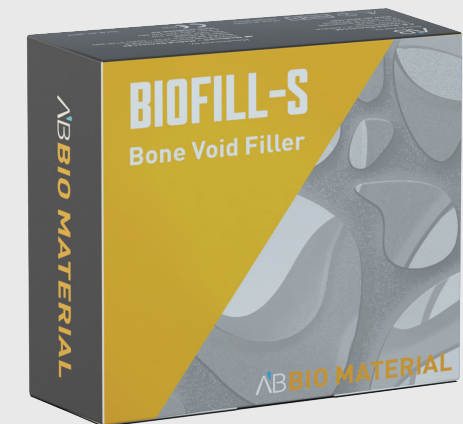


BONE DENSITY TYPE 3/4

- Spacious trabeculae.
- Soft bone – respect it!
- Drilling can be performed continuously.
- The recommended implant is one with sharp and deep threads – i5, i55.

1. Start with TMD-1.9 Marker Drill Bit to mark the implant placement, to a depth of 2mm.
2. Continue drilling with TPDD-2.0 Pilot Coated Drill Bit up to the required length.
3. Continue drilling with TDD-2.8 Coated Drill Bit to the required length, and then continue the drilling sequence according to the intended implant's diameter.
4. The recommended final drill should be 1mm less than the implant's diameter.

Recommended implant type: sharp and aggressive threaded - i5, i55.



IMPLANT DEPTH

The recommended position for perfect restoration is achieved by reaching bone level, which is the exact height, with one of the hexagon's faces tangential to the external jaw arc. Implant drivers assist the visualization of the Hexagon faces.

Remove the cover screw or healing cap prior to restoration in two-piece implants.

Complete the screwing motion with a torque of up to 45 Ncm, up to initial stability.

The implant should be implanted in tubercular bone, to avoid heating the bone and future absorptions.

If you intend to load the implant immediately - tighten the abutment with a torque of 35 Ncm, to check whether the implant is resistant to loading.

Note: Do not exceed 30 Ncm when using the implant carrier to insert the implant!
One can close the implant top with a cover screw, stitch, and wait for recovery, or load immediately by installing the proper abutment, and stitch tissue around.

IMPLANT TYPES

Integrated implant and abutment (one-piece):

- Require immediate loading and rehabilitation
- Require cementing of the restoration device (not screw-retained)
- No choice as to the structure of the abutment. That choice is made beforehand. One-piece implants are not suitable in case the restoration needed cannot be parallel to the implant

Two-piece implants:

- Offer the greatest range of rehabilitation options
- Allow immediate immediate loading or two-stage restoration
- The restoration can be cemented or screwed
- Angular implants can be restored

If there is a need for immediate loading, the conical implant, which has good retention from the outset, should be used

In single-rooted teeth and in the upper teeth between tooth 4 and tooth 7, where the sinus cavity is found, wide conical implants are recommended in order to reduce pressure on the base of the sinus.

When the bone is very wide, and the sinus cavity is distant, any implant can be used.

When the bone is narrow, a wide implant should not be used.

CHOOSING THE PROPER IMPLANT

IMPORTANT:

The operator must be a licensed dentist, trained and certified to preform dental implants.

The information written in this booklet is general guidelines, and should not replace the dentist/surgeon's judgement and experience.

The implant size (height and width) is chosen according to preliminary X-rays.

After making a preliminary diagnosis, an X-ray and/or CT should be used to determine the dimensions of the implant suitable for the site in question. Alternatively, use ABGuidedService to accurately plan and preform the implant treatment.

There must be a 2 mm margin from anatomical obstacles and maximum bone height.

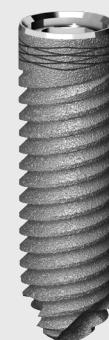
The implant type should be chosen according to the type and amount of bone it is intended for.

The dimensions of the implant should be chosen according to the height and width of the bone, and the interdental space it is intended for.

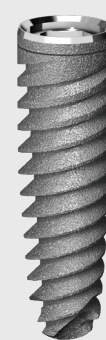
As a general rule, the widest and longest implant suitable for a particular site (density and dimensions of bone, dimensions of gums) should be used, in order for rehabilitation to be most effective.

Another general rule is that implant and abutment combinations offer the greatest range of rehabilitation options.

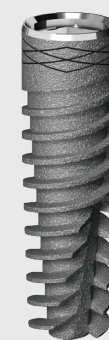
AB DENTAL IMPLANTS



I2
Screw Type
Implant



I22
Screw Type
Implant



I5
Conical
Implant



I55
Conical
Implant



I10
Trapeze
Implant



I6
Narrow
Integral
Implant



I6b
One Piece Ball
Attachment
Implant



I7
Integral
Implant

I2 SCREW TYPE IMPLANT

WHY I2 IMPLANT?

Parallel implant with slight convergence in the apical zone, gentle threads for maximal confidence.

UNIQUE DESIGN

- Parallel implant with slight convergence in the apical zone of 3 degrees, which provides easier implant insertion.
- Double gentle threads with distance of 0.6 mm which provide a greater initial stability.
- Cutting dense threads at the apex for easier penetration.
- Double platform for wide restoration possibilities.
- Groovy neck - for increased osseointegration at the implant neck area.

UNIQUE CLINICAL BENEFITS

- Prevents cervical bone resorption due to delicate threading.
- Long term stability.

RECOMMENDED BONE TYPES

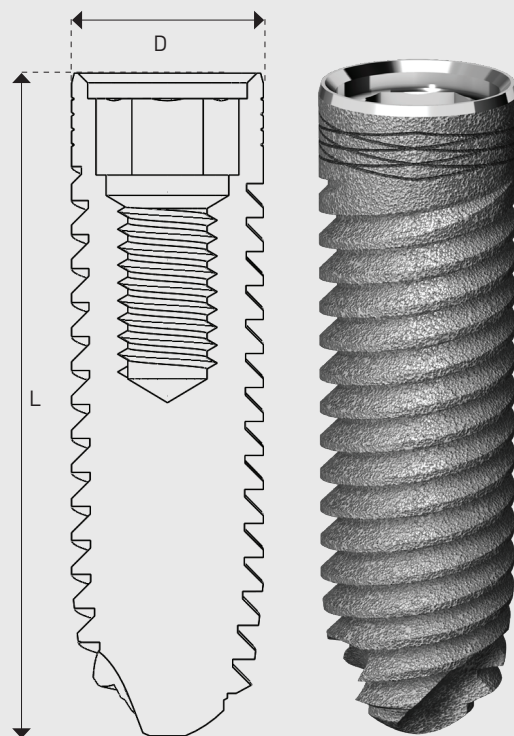
Type 1-2 lower jaw

RANGE

- Standard platform.
- With carrier.

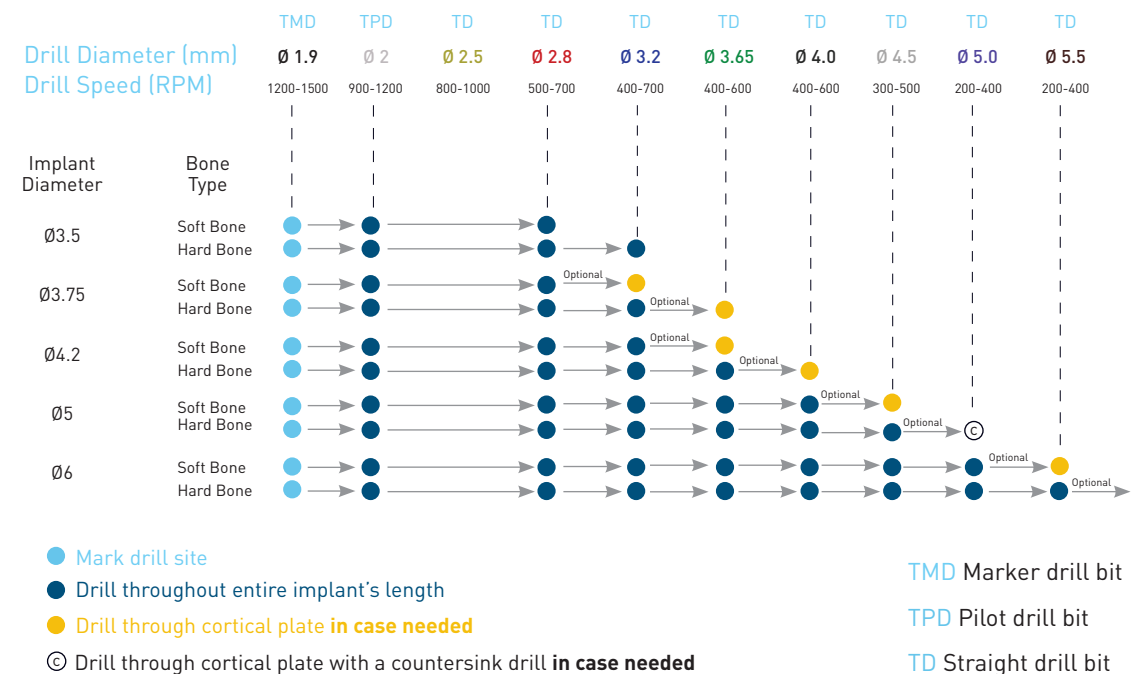
FINAL DRILL

0.1 mm shorter than the implant's diameter.



CAT no.	D (mm)	Platform	L (mm)	Tube top cap colors	With/Without Implant carrier
I2	3.5	Standard	8, 10, 11.5, 13, 16	●	Both
I2	3.75	Standard	8, 10, 11.5, 13, 16	●	Both
I2	4.2	Standard	8, 10, 11.5, 13, 16	●	Both
I2	5	Standard	8, 10, 11.5, 13, 16	○	Both
I2	6	Standard	8, 10, 11.5	●	With

RECOMMENDED DRILL PROTOCOL



I22 SCREW TYPE IMPLANT

WHY I22 IMPLANT?

Conical implant with gentle threads for maximal confidence.

UNIQUE DESIGN

- Conical implant.
- Gentle threads.
- Triple lead threads with distance of 0.9 between one and the other.
- Double thread at the apex that provides better initial stability.
- Double platform for wide restoration possibilities.
- Groovy neck - for increased osseointegration at the implant neck area.

UNIQUE CLINICAL BENEFITS

- Triple lead for achieving intimate bone contact and shorter insertion time.
- Allows initial stability for immediate loading.
- Switch and double platform.
- Minimum pressure for type 1 bone.
- High degree of bone-to-implant contact (BIC).

RECOMMENDED BONE TYPE

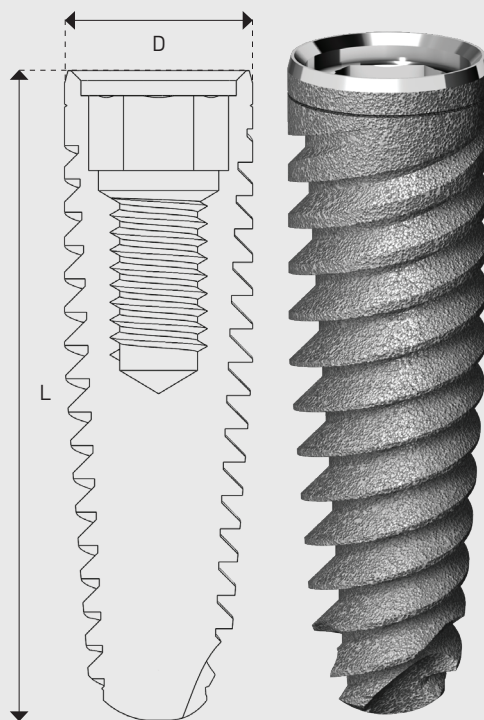
Type 1-2 lower jaw.

RANGE

- Standard platform.
- Length: 8, 10, 11.5, 13, 16mm.
- Diameter: 3.75, 4.2, 5mm.
- With and without carrier.

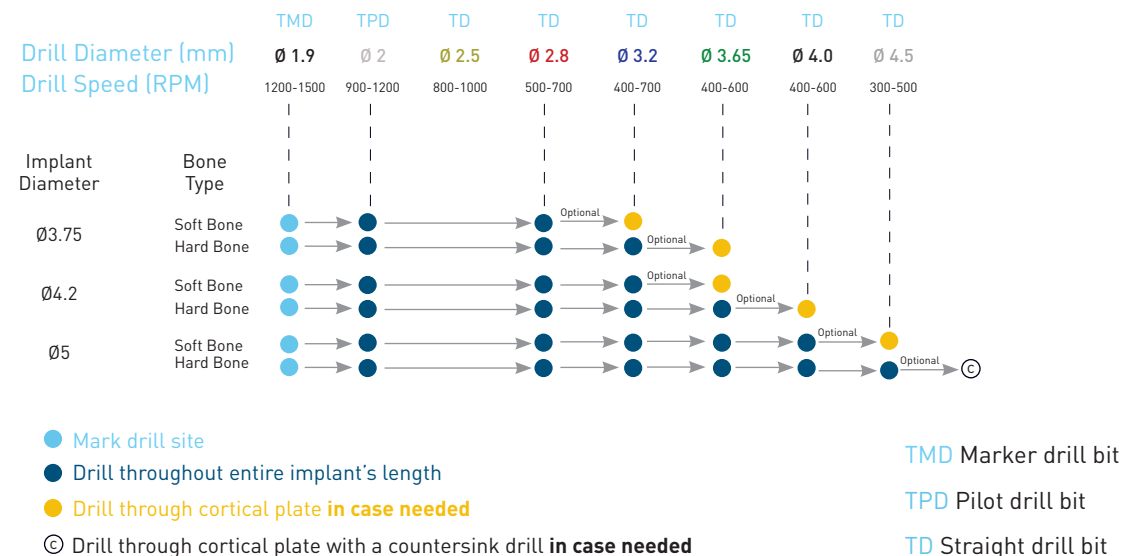
FINAL DRILL

0.1 mm shorter than the implant's diameter.



CAT no.	D (mm)	Platform	L (mm)	Tube top cap colors	With/Without Implant carrier
I22	3.75	Standard	8, 10, 11.5, 13, 16	●	Both
I22	4.2	Standard	8, 10, 11.5, 13, 16	●	Both
I22	5	Standard	8, 10, 11.5	○	Both

RECOMMENDED DRILL PROTOCOL



15 CONICAL IMPLANT WHY 15 IMPLANT?

Spiral implant with sharp and deep threads.

Bone spreading implant.

- Self-Tapping.
- High initial stability.
- Long term survivability.

UNIQUE DESIGN

- Spiral implant with sharp threads.
- Variable thread design, from sharp to wide, to achieve bone compression and stability.
- Groovy neck.
- A narrow apex for better primary stability and long term survivability.
- Double platform for wide restoration possibilities.

UNIQUE CLINICAL BENEFITS

- Available in narrow diameter for narrow ridge.
- Suitable for immediate extraction and implantation.
- Double platform.
- Switch platform.
- Minimum drilling.
- Aggressive threads at the apex for initial stability.

RECOMMENDED BONE TYPE

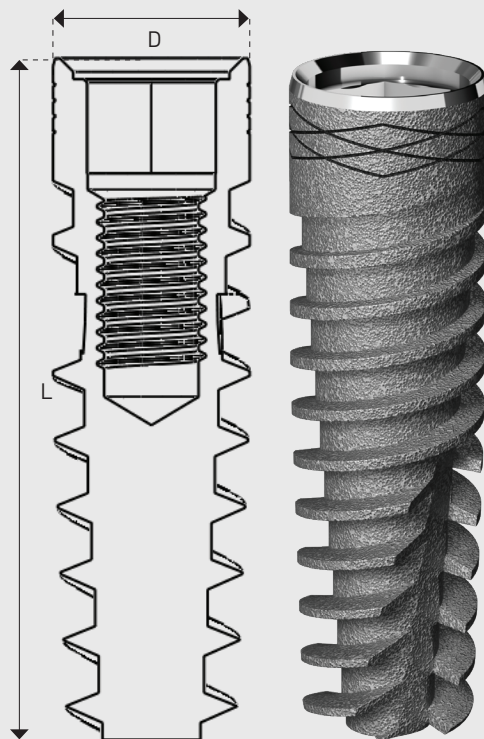
Type 3-4 upper jaw

RANGE

Standard & narrow platform.

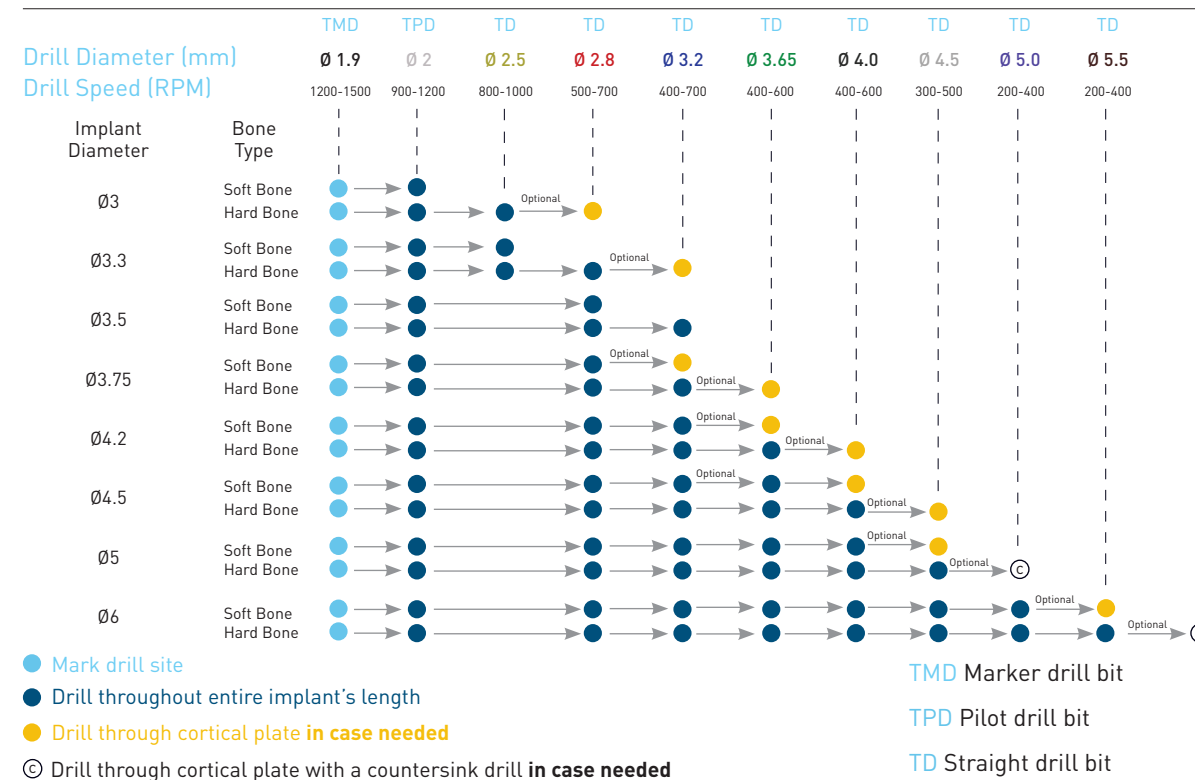
FINAL DRILL

0.1 mm shorter than the implant's diameter.
Conical drill recommended.



CAT no.	D (mm)	Platform	L (mm)	Tube top cap colors	With/Without Implant carrier
I5/I6BI	3	Narrow	10, 11.5, 13, 16	○	Both
I5	3.2/3.3	Narrow	10, 11.5, 13, 16	●	Both
I5	3.5	Standard	10, 11.5, 13, 16	●	Both
I5	3.75	Standard	8, 10, 11.5, 13, 16	●	Both
I5	4.2	Standard	8, 10, 11.5, 13, 16	●	Both
I5	4.5	Standard	6, 8, 10, 11.5, 13, 16	●	Both
I5	5	Standard	6, 8, 10, 11.5, 13, 16	○	Both
I5	6	Standard	6, 8, 10, 11.5, 13, 16	●	With

RECOMMENDED DRILL PROTOCOL



155 CONICAL IMPLANT

WHY 155 IMPLANT?

A spiral implant with combination of gentle and sharp threads for immediate loading.

UNIQUE DESIGN

- Conical implant.
- Unique combination of aggressive and gentle threads increases the surface area, facilitating the osseointegration process.
- Groovy neck.
- A narrow apex for better primary stability and long term survivability.
- The combination of cutting threads allow for minimal insertion trauma.
- Double platform for wide restoration possibilities.

UNIQUE CLINICAL BENEFITS

- Premium implant for immediate loading in integrated design.
- Minimum drilling.
- Available in narrow diameter.
- Intergard internal hexagon.
- High BIC for optimum osseointegration.

RECOMMENDED BONE TYPE

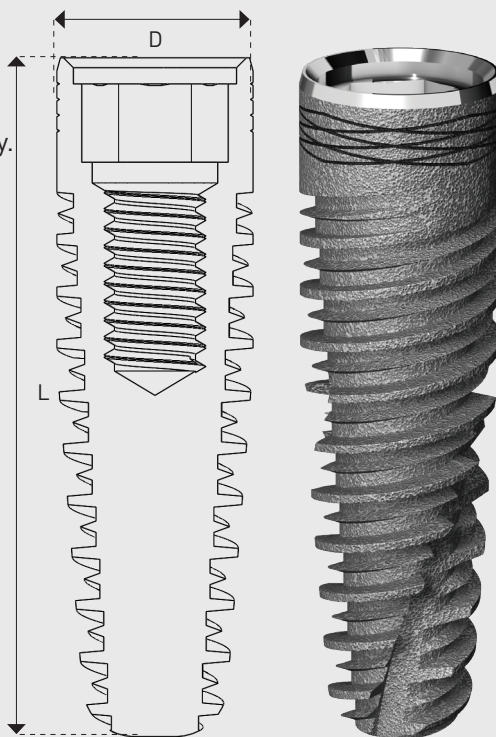
Type 3-4 upper jaw

RANGE

Standard & narrow platform.

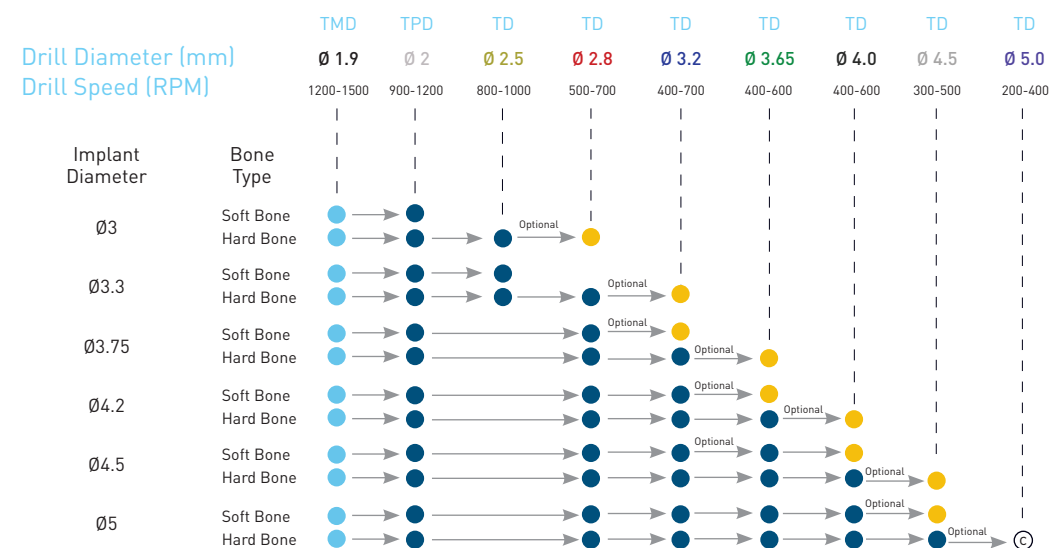
FINAL DRILL

0.1 mm shorter than the implant's diameter.
Conical drill recommended.



CAT no.	D (mm)	Platform	L (mm)	Tube top cap colors	With/Without Im-plant carrier
I55	3	Narrow	10, 11.5, 13, 16	○	Both
I55	3.3	Narrow	10, 11.5, 13, 16	●	Both
I55	3.75	Standard	8, 10, 11.5, 13, 16	●	Both
I55	4.2	Standard	8, 10, 11.5, 13, 16	●	Both
I55	4.5	Standard	6, 8, 10, 11.5, 13, 16	●	Both
I55	5	Standard	6, 8, 10, 11.5, 13	○	Both

RECOMMENDED DRILL PROTOCOL



● Mark drill site

● Drill throughout entire implant's length

● Drill through cortical plate in case needed

⊙ Drill through cortical plate with a countersink drill in case needed

TMD Marker drill bit

TPD Pilot drill bit

TD Straight drill bit

I10 TRAPEZE IMPLANT

WHY I10 IMPLANT?

Spiral Trapeze implant

UNIQUE DESIGN

- A conical implant with Trapeze neck for optimal esthetic results.
- Unique combination of aggressive and gentle threads increases the surface area, facilitating the osseointegration process.
- The aggressive thread at the apex allow for primary stability.
- Self-tapping implant.
- Groovy neck.
- Mini platform connection.

UNIQUE CLINICAL BENEFITS

Allows Horizontal Biological width.

RECOMMENDED BONE TYPE

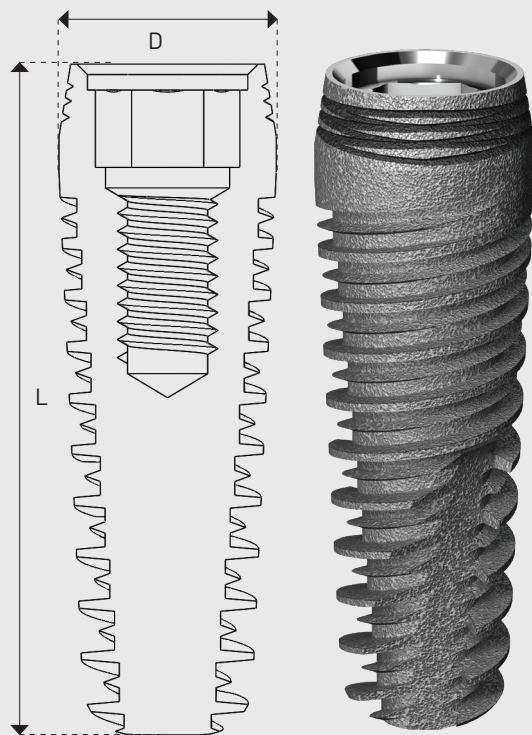
Esthetic zone ALL types.

RANGE

Standard and narrow platform.

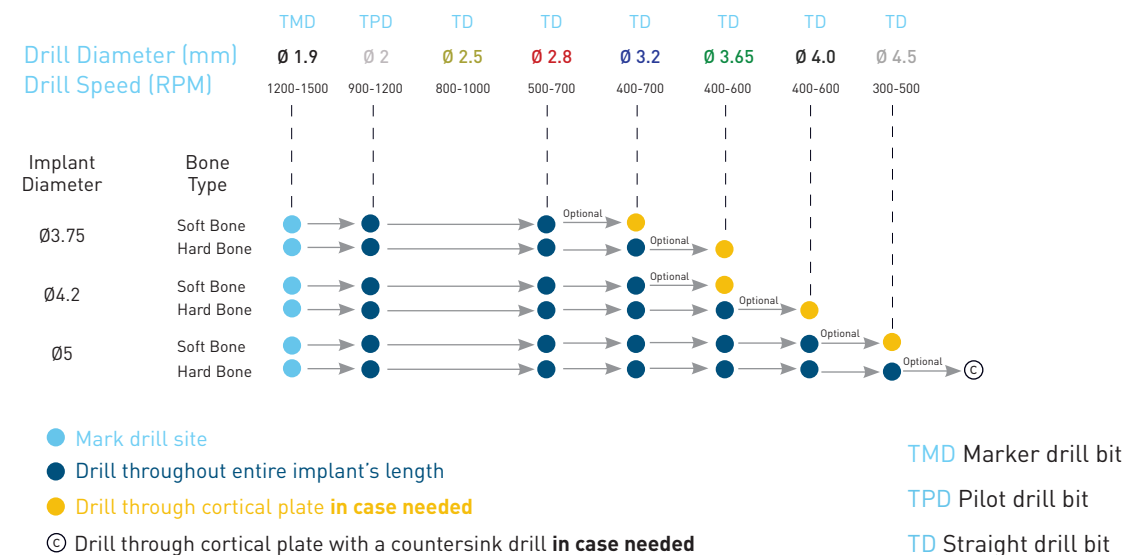
FINAL DRILL

Final drill recommended according to bone density at the implemented area.



CAT no.	D (mm)	Platform	L (mm)	Tube top cap colors	With/Without Implant carrier
I10	3.75	Narrow	8, 10, 11.5, 13, 16	●	Both
I10	4.2	Standard	8, 10, 11.5, 13, 16	●	Both
I10	5	Standard	8, 10, 11.5, 13	○	Both

RECOMMENDED DRILL PROTOCOL



16 NARROW INTEGRAL IMPLANT

WHY 16 IMPLANT?

Conical integral implant, One piece implant.

UNIQUE DESIGN

- Rounded threads.
- Self-tapping.
- One piece implant with integrated abutment.

UNIQUE CLINICAL BENEFITS

- For immediate implantation & loading in very narrow ridges.
- Reduced bone trauma.
- Self-tapping.

RECOMMENDED BONE TYPE

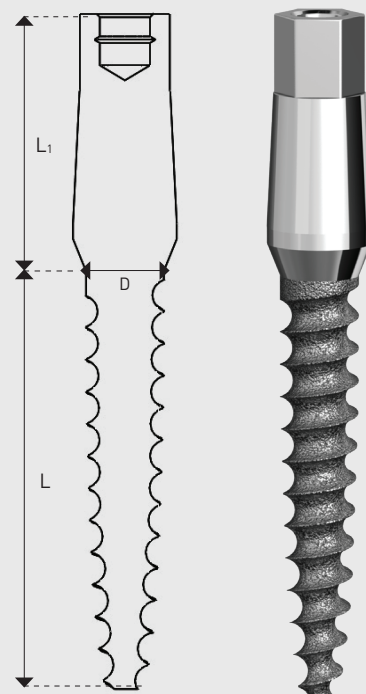
- For narrow ridge and immediate loading for anterior ridge in the lower jaw.
- Bone type 1-2.

RANGE

- Integrated straight abutment.
- With carrier.

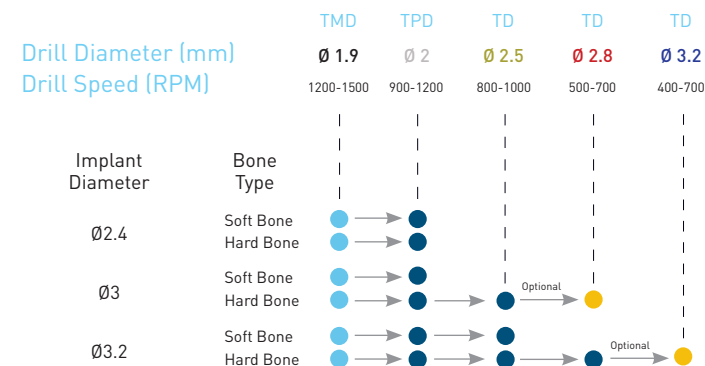
FINAL DRILL

Pilot only.



CAT no.	D (mm)	L (mm)	L ₁ (mm)	Tube top cap colors (indicating the final drill color)
16	2.4	11.5, 13, 16	7	○
16	3	10, 11.5, 13, 16	7	○
16	3.2	10, 11.5, 13, 16	7	●

RECOMMENDED DRILL PROTOCOL



- Mark drill site
- Drill throughout entire implant's length
- Drill through cortical plate in case needed

- TMD Marker drill bit
- TPD Pilot drill bit
- TD Straight drill bit

16b ONE PIECE BALL ATTACHMENT IMPLANT - WHY 16b IMPLANT?

One-piece narrow implant with ball attachment on top.

UNIQUE DESIGN

Designed for connecting the implant to a removable denture in narrow ridges.

UNIQUE CLINICAL BENEFITS

Suitable for multiple implantations.

RECOMMENDED BONE TYPE

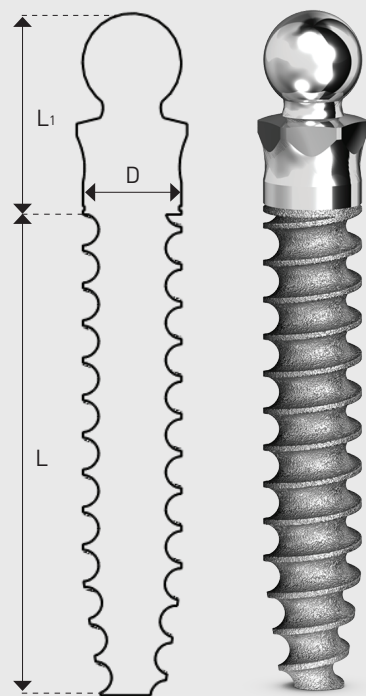
Suitable for all types of bones, but optimal usage in dense bone - type 1.

RANGE

Integrated ball attachment.
With carrier.

FINAL DRILL

Pilot only.



CAT no.	D (mm)	L (mm)	L ₁ (mm)	Tube top cap colors (indicating the final drill color)
16b	2.4	11.5, 13, 16	6	○

RECOMMENDED DRILL PROTOCOL

	TMD	TPD
Drill Diameter (mm)	Ø 1.9	Ø 2
Drill Speed (RPM)	1200-1500	900-1200
Implant Diameter		
Bone Type		
Soft Bone	● → ●	● → ●
Hard Bone	● → ●	● → ●

● Mark drill site

● Drill throughout entire implant's length

TMD Marker drill bit

TPD Pilot drill bit

17 INTEGRAL IMPLANT

WHY 17 IMPLANT?

Integral implant, One piece implant.

UNIQUE DESIGN

- Spiral implant.
- Integrated design with two types of threads: aggressive and gentle.
- A narrow apex for better primary stability.

UNIQUE CLINICAL BENEFITS

- One piece implant eliminates micromovement and help minimize bone loss.
- For immediate loading and immediate implantation.

RECOMMENDED BONE TYPE

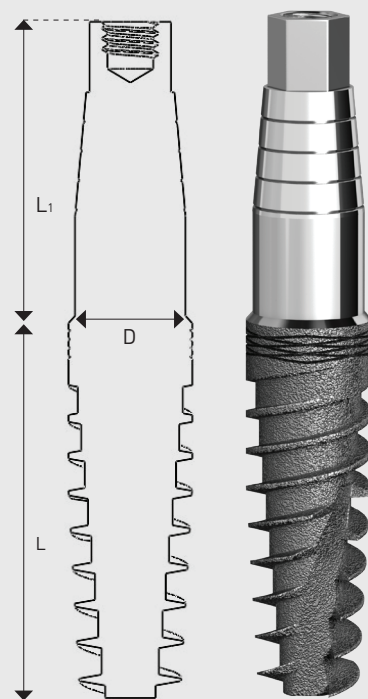
- Lower jaw.
- Cement retained restoration only.
- Interior ridge.
- Bone type 1-2.

RANGE

- Length: 8, 10, 11.5, 13, 16mm.
- Diameter: 3.75, 4.2, 5mm.
- Integrated straight abutment.
- With carrier.

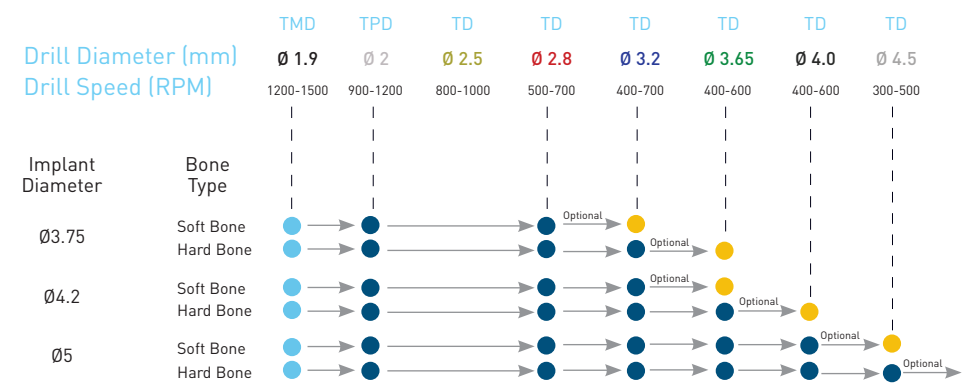
FINAL DRILL

0.5 mm shorter than the implant's diameter.



CAT no.	D (mm)	L (mm)	L1 (mm)	Tube top cap colors (indicating the final drill color)
17	3.75	8, 10, 11.5, 13, 16	11	●
17	4.2	8, 10, 11.5, 13, 16	11	●
17	5	8, 10, 11.5, 13	11	○

RECOMMENDED DRILL PROTOCOL



- Mark drill site
- Drill throughout entire implant's length
- Drill through cortical plate in case needed
- ⊙ Drill through cortical plate with a countersink drill in case needed

- TMD Marker drill bit
- TPD Pilot drill bit
- TD Straight drill bit

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Rev 0220



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