SOUTHERN IMPLANTS

The **Brightest Ideas** In Dental Implants

CAT-2020-03 (C492)

EXTERNAL HEX Product Catalogue Version 7.3

Dear Customers and Colleagues

Today, dental implants have become an indispensable part of dental treatment options. With the globalization of medical infrastructures and higher standards of living, implant applications have rapidly become common.

Southern Implants has been a manufacturer and distributor of dental implants since 1987. Today, the Southern group is recognized as a leading bio-medical engineering entity, with major intellectual property and capabilities in implantable devices, arthroplasties, tissue regeneration, stem cells and cryoscience. The top-end professional users, who want more choices, have driven the product range expansion to enormous and exciting heights. Striving for excellence and meeting customer needs has lead to our wide product range characterized by numerous unique and innovative products which include:

- 3 interfaces: External Hex, Internal morse taper/octagon, and Tri-Nex.
- Many products optimized for primary stability and suited for immediate loading.
- The only angled-top tapered screw-form 12°, 24°and 36° Co-Axis implant.
- Implant lengths from 6mm to 20mm and diameters from 2.90mm to 10mm.
- A surface which continues to out-perform that which it is trailed against.
- Color-coded components for easy part recognition.
- 55° Zygomatic implant, optimized for load distribution.
- Compatibility with major brands, giving the patient more options.
- The MAX, wide diameter implant for molar teeth replacement.

Striving for excellence is synonymous with the search to improve. At Southern the development starts with computer simulation and finite element modeling. This is followed by extensive laboratory trials and testing. Finally, clinical research has taken on a new dimension in our overall strategy where our preference is for independent RCTs.

Our sincere thanks to all specialists, dentists and technicians who give continual feedback, suggestions and input. The products here are our interpretation of your needs.

Yours sincerely

Graham Blackbeard
Managing Director
Southern Implants







Design & Layout by Ruan Pienaar

Contents







External Hex Implants

Southern's range of Externally Hexed Implants are available in diameters 3.25mm, 4.0mm, 5.0mm and 6.0mm. Diameters of 7.00mm, 8.00mm and 9.00mm are also available in the External Hex MAX Implants. Implant lengths vary from 6mm to 20mm and all implants are surface roughened with Southern's extensively proven and well documented enhanced surface.

The External Hex range has an impressive prosthetic selection to accommodate a vast range of prosthetic requirements that may arise. This, together with our ideal to offer compatibility with other major brands, gives the patient more options of treatment.

The implants are made from ASTM-F67-95 Grade 4 pure titanium, with a tensile strength of 550 MPa. The surface is enhanced with abrasion and chemical conditioning. The surface has been proven by way of extensive animal and clinical trials and has been in use for more than 14 years.

IBN & IBNT Implants

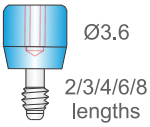
⚠ Diameter 3.25mm Implants and Components

Cover Screw

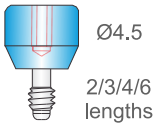
SCNU2

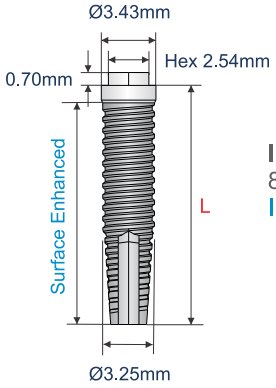
Healing Abutments

TBN

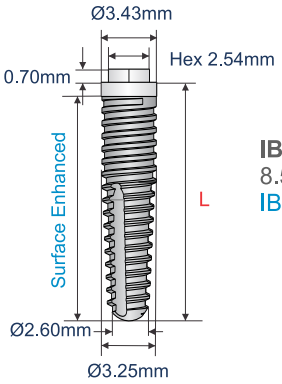


WBN



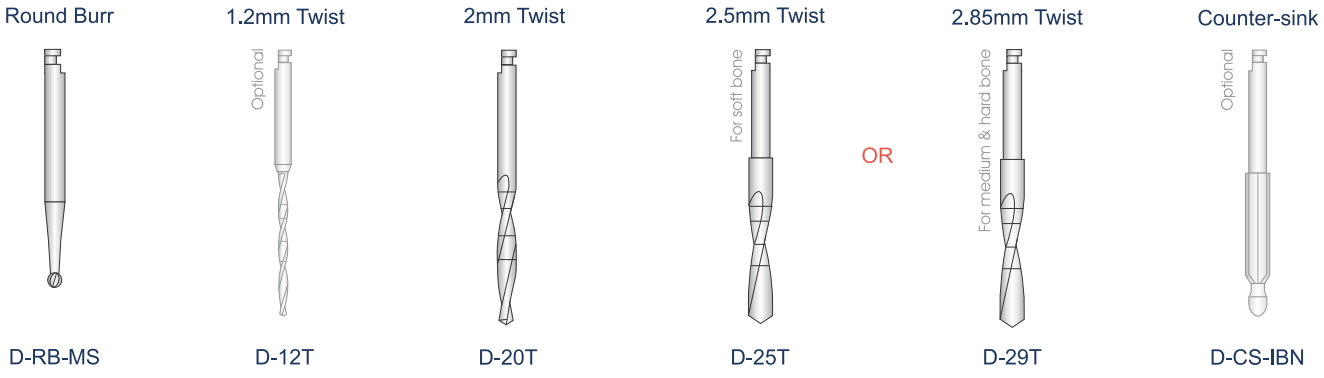


IBN Implants are available in:
8.5, 10, 11.5, 13, 15, & 18 mm.
IBN Implants are pre-mounted.

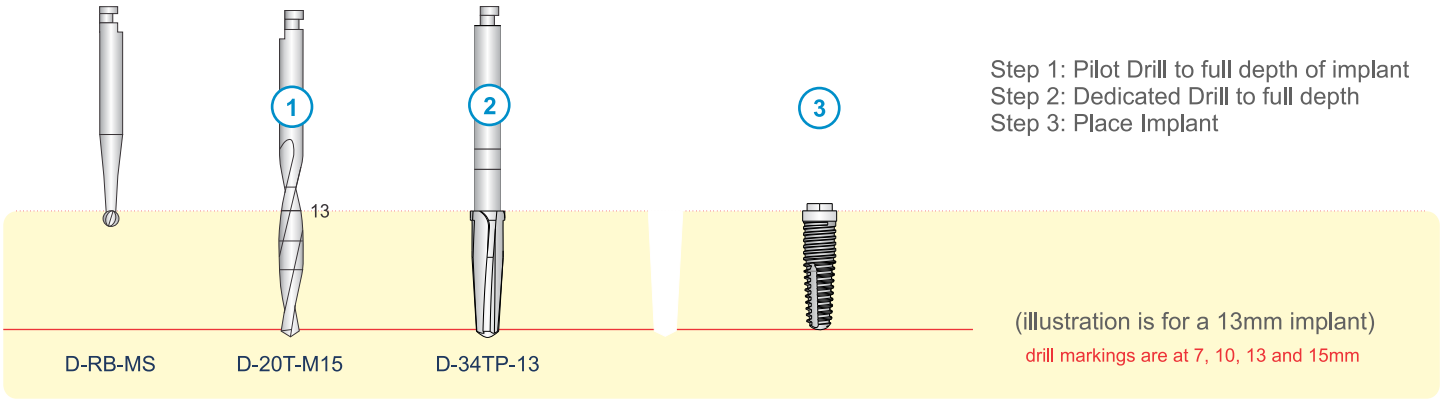


IBNT Implants are available in:
8.5, 10, 11.5, 13, 15 & 18mm.
IBNT Implants are pre-mounted.

IBN Straight Site Preparation Sequence



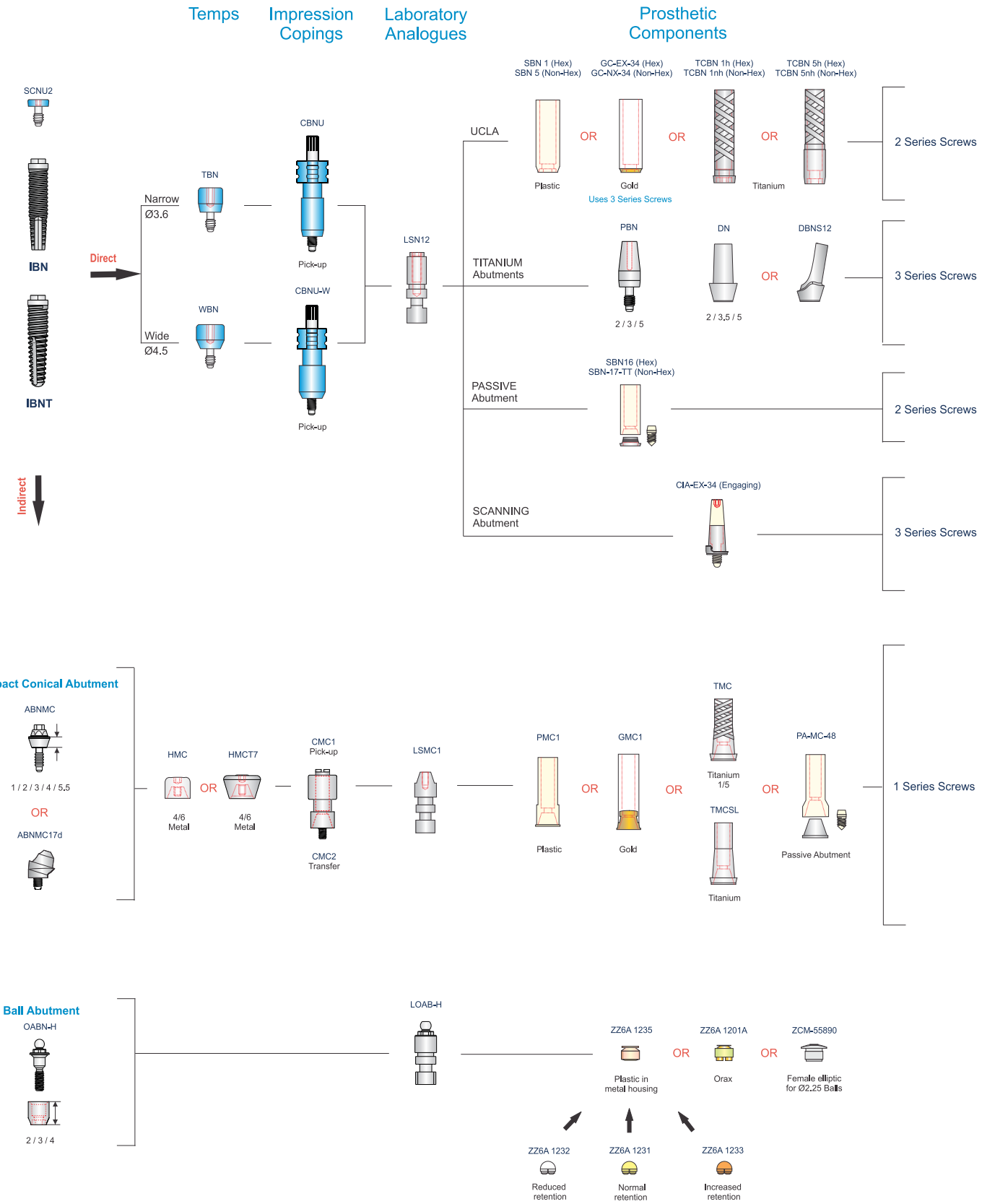
IBNT Tapered Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: Dedicated Drill to full depth
Step 3: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

IBN & IBNT Prosthetic Flowchart



The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

INPi Implants

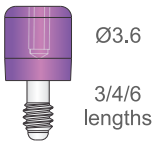
⚠ Diameter 3.30mm Implants and Components

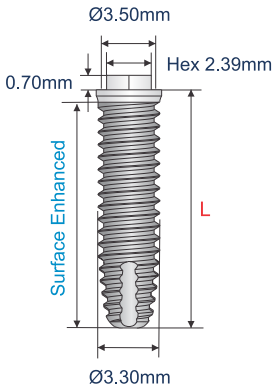
Cover Screw

SCNP

Healing Abutments

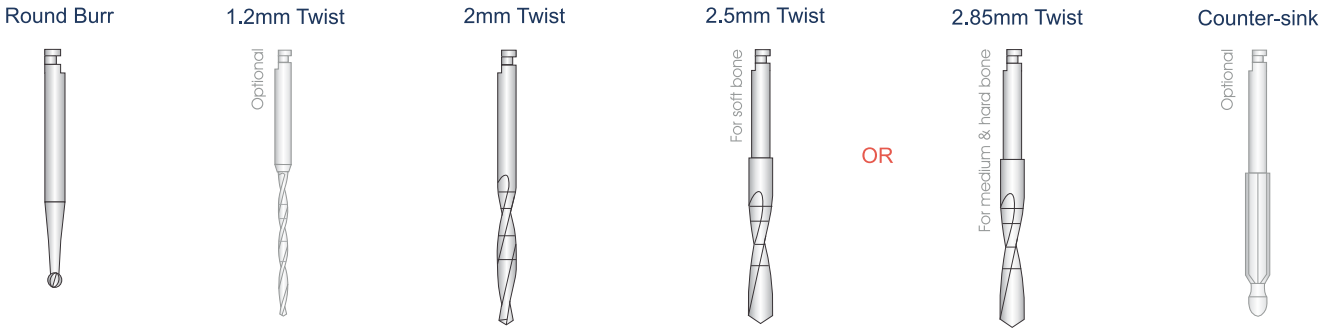
TNP



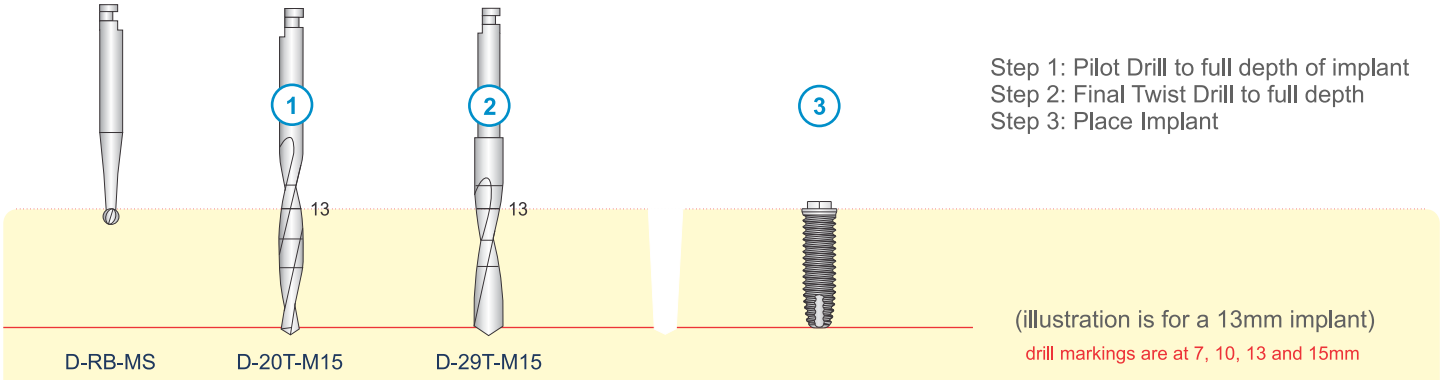


INPi Implants are available in:
8.5, 10, 11.5, 13 & 15 mm.
INTERNAL DRIVE ONLY

INPi Drills



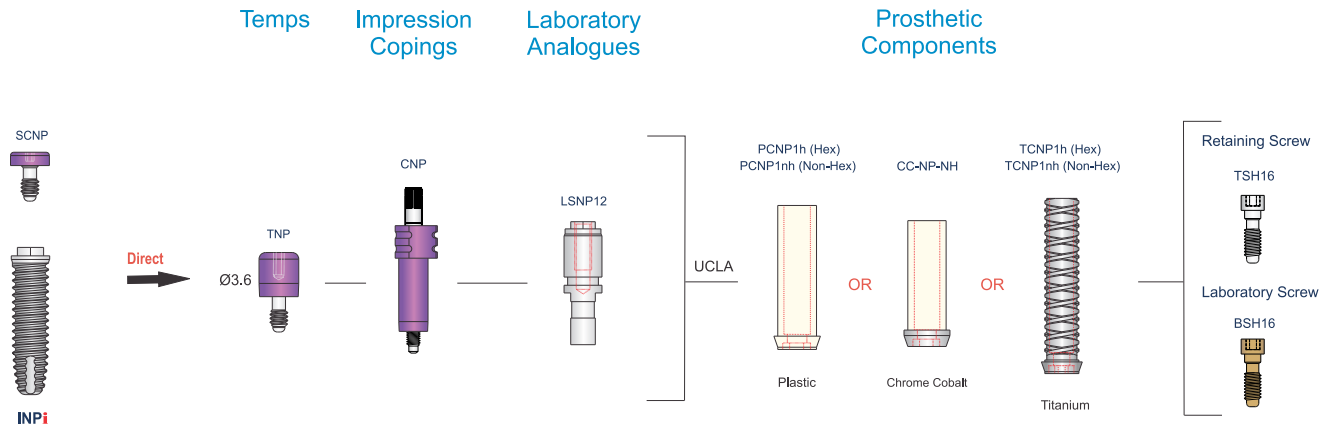
Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: Final Twist Drill to full depth
Step 3: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

INPi Prosthetic Flowchart



An implant is a means to achieve a prosthetic result.
The INPi (internal drive) implant, although similar to the IBN & IBNT narrow diameter implants, adds another prosthetic option: that of Procera™. It has the “narrow platform” Interface and M1.6 prosthetic screws to facilitate this. In addition to this, it features Southern’s proven rough surface, which has 10 years clinical documentation.

IBS / IBi, IBT / IBTi & IBPS Implants

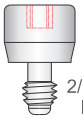
⚠ Diameter 4.0mm Implants and Components

Cover Screw

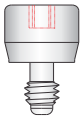
SCU2

Healing Abutments

TB

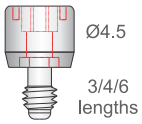


WB

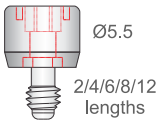


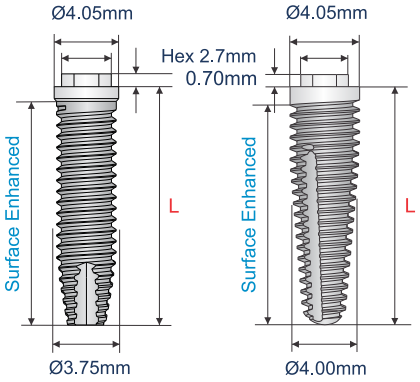
Two-Part Healing Abutments

T4B



T5B

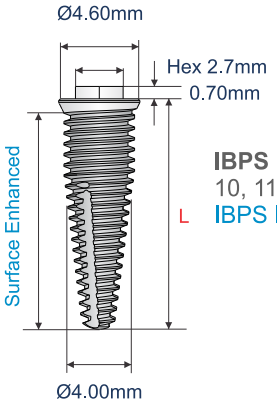




IBS / IBi Implants are available in:
7, 8.5, 10, 11.5, 13, 15, 18 & 20 mm.
IBS Implants are pre-mounted.

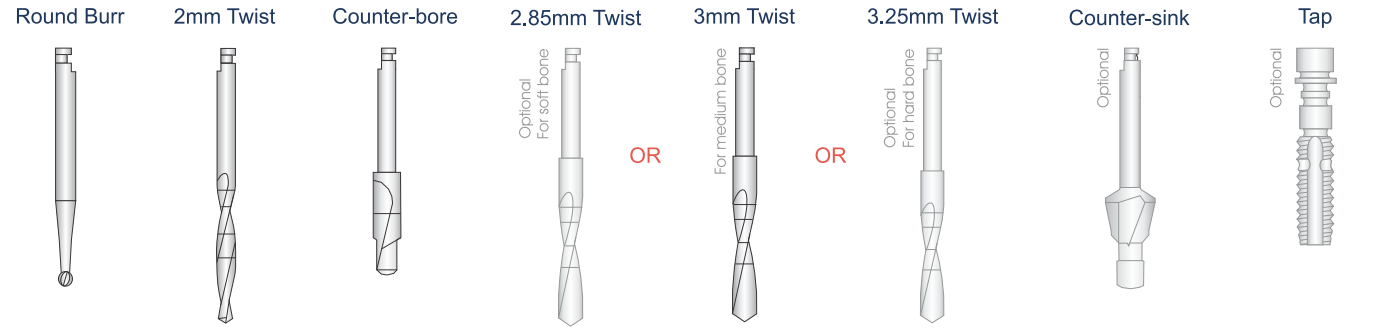
IBT Implants are available in:
6, 8.5, 10, 11.5, 13, 15 & 18mm.
IBT Implants are pre-mounted.

IBTi Implants are available in:
10, 11.5, 13 & 15mm.



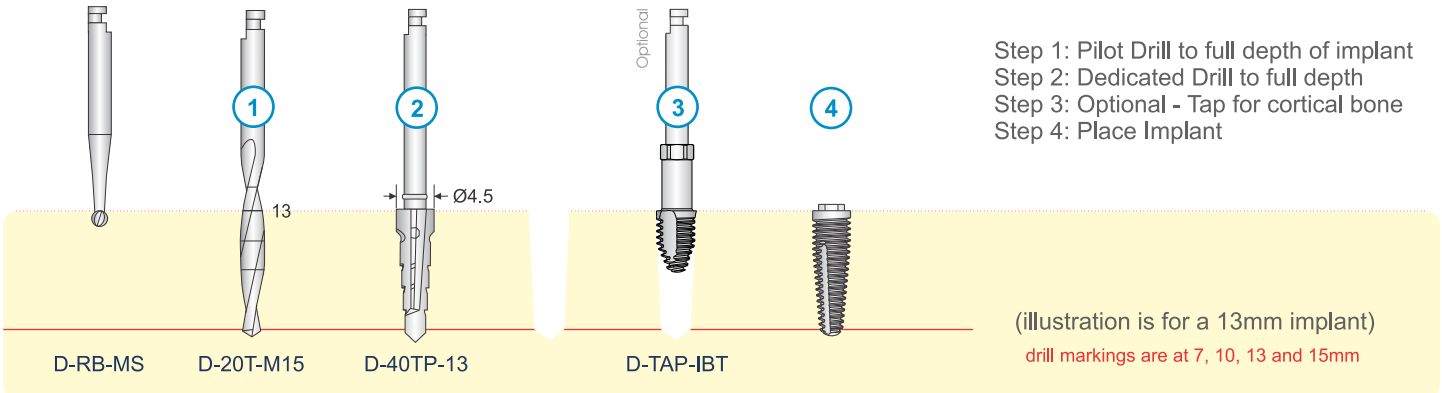
IBPS Implants are available in:
10, 11.5, 13 & 15mm.
IBPS Implants are pre-mounted.

IB Straight Site Preparation Sequence



Sold together as **D-RB20-T Drill Kit**

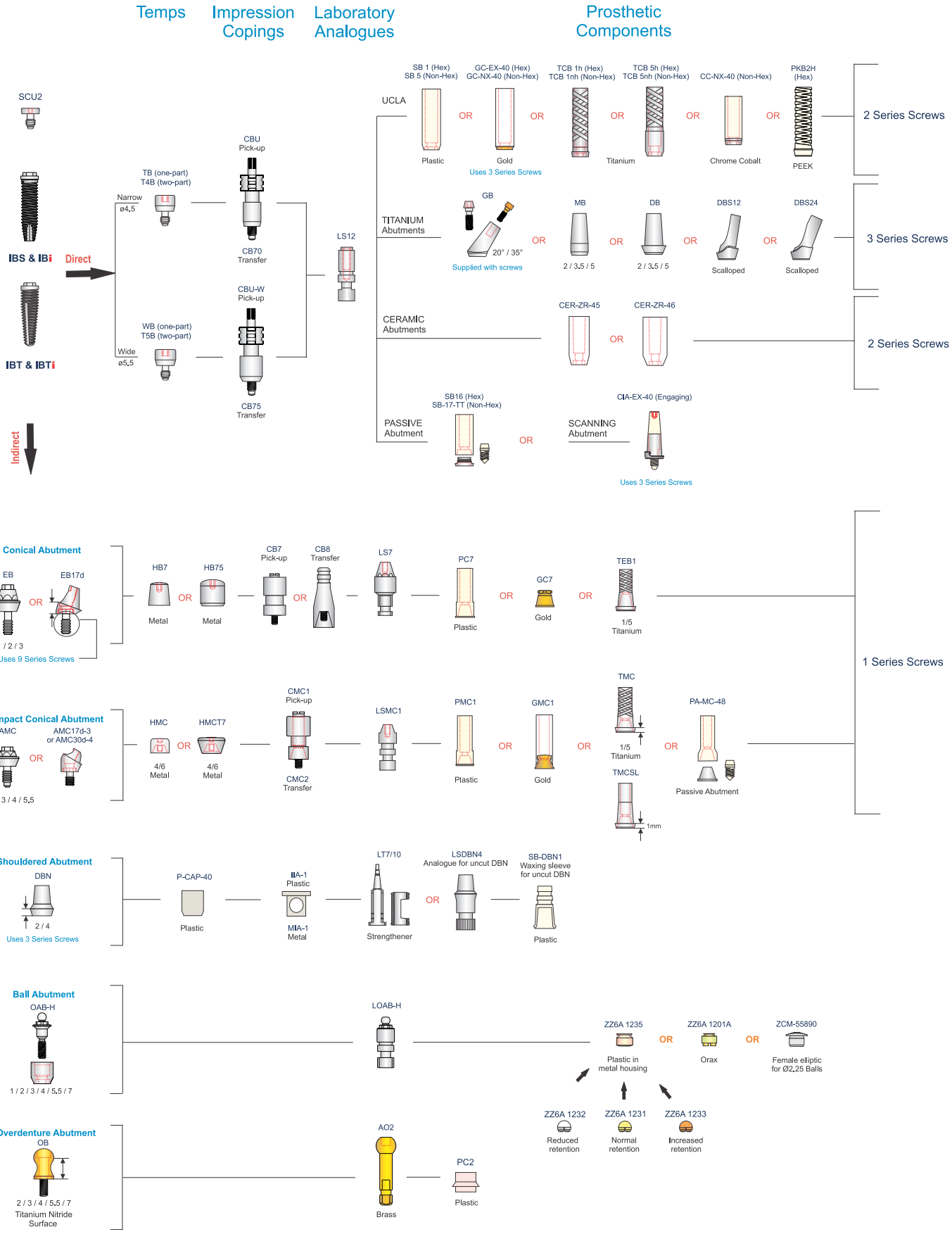
IBT Tapered Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: Dedicated Drill to full depth
Step 3: Optional - Tap for cortical bone
Step 4: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

IB, IBT & IBPS Prosthetic Flowchart



The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

BA / BAi & BAT / BATi Implants

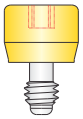
⚠ Diameter 5.0mm Implants and Components

Cover Screw

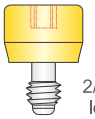
SCAU5

Healing Abutment

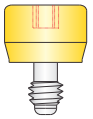
TBA



XBA

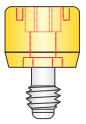


WBA

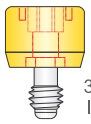


Two-Part Healing Abutments

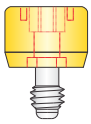
T5BA

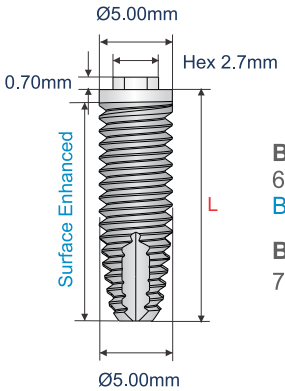


T6BA



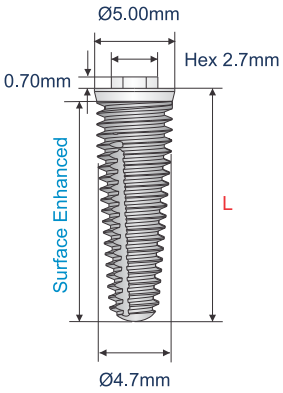
T7BA





BA Implants are available in:
6, 7, 8.5, 10, 11.5, 13, 15 & 18mm.
BA Implants are pre-mounted.

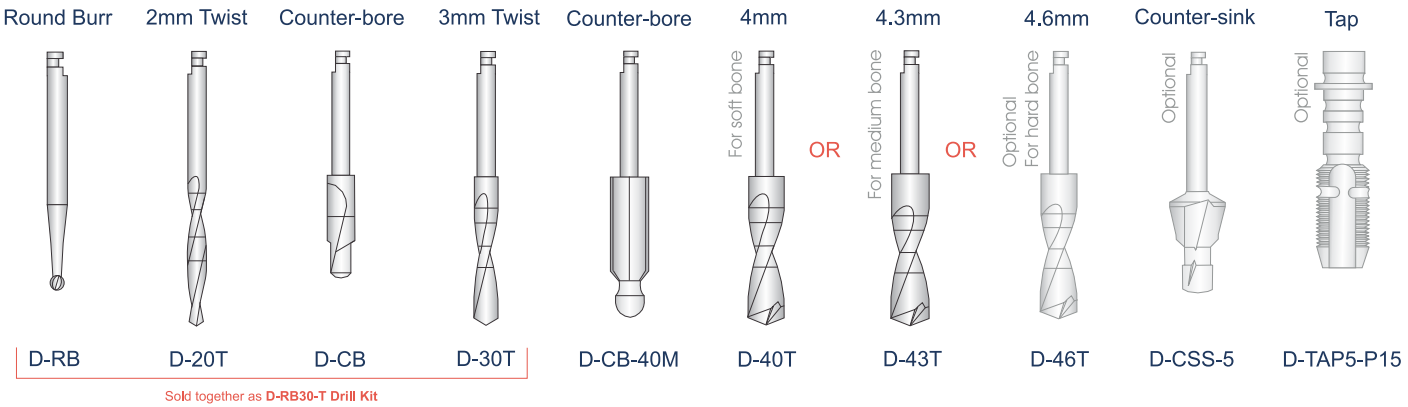
BAi Implants are available in:
7, 8.5, 10, 11.5, 13, 15 & 18mm.



BAT Implants are available in:
6, 8.5, 10, 11.5, 13, 15 & 18mm.
BA Implants are pre-mounted.

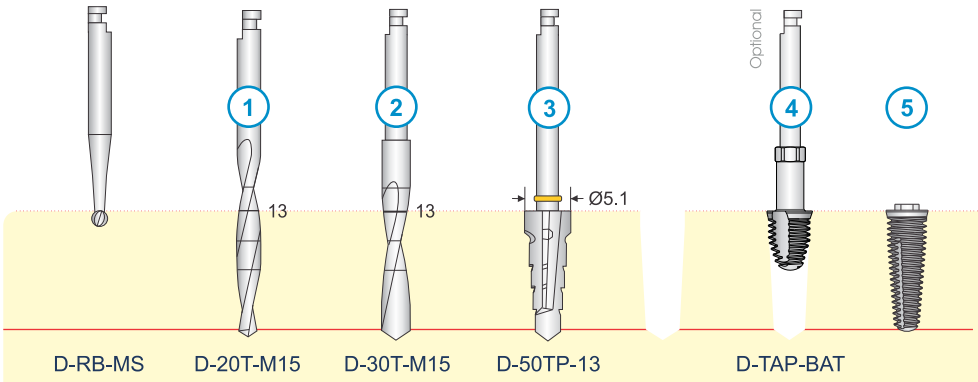
BATi Implants are available in:
10, 11.5, 13, 15 & 18mm.

BA Straight Site Preparation Sequence



Sold together as **D-RB30-T Drill Kit**

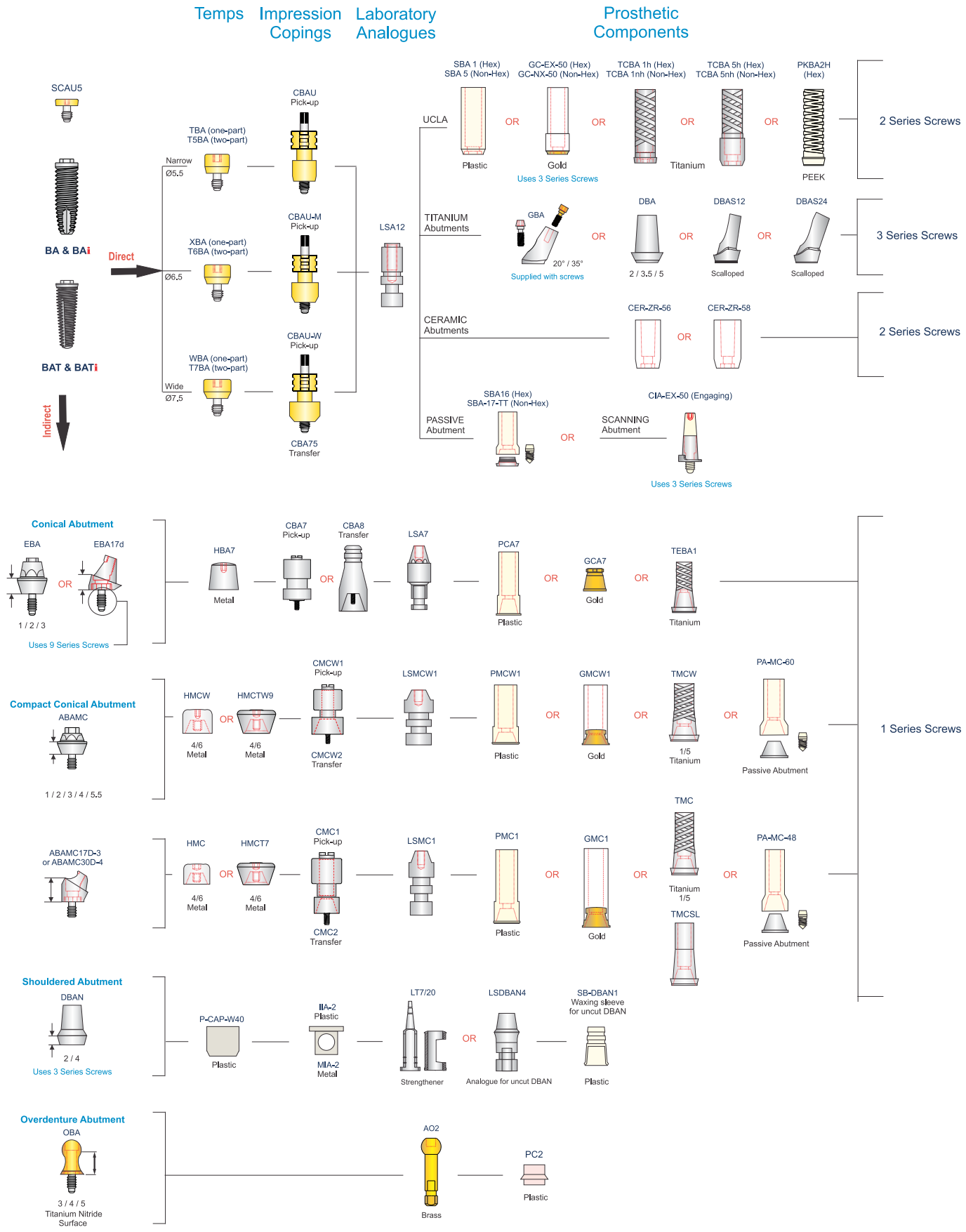
BAT Tapered Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: Final Twist Drill to full depth
Step 3: Dedicated Drill to full depth
Step 4: Optional - Tap for cortical bone
Step 5: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

BA & BAT Prosthetic Flowchart



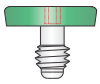
The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

BBBS / BBBi & BBBT / BBBTi Implants

⚠ Diameter 6.0mm Implants and Components

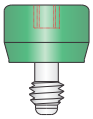
Cover Screw

SCU6

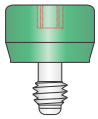


Healing Abutments

TBBB

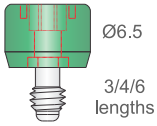


WBBB

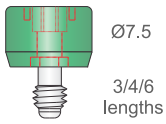


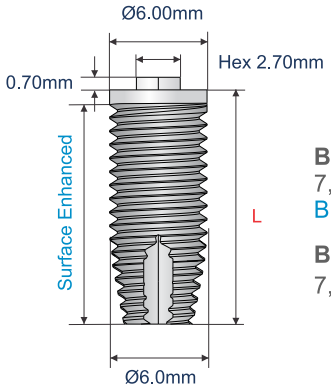
Two-Part Healing Abutments

T6BBB



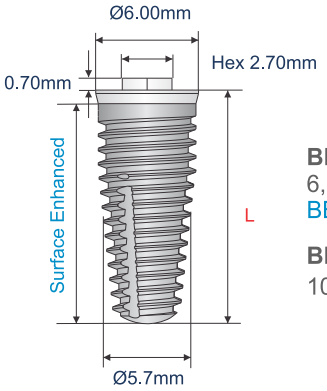
T7BBB





BBBS Implants are available in:
7, 8.5, 10, 11.5, 13 & 15mm.
BBBS Implants are pre-mounted.

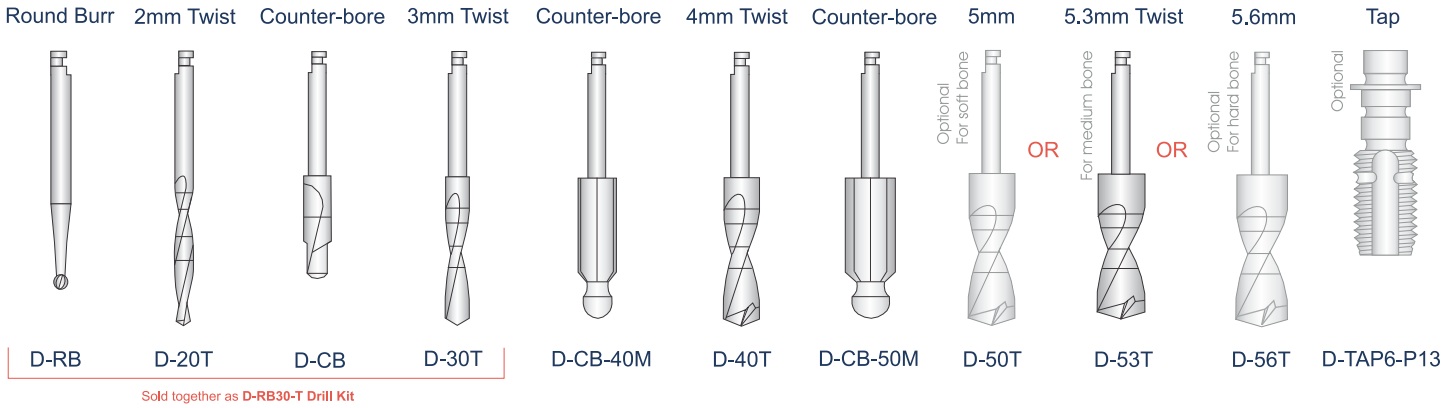
BBBi Implants are available in:
7, 8.5, 10, 11.5, 13 & 15mm.



BBBT Implants are available in:
6, 8.5, 10, 11.5, 13, 15 & 18mm.
BBBT Implants are pre-mounted.

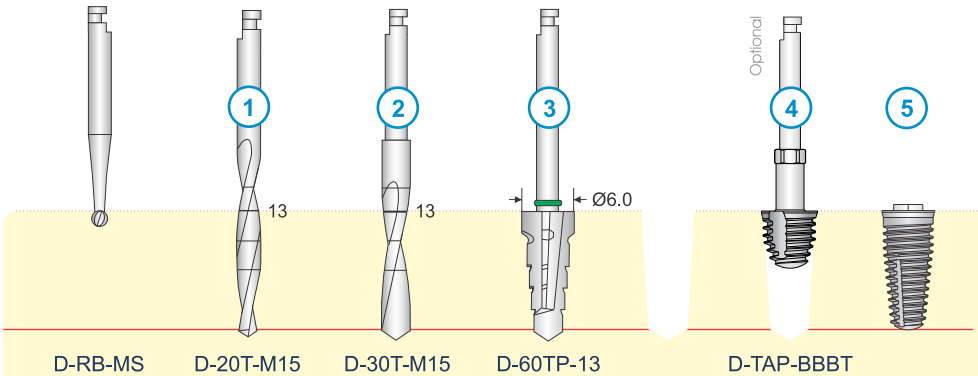
BBBTi Implants are available in:
10, 11.5, 13 & 15mm.

BBB Straight Site Preparation Sequence



Sold together as **D-RB30-T Drill Kit**

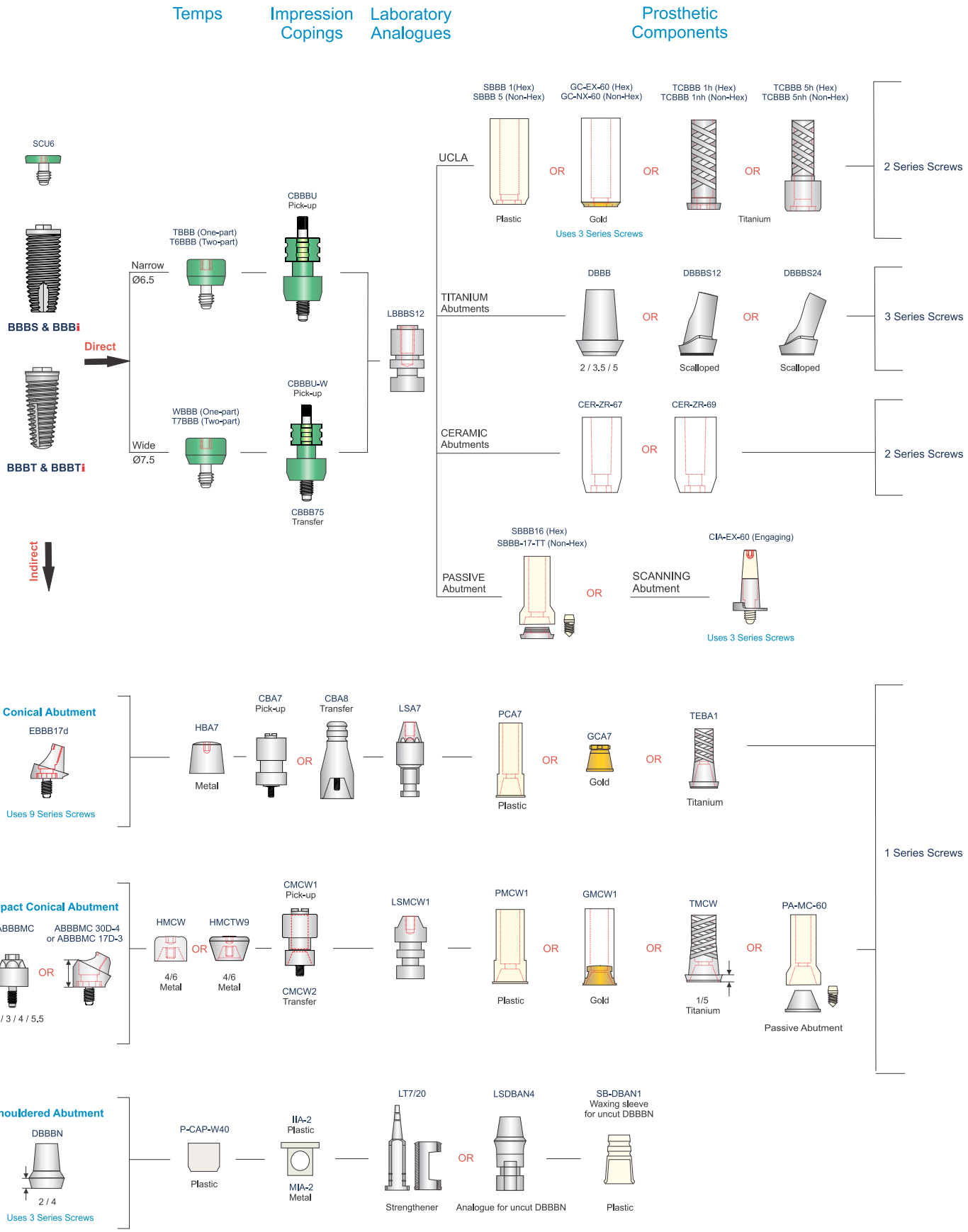
BBBT Tapered Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: 3mm Drill to full depth of implant
Step 3: Dedicated Drill to full depth
Step 4: Optional - Tap for cortical bone
Step 5: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

BBB & BBBT Prosthetic Flowchart



The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.







Immediate implant placement into a molar extraction socket.

Background

The immediate placement of a conventional dental implant into a molar extraction socket poses a number of difficulties. Most significantly, the size and shape of the multi-rooted molar socket is not suited to optimal placement of a typical dental implant, often resulting in compromised implant positioning, poor primary stability or the inability to place an implant at all. This may result in the need for a waiting period of 3 to 4 months to allow for healing of the socket prior to attempting implant placement. Often, the healed extraction site presents with reduced bone height, inadequate for implant placement, resulting in the need for bone augmentation procedures, especially in the maxilla. This leads to further lengthening of treatment time with increased cost and complexity. An alternate approach has been to place a 6.00mm diameter implant into one socket of a multi-rooted extraction site, typically the palatal socket of a maxillary molar. Problems associated with the latter approach include adverse biomechanical forces resulting from the implant being off- centre and off-axis to the application of load, poor emergence profile and difficult hygiene maintenance resulting from the unavoidable buccal overhang of the restoration.

The MAX Concept

The concept of the MAX implant provides for a design of implant and a surgical protocol which makes immediate placement of the implant into a multi-rooted molar socket attainable, thus obviating the multiple problems discussed above.

The MAX implant features a body with larger than conventional diameter to fill the molar site and achieve primary stability from engagement of the perimeter bony wall of the specially prepared molar socket. The greater taper of the implant body allows for maximal preservation and engagement of inter-radicular bone within the socket of a molar with divergent roots. In the case of a molar tooth with tapering root form, the implant body has a natural fit to the socket shape. The tapered geometry of the implant allows excellent primary stability to be achieved by the threaded implant.

Surgical protocol

The ability to immediately place a MAX implant into a fresh molar extraction site represents the major advantage of this innovative treatment modality. The modality is, however, critically dependant on the preservation of the perimeter bony walls of the socket at extraction. In the case of a multi-rooted molar tooth, the extraction is best carried out by sectioning the tooth to allow removal of the roots individually, avoiding fracture of the buccal plate. If the crown of the molar is cut off horizontally, the roots can be separated and the inter-radicular bone within the socket can be removed to provide space into which the roots can be elevated. Once the roots are removed, further preparation of the socket is carried out to create a suitable tapered shape to receive the implant.

Due to the highly variable anatomy of molar roots, the operator needs to adapt the method of surgical preparation of the socket according to circumstances. Socket preparation may include all or part of the following sequence:

a. Removal of inter-radicular bone within the socket using surgical burs or Rongeur type instruments, to create a platform for pilot hole preparation.
b. Preparation of a pilot hole in the center of the socket or desired axis of placement of the implant. Pilot hole preparation may include the use of tapered implant drills of 4, 5 or 6 mm diameter.
c. Shaping of the socket using a dedicated osteotome tool designed for the MAX implant which achieves deformation of the bony walls rather than further bone removal.
d. Shaping of the socket using dedicated MAX implant drills.

The threaded MAX implant is screwed into the prepared site to achieve optimal primary stability. It is recommended that bone removed from the socket by the preceding preparation be harvested in a suction trap and utilized to fill any remaining voids around the seated implant. The occurrence of voids is frequent due to the irregular shape of molar sockets.

Restorative Protocol

The restorative interface of the MAX implant features a wide platform and external hex.
The implant is restored by “platform switching” i.e. the platform of the restorative component has a smaller diameter than that of the implant platform. Restorative procedures are otherwise similar to those of other externally hexed implants. See flow charts of available restorative options.

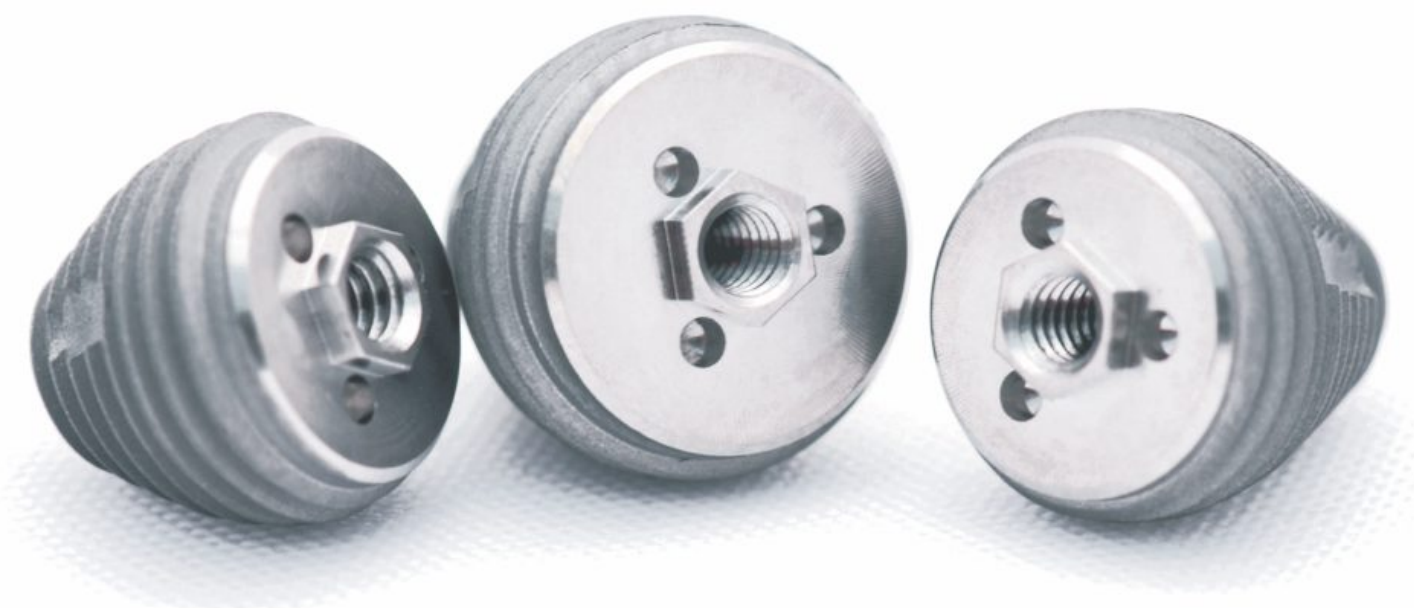
Advantages of the MAX protocol

1. Immediate placement of the MAX implant into a molar socket has the following advantages:
   - -preservation of alveolar bone
   - -avoidance of separate grafting procedures
   - -shortened treatment time for molar replacement
   - -reduced number of surgical procedures
   - -reduced cost and complexity of treatment
2. Excellent primary stability is achieved by the tapered, threaded design engaging perimeter bony walls of the socket.







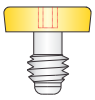


MAX-7 Implants

⚠ Diameter 7.0mm Implants used with diameter 5.0mmComponents

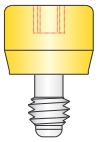
Cover Screw

SCAU5



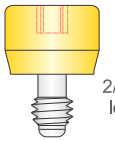
Healing Abutments

TBA



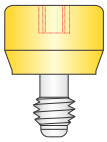
Ø5.5
2/3/4/6 lengths

XBA



Ø6.5
2/3/4/6/8 lengths

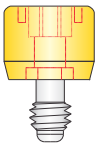
WBA



Ø7.5
2/3/4/6 lengths

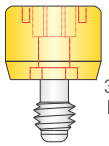
Two-Part Healing Abutments

T5BA



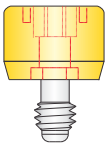
Ø5.5
3/4/6 lengths

T6BA

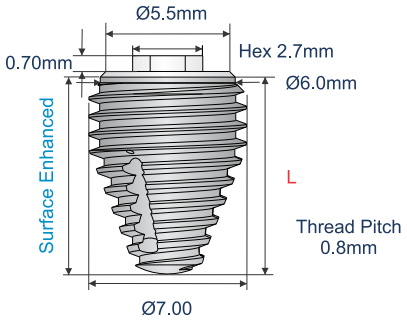


Ø6.5
3/4/6/12 lengths

T7BA



Ø7.5
3/4/6 lengths

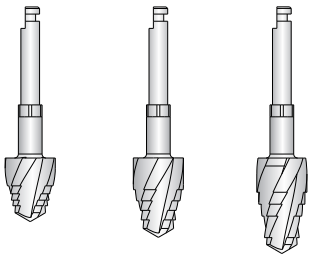


MAX-7 are pre-mounted and are available in the following lengths:

7mm	code: MAX-7-7
9mm	code: MAX-7-9
11mm	code: MAX-7-11

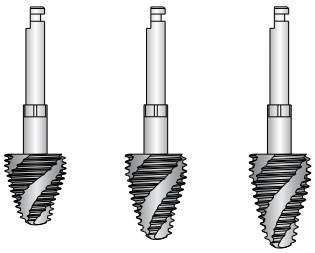
MAX-7 Drills & Additional Instrumentation

Dedicated Drills



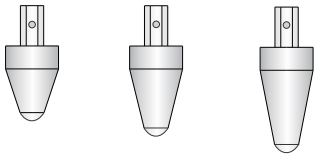
D-70TP-7 / 9 / 11

Dedicated Taps



D-TAP-MAX7-7 / 9 / 11

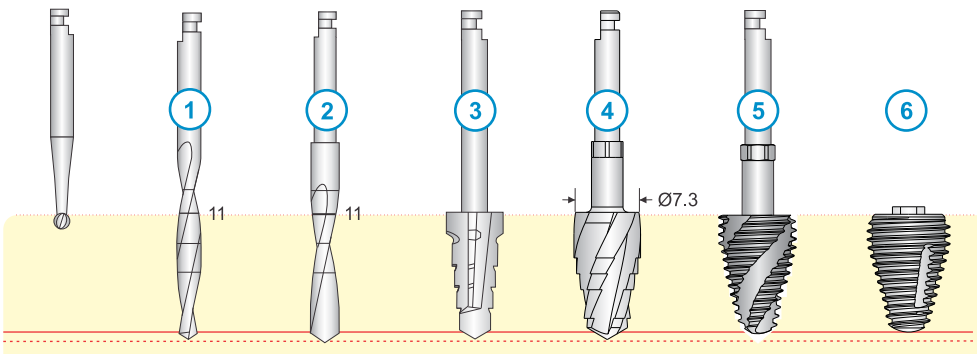
Profile Gauges



MAX-7-PG-7 / 9 / 11

MAX-ROD

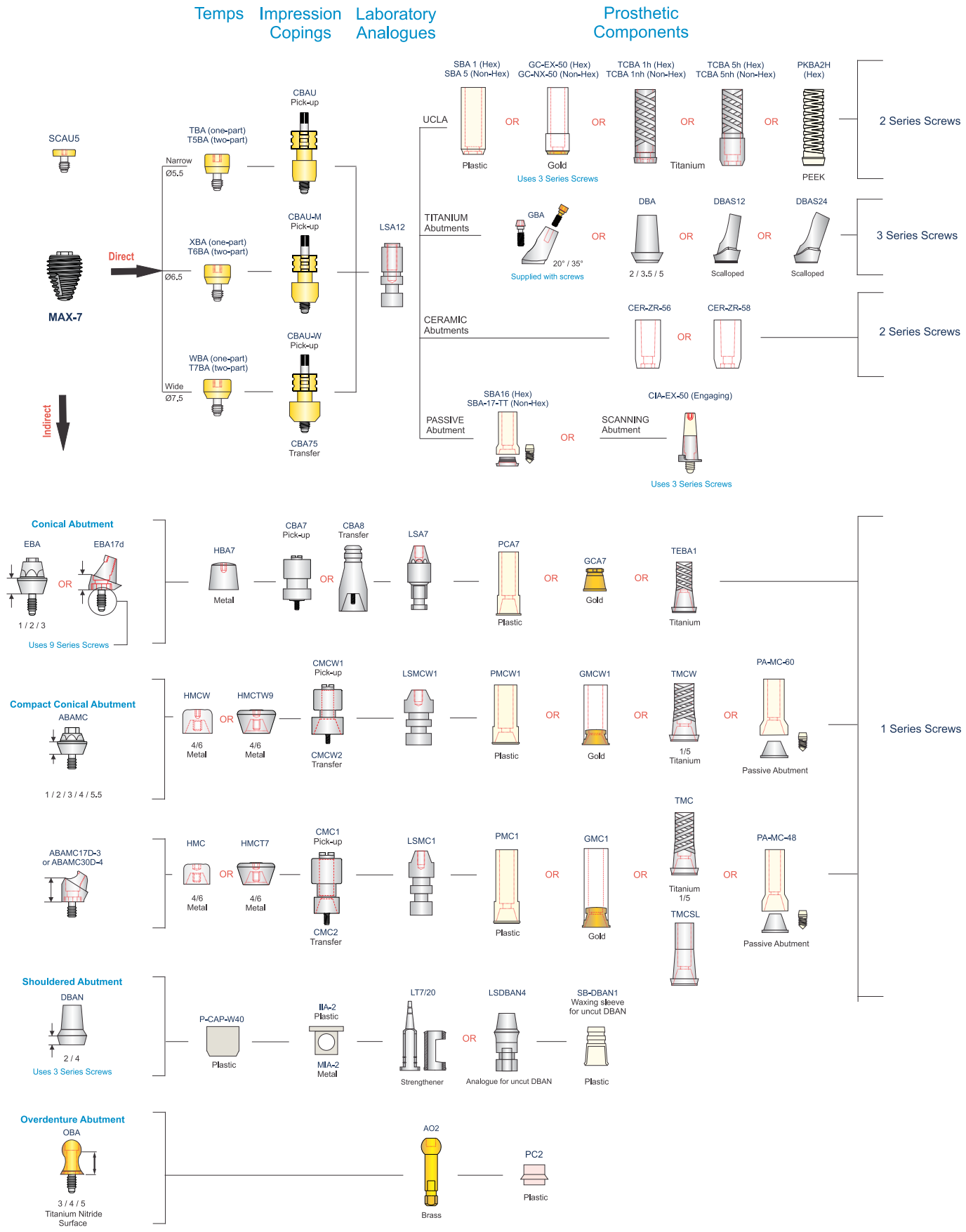
MAX-7 Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: Final Twist Drill to full depth
Step 3: Dedicated Drill to full depth
Step 4: Dedicated Drill to full depth
Step 5: Dedicated Tap for cortical bone
Step 6: Place Implant

(illustration is for a 11mm implant)
drill markings are at 7, 10, 13 and 15mm

MAX-7 Prosthetic Flowchart



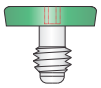
The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

MAX-8 Implants

⚠ Diameter 8.0mm Implants used with diameter 6.0mmComponents

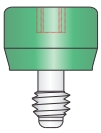
Cover Screw

SCU6

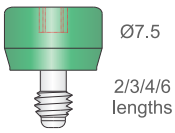


Healing Abutments

TBBB

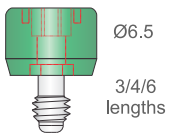


WBBB

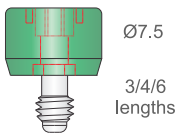


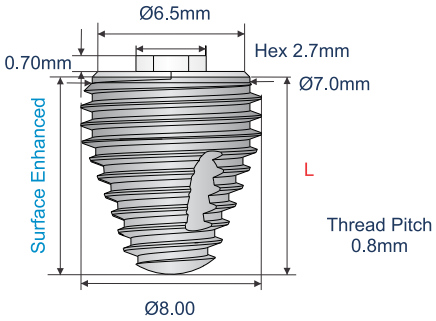
Two-Part Healing Abutments

T6BBB



T7BBB



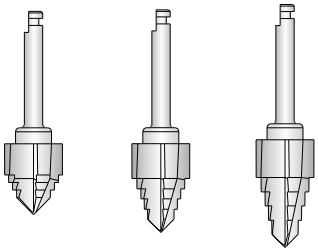


MAX-8 are pre-mounted and are available in the following lengths:

7mm	code: MAX-8-7
9mm	code: MAX-8-9
11mm	code: MAX-8-11

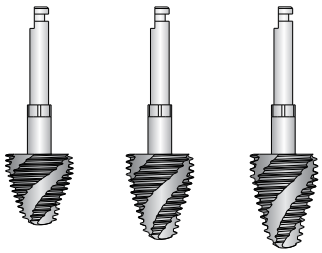
MAX-8 Drills & Additional Instrumentation

Dedicated Drills



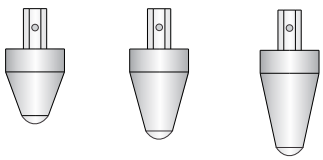
D-80TP-7 / 9 / 11

Dedicated Taps



D-TAP-MAX8-7 / 9 / 11

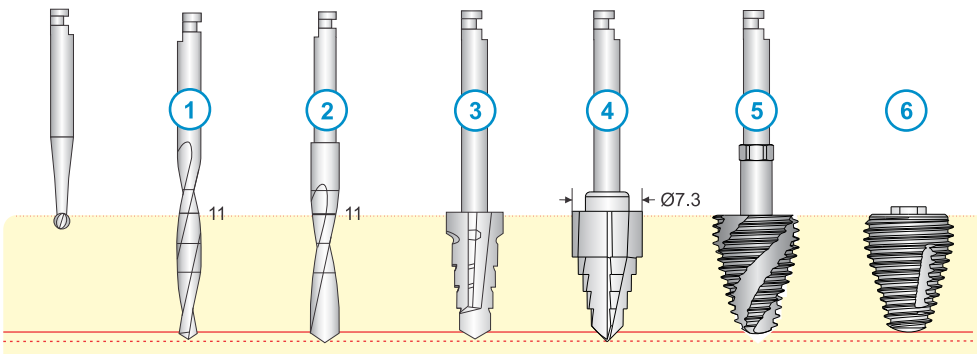
Profile Gauges



MAX-8-PG-7 / 9 / 11

MAX-ROD

MAX-8 Site Preparation Sequence

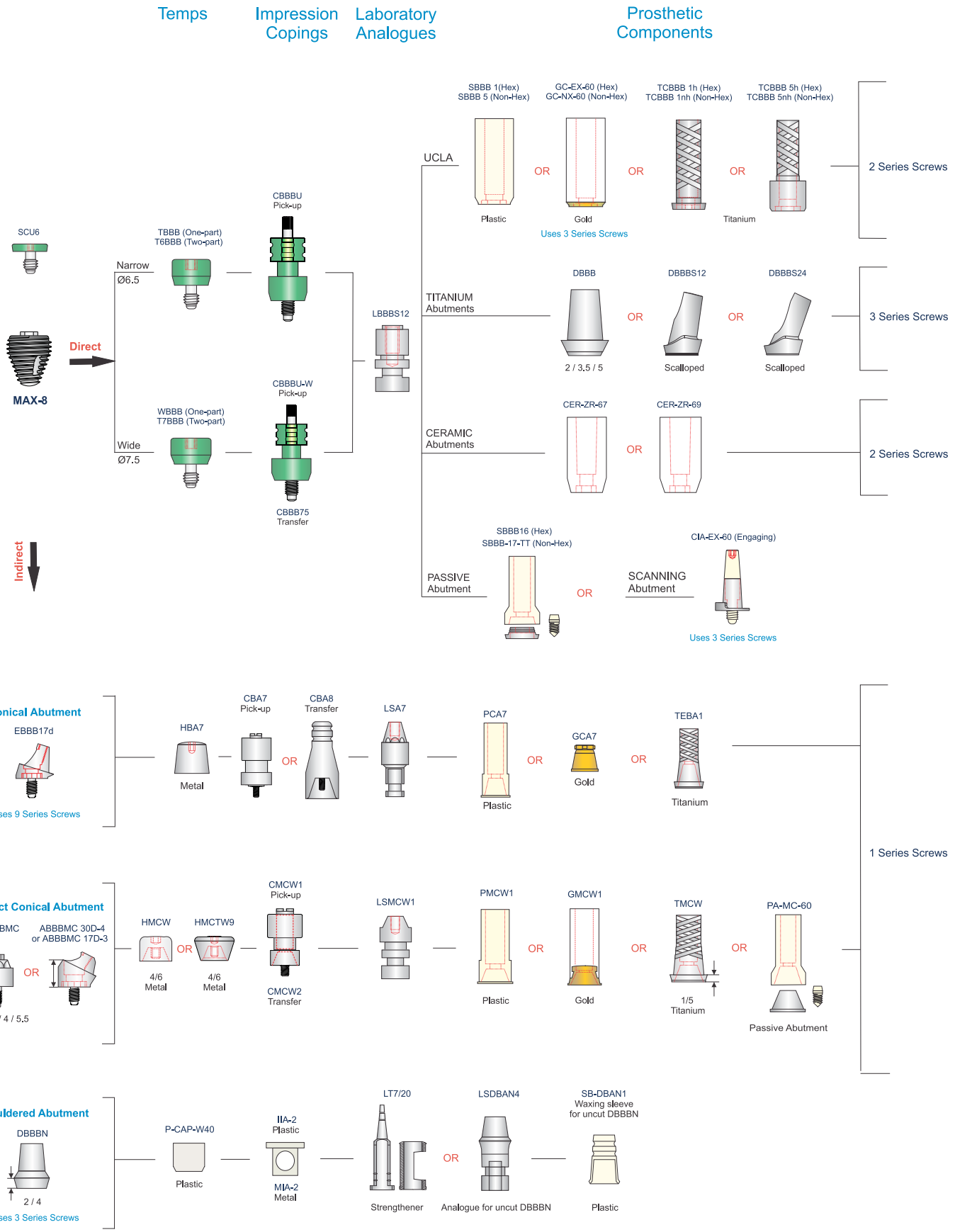


Step 1: Pilot Drill to full depth of implant
Step 2: Final Twist Drill to full depth
Step 3: Dedicated Drill to full depth
Step 4: Dedicated Drill to full depth
Step 5: Dedicated Tap for cortical bone
Step 6: Place Implant

(illustration is for a 11mm implant)
drill markings are at 7, 10, 13 and 15mm

Earlier revisions of the MAX drills are 2.4mm longer than the implant. These can easily be identified by the lazer marking on the body of the drill. Current drills are marked on the shank.

MAX-8 Prosthetic Flowchart



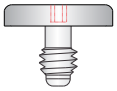
The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

MAX-9 Implants

⚠ Diameter 9.0mm Implants used with diameter 7.0mmComponents

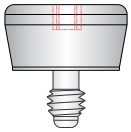
Cover Screw

SCU7



Healing Abutments

TB9MAX

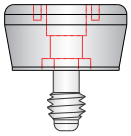


Ø8.0

4/5.5/7 lengths

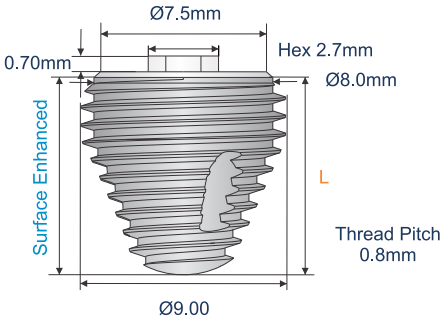
Two-Part Healing Abutment

TMAX9



Ø8.0

4/5.5/7 lengths

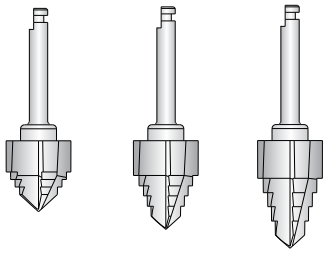


MAX-9 are pre-mounted and available in the following lengths:

7mm	code: MAX-9-7
9mm	code: MAX-9-9
11mm	code: MAX-9-11

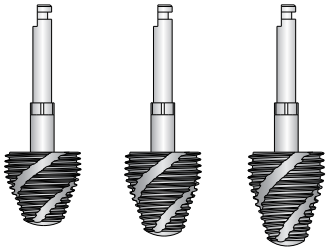
MAX-9 Drills & Additional Instrumentation

Dedicated Drills



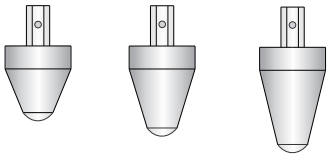
D-90TP-7 / 9 / 11

Dedicated Taps



D-TAP-MAX9-7 / 9 / 11

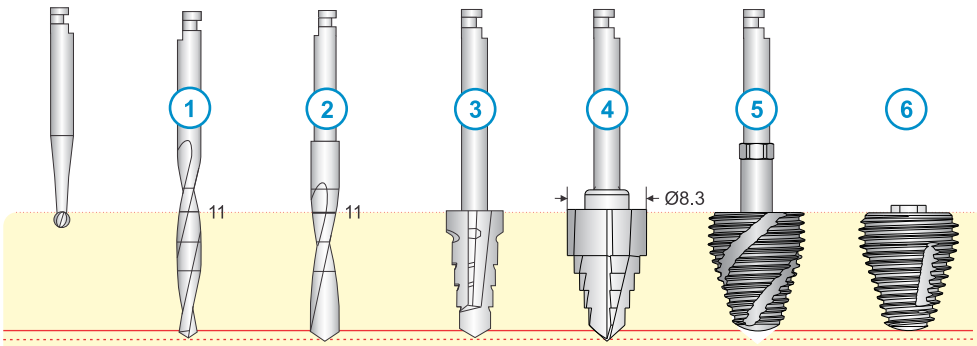
Profile Gauges



MAX-9-PG-7 / 9 / 11

MAX-ROD

MAX-9 Site Preparation Sequence

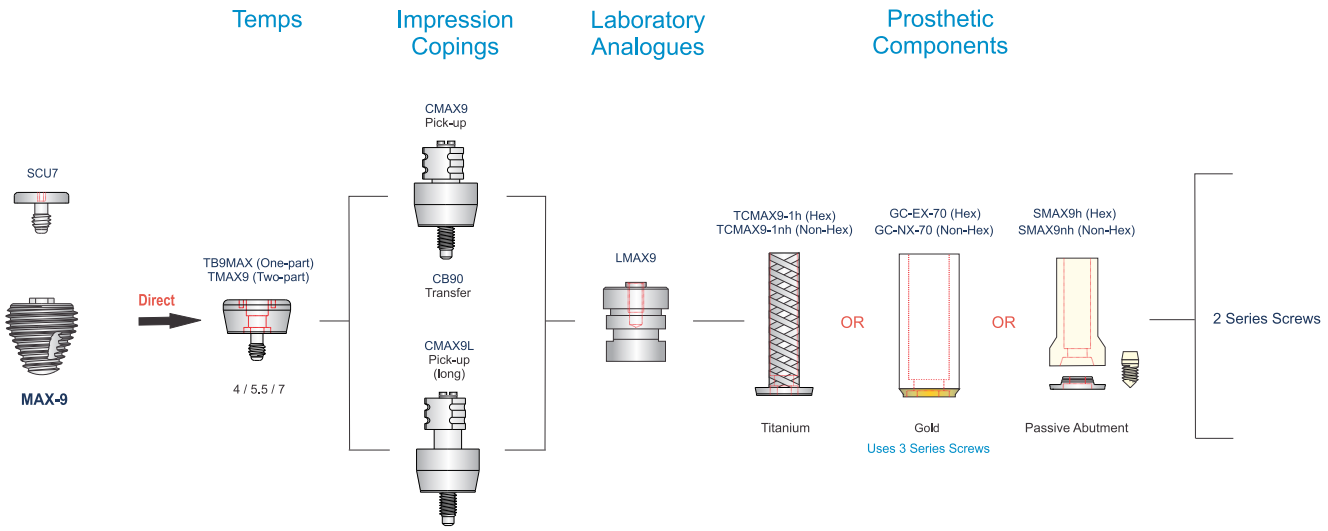


Step 1: Pilot Drill to full depth of implant
Step 2: Final Twist Drill to full depth
Step 3: Dedicated Drill to full depth
Step 4: Dedicated Drill to full depth
Step 5: Dedicated Tap for cortical bone
Step 6: Place Implant

(illustration is for a 11mm implant)
drill markings are at 7, 10, 13 and 15mm

Earlier revisions of the MAX drills are 2.4mm longer than the implant. These can easily be identified by the lazer marking on the body of the drill. Current drills are marked on the shank.

MAX-9 Prosthetic Flowchart



MAX Ø10.00mm Implants are also available in lengths 7, 9, 11 and 13mm as “special items”.
For more information please contact Southern Implants Head Office.

The Co-Axis implant is indicated for use in situations where the long axis of a conventional implant would not coincide with the long axis of the restoration and would therefore result in a restorative compromise.

The most common example of this is encountered where an implant is placed in the anterior maxilla at a labially inclined angle, as dictated by the anatomy of the alveolus, resulting in the screw access hole of the prosthetic crown passing through the labial face of the crown. The Co-Axis implant effectively solves this problem by having the prosthetic platform and screw hole of the implant tilted at an angle of 12 or 24 degrees to the long axis of the implant. The axis of the retaining screw is therefore also offset within the body of the implant.

The Co-Axis concept can be applied to solve many other situations where inclined placement of implants is either unavoidable or even an advantage. For example where avoidance of anatomical structures dictates (eg maxillary sinus, mental foramen) or where bony anatomy can be maximised by inclined placement of an implant. An elegant and truly innovative solution to a frequent problem in implant dentistry.

Advantages

1. The Co-Axis solution greatly simplifies the restorative treatment of an inclined implant by eliminating the need for angle correcting abutments or custom abutments. This reduces the number and cost of components required, reduces the complexity and cost of laboratory work as well as the number of patient visits required.
2. Esthetic advantages result from having no need for labially placed screw access holes.
3. Avoidance of anatomical structures by inclined implant placement, without incurring prosthetic complications, is made possible by exploiting the Co-Axis concept.
4. The Co-Axis implant allows for maximal utilisation of available bone anatomy and may result in the advantage of being able to use either a longer or larger diameter implant.
5. Screw retained restorations can be used instead of cemented restorations
6. Immediate loading protocols are greatly facilitated by use of the Co-Axis implant by making screw retained restorations routinely attainable.
7. The tapered Co-Axis implant provides an anatomically correct implant for ideal use in the anterior maxilla.

Placement

Implant site drilling is done in the conventional manner, using tapered drills, but in such a way that the 12 or 24 degree angle correction that the implant head offers, is exploited. This allows for best utilisation of available bone. The bone preparation is best done to a depth slightly greater than the intended implant length e.g. drill to 15mm for a 13mm implant. This technique will assure full seating of the implant to the desired depth.

The use of a Co-Axis direction indicator in the prepared site after pilot drilling and after final drilling, will allow the operator to visualise the restorative axis of the implant, before committing to implant placement. The implant is mounted on a special fixture mount which compensates for the tilted implant head and thus results in straight line placement of the implant, just as any other fixture mounted implant.

The fixture mount is marked with a clearly visible dimple which is used as a reference of the rotational position of the implant relative to the angle correction ie. the platform of the implant is angled AWAY FROM the dimple. This means that, in a typical anterior maxillary placement, the dimple should end up being positioned on the mid labial aspect of the site. In the event that the fixture mount and implant need to be reassembled, care must be taken to align the fixture mount dimple with the notch cut into the top of the implant hexagon. This will ensure concentric rotation on the assembly.

The implant should be placed to a depth dictated by a number of factors, including esthetic demand for concealment of the implant collar, thickness of soft tissue and personal preferences of the operator or restorative dentist. Typically, if the broad collar on the labial aspect of the implant is placed to the crest of the labial bone height, it may result in other areas of the collar being sub-crestal. This would be an indication for using a bone mill before seating the preferred abutment.

The Co-Axis implant is specifically designed with a finer thread pitch than most other implants, with the result that a full rotation of the implant results in a depth change of only 0.6mm. This feature makes it easier to achieve the correct positioning of the 12 degree angle (dimple indicator) in combination with the correct depth of placement.

IBT12d Co-Axis Implants

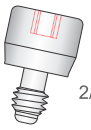
Diameter 4.0mm Implants and Components

Cover Screw

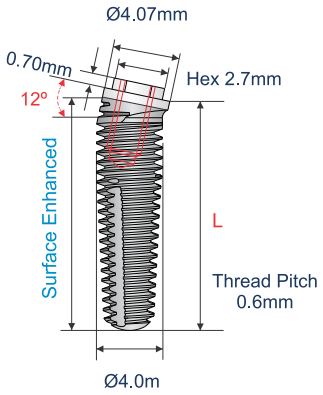
SCU2

Healing Abutments

TB



WB

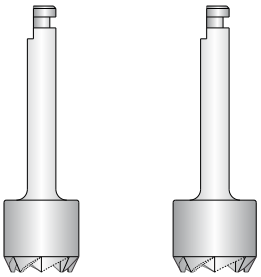


IBT12d are pre-mounted and are available in the following lengths:

8.5mm	code: IBT12d-8.5
10mm	code: IBT12d-10
11.5mm	code: IBT12d-11.5
13mm	code: IBT12d-13
15mm	code: IBT12d-15
18mm	code: IBT12d-18

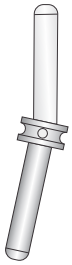
IBT12d Additional Instrumentation

Bone Mills



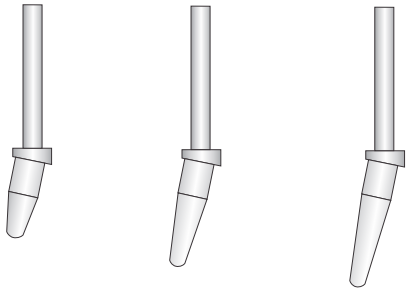
I-BM-57 I-BM-67

Direction Indicator



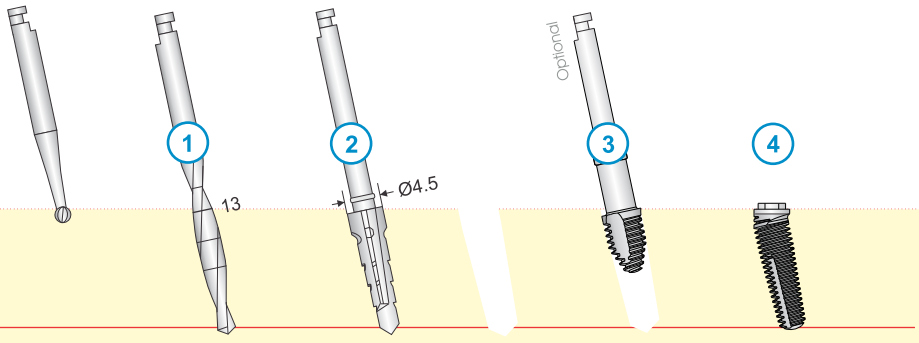
I-DI-12d

Direction Indicators



I-DI12d-4T-10 I-DI12d-4T-13 I-DI12d-4T-15

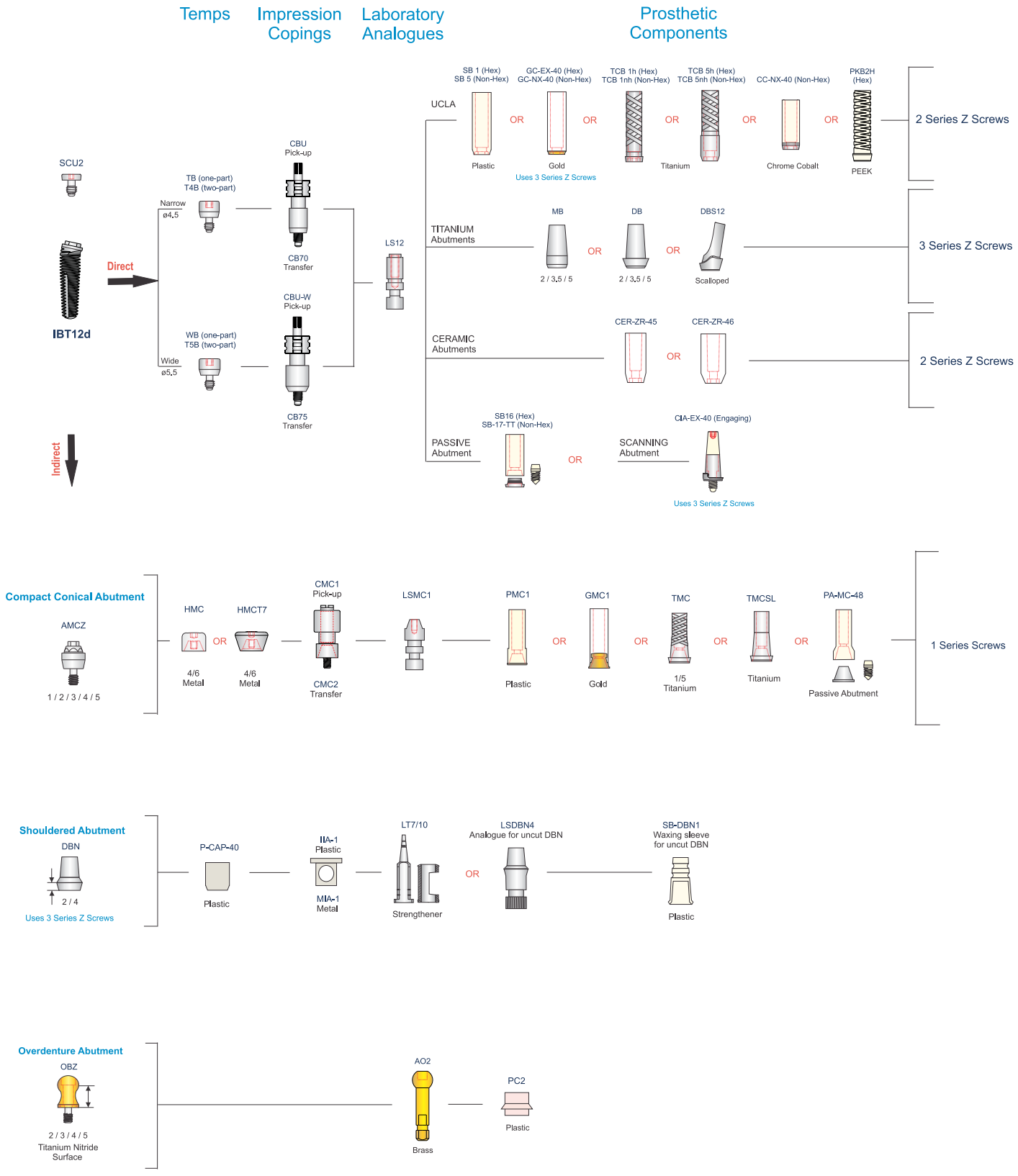
IBT12d Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: Dedicated Drill to full depth
Step 3: Optional - Tap for cortical bone
Step 4: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

IBT12d Prosthetic Flowchart



NOTE: The IBT12d product range MUST be used with “Z” range shortened screw prosthetics. The angled head results in a shallower screw site and if used, the longer screw prosthetics will not seat correctly, and can lead to fractured screws

The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

BAT12d & BAT24d Co-Axis Implants

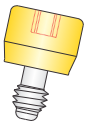
Diameter 5.0mm Implants and Components

Cover Screw

SCAU5

Healing Abutment

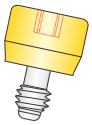
TBA



Ø5.5

2/3/4/6 lengths

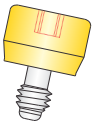
XBA



Ø6.5

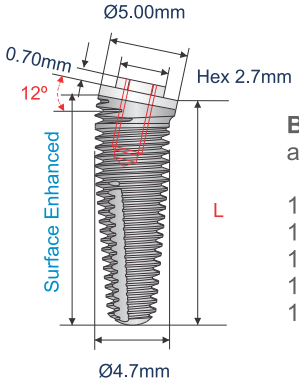
2/3/4/6/8 lengths

WBA



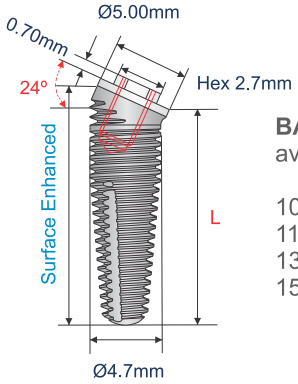
Ø7.5

2/3/4/6 lengths



BAT12d are pre-mounted and are available in the following lengths:

10mm	code: BAT12d-10
11.5mm	code: BAT12d-11.5
13mm	code: BAT12d-13
15mm	code: BAT12d-15
18mm	code: BAT12d-18

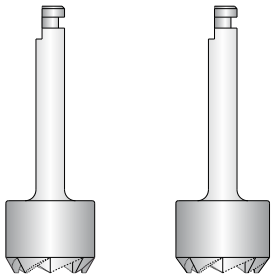


BAT24d are pre-mounted and are available in the following lengths:

10mm	code: BAT24d-10
11.5mm	code: BAT24d-11.5
13mm	code: BAT24d-13
15mm	code: BAT24d-15

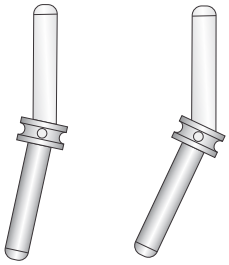
BAT12d / 24d Additional Instrumentation

Bone Mills



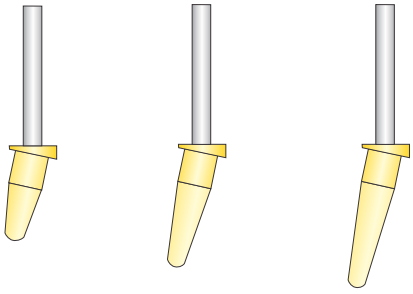
I-BAM-62 I-BAM-77

Direction Indicator



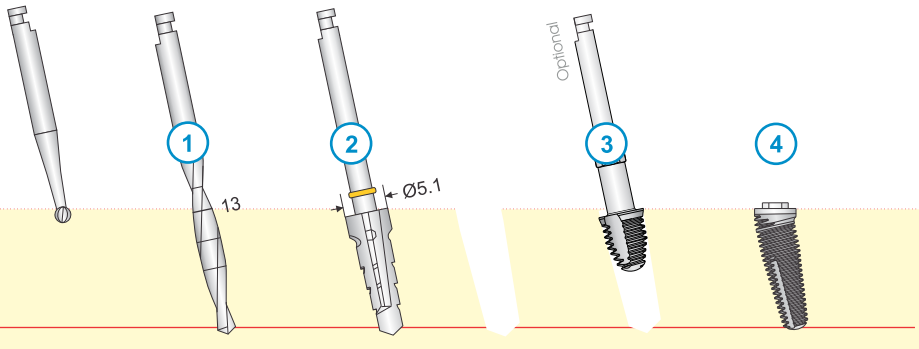
I-DI-12d I-DI-24d

Direction Indicators



I-DI12d-5T-10 I-DI12d-5T-13 I-DI12d-5T-15

BAT12d / 24d Site Preparation Sequence



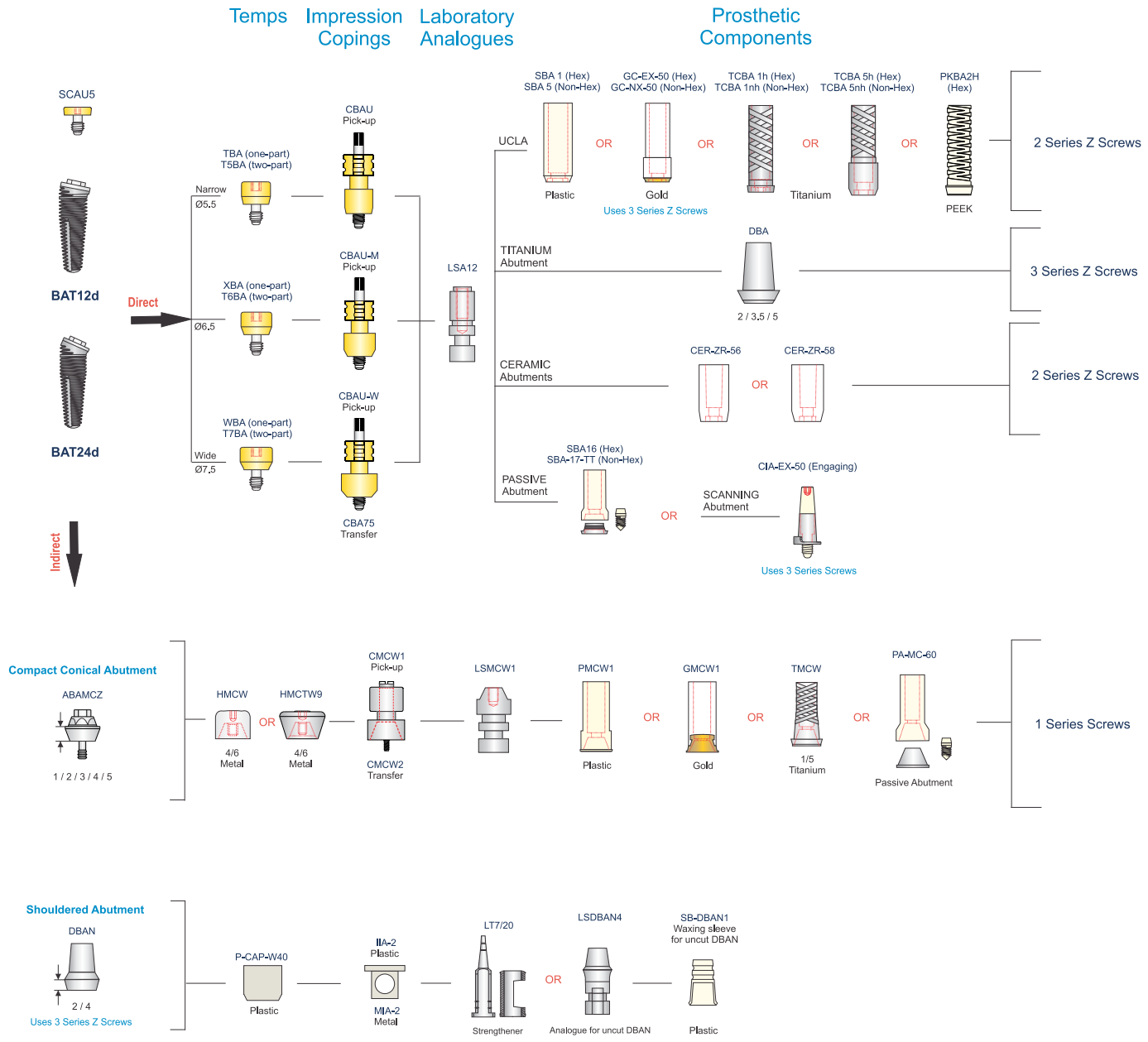
D-RB-MS D-20T-M15 D-50TP-13 D-TAP-BAT

Step 1: Pilot Drill to full depth of implant
Step 2: Dedicated Drill to full depth
Step 3: Optional - Tap for cortical bone
Step 4: Place Implant

(illustration is for a 13mm implant)

drill markings are at 7, 10, 13 and 15mm

BAT12d & BAT24d Prosthetic Flowchart



NOTE: 1. Platform Shifting is possible and in some cases the preferred restorative protocol for this implant. For Platform Shifting use the restorative options of the IBT12d (page 25).

2.The BAT12d range can use the same prosthetics as for the BA & BAT Implant range. (See page 11)

This innovative concept was specifically designed with the tilted Implant techniques in mind.

By making the angle of the implant head 24d, complicated prosthetic procedures where angled abutments are needed are eliminated. The restorative platform of this implant is Ø5.00, the same as the BA range of implants. Special prosthetics are required, as depicted above, due to the internal thread of the implant being slightly shallower. The Z Series screws must be used.

BAT36d Co-Axis Implants

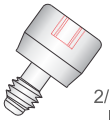
⚠ **Diameter 5.0mm Implants used with Diameter 4.0mm Components**

Cover Screw

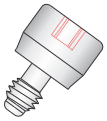
SCU2

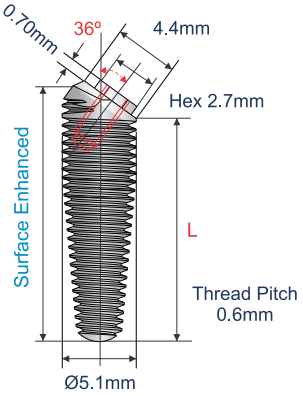
Healing Abutments

TB



WB



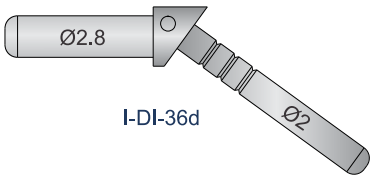


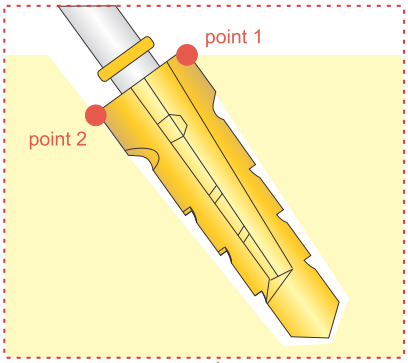
BAT36d are pre-mounted and are available in the following lengths:

10mm	code: BAT36d-10
11.5mm	code: BAT36d-11.5
13mm	code: BAT36d-13
15mm	code: BAT36d-15
18mm	code: BAT36d-18

BAT36d Additional Instrumentation

Direction Indicator





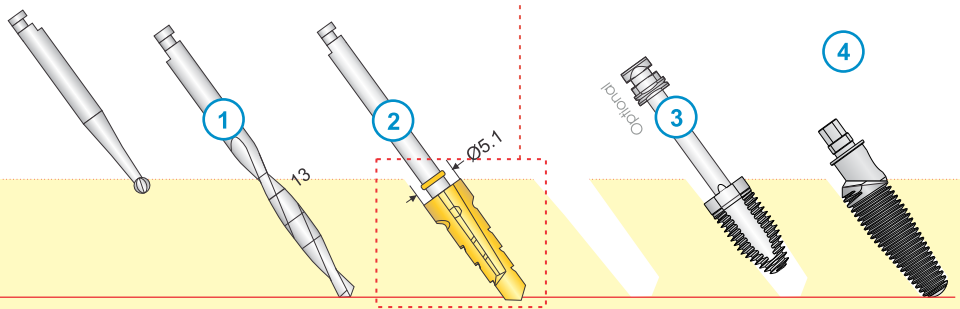
Please note:

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

Point 2
This corner of the drill will be subcrestal.

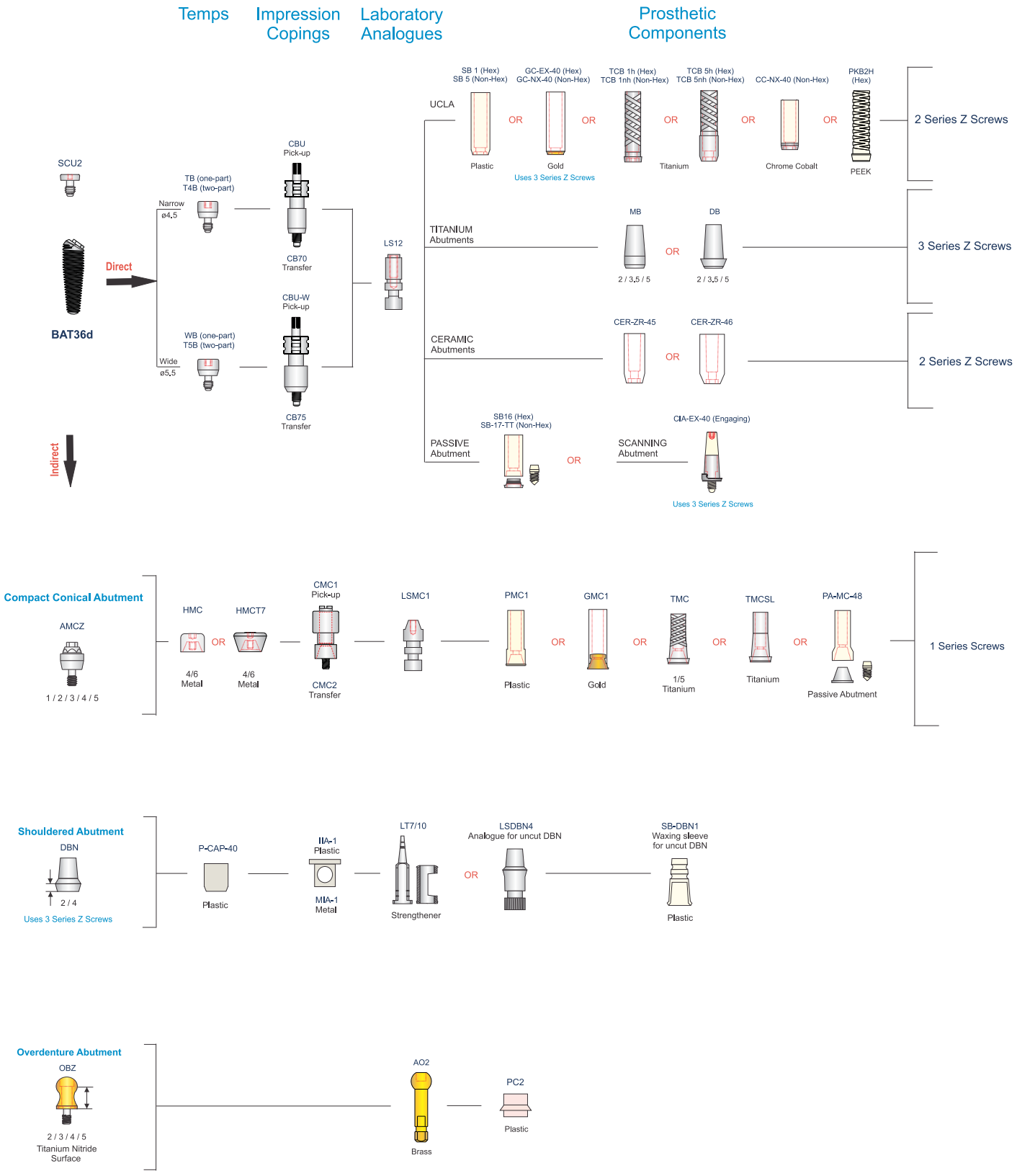
BAT36d Site Preparation Sequence

Step 1: Pilot Drill to full depth of implant
Step 2: Dedicated Drill to full depth
This is a Ø5.1 implant and hence the gold coloured drill D-52TP-13 is the ideal final drill.
However, in soft bone, D-50TP can be used to obtain greater primary stability.
Step 3: Optional - Tap for cortical bone
In hard bone, tapping of the cortical bone is recommended.
Step 4: Place Implant & remove fixture mount



(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

BAT36d Prosthetic Flowchart



NOTE: The BAT36d product range MUST be used with “Z” range shortened screw prosthetics. The angled head results in a shallower screw site and if used, the longer screw prosthetics will not seat correctly, and can lead to fractured screws

The Standard Abutment range is also still available. Please refer to CAT-1165 for further information.

BBBT12d & BBBT24d Co-Axis Implants

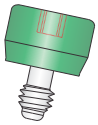
⚠ Diameter 6.0mm Implants and Components

Cover Screw

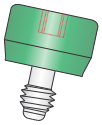
SCU6

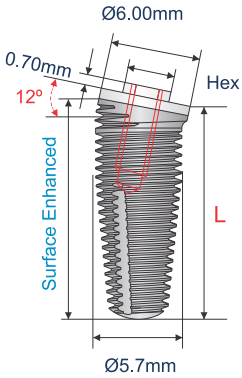
Healing Abutments

TBBB



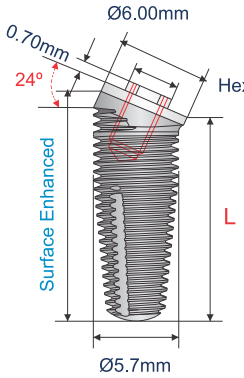
WBBB





BBBT12d are pre-mounted and are available in the following lengths:

10mm	code: BBBT12d-10
11.5mm	code: BBBT12d-11.5
13mm	code: BBBT12d-13
15mm	code: BBBT12d-15
18mm	code: BBBT12d-18

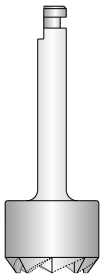


BBBT24d are pre-mounted and are available in the following lengths:

10mm	code: BBBT24d-10
11.5mm	code: BBBT24d-11.5
13mm	code: BBBT24d-13
15mm	code: BBBT24d-15

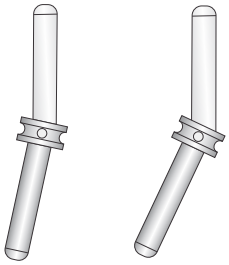
BBBT12d / 24d Additional Instrumentation

Bone Mills



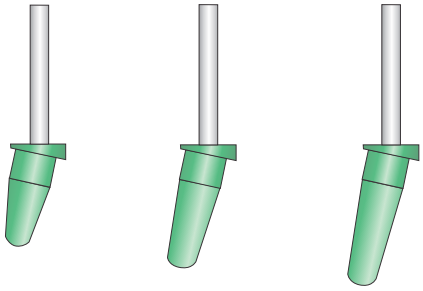
I-BBBM-77

Direction Indicator



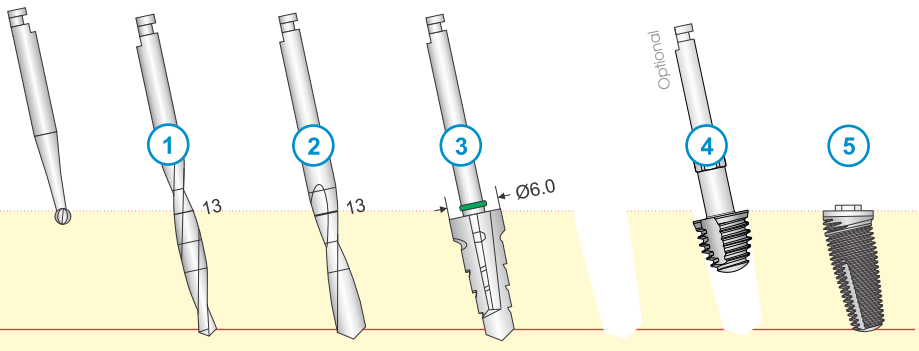
I-DI-12d I-DI-24d

Direction Indicators



I-DI12d-6T-10 I-DI12d-6T-13 I-DI12d-6T-15

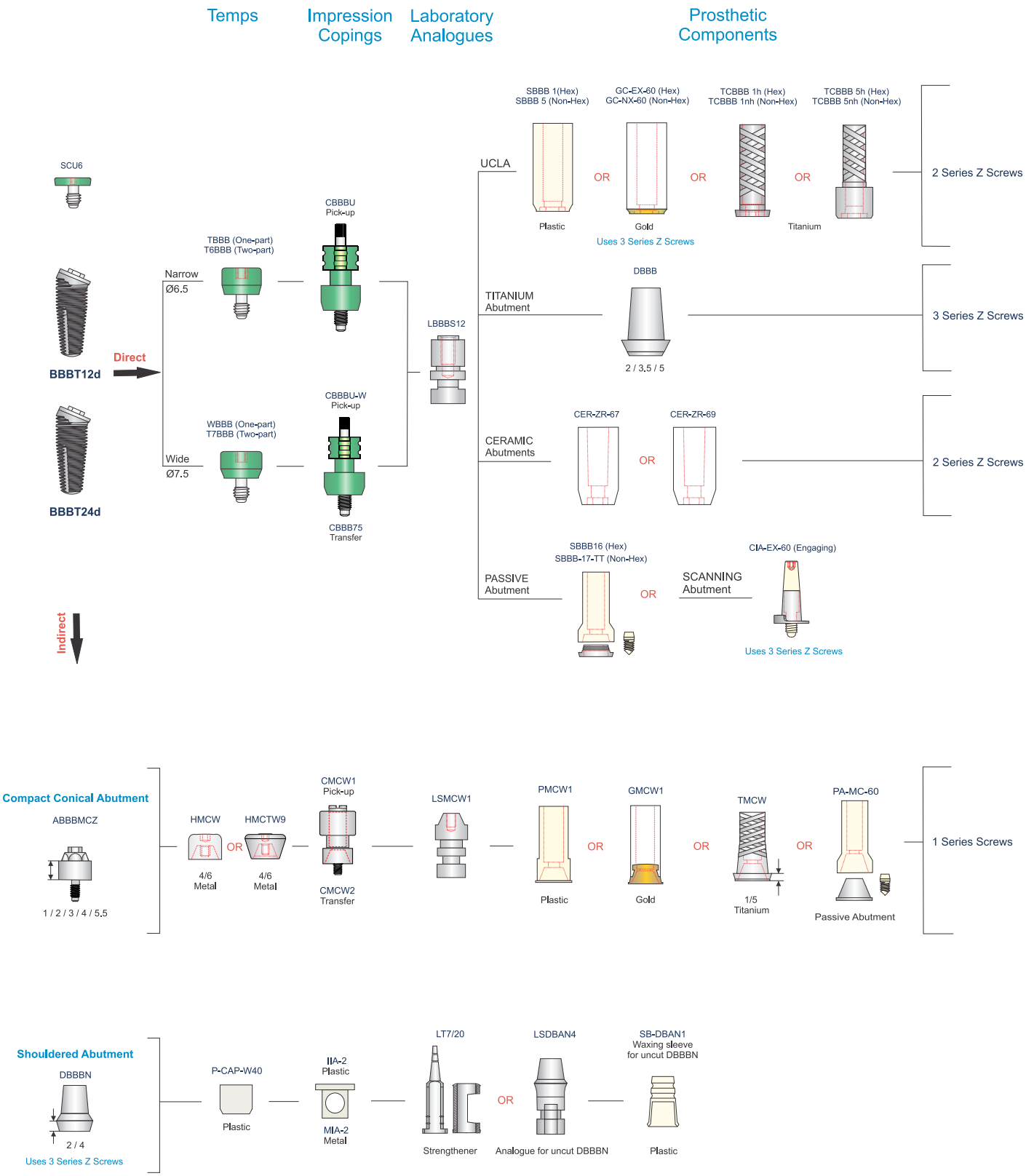
BBBT12d / 24d Site Preparation Sequence



Step 1: Pilot Drill to full depth of implant
Step 2: 3mm Drill to full depth of implant
Step 3: Dedicated Drill to full depth
Step 4: Optional - Tap for cortical bone
Step 5: Place Implant

(illustration is for a 13mm implant)
drill markings are at 7, 10, 13 and 15mm

BBBT12d & BBBT24d Prosthetic Flowchart (Platform Matched)



NOTE: 1. The BBBT12d can also use the prosthetics as for the BBB & BBBT Implant range. (See page 13)
2. If Platform Shifting these implants, then use the prosthetic options of the BAT12d / BAT24d as shown on page 27.

Platform Shifting

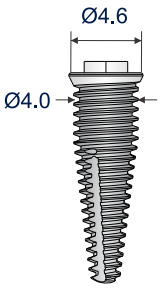
The platform shifting concept implies the use of prosthetic components having a platform diameter undersized when compared to the diameter of the implant platform. In this way, the prosthetic connection is displaced horizontally inwards from the perimeter of the implant platform, creating an angle or step between the abutment and implant. This concept has been widely published with claims of better bone levels.

Important: For platform shifting to be effective, it is important to carry out the under sizing of the components during all phases of the implant treatment, i.e. from placement of the implant through to final restoration.

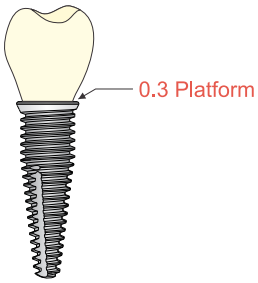
The principles and requirements for improved hard and soft tissue response by way of platform shifting are now well established in the literature. Of importance is the establishment of the shifted dimension from the time of implant placement, through all restorative phases.

Platform Shifting with Ø4.0 Externally Hexed Implants

Ø4.0 IBPS



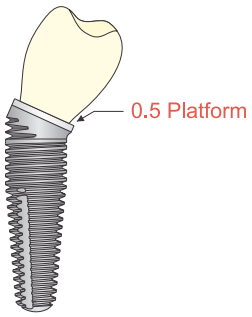
The Ø4.0 Implants get restored with Standard Platform Prosthetics as per page 7 to apply platform shifting.



Platform Shifting with Ø5.0 Externally Hexed Implants

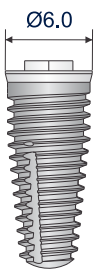
Ø5.0
BA
BAT
BAT12d
BAT24d

The Ø5.0 Implants get restored with Standard Platform Prosthetics as per page 7 for the BA, BAT and BAT12d implants. The BAT24d gets restored using the Co-Axis Standard Platform Prosthetics as per page 25 to apply platform shifting.

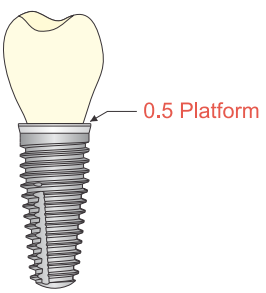


Platform Shifting with Ø6.0 Externally Hexed Implants

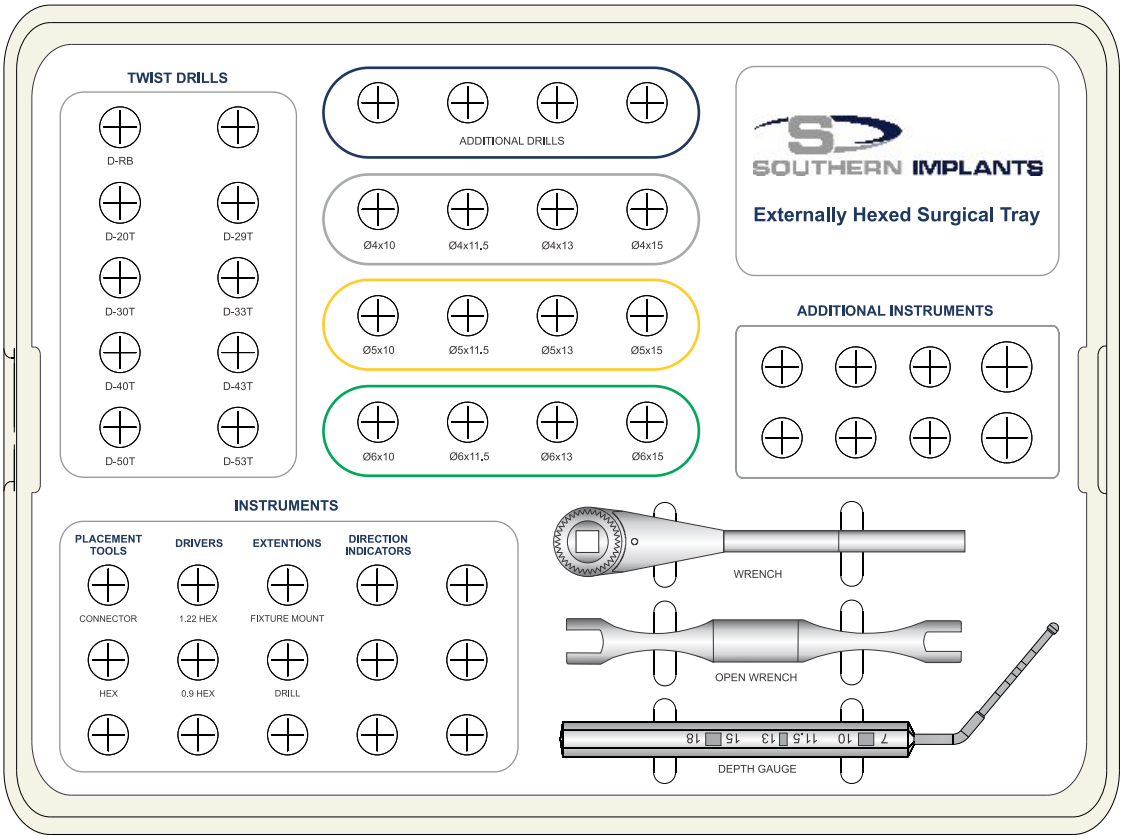
Ø6.0
BBBS
BBBT
BBBT12d
BBBT24d



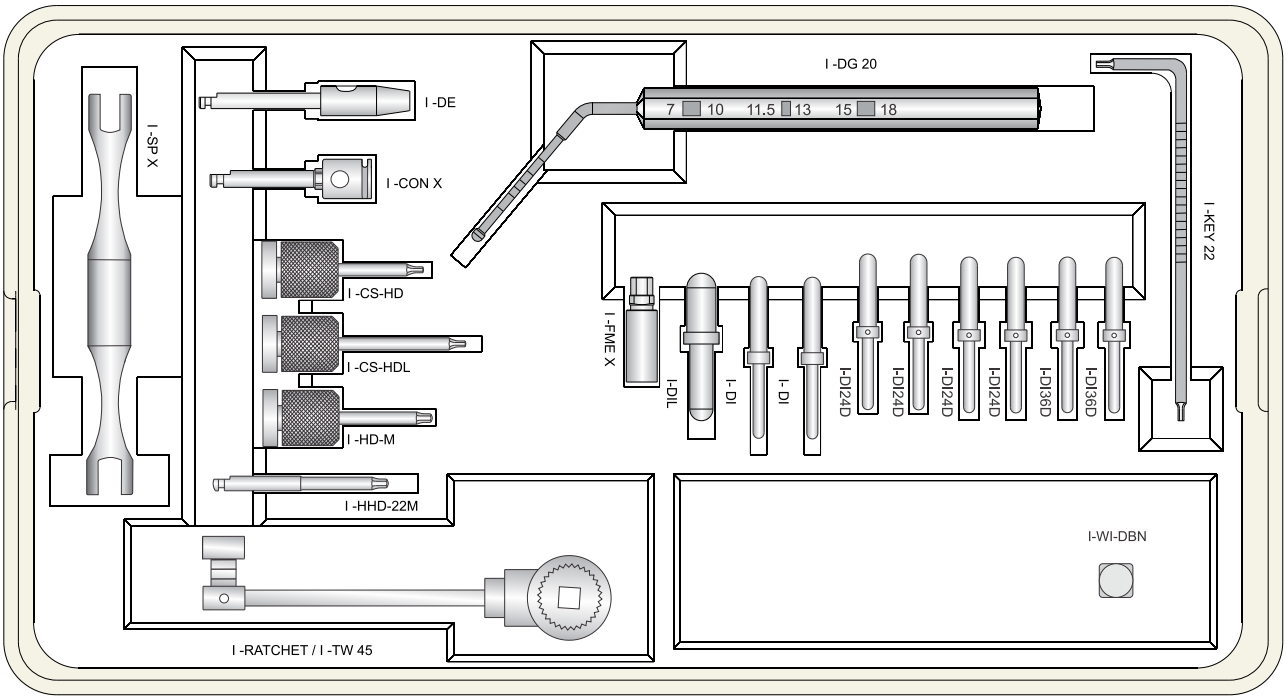
The Ø6.0 Implants get restored with Ø5.0 Prosthetics as per page 9 to apply platform shifting. The BBBT24d gets restored using the Co-Axis Ø5.0mm Platform Prosthetics as per page 29 to apply platform shifting.



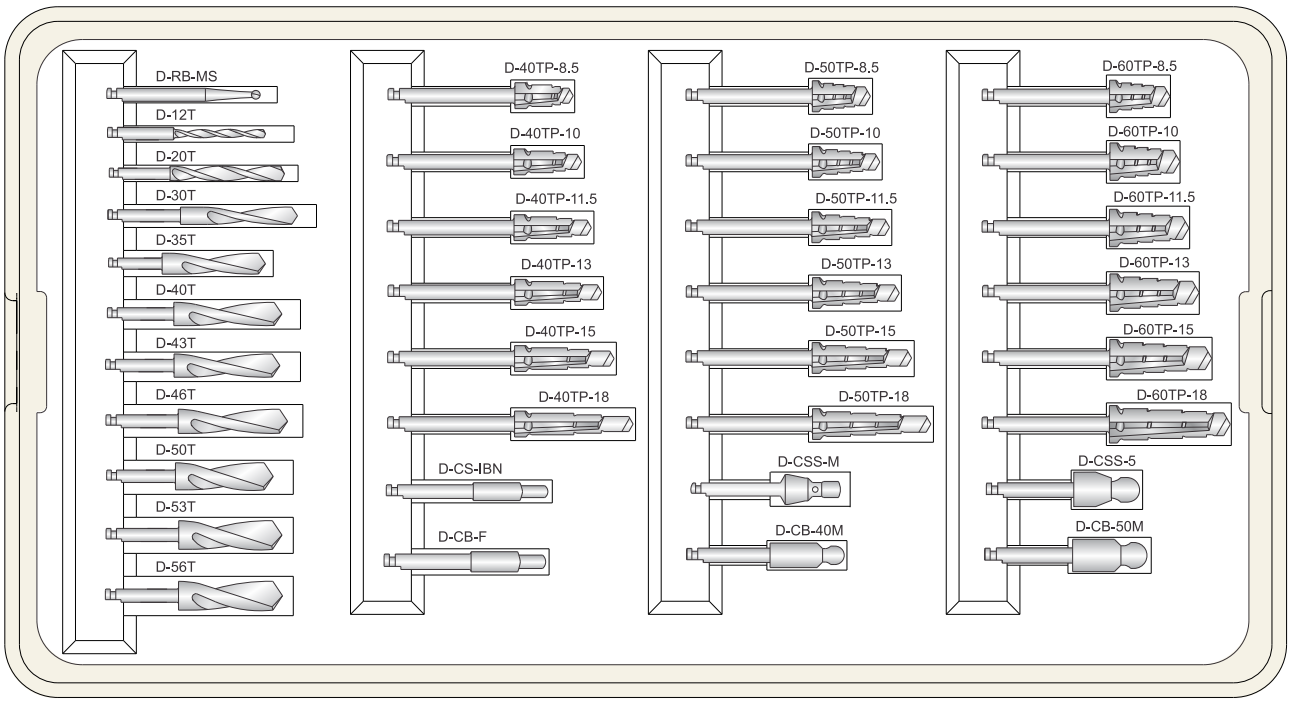
I-HEX-U


TWIST DRILLS
D-RB
D-20T
D-29T
D-30T
D-33T
D-40T
D-43T
D-50T
D-53T
ADDITIONAL DRILLS
Ø4x10
Ø4x11,5
Ø4x13
Ø4x15
Ø5x10
Ø5x11,5
Ø5x13
Ø5x15
Ø6x10
Ø6x11,5
Ø6x13
Ø6x15
SOUTHERN IMPLANTS
Externally Hexed Surgical Tray
ADDITIONAL INSTRUMENTS
INSTRUMENTS
PLACEMENT TOOLS
DRIVERS
EXTENTIONS
DIRECTION INDICATORS
CONNECTOR
1.22 HEX
FIXTURE MOUNT
HEX
0.9 HEX
DRILL
WRENCH
OPEN WRENCH
DEPTH GAUGE

I-HEX-1

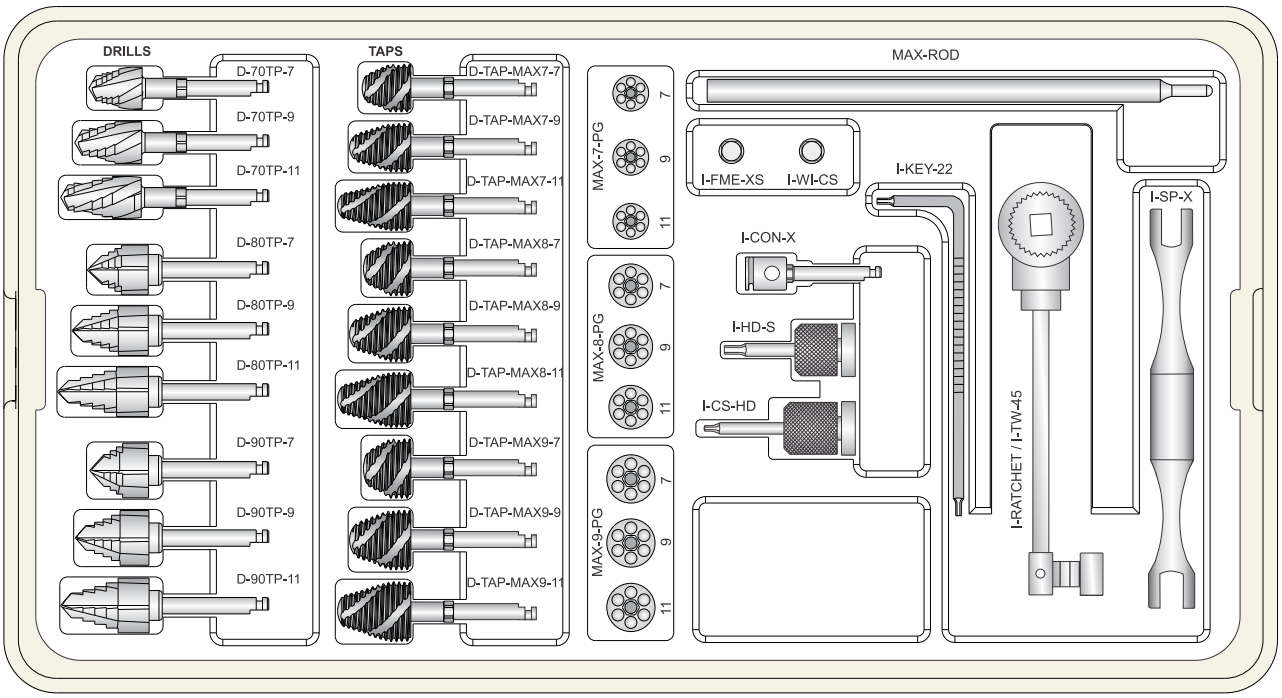


I-DRILL

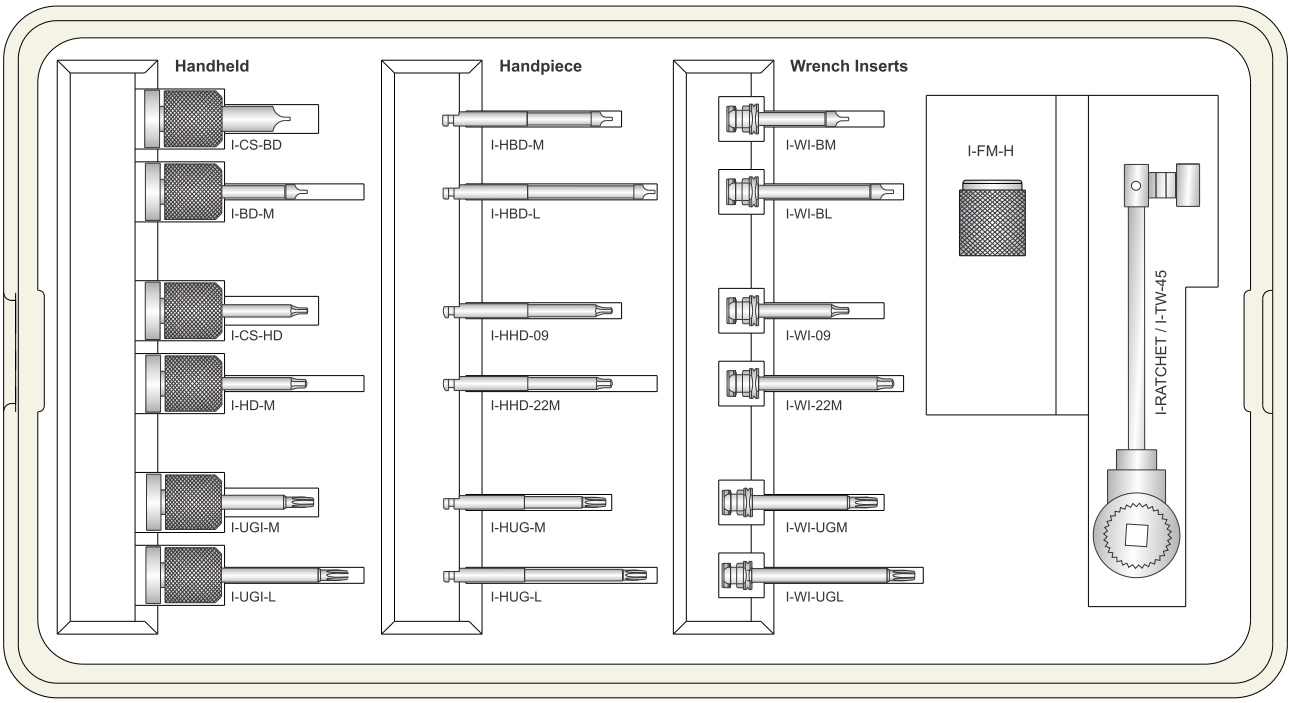


These trays fit into the I-CASSETTE-2 and are autoclavable. Please see CAT-1039 for sterilizing and cleaning instructions.

I-MAX



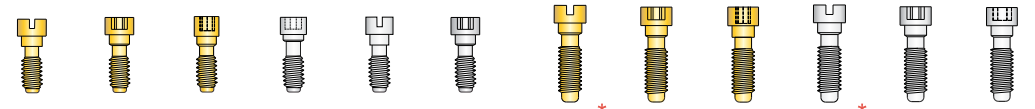
I-PROS-B

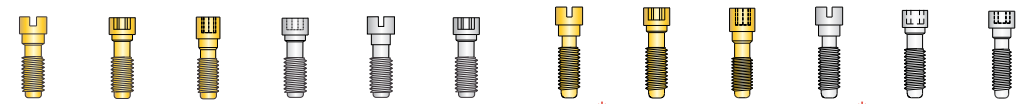


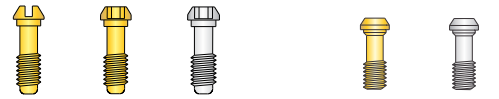
These trays fit into the I-CASSETTE-2 and are autoclavable. Please see CAT-1039 for sterilizing and cleaning instructions.

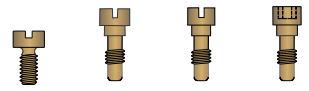
Southern Implants Screws


GSS1 GSU1 GSH1 TSS1 TSU1 TSH1


GSSZ2 GSUZ2 GSQZ2 TSHZ2 TSSZ2 TSUZ2 GSS2* GSU2 GSQ2 TSS2* TSU2 TSH2


GSSZ3 GSUZ3 GSQZ3 TSHZ3 TSSZ3 TSUZ3 GSS3* GSU3 GSQ3 TSS3* TSU3 TSH3


GSS9 GSU9 TSU9 GSUZ9 TSUZ9


BSS1 BSS2 BSS3 BSH3

Series 9 & 9Z Screws (M2)
15-20Ncm
Special head for use with Angled Conical and Compact Conical Abutments

Blackened Brass Screws
For Laboratory Use Only

Series 1 Screws (M1.4)
10-15Ncm
Head Diameter 2.25mm

Series 2Z & 2 Screws (M2)
32-40Ncm
Head Diameter 2.70mm
* = Long Versions Available

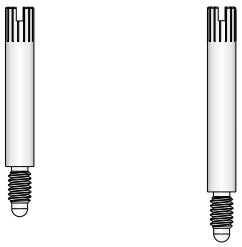
Series 3Z & 3 Screws (M2)
32-40Ncm
Head Diameter 2.45mm
* = Long Versions Available

G.. = Elasticor Gold Alloy
T.. = Gr. 5 Titanium Alloy
B.. = Brass
..S = Slotted
..U = Unigrip
..H = Hexed
..Q = Quad

Please Note: Series 2Z Screws have two grooves on the head for easy recognition.

Alternative Impression Screws

CBU-SS (Short) CBU-SL (Long)



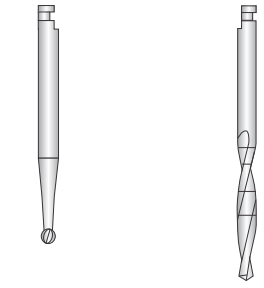
For use with impression taking in the event that a shorter or longer screw is required. These screws have slot & hex drives

PM22

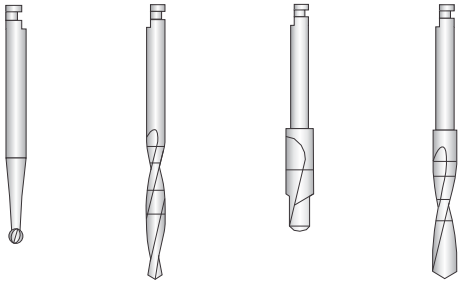
Access hole maintainer is used with fixture mounts for impression taking

Drill Kits

D-RB20-T Drill Kit (Sold Together)


D-RB-MS D-20T

D-RB30-T Drill Kit (Sold Together)


D-RB D-20T D-CB D-30T

Southern's Enhanced Surface

The Southern enhanced surface is not a "coating", it is an **abraided rough surface of Rutile Titanium**. This is the same dense form of titanium common to "machined" surface implants. (The anodic oxidation surfaces are not Rutile Titanium; they are a mixture of anatase and amorphous titanium which are less dense and softer forms of titanium).

A. The first experimentation with this Southern Enhanced surface was in **1992**. After extensive validation it was **put into widespread clinical use in 1997**. It is achieved by a subtractive process in which specifically sized and shaped, sharp cornered, Alumina particles (Al_2O_3) are blasted with decontaminated air onto the implant surface with controlled pressure, displacement and time. Every batch of $A1_2O_3$ particles are subject to SEM analysis to ensure consistent shape and size.

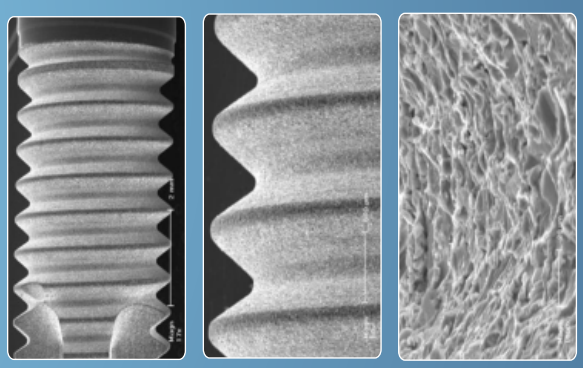
B. The particle size of 110µm is supported by the work of Soskalne (Israel) and Wennerberg (Sweden) on the one hand and Ronald (Norway) on the other. Based on their research, greatest bone to titanium bond strength is obtained with abrasion particles **greater that 75µm and less than 170µm**. This partly explains why the 250µm particles used to produce the SLA surface, need a secondary acid etching process as the 250µm particles alone, leave too course a surface. Astra wisely use 110µm particles for producing their rough surfaces, but their particles are of titanium oxide and not Alumina.

C. Szmukler-Moncler has analyzed and compared the popular implant surfaces in publications and a presentation at the AO, San Francisco 2004. He reports that the Southern Surface is **remarkably consistent** and **free of containments** whilst those that are acid etched or oxidized are shown to be highly variable. It is extremely difficult to control acid etching and oxidation in an industrial manufacturing process. This is one reason why Southern does not use acid etching or anodic oxidation.

D. There seems to be consensus in the literature that "moderately rough" surfaces have no great risks for the patient and are therefore **safe to use**. Moderately rough was defined by Albrektsson as S_a= 1.0 to 2.0µm (applied Osseointegration Research Vol 5, 2006) and our surface has S_a = 1.43 in one published study and S_a = 1.55 on implants recently analyzed by Prof Ann Wennerberg in 2006.

Dr Mats Wikström, Chief of Clinics, Branemark Center Goteborg, in 2007 concluded that the Southern surface is **one of the three best documented moderately rough surfaces on the market**.

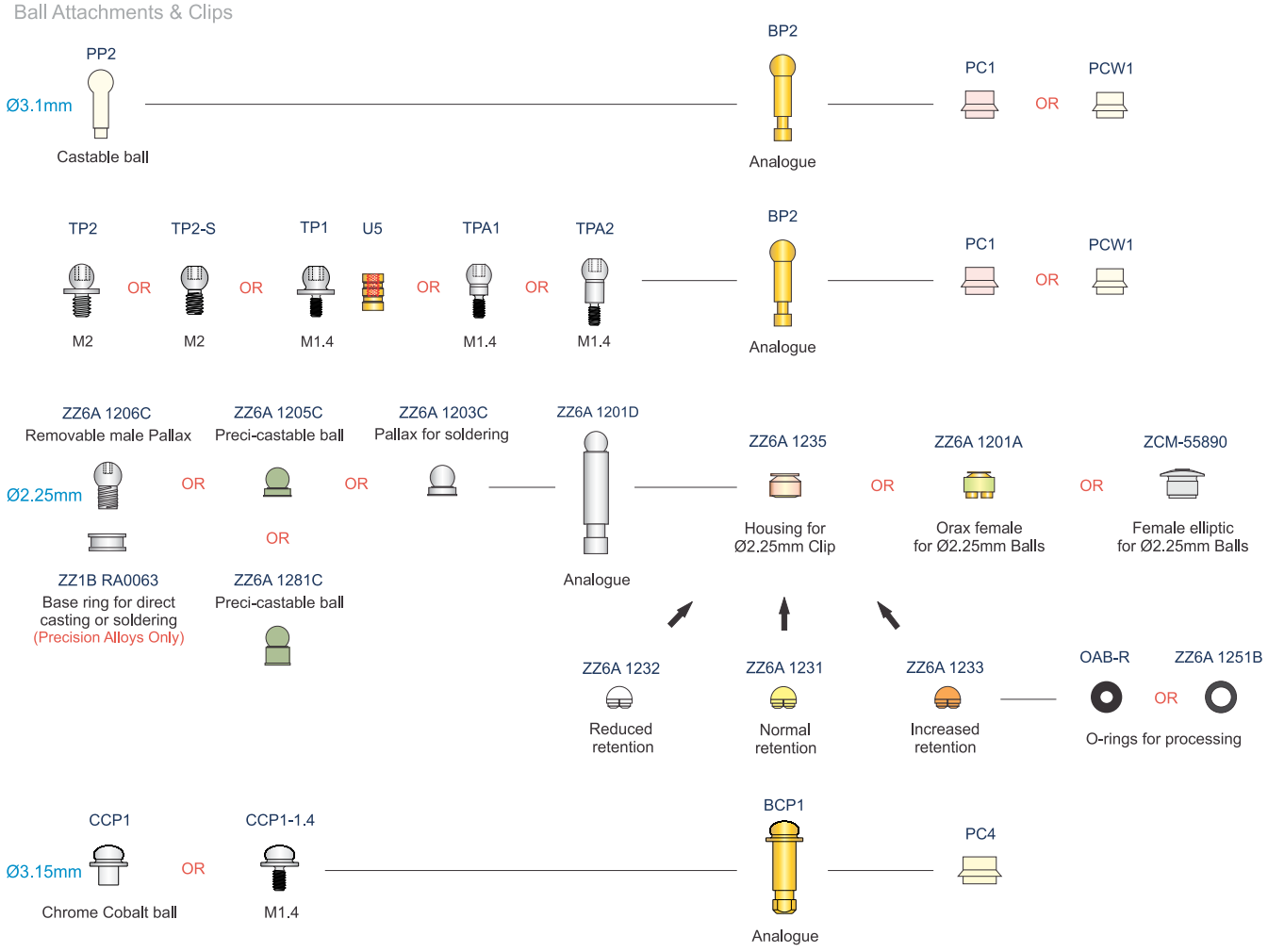
Prof Alan Payne, Oral Implantology Research Group, University of Otago, is conducting Randomized Clinical Trials (RCTs) involving Southern Implants' rough surface. 2008 signified the 10 year follow-up in the mandibles and 7 year follow-up in the Maxilla. The 8 year and 5 year results are published in Cochrone Collaboration reports. Standardized radiographs show marginal bone loss of all the implants to be well within the criteria set by Albrektsson & Zarb 1993, 1998 as well as Fourmousis & Bragger 1999.



In conclusion, it is a **well documented** surface with a **consistent manufacturing process** and holds extremely **low risk.**

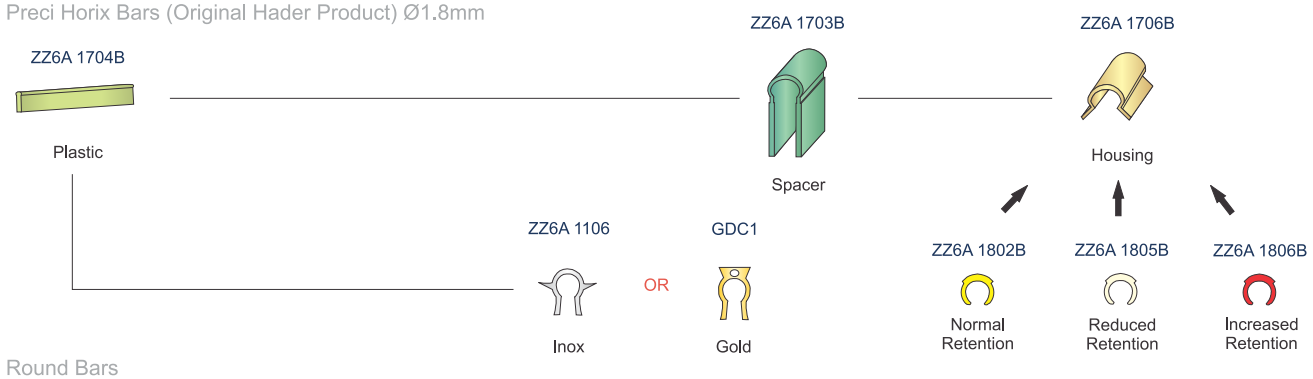
Precision Attachments

Ball Attachments & Clips



Bars

Preci Horix Bars (Original Hader Product) Ø1.8mm



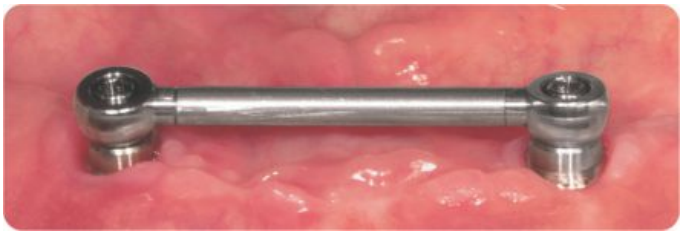
Round Bars

SFI Bar

The SFI-Bar is the innovative bar solution for removable dentures on implants in both upper and lower jaws. The bar ensures stress-free hold of the prosthesis on the implants, thus increasing the patient's comfort. All components are prefabricated. Therefore problems associated with soldering and welding conventional bars are eliminated completely.

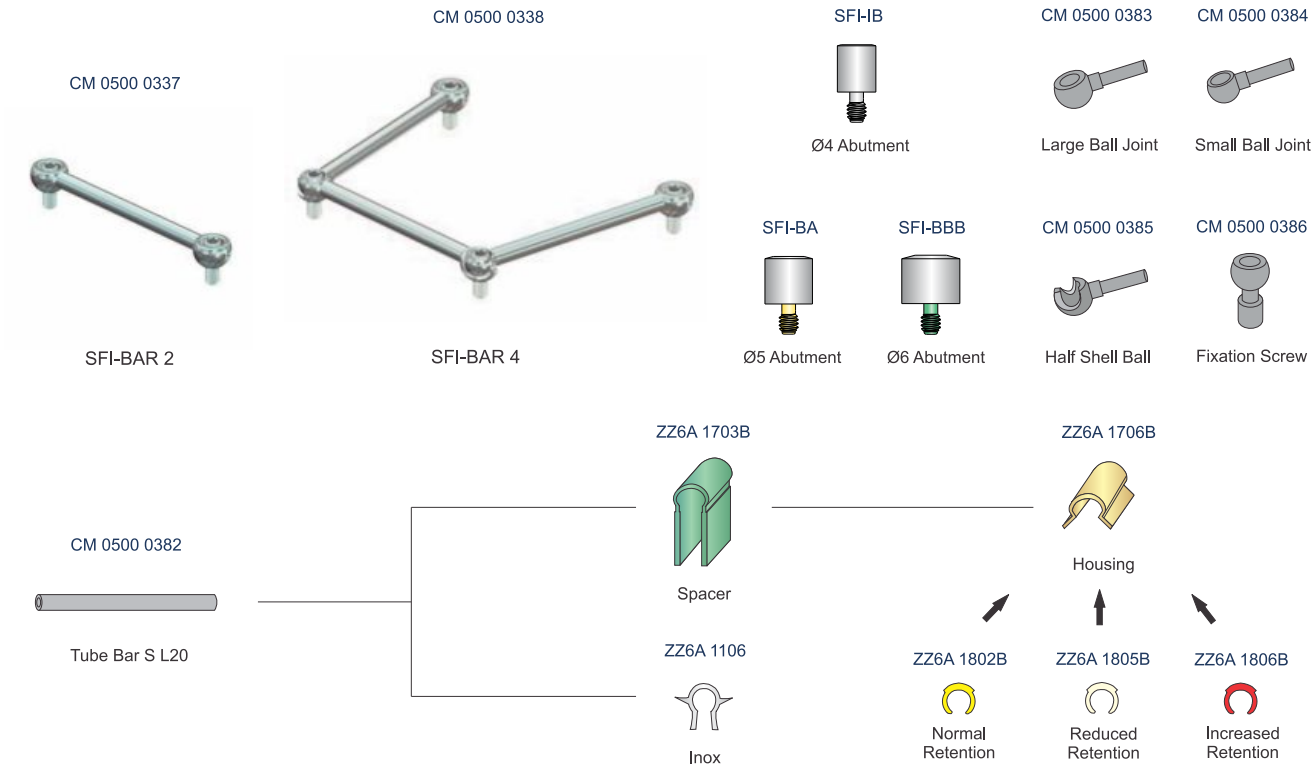
Moreover due to it's simplicity the SFI-Bar can be easily and efficiently adapted and placed aspiration-safe to the individual patient's mouth situation chair side. Its functional design ensures great flexibility and is indicated in most cases. With the appropriate abutments, the SFI-Bar can be used with almost any implant system.

The SFI-Bar 2-implant and 4-implant are the standard versions. These can be upgraded with the SFI-Bar Add-on Kit (0500 0668) to solutions for 3, 5 and 6 implants.



* **Tension free, excellent and stable fit.**
* **Simply ingenious, thanks to telescope-like connections and individual shortening.**
* **Possible to fit the SFI-Bar 2-implant directly in the mouth.**

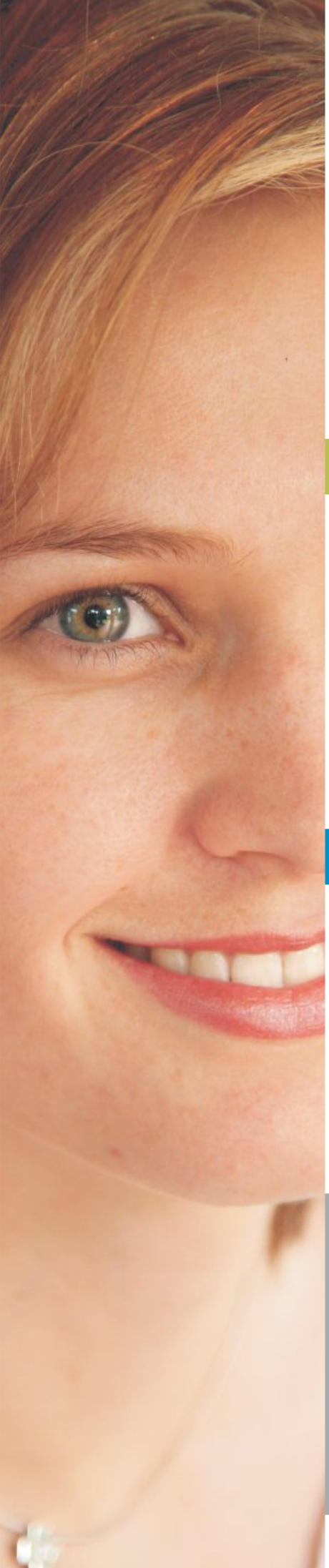
Accessories



The SFI Bar System and all it's accessories are only sold through Southern Implants in South Africa. For more information call Southern Implants.

Cleaning & Sterilization Procedure Guidelines

Components	Surgical Drills	Surgical and Prosthetic Tools	Surgical and Prosthetic Trays	Torque Wrenches / Ratchet
Warnings	Never use blunt or damaged tools.	Never use blunt or damaged tools.	Do not expose to temperatures higher than 140°C.	Do not expose to temperatures higher than 160°C.
	Never store instruments while they are still wet or moist. This will result in corrosion and degradation of cutting edges. Inspect all instruments visually.			
Limitations on Reprocessing	Taper Drills and Pilot Drills - 40 times. Trephine Drills - 10 times.	Drivers and General Instruments - Repeated processing has minimal effect. Bone Mills - 15 times. Taps, Tissue Punch, Osteotomes, counter bores, Thread cutters - 40 times.	Repeated processing has minimal effect on these trays.	500 times or 3 years, whichever is reached first (service can extend life, but not indefinately).
	Instructions			
Point of use:	Remove excess soil with running water.	Remove excess soil with running water.	Remove excess soil with disposable cloth / paper wipe.	Remove excess soil with running water.
Containment and Transportation	No Particular Requirements: It is recommended that instruments are cleaned and dried as soon as it is reasonably practical following use.			
Preparation for cleaning	Disassembly from Handpiece.	Disassembly from Handpiece.	No Particular Requirement.	Remove any connecting parts.
Cleaning: Automated	Rinse with luke-warm water for 3 minutes. Remove the hardened soil with a soft bristle brush. Sonicate for 20 minutes in an ultrasonic cleaner using a detergent suitable for surgical instruments (SteriTech Instrument Cleaner - 5% dilution). Rinse in running water and dry.	Rinse with luke-warm water for 3 minutes. Remove the hardened soil with a soft bristle brush. Sonicate for 20 minutes in an ultrasonic cleaner using a detergent suitable for surgical instruments (SteriTech Instrument Cleaner - 5% dilution). Rinse in running water and dry.	Rinse in luke-warm water and remove soil with a soft bristle brush and enzymatic detergent. Rinse off with luke-warm water and dry.	Rinse with luke-warm water for 3 minutes. Remove the hardened soil with a soft bristle brush. Sonicate for 20 minutes in an ultrasonic cleaner using a detergent suitable for surgical instruments (SteriTech Instrument Cleaner - 5% dilution). Rinse in running water and dry.
Cleaning: Manual	Manual cleaning is not practical and is therefore not advised.			
Disinfection	If detergent is not a high level disinfectant: Sonicate / rinse with 70 % ethanol for 5 minutes.	If detergent is not a high level disinfectant: Sonicate / rinse with 70 % ethanol for 5 minutes.	Trays can be wiped / sprayed down with 70 % ethanol.	If detergent is not a high level disinfectant: Sonicate / rinse with 70 % ethanol for 5 minutes.
Drying	Allow components to dry completely before sterilizing.			
Maintenance	Damaged or blunt instruments should not be used.			Add one drop of handpiece oil to the internal mechanism after autoclaving.
Inspection and further Testing	Inspect all instruments visually for damage and bluntness.			Check whether the ratchet mechanism is working smoothly.
Packaging	Single: A standard packaging material may be used. Ensure that the pack is large enough to contain the instrument without stressing the seal. (Recommendation: Use a packaging system that conforms to ISO 11607).			
	In sets: Instruments can be loaded into dedicated instrument trays before sterilization. Place the tray in an appropriate sterilization bag.			
Sterilization	Autoclave at 121 ° C (250 ° F) for a minimum of 30 minutes.			
Storage	Never store instruments while they are still wet or moist. This will result in corrosion and degradation of cutting edges.			
Additional Information	When sterilizing multiple instruments in one autoclave cycle, ensure the the sterilizer's maximum load is not exceeded. Refer to sterilizer's instructions for use. Ascertain the size of the instrument trays prior to sterilization.			



Complimentary Manuals & Instructions:

Tri-Nex Product Catalogue	CAT-2004
IT Product Catalogue	CAT-2005
Patient Information Brochure	CAT-2022
Patient Homecare Brochure	CAT-2023
Overdenture Information Brochure	CAT-2032
Zygomatic Information Brochure	CAT-2025
Instrument Catalogue	CAT-2006
Prosthetic & Laboratory Manual	CAT-2001
Cranio Facial Reconstruction	CAT-2036
Orthodontic Catalogue	CAT-2017
TMJ Prosthesis Catalogue	CAT-2018
Passive Abutments	CAT-1008
One Piece Implants	CAT-1083
Finger Implants Catalogue	CAT-2010
First & Secondary Stage Surgery Manual	CAT-2024
Instructions for use	PRO-6038

Labeling Symbols:

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

1: **"Use by"**

2: **"Batch code"** LOT

3: **"Do not reuse"**

4: **"Sterilization using Irradiation"** STERILE R

5: **"Caution"**

6: **"Consult instruction for use"**

7: **CE mark** CE


Southern Implants (Pty) Ltd. Irene, South Africa

SOUTHERN IMPLANTS

www.southernimplants.com

Head Office: South Africa
Southern Implants (Pty) Ltd.
Tel: +27 12 667 1046
Fax: +27 12 667 1029
info@southernimplants.com

Head Office: Americas / Asia
Southern Implants Inc.
Tel: +1 949 273 8505
Fax: +1 949 273 8508
info@southernimplants.us

United Kingdom
Southern Implants UK
Tel: +44 208 998 0063
Fax: +44 208 997 0580
hilary@southern-ventura.co.uk

Australia
Henry Schein I Halas Dental
Tel: +61 2 9697 6288
Fax: +61 2 9697 6250
info@henryschein.com.au

New Zealand
Southern Implants Ltd NZ
Tel: 0800 246 752
Fax: +64 9 430 2836
dkshep@xtra.co.nz

Germany
Southern Implants
Tel: +49 7121 490 620
Fax: +49 7121 491 717
info@southernimplants.de

Benelux
ProScan bvba
Tel: +32 11 822 650
Fax: +32 11 822 651
info@proscan.be

Greece
Southern Implants
Tel: +30 210 898 2881
Fax: +30 210 595 2543
info@southernimplants.gr

Italy
S.I.R srl
Tel: +39 04 556 8351
Fax: +39 04 556 8351
e.caprini@southernimplants.it

Spain / Portugal
Contactodent
Tel: +351 214 693 332
Fax: +351 214 693 329
southernimplants@sapo.pt

Nordic Countries
Protera AB
Tel: +46 31 291078
Fax: +46 706 150078
villy@protera.se

Turkey
Ekodent
Tel: +212 343 5233
selvasoyturk@ekodent.com
www.ekodent.com

Namibia
Skydancer
Tel: +64 61 225 152
Fax: +64 61 235 630
mfdental@iway.na

Russia
Implant Angle Ltd
Tel: +7 495 649 1732
Fax: +7 495 789 9133
info@implantangle.ru