Dental implants are now an indispensable part of dental treatment options. With the globalization of medical infrastructures and higher standards of living, implant applications continue to increase.

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

- Multiple interfaces, both internal and external, to suit customer preference.
- The MAX, a wide-diameter implant specifically designed for molar tooth replacement.
- Co-axis, the only angled-top, tapered, screw-form implant, available in angulations of 12°, 24° and 36°.
- The 55° Zygomatic implant, optimized for load distribution.
- Many products optimized for primary stability and suitable for immediate loading.
- A surface which continues to out perform those which it is trialled against.

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

Graham Blackbeard
Managing Director, Southern Implants
**TRI-NEX - The next generation TRI-Lobe with HEX insertion**

The TRI-Lobe prosthetic interface has become the market-leader due to its user-friendliness. It is, however, not an ideal interface for driving the implant into the bone. Southern’s unique TRI-NEX uses the lobes for prosthetic interfacing and a long hex for implant placement.

Increasing demand for **PRIMARY STABILITY**, means that implants are being placed with ever increasing insertion torques. The Southern external thread has proven suitability for high insertion torque without causing bone necrosis. Hence the need for an insertion drive mechanism that:

1. **Gives precise feel and control / rigidity.**
2. **Can transmit insertion torques up to 100Ncm.**
3. **Will not distort or damage the prosthetic interface.**
4. **Will not weaken or reduce fatigue resistance of the implant.**

These requirements are answered by the hex drive of the TRI-NEX implant.
IA-LH-35 & IA-LHS-35 Implants

Cover Screw

CS-L-35

One-Part Healing Abutments

HA-L-35

OR

HA-L-35W


IA-LH-35 Tapered Implants
are available in lengths of:

- 8.5mm IA-LH-35-8
- 10.5mm IA-LH-35-10
- 12mm IA-LH-35-11.5
- 13.5mm IA-LH-35-13
- 16.5mm IA-LH-35-16

IA-LHS-35 Cylindrical Implants
are available in lengths of:

- 8.5mm IA-LHS-35-8
- 10.5mm IA-LHS-35-10
- 12mm IA-LHS-35-11.5
- 13.5mm IA-LHS-35-13
- 15.5mm IA-LHS-35-15

Instrumentation

Insertion Tools

I-HLH-35S
To fit W&H Handpieces

I-HLH-35M
To fit W&H Handpieces

I-HLHU-35S
To fit any Handpieces

I-HLHU-35M

I-PBIT-L18
Use with Ø3.5 Insertion Tools

I-WI-LHS35S
To fit Wrench

I-WI-LH35M

Converters

I-WI-C
Converts handpiece W&H Insertion Tools to be used with wrench

* Available in Long and Short Versions

Tapered & Cylindrical Implants Site Preparation Sequence

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

Step 1: Pilot 2mm Twist Drill to full depth of implant
Step 2: Twist Drill to full depth of implant
Step 3: Optional Counter Sink
Step 4: Optional Tap for cortical bone
Step 5: Place implant

D-RB-MS  D-20T-M15  D-L-35-10  D-TAP-L-35


(for soft bone)

(for hard bone)
IA-LH-43 & IA-LHS-43 Implants

Cover Screw
CS-L-43

One-Part Healing Abutments
HA-L-43
Ø4.5
3/5/7
lengths

OR

HA-L-43W
Ø6.0
3/5
lengths

IA-LH-43 Tapered Implants are available in lengths of:
- 8.6mm IA-LH-43-8
- 10.5mm IA-LH-43-10
- 12mm IA-LH-43-11.5
- 13.5mm IA-LH-43-13
- 16.5mm IA-LH-43-16

IA-LHS-43 Cylindrical implants are available in lengths of:
- 8.6mm IA-LHS-43-8
- 10.5mm IA-LHS-43-10
- 12mm IA-LHS-43-11.5
- 13.5mm IA-LHS-43-13
- 15.5mm IA-LHS-43-15

Instrumentation

Insertion Tools
I-MLH-43S I-MLH-43M
To fit W&H Handpieces

I-MLHU-43S I-MLHU-43M
To fit any Handpieces

Peek Bits (Spares)
I-PBIT-L2
Use with Ø4.3, Ø5.0 & Ø6.0 Insertion Tools

Alternative Insertion Tools
I-WI-LH43S I-WI-LH43M
To fit Wrench

Converters
I-WI-C*
Converts handpiece W&H Insertion Tools to be used with wrench
* Available in Long and Short Versions

Tapered & Cylindrical Implants Site Preparation Sequence

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

Step 1: Pilot 2mm Twist Drill to full depth of implant
Step 2: Twist Drill to full depth of implant
Step 3: Optional Counter Sink
Step 4: Optional Tap for cortical bone
Step 5: Place implant

D-RB-MS D-20T-M15 D-L-43-10 D-TAP-L-43
D-30T-M15 DLS-43-10 (for soft bone)

D-RB-MS D-20T-M15 D-35T-M15 D-40T-M15
D-TAP-LS-43 D-40T-M15 (for hard bone)
IA-LH-50 & IA-LHS-50 Implants

Cover Screw
CS-L-50

One-Part Healing Abutments
HA-L-50

HA-L-50W

Diameter 5.0mm Implants and Components

IA-LH-50 Tapered Implants
are available in lengths of:
- 8.6mm IA-LH-50-8
- 10.5mm IA-LH-50-10
- 12mm IA-LH-50-11.5
- 13.5mm IA-LH-50-13
- 16.5mm IA-LH-50-16

IA-LHS-50 Cylindrical Implants
are available in lengths of:
- 8.6mm IA-LHS-50-8
- 10.5mm IA-LHS-50-10
- 12mm IA-LHS-50-11.5
- 13.5mm IA-LHS-50-13
- 15.5mm IA-LHS-50-15

Instrumentation

Insertion Tools
I-HLH-50S
I-HLH-50M

Peek Bits (Spares)
I-PBIT-L2

Alternative Insertion Tools
I-WI-LH50S
I-WI-LH50M

Converters
I-WI-C *

To fit W&H Handpieces
To fit any Handpieces

Use with Ø4.3, Ø5.0 & Ø6.0 Insertion Tools

To fit Wrench

Converts handpiece W&H Insertion Tools to be used with wrench
* Available in Long and Short Versions

Tapered & Cylindrical Implants Site Preparation Sequence

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

(Illustration is for a 10mm implant)
**IA-LH-60 Implants**

### Cover Screw

**CS-L-60**

### One-Part Healing Abutments

**HA-L-60**

**Diameter 6.0mm Implants and Components**

**IA-LH-60 Tapered Implants**

- **8.6mm** IA-LH-60-8
- **10.5mm** IA-LH-60-10
- **12mm** IA-LH-60-11,5
- **13.5mm** IA-LH-60-13
- **16.5mm** IA-LH-60-16

---

**Instrumentation**

### Insertion Tools

**I-HLH-60S**

**I-HLH-60M**

To fit W&H Handpieces

To fit any Handpieces

### Peek Bits (Spares)

**I-PBIT-L2**

Use with Ø4.3, Ø5.0 & Ø6.0 Insertion Tools

### Alternative Insertion Tools

**I-WI-LH60**

To fit Wrench

### Converters

**I-WI-C**

Converts handpiece W&H Insertion Tools to be used with wrench

*Available in Long and Short Versions*

---

**Site Preparation Sequence**

**D-RB-MS**

**D-20T-M15**

**D-30T-M15**

**D-L-60-10**

**DLS-60-10** (for soft bone)

**D-TAP-L-60**

*Step 1: Pilot 2mm Twist Drill to full depth of implant*

*Step 2: Twist Drill to full depth of implant*

*Step 3: Dedicated Tapered Drill to full depth of implant*

*Step 4: Optional Tap for cortical bone*

*Step 5: Place Implant*

(illustration is for a 10mm implant)
IA-LH-60 Prosthetic Flowchart

Healing Abutments
ICL-60

Impression Copings
UCLA Abutments
Gold

Laboratory Analogues
Plastic

Prosthetic Components
PC-EL-60 (Engaging)
PC-NL-60 (Non-Engaging)
GC-EL-60 (Engaging)
GC-NL-60 (Non-Engaging)
TC-EL-60-1 (Engaging)
TC-NL-60-1 (Non-Engaging)
PKC-EL-60-1 (Engaging)

Retention Screws
TS-L-20 Titanium
TS-L-20C Coated
GS-L-20 Gold
BS-L-20 Brass

Cosmetic Abutments
TCA-EL-60
TCA13-EL-60

Ceramic Interfacial Abutment
CIA-EL-60 (Engaging)
CIA-NL-60 (Non-Engaging)

Passive Abutment
PA-EL-60 (Engaging)
PA-NL-60 (Non-Engaging)

Overdenture Abutment
LOB-60

AO2
Brass

PC2
Plastic
The TRI-NEX Co-Axis range

The TRI-NEX 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 TRI-NEX Co-Axis implant effectively solves this problem by having the prosthetic platform and screw hole of the implant tilted at an angle of 12 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 TRI-NEX 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. Aesthetic 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 TRI-NEX 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 TRI-NEX Co-Axis implant by making screw retained restorations routinely attainable.
IA43-12d Co-Axis Implants

Cover Screw
CS-L-35

One-Part Healing Abutments
HA-L-35
HA-L-35W

OR

Surface Enhanced
Ø4.30

12°

11.3
12.0
12.8
14.3
17.3
16.5

IA43-12d-10
IA43-12d-11.5
IA43-12d-13
IA43-12d-16

Instrumentation

Insertion Tools
I-L43-12d
I-WIL-43-12d

Seek Bits (Spares)
I-PBIT-L18

Use with Ø4.3 Co-Axis 12d Insertion Tools

Direction Indicator
I-DI-12d
I-DIN-12d

Converters
I-WI-C *

Converts handpiece W&H Insertion Tools to be used with wrench
* Available in Long and Short Versions

Site Preparation Sequence

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

(illustration is for a 10mm implant)
IA50-12d Co-Axis Implants

Cover Screw
- CS-L-43

One-Part Healing Abutments
- HA-L-43
  - Ø4.5
  - 3/5/7 lengths

OR
- HA-L-43W
  - Ø6.0
  - 3/5 lengths

Surface Enhanced
- Ø5.00

12"

IA50-12d-10
IA50-12d-11.5
IA50-12d-13
IA50-12d-16

Instrumentation

Insertion Tools
- I-L50-12d
- I-WIL-50-12d

Peek Bits (Spares)
- I-PBIT-L2
  - Use with Ø5.0 Co-Axis 12d Insertion Tools

Direction Indicator
- I-DI-12d
- I-DIN-12d

Converters
- I-WI-C *
  - Converts handpiece W&H Insertion Tools to be used with wrench
  - * Available in Long and Short Versions

Site Preparation Sequence

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

(illustration is for a 10mm implant)

D-RB-MS
D-20T-M15
D-30T-M15
D-L-50-10
DLS-50-10
(for soft bone)
D-TAP-L-50
IA50-12d Prosthetic Flowchart

### Healing Abutments
- CS-L-43
- HA-L-43
- IC-L-43 (perpendicular)
- ICT-L-43 (parallel)

### Impression Copings
- Indirect:
  - IA50-12d

### Laboratory Analogues
- HA-L-43
- IC-L-43W (perpendicular)
- ICT-L-43W (parallel)

### Prosthetic Components
- PC-EI-43 (Engaging)
- PC-NL-43 (Non-Engaging)
- GC-EI-43 (Engaging)
- GC-NL-43 (Non-Engaging)
- TC-EI-43-1 (Engaging)
- TC-NL-43-1 (Non-Engaging)
- TC-EI-43-6 (Engaging)
- TC-NL-43-6 (Non-Engaging)

#### UCLA Abutments
- LA-U-43
- PKC-EI-43-1 (Engaging)
- CC-NL-43-1 (Non-Engaging)

#### Ceramic Interfacial & Cosmetic Abutments
- Ceramic Interfacial & Cosmetic Abutments
- Ceramic Abutment
- PA-EI-43 (Engaging)
- PA-NL-43 (Non-Engaging)
- Passive Abutment

#### Retention Screws
- TS-L-20 Titanium
- TS-20C Coated
- GS-L-20 Gold
- BS-L-20 Brass

#### Passive Screws
- Passive Screws
- PA-MC-48

#### Series 1 Screws
- Series 1 Screws

### Compact Conical Abutments
- MCL-L-43-17d
- MCL-L-43

#### Overdenture Abutment
- LOB-43

### Other Components
- AO2
- PC2
- AOU1
- TSO1

*Series 1 Screws (M1.4)
The TRI-MAX® Implant

The concept of the TRI-MAX® implant, as with the MAX and MAXIT, provides for a design of implant and a surgical protocol which makes immediate placement of the implant into a multi-rooted molar socket attainable.

The TRI-MAX® implant features a body with larger than conventional diameter to achieve primary stability from engagement of small portions 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 in most molar sockets.
TRI-MAX®7 Implants

Cover Screw
CS-L-50

One-Part Healing Abutments
HA-L-50
HA-L-50W

Diameter 7.0mm Implants used with Diameter 5.0mm Components

TRI-MAX®7 Drills & Additional Instrumentation

Insertion Tools
I-MLH-50S/M I-MLHU-50S/M

Alternative
Insertion Tools
I-WI-MLH50S/M

Dedicated Drills
D-70TP-7 D-70TP-9 D-70TP-11

Profile Gauges
MAX-7-PG-7 MAX-7-PG-9 MAX-7-PG-11

MAX-ROD

Site Preparation Sequence

Step 1: Pilot 2mm Twist Drill to full depth of implant
Step 2: Tapered Drill to depth 6 / 8 / 10mm
Step 3: Dedicated Tapered Drill to full depth of implant
Step 4: Dedicated Tap for cortical bone
Step 5: Place Implant (2mm Subcrestal)

Illustration is for a 11mm implant
TRI-MAX® 8 Implants

Cover Screw
CS-L-60

One-Part Healing Abutments
HA-L-60
Ø6.0
3/5 lengths

TRI-MAX® 8-7
TRI-MAX® 8-9
TRI-MAX® 8-11

TRI-MAX® 8 Drills & Additional Instrumentation

**Insertion Tools**
- I-HLH-60S/M
- I-HLHU-60S/M

**Alternative Insertion Tools**
- I-WI-LH60

**Dedicated Drills**
- D-80TP-7
- D-80TP-9
- D-80TP-11
- MAX-8-PG-7
- MAX-8-PG-9
- MAX-8-PG-11
- D-80TP-7/9/11, (Longer Shaft Length Available)

**Profile Gauges**
- MAX-Rod

Site Preparation Sequence

1. D-RB-MS
2. D-20T-M15
3. D-60TP-10
4. D-80TP-11
5. D-TAP-MAX8-11

Step 1: Pilot 2mm Twist Drill to full depth of implant
Step 2: Tapered Drill to depth 6 / 8.5 / 10mm
Step 3: Dedicated Tapered Drill to full depth of implant
Step 4: Dedicated Tap for cortical bone
Step 5: Place Implant

(2mm Subcrestal)
(illustration is for a 11mm implant)
TRI-MAX®8 Prosthetic Flowchart

Healing Abutments  | Impression Copings  | Laboratory Analogues  | Prosthetic Components

UCLA Abutments
- Plastic
- Gold
- Titanium
- PEEK

Retention Screws
- TS-L-20
- TS-L-20C
- GS-L-20
- BS-L-20

Cosmetic Abutments
- TCA-EL-60
- TCA12-EL-60

Ceramic Interfacial Abutment
- CIA-EL-60 (Engaging)
- CIA-EL-60 (Non-Engaging)

Passive Abutment
- PA-EL-60 (Engaging)
- PA-EL-60 (Non-Engaging)

MAX Placement

7mm

TRI-MAX®8-7

MAX 8-7

MAXIT 8-7
TRI-MAX®9 Implants

Cover Screw
CS-L-60

One-Part Healing Abutments
HA-L-60
Ø6.0
3/5 lengths

TRI-MAX®9-7
TRI-MAX®9-9
TRI-MAX®9-11

TRI-MAX®9 Drills & Additional Instrumentation

Insertion Tools
I-HLH-60S/M
I-HLHU-60S/M

Alternative Insertion Tools
I-WI-LH60

To fit Wi&H Handpieces
To fit any Handpiece

Dedicated Drills
D-90TP-7
D-90TP-9
D-90TP-11

Profile Gauges
MAX-9-PG-7
MAX-9-PG-9
MAX-9-PG-11

Site Preparation Sequence

1. D-RB-MS
2. D-20T-M15
3. D-60TP-10
4. D-90TP-11
5. D-TAP-MAX9-11

Step 1: Pilot 2mm Twist Drill to full depth of implant
Step 2: Tapered Drill to depth 6 / 8.5 / 10mm
Step 3: Dedicated Tapered Drill to full depth of implant
Step 4: Dedicated Tap for cortical bone
Step 5: Place Implant

Illustration is for a 11mm implant
(2mm Subcrestal)
I-TRI-NEX-EG  Surgical Tray for placement of TRI-NEX Tapered, Straight & CO-AXIS Implants.
(for more information see CAT-1175)

I-MAX-EG  Surgical Tray for placement of TRI-MAX® implants.
(for more information see CAT-1173)
**I-PROS-EG** Prosthetic Instrument Tray

(for more information see CAT-1178)

(for Cleaning & Sterilization instructions see CAT-1039)

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**TRI-NEX Tapered Drills**

**Dedicated Tapered Drills**

- **D-L-35**
- **D-L-43**
- **D-L-50**
- **D-L-60**

**Available lengths for Dedicated Tapered Drills**

- **8mm:** (D-L-35 / 43 / 50 / 60-8)
- **10mm:** (D-L-35 / 43 / 50 / 60-10)
- **11.5mm:** (D-L-35 / 43 / 50 / 60-11.5)
- **13mm:** (D-L-35 / 43 / 50 / 60-13)
- **16mm:** (D-L-35 / 43 / 50 / 60-16)

**Dedicated Tapered Drills for Soft Bone**

- **DLS-35**
- **DLS-43**
- **DLS-50**
- **DLS-60**

**Available lengths for Dedicated “Soft Bone” Tapered Drills**

- **8mm:** (DLS-35 / 43 / 50 / 60-8)
- **10mm:** (DLS-35 / 43 / 50 / 60-10)
- **11.5mm:** (DLS-35 / 43 / 50 / 60-11.5)
- **13mm:** (DLS-35 / 43 / 50 / 60-13)
- **16mm:** (DLS-35 / 43 / 50 / 60-16)
Southern Implants’ Enhanced Surface

The Southern enhanced surface is not a “coating”, it is an abraded 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 (A1₂O₃) are blasted with decontaminated air onto the implant surface with controlled pressure, displacement and time.

B. The particle size of 110µm is supported by the work of Soskaine (Israel) and Wennberg (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 than 75µm and less than 170µm.

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 contaminants whilst those that are acid etched or oxidized are shown to be highly variable.

D. There seems to be consensus in the literature that “moderately rough” surfaces pose no risks for the patient and are therefore safe to use. Moderately rough was defined by Albrektsson as Sₐ 1.0 to 2.0µm (applied Osseointegration Research Vol 5, 2006). The Southern surface has Sₐ = 1.43 in one published study and Sₐ = 1.55 on implants analyzed by Prof Ann Wennberg in 2006.

Dr Mats Wikström, Chief of Clinics, Brånemark Centre Göteborg, in 2007 concluded that the Southern surface is one of the three best documented moderately rough surfaces on the market.

The Oral Implantology Research Group, University of Otago, conducted Randomized Clinical Trials (RCTs) involving Southern Implants’ rough surface. These studies have gone in excess of 10 years in both mandibles and maxillas. The 8 year and 5 year results are published in Cochrane 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.
Implant Placement for TRI-NEX Implants

Pick-up and placement procedure
1. The tool I-HLH is used to pick up the implant from the packaging.
2. The dimples of the tool and lobes of the implant should line up. This allows alignment of a lobe buccally.
3. The hexagon must be fully engaged before torque is applied to the implant to prevent any damage.
4. The hexagon is fully engaged when the straight portion of the hexagon tool is almost completely sunken in the implant (fig.1).
5. The implant is placed in the prepared site and screwed in with a motor unit at 10 to 15 rpm while applying downwards pressure.

Important: The Peek bits (I-PBIT-L18/L20) should be replaced on a regular basis. General wear & tear are to be expected with regular use. Items sold separately.

Instructions for Inserting the Placement Tool for the TRI-NEX Co-Axis Implant

Insertion tool insertion protocol
1. Identify the two dimples on the implant platform. This side lines up with one of the lobes and the micro-grooves (fig.1).
2. Identify the dimples on the tool (fig.2).
3. Line up the dimples on the placement tool with the dimples on the implant. Push the tool into the implant until the placement tool fits flush with the implant (fig.3).

Insertion tool removal protocol
1. To remove the placement tool from the implant, pull the placement tool in the direction perpendicular to restorative platform and parallel to prosthetic axis (fig.4).
2. The placement tool will be removed in the direction of the pulling force (fig.5).

Important: The Peek bits (I-PBIT-L18/L20) should be replaced on a regular basis. General wear & tear are to be expected with regular use. Items sold separately.

TRI-NEX Natural Horizontal Offset

The horizontal offset or platform shifting concept implies that the prosthetic components, emerge from the implant at a diameter smaller than the diameter of the implant neck. In this way, the prosthetic connection is displaced horizontally inwards from the perimeter of the implant, creating space for a collar of soft tissue at the abutment/implant interface. This concept has been widely published with reports of improved bone response.

In the figure to the right a TRI-NEX implant is shown with its 12° angled Cosmetic Abutment attached. Please note the horizontal offsets as indicated.
Converters to External Hex

This component is used to convert the internal TRI-NEX to an external hex connection. These converters are supplied with a special prosthetic screw and it is essential that this screw is used in conjunction with the prosthesis.

A conventional TRI-NEX impression is taken in the chair and a model is cast by the laboratory using the TRI-NEX analogue. The converter is then placed in the analogue and the prosthesis can now be manufactured. The prosthesis is supplied on the model to the restorative dentist and the converters are then placed in the same position in the mouth before the prosthetics are introduced.

<table>
<thead>
<tr>
<th>Converters</th>
<th>Prosthetic Components</th>
<th>Angled Abutments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CTH-35</strong> (Hex = 2.54mm)</td>
<td><strong>SBN 1 (Hex)</strong> SBN 5 (Non-Hex) TCBN 1H (Hex) TCBN 1Hh (Non-Hex) OR GC-EX-34 (Hex) GC-NX-34 (Non-Hex)</td>
<td>ON OR DBNS12 2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td>Packaged with TS-CL-18 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CTH-43</strong> (Hex = 2.70mm)</td>
<td><strong>SB1 (Hex)</strong> SB5 (Non-Hex) TCB 1H (Hex) TCB 1Hh (Non-Hex) OR GC-EX-40 (Hex) GC-NX-40 (Non-Hex)</td>
<td>MB DBS12 2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td></td>
<td>Plastic OR GC-EX-20 (Hex) GC-NX-20 (Non-Hex) TCB 5H (Hex) TCB 5Hh (Non-Hex) PEEK</td>
<td>2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td>Packaged with TS-CL-20 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CTH-50</strong> (Hex = 2.70mm)</td>
<td><strong>SBA1 (Hex)</strong> SBA5 (Non-Hex) TCB 1H (Hex) TCB 1Hh (Non-Hex) OR GC-EX-50 (Hex) GC-NX-50 (Non-Hex)</td>
<td>CER-ZR-66 DBAS12 2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td></td>
<td>Plastic OR PKEA2H OR CER-ZR-67 DBA Scalloped</td>
<td>2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td></td>
<td>Plastic OR CER-ZR-68 DBAS24 Scalloped</td>
<td>2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td>Packaged with TS-CL-20 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CTH-60</strong> (Hex = 2.70mm)</td>
<td><strong>SBBB1 (Hex)</strong> SBBB5 (Non-Hex) TCBBB1H (Hex) TCBBB1Hh (Non-Hex) OR GC-EX-60 (Hex) GC-NX-60 (Non-Hex) TCBBB5H (Hex) TCBBB5Hh (Non-Hex)</td>
<td>CER-ZR-47 DBBBS12 2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td></td>
<td>Plastic OR CER-ZR-68 DBB Scalloped</td>
<td>2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td></td>
<td>Plastic OR CER-ZR-69 DBBBS24 Scalloped</td>
<td>2 / 3.5 / 5 Scalloped</td>
</tr>
<tr>
<td>Packaged with TS-CL-20 *</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Converter Screws can be purchased separately
**Precision Attachments**

**Ball Attachments & Clips**

- **PP2**
  - Ø3.1mm
  - Castable ball

- **BP2**
  - Analogue

- **TP2**
  - OR
  - M2

- **TP2-S**
  - OR
  - M2

- **TP1**
  - OR
  - M1.4

- **US**
  - OR
  - M1.4

- **TPA1**
  - OR
  - M1.4

- **TPA2**
  - OR
  - M1.4

- **ZZ6A 1208C**
  - Removable male Pallax
  - OR

- **ZZ6A 1205C**
  - Preci-castable ball

- **ZZ6A 1203C**
  - Pallax for soldering

- **ZZ6A 1201D**
  - Analogue

- **ZZ6A 1235**
  - Housing for Ø2.25mm Clip

- **ZZ6A 1201A**
  - Onyx female for Ø2.25mm Balls

- **ZZ6A 1251B**
  - Female elliptic for Ø2.25mm Balls

- **ZZ18 RA06S**
  - Base ring for direct casting or soldering
  - OR
  - Precious Alloys Only

- **ZZ6A 1281C**
  - Preci-castable ball

- **CCP1**
  - OR
  - Ø3.15mm
  - Chrome Cobalt ball

- **CCP1-1.4**
  - OR
  - M1.4

- **BCP1**
  - Analogue

- **PC1**
  - OR

- **PCW1**
  - OR

**Bars**

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

- **ZZ6A 1704B**
  - Plastic
  - OR

- **ZZ6A 1703B**
  - Spacer

- **ZZ6A 1106**
  - OR

- **GDC1**
  - OR

- **ZZ6A 1802B**
  - Normal Retention

- **ZZ6A 1805B**
  - Reduced Retention

- **ZZ6A 1806B**
  - Increased Retention

**Round Bars**

- **PD1**
  - Ø2.0mm
  - Plastic

- **GD1**
  - Ø1.8mm
  - Gold

- **ZZ6A 1106**
  - Inox

- **GDC1**
  - Gold
Explanation of symbols
The following symbols are used on our packaging labels and they indicate the following:

1. Manufacturer
2. Colour code
3. Implant image
4. Implant details and size
5. Batch code
   - Use by mm-yy
   - CE mark
   - Sterilization using Irradiation
   - Do not reuse
   - Do not Resterilize
   - Caution
   - Consult instruction for use
6. Barcode
   - Contains the product code and lot number.
7. Sticker
   - For documentation purpose.
8. Rx
   - Caution: (US Only) US Federal Law restricts this device to sale to, or on the order of a licensed dentist or physician.

Images are for illustration purposes only and do not necessarily accurately represent the product.