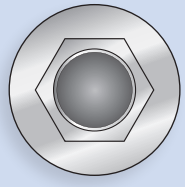
External-Hex 12º & 24º Co-Axis Dental Implant System



12º & 24º Co-Axis Implants

Considerations

Instrument Care & Sterilization

SI INC
SOUTHERN IMPLANTS

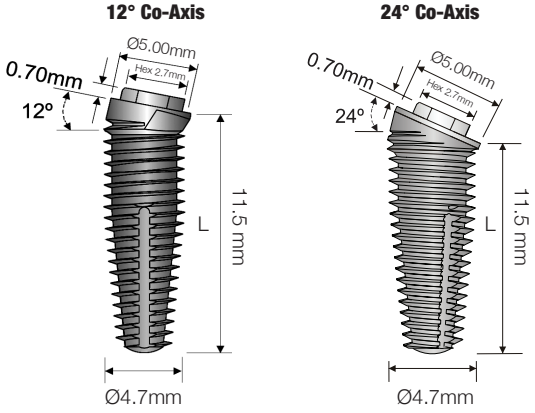
12° & 24° Co-Axis Surgical Sequence

12° Co-Axis Ø4.0 mm
12° Co-Axis Ø5.0 mm
12° Co-Axis Ø6.0 mm
24° Co-Axis Ø5.0 mm
24° Co-Axis Ø6.0 mm

12° Co-Axis (External Hex)
Ø4.0 mm is available in 8.5 mm, 10 mm, 11.5 mm, 13 mm, 15 mm and 18 mm lengths.
Ø5.0 mm is available in 10 mm, 11.5 mm, 13 mm, 15 mm and 18 mm lengths.
Ø6.0 mm is available in 10 mm, 11.5 mm, 13 mm and 15 mm lengths.

24° Co-Axis (External Hex)
Ø5.0 mm is available in 10 mm, 11.5 mm, 13 mm and 15 mm lengths.
Ø6.0 mm is available in 10 mm, 11.5 mm, 13 mm and 15 mm lengths.

12° and 24° Co-Axis 4.0 mm implants use ZYGOMATIC prosthetics as the angled head results in a shallower screw site.



Design Features

The Co-Axis (External Hex) is available with a 12° or 24° angle correction built into the implant, allowing placement in available bone and facilitating emergence of the restorative platform at the optimal prosthetic angle. With a tapered body and enhanced surface, the 12° and 24° External Hex Co-Axis Implants are designed to increase primary stability when placed into immediate extraction sites. In addition, the elimination of an angled abutment frees up valuable restorative space. The result is an implant that provides a natural contour from the implant restorative platform to the emergence through the soft tissue.

Surgical Protocol

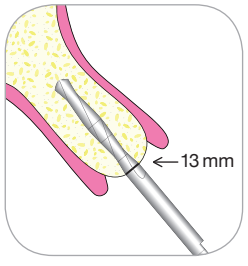
(12° Co-Axis Ø5 x 13 mm)

Step 1

A full-thickness mucoperiosteal flap is elevated and the alveolar bone is exposed. The Round Bur (D-RB) is used to initiate the osteotomy by perforating the cortical plate at the desired location.

Step 2

The Ø2 mm Twist Drill (D-20T-M15) has markings at the lengths of 8.5, 10, 11.5, 13 and 15 mm and should be inserted to the required depth at 1000-2000 rpm, with copious irrigation.

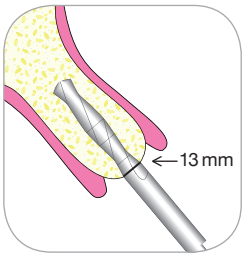


Step 3

It is recommended to insert the Direction Indicator (I-DI-12d) after using each Twist Drill to verify the alignment with adjacent teeth/implants and the opposing occlusion. A radiograph should be taken at this point.

Step 4

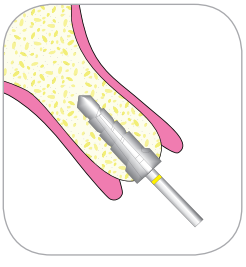
The Ø3 mm Twist Drill (D-30T-M15) has markings at the lengths of 8.5, 10, 11.5, 13, and 15 mm and should be inserted to the required depth at 1000-2000 rpm with copious irrigation.



Step 5

The final Ø5 mm by 13 mm Tapered Drill (D-50TP-13), which is slightly smaller than the implant selected, is then inserted to the required depth at approximately
500 to 800 rpm.

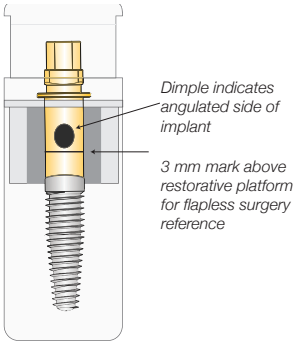
Optional Bone Taps are available.

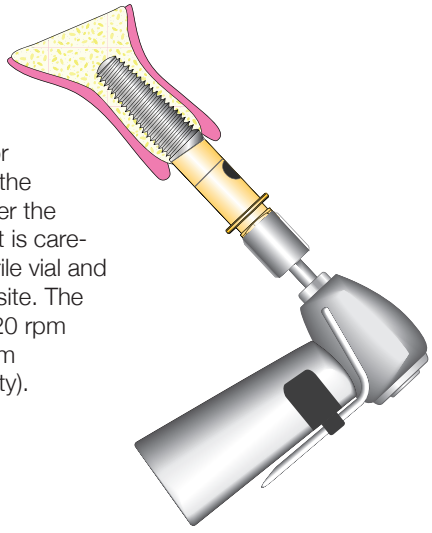


Step 6

The 12° Co-Axis (External Hex) implant is supplied with a fixture mount. The fixture mount features a 12° angle correction. This results in a straight implant/ fixture mount assembly.

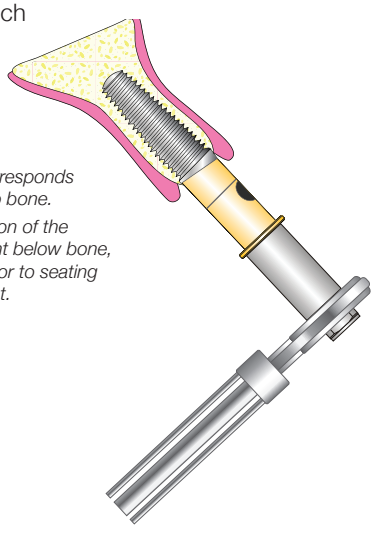
Reminder: The dimple is located opposite to the shallowest part of the occlusal platform.





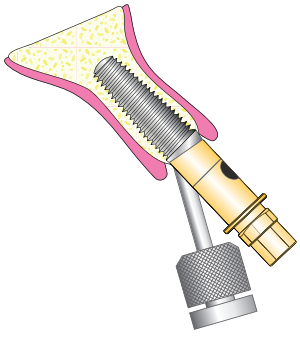
Step 7
The Handpiece Connector (I-CON-X) is inserted into the handpiece and placed over the fixture mount. The implant is carefully removed from its sterile vial and carried to the osteotomy site. The implant is inserted at 15-20 rpm and approximately 45 Ncm (depending on bone quality).

Step 8
At this point the Handpiece Connector (I-CON-X) is removed from the fixture mount. The Fixture Mount Extender (I-FME-X) is inserted into the Ratchet Wrench (I-RATCHET-2) engaging the fixture mount to fully seat the implant.



Note:
1) *One 360° rotation of the implant corresponds to a 0.6 mm drop of the implant into bone.*
2) Both *the 12° and 24° angle correction of the implant may leave part of the implant below bone, which may require bone profiling prior to seating the cover screw or healing abutment.*

Reminder: The dimple is located opposite to the shallowest part of the occlusal platform.

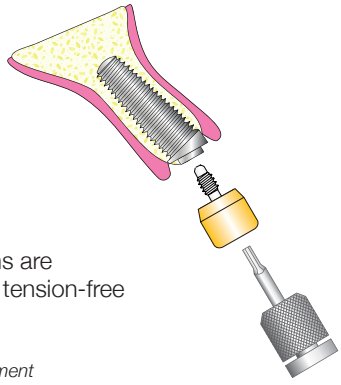


Step 9
Once the implant is fully seated, the fixture mount is disengaged from the implant with the .048" Hex Driver (I-HD).

Step 10
In a <u>one-stage</u> protocol the Healing Abutment can now be placed utilizing the .048" Hex Driver (I-HD) and the flap margins are positioned around the Healing Abutment and sutured in a tension-free manner.

In a <u>two-stage</u> protocol the Cover Screw can now be placed onto the implant utilizing the .035" Hex Driver (I-CS-HD) and the flap margins are repositioned and sutured in a tension-free manner.

Note: The Cover Screw/Healing Abutment are packaged seperately.



12º & 24º Co-Axis

Indications

The Co-Axis Implants are indicated 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 Co-Axis Implants are intended to be placed in the upper or lower arches to provide support for a fixed or removable dental prosthesis in a single tooth, partially edentulous, or full arch prosthesis. Co-Axis Implants further add the option for immediate temporization on single and splinted multiple unit restorations when good primary stability is achieved and with appropriate occlusal loading, to restore masticatory function.

Contraindications

Implant placement is contraindicated in patients with inadequate quality and/or quantity of bone, as well as patients with medical disorders unfit for general oral surgery procedures, e.g., blood dyscrasias, and bone dyscrasias. Additional contraindications include, but are not limited to, individuals with localized or systemic factors that could interfere with the healing process, e.g., infections, steroid therapy, smoking, and bruxism.

Note: Improper treatment planning and/or implant placement might result in implant failure and potential loss of the surrounding bone.

Healing Period

Any inadvertent loading of the implant should be avoided, especially during the first 6 weeks of healing to achieve optimal osseointegration.

Immediate Restoration

The Co-Axis Implant may be immediately temporized on single and splinted multiple unit restorations when excellent primary stability is achieved and with appropriate occlusal loading. Whenever possible these restorations should be out of occlusion in both centric and eccentric positions. The patient should adhere to a soft diet and place minimal forces on these restorations for 6 to 8 weeks.

Delayed Restoration

The healing period is generally 3-4 months in the mandible and 4-6 months in the maxilla, however, healing periods for each patient vary.

After the appropriate healing period the Cover Screw is removed, the Healing Abutment is placed and the gingiva is slightly sutured around. The Healing Abutment remains in place for approximately 2 weeks. Impressions can then be taken and the prosthetic protocol may proceed.

Please consult the Southern Implants Prosthetic Manual.

Instruments and Surgical Trays must be cleaned and sterilized prior to first and after each use based on established procedures. Proper instrument care is an important part of successful implant dentistry.

Pre-Cleaning

- Used instruments should be soaked immediately in instrument cleaning solution to avoid blood, saliva and tissue residue to dry.
- Used surgical trays including grommets must be cleaned with a suitable disinfectant.
- Multiple-part instruments must be disassembled prior to cleaning and sterilization.
- Internal debris/residue of instruments must be removed with a soft brush.
- Instruments should be inspected, cleaned separately and discarded if damaged.

Principal Cleaning

- Best results are achieved if surgical instruments are cleaned by material type.
- Instruments and trays can be cleaned and disinfected in a dedicated dishwasher or alternatively by hand, followed by an ultrasonic bath with a detergent appropriate for surgical instruments.
- Instruments and trays must be rinsed and dried thoroughly.

Packaging

- Instruments are placed in the tray and wrapped in sterilization paper or sterilization packs featuring indicating tape and date of sterilization.

Sterilization

- Instruments and tray are autoclaved at up to 134°C/273°F with a sufficient drying cycle to avoid instrument corrosion.

Drills

- Replacement of reusable drills after 20 uses or sterilizations is recommended to ensure optimal performance.
- Do not re-sterilize single use drills.

Surgical Motor & Handpiece

- Cleaning and maintenance instructions for W & H handpeice and motors can be found on www.w&h.com.