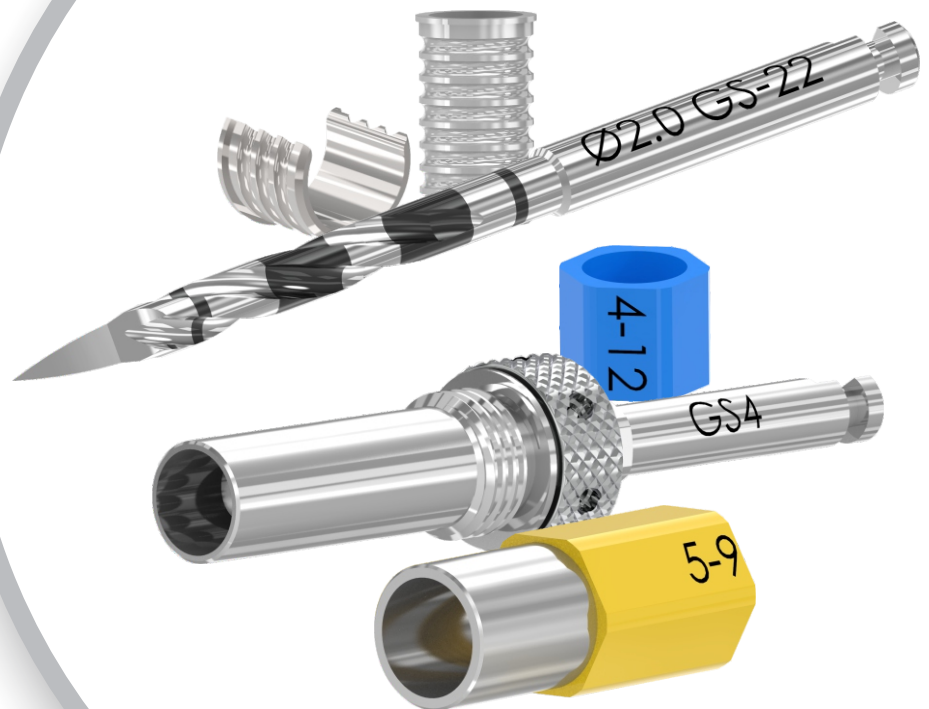
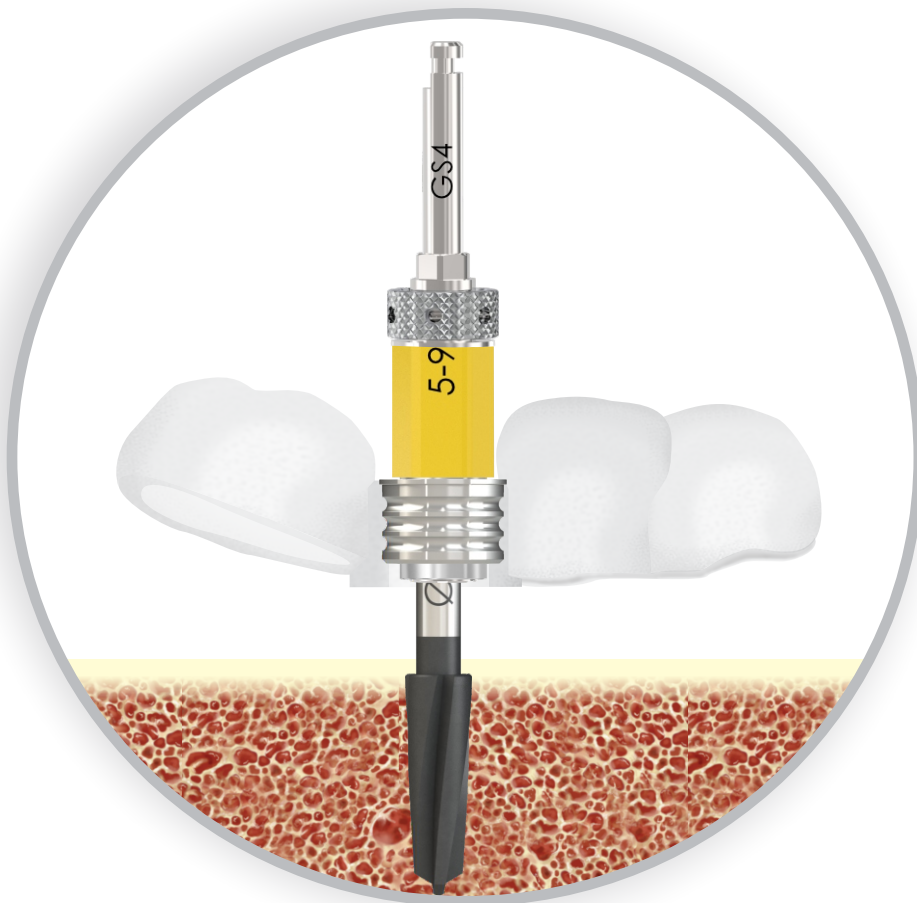


# SIREAL

## Guided Surgery

### Product Catalogue & Manual





Southern Implants is a leading provider of unique and innovative dental implant products with a focus on top-end professional users who want more choices. Southern's expertise in research, development and manufacturing of dental implants allows us to provide Innovative Treatment Solutions that will reduce treatment times and improve patient outcomes.

Striving for excellence and meeting customer needs, has led to our wide product range characterized by Unique and Innovative products which include;

- Multiple interfaces, to suit customer preference.
- INVERTA™ implant, featuring a body-shift design, engineered for primary stability and suitable for immediate loading.
- Co-Axis®, sub-crestal angle correcting implant, available in angulations of 12, 24 & 36° and various internal and external connections.
- MAX implant, specifically designed for immediate molar tooth replacement.
- The ZYGAN and ZYGEX implants for severely resorbed maxilla and craniofacial reconstruction.

Our product portfolio is in synchronized evolution with protocol improvements and technological advances.

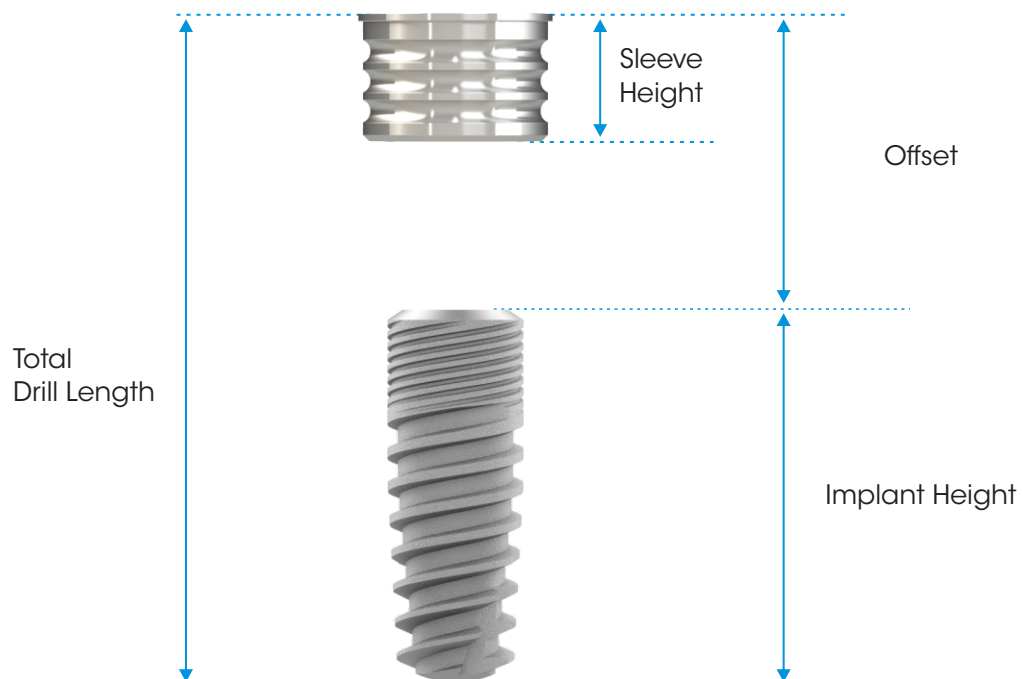
My sincere thanks to all specialists, dentists and technicians who put their trust in our company.

  
**Graham Blackbeard**  
Managing Director, Southern Implants

# CONTENTS

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Introduction.....	Page 05
Indications and Intended Use.....	Page 05
Considerations.....	Page 05
Guided Surgery Workflow.....	Page 06
Surgical Guides.....	Page 07
 Pilot Drill Guided Surgery Clinical Steps.....	Page 08
 Partially / Fully Guided Surgery Clinical Steps.....	Page 10
Surgical Guides.....	Page 12
Clinical Procedure.....	Page 13
Additional Instrumentation.....	Page 16
Surgical Tray.....	Page 17
 Site Preparation Protocols.....	Page 18
<b>Guided Workflows</b>	
External Hex.....	Page 20
PROVATA®.....	Page 24
Internal Hex (M-series).....	Page 26
TRI-NEX.....	Page 28
Deep Conical.....	Page 30
INVERTA® External Hex.....	Page 32
INVERTA® Deep Conical.....	Page 34
General Information and Warnings.....	Page 36
Explanation of Labeling Symbols.....	Page 39



Please note:

- Images are for illustration purposes only and do not necessarily accurately represent the product.
- All dimensions in this catalogue are in mm, unless otherwise specified.
- Not all products are cleared for sale in all countries.

## INTRODUCTION

The **Southern Implants** guided surgery solution **SIREAL** guide provides the complete computer-assisted dental implant planning and placement solution for Southern Implants, Tapered implants. This is by virtual prosthesis and on-screen design of surgical guides, allowing prosthetically driven implant placements.

### Solution Description

A surgical guide transfers pre-operative, software planned dental implant placement to the patient intraoperatively. There are three types of surgical guides: Bone supported, Mucosa supported, and Tooth-supported. All surgical guides are patient specific.

The surgical guide consists of a 3D printed/milled acrylic guide and metal guide sleeves.

There are three guided surgery options available:

- Pilot drill guided
- Partially guided
- Fully guided

### Partially and Fully Guided

This is for placement of Southern Implants tapered and cylindrical implants, partially and fully guided.

Tapered implants supported:

- DC (Deep Conical)
- External Hex
- TRI-NEX
- Inverta®
- IT (Internal Octagon)
- PROVATA™
- Internal Hex

### INDICATIONS AND INTENDED USE

For the safe and effective use of dental implants, it is strongly suggested that specialized training be undertaken, including practical training to learn proper technique, biomechanical requirements, and radiographic evaluation.

Instructions for handling of Southern Implants Tapered implants should be studied, refer to [SOUTHERNIMPLANTS.COM](http://SOUTHERNIMPLANTS.COM).

Southern Implants dental implant systems are indicated for immediate replacement of compromised teeth in the mandible or maxilla, and are intended to provide support for fixed or removable dental prosthesis in the form of a single tooth, partial arch or full arch restoration.

Southern Implants Guided range of instruments and implant libraries are available for various 3rd party software companies. For detailed information and instructions for use please contact these companies directly.

### CONTRAINDICATIONS

Do not use in patients:

- Who are medically unfit for dental implant procedures (e.g. uncontrolled diabetes and untreated infection in nearby bone).
- Who are allergic to or have hypersensitivity to titanium.
- Where adequate numbers of implants cannot be placed to achieve full functional support for a prosthesis.
- Where site specific contraindications exist.

- with insufficient vertical opening.

Dental implant therapy has normal contraindications and risks that are extensively documented in dental implant literature.

### Treatment planning

Diagnostic and patient specific conditions influence the guided treatment plan. The type of restoration, provisionals, number of implants and imaging procedures, must be taken into consideration during planning.

The following considerations should be reviewed during pre-planning:

- Quantity, quality and health of soft and hard tissues.
- Occlusal analysis.
- Oral hygiene assessment.
- The patient's vertical opening of the mouth needs to be sufficient to accommodate the instruments used during guided surgery.

### CTSCANNING

Several imaging technologies are available in order to get accurate scan data, the dental professional or radiologist and patient needs to follow the instructions of the imaging system used.

**Warning:** There may be distortion in the CT image data. These distortions could lead to fit and trajectory problems. It is recommended to validate the guide fit and trajectory, by taking a CT scan of the patient wearing the guide before surgery. Open the CT scan image and review the guide sleeve positions and orientations. Measure guide sleeve distance and orientation in the CT scan and compare to the offset / prolongation selected during the planning phase.

The dental professional must follow Southern Implants sleeve offsets and prolongations, failing to do so will result in patient injury. The guide manufacturer ensures compatibility with Southern Implants guided instruments by using SIREAL Guide sleeves, and instruments positioned according to offsets and prolongations described in this manual.

Verify the fit of the guide by seating it on the patients jaw. It is recommended to validate the fit and sleeve positions with a CT scan of the patient with the guide in-situ. If the guide was manufactured on a stone model, the inaccuracy of the model or poor image quality from the scan data may result in the guide not fitting. Do not proceed, remake the guide.

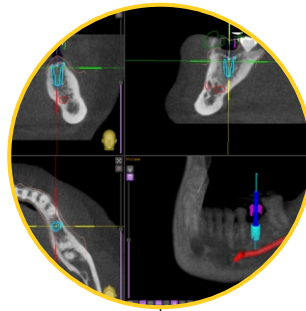
After fixing the guide into place, proceed using SIREAL drills and instrumentation to prepare the osteotomy. The surgical protocol together with the surgical guide will govern which instruments are required to prepare each implant site.

### Pilot Drill Guided

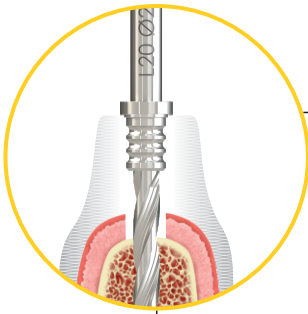
This is the guided solution for ONLY the initial pilot drill, where optimal osteotomy angulation, direction and depth can be planned and initiated.

**Surgical Guide Planning**

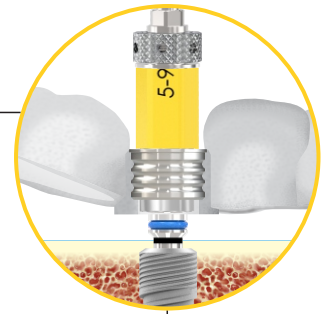
**Implant planning**



**Pilot Guided**



**Partially / Fully Guided**



**Sleeve**  
Ø3.0mm



**Sleeveless**  
Ø2.0mm



**Sleeve**  
Ø5.1mm & Ø6.2mm



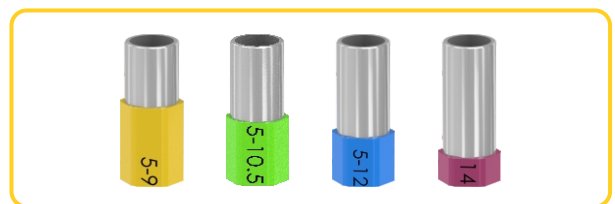
**Sleeveless**  
Ø4.2mm & Ø5.2mm



**Determine Guide offset**  
(adjustable or fixed pilot drills)



**Select Guide offsets**  
9mm; 10.5mm; 12mm; 14mm



**Commission Guide**



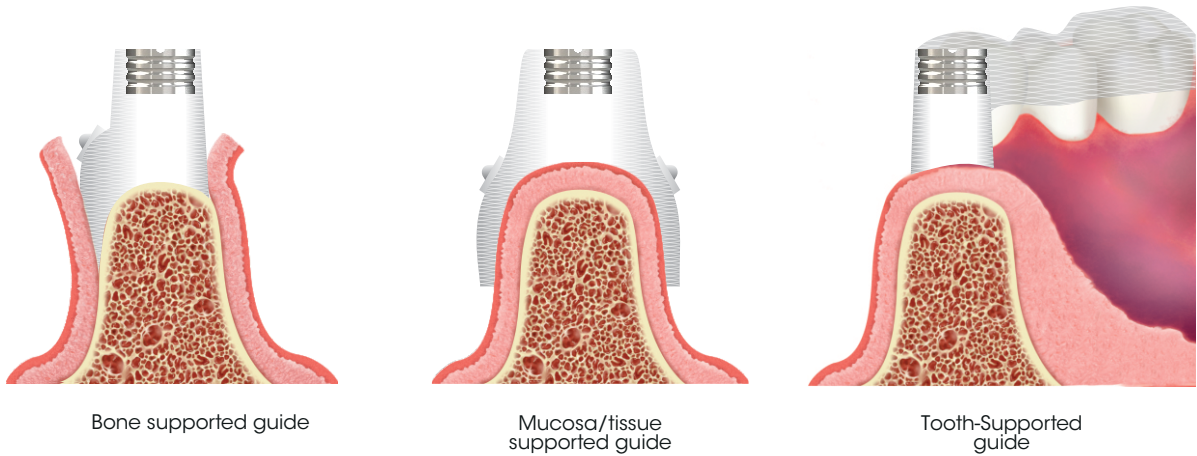
**Insert sleeves (if required)**

**NOTE: Sterilise all components before use**

# SURGICAL GUIDES

## Surgical Guide Types

The surgical guide type selection, depends on the dental professional's preference, patient anatomy, and the available planning software.



Closed and C-Sleeves (open sleeves) are available.



C-Sleeve: Indications for use:

- should be used with Co-Axis implants.
- should be positioned to allow access to the fixture mount screw. This will assist the user to remove the fixture mount when placing the implant fully guided.
- is also indicated in the posterior region, where vertical opening is a challenge, the universal guide tool and drill can be brought in from the side, this allows the practitioner to gain additional space of the offset distance.
- also allows irrigation at the osteotomy site while drilling.



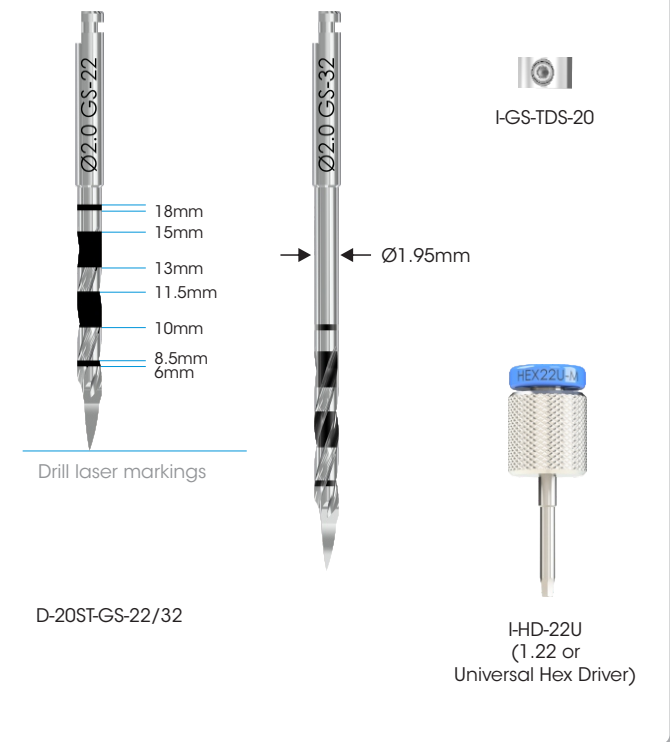
## Surgical Guide Fixation

To stabilise the surgical guide, Southern Implants fixation pins are available. D-12T-M15 drill is used to drill through the fixation pin sleeve while guide is in situ. After drilling, insert the pin.

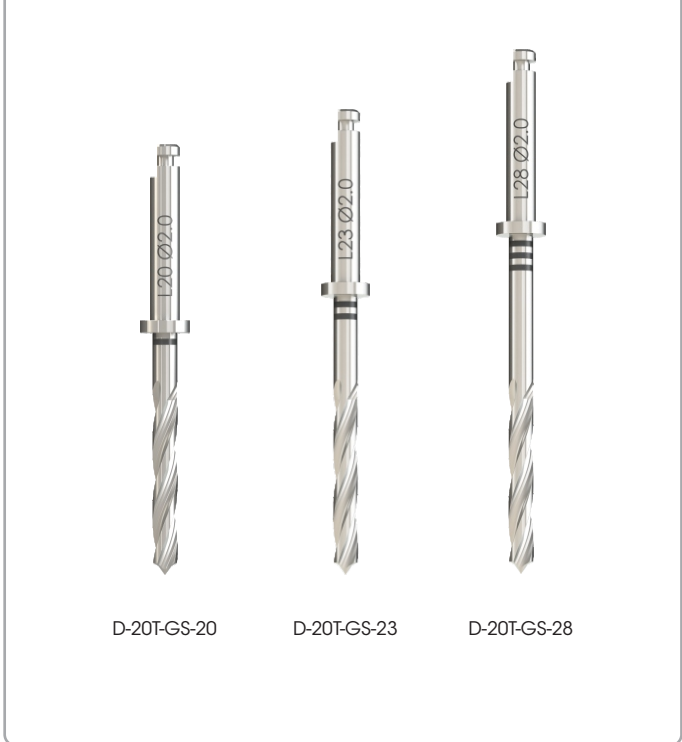
Recommended to use 3 pins for full arch guide. If a tooth supported guide requires additional stability, a minimum of 2 pins should be used.



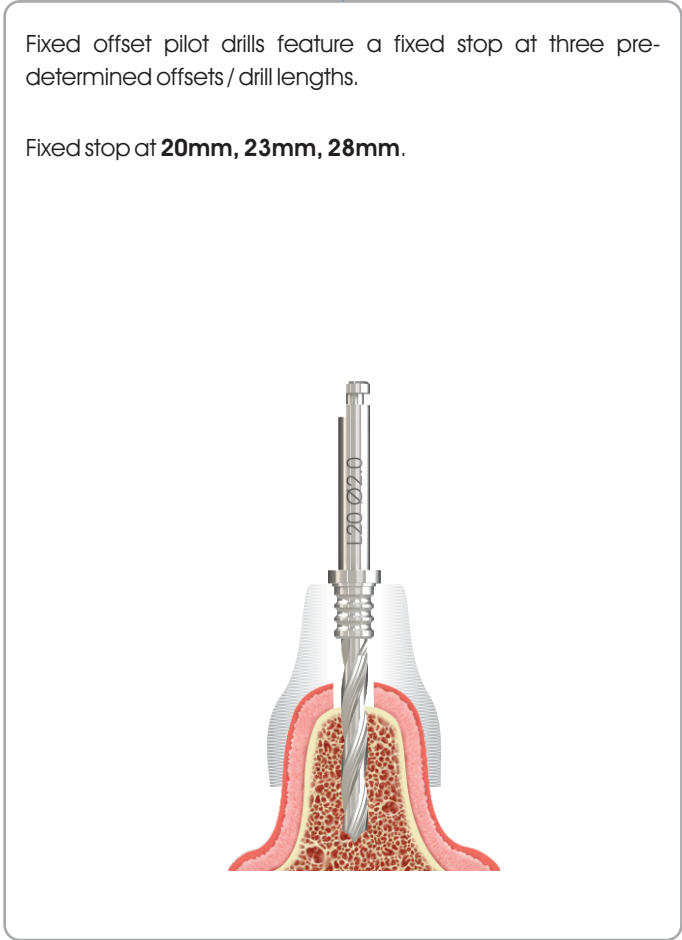
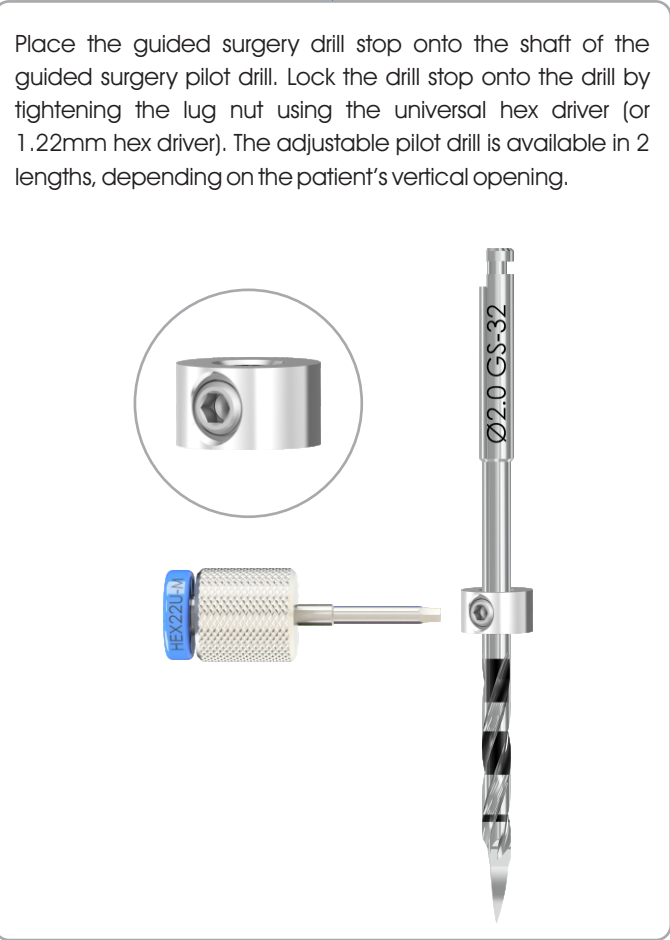
**Adjustable Pilot Drill Component list**



**Fixed Pilot Drill Component list**



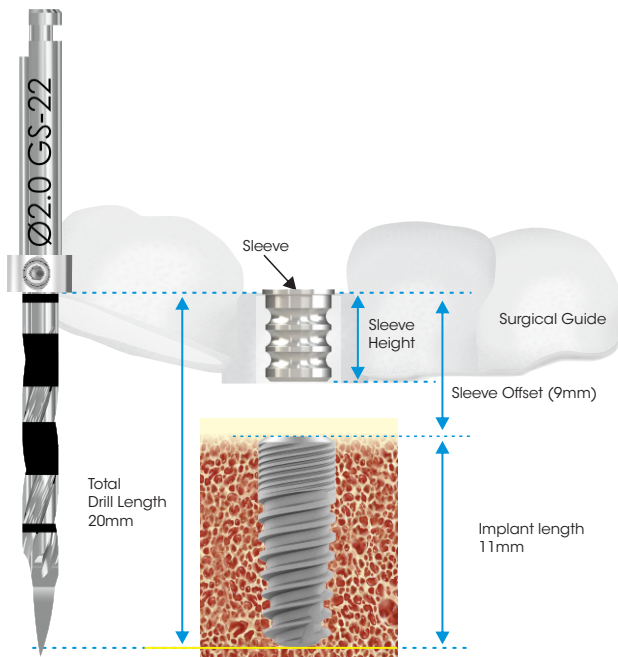
**Step 1: Pilot Drills**





## Step 2: Setting the drill depth of the adjustable pilot drill

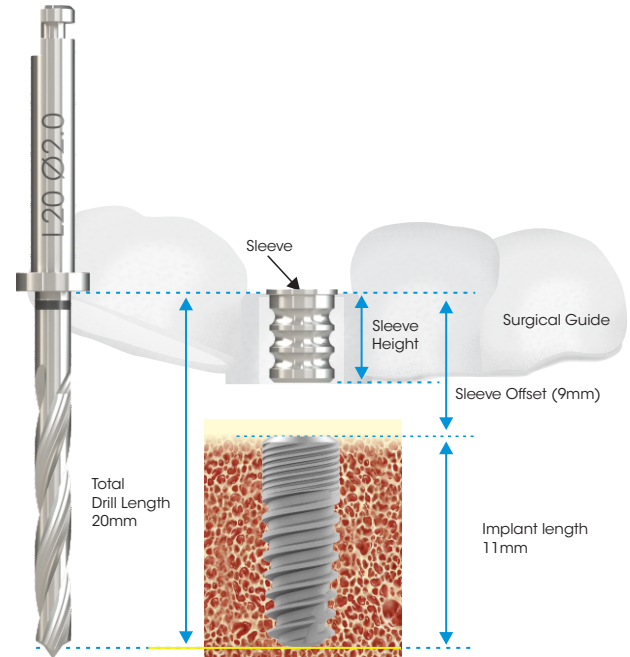
From your surgical plan, calculate the total depth that the pilot drill should drill. This is calculated by adding the length of implant and the height of the offset. Use an accurate measuring tool to set the guided surgery drill stop to the total drill length.



Total drill length is equal to implant length plus offset selected.

## Step 2: Fixed Offset Drills - Selecting the Guided offset

For planning software which allows the offset height to be adjusted. Adjust the offset height so that the total drill length height is equal to one of the set drill lengths. (20,23,28mm)



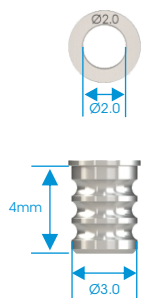
Total drill length is equal to implant length plus offset selected.

For planning software with fixed offsets, use the offset and the combination of implant lengths to achieve the correct total drill depth.

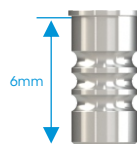
**Note:** Take anatomical constraints into consideration.

## Pilot Drill Guide Sleeves

### Pilot



I-GS-3020-L4



I-GS-3020-L6

Component list

Universal Guided Surgery Tool

I-DE-GS4



Ø4.1 offset sleeves: use with



I-GSS04-9



I-GSS04-10.5



I-GSS04-12



I-GSS04-14

Ø5.1 offset sleeves: use with



I-GSS05-9



I-GSS05-10.5



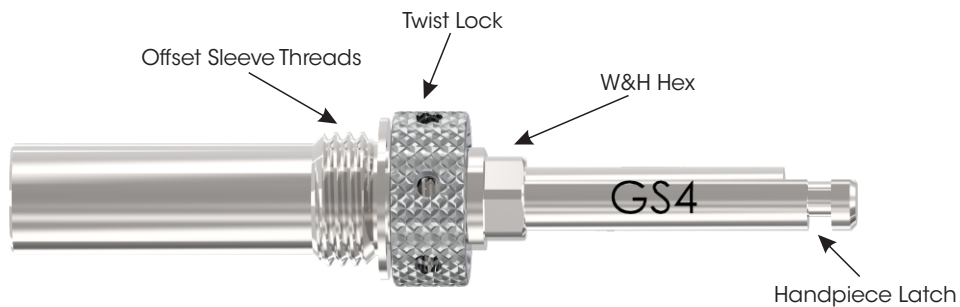
I-GSS05-12



I-GSS05-14

The Concept

The universal guided surgery tool, I-DE-GS4, from Southern Implants is the solution to the SIREAL Guided surgery system. This tool allows clinicians to utilise their standard Southern Implants drill kit, and convert the drills into guided surgery drills. This unique system extends to other tools used in the surgery.

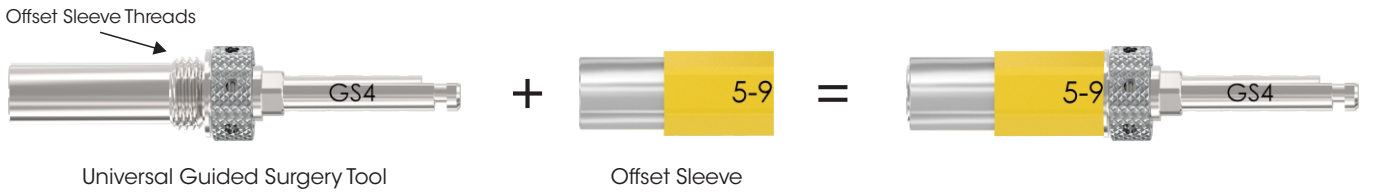


The universal guided surgery tool features a “twist lock” mechanism which locks the latch grip of the drills and placement tools into the I-DE-GS4 tool.

The W&H hex allows for handpieces with the W&H connection to engage the tool, this allows torque to be applied through the instrument.

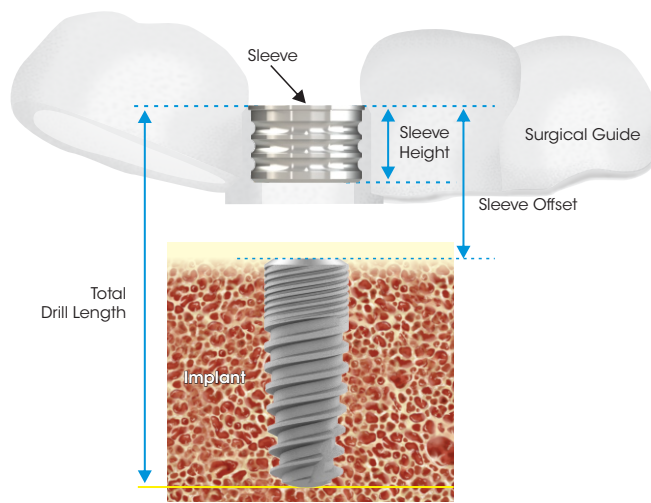
**Note:** High torque can only be applied to instruments with a W&H connection to a maximum of their specific torque rating, and no higher than 100Ncm. Instruments and drills without the W&H hex (universal tools) do not exceed 40Ncm.

The offset sleeve threads are used to engage the four varied Offset Sleeves for setting the depth of the tool.

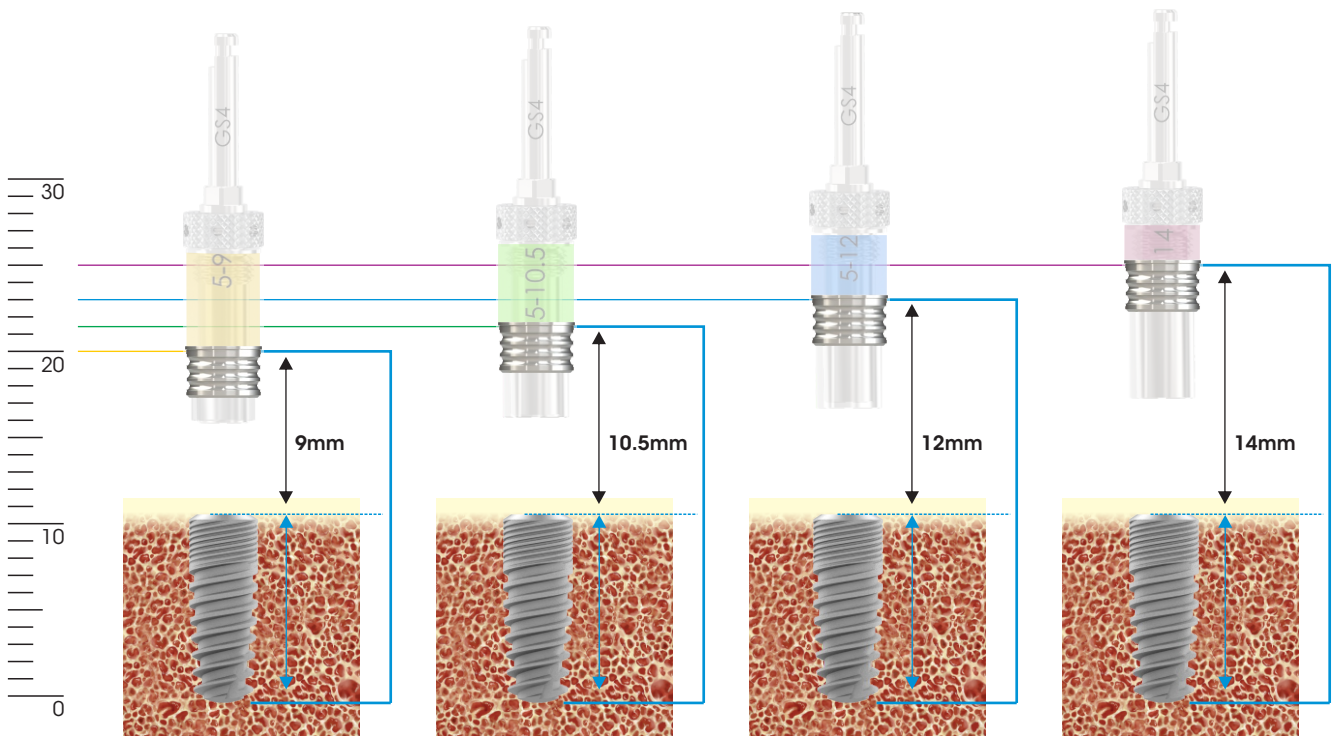


Four Offset Sleeves are available: **9mm**, **10.5mm**, **12mm** and **14mm**. This is to accommodate the patient's vertical opening or adjacent teeth height that could interfere with the guide sleeve.

Offset is measured from implant platform to top of the sleeve.



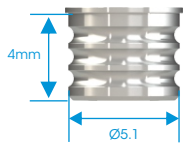
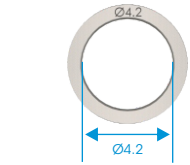
Illustrating how to determine sleeve offset and maximum drill length



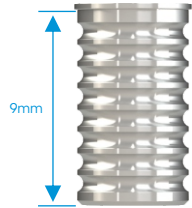
**Partially / Fully Guided Sleeves**

 **Partially**

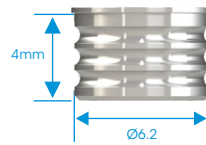
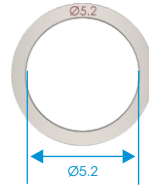
 **Fully guided**



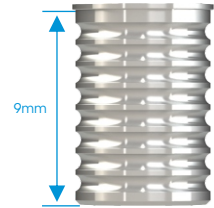
I-GS-5142-L4



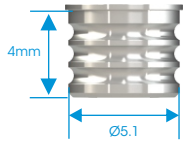
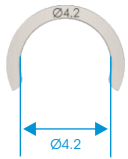
I-GS-5142-L9



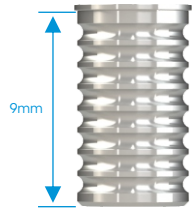
I-GS-6252-L4



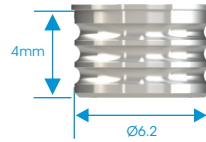
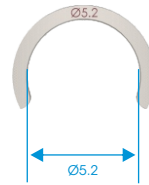
I-GS-6252-L9



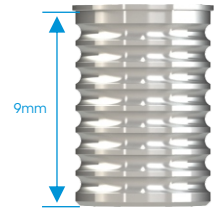
I-GSC-5142-L4



I-GSC-5142-L9



I-GSC-6252-L4



I-GSC-6252-L9

## CLINICAL PROCEDURE

### Setting of the universal surgery guided tool:

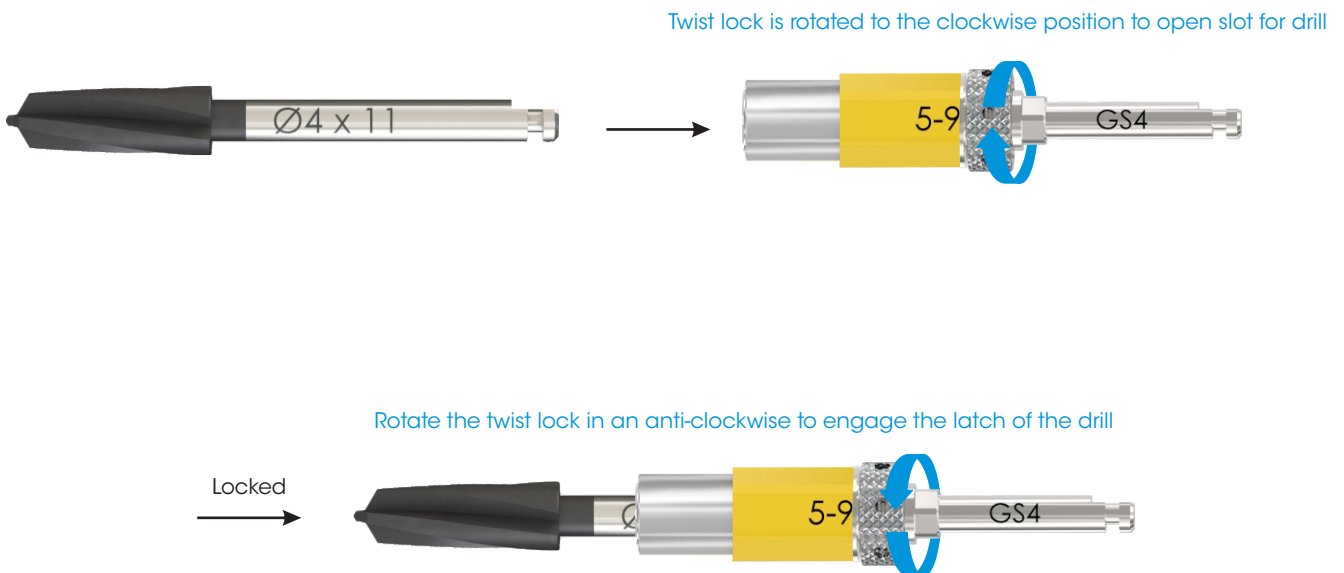
#### Step 1: Setting the offset

To set the universal guided surgery tool offset, select the Offset Sleeve from the surgical plans. This offset should correspond to the four different options available. Screw on in a clockwise direction.



#### Step 2: Inserting an instrument

The universal guided surgery tool is designed primarily for use with drills and placement tools, to allow for partially or fully guided surgeries.

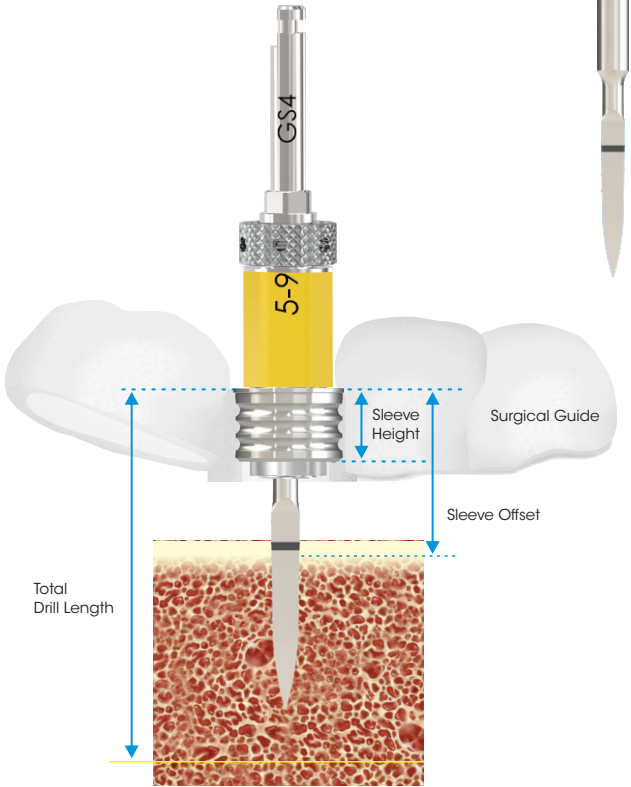


Insert the drill or placement tool into the I-DE-GS4, make sure the twist lock is rotated fully to the **clockwise** position. Insert the drill/placement tool until it seats inside the tool (this might require rotation until the seat lines up with the latch).

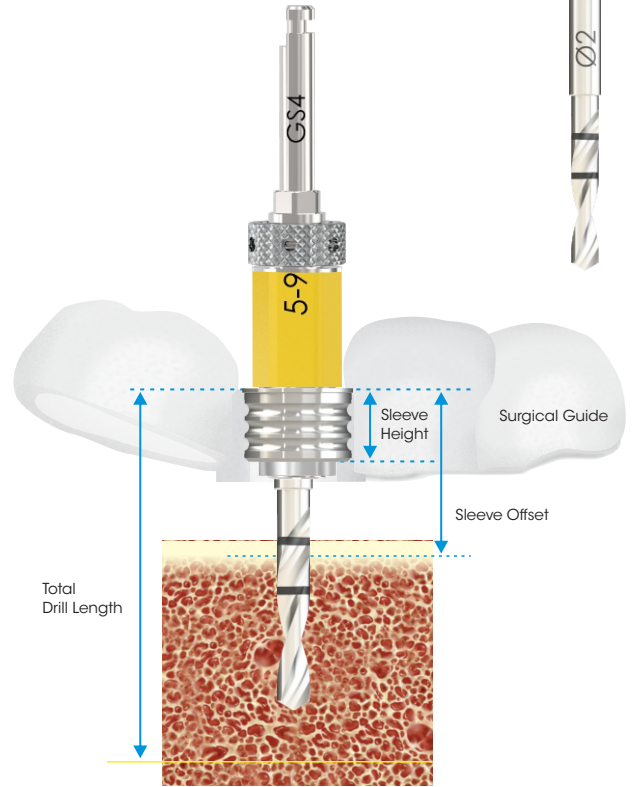
Once the latch is seated, rotate the twist lock in an **anti-clockwise** direction until locked into position. To release the instrument, rotate 45° in a clockwise direction and remove.

# CLINICAL PROCEDURE

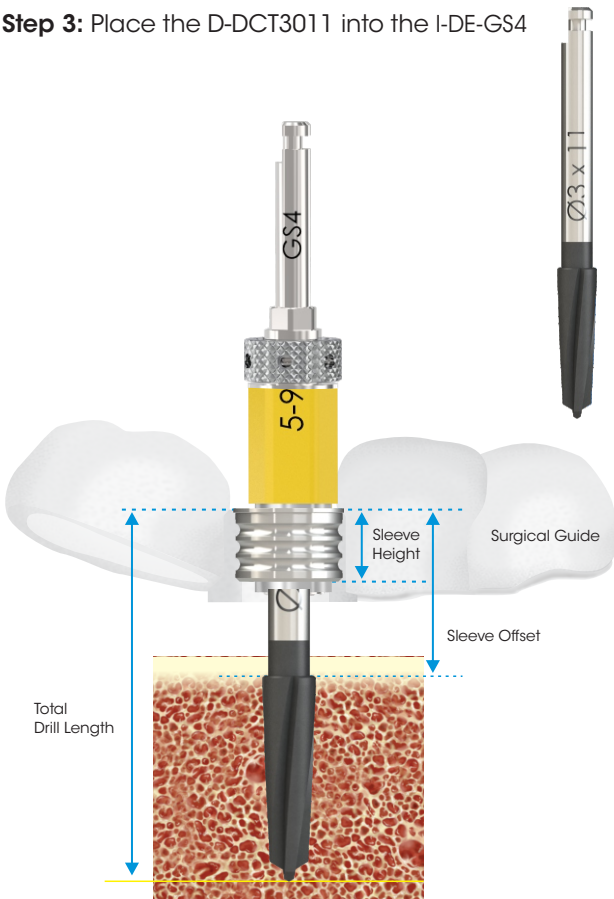
**Step 1:** Insert the D-3SPADE-1.8M into the I-DE-GS4 and proceed with pilot drilling.



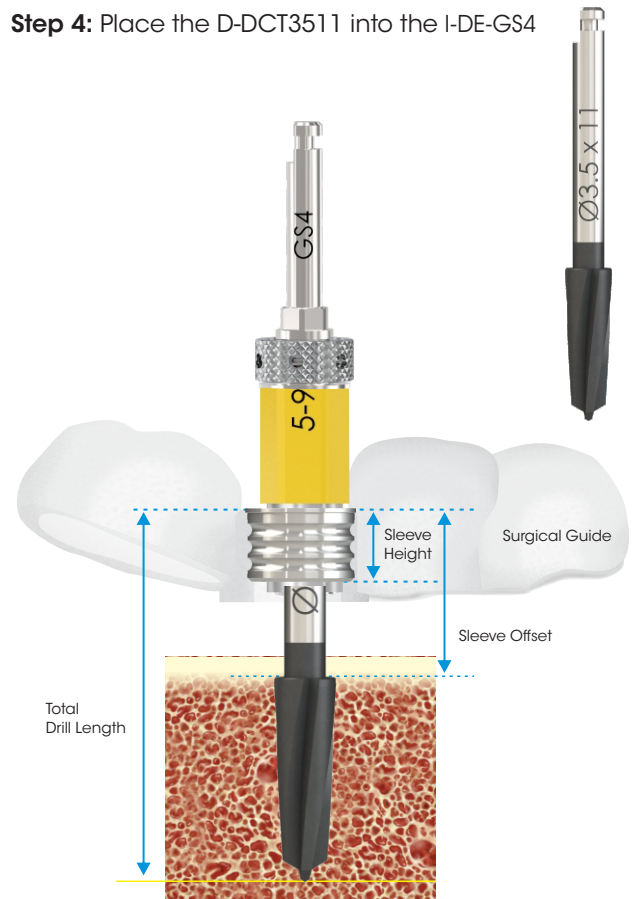
**Step 2 (optional):** Place the D-20T-M10 into the I-DE-GS4



**Step 3:** Place the D-DCT3011 into the I-DE-GS4

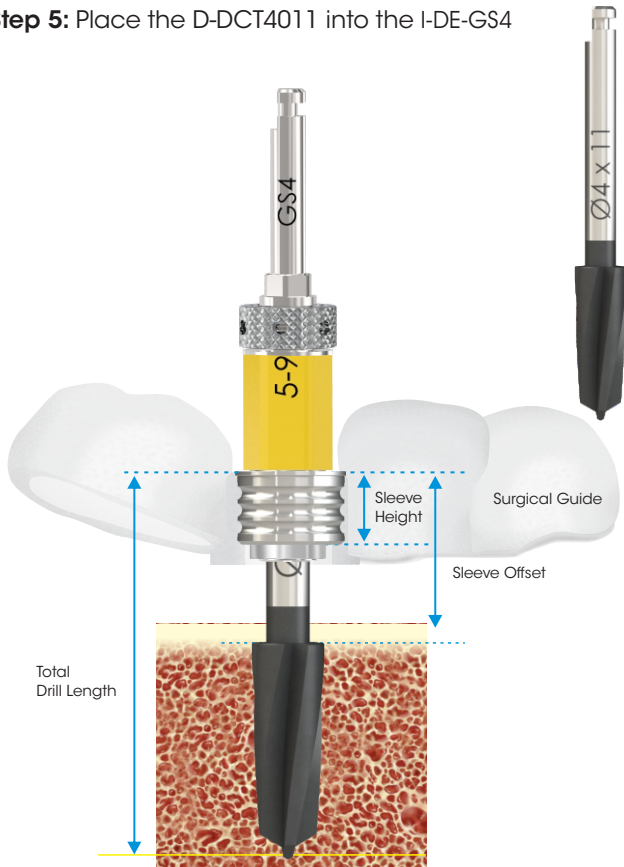


**Step 4:** Place the D-DCT3511 into the I-DE-GS4

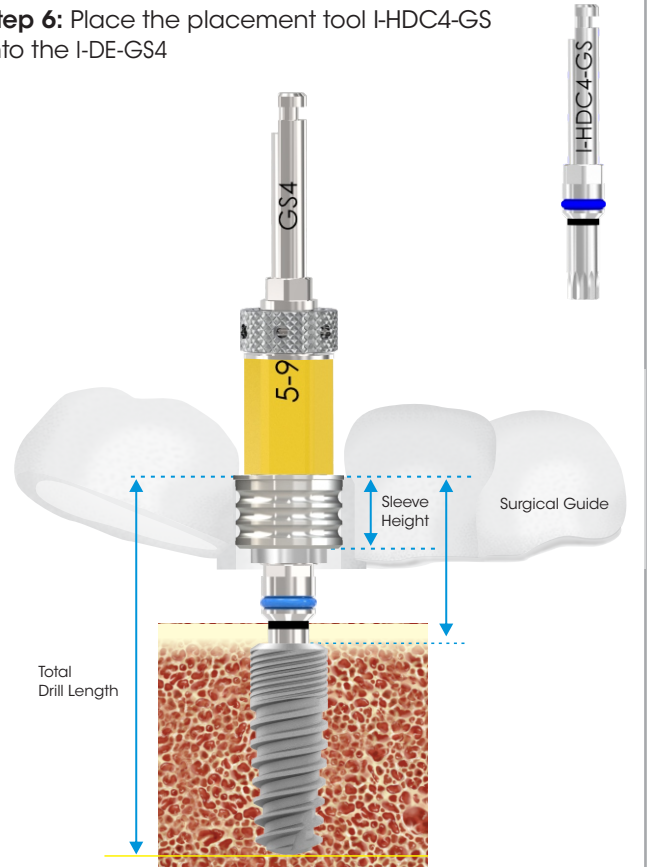


## CLINICAL PROCEDURE

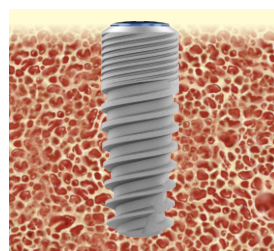
**Step 5:** Place the D-DCT4011 into the I-DE-GS4



**Step 6:** Place the placement tool I-HDC4-GS into the I-DE-GS4






**Step 7:** Good primary stability will govern if immediate loading can be done or not.



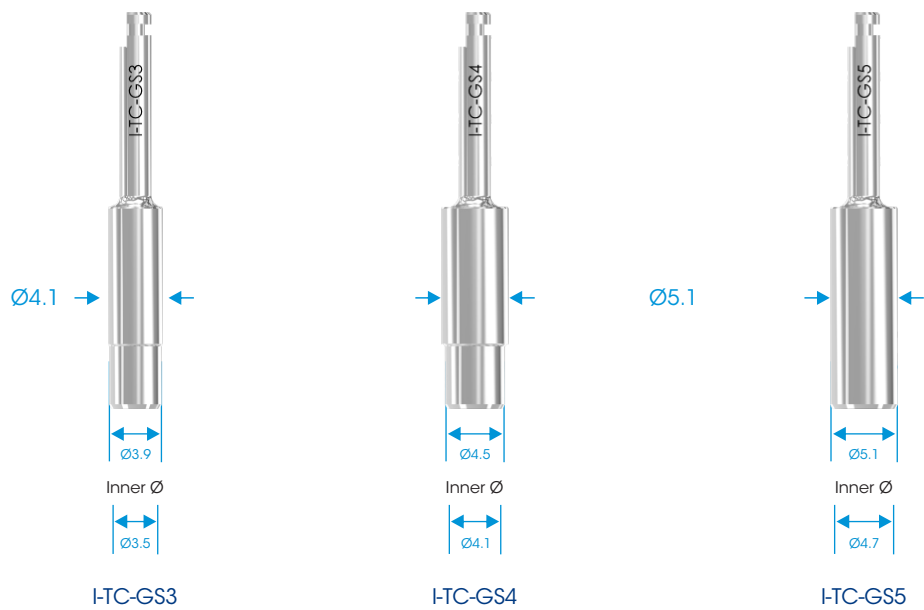
NOTE: For implant torque, refer to surgical manual

# ADDITIONAL INSTRUMENTATION

## PLACEMENT TOOLS

DC (Deep Conical)	External Hex	Internal Hex & PROVATA™	TRI-NEX	IT (Internal Octagon)
 <p data-bbox="183 705 295 806">IHDC3-GS IHDC4-GS IHDC5-GS</p>	<p data-bbox="454 526 598 548">Coming soon</p>	 <p data-bbox="726 705 837 728">IH-PRO-GS</p> <p data-bbox="726 1220 869 1243">IH-PRO12D-GS</p>	 <p data-bbox="1013 705 1125 806">I-HLH-35GS I-HLH-43GS I-HLH-50GS</p> <p data-bbox="1013 1187 1141 1243">I-L43-12D-GS I-L50-12D-GS</p>	<p data-bbox="1268 526 1412 548">Coming soon</p>

## TISSUE CUTTERS (Optional)





DC RANGE SURGICAL TRAY

for demonstration purposes only

**Pilot Drills**  
D-3Spade-1.8M

**Ø2.0mm Twist Drill**  
D-20T-M10  
D-20T-M15  
D-DC20  
D-16-T

**Fixation Drills**  
D-12T-M15  
Minimum of 2 required per surgery

**Placement Tools**  
IHDC3-GS  
IHDC4-GS  
IHDC5-GS  
Handpiece Insert

**Primary Drills**  
Ø2.0

**Additional Drills**  
Ø3.0 Ø3.5 Ø4.0 Ø5.0  
Ø2.5 Ø2.7 Ø3.4 Ø4.2

**Placement Tools**

**Drivers**  
Drill / Implant length measure

**Dedicated Tapered Drills**

<b>Ø3.0</b> D-DCT3009 D-DCT3011 D-DCT3013	<b>Ø3.5</b> D-DCT3508 D-DCT3509 D-DCT3511 D-DCT3513 D-DCT3515	<b>Ø4.0</b> D-DCT4006 D-DCT4008 D-DCT4009 D-DCT4011 D-DCT4013 D-DCT4015	<b>Ø5.0</b> D-DCT5009 D-DCT5011 D-DCT5013 D-DCT5015
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TWIST & TAPERED DRILLS

**CAUTION:** When drilling close to crucial anatomical landmarks, consider that the drill preparation site may be up to 1mm deeper than the corresponding implant length.

**Final Tapered Drill Position**

**PLEASE NOTE:**

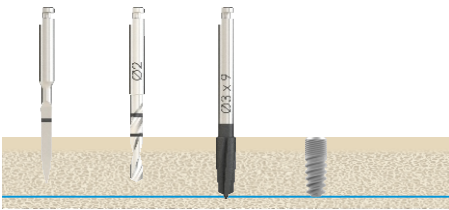
**Point 1**  
This corner of the drill be at bone level.

**Point 2**  
This corner of the drill be subcrestal.

Ø3.0mm Tapered (DCT30)

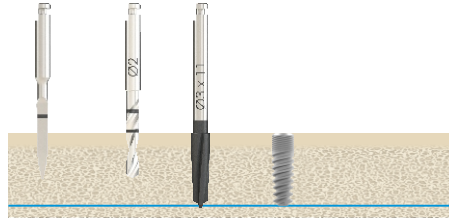
DCT3009

D-3Spade  
Ø2.0mm  
Ø3.0mm



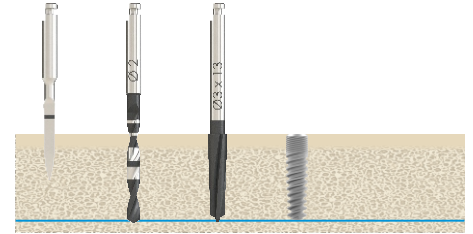
DCT3011

D-3Spade  
Ø2.0mm  
Ø3.0mm



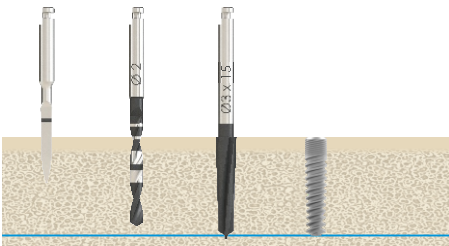
DCT3013

D-3Spade  
Ø2.0mm  
Ø3.0mm



DCT3013

D-3Spade  
Ø2.0mm  
Ø3.0mm



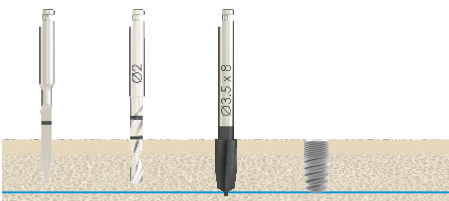
**Important:**

- **D-20TM10:** 10mm twist drills are indicated for implant lengths of 11.5mm and shorter.
- **D-20TM15:** 15mm twist drills are indicated for 12mm implants and longer.

Ø3.5mm Tapered (DCT35)

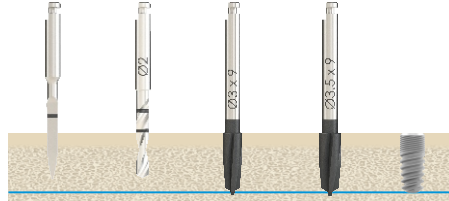
DCT3508

D-3Spade  
Ø2.0mm  
Ø3.5mm



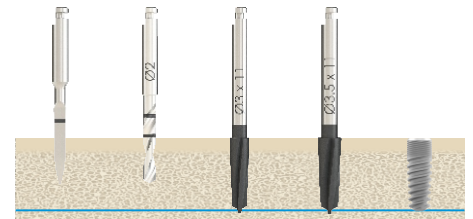
DCT3509

D-3Spade  
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Ø3.0mm  
Ø3.5mm



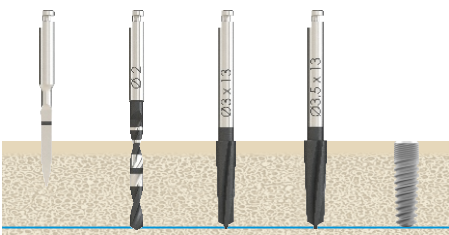
DCT3511

D-3Spade  
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Ø3.0mm  
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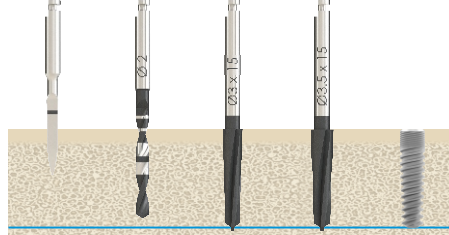
DCT3513

D-3Spade  
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Ø3.0mm  
Ø3.5mm



DCT3515

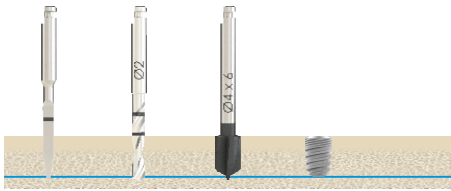
D-3Spade  
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Ø3.0mm  
Ø3.5mm



**Ø4.0mm Tapered (DCT40)**

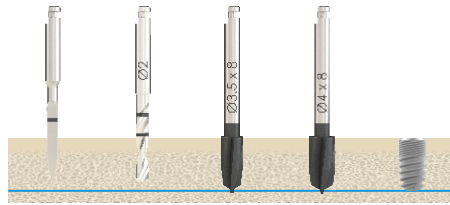
**DCT4006**

D-3Spade  
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Ø4.0mm



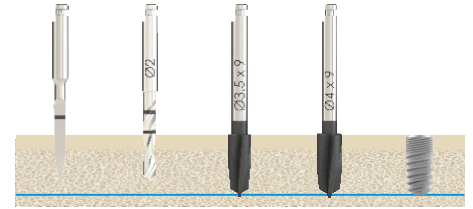
**DCT4008**

D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm



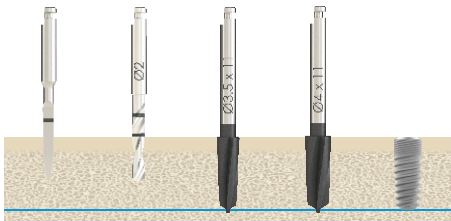
**DCT4009**

D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm



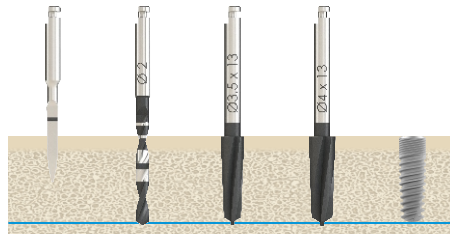
**DCT4011**

D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm



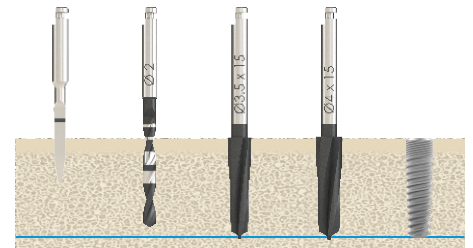
**DCT4013**

D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm



**DCT4015**

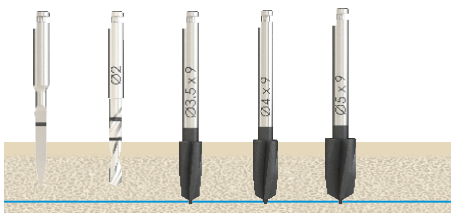
D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm



**Ø5.0mm Tapered (DCT50)**

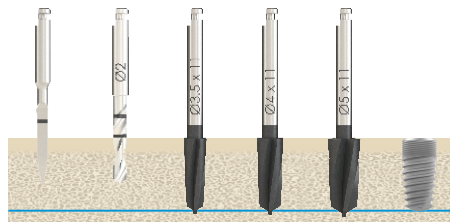
**DCT5009**

D-3Spade  
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Ø3.5mm  
Ø4.0mm  
Ø5.0mm



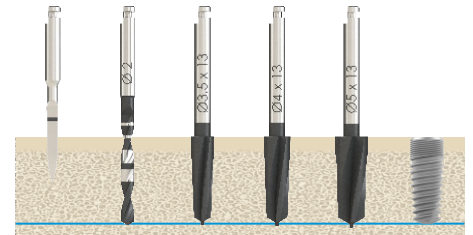
**DCT5011**

D-3Spade  
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Ø3.5mm  
Ø4.0mm  
Ø5.0mm



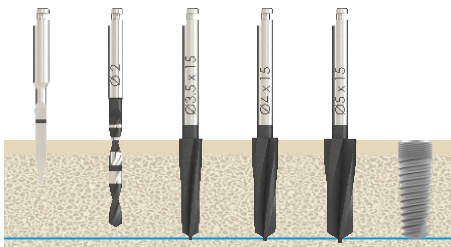
**DCT5013**

D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm  
Ø5.0mm



**DCT5013**

D-3Spade  
Ø2.0mm  
Ø3.5mm  
Ø4.0mm  
Ø5.0mm



Implant Code	Initiate the osteotomy	Drill sequence per bone densities	
	Initial Drill	Optional Drill for medium and dense cortical bone, (continue with final Drill in <b>soft bone</b> )	Final Drill for medium and dense bone
IP8.5	D-3SPADE-1.8M	D-20FM10	D-30TP-8.5
IP10	D-3SPADE-1.8M	D-20FM10	D-30TP-10
IP11.5	D-3SPADE-1.8M	D-20FM10	D-30TP-11.5
IP13	D-3SPADE-1.8M	D-20FM15	D-30TP-13
IP15	D-3SPADE-1.8M	D-20FM15	D-30TP-15

Implant Code	Initiate the osteotomy	Drill sequence per bone densities		
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone
IBNT8.5	D-3SPADE-1.8M	D-20FM10	D-30TP-8.5	D-33TP-8.5
IBNT10	D-3SPADE-1.8M	D-20FM10	D-30TP-10	D-33TP-10
IBNT11.5	D-3SPADE-1.8M	D-20FM10	D-30TP-11.5	D-33TP-11.5
IBNT13	D-3SPADE-1.8M	D-20FM15	D-30TP-13	D-33TP-13
IBNT15	D-3SPADE-1.8M	D-20FM15	D-30TP-15	D-33TP-15
IBNT18	D-3SPADE-1.8M	D-20FM15	D-30TP-18	D-33TP-18

Implant Code	Initiate the osteotomy	Drill sequence per bone densities		
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone
IBT6	D-3SPADE-GS	D-20FM10		D-40TP-6
IBT8.5	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5
IBT10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10
IBT11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5
IBT13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13
IBT15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15
IBT18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18

Implant Code	Initiate the osteotomy	Drill sequence per bone densities			
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone
BAT6	D-3SPADE-GS	D-20FM10		D-40TP-6	D-50TP-6
BAT8.5	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5
BAT10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10
BAT11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5
BAT13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13
BAT15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15
BAT18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18

Implant Code	Initiate the osteotomy		Drill sequence per bone densities				Final Drill NOT through the guide Final Drill for medium and dense bone
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3rd Drill	4th Drill	Final Drill for soft bone	
BBBT6	D-3SPADE-GS	D-20FM10		D-40TP-6	D-50TP-6	D-60TP-6	D-60TP-6
BBBT8.5	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5	D-60TP-8.5	D-60TP-8.5
BBBT10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10	D-60TP-10	D-60TP-10
BBBT11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	D-60TP-11.5	D-60TP-11.5
BBBT13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13	D-60TP-13	D-60TP-13
BBBT15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15	D-60TP-15	D-60TP-15
BBBT18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18	D-60TP-18	D-60TP-18

Drill sequence per bone densities						
Implant Code	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone
IBNT12D-8.5	D-3SPADE-1.8M	D-20FM10	D-30TP-8.5	D-33TP-8.5	D-33TP-8.5	D-33TP-8.5
IBNT12D-10	D-3SPADE-1.8M	D-20FM10	D-30TP-10	D-33TP-10	D-33TP-10	D-33TP-10
IBNT12D-11.5	D-3SPADE-1.8M	D-20FM10	D-30TP-11.5	D-33TP-11.5	D-33TP-11.5	D-33TP-11.5
IBNT12D-13	D-3SPADE-1.8M	D-20FM15	D-30TP-13	D-33TP-13	D-33TP-13	D-33TP-13
IBNT12D-15	D-3SPADE-1.8M	D-20FM15	D-30TP-15	D-33TP-15	D-33TP-15	D-33TP-15
IBNT12D-18	D-3SPADE-1.8M	D-20FM15	D-30TP-18	D-33TP-18	D-33TP-18	D-33TP-18

Drill sequence per bone densities						
Implant Code	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone
IBT12D-8.5	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-40TP-8.5	D-40TP-8.5
IBT12D-10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-40TP-10	D-40TP-10
IBT12D-11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-40TP-11.5	D-40TP-11.5
IBT12D-13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-40TP-13	D-40TP-13
IBT12D-15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-40TP-15	D-40TP-15
IBT12D-18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-40TP-18	D-40TP-18

Drill sequence per bone densities						
Implant Code	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone
IBR12D-8.5	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-40TP-8.5	D-40TP-8.5
IBR12D-10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-40TP-10	D-40TP-10
IBR12D-11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-40TP-11.5	D-40TP-11.5
IBR12D-13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-40TP-13	D-40TP-13
IBR12D-15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-40TP-15	D-40TP-15
IBR12D-18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-40TP-18	D-40TP-18

Implant Code	Initiate the osteotomy			Drill sequence per bone densities		
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone
IBR24D-8.5	D-3SPADE-1.8M	D-20F-M10	D-33TP-8.5	D-40TP-8.5	D-33TP-8.5	D-40TP-8.5
IBR24D-10	D-3SPADE-1.8M	D-20F-M10	D-33TP-10	D-40TP-10	D-33TP-10	D-40TP-10
IBR24D-11.5	D-3SPADE-1.8M	D-20F-M10	D-33TP-11.5	D-40TP-11.5	D-33TP-11.5	D-40TP-11.5
IBR24D-13	D-3SPADE-1.8M	D-20F-M15	D-33TP-13	D-40TP-13	D-33TP-13	D-40TP-13
IBR24D-15	D-3SPADE-1.8M	D-20F-M15	D-33TP-15	D-40TP-15	D-33TP-15	D-40TP-15
IBR24D-18	D-3SPADE-1.8M	D-20F-M15	D-33TP-18	D-40TP-18	D-33TP-18	D-40TP-18

Implant Code	Initiate the osteotomy			Drill sequence per bone densities		
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone
BAT12D-10	D-3SPADE-1.8M	D-20F-M10	D-33TP-10	D-40TP-10	D-50TP-10	D-50TP-10
BAT12D-11.5	D-3SPADE-1.8M	D-20F-M10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	D-50TP-11.5
BAT12D-13	D-3SPADE-1.8M	D-20F-M15	D-33TP-13	D-40TP-13	D-50TP-13	D-50TP-13
BAT12D-15	D-3SPADE-1.8M	D-20F-M15	D-33TP-15	D-40TP-15	D-50TP-15	D-50TP-15
BAT12D-18	D-3SPADE-1.8M	D-20F-M15	D-33TP-18	D-40TP-18	D-50TP-18	D-50TP-18

Implant Code	Initiate the osteotomy			Drill sequence per bone densities		
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone
BAR12D-8.5	D-3SPADE-1.8M	D-20F-M10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5	D-50TP-8.5
BAR12D-10	D-3SPADE-1.8M	D-20F-M10	D-33TP-10	D-40TP-10	D-50TP-10	D-50TP-10
BAR12D-11.5	D-3SPADE-1.8M	D-20F-M10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	D-50TP-11.5
BAR12D-13	D-3SPADE-1.8M	D-20F-M15	D-33TP-13	D-40TP-13	D-50TP-13	D-50TP-13
BAR12D-15	D-3SPADE-1.8M	D-20F-M15	D-33TP-15	D-40TP-15	D-50TP-15	D-50TP-15
BAR12D-18	D-3SPADE-1.8M	D-20F-M15	D-33TP-18	D-40TP-18	D-50TP-18	D-50TP-18

Implant Code	Drill sequence per bone densities				
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone
BAR24D-8.5	Initial Drill	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5
BAR24D-10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10
BAR24D-11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5
BAR24D-13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13
BAR24D-15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15
BAR24D-18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18

Implant Code	Drill sequence per bone densities				
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone
BAR36D-8.5	Initial Drill	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5
BAR36D-10	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10
BAR36D-11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5
BAR36D-13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13
BAR36D-15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15
BAR36D-18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18

Implant Code	Drill sequence per bone densities					Final Drill NOT through the guide Final Drill for medium and dense bone
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill	4th Drill Final Drill for soft bone	
BBBT12D-10	Initial Drill	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10	D-60TP-10
BBBT12D-11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	D-60TP-11.5
BBBT12D-13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13	D-60TP-13
BBBT12D-15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15	D-60TP-15
BBBT12D-18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18	D-60TP-18

Implant Code	Drill sequence per bone densities					Final Drill NOT through the guide Final Drill for medium and dense bone
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill	4th Drill Final Drill for soft bone	
BBBT24D-10	Initial Drill	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10	D-60TP-10
BBBT24D-11.5	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	D-60TP-11.5
BBBT24D-13	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13	D-60TP-13
BBBT24D-15	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15	D-60TP-15
BBBT24D-18	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18	D-60TP-18

Implant Code	Drill sequence per bone densities			
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone
PRO308	D-3SPADE-1.8M	D-20FM10	D-30TP-8.5	D-33TP-8.5
PRO310	D-3SPADE-1.8M	D-20FM10	D-30TP-10	D-33TP-10
PRO311	D-3SPADE-1.8M	D-20FM10	D-30TP-11.5	D-33TP-11.5
PRO313	D-3SPADE-1.8M	D-20FM15	D-30TP-13	D-33TP-13
PRO315	D-3SPADE-1.8M	D-20FM15	D-30TP-15	D-33TP-15
PRO318	D-3SPADE-1.8M	D-20FM15	D-30TP-18	D-33TP-18

Implant Code	Drill sequence per bone densities				Fully guided
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone	
PRO408	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	I-H-PRO-GS
PRO410	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	I-H-PRO-GS
PRO411	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	I-H-PRO-GS
PRO413	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	I-H-PRO-GS
PRO415	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	I-H-PRO-GS
PRO418	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	I-H-PRO-GS

Implant Code	Drill sequence per bone densities					Fully guided
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone	
PRO508	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5	I-H-PRO-GS
PRO510	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10	I-H-PRO-GS
PRO511	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	I-H-PRO-GS
PRO513	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13	I-H-PRO-GS
PRO515	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15	I-H-PRO-GS
PRO518	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18	I-H-PRO-GS



Implant Code	Drill sequence per bone densities				Fully guided Implant placement
	Initiate the osteotomy Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone	
PRO12D408	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	I+H-PRO12D-GS
PRO12D410	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	I+H-PRO12D-GS
PRO12D411	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	I+H-PRO12D-GS
PRO12D413	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	I+H-PRO12D-GS
PRO12D415	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	I+H-PRO12D-GS
PRO12D418	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	I+H-PRO12D-GS

Implant Code	Drill sequence per bone densities					Fully guided Implant placement
	Initiate the osteotomy Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3rd Drill Final Drill for soft bone	Final Drill for medium and dense bone	
PRO12D508	D-3SPADE-1.8M	D-20FM10	D-33TP-8.5	D-40TP-8.5	D-50TP-8.5	I+H-PRO12D-GS
PRO12D510	D-3SPADE-1.8M	D-20FM10	D-33TP-10	D-40TP-10	D-50TP-10	I+H-PRO12D-GS
PRO12D511	D-3SPADE-1.8M	D-20FM10	D-33TP-11.5	D-40TP-11.5	D-50TP-11.5	I+H-PRO12D-GS
PRO12D513	D-3SPADE-1.8M	D-20FM15	D-33TP-13	D-40TP-13	D-50TP-13	I+H-PRO12D-GS
PRO12D515	D-3SPADE-1.8M	D-20FM15	D-33TP-15	D-40TP-15	D-50TP-15	I+H-PRO12D-GS
PRO12D518	D-3SPADE-1.8M	D-20FM15	D-33TP-18	D-40TP-18	D-50TP-18	I+H-PRO12D-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities		Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	Final Drill	Final Drill	Implant placement
IM-T3708	D-3SPADE-1.8M	D-20F-M10	D-MT3708	D-MT3708	I-H-PRO-GS
IM-T3710	D-3SPADE-1.8M	D-20F-M10	D-MT3710	D-MT3710	I-H-PRO-GS
IM-T3711	D-3SPADE-1.8M	D-20F-M10	D-MT3711	D-MT3711	I-H-PRO-GS
IM-T3713	D-3SPADE-1.8M	D-20F-M15	D-MT3713	D-MT3713	I-H-PRO-GS
IM-T3715	D-3SPADE-1.8M	D-20F-M15	D-MT3715	D-MT3715	I-H-PRO-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone	Implant placement
IM-T4208	D-3SPADE-1.8M	D-20F-M10	D-MT3708	D-MT4208	D-MT4208	I-H-PRO-GS
IM-T4210	D-3SPADE-1.8M	D-20F-M10	D-MT3710	D-MT4210	D-MT4210	I-H-PRO-GS
IM-T4211	D-3SPADE-1.8M	D-20F-M10	D-MT3711	D-MT4211	D-MT4211	I-H-PRO-GS
IM-T4213	D-3SPADE-1.8M	D-20F-M15	D-MT3713	D-MT4213	D-MT4213	I-H-PRO-GS
IM-T4215	D-3SPADE-1.8M	D-20F-M15	D-MT3715	D-MT4215	D-MT4215	I-H-PRO-GS
IM-T4218	D-3SPADE-1.8M	D-20F-M15	D-MT3718	D-MT4218	D-MT4218	I-H-PRO-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3rd Drill Final Drill for soft bone	Final Drill for medium and dense bone	Implant placement
IM-T5008	D-3SPADE-1.8M	D-20F-M10	D-MT3708	D-MT4208	D-MT5008	I-H-PRO-GS
IM-T5010	D-3SPADE-1.8M	D-20F-M10	D-MT3710	D-MT4210	D-MT5010	I-H-PRO-GS
IM-T5011	D-3SPADE-1.8M	D-20F-M10	D-MT3711	D-MT4211	D-MT5011	I-H-PRO-GS
IM-T5013	D-3SPADE-1.8M	D-20F-M15	D-MT3713	D-MT4213	D-MT5013	I-H-PRO-GS
IM-T5015	D-3SPADE-1.8M	D-20F-M15	D-MT3715	D-MT4215	D-MT5015	I-H-PRO-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities				Fully guided Implant placement
	Initial Drill		Optional Drill for medium and dense cortical bone.	2nd Drill for soft bone	Final Drill for medium and dense bone		
IM-T4208-12d	D-3SPADE-1.8M	D-20FM10	D-30FM10	D-MT3708	D-MT4208	IH-PRO12D-GS	
IM-T4210-12d	D-3SPADE-1.8M	D-20FM10	D-30FM10	D-MT3710	D-MT4210	IH-PRO12D-GS	
IM-T4211-12d	D-3SPADE-1.8M	D-20FM10	D-30FM10	D-MT3711	D-MT4211	IH-PRO12D-GS	
IM-T4213-12d	D-3SPADE-1.8M	D-20FM15	D-30FM15	D-MT3713	D-MT4213	IH-PRO12D-GS	
IM-T4215-12d	D-3SPADE-1.8M	D-20FM15	D-30FM15	D-MT3715	D-MT4215	IH-PRO12D-GS	
IM-T4218-12d	D-3SPADE-1.8M	D-20FM15	D-30FM15	D-MT3718	D-MT4218	IH-PRO12D-GS	

Implant Code	Initiate the osteotomy		Drill sequence per bone densities		Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	Final Drill for medium and dense bone	Final Drill for medium and dense bone	Implant placement
IA-LH-35-8	D-3SPADE-1.8M	D-20FM10	D-L-35-8	D-L-35-8	I-HLH-35GS
IA-LH-35-10	D-3SPADE-1.8M	D-20FM10	D-L-35-10	D-L-35-10	I-HLH-35GS
IA-LH-35-11.5	D-3SPADE-1.8M	D-20FM10	D-L-35-11.5	D-L-35-11.5	I-HLH-35GS
IA-LH-35-13	D-3SPADE-1.8M	D-20FM15	D-L-35-13	D-L-35-13	I-HLH-35GS
IA-LH-35-16	D-3SPADE-1.8M	D-20FM15	D-L-35-16	D-L-35-16	I-HLH-35GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone	Implant placement
IA-LH-43-8	D-3SPADE-1.8M	D-20FM10	D-L-35-8	D-L-43-8	D-L-43-8	I-HLH-43GS
IA-LH-43-10	D-3SPADE-1.8M	D-20FM10	D-L-35-10	D-L-43-10	D-L-43-10	I-HLH-43GS
IA-LH-43-11.5	D-3SPADE-1.8M	D-20FM10	D-L-35-11.5	D-L-43-11.5	D-L-43-11.5	I-HLH-43GS
IA-LH-43-13	D-3SPADE-1.8M	D-20FM15	D-L-35-13	D-L-43-13	D-L-43-13	I-HLH-43GS
IA-LH-43-16	D-3SPADE-1.8M	D-20FM15	D-L-35-16	D-L-43-16	D-L-43-16	I-HLH-43GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone	Implant placement
IA-LH-50-8	D-3SPADE-1.8M	D-20FM10	D-L-35-8	D-L-43-8	D-L-50-8	I-HLH-50GS
IA-LH-50-10	D-3SPADE-1.8M	D-20FM10	D-L-35-10	D-L-43-10	D-L-50-10	I-HLH-50GS
IA-LH-50-11.5	D-3SPADE-1.8M	D-20FM10	D-L-35-11.5	D-L-43-11.5	D-L-50-11.5	I-HLH-50GS
IA-LH-50-13	D-3SPADE-1.8M	D-20FM15	D-L-35-13	D-L-43-13	D-L-50-13	I-HLH-50GS
IA-LH-50-16	D-3SPADE-1.8M	D-20FM15	D-L-35-16	D-L-43-16	D-L-50-16	I-HLH-50GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Final Drill NOT through the guide
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill	4th Drill Final Drill for soft bone	Final Drill for medium and dense bone
IA-LH-60-8	D-3SPADE-1.8M	D-20FM10	D-L-35-8	D-L-43-8	D-L-50-8	D-L-60-8
IA-LH-60-10	D-3SPADE-1.8M	D-20FM10	D-L-35-10	D-L-43-10	D-L-50-10	D-L-60-10
IA-LH-60-11.5	D-3SPADE-1.8M	D-20FM10	D-L-35-11.5	D-L-43-11.5	D-L-50-11.5	D-L-60-11.5
IA-LH-60-13	D-3SPADE-1.8M	D-20FM15	D-L-35-13	D-L-43-13	D-L-50-13	D-L-60-13
IA-LH-60-16	D-3SPADE-1.8M	D-20FM15	D-L-35-16	D-L-43-16	D-L-50-16	D-L-60-16

Implant Code	Drill sequence per bone densities				Fully guided
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone	
IA43-12d-10	Initial Drill D-3SPADE-1.8M	D-20FM10	D-L-35-10	D-L-43-10	I-43-12D-GS
IA43-12d-11.5	D-3SPADE-1.8M	D-20FM10	D-L-35-11.5	D-L-43-11.5	I-43-12D-GS
IA43-12d-13	D-3SPADE-1.8M	D-20FM15	D-L-35-13	D-L-43-13	I-43-12D-GS
IA43-12d-16	D-3SPADE-1.8M	D-20FM15	D-L-35-16	D-L-43-16	I-43-12D-GS

Implant Code	Drill sequence per bone densities				Fully guided	
	Initiate the osteotomy	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	3d Drill Final Drill for soft bone		Final Drill for medium and dense bone
IA50-12d-10	Initial Drill D-3SPADE-1.8M	D-20FM10	D-L-35-10	D-L-43-10	D-L-50-10	I-50-12D-GS
IA50-12d-11.5	D-3SPADE-1.8M	D-20FM10	D-L-35-11.5	D-L-43-11.5	D-L-50-11.5	I-50-12D-GS
IA50-12d-13	D-3SPADE-1.8M	D-20FM15	D-L-35-13	D-L-43-13	D-L-50-13	I-50-12D-GS
IA50-12d-16	D-3SPADE-1.8M	D-20FM15	D-L-35-16	D-L-43-16	D-L-50-16	I-50-12D-GS

Implant Code	Initiate the osteotomy	Drill sequence per bone densities		Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone, (continue with final Drill in <b>soft bone</b> )	Final Drill for medium and dense bone	Implant placement
DCT3009	D-3SPADE-1.8M	D-20FM10	D-DCT3009	I-HDC3-GS
DCT3011	D-3SPADE-1.8M	D-20FM10	D-DCT3011	I-HDC3-GS
DCT3013	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3013	I-HDC3-GS

Implant Code	Initiate the osteotomy	Drill sequence per bone densities			Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill, for medium and dense bone	Implant placement
DCT3508	D-3SPADE-1.8M	D-20FM10	D-DCT3508	D-DCT3508	I-HDC4-GS
DCT3509	D-3SPADE-1.8M	D-20FM10	D-DCT3509	D-DCT3509	I-HDC4-GS
DCT3511	D-3SPADE-1.8M	D-20FM10	D-DCT3511	D-DCT3511	I-HDC4-GS
DCT3513	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3513	D-DCT3513	I-HDC4-GS
DCT3515	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3515	D-DCT3515	I-HDC4-GS

Implant Code	Initiate the osteotomy	Drill sequence per bone densities				Fully guided
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	3d Drill Final Drill for soft bone	Final Drill for medium and dense bone	Implant placement
DCT4006	D-3SPADE-GS	D-16-T	D-DCT3508	D-DC14006	D-DC14006	I-HDC4-GS
DCT4008	D-3SPADE-1.8M	D-20FM10	D-DCT3509	D-DC14008	D-DC14008	I-HDC4-GS
DCT4009	D-3SPADE-1.8M	D-20FM10	D-DCT3009	D-DCT4009	D-DCT4009	I-HDC4-GS
DCT4011	D-3SPADE-1.8M	D-20FM10	D-DCT3011	D-DCT4011	D-DCT4011	I-HDC4-GS
DCT4013	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3013	D-DCT4013	D-DCT4013	I-HDC4-GS
DCT4015	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3515	D-DCT4015	D-DCT4015	I-HDC4-GS

Implant Code	Initiate the osteotomy	Drill sequence per bone densities				Fully guided	
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3d Drill	4th Drill Final Drill for soft bone	Final Drill for medium and dense bone	Implant placement
DCT5009	D-3SPADE-1.8M	D-20FM10	D-DCT3009	D-DCT3509	D-DCT4009	D-DCT5009	I-HDC5-GS
DCT5011	D-3SPADE-1.8M	D-20FM10	D-DCT3011	D-DCT3511	D-DCT4011	D-DCT5011	I-HDC5-GS
DCT5013	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3013	D-DCT3513	D-DCT4013	D-DCT5013	I-HDC5-GS
DCT5015	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3015	D-DCT3515	D-DCT4015	D-DCT5015	I-HDC5-GS

Implant Code	Drill sequence per bone densities				
	Initiate the osteotomy Initial Drill	2nd Drill for medium and dense cortical bone.	3rd Drill code	3d Drill	4th Drill Final Drill for soft bone
DCT4008-12D	D-3SPADE-1.8M	D-20FM10		D-DCT3508	D-DC14008
DCT4009-12D	D-3SPADE-1.8M	D-20FM10	D-DCT3009	D-DCT3509	D-DC14009
DCT4011-12D	D-3SPADE-1.8M	D-20FM10	D-DCT3011	D-DCT3511	D-DC14011
DCT4013-12D	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3013	D-DCT3513	D-DC14013
DCT4015-12D	D-3SPADE-1.8M	D-DC20/D-20FM15		D-DCT3515	D-DC14015

Implant Code	Drill sequence per bone densities				
	Initiate the osteotomy Initial Drill	2nd Drill for medium and dense cortical bone.	3rd Drill	3d Drill	4th Drill Final Drill for soft bone
DCT5009-12D	D-3SPADE-1.8M	D-20FM10		D-DCT3509	D-DC14009
DCT5011-12D	D-3SPADE-1.8M	D-20FM10	D-DCT3009	D-DCT3511	D-DC14011
DCT5013-12D	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3011	D-DCT3513	D-DC14013
DCT5015-12D	D-3SPADE-1.8M	D-DC20/D-20FM15	D-DCT3013	D-DCT3515	D-DC14015
					Final Drill for medium and dense bone
					D-DCT5009
					D-DC15011
					D-DC15013
					D-DC15015

Implant Code	Initiate the osteotomy Initial Drill	Drill sequence per bone densities Final Drill, for medium and dense bone
IV-EX30-3710	D-3SPADE-1.8M	D-IV3710GS
IV-EX30-3711	D-3SPADE-1.8M	D-IV3711GS
IV-EX30-3713	D-3SPADE-1.8M	D-IV3713GS
IV-EX30-3715	D-3SPADE-1.8M	D-IV3715GS

Implant Code	Initiate the osteotomy Initial Drill	Drill sequence per bone densities Optional Drill for medium and dense cortical bone.	Final Drill for medium and dense bone
IV-EX35-4510	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS
IV-EX35-4511	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS
IV-EX35-4513	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS
IV-EX35-4515	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS

Implant Code	Initiate the osteotomy Initial Drill	Drill sequence per bone densities Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone
IV-EX40-5010	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS	D-IV5010GS
IV-EX40-5011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS
IV-EX40-5013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS
IV-EX40-5015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS

Implant Code	Initiate the osteotomy Initial Drill	Drill sequence per bone densities Optional Drill for medium and dense cortical bone.	2nd Drill	3rd Drill	Final Drill NOT through the guide Final Drill for medium and dense bone
IV-EX52-6010	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS	D-IV5010GS	D-IV6010GS
IV-EX52-6011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS	D-IV6011GS
IV-EX52-6013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS	D-IV6013GS
IV-EX52-6015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS	D-IV6015GS



	Initiate the osteotomy	Drill sequence per bone densities
<b>Implant Code</b>	Initial Drill	Final Drill for medium and dense bone
IV-EX3012D-3711	D-3SPADE-1.8M	D-IV3711GS
IV-EX3012D-3713	D-3SPADE-1.8M	D-IV3713GS
IV-EX3012D-3715	D-3SPADE-1.8M	D-IV3715GS

	Initiate the osteotomy	Drill sequence per bone densities	
<b>Implant Code</b>	Initial Drill	Optional Drill for medium and dense cortical bone.	Final Drill for medium and dense bone
IV-EX3512D-4511	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS
IV-EX3512D-4513	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS
IV-EX3512D-4515	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS
	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS

	Initiate the osteotomy	Drill sequence per bone densities		
<b>Implant Code</b>	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill for medium and dense bone
IV-EX4012D-5011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS
IV-EX4012D-5013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS
IV-EX4012D-5015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS

	Initiate the osteotomy	Drill sequence per bone densities			Final Drill NOT through the guide
<b>Implant Code</b>	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill	3rd Drill	Final Drill for medium and dense bone
IV-EX5212D-6011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS	D-IV6011GS
IV-EX5212D-6013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS	D-IV6013GS
IV-EX5212D-6015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS	D-IV6015GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities		Fully guided	
	Initial Drill	Final Drill	Final Drill for medium and dense cortical bone.	Final Drill for medium and dense bone	Implant placement	Implant placement
IV-DC30-3710	D-3SPADE-1.8M	D-IV3710GS	D-IV3710GS	I-HDC3-GS	I-HDC3-GS	I-HDC3-GS
IV-DC30-3711	D-3SPADE-1.8M	D-IV3711GS	D-IV3711GS	I-HDC3-GS	I-HDC3-GS	I-HDC3-GS
IV-DC30-3713	D-3SPADE-1.8M	D-IV3713GS	D-IV3713GS	I-HDC3-GS	I-HDC3-GS	I-HDC3-GS
IV-DC30-3715	D-3SPADE-1.8M	D-IV3715GS	D-IV3715GS	I-HDC3-GS	I-HDC3-GS	I-HDC3-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities		Fully guided	
	Initial Drill	2nd Drill for medium and dense cortical bone.	Final Drill for medium and dense bone	Final Drill for medium and dense bone	Implant placement	Implant placement
IV-DC35-4510	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS
IV-DC35-4511	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS
IV-DC35-4513	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS
IV-DC35-4515	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Fully guided	
	Initial Drill	2nd Drill for medium and dense cortical bone.	3rd Drill Final Drill for soft bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone	Implant placement	Implant placement
IV-DC40-5010	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS	D-IV5010GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS
IV-DC40-5011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS
IV-DC40-5013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS
IV-DC40-5015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS	I-HDC4-GS	I-HDC4-GS	I-HDC4-GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities			Final Drill NOT through the guide	
	Initial Drill	2nd Drill for medium and dense cortical bone.	3rd Drill Final Drill for soft bone.	4th Drill Final Drill for soft bone.	Final Drill for medium and dense bone	Final Drill for medium and dense bone	Final Drill for medium and dense bone
IV-DC50-6010	D-3SPADE-1.8M	D-IV3710GS	D-IV4510GS	D-IV5010GS	D-IV6010GS	D-IV6010GS	D-IV6010GS
IV-DC50-6011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS	D-IV6011GS	D-IV6011GS	D-IV6011GS
IV-DC50-6013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS	D-IV6013GS	D-IV6013GS	D-IV6013GS
IV-DC50-6015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS	D-IV6015GS	D-IV6015GS	D-IV6015GS

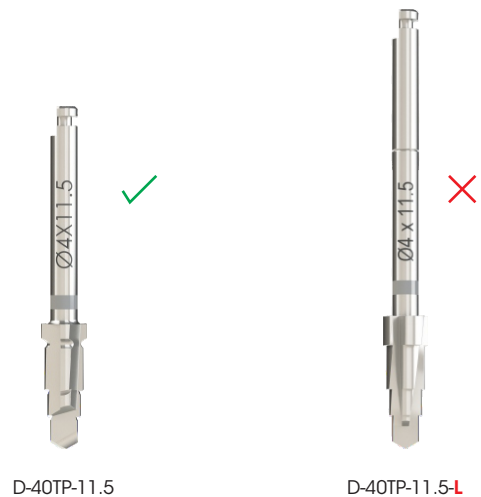
Implant Code	Initiate the osteotomy		Drill sequence per bone densities	
	Initial Drill	Optional Drill for medium and dense cortical bone.	Optional Drill for medium and dense cortical bone.	Final Drill for medium and dense bone
IV-DC3512D-4511	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV4511GS
IV-DC3512D-4513	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV4513GS
IV-DC3512D-4515	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV4515GS

Implant Code	Initiate the osteotomy		Drill sequence per bone densities	
	Initial Drill	Optional Drill for medium and dense cortical bone.	2nd Drill Final Drill for soft bone	Final Drill, for medium and dense bone
IV-DC4012D-5011	D-3SPADE-1.8M	D-IV3711GS	D-IV4511GS	D-IV5011GS
IV-DC4012D-5013	D-3SPADE-1.8M	D-IV3713GS	D-IV4513GS	D-IV5013GS
IV-DC4012D-5015	D-3SPADE-1.8M	D-IV3715GS	D-IV4515GS	D-IV5015GS

## GENERAL INFORMATION AND WARNINGS

### Tapered Drills:

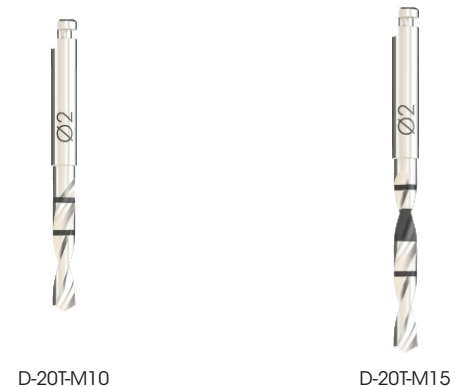
- SIREAL universal drill extension is only to be used with Southern Implants standard length tapered drills.
- Do not use long shaft drills. It will drill deeper than the planned depth.
- Long drills can be identified by an "L" in the product code. For example: D-40TP-11.5-L



### Twist Drills (optional):

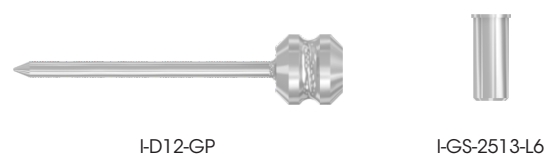
- **D-20TM10:** 10mm twist drills are indicated for implant lengths of 11.5mm and shorter.
- **D-20TM15:** 15mm twist drills are indicated for 13mm implants and longer.

**CAUTION:** When drilling close to crucial anatomical landmarks, consider that the drill preparation site may be up to 1mm deeper than the corresponding implant length.



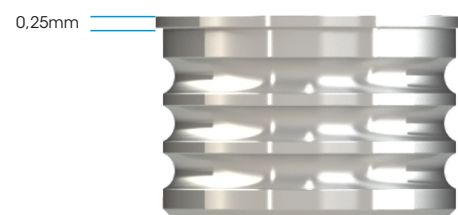
### Guide Fixation Pins:

- Pin/s (I-D12-GP) must not interfere with placement tool (I-DE-GS4) or drill trajectory.
- Vertical opening and anatomical constraints of the patient must be considered when designing the guide with fixation pins.
- Recommended to use 3 pins for full arch guide. If a tooth supported guide requires additional stability, a minimum of 2 pins should be used.
- A minimum of 2 fixation drills (D-12T-M15) should be available per surgery.



### Guide Sleeves:

- The lip on the guide, adds on 0,25mm, this does not need to be taken into consideration as most Southern Implants drills extend 1mm longer.
- Always plan at least 2mm from nerves /anatomical landmarks.



## GENERAL INFORMATION AND WARNINGS

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One hundred percent implant success cannot be guaranteed. Non-observance of the indicated limitations of use and working steps may result in failure.

### CAUTION

Before surgery:

- A thorough radiological and clinical assessment must be done to determine the psychological and physical health of the patient.
- Take care when treating patients with local or systemic factors that could affect the healing process of the tissues or interfere with the osseointegration process (i.e. smoking, uncontrolled diabetes, radiotherapy treatment, steroid therapy, poor oral hygiene, infection of nearby tissue, systemic bi-phosphonate therapy).
- Treatment planning (surgical and prosthetic design) must accommodate patient specific conditions. In cases of bruxism or unfavorable jaw relationships the treatment option may have to be reassessed and adjusted.
- Implant treatment is not recommended in juvenile patients, until the mature jaw bone growth phase has been reached.
- Hard or soft tissue defects may result in compromised treatment outcomes.

At surgery:

- Validate the guide fit and trajectory.
- Do not place narrow implants in the posterior region. Avoid the risk of prosthetic overload, that could lead to implant failure or fracture.
- All instruments and tooling used during procedures must be maintained in good condition, and care must be taken not to damage the implant or other components.

Surgical procedure:

- Assess bone quality during drilling procedures and follow the appropriate drill sequence to ensure optimal primary stability.
- Drill at 1000 -1500 rpm for twist drills and 800 rpm for tapered drills. Use copious irrigation (saline at room temperature), and drill with a continuous intermittent motion, to avoid overheating of the bone. The laser marking on the shaft of the Pilot and Twist drills indicate drill diameters and length.
- The implants are ideally placed with low speed, max. 25 rpm, when using an implant motor unit and Hand-Piece insert.
- Never exceed insertion torque of 70Ncm when placing these implants. Over tightening an implant may lead to damage of the implant or fracture of the bone.
- If the implant gets stuck during implant placement or 70Ncm of insertion torque is reached before the implant is fully seated, rotate the implant counter clockwise (handpiece in reverse mode) and remove implant from site. Adjust the osteotomy before placing the implant again.

### HANDLING

- Refer to the individual product packaging label and the corresponding IFU's for special handling instructions.
- **IMPLANTS MUST NOT BE TOUCHED DIRECTLY.** They must be handled and placed by the instruments provided. If an implant is dropped onto a non-sterile surface, it should not be used.

### PACKAGING

- 1) Implants: The outer packaging consists of a rigid, clear box which acts as protection for the inner packaging. The inner packaging consists of a clear plastic-formed bubble-type base with a "peel-back" lid. The contents of this inner package are sterile. Labeling information is located on the surface of the peel-back lid and on the outside of the rigid box. Within the inner packaging there is a hollow tube which contains one implant. Sterility is assured unless the container or seal is damaged or opened.
  - 2) Other sterile components are packed in a peel pouch and sterilized by gamma irradiation. Labeling information is located on the bottom half of the pouch, inside the packet. Sterility is assured unless the pouch is damaged or opened.
  - 3) Other non-sterile components used in the laboratory are supplied clean but not sterile. These are laboratory analogues, some Ti abutments, CIA abutments, TIB abutments, cast waxing sleeves and gold abutments with plastic sleeves. Labeling information is located on the bottom half of the pouch, inside the packet.
- Implants and abutments are supplied sterile and intended for single use. **DO NOT** re-sterilize or autoclave these components.

### CLEANING

- Refer to CAT-1039
- Used instruments should be soaked immediately in instrument cleaning solution to avoid the drying of blood, saliva and tissue residue.
- Used surgical trays including grommets must be cleaned with suitable disinfectants.
- Multiple-part instruments must be disassembled prior to cleaning and sterilization.
- Internal debris/residue on instruments must be removed with a soft brush.
- Instruments should be inspected, cleaned separately and discarded if damaged.
- Best results are achieved if surgical instruments are cleaned by material type.
- Instruments and trays can be cleaned and disinfected in a dedicated instrument washer or alternatively by hand, followed by an ultrasonic bath with a detergent appropriate for surgical instruments.
- Instruments and trays must be rinsed and dried thoroughly.

## GENERAL INFORMATION AND WARNINGS

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### STERILIZATION

- Products provided non-sterile must be cleaned and sterilized prior to use.
- Pre-vacuum sterilization method: Steam sterilise the component at 132°C (270°F) at 180-220 kPa for 4 minutes, or at 135° C (275°F) at 180-220 kPa for 3 minutes. Dry for at least 20 minutes in the chamber. Only an appropriate regulatory authority approved sterilizer and wrap or pouch for steam sterilization must be used.
- It is the responsibility of the user to establish whether or not their sterilizer is appropriate regulatory authority approved to meet the recommended parameters.
- The product must be stored in a dry place in the original packaging at room temperature and not exposed to direct sunlight. Incorrect storage may influence device characteristics.

### MAGNETIC RESONANCE (MR) SAFETY INFORMATION

External Hex & PROVATA™ implants have not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration or image artefact in the MR environment. The safety of External Hex and PROVATA™ implants in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

### POST-PLACEMENT PROCEDURES

The following considerations should be reviewed prior to the restorative phase:

- Implant stability
- Implant position and abutment selection

### CAUTION: (USA ONLY)















United States Federal Law restricts this device to sale to, or on the order of, a licensed dentist or physician.

### DISCLAIMER OF LIABILITY

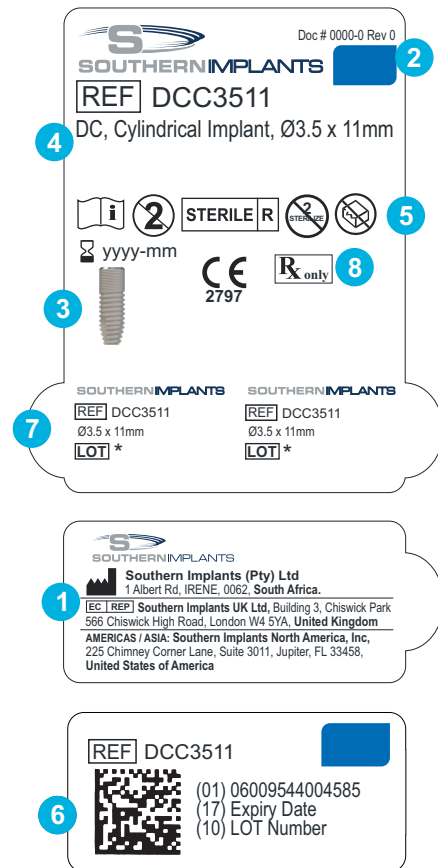
This product is part of the Southern Implants product range and should only be used with the associated original products and according to the recommendations as in the individual product catalogues. The user of this product has to study the development of the Southern Implants product range and take full responsibility for the correct indications and use of this product. Southern implants does not assume liability for damage due to incorrect use. Please note that some Southern Implants products may not be cleared or released for sale in all markets.

## EXPLANATION OF LABELING SYMBOLS

The following symbols are used on packaging labels and they indicate the following:

- 1  Manufacturer
- 2  Colour code indicating platform diameter
- 3  Implant image
- 4  Implant details and size
- 5  Sterilization using Irradiation
-  Do not Resterilize
-  Consult instruction for use
-  Do not reuse
-  CE mark and notified body number
-  Expiry date
-  Sterile unless package is opened or damaged
- 6  2D Bar coding  
Contains the GTIN, Expiry Date and LOT Number
- 7  Patient sticker for documentation purposes  
(to be used by health care provider on patient file)
- 8  Prescription device

CAUTION: FEDERAL LAW RESTRICTS THE DEVICE TO SALE BY OR ON THE ORDER OF A LICENCED HEALTH CARE PROVIDER.



For more information, please contact your  
Southern Implants Representative or visit [southernimplants.com](http://southernimplants.com)



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