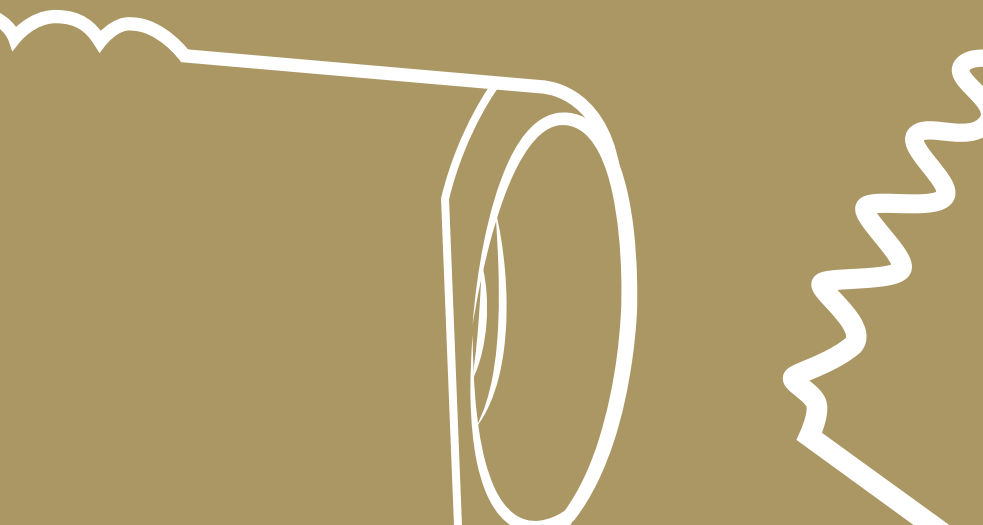
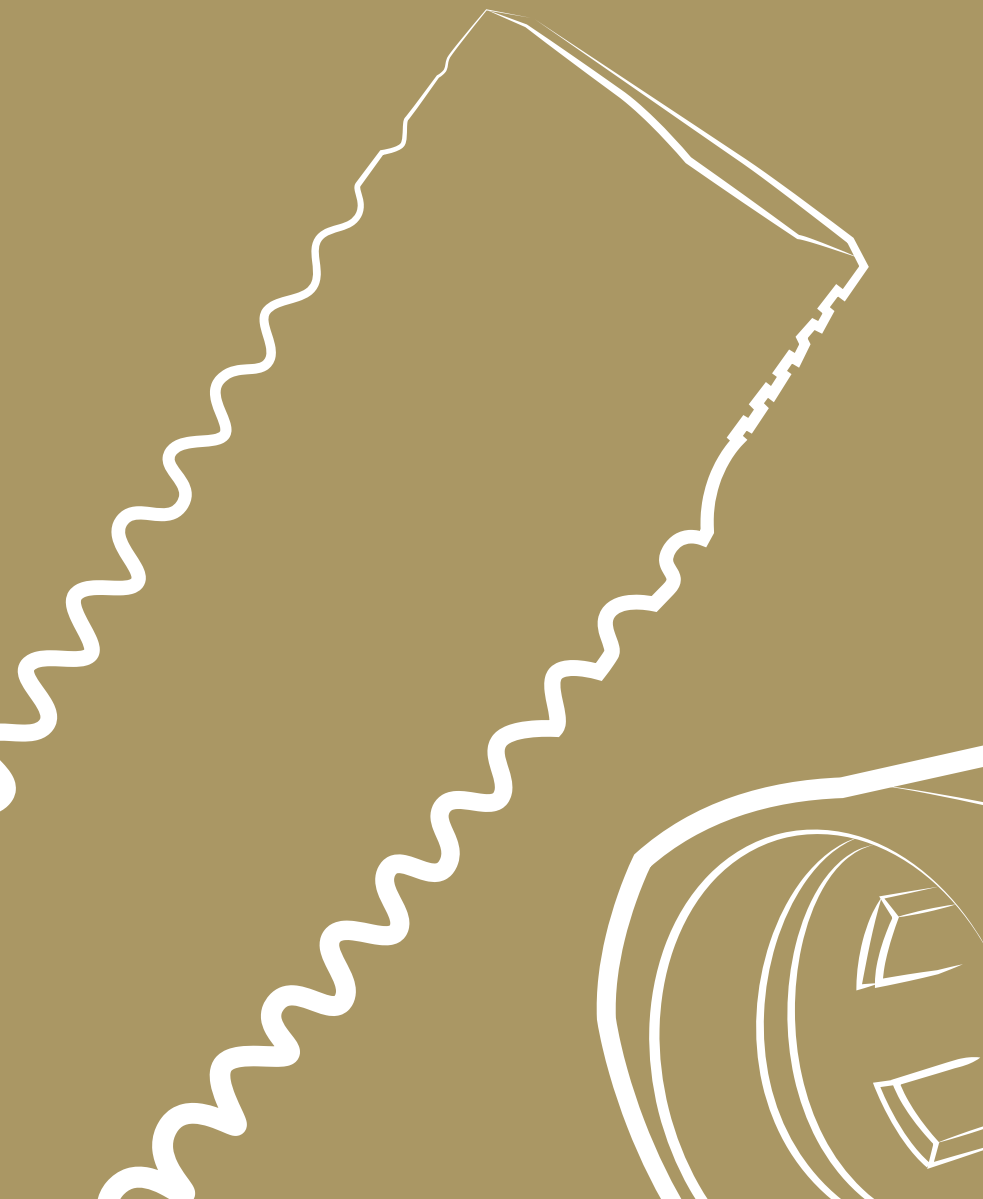




MIS implant systems feature an advanced implant design that offers a unique combination of surgical and restorative benefits, including a differential thread, designed for high initial stability in different clinical situations, platform switching and a conical connection with an anti-rotation index. Conical connection implants come with a single-use final drill, engineered to ensure a safe and accurate drilling procedure.







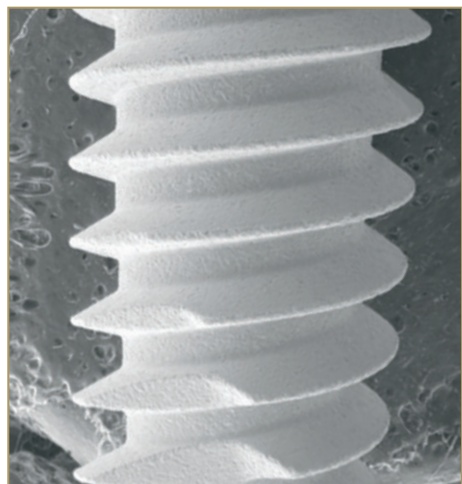
© MIS Implants Technologies Ltd. All Rights Reserved.

MIS reserves the right to modify the products described in this manual as well as to revise this publication at any time and without informing any person of such revision or change. All rights reserved. No part of this publication may be reproduced, transcribed, stored in an electronic retrieval system, translated to any language or computer language, or transmitted in any form whatsoever without the written consent of the publisher. Questions, comments or requests will be addressed promptly by contacting MIS specialists directly through our e-mailing address: [service@mis-implants.com](mailto:service@mis-implants.com). The MIS website may be accessed at [www.mis-implants.com](http://www.mis-implants.com). This online site highlights current products and reflects all new discoveries and developments.

Note: This user manual is for educational purposes only.

MIS Quality System complies with international quality standards: ISO 13485:2003 - Quality Management System for Medical Devices, ISO 9001:2015 –Quality Management System and Medical Device Directive 93/42/EEC.

MIS products are FDA cleared for marketing in the USA and CE marked.



## Overview

- 8 Introduction
- 9 Raw Material
- 12 Manufacturing Process
- 13 Implant Surface
- 16 Histology
- 17 Hydrophilicity

## Overview

# Introduction

MIS is a dynamic, state-of-the-art production company, developing and manufacturing a comprehensive range of dental implants designed to provide long-lasting, successful solutions to partial and complete edentulous conditions. MIS implant systems combine several advantageous elements such as choice of raw materials, macro-structure, micro-structure and surface treatments, in order to achieve high primary stability and successful osseointegration.

MIS upholds high quality standards by conducting comprehensive quality assurance evaluations throughout the entire production process. The unique MIS implant surface treatment combines sand-blasting and acid-etching to increase surface area, creating both micro and nano-structures and eliminating surface contaminants. The implant surface is continuously monitored by a comprehensive series of tests, conducted both in-house and by internationally recognized research institutes.

### Tests include:

- ☒ Mechanical tests
- ☒ XPS analysis
- ☒ Roughness analysis
- ☒ Surface analysis
- ☒ SEM evaluations
- ☒ Cytotoxicity tests
- ☒ Sterility tests
- ☒ Removal torque values
- ☒ Histology
- ☒ Packaging integrity test



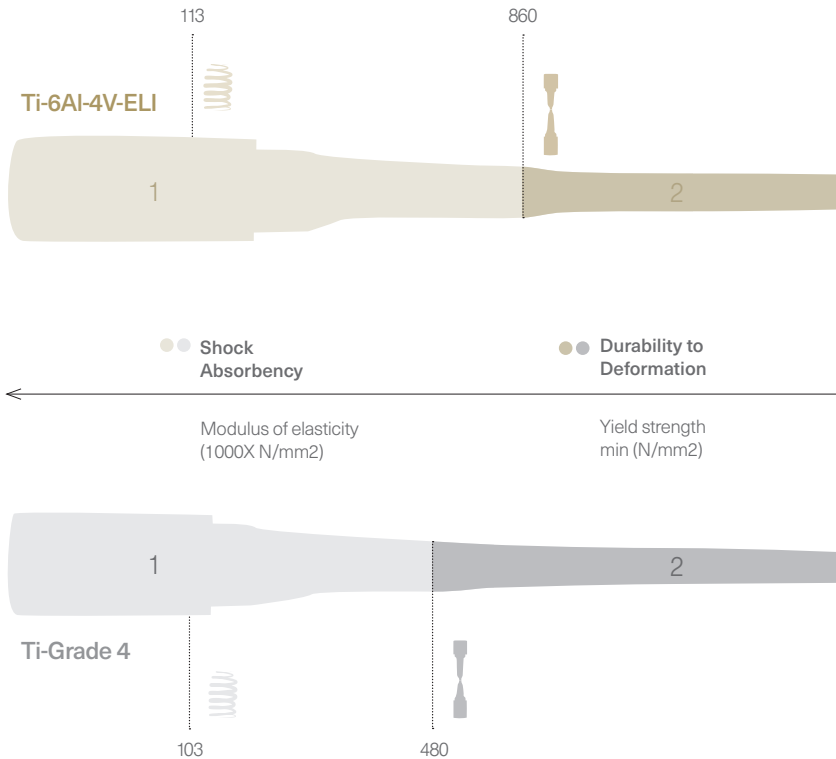
## Overview Raw Material

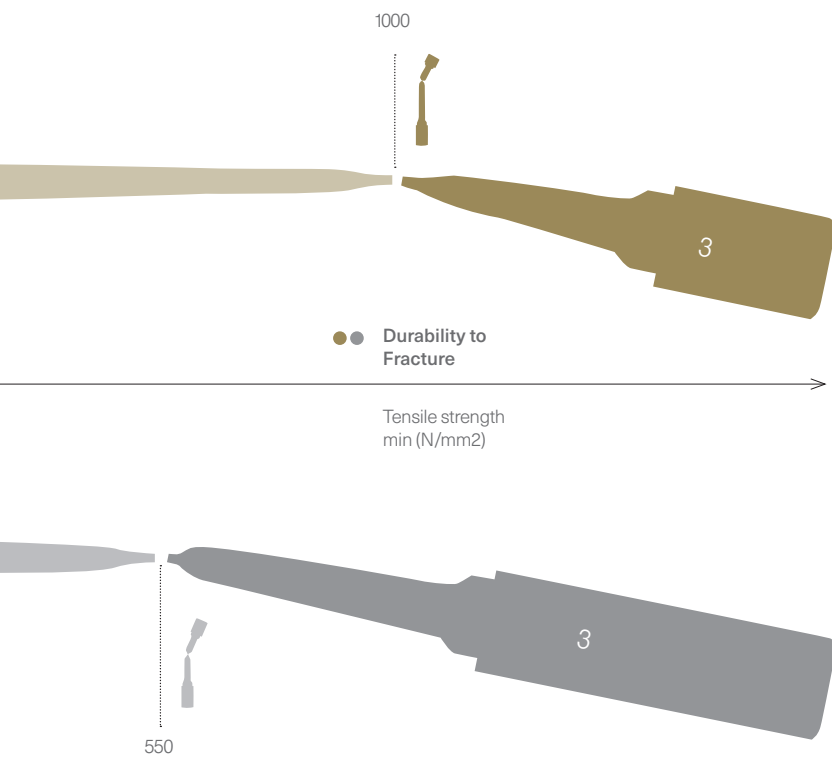
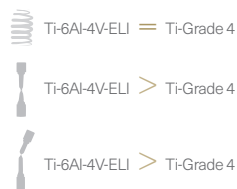
All MIS implants are made from Ti-6Al-4V ELI (Grade 23), the higher purity version of Ti-6Al-4V. This specific type of alloy combines biocompatibility, excellent fatigue strength and low elastic modulus. These benefits make Ti-6Al-4V ELI mechanically superior to titanium grade 4 and the ultimate dental and medical titanium grade.

Similar to commercially pure titanium (Grades 1-4), the outer surface of all MIS implants is comprised of a thin layer of pure titanium dioxide (TiO<sub>2</sub>). In this way, bone cells cannot differentiate between the different titanium grades. The TiO<sub>2</sub> layer also prevents metallic ions leaking from the alloy, for safe, long-term use.

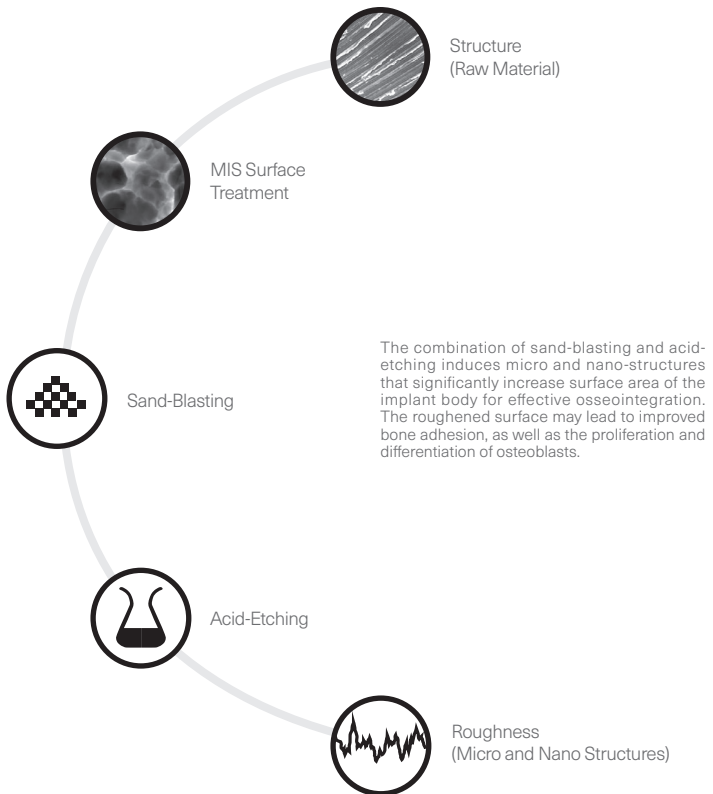


Overview  
**Raw Material**



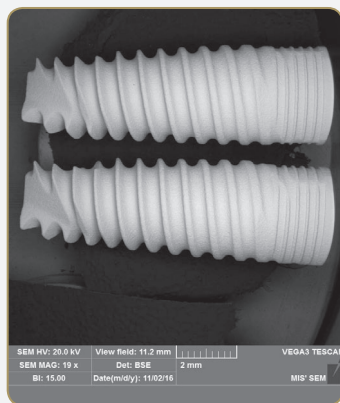


Overview  
**Manufacturing  
Process**

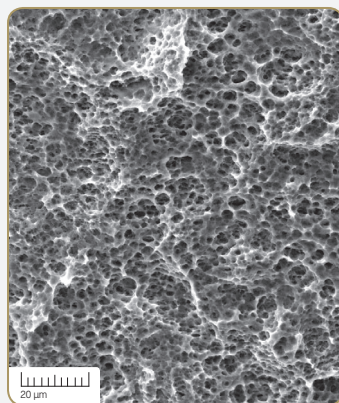


## Overview Implant Surface

Osseointegration is defined as the attachment of bone to dental implants, and is the critical factor related to the long-term success of dental implants. Osseointegration is determined by the raw material of the implant, morphology and surface chemical composition.



SEM image of two V3 implants



SEM image of the implant surface

## Macro-Structure

The geometric design of the body and thread profile of the implant were designed to increase primary stability and to distribute forces from the implant to the surrounding bone.

## Micro and Nano-Structure

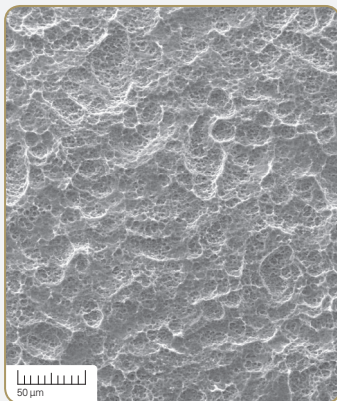
All MIS implants are sand-blasted and acid-etched. This surface treatment increases the implant surface area, creating both micro and nano-structures, while eliminating various surface contaminants.

MIS is one of only a handful of companies worldwide using electron microscopy on a daily basis for implant quality inspection.

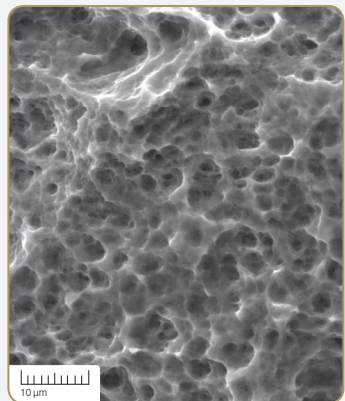
Sand-blasted and acid-etched surfaces have been substantially proven to maximize the BIC (Bone-to-Implant Contact), achieving immediate and long-lasting osseointegration.

## Surface Composition

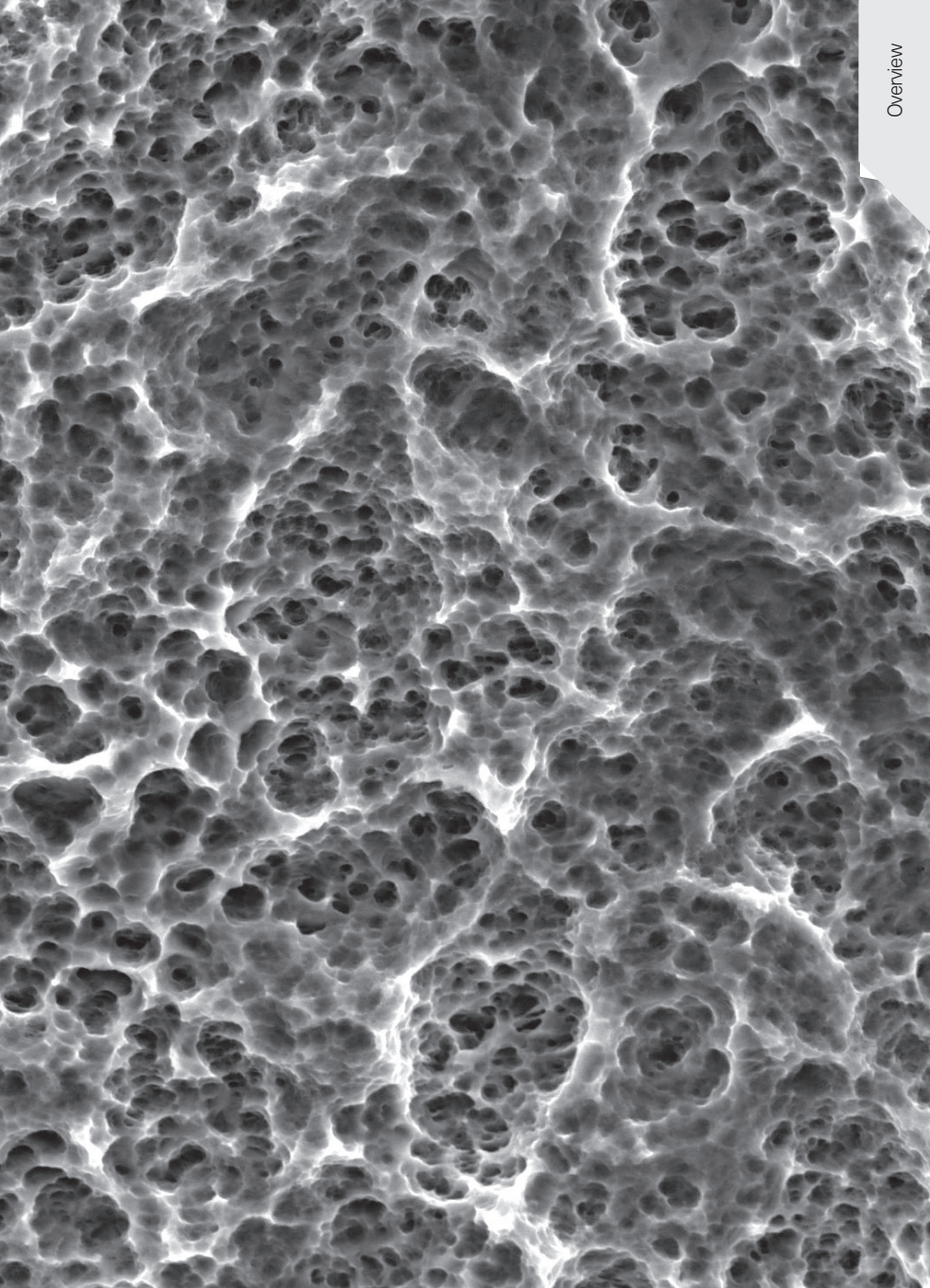
The outer surface of MIS implants, consist of a thin layer of pure titanium dioxide (TiO<sub>2</sub>). Acid-etching and packaging processes are performed in a controlled environment clean-room to ensure purity and quality. Implants are inspected by electron microscope (SEM) scan and X-ray photoelectron spectroscopy (XPS), to ensure implants are free of contaminants.



SEM image of the implant surface showing the micro-structure



SEM image of the implant surface showing the nano-structure



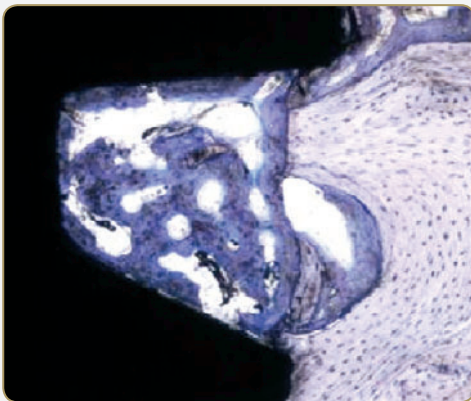
## Overview Histology

### Pic. 1

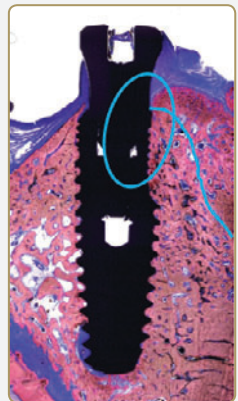
Histologic section of a C1 implant, 5 weeks after placement. Courtesy of Paulo G. Coelho, DDS, PhD, NYU College of Dentistry.

### Pic. 2

Histologic section of a V3 implant, 8 weeks after placement. Courtesy of Prof. Rompen & Prof. Lambert, University of Liege, Belgium.



Pic. 1

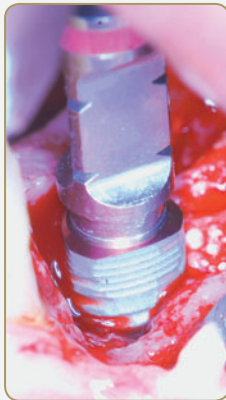


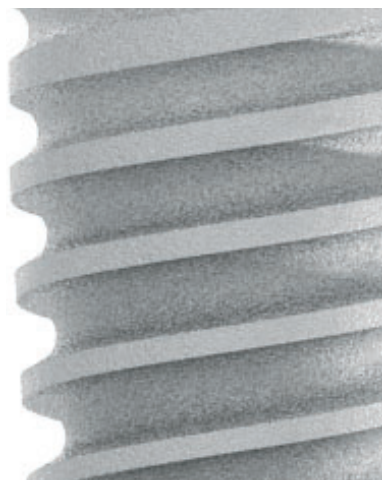
Pic. 2



## Overview **Hydrophilicity**

Current literature demonstrates a linkage between improved bone healing and early osseointegration with the hydrophilicity of surface. MIS implant surface treatment combines sand-blasting and acid-etching. MIS surface treatment ensures surface purity and hydrophilic properties. The images below, demonstrate liquid "climbing" upwards on the implant surface.





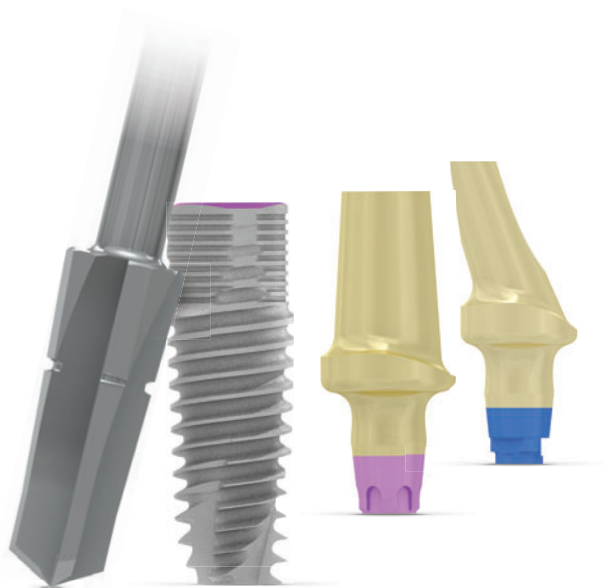
## V3 Implant

- 20 Introduction
- 21 Technical Info and Advantages
- 22 External Design
- 23 Implant Range
- 24 Conical Connection
- 26 Procedure
- 28 Final Drill
- 30 Specialized Surgical Tools
- 32 Implant Package
- 34 Implant Package Contents

**V3**

## Introduction

The V3 implant features a unique combination of attributes, which result in an innovative implant that was designed to provide high initial stability and conical connection which incorporates platform switching technology. A large variety of prosthetic options are available, for a wide range of clinical scenarios. All superstructures, as are implants, are color coded according to their restorative platform, with a golden anodized hue for best esthetic results.



# V3

## Technical Info and Advantages



## V3

### External Design

#### Platform switching

The V3 implant incorporates the platform-switching design concept. Implants with a platform-switched configuration have been shown to exhibit less bone loss when compared to non-platform-switched implants, which may lead to soft tissue preservation and growth.

#### Conical shape

- The conical root shape of the V3 implant and its unique thread, were designed for high primary stability, making it the implant of choice for a wide range of clinical cases and loading protocols.
- The root shape design makes the V3 an ideal implant when space is restricted due to adjacent teeth or implants.

#### Three spiral channels and flat apex

- The flat apex is designed to allow good grip into bone, especially in immediate placement procedures.
- Three cutting blades at the implant apex establish the self-tapping properties of the V3; supporting a simple, safe and fast procedure.

#### Dual thread

- The V3 features a dual thread design which increases the BIC (Bone to Implant Contact) over the entire body of the implant. The dual thread influences implant insertion rate (1.60mm), facilitating a controlled and fast implant placement.
- The thread profile is especially designed for easy insertion and high primary stability.
- The V3 is self-tapping with mild bone compression, which may enhance primary stability.

#### Surface treatments

The surface roughness and micro-morphology is a result of sandblasting and acid etching. This proven MIS surface technology leads to a high level of cleanliness, which leads to effective osseointegration. This is one of the key factors which contribute to long-lasting clinical success.

#### Micro-rings

Micro-rings on the neck of the implant are designed to facilitate an increase in bone to implant contact (BIC). This design concept has been reported to be associated with less crestal bone loss when compared with other implant design features.

# V3

## Implant Range

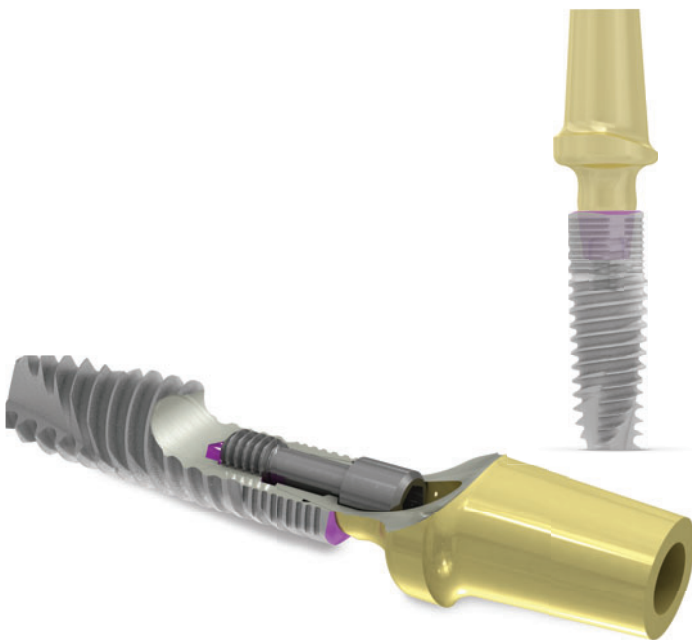
Length	8mm	10mm	11.5mm	13mm	16mm
Type  <b>Ø3.30mm</b> Narrow platform		V3-10330 	V3-11330 	V3-13330 	V3-16330 
Type  <b>Ø3.90mm</b> Standard platform	V3-08390 	V3-10390 	V3-11390 	V3-13390 	V3-16390 
Type  <b>Ø4.30mm</b> Standard platform	V3-08430 	V3-10430 	V3-11430 	V3-13430 	V3-16430 
Type  <b>Ø5mm</b> Standard platform	V3-08500 	V3-10500 	V3-11500 	V3-13500 	V3-16500 

\* Implant package includes a cover screw and a final drill.

**V3**

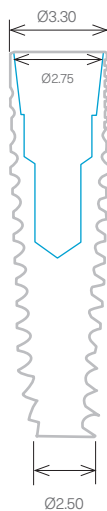
## Conical Connection

The V3 features a 12-degree conical connection for a secure fit between the abutment and implant. By minimizing movement at this junction, bone loss may be reduced at the crestal level. There is a three-position cone index within the conical connection to help orient the implant during insertion. The cone index also allows for proper abutment positioning. The narrow platform implants include a 3 slot index, while the standard platform implants include a 6 slot index.

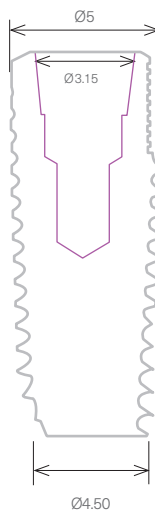
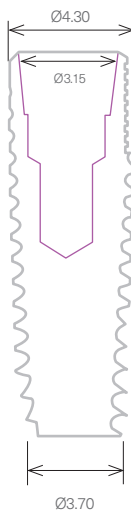
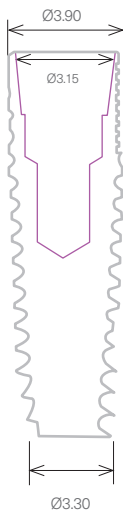
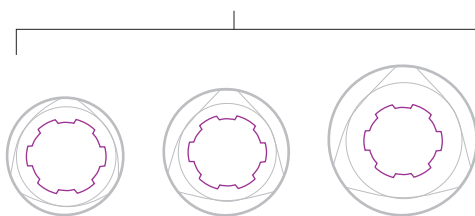




Narrow Platform



Standard Platform

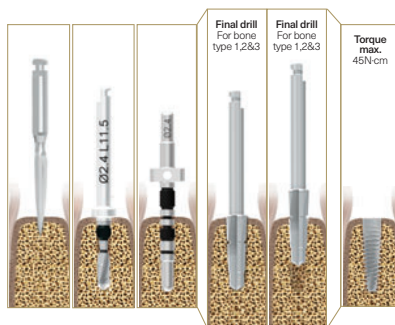


## V3

## Ø3.30 / Ø3.90 Procedure

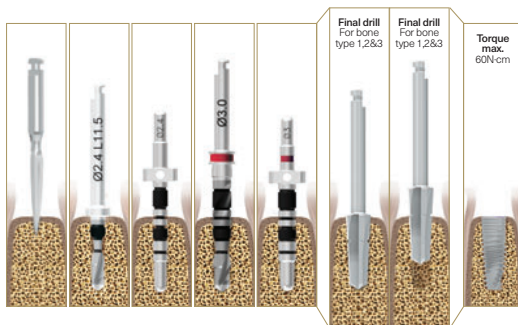
Drilling Speed (RPM)	800-1000		600-800		200-400		200-400
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø2.40	Ø3.30		Ø3.30

## Ø3.30



Drilling Speed (RPM)	800-1000		600-800		450-650		200-400		200-400
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø3	Ø3	Ø3.90		Ø3.90	Ø3.90

## Ø3.90



- Do not use the final drill for type 4 bone.
- Recommended insertion torque: 35-60 Ncm.
- The drilling sequence is demonstrated using a 13mm implant.

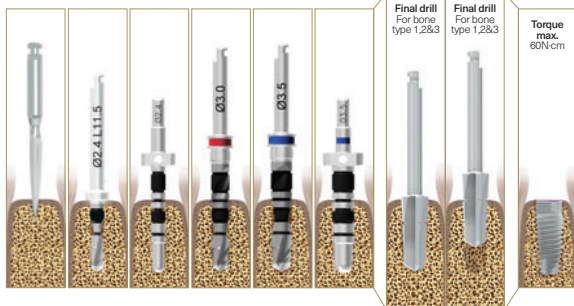
- Procedure recommended by MIS cannot replace the judgment and professional experience of the surgeon.

V3

Ø4.30 / Ø5 Procedure

Drilling Speed (RPM)	800-1000	600-800		450-650	350-550		200-400	200-400	
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø3	Ø3.50	Ø3.50			Ø4.30

Ø4.30



Drilling Speed (RPM)	800-1000	600-800		450-650	350-550	300-500		200-400	200-400	
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø3	Ø3.50	Ø4	Ø4			Ø5

Ø5



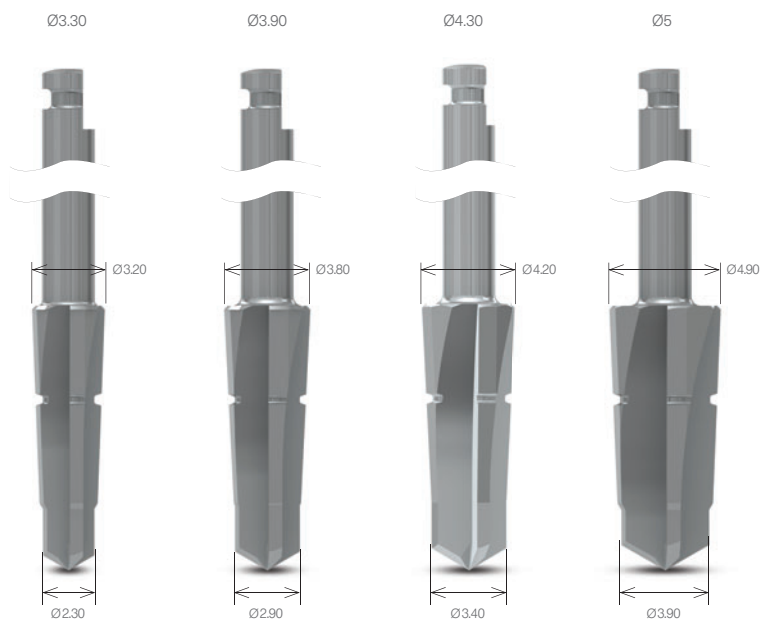
- Do not use the final drill for type 4 bone.
- Recommended insertion torque: 35-60 Ncm.
- The drilling sequence is demonstrated using a 13mm implant.

- Procedure recommended by MIS cannot replace the judgment and professional experience of the surgeon.

# V3

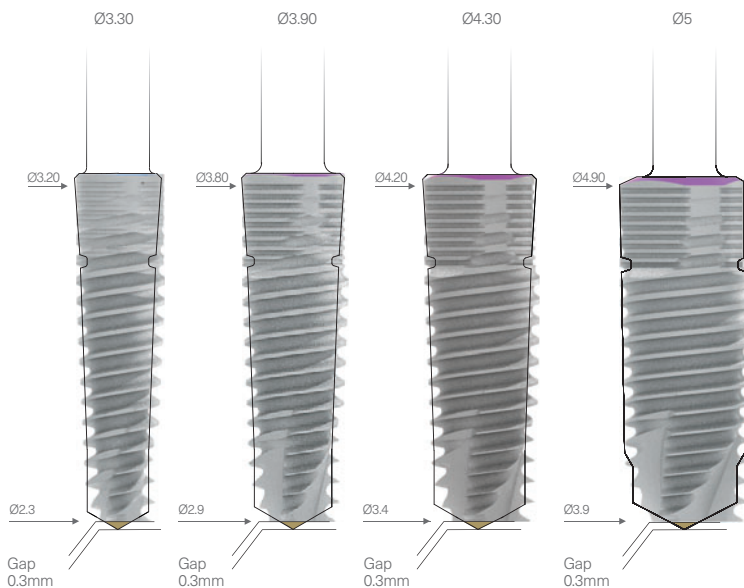
Final Drill

## Final Drill for implant diameters



Each V3 implant package contains a sterile, single-use Final Drill. The drills are recommended for use in bone types 1, 2 & 3. Each Final Drill has a predetermined length and diameter, matching the relevant implant shape and dimension. The intention is to enable maximum initial stability while preventing pressure on the implant neck. The length-specific final drills also promote a short and safe drilling procedure. The recommended drilling speed is 200-400 Rpm.

### Implant and drill measurements



## V3

Specialized  
Surgical Tools

### V3 Insertion Tools

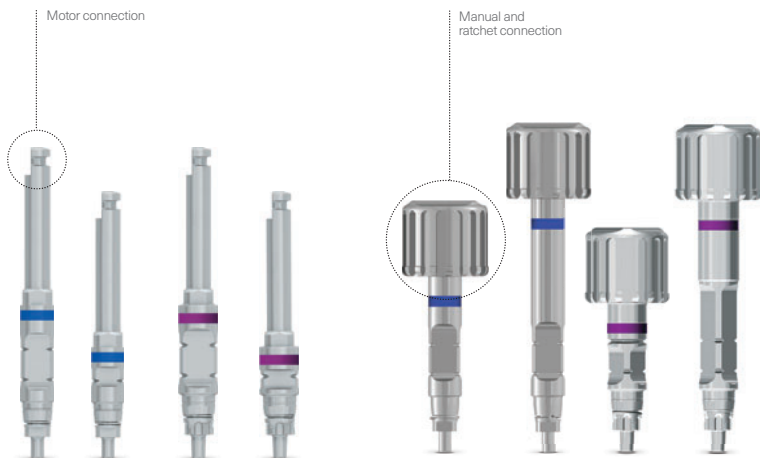
V3 implants are divided into Narrow platform implants (Ø3.30mm) and Standard platform implants (Ø3.90, Ø4.30 and Ø5mm). Long and short insertion tools are available for each of the V3 platforms, for hand-piece connection and for use by ratchet/manually.



Narrow Platform

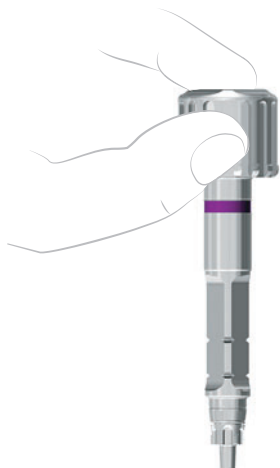


Standard Platform



## Insertion Options

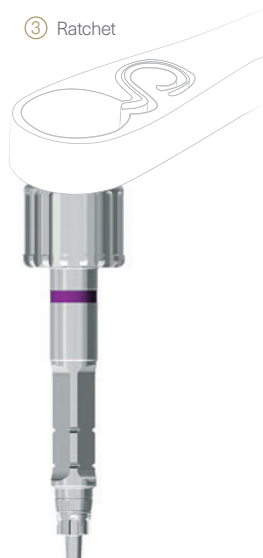
① Manual use



② Motor



③ Ratchet



Tool will not hold implant unless it is completely inserted into the hex.



### Please note

In order to assure their efficient operation, tools should be fully inserted into the implants. A complete insertion of the tool optimizes the transfer of force during implant placement and enables simple release of the tool from the hex, whenever necessary.

## V3 Implant Package

The innovative MIS packaging system is designed for simple and easy use. All of our implant boxes feature distinctive colors, large typeface, clear data labels and a pull tab for quick opening. Boxes are a uniform shape and height, specifically designed to fit in clinic cabinets for easy accessibility and compact space-saving storage.



### Implant identification markings

Quick identification of implant size and length. Sticker on the box lid, specifies implant diameter, length and platform size.

### Easy pull tab

The convenient pull tab facilitates quick and easy opening during surgery.

### Logical storage

Packages fit perfectly into clinic drawers for space-saving storage and easy identification.





#### 4-Implant Package

A convenient 4-implant package is available. The drawer-like box is ideal for storage in drawers or cabinets for easy identification of implant type, diameter and length.



◀ Removing the implant out of the sleeve

#### Double Container System

To ensure that implants are sterile and to prevent surface contamination, each implant is stored in a titanium sleeve within an internal plastic tube. This tube is held in a larger sealed outer tube, marked with all relevant information. The inner tube is therefore sterile, and may be brought into the sterile surgical field whenever needed. An anti-rotation mechanism inside the titanium sleeve ensures a safe implant removal.



# V3

Implant  
Package Contents

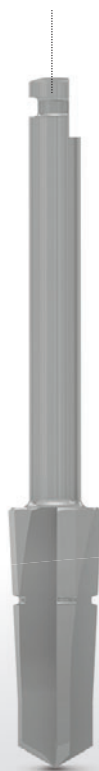
Cover Screw



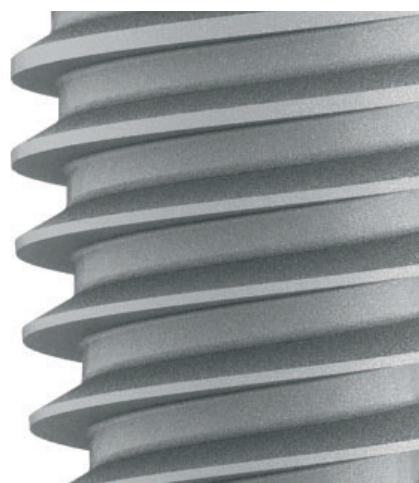
Implant



Final Drill







# C1 implant

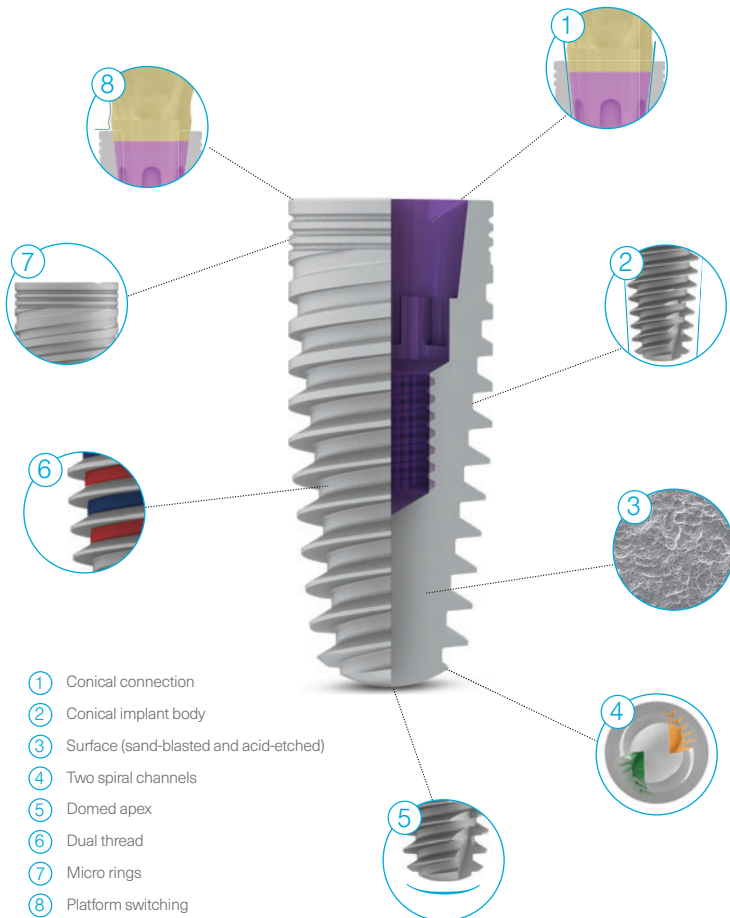
38	Introduction
39	Technical Info
40	External Design
41	Implant Range
42	Conical Connection
44	Procedures
46	Final Drill
48	Countersink Drills
49	Specialized Surgical Tools
52	Implant Package
54	Implant Package Contents



## Introduction

The C1 implant offers MIS simplicity, while presenting uncompromising accuracy. It is designed for high initial and excellent biological stability while ensuring a safe procedure. A wide range of prosthetic components is available, with a consistent concave emergence profile for excellent soft tissue results. All implants and components are color-coded, according to their restorative platform, with a golden anodized hue for best esthetic results.







## External Design

### Platform switching

The C1 incorporates the platform-switching design concept. Implants with a platform-switched configuration have been shown to exhibit less bone loss when compared to non-platform-switched implants, which may lead to soft tissue preservation and growth.

### Conical Shape

- The conical root shape of the C1 implant and a unique thread design ensure high primary stability, making the C1 the implant of choice for a wide range of clinical cases and loading protocols.
- The root shape design makes the C1 an ideal implant when space is restricted due to adjacent teeth or implants.

### Two Spiral Channels and Domed Apex

The C1 features a domed apex, which was engineered to provide a high tolerance and safe procedure during insertion. Two cutting blades at the implant apex establish the self-tapping properties of the C1; supporting a simple, safe and fast procedure.

### Dual Thread

- The C1 features a dual thread design which increases the BIC (Bone to Implant Contact) over the entire body of the implant. The dual thread influences implant insertion rate (1.50mm), facilitating a simple and controlled implant placement.
- The thread profile is especially designed for a flawless, easy insertion and high primary stability.
- The C1 is self tapping with mild bone compression, which may enhance primary stability.

### Surface Treatments

C1 implants are sand-blasted and acid-etched. These surface treatments increase the implant surface area by creating both micro and nano-structures and eliminating various surface contaminants.


### Micro-Rings

Micro-rings on the neck of the implant are designed to facilitate an increase in bone to implant contact (BIC). This design concept has been reported to be associated with less crestal bone loss when compared with other implant design features.



# C1

Implant Range

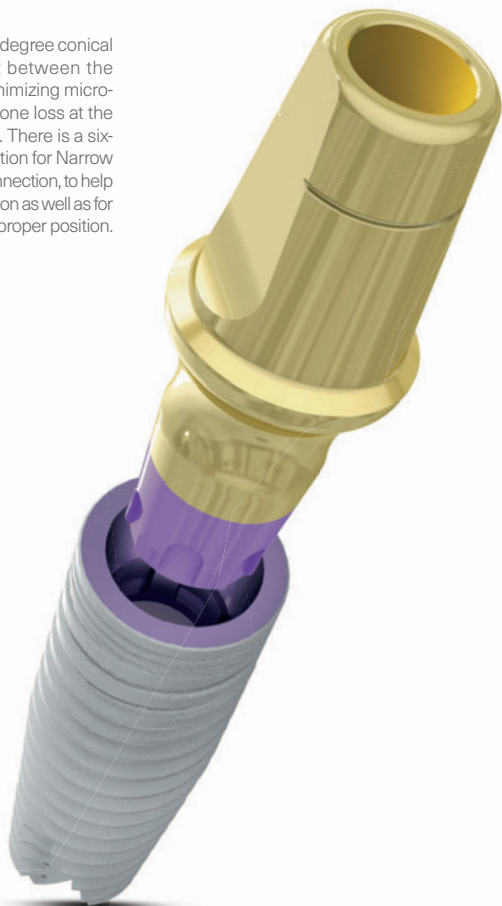
Length	8mm	10mm	11.5mm	13mm	16mm
Type  <b>Ø3.30mm</b> Narrow platform		C1-10330 	C1-11330 	C1-13330 	C1-16330 
Type  <b>Ø3.75mm</b> Standard platform	C1-08375 	C1-10375 	C1-11375 	C1-13375 	C1-16375 
Type  <b>Ø4.20mm</b> Standard platform	C1-08420 	C1-10420 	C1-11420 	C1-13420 	C1-16420 
Type  <b>Ø5mm</b> Wide platform	C1-08500 	C1-10500 	C1-11500 	C1-13500 	C1-16500 

\* Implant package includes a cover screw, a temporary cylinder and a final drill.

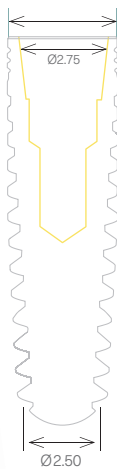
**C1**

## Conical Connection

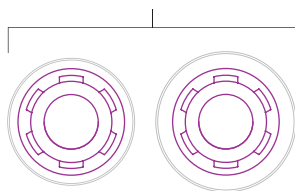
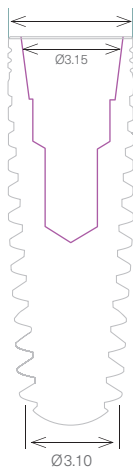
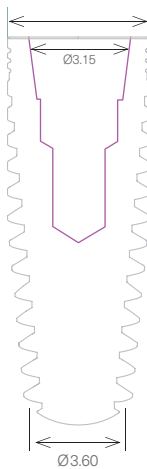
The C1 implant features a 12-degree conical connection for a secure fit between the abutment and implant. By minimizing micro-movement at that junction, bone loss at the crestal level may be reduced. There is a six-position cone index (four-position for Narrow platform) within the conical connection, to help orient the implant during insertion as well as for placing the abutment into the proper position.



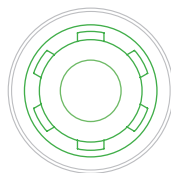
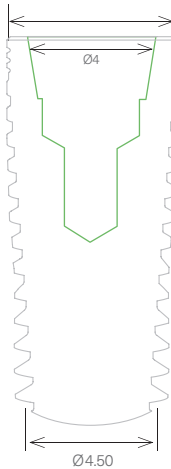
Narrow Platform

 $\varnothing 3.30$ 

Standard Platform

 $\varnothing 3.75$  $\varnothing 4.20$ 

Wide Platform

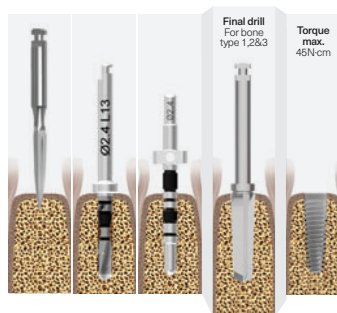
 $\varnothing 5$ 



## Ø3.30 / Ø3.75 Procedure

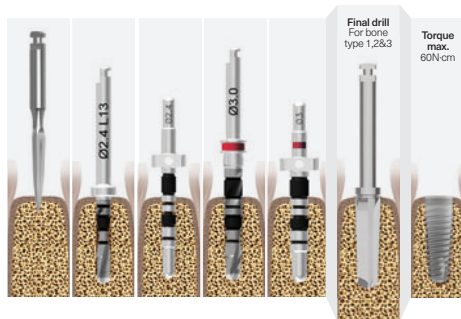
Drill Speed (RPM)	1200-1500	900-1200	200-400	15-25
Diameter	Ø1.90	Ø2.40	Ø2.40 Ø3 Ø3.60	Ø3.30

### Ø3.30



Drill Speed (RPM)	1200-1500	900-1200	500-700	200-400	15-25
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø3 Ø3.60	Ø3.75

### Ø3.75



- Do not use the final drill for type 4 bone.
- Recommended insertion torque: 35-60 N·cm.
- The drilling sequence is demonstrated using a 13mm implant.

- Procedure recommended by MIS cannot replace the judgment and professional experience of the surgeon.



## Ø4.20 / Ø5 Procedure

Drill Speed (RPM)	1200-1500	900-1200		500-700	400-700		200-400	15-25
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø3	Ø3.50	Ø3.50	Ø3.50 Ø4	Ø4.20

### Ø4.20



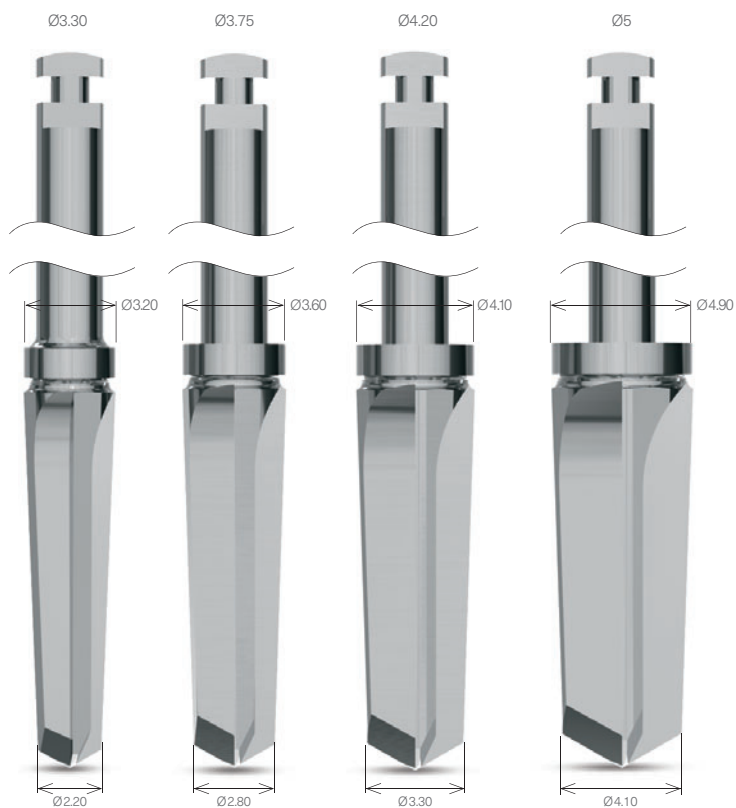
Drill Speed (RPM)	1200-1500	900-1200		500-700	400-700	400-600		200-400	15-25
Diameter	Ø1.90	Ø2.40	Ø2.40	Ø3	Ø3.50	Ø4	Ø4	Ø4.10 Ø4.90	Ø5

### Ø5



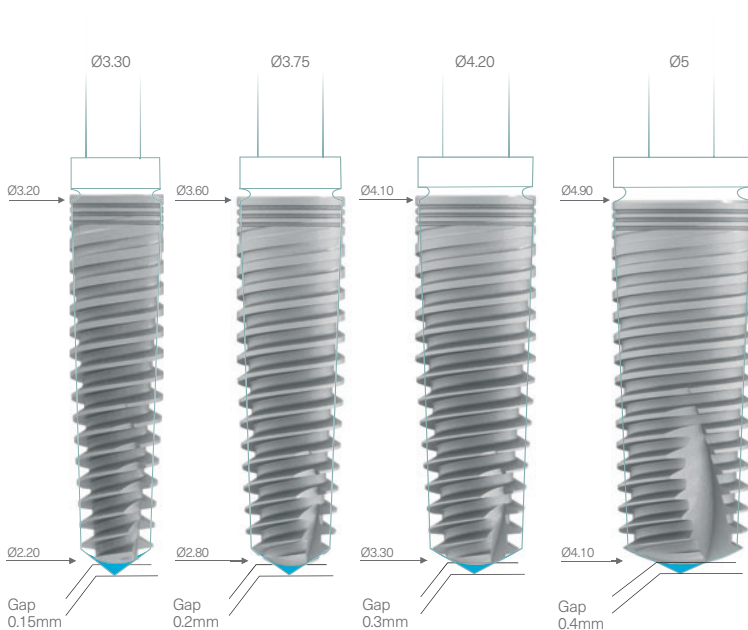
- Do not use the final drill for type 4 bone.
- Recommended insertion torque: 35-60 Ncm.
- The drilling sequence is demonstrated using a 13mm implant.

- Procedure recommended by MIS cannot replace the judgment and professional experience of the surgeon.

**C1**  
Final Drill**Final drill for implant diameters**

Each C1 implant package contains a sterile, single-use Final Drill. The drills are recommended for use in bone types 1, 2 & 3. Each Final Drill has a predetermined length and diameter, matching the relevant implant shape and dimension, for high initial stability while preventing pressure on the implant neck. The length-specific final drills also promote a short and safe drilling procedure. The recommended drilling speed is 200-400 Rpm.

#### Implant and drill measurements

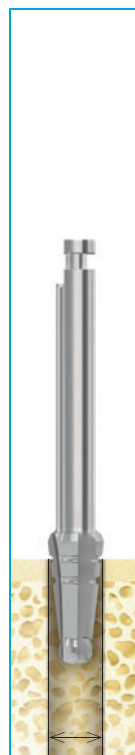


**C1****Countersink Drills****Countersink Drills for  
C1 procedure****(MT-CSN33, MT-GDN33, MT-GDN50)**

Countersink Drills are used to enlarge the crestal area of the implant site, preventing excessive pressure on the implant neck. Depth marks of 3.30mm appear on the Narrow platform Countersink Drill (MT-CSN33), 3.75 and 4.20mm marks appear on the Standard platform Countersink Drill (MT-GDN33), 5 and 6mm marks appear on the Wide platform Countersink Drill (MT-GDN50). The recommended drilling speed is 200-500 RPM.

When drilling into hard bone, extra care should be exercised to prevent overheating. Therefore, it is recommended to use lower drilling speeds with higher torque. In addition, to prevent excessive pressure on the bone or the need for extremely high insertion torque, it is strongly recommended to use the appropriate countersink drills upon completion of the drilling procedure.

**Narrow**  
MT-CSN33

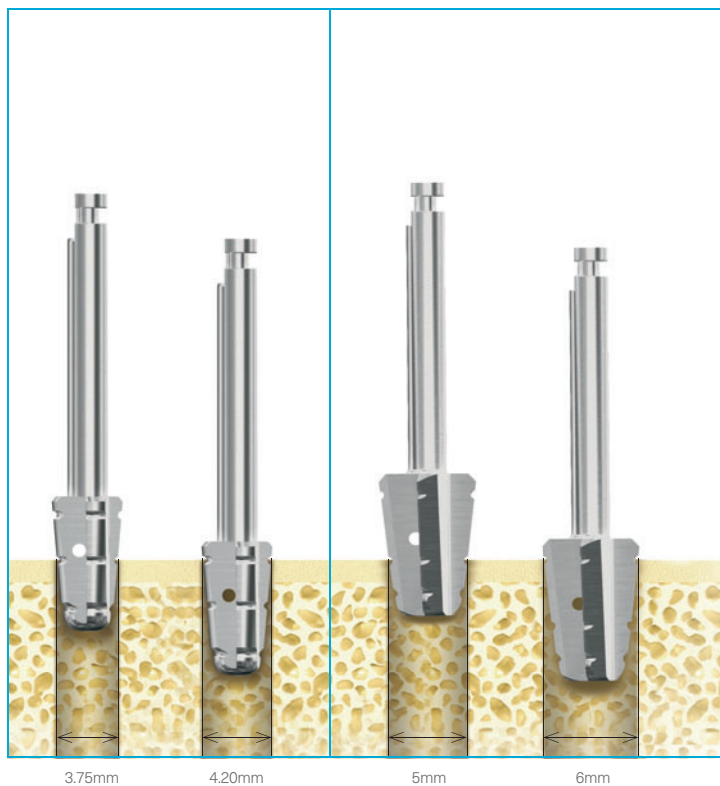


3.30mm



**Standard**  
MT-GDN33

**Wide**  
MT-GDN50





Specialized  
Surgical Tools

## C1 Insertion Tools

C1 implants are divided into Narrow platform implants ( $\varnothing 3.30\text{mm}$ ), Standard platform implants ( $\varnothing 3.75$  and  $\varnothing 4.20\text{mm}$ ), and Wide platform implants ( $\varnothing 5\text{mm}$ ). Long and short insertion tools are available for each of the platforms.



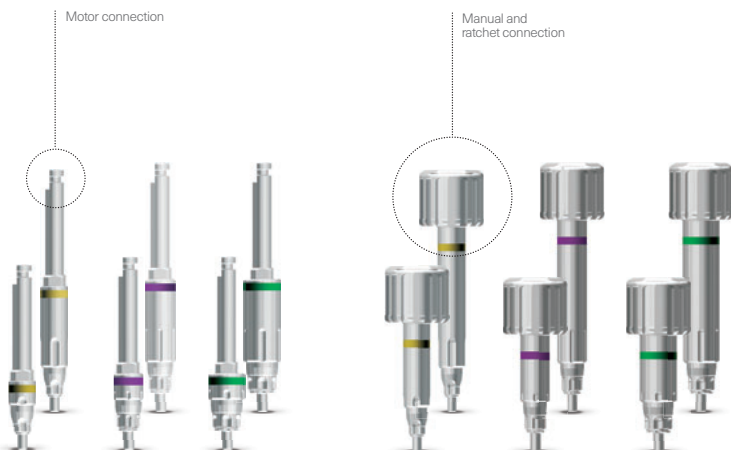
Narrow Platform



Standard Platform



Wide Platform



## Insertion Options

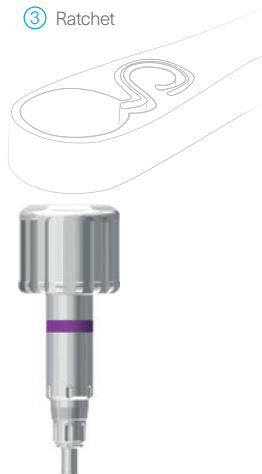
① Manual use



② Motor



③ Ratchet



Tool will not hold implant unless it is completely inserted into the hex.



### Please note

In order to assure their efficient operation, tools should be fully inserted into the implants. A complete insertion of the tool optimizes the transfer of force during implant placement and enables simple release of the tool from the hex, whenever necessary.

C1

Implant Package

The innovative MIS packaging system is designed for simple and easy use. All of our implant boxes feature distinctive colors, large typeface, clear data labels and a pull tab for quick opening. Boxes are a uniform shape and height, specifically designed to fit in clinic cabinets for easy accessibility and compact space-saving storage.



#### ◀ The Individual Implant Package

Each C1 package contains: Instruction For Use, an implant, a single-use final drill, a cover screw and a PEEK temporary cylinder. We recommend instructions be read carefully prior to use.



### 10 Piece Implant Package

A convenient 10 piece implant package is available. The drawer-like box is ideal for storage in drawers or cabinets for easy identification of implant type, diameter and length.



◀ Removing the implant out of the sleeve

### Double Container System

To ensure that implants are sterile, and to prevent surface contamination, each implant is stored in a Titanium sleeve within an internal plastic tube. This tube is held in a larger sealed outer tube, marked with all relevant information. The inner tube is therefore sterile, and may be brought into the sterile surgical field whenever needed.





Implant  
Package Contents



Final Drill



Inner Tube



Outer Tube







## **Surgical Procedures**

58 **Indications & Contraindications**

60 **Step-by-Step Protocol**

## Surgical Procedures

# Indications & Contraindications



### Indications

MIS conical connection implants are intended to be surgically placed in the bone of the upper or lower jaw arches to provide support for prosthetic devices, such as artificial teeth, in order to restore masticatory function. Using a one-stage surgical procedure, the implant allows immediate implantation and immediate function, when good primary stability is achieved and the occlusal load is appropriate.

Narrow implants (Ø3.30mm) are indicated for use in surgical and restorative applications for placement only in the mandibular central, lateral incisor and maxillary lateral incisor regions of partially edentulous jaws, to provide support for prosthetic devices such as artificial teeth, in order to restore masticatory function. Mandibular central and lateral incisors must be splinted if using two or more narrow implants adjacent to one another.



### Contraindications

The contraindications customary in oral surgery with other implant materials should be observed. These include patients taking corticosteroids or anticonvulsants and those receiving radiation of

other immunosuppressive therapies. Patients with abnormal laboratory values for BUN, creatinine or serum calcium, patients with diabetes, cardiovascular disease, hypertension above 170/110mm Hg., osteoporotic crush fractures, respiratory disease, thyroid or parathyroid disease, should be excluded as well as patients with diagnosed malignancy during the past five years and those with nodular enlargements, tenderness or an unexplained lump in the head or neck. Implant procedures should not be performed on patients with active osteolytic, inflammatory or infectious process in the implant site.



### Other Contraindications

- Debilitating or uncontrolled disease.
- Hemophilia, Granulocytopenia or other bleeding problems, steroid use, prophylactic antibiotics, Brittle diabetes.
- Ehler-Danlos syndrome.
- Osteoradionecrosis, renal failure, organ transplantation, anticoagulation therapy, idiopathic hypersensitivity, Fibrous Dysplasia, Regional Enteritis.
- Lack of adequate training of practitioner.
- Conditions, diseases, or treatment that severely compromise healing, including radiation therapy.
- Poor patient motivation.



- Psychiatric disorders that interfere with patient understanding and compliance with necessary procedures.
- Unrealistic patient expectations.
- Unattainable prosthodontic reconstruction.
- Inability of patient to manage oral hygiene.
- Patient hypersensitivity to specific components of the implants.



### Risks

Risks associated with surgical procedures fall into four broad categories:

1. Immediate anesthetic and surgical risks.
2. Psychological and psychiatric risks.
3. Medical threats to long-term retention.
4. Long-term deleterious effects of implants on health.

The risks may include: Inadvertent perforation of the nasal and maxillary sinus, local and systemic infections, perforation of soft tissue spaces, and nerve injury. Temporary conditions that may result from implant placement may include pain and swelling, speech problems and gingivitis. Long-term problems may include nerve damage, local or systemic bacterial infections, and infectious endocarditis in susceptible individuals. Existing natural dentition may be compromised by improper implant placement.

The following list of organ systems with corresponding pathophysiological problems may influence risks:

- a) **Cardiovascular:** Coronary artery disease, Arrhythmias
- b) **Respiratory:** Chronic obstructive pulmonary disease
- c) **Gastrointestinal:** Hepatitis, Malabsorption, Inflammatory bowel disease
- d) **Genitourinary:** Chronic renal failure
- e) **Endocrine:** Diabetes, Thyroid disease, Pituitary/Adrenal disorders
- f) **Hematological:** Anemia, Leukemia, Bleeding clotting disorders
- g) **Musculoskeletal:** Arthritis, Osteoporosis
- h) **Neurologic:** Stroke, Palsy, mental retardation



### Important Warning

Practitioner's lack of adequate training, knowledge and experience are considered major risk factors to the patient's health and to the implant's success. Therefore, no implant placement procedure should be performed without prior training by a certified institution.

## Surgical Procedures **Step-by-Step Protocol**

The surgical manual is designed to provide an overview of the pre-surgical and the surgical procedures applicable to the conical connection implant range. Successful implant placement procedures are the result of a wide range of factors. This step-by-step protocol aims to ensure that significant factors are not overlooked.



### **Step 1**

#### **Patient Selection and Medical History (General medical history)**

Patients must be carefully assessed for their ability to safely undergo surgical procedures. Medical history should be evaluated to ensure that patients are not put at risk. Certain medical conditions are considered either absolute or relative contraindications for surgery. These may relate (but not be limited) to the following conditions: Patients who are either taking or have taken medications for the treatment of osteoporosis; immunodeficiency or immunosuppressive treatments; malignancies; head and neck

radiation; poorly controlled diabetes or other hormonal disorders; bleeding disorders or anticoagulant therapy; recent myocardial infarction, severe cardiac insufficiency and valve pathology; general bone diseases; hypersensitivity or known allergy to specific relevant materials; psychiatric or personality disorders that limit or interfere with patients' understanding and compliance. Please be aware of the fact that updates based on current medical literature may include or exclude certain conditions.



## Step 2

### Dental Conditions and Oral Hygiene

A complete and thorough intraoral examination must be performed and recorded. This must include an evaluation of the dentition, oral hygiene, smoking, habits, attitude to oral health, and any other relevant information. Implant procedures should not be performed on patients with active osteolytic conditions, active periodontal disease or infectious areas at the implant site. Extreme bruxing and clenching should be taken into consideration.



## Step 3

### Radiographs and Imaging

Diagnosis and treatment planning for implant placement require the use of different types of radiographs and imaging technologies. Panoramic radiographs are considered standard pre-surgery radiographs, however additional imaging modalities such as CT (Computerized Tomography), Tomography and periapical radiographs may be required. It should be emphasized that certain countries

require specific radiographs to be taken prior to, during and after surgery. It is the obligation of the surgeon to ensure that all required documentation is available and recorded before and after surgery. Vertical and horizontal dimensions of implant sites should be measured and charted. The anatomical relationships of neighboring teeth and proximity to anatomical structures such as the mandibular canal, maxillary sinus and base of the nose must be evaluated. Bone inclination and shape should also be taken into account. Surgical guides with radioopaque markers are recommended. These, coupled with computerized tomographic radiographs can later be altered to be used as computer-based surgical guides.



## Step 4

### Treatment Plan (Patient cooperation)

Based on patient needs, alternative treatment plans should be considered and discussed. The chosen treatment plan should result in a sequence of actions related to initial reparations, surgical phase and a restorative phase.

## Surgical Procedures

### Step-by-Step Protocol



#### Step 5A

##### Implant Selection

MIS implants feature a range of diameters and lengths. It is recommended that Wide platform implants are used in the premolar and molar areas, while Standard platform implants are used in the anterior areas. Specific analysis of available bone and distance from vital structures at each proposed site may lead to the choice of specific implant length and diameter; however, current augmentation procedures may allow the use of longer or wider implants.



#### Step 5B

##### Surgical Phase

Surgery should be performed under strict infection control conditions. Preoperative medications and/or antibiotics may be required based on the patient's condition and the extent of surgery, and should be decided upon by the operating surgeon. Other monitoring measures, including blood-pressure and pulse measurements should also be considered. An emergency resuscitation apparatus should be available. Each MIS implant comes with labels including all relevant data related to the implant. It is critical that one is kept as part of the patient's record for future reference.

**Warnings:** MIS implants are supplied in a sealed and sterilized package. Implants should never be reused, and implants whose sterility is compromised should not be used. Implants should not be used later than the specific expiration date printed on the package. Implant placement should be performed in accordance with acceptable placement and loading protocols. MIS recommended procedures are described on pages 26-27 (V3) and on pages 44-45 (C1). However, it should be emphasized, that procedures recommended by MIS cannot replace the judgment and professional experience of the surgeon.

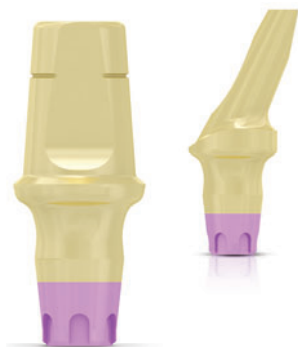
The sale of MIS implants is restricted by law to licensed dentists only. Implant placement procedures should only be performed by trained and licensed dentists. Initial planning is of the utmost importance. As this is a prosthetic driven procedure, it is advisable that restorative dentists are involved at the planning and surgical phases as active participants when making decisions affecting the choice of implant type and the 3-dimensional positioning of the implants.

# 12 24

## Step 6

### Osseointegration Phase

Current literature supports multiple loading options. The dentist should decide when to load implants based on specific parameters, related to their individual case.



## Step 7

### Restorative Phase

MIS implants can support different types of final restorations. Following the solution specified in the treatment plan, the final restoration is fabricated based on accepted restorative protocols. Special attention should be given to ensure correct occlusal adjustment, in order to prevent overloading the implant. MIS superstructures and components must be used with all MIS implants.



## Step 8

### Follow-up

Periodic follow-up evaluations including radiographs are recommended. Special attention should be put on oral hygiene and habits, occlusion adjustments and the stability of the prosthesis.





## **Conical Connection Surgical Kit**

- 66 Description
- 68 The Surgical Kit
- 70 Kit Contents

## Conical Connection Surgical Kit **Description**

The innovative conical connection surgical kit is designed for simple and safe implant placement procedures. The kit presents a novel ergonomic design that follows the surgical drilling sequence. In addition, the kit includes a set of length-based pilot drills and color-coded visual cues of both implant diameter and restorative platforms, and is compatible for both V3 and C1 implants.



### **Warning!**

Avoid damage! The sterilization kit-box and insert must be cleaned and sterilized before each use. Please see sterilization instructions on page 86.





MK-T051

Conical Connection  
Surgical kit



## Conical Connection Surgical Kit

### Marking Drills

- 1 MT-SMD10
- 2 MT-PDM24
- 3 MT-PD440

### Pilot Drills

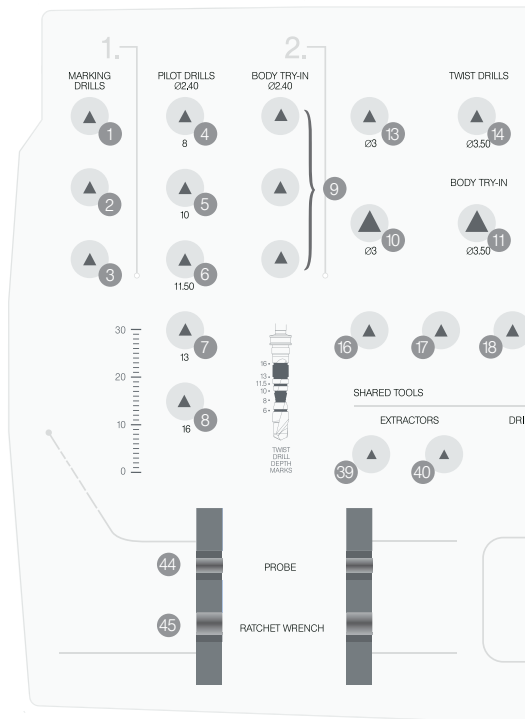
- 4 CT-P2408 Ø2.4 L8
- 5 CT-P2410 Ø2.4 L10
- 6 CT-P2411 Ø2.4 L11.5
- 7 CT-P2413 Ø2.4 L13
- 8 CT-P2416 Ø2.4 L16

### Body Try-Ins

- 9 CT-BTC24
- 10 CT-BTC30
- 11 CT-BTC35
- 12 CT-BTC40

### Step Drills

- 13 CT-TDC30 Ø3.0
- 14 CT-TDC35
- 15 CT-TDC40 Ø4.0

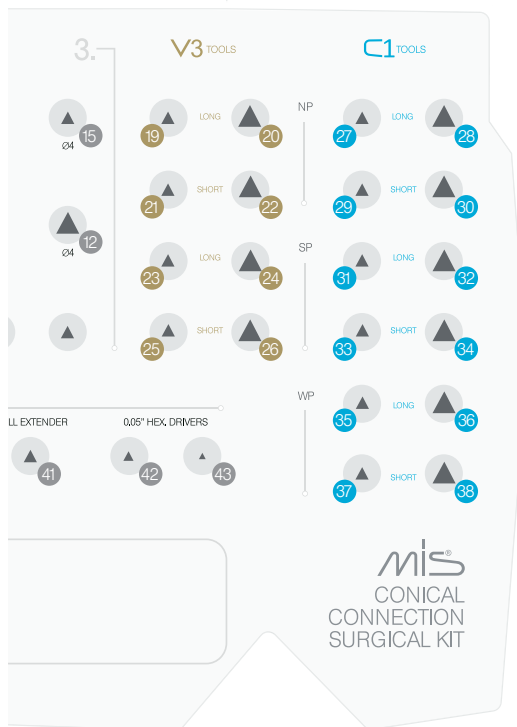


### Countersinks

- 16 MT-CSN33
- 17 MT-GDN33
- 18 MT-GDN50

### V3 Insertion Tools, NP

- 19 CT-NLM30
- 20 CT-NLR30
- 21 CT-NSM30
- 22 CT-NSR30



### C1 Tools

- 27 CT-NLI10
- 28 CT-NLR10
- 29 CT-NSI10
- 30 CT-NSR10
- 31 CT-SLI10
- 32 CT-SLR10
- 33 CT-SSI10
- 34 CT-SSR10
- 35 CT-WLI10
- 36 CT-WLR10
- 37 CT-WSI10
- 38 CT-WSR10

### V3 Insertion Tools, SP

- 23 CT-SLM30
- 24 CT-SLR30
- 25 CT-SSM30
- 26 CT-SSR30

### Surgical Tools

- 39 MT-RE160
- 40 MT-RE172
- 41 MT-DE001
- 42 MT-RDL30
- 43 MT-RDS30
- 44 MT-BTI20
- 45 MT-RT070

## Conical Connection Surgical Kit **Contents**

The conical connection surgical kit includes tools that are designed especially for the step-by-step implant placement process. Correct preparation of the implant site ensures efficient and accurate installation and high primary stability.





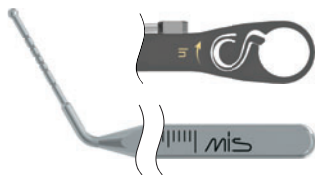
Conical Connection  
Surgical Kit  
**Contents**





			Dimensions	Material
	MT-SMD10	Spade marking drill	Length 30mm	Stainless steel
	MT-PDM24	Position drill mill	Ø2.40mm Length 32mm	Stainless steel
	MT-PD440	Position drill	Ø4mm Length 32.7mm	Stainless steel
	CT-P2408	Pilot drill with built-in stopper for 8mm length implants	Ø2.40mm Length 28mm	Stainless steel
	CT-P2410	Pilot drill with built-in stopper for 10mm length implants	Ø2.40mm Length 28mm	Stainless steel
	CT-P2411	Pilot drill with built-in stopper for 11.5mm length implants	Ø2.40mm Length 33mm	Stainless steel
	CT-P2413	Pilot drill with built-in stopper for 13mm length implants	Ø2.40mm Length 33mm	Stainless steel
	CT-P2416	Pilot drill for 16mm length implants	Ø2.40mm Length 37.5mm	Stainless steel
	CT-BTC24	Body try-in	Ø2.40mm Length 28.5mm	Titanium
	CT-TDC30	Step drill, external irrigation	Ø2.4-3mm Length 37.5mm	Stainless steel
	CT-BTC30	Body try-in	Ø3mm Length 28.5mm	Titanium
	CT-TDC35	Step drill, external irrigation	Ø3.5-3mm Length 37.5mm	Stainless steel
	CT-BTC35	Body try-in	Ø3.5mm Length 28.5mm	Titanium
	CT-TDC40	Step drill, external irrigation	Ø4-3mm Length 37.5mm	Stainless steel
	CT-BTC40	Body try-in	Ø4mm Length 28.5mm	Titanium
	MT-CSN33	Countersink, narrow platform	Ø3.30mm Length 26mm	Stainless steel
	MT-GDN33	Countersink, standard platform	Ø3.75/Ø4.20mm Length 26mm	Stainless steel
	MT-GDN50	Countersink, wide platform	Ø5mm/ Ø6mm Length 26mm	Stainless steel

			Dimensions	Material
	CT-NLM30	V3 long motor insertion tool, NP	Length 29mm	Stainless steel
	CT-NSM30	V3 short motor insertion tool, NP	Length 25mm	Stainless steel
	CT-NLR30	V3 long ratchet insertion tool, NP	Length 32.4mm	Stainless steel
	CT-NLR30	V3 short ratchet insertion tool, NP	Length 25mm	Stainless steel
	CT-SLM30	V3 long motor insertion tool, SP	Length 29mm	Stainless steel
	CT-SSM30	V3 short motor insertion tool, SP	Length 25mm	Stainless steel
	CT-SLR30	V3 long ratchet insertion tool, SP	Length 32.4mm	Stainless steel
	CT-SSR30	V3 short ratchet insertion tool, SP	Length 22.3mm	Stainless steel
	MT-RE160	Int. connection abutment extractor, NP	Length 28.5mm	Titanium
	MT-RE172	Int. connection abutment extractor	Length 28.5mm	Titanium
	MT-DE001	Drill extender	Length 24mm	Stainless steel
	MT-RDL30	Long driver for 0.05 inch hex.	Length 23.5mm	Stainless steel
	MT-RDS30	Short driver for 0.05 inch hex.	Length 18.5mm	Stainless steel



		Dimensions	Material
MT-RT070	Surgical torque ratchet	Length 84mm	Titanium

MT-BT120	Implant site depth probe	Ø1.40mm Length 100mm	Stainless steel
----------	--------------------------	-------------------------	-----------------



CT-NLI10	Long insertion tool, conical connection, NP	Length 32mm	Stainless steel
----------	--	-------------	-----------------



CT-NSI10	Short insertion tool, conical connection, NP	Length 24.5mm	Stainless steel
----------	---	---------------	-----------------



CT-NLR10	Long ratchet insertion tool, conical connection, NP	Length 32mm	Stainless steel
----------	--	-------------	-----------------



CT-NSR10	Short ratchet insertion tool, conical connection, NP	Length 24.5mm	Stainless steel
----------	---	---------------	-----------------



CT-SLI10	Long insertion tool, conical connection,	Length 33mm	Stainless steel
----------	---	-------------	-----------------



CT-SSI10	Short insertion tool, conical connection,	Length 25.5mm	Stainless steel
----------	--	---------------	-----------------



CT-SLR10	Long ratchet insertion tool, conical connection,	Length 33mm	Stainless steel
----------	---	-------------	-----------------



CT-SSR10	Short ratchet insertion tool, conical connection, SP	Length 23mm	Stainless steel
----------	---	-------------	-----------------



CT-WLI10	Long insertion tool, conical connection, WP	Length 33mm	Stainless steel
----------	--	-------------	-----------------



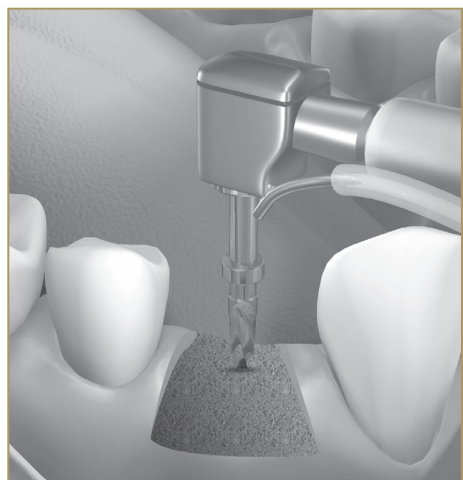
CT-WSI10	Short insertion tool, conical connection, WP	Length 25.5mm	Stainless steel
----------	---	---------------	-----------------



CT-WLR10	Long ratchet insertion tool, conical connection, WP	Length 33mm	Stainless steel
----------	--	-------------	-----------------



CT-WSR10	Short ratchet insertion tool, conical connection, WP	Length 23mm	Stainless steel
----------	---	-------------	-----------------



## Drills

- 78 Using MIS Drills
- 80 Color Code
- 82 Drilling Depth
- 84 Drill Overview
- 86 Drill Maintenance

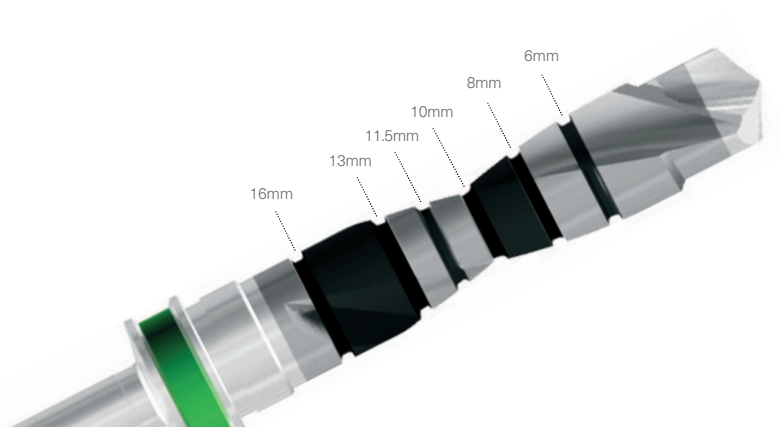
## Drills Using MIS Drills

Implant placement procedures require the use of several drills with different diameters and characteristics. MIS offers drills with internal and external irrigation, as well as conical and ceramic drills. Most MIS drills are marked for depth control and are color-coded for immediate identification of drill diameter.

### Features

MIS drills are available with or without internal irrigation. Short drills are also available for each diameter. All drills are color-coded. The drills are marked for depths of 6, 8, 10, 11.5, 13 and 16mm, and are equipped with a ledge that allows the connection of MIS drill stoppers. All MIS drills have a 120° C cutting degree. The sharpness and high quality of the drills allow for up to 30 uses. Careful use of sharp drills

will ensure atraumatic drilling procedures, and minimal heat generation. A short step (3mm) at the tip of the C1 drills, features the same diameter as the previous drill in the sequence, allowing preliminarily positioning inside the osteotomy for more accurate drilling.



## Drill Stoppers

MIS offers drill stoppers to enable simple and accurate depth control.

The C1 Drill Stopper Kits (MK-CDS08, MK-CDS10, MK-CDS11, MK-CDS13) are a series of kits, each used for one specific implant length: 8, 10, 11.5 or 13mm. For commonly used Ø3.75 or Ø4.2 implants, MIS offers a single assorted kit - the C1 Drill Stoppers Kit Standard Platform (MK-BC101),

which includes the stoppers required for safe placement of Standard platform implants. All C1 Drill Stoppers Kits are compatible for use with the V3 implant.

C1 Drill Stoppers Kit



C1 Drill Stoppers Kit

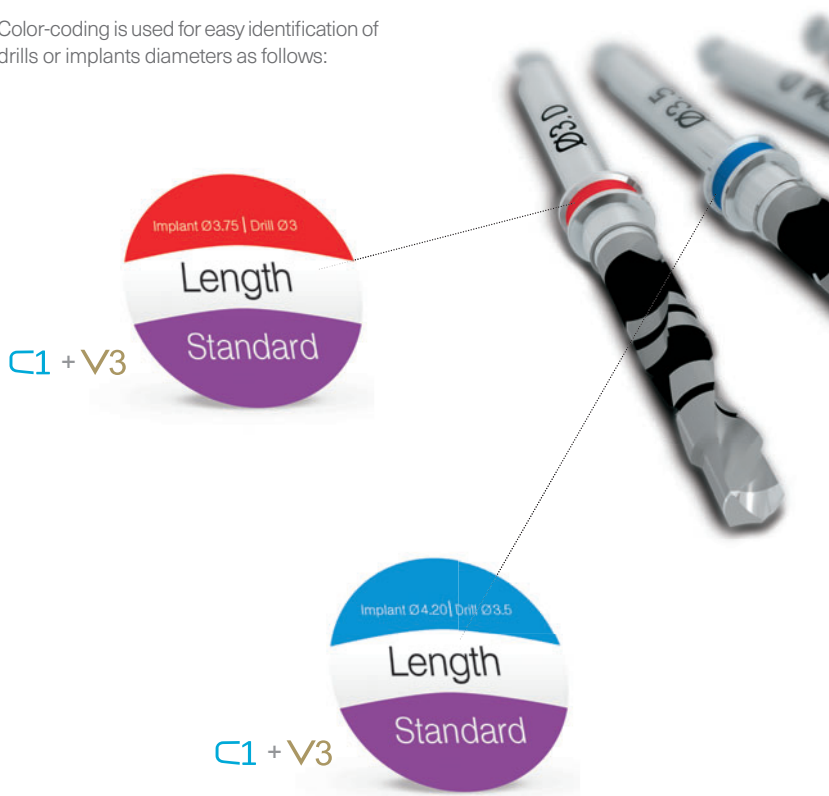
Standard Platform (MK-BC101)



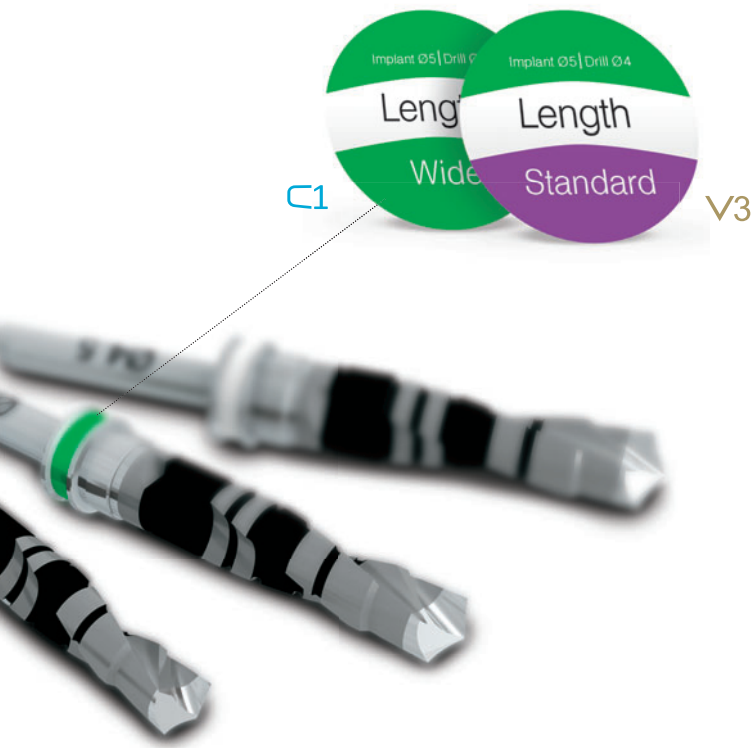
	Diameter	Length
	Ø3mm	37.5mm
	Ø3.50mm	37.5mm
	Ø4mm	37.5mm
	Ø4.50mm	37.5mm

## Drills Color Code

Color-coding is used for easy identification of drills or implants diameters as follows:





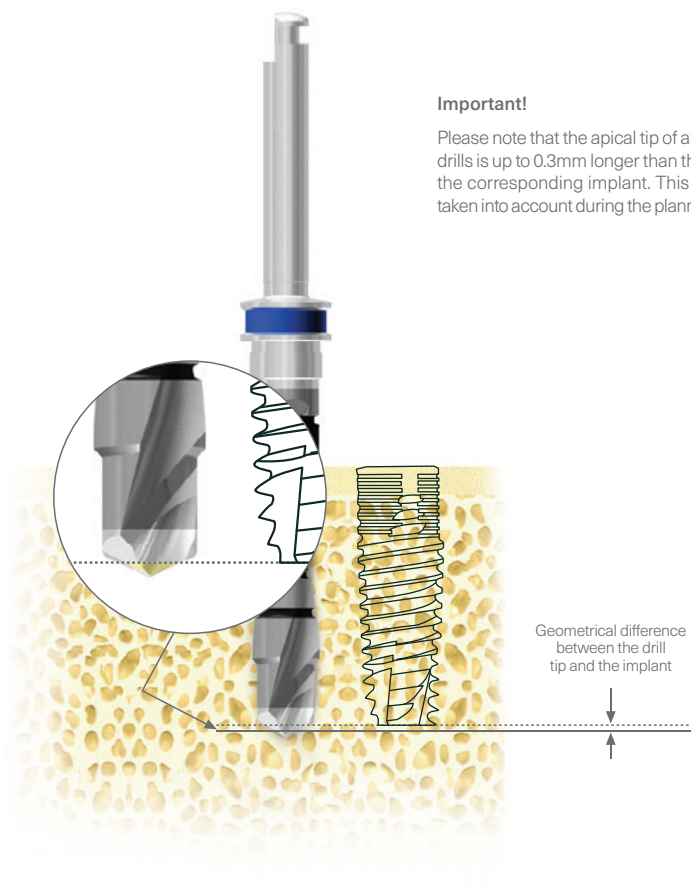


## Drills

### Drilling Depth

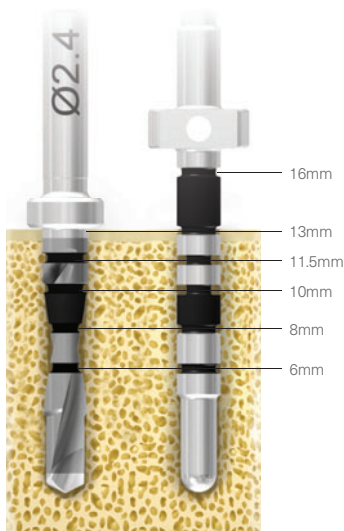
#### Important!

Please note that the apical tip of all MIS twist drills is up to 0.3mm longer than the depth of the corresponding implant. This should be taken into account during the planning phase.



### Depth Verification

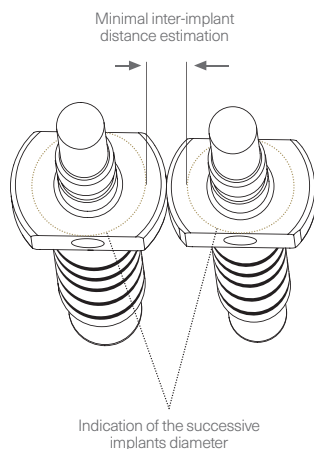
Depth verification may be done by the use of Body Try-In tools (CT-BTCxx)



### Evaluation of the Successive Implant Diameter

Prior to insertion of a dental implant – the evaluation of the successive implant diameter and the required biological space is a necessity. When coming to evaluate these two parameters, the CT-BTCxx system suggests a unique method – even when only pilot drills have been used and a required correction of the drill location may still be amended. The new suggested method may be used when inserting an implant is required next to a single tooth, between 2 teeth or next to another osteotomy, indicating 1.5mm on each side.

The compatible successive implant diameter is also indicated, as shown in the illustration.



## Drills Overview



Type

### Position Drill Mill

Recommended  
Speed

1200-1500 RPM

Length &  
Diameter

The position drill mill is features conical blade geometry of up to 2.4mm and a sharp tip. The drill is 32mm in length and its effective length is 9mm. The drill is made of stainless steel.

Aim of  
Use

The position drill mill is used to mark a reference point for subsequent drills. It is especially useful in immediate placement procedures.



### Position Drill

250-400 RPM

The position drill has a diameter of Ø4mm and a sharp tip. The position drill is 32.7mm in length and is made of stainless steel.

The position drill allows visualization of the actual position of the implant at the end of the drilling procedure. The short, sharp drilling head secures the drill on the bone while the 4mm ring seated above the drill head provides an indication as to the final position of the implant.



**Pilot Drill**

500-1000 RPM

V3 pilot drills come in five different lengths: 8, 10, 11.5, 13 and 16mm. The first four are equipped with a stopper to simplify the drilling procedure.

Pilot drills are the first invasive drills used for the preparation of a fixture site. The pilot drills are length specific to ensure precise drilling depth.



**Step Drill**

400-600 RPM

Step drills come in a variety of diameters and lengths.

Step drills are used to widen the osteotomy. They are NOT length specific, and have laser markings for 6, 8, 10, 11.5, 13 and 16mm implants. The use of stoppers is highly recommended when using step drills.

## Drills Maintenance

Correct and careful maintenance of MIS drills is extremely important. Damage to drill tips can cause significant impairment of drill function. The following are detailed instructions for proper maintenance.



### Cleaning and Sterilization Instructions

#### Attention

For your own safety, please wear personal protective equipment (gloves, glasses, mask).

#### Pre-Cleaning

- Soak the drills immediately after use in a detergent and disinfecting solution, preferably an enzymatic cleaning solution, with a pH level between 6-9, prepared with lukewarm water for 5 minutes.
- Scrub the drills under running water with soft nylon brush to remove any remaining blood or debris.

- Rinse under tap water (at least 1 min).
- Place the drills in a kit, support or rack to avoid any contact between instruments.

#### Cleaning Procedure Manual Cleaning

- Prepare an ultrasonic bath with a cleaning solution at a concentration and temperature specified in the detergent manufacturer's instructions.
- Immerse the drills completely and activate the bath for at least the recommended time in the detergent manufacturer's instructions.
- Rinse under tap water (at least 1 min).

### Alternative - Automated Cleaning

- Place the rack in a washer-disinfector and apply a cleaning procedure according to the manufacturer's recommendations.
- Dry on a single-use non-woven cloth or through a drying cycle of washer-disinfector or filtered compressed air.
- Inspect the drills and discard those with defects. Repeat cleaning if required.
- Place the drills in a kit, and pack in a sterilization pouch.
- Steam sterilize according to the table below. Do not exceed the recommended temperature specified.
- Keep the sterilization packaging in a dry and clean environment.

Cycle type	Pre-vacuum	Gravity displacement
Temperature	132°C/270°F	135°C/275°F
Exposure	4 min.	10 min.
Drying time	20 min.	30 min.



### Recommendations

- Cutting tools should be used for a maximum of 30 uses.
- Distilled water should be used in order to prevent water spots.
- For all metal instruments, it is recommended to use anticorrosive disinfecting and cleaning agents. They should be aldehyde free and ethanolamine free.
- Use only autoclaves that meet the requirements of EN 13060, EN 285.
- Use a validated sterilization procedure according to ISO 17665.
- For automated cleaning procedures, use a washer-disinfector approved according to EN ISO 15883.





## **Surgical & Prosthetic Tools**

- 90 MIS Ratchet Range
- 92 Specialized Prosthetic Tools
- 94 SOS Broken Screw Kit
- 96 Screw Tests
- 97 Maintenance

Surgical &  
Prosthetic Tools  
**MIS Ratchet Range**

MIS offers a line of uniquely designed ratchets, to simplify both prosthetic screw tightening and implant insertion, allowing an accurate and safe performance. To prevent damage to the mechanism, it is critical that the ratchet is used only with keys and adapters that are specifically designed for it. Three ratchet types, to allow an accurate and safe procedure:

**MT-RT070**

Surgical torque ratchet  
Controlled torque for implant  
placement (35-75 Ncm).

**MT-RI030**

Monoblock Ratchet

**MT-RI040**

Torque ratchet for  
prosthetic screws

Controlled tightening torque for  
prosthetic screws (10-30 Ncm).





### Warnings

- MIS recommends the use of a torque controlled driver whenever possible.
- The ratchet wrench MT-RI030 may transfer torque levels that do not correlate to the recommendations specified for implant placement or screw fastening.
- Excess loads may result in damage to implants, components, screws, and even to the bone-to-implant interface.
- Beware that the recommended torque for implant placement is 60-35 Ncm.



### Instrument Maintenance

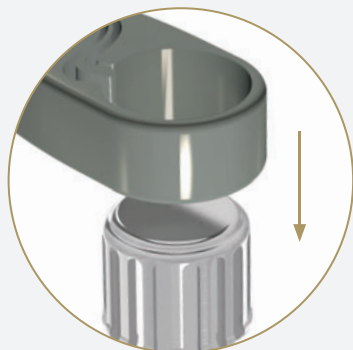
- The device is delivered non-sterile.
- Cleaning and sterilization are required prior to use.



### Cleaning and Sterilization

For cleaning and sterilization instructions please refer to page 97.

## User Instructions



Store the ratchet on its own, not attached to any tools.



Clean thoroughly immediately after use.

Surgical &  
Prosthetic Tools  
**Specialized  
Prosthetic Tools**

## Friction Fit

### MT-RE172/ MT-RE160

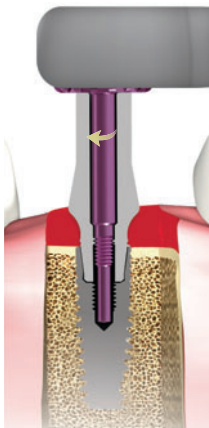
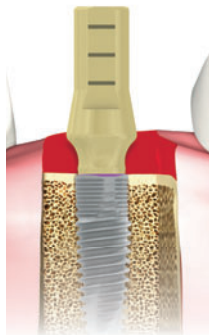
The friction fit extractors are designed to separate the friction fit abutments from the implant. The extractors are color-coded; purple for Standard abutments and yellow for Narrow abutments.



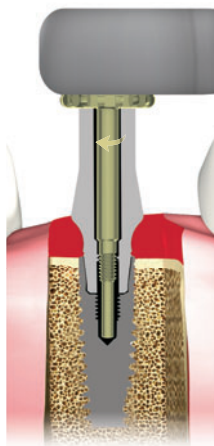
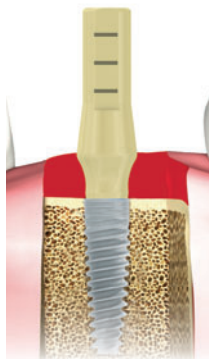
## Mode of Action

The Extractor Key applies vertical load parallel to the long axis of the implant. Thus it can release a "locked" abutment from an implant.

### For Standard Implants



### For Narrow Implants

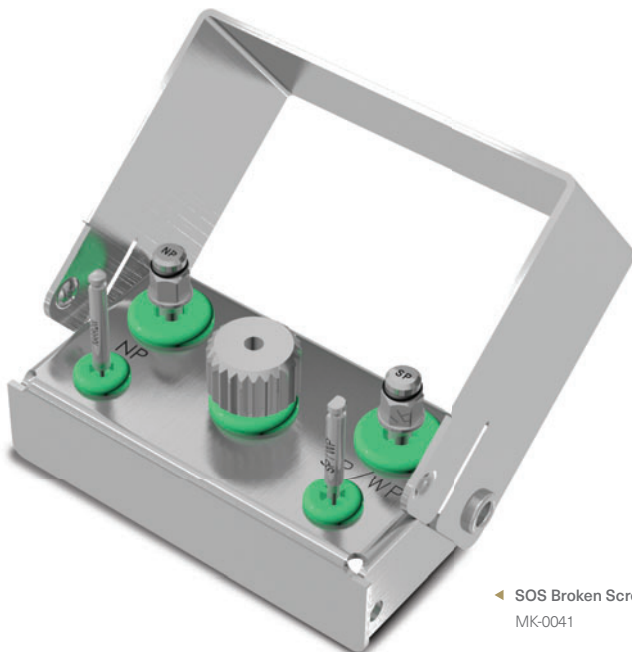


Surgical &  
Prosthetic Tools  
**SOS Broken  
Screw Kit**

### SOS Broken Screw Kit

MT-TF172 / MT-RT001 / MT-HW001 / MT-TF160 / MT-RT002

The SOS Broken Screw Kit was designed to facilitate the removal of a broken screw from within an implant.



◀ SOS Broken Screw Kit  
MK-0041

## SOS Tools



Thread Former  
MT-TF160



Thread Former  
MT-TF172



Hand Wrench  
MT-HW001



Retriever  
MT-RT00



Retriever  
MT-RT002

## Instructions for use

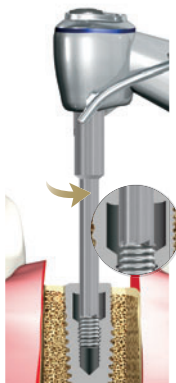
①



**A.** Connect the retriever to a micromotor.

**B.** Adjust the micromotor to low speed (15-25 RPM), max. torque and in reverse mode.

②



**C.** Apply mild pressure with the retriever to the top of the broken screw.

**D.** While maintaining pressure, activate the motor. This action should release the screw. If the screw is still not released, apply intermittent pressure on the screw.

③



**If internal threads are damaged:**

**E.** Use the thread former with care.

**F.** Be sure to align the thread former parallel to the long axis of the implant.

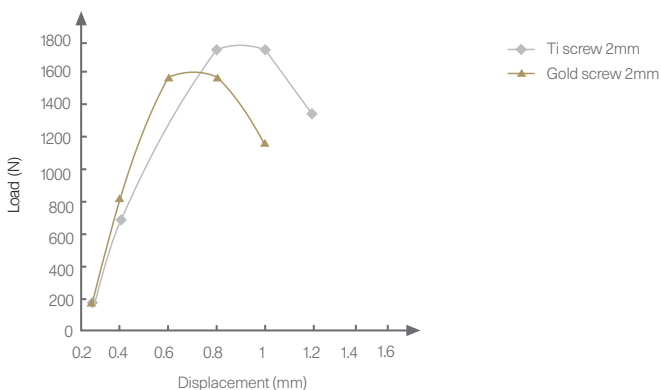
**G.** Always start by using a hand wrench. Apply gentle but firm force while turning the thread former in a clockwise direction. Release the pressure at the end of each complete turn by turning it 30° in a reverse direction, and repeat the action as needed.

**H.** In instances where greater torque is needed, a ratchet may be used.

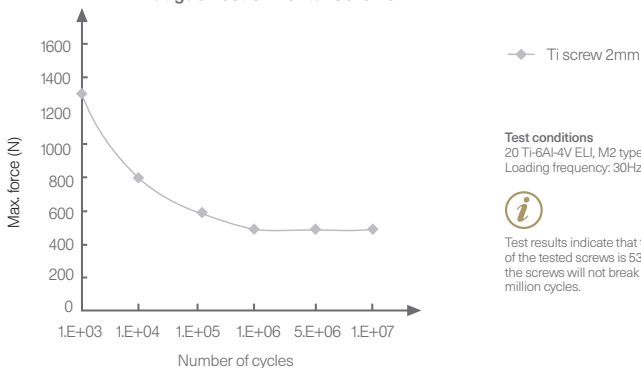
## Surgical & Prosthetic Tools

### Screw Tests

#### Tensile Test of Dental Screws



#### Fatigue Test of Dental Screws



#### Test conditions

20 Ti-6Al-4V ELI, M2 type screws.  
Loading frequency: 30Hz



Test results indicate that the fatigue limit of the tested screws is 530N and that the screws will not break even after 5 million cycles.



## Surgical & Prosthetic Tools Maintenance

These instructions for use covers surgical devices and accessories, tools & instruments made of stainless steel or titanium alloy (hereby under: "instruments").

### Attention

For your own safety, please wear personal protective equipment (gloves, glasses, mask).

### Pre-Cleaning

- Disassemble the instruments if required.
- Soak all instruments immediately after use in a detergent and disinfecting solution, preferably an enzymatic cleaning solution, with a pH level between 6-9, prepared with lukewarm water for 5 minutes.
- Scrub the instruments under running water with soft nylon brush to remove any remaining blood or debris.
- Rinse under tap water (at least 1 min.).
- Place the instruments in a kit, support or rack to avoid any contact between them during the next cleaning procedure.

### Cleaning Procedure Manual Cleaning

- Prepare an ultrasonic bath with a cleaning solution at a concentration and temperature specified in the detergent manufacturer's instructions.
- Immerse the instruments completely and activate the bath for at least the recommended time in the detergent manufacturer's instructions.
- Rinse under tap water (at least 1 min.).

### Alternative: Automated Cleaning

- Place the rack in a washer-disinfector and apply a cleaning procedure according to the manufacturer's instructions.

### Drying and Sterilization

- Dry on a single-use non-waved cloth or

through a drying cycle of washer-disinfector or with filtered compressed air.

- Inspect the instruments and discard those with defects. Repeat cleaning if required.
- Assemble the instruments if required.
- Place the instruments in a kit, and pack in sterilization pouch.
- Steam sterilize according to the table below. Do not exceed the recommended temperature specified.
- Keep inside the sterilization packaging in a dry and clean environment.

Cycle type	Pre-vacuum	Gravity displacement
Temperature	132°C/270°F	135°C/275°F
Exposure	4 min.	10 min.
Drying time	20 min.	30 min.

### Recommendations

- Cutting tools should be used for a maximum of 30 uses.
- Distilled water should be used in order to prevent water stains.
- For all metal instruments, it is recommended to use anticorrosive disinfecting and cleaning agents. They should be aldehyde, ethanolamine, chlorine and acid free.
- Use only autoclaves that meet the requirements of EN 13060, EN 285.
- Use a validated sterilization procedure according to ISO 17665.
- For Automated cleaning procedures, use a washer-disinfector approved according to EN ISO 15883.

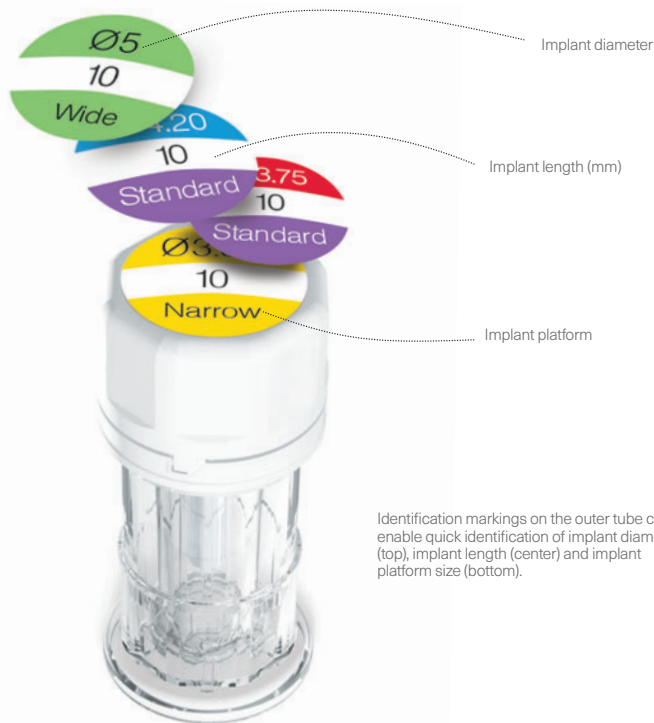


# Packaging

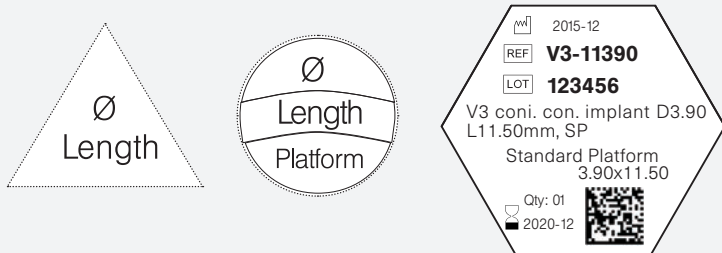
- 100 Implant Identification Codes
- 102 Planning Transparency
- 103 Symbols

## Packaging **Implant Identification Codes**

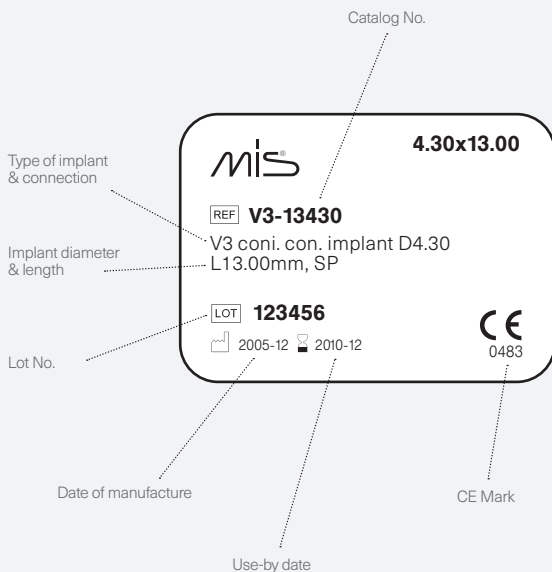
Each package contains three data labels, which includes all required information pertaining to the implant. The following image illustrates the label.



## Identification Labels



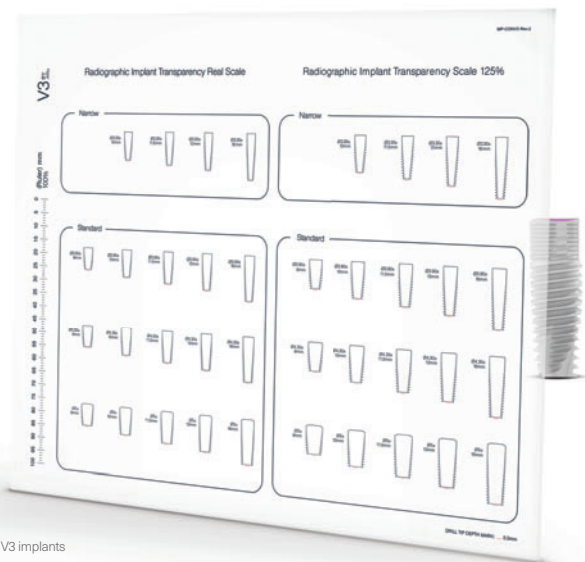
## Implant Data Label



## Packaging Planning Transparency

MIS offers a planning transparency, illustrating the full V3 implant range. It includes two sets of images: one actual size, and the other at a magnification of 125%, relevant for use with panoramic radiographs that include a similar inherent magnification. In addition, the transparency includes a 1:1 ruler.

By placing the appropriate section of the transparency on a radiograph, a clinician can choose the best fitting implant diameter and length, as part of the planning process.



The transparency available for V3 implants  
Cat No. MP-CONV3

## Packaging Symbols

### Key to codes used:



Do not re-use



Sterilized using gamma irradiation



Do not re-sterilize



Caution, consult accompanying documents



Use-by date



Do not use if package is damaged



Date of manufacture



Manufacturer



Batch code



Catalog number

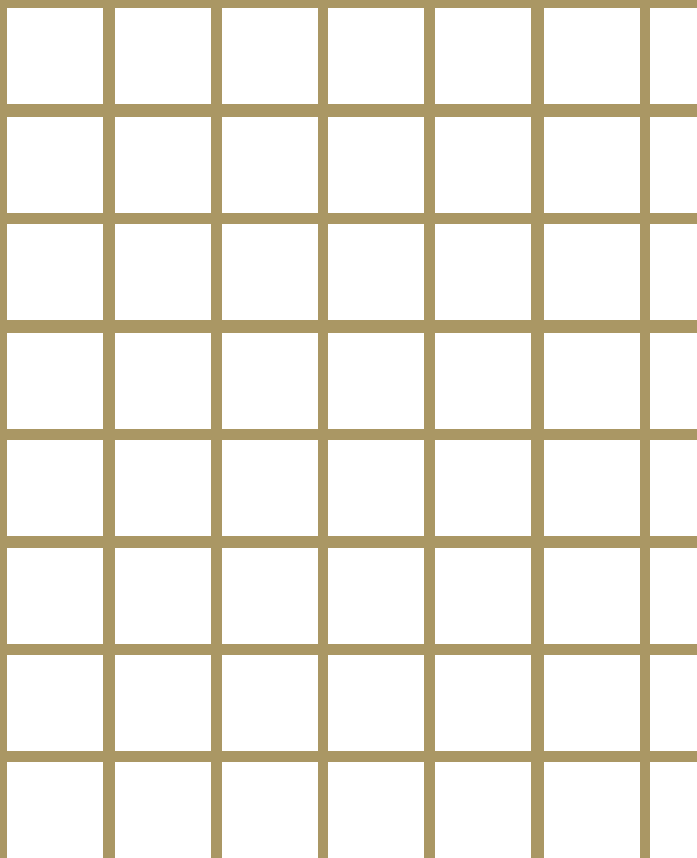


Keep away from sunlight

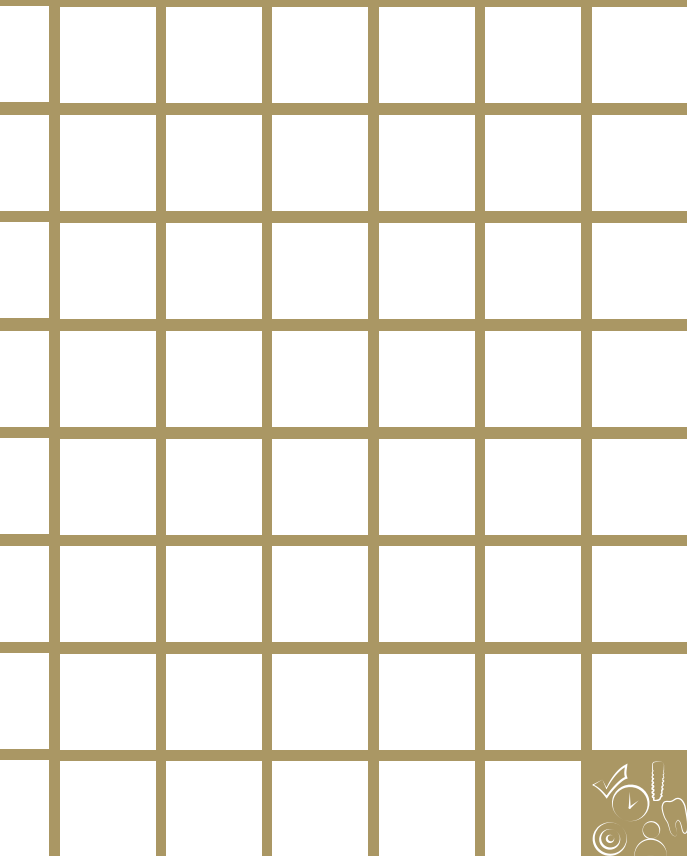
Rx only

Caution: U.S. federal law restricts this device for sale by or on the order of a dental professional









All rights reserved. No part of this publication may be reproduced, transcribed, stored in an electronic retrieval system, translated into any language or computer language, or be transmitted in any form whatsoever, without the prior written consent of the publisher. Warning: Only a licensed dentist should use these products.



MIS Implants Technologies Ltd.

[www.mis-implants.com](http://www.mis-implants.com)

---

MIS Quality System complies with international quality standards: ISO 13485:2003 - Quality Management System for Medical Devices, ISO 9001:2015 - Quality Management System and Medical Device Directive 93/42/EEC. MIS products are FDA cleared for marketing in the USA and CE marked.