English

INSTRUCTIONS FOR USE: Southern Implants® Passive abutments

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Description

The Southern Implants' prosthetic range consist of abutments or cylinders for prosthetic rehabilitation on the Southern range of implants. These are pre-manufactured and can be attached direct or indirect to the implant as an aid in prosthetic rehabilitation. These instructions apply to Passive abutments with burn out sleeves. These components are supplied non-sterile. A maximum of 20° angulation is allowed for angular correction on the prosthesis.

Intended use

This system is intended to aid in the treatment of partially or fully edentulous patients eligible for placement of one or more dental implants as a means of fixing a permanent or removable single crown, partial or full-arch dental prosthesis in the upper or lower jaw.

These devices are premanufactured prosthetic components directly connected to endosseous dental implants and intended for use in the fully edentulous or partially edentulous maxilla and/or mandible to provide support for crowns, bridges or overdentures.

The devices allow for immediate or delayed prosthetic restoration based on the user's evaluation of the patient's eligibility.

The system constituents are classified as medical devices and are intended for single use on a single patient.

Indications for use

Southern Implants Dental Implants are intended for both one- and two-stage surgical procedures in the following situations and with the following clinical protocols:

- replacing single and multiple missing teeth in the mandible and maxilla,
- immediate placement in extraction sites and in situations with a partially or completely healed alveolar ridge,
- loading in all indications, except in single tooth situations on implants shorter than 8 mm or in soft bone (type IV) where implant stability may be difficult to obtain and immediate loading may not be appropriate.

Intended user

Dental Technicians, Maxillo-facial Surgeons, General Dentists, Orthodontists, Periodontists, Prosthodontists, and other appropriately trained and experienced implant users.

Intended environment

This device is intended to be used in a dental laboratory for making of the restoration and in a clinical environment such as an operating theatre or a dentist consultation room.

Intended patient population

The intended patient population for the device is not dissimilar to that of dental implant therapy.

The intended patient population for implant therapy is partially or fully edentulous patients requiring prosthetic dental restoration in the upper or lower jaw. Restorations may comprise single teeth, partial or full bridges and are fixed restorations.

Compatibility information

Southern Implants' implants should be restored with Southern Implants' components. In the Southern Implants' range there are 8 implant and abutment connections. The product code and connection type can be identified by specific abbreviations in the product codes. Range identifiers are summarised in Table A.

Table A – Compatible abutments for implant ranges

Implant connection type	Compatible device
External Hex (EX)	Parts labelled SP16, SBN16, SB16, SBA16, SBBB16 and SMAX9H for engaging items
	Parts labelled SP17, SBN17, SB17, SBA17, SBBB17 and SMAX9NH for non-engaging items
TRI-NEX® (EL) (Lobe)	Parts labelled PA-EL-(Ø) for engaging items
	Parts labelled PA-NL-(Ø) for non-engaging items
Deep Conical (DC)	Parts labelled PA-DC-(Ø) for engaging items
	Parts labelled PA-NDC-(Ø) for non-engaging items
Internal Hex (M)	Parts labelled PA-EM-S (used with Ø3.75, 4.2 and 5.0 mm platforms) for engaging items
	Parts labelled PA-NM-S (used with Ø3.75, 4.2 and 5.0 mm platforms) for non-engaging items
Internal Hex PROVATA® (3M/ M/ Z)	Parts labelled PA-3EM-S (used with PROVATA® Ø3.3 mm platform) for engaging items
	Parts labelled PA-3NM-S (used with PROVATA® Ø3.3 mm platform) for non-engaging items
	Parts labelled PA-EM-S (used Ø4.0, 5.0 and 6.0 mm platforms) for engaging items
	Parts labelled PA-NM-S (used with Ø4.0, 5.0 and 6.0 mm platforms) for non-engaging items
	Parts labelled PA-EZ (used with Ø7.0, 8.0 and 9.0 mm platforms) for engaging items
	Parts labelled PA-NZ (used with Ø7.0, 8.0 and 9.0 mm platforms) for non-engaging items
Internal Octagon IT (ITS/ ITS6)	Parts labelled ITS-PA (used with Ø4.8 mm platforms) for engaging item
	Parts labelled ITS-PA-ne (used with Ø4.8 mm platforms) for non-engaging items
	Parts labelled ITS6-PA (used with Ø6.5 mm platforms) for engaging items
	Parts labelled ITS6-PA-ne (used with Ø6.5 mm platforms) for non-engaging items
Single Platform (SP)	Parts labelled PA-SP for (used with Ø3.5, 4.0 and 5.0 mm platforms) engaging items
	Parts labelled PA-NSP for (used with Ø3.5, 4.0 and 5.0 mm platforms) non-engaging items
	Parts labelled PA-SP-PM (used with Ø5.0 mm platforms) for platform-matched engaging items
Compact Conical Abutments	Parts labelled PA-MC-48 (used with Ø4.8 mm abutment platforms) for non-engaging items
	Parts labelled PA-MC-60 (used with Ø6.0 mm abutment platforms) for non-engaging items

Clinical benefits

The clinical benefits of the system are not dissimilar to those of dental implant therapy.

The clinical benefits of dental implant therapy include improved chewing function, speech, aesthetics and patient psychological wellbeing. Through this procedure patients can expect to have their missing teeth replaced and/or crowns restored.

Storage, cleaning and sterilisation

This component is supplied non-sterile and is indicated for single use. If packaging is damaged do not use the product and contact your Southern representative or return to Southern Implants®. The devices must be stored in a dry place at room temperature and not exposed to direct sunlight. Incorrect storage may influence device characteristics.

Do not reuse components indicated for single-use only. Re-using these components may:

- damage on the surface or critical dimensions, which may result in performance and compatibility degradation.
- adds the risk of cross-patient infection and contamination if single-use items are reused.

Southern Implants® does not accept any responsibility for complications associated with reused single-use components.

Southern Implants® recommends one of the following procedures to sterilise the restorations and non-sterile single-use components prior to use:

1. prevacuum sterilisation method: steam sterilise the abutments at 132°C (270°F) at 180 - 220 kPa for 4 minutes. Dry for at least 20 minutes in the chamber. Only an approved wrap or pouch for steam sterilisation must be used.
2. for users in the USA: prevacuum sterilisation method: wrapped, steam sterilise at 135°C (275°F) at 180 - 220 kPa for 3 minutes. Dry for 20 minutes in the chamber. Use a wrap or pouch that is cleared for the indicated steam sterilisation cycle.

NOTE: users in the USA must ensure that the steriliser, wrap or pouch, and all steriliser accessories are cleared by the FDA, for the intended sterilisation cycle.

Contraindications

The contraindications for this system are not dissimilar to those of dental implant therapy.

Contra-indications to implant therapy include:

- patients medically unfit for oral surgical procedures.
- where an inadequate number of implants can be placed limiting the functional support of the prosthesis.
- patients under the age of 18 years.
- patients with poor bone quality.
- patients with blood disorders.
- presence of infection at the implant site.
- patients with vascular impairment.
- patients with uncontrolled diabetes.
- patients with drug or alcohol abuse dependencies.
- patients undergoing chronic high dose steroid therapy.
- patients undergoing anti-coagulant therapy.
- patients with metabolic bone disease.
- patients undergoing radiotherapy treatment.
- patients with pure titanium, titanium alloy (Ti6Al4V), gold, palladium, polyether ether ketone (PEEK), or iridium allergies or hypersensitivities.

Warnings and precautions

THESE INSTRUCTIONS ARE NOT INTENDED AS A SUBSTITUTE FOR ADEQUATE TRAINING.

- For the safe and effective use of dental implants it is strongly suggested that specialised training be undertaken, including hands-on training to learn proper technique, biomechanical requirements and radiographic evaluations.
- Products must be secured against aspiration when handled intraorally. Aspiration of products may lead to infection or unplanned physical injury.

Responsibility for proper patient selection, adequate training, experience in the placement of implants and providing appropriate information for informed consent rests with the practitioner. Improper technique can result in implant failure, damage to nerves/vessels and/or loss of supporting bone. Implant failure increases when implants are placed in irradiated bone as radiotherapy can result in progressive fibrosis of vessels and soft tissue, leading to diminished healing capacity.

It is important to be aware and avoid damage to vital structures such as nerves, veins and arteries. Injuries to vital anatomical structures may cause serious complications such as injury to the eye, nerve damage and excessive bleeding. It is essential to protect the infraorbital nerve. Failing to identify actual measurements relative to the radiographic data could lead to complications.

New and experienced implant users should do training before using a new system or attempting to do a new treatment method. Take special care when treating patients who have local or systemic factors that could affect the healing of the bone and soft tissue (i.e. poor oral hygiene, uncontrolled diabetes, are on steroid therapy, smokers, infection in the nearby bone and patients who had orofacial radiotherapy).

Thorough screening of prospective implant candidates must be performed including:

- a comprehensive medical and dental history.
- visual and radiological inspection to determine adequate bone dimensions, anatomical landmarks, occlusal conditions and periodontal health.
- bruxism and unfavourable jaw relations must be taken into account.
- proper preoperative planning with a good team approach between well trained surgeons, restorative dentists and lab technicians is essential for successful implant treatment.
- minimising the trauma to the host tissue increases the potential for successful osseointegration.
- electrosurgery should not be attempted around metal implants as they are conductive.

Should the device not operate as intended, it must be reported to the manufacturer of the device. The contact information for the manufacturer of this device to report a change in performance is: sicomplaints@southernimplants.com.

Side effects

The side effects of the use of the system are not dissimilar to those of dental implant therapy. Possible side effects to implant therapy include:

- pain
- swelling
- phonetic difficulties
- gingival inflammation

Less common but more persistent symptoms include, but are not limited to:

- allergic reaction(s) to implant and/or abutment material
- breakage of the implant and/or abutment
- loosening of the abutment screw and/or retaining screw
- infection requiring revision of the dental implant
- nerve damage resulting in permanent weakness, numbness, or pain
- histologic responses with possible macrophage and/or fibroblast involvement
- fat emboli formation
- loosening of the implant requiring revision surgery
- perforation of the maxillary sinus
- perforation of the labial and lingual plates
- bone loss possibly resulting in revision or removal of the implant.

Precaution: maintaining sterility protocol

Implants are packaged as follows:

1. An outer package consisting of a rigid, clear box which acts as protection for the inner package.
2. The inner package consisting of a blister pack (clear plastic-formed blister base with a TYVEK “peel-back” lid).
3. Within the inner package, there is a hollow tube which contains one implant suspended from a titanium ring, this ensures the implant never touches the inside of the plastic tube.
4. Labelling information is located on the surface of the peel-back lid and on the outside of the rigid box.

Care must be taken to maintain the sterility of the implant by proper opening of the packaging and handling of the implant.

1. Open the implant package in the non-sterile field, with non-sterile gloves, tear the address label to open the box.
2. With non-sterile gloves, remove the inner blister pack. Do not place the plastic box or blister pack-lid onto the sterile field. The contents of this inner package are sterile.
3. The sealed blister is to be opened by an assistant (with nonsterile gloves): remove the TYVEK lid and drop or place the sterile tube onto the sterile field, open the tube cap and attach the implant placement tool onto the implant and carefully remove from the sterile tube. Do not touch the sterile implant.

Other sterile components are packed in a peel pouch or blister base with a “peel-back” lid. Labelling information is located on the bottom half of the pouch, inside the packet or on the surface of the peel-back lid. Sterility is assured unless the pouch is damaged or opened. Non-sterile components are supplied clean but not sterile in a peel pouch or blister base with peelback lid. Labelling information is located on the bottom half of the pouch or on the surface of the peel-back lid.

Notice regarding serious incidents

Any serious incident that has occurred in relation with the device must be reported to the manufacturer of the device and the competent authority in the member state in which the user and/or patient is established.

The contact information for the manufacturer of this device to report a serious incident is as follows: sicomplaints@southernimplants.com.

Materials

Material type Commercially Pure Titanium (Grade 4), Titanium Alloy (Ti-6Al-4V)

Disposal

Disposal of the device and its packaging: follow local regulations and environmental requirements, taking different contamination levels into account. When disposing of spent items, take care of sharp drills and instruments. Sufficient PPE must be used at all times.

MR safety

Nonclinical testing has demonstrated that the Southern Implants® dental implants, metallic abutments and prosthetic screws are MR conditional.

A patient with these devices can be safely scanned in a MR system meeting the following conditions:

- Static magnetic field of 1.5 Tesla and 3.0 Tesla only.
- Maximum spatial gradient magnetic field of 3000 Gauss/cm (30 T/m).
- Maximum MR system reported SAR corresponding to Normal Operating mode for all landmarks (Head SAR of 2 W/kg for head landmark, 1 W/kg whole body (for landmarks within 30 cm of the implant) or 2 W/kg whole body (for landmarks more than 30 cm from the implant), and appropriate partial body SAR for other landmarks). For imaging landmarks above the thorax, 15 min of scanning at normal operating mode for landmarks greater than 30 cm from the implant with a whole body SAR of 1W/kg for imaging landmarks within 30 cm of the implant.
- In the non-clinical testing, the image artifact caused by the device extends approximately 20 mm from the Southern Implants dental implants, abutments and prosthetic screws, when imaged with a gradient echo pulse sequence and a 3.0 Tesla MRI system.

Removable restorations should be taken out prior to scanning, as is done for watches, jewellery etc. Should there be no MR symbol on the product label, please note that this device has not been evaluated for safety and compatibility in the MR environment. This device has not been tested for heating or migration in the MR environment.

Summary of Safety and Clinical Performance (SSCP)

As required by the European Medical Device Regulation (MDR; EU2017/745), a Summary of Safety and Clinical Performance (SSCP) is available for perusal with regard to Southern Implants® product ranges.

The relevant SSCP can be accessed at https://ec.europa.eu/tools/eudamed.

NOTE: the above website will be available upon the launch of the European Database on Medical Devices (EUDAMED).

Disclaimer of liability

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

Basic UDI

Product	Basic-UDI Number
Basic-UDI for Metal Abutments	60095440387296

Related literature and catalogues

CAT-2004 - TRI-NEX® Implants Product Catalogue
CAT-2005 - IT Implants Product Catalogue
CAT-2020 - External Hex Implants Product Catalogue
CAT-2042 - Deep Conical Implants Product Catalogue
CAT-2043 - Internal Hex Implants Product Catalogue
CAT-2060 - PROVATA® Implants Product Catalogue
CAT-2069 - INVERTA® Implants Product Catalogue
CAT-2070 - Zygomatic Implants Product Catalogue
CAT-2093 - Single Platform (SP1) Implants Product Catalogue

Symbols and warnings


Manufacturer: Southern Implants® 1 Albert Rd, P.O Box 605 IRENE, 0062, South Africa. Tel: +27 12 667 1046

CE mark

Prescription device*

Sterilised using irradiation

Non-sterile


Use by date (mm-yy)


Do not reuse

Do not resterilise

Catalogue number

Batch code

Medical device

Authorised representative in the European Community

Authorised representative for Switzerland


Date of manufacture

Magnetic Resonance conditional

Magnetic Resonance safe


Single sterile barrier system with protective packaging inside


Single sterile barrier system


Consult instruction for use


Caution


Keep away from sunlight


Do not use if package is damaged

* Prescription device: Rx only. Caution: Federal Law restricts this device to sale by or on the order of a licenced physician or dentist.
Canada licence exemption: Please note that not all products may have been licensed in accordance with Canadian law.