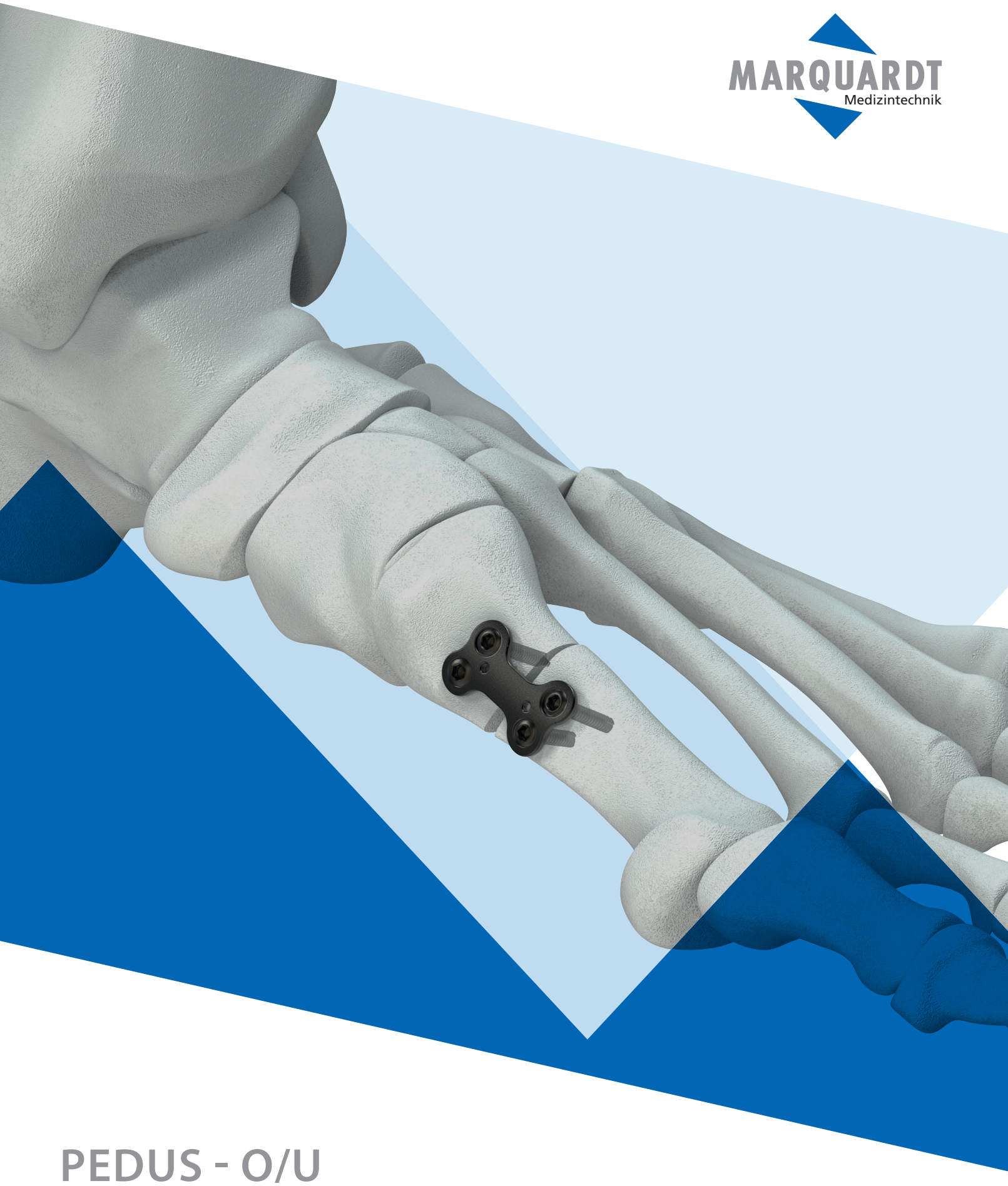
MARQUARDT
Medizintechnik



PEDUS - O/U
Plating System

Table of Contents

Note:

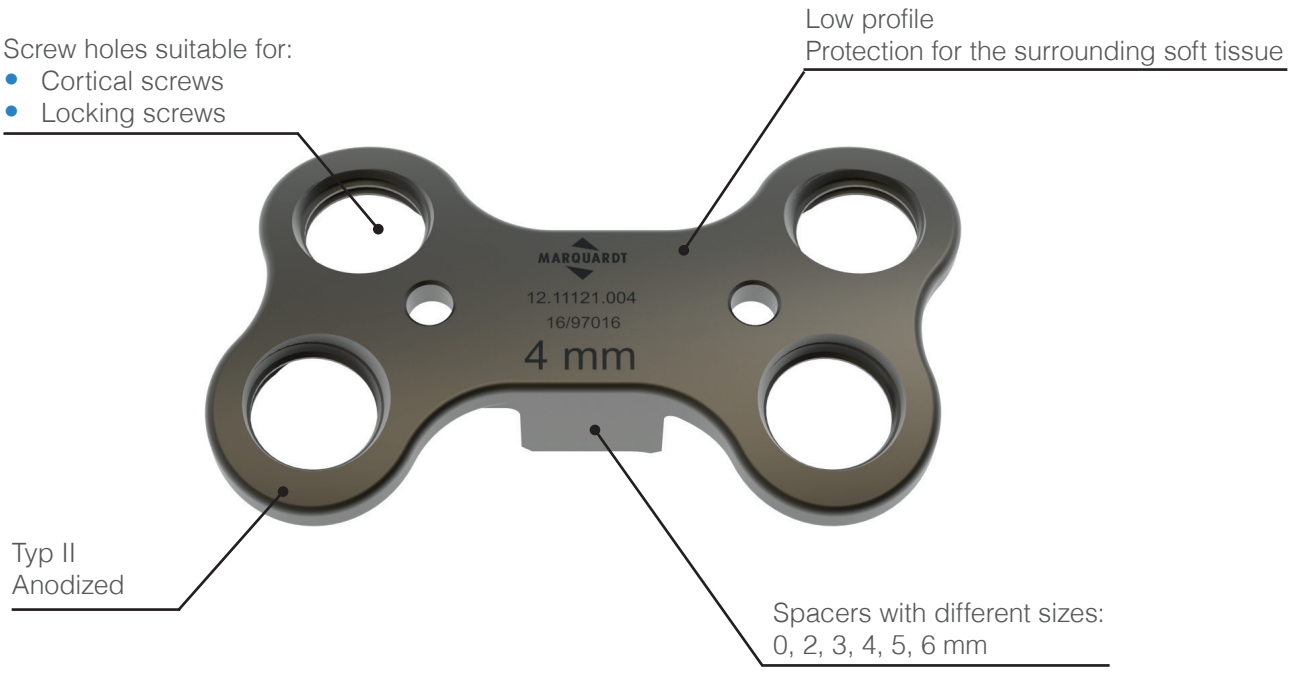
The surgery instructions outlined below reflect the surgery procedure usually chosen by the clinical consultant. However, each surgeon must decide individually which course of action offers the best chance of success in the individual case.

▶ Surgical Technique PEDUS-O WS Open Wedge Plate

PEDUS-O WS Open Wedge Plate

Product Specification

- Plate holes are filled with self-tapping cortical screws. The screws are available either non-locking or locking
- High stability with small implant dimensions.



Indication

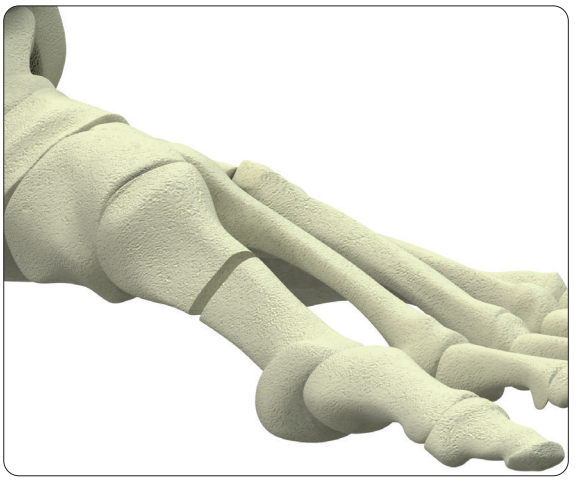
- PEDUS-O Open Wedge Plates are indicated for fixations of osteotomies at the first metatarsal bone for correction of deformities, especially hallux valgus.

Access

- From the tarsometatarsal joint I along the midline of the OS metatarsal I, a dorsomedial incision is made 3 to 4 cm distally.
- Lead the incision to the bone and isolate the medial branch of the superficial fibular nerve.

Preparation of the Metatarsale I

- An osteotomy about 10 mm distal to the tarsometatarsal joint is performed. The lateral cortex is not severed.
- Next, the osteotomy is carefully spread open with small chisels.



Note:

The lateral corticalis determines the direction of the correction.

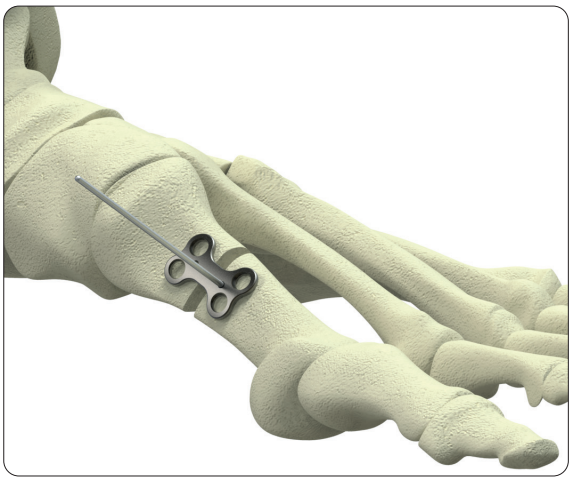
- Exact lateral -> horizontal correction
- Plantar-lateral -> simultaneous plantarization

Implant Selection and Positioning

Instruments

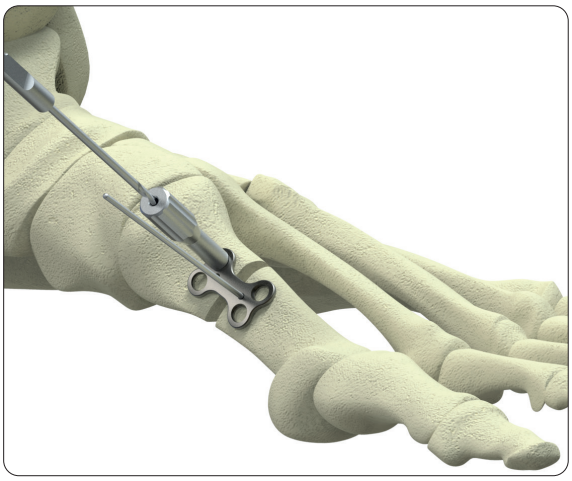
REF 11.90012.070 *Kirschner Wire Ø 1.2 mm*

- The plate with the corresponding spacer will be inserted. The plate is stabilized without any further fixation.
- Optionally, the plate can be temporarily fixed with the K-wire.



Note:

The plate should rest flat on the bone at the locking screw holes.

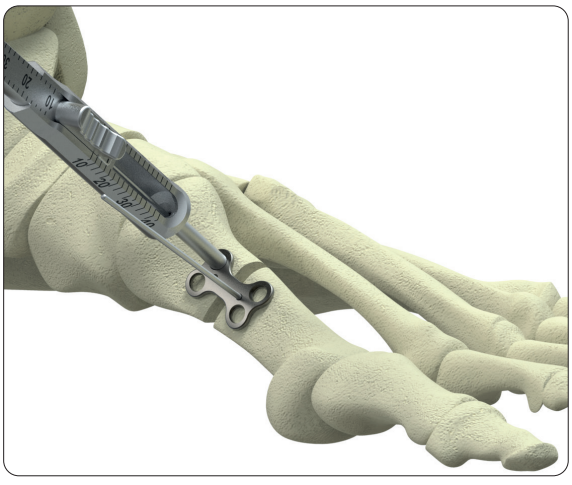


Fixation of the Plate with Locking Screws

Instruments

REF 12.20010.017 *Drill Bit Ø 1.7 mm*
REF 12.20060.031 *Drill Guide 1.7*

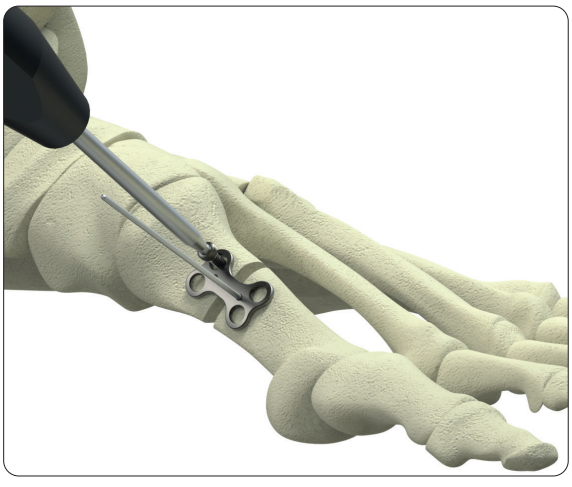
- Next, the drill giude is screwed into the plate.
- At this stage the position of the plate can be checked with the image intensifier
- The bone is drilled through the drill guide bi-cortically with the drill bit.



Instruments

REF 02.20100.040 *Length Determination Instrument, for Screw up to 40 mm*

- The length determination instrument is used to determine the required screw length.
- The length determination instrument is placed directly on the plate.

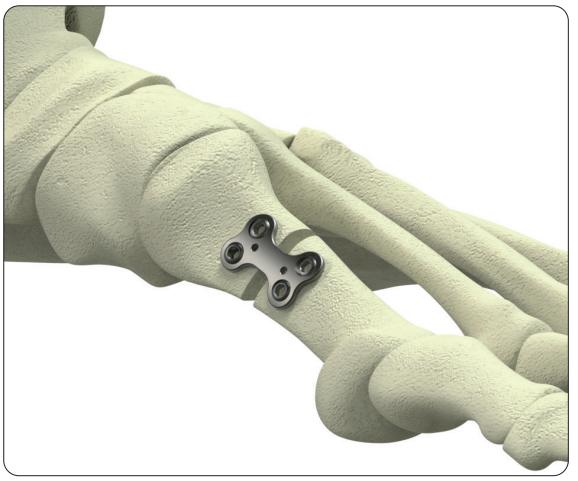


Instruments

REF 02.20040.020 *Screwdriver, hex 2.0 mm*

- Once the required screw length has been determined, the corresponding locking or non-locking cortical screw will be inserted with the screwdriver.

- Next, the remaining locking or non-locking cortical screws will be inserted in the plate.
- The procedure for inserting the screws corresponds to the procedure described above.
- Once all of the screw holes have been filled, a final radiological check is performed.



▶ Surgical Technique PEDUS-U WS Universal Plate

PEDUS-U WS Universal Plate

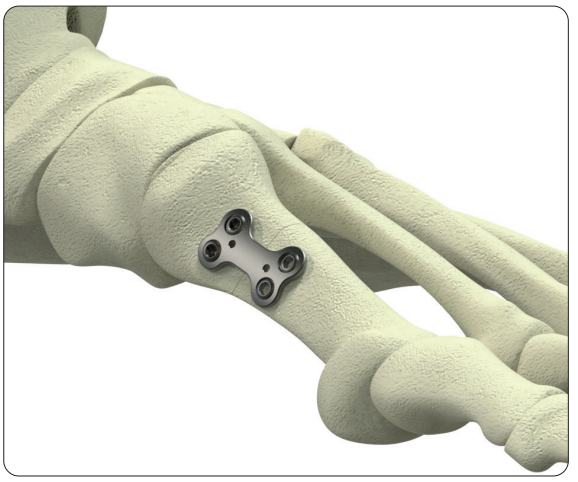
Product Specification

- Plate holes are filled with self-tapping locking or non-locking cortical screws.
- High stability with small implant dimensions.
- Can be used for the fixation of closing wedge osteotomies.

Indication

- PEDUS-U Universal Plates are indicated for fixation of fractures, osteotomies and joint fusions at the fore- and midfoot.

- The steps for drilling, measuring the screw length and fixation are the same as described in the PEDUS-O WS Open Wedge Plate surgical technique (see above)



Product Information

Implants

PEDUS-O
Open Wedge Plate

- Plate thickness: 1.1 mm
- Material: Titanium

Article Number *	Spacer	Length
12.11121.000	0 mm	17 mm
12.11121.002	2 mm	19 mm
12.11121.003	3 mm	20 mm
12.11121.004	4 mm	21 mm
12.11121.005	5 mm	22 mm
12.11121.006	6 mm	23 mm

PEDUS-U
WS Universal Plate

- Plate thickness: 1.2 mm
- Material: Titanium

Article Number *	Hole Distance	Length
12.11122.012	12 mm	19 mm
12.11122.014	14 mm	21 mm
12.11122.016	16 mm	23 mm
12.11122.018	18 mm	25 mm
12.11122.020	20 mm	27 mm

Cortical Screw Ø 2.3 mm, self tapping

- Thread diameter: 2.3 mm
- Hexagon socket: 2.0 mm
- Material: Titanium

Article Number *	Length
12.03424.012	12 mm
12.03424.014	14 mm
12.03424.016	16 mm
12.03424.018	18 mm
12.03424.020	20 mm
12.03424.022	22 mm
12.03424.024	24 mm
12.03424.026	26 mm

Locking Screw Ø 2.3 mm, self tapping

- Thread diameter: 2.3 mm
- Hexagone socket: 2.0 mm
- Material: Titanium

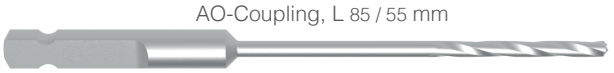
Article Number *	Length
12.03423.012	12 mm
12.03423.014	14 mm
12.03423.016	16 mm
12.03423.018	18 mm
12.03423.020	20 mm
12.03423.022	22 mm
12.03423.024	24 mm
12.03423.026	26 mm

* All implants are also available in sterile. Therefor, add suffix "S" to article number.

Instruments

11.90012.070 Kirschner Wire Ø 1.2 mm, Trocar Tip, L 70 mm, Steel

12.20010.017 Drill Bit Ø 1.7 mm, 2-fluted, AO-Coupling, L 85 / 55 mm



12.20060.031 Drill Guide 1.7

12.20060.017 Double Drill Guide 2.0 / 1.7

02.20100.040 Length Determination Instrument, for Screws up to 40 mm

02.20040.020 Screwdriver, hex 2.0 mm, L 175 / 65 mm

02.20120.015 Screw Forceps, self holding

MRI Safety Information

Non-clinical testing has demonstrated that the plates range from Marquardt Medizintechnik is MR Conditional in accordance with the ASTM F2503 standard definitions. A patient with this device can be safely scanned in an MR system meeting the following conditions:

- Cylindrical-bore
- Horizontal magnetic field (B_0)
- Spatial field gradient lower than or equal to
  - **1.5 T:** 23.45 T/m (2345 G/cm)
  - **3.0 T:** 11.75 T/m (1175 G/cm)
- Radiofrequency (RF) field exposure:
  - RF excitation: Circularly Polarized (CP)
  - RF transmit coil: whole-body transmit coil
  - RF receive coil type: whole-body receive coil
  - Maximum permitted whole-body averaged specific absorption rate (SAR): Normal Operating Mode, 2 W/kg.
  - Scan duration and wait time:

    1.5 T: 2 W/kg whole-body average SAR for **8min and 15s** of continuous RF (a sequence or back-to-back series/scan without breaks) followed by a wait time of **8min and 15s** if this limit is reached.

    3.0 T: 2 W/kg whole-body average SAR for **6min and 19s** of continuous RF (a sequence or back-to-back series/scan without breaks) followed by a wait time of **6min and 19s** if this limit is reached.
- The plates are expected to produce a maximum temperature rise of 8.5 °C at 1.5 T and 6.9 °C at 3 T both after the scanning periods presented above.
- The presence of this implant may produce an image artifact. Some manipulation of scan parameters may be needed to compensate for the artifact. In non-clinical testing, the image artifact caused by the device extends approximately 83 mm from the device edge when imaged with a spin echo pulse sequence and 65 mm with a gradient echo, both at 1.5 T.
- Patients with uncompromised thermoregulation and under uncontrolled conditions or patients with compromised thermoregulation (all persons with impaired systemic or reduced local thermoregulation) and under controlled conditions (a medical doctor or a dedicated trained person can respond instantly to heat induced physiological stress).

Note:

Undergoing an MRI scan, there is a potential risk for patients with a metallic implant. The electromagnetic field created by an MRI scanner can interact with the metallic implant, resulting in displacement of the implant, heating of the tissue near the implant, or other undesirable effects.

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