



MAGNEZIX^{M3}

CS 2.0
2.7/3.2

Product information

Intelligent innovations for a better life.

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CAUTION

This product description is not sufficient for immediate use of instruments or implants. Induction training by an authorised person must be carried out prior to use of these instruments and implants.

Implants that have been removed from the sterile packaging and not used must not be re-sterilized and have to be discarded.

When using other makes of implant at the same time, it is important to note that steel, titanium and cobalt-chromium alloys in the surgical site must not be in direct contact with a MAGNEZIX® implant for an extended period (physical contact between implants).

MAGNEZIX® CS

THE MAGNEZIX® MATERIAL

MAGNEZIX® is a trademark for the world's first bioabsorbable material consisting of a magnesium alloy (MgYREZr) for medical applications. The biomechanical properties are very similar to those of human bone. MAGNEZIX® gradually transforms within the body and is replaced by endogenous tissue. Experimental studies also confirm that magnesium has an osteoconductive¹ effect and tends to inhibit infection².

Advantages for users and patients

- There is a complete homogeneous conversion (transformation) of the implant to the patient's endogenous tissue.
- This complete transformation of the implant makes subsequent metal removal unnecessary.
- The mechanical properties are significantly better than those of conventional resorbable implants.
- Histological investigations show bone formation at the surface of the implant, as well as bone growth into the implant zones already transformed.
- The use of MAGNEZIX® implants does not lead to so-called "stress shielding" (bone atrophy due to shielding from load) due to the bone-like biomechanical properties.³
- In terms of application, MAGNEZIX® implants hardly differ from conventional implants. This is ensured by the adapted design, which takes the material and transformation properties into account.
- MAGNEZIX® implants are radiologically visible, MRI-conditional and only generate minimal artifacts (see also the IFU regarding this).⁴

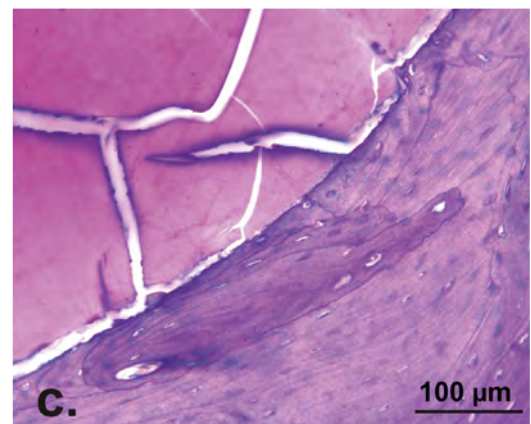
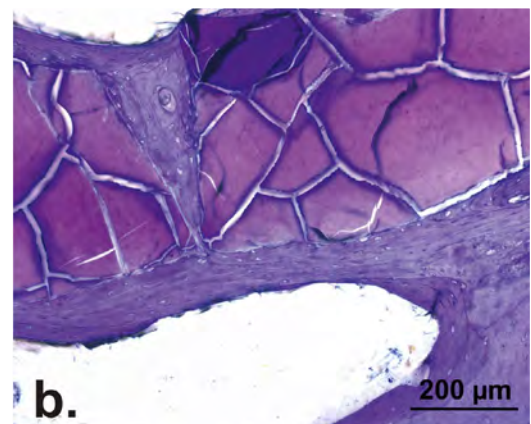
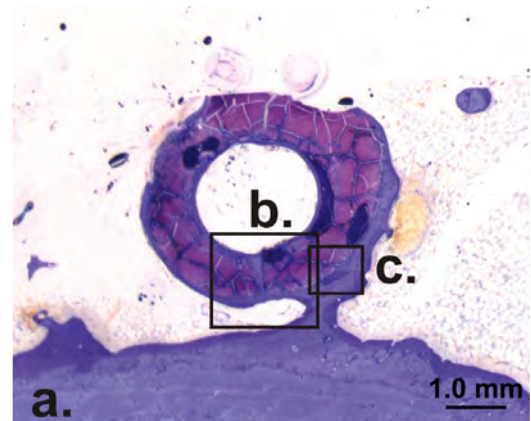
¹ Zreiqat et al.: Mechanisms of magnesium-stimulated adhesion of osteoblastic cells to commonly used orthopaedic implants. J Biomed Mater Res 2002 Nov;62(2):175-84.

² Robinson DA, Griffith RW, Shechtman D, Evans RB, Conzemius MG: In vitro antibacterial properties of magnesium metal against Escherichia coli, Pseudomonas aeruginosa and Staphylococcus aureus, Acta Biomaterialia 6 (2010) 1869-1877.

³ Witte F, Hort N, Vogt C, Cohen S, Kainer KU, Willumeit R, Feyerabend F: Degradable biomaterials based on magnesium corrosion. Current Opinion in Solid State and Materials Science 12 (2008) 63-72.

⁴ Sonnow L, Könneker S, Vogt PM, Wacker F, von Falck C: Biodegradable magnesium Herbert screw - image quality and artefacts with radiography, CT and MRI. BMC Medical Imaging (2017) 17:16.

Histological evaluations of an animal study have shown complete conversion of the metal implant after a 12-month implantation period. Evidence was produced of bone formation with direct implant contact, as well as the presence of osteoblasts and osteoclasts.



SAGE Publications Ltd. All rights reserved. Waizy et al: In vivo study of a bio-degradable orthopedic screw (MgYREZr-alloy) in a rabbit model for up to 12 months. Journal of Biomaterials Applications Vol 28, Issue 5, pp. 667-675.

INTENDED USE

The MAGNEZIX® CS is a bioabsorbable compression screw that is used to restore the bone continuity after fractures and osteotomies (osteosynthesis) as well as for treatment of pseudarthroses. Specifically, the MAGNEZIX® CS is intended to achieve anatomical retention of bone sections that have been joined together by surgical splinting following prior reduction until the bone has healed. The implant is designed for single use.

INDICATIONS

The indications for MAGNEZIX® CS implants are reconstruction procedures after fractures and malalignment in the human skeleton. The surgeon must determine the degree of injury and the scope of the required surgical procedure and then select the correct surgical procedure and the appropriate implant. This is particularly important when using bioabsorbable MAGNEZIX® implants. The surgeon is always responsible for the decision to use these implants. Depending on the chosen size, the MAGNEZIX® CS can be used as a bone screw for children, adolescents or adults for adaptation-capable or exercise-capable fixation of bones and bony fragments.

MAGNEZIX® CS 2.0, 2.7, 3.2:

- intra- and extraarticular fractures of small bones and bony fragments
- arthrodeses, osteotomies and pseudarthroses of small bones and joints
- small bony ligament and tendon ruptures and similar indications in the same region of the body

MAGNEZIX® CS 2.0:

- phalangeal and metacarpal bones
- processus styloideus radii et ulnae
- capitulum humeri and caput radii
- osteochondrosis dissecans and similar indications in the same region of the body

MAGNEZIX® CS 2.7, 3.2:

- carpal, metacarpal, tarsal and metatarsal bones
- processus styloideus radii et ulnae
- capitulum humeri and caput radii
- epicondylus humeri
- Hallux-valgus corrections and similar indications in the same region of the body

WARNINGS

When using other makes of implant at the same time, it is important to note that steel, titanium and cobalt-chromium alloys in the surgical site must not be in direct contact with a MAGNEZIX® implant for an extended period (physical contact between implants). Since the implants are intended for single use only, re-use of MAGNEZIX® implants constitutes gross negligence. It may lead to increased risk of infection and especially loss of implant stability. Re-sterilisation will have an unpredictable impact on the product.

CONTRAINDICATIONS

MAGNEZIX® implants are contraindicated (absolute contraindication) in specific clinical situations or they should only be planned and used after careful consideration (relative contraindication).

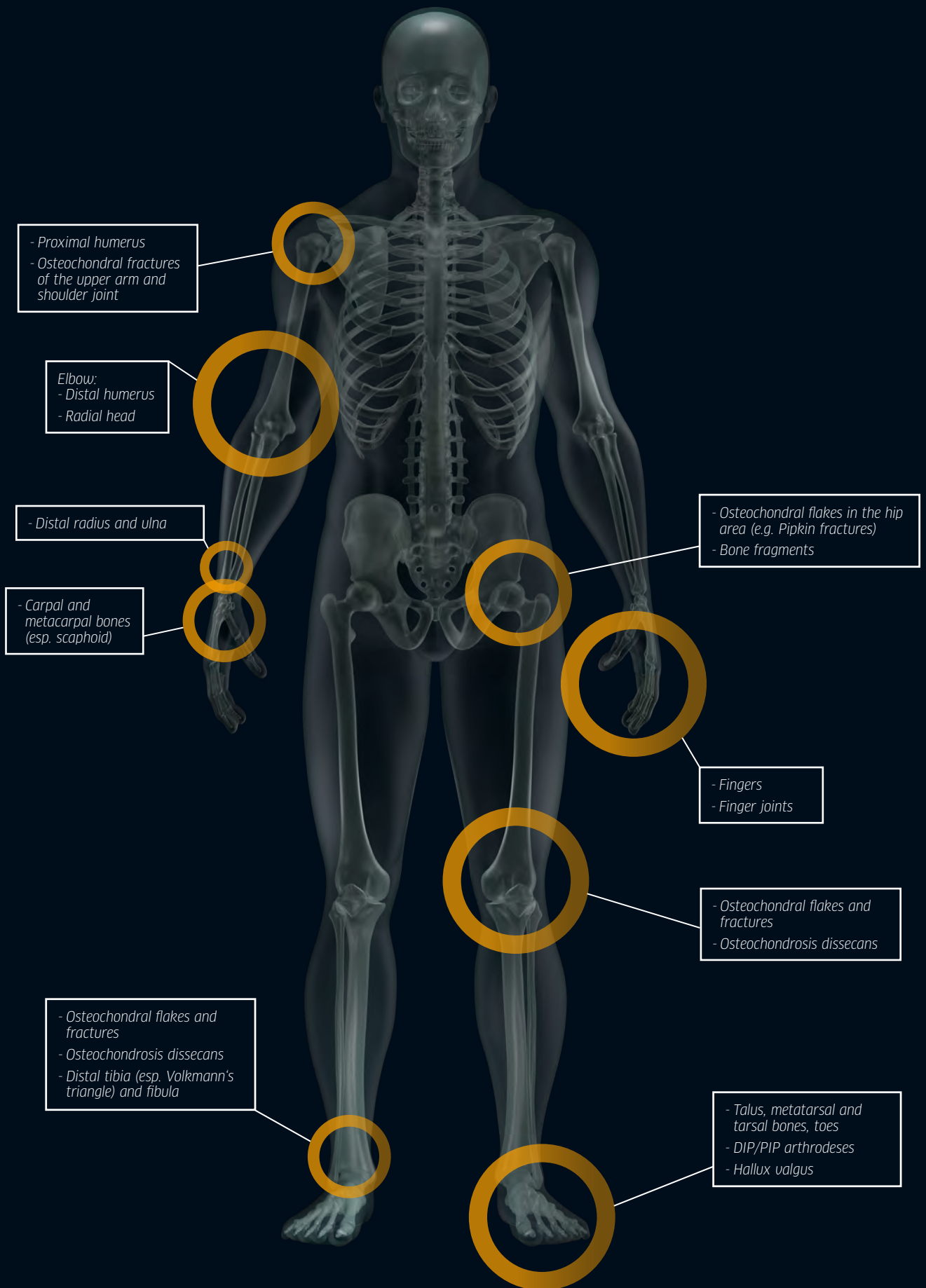
Absolute contraindications:

- insufficient or avascular bone mass for anchorage of the implant, except osteochondral fractures and dissecates
- confirmation or suspected septic infectious surgical site
- application in the area of the epiphyseal plates
- load-bearing stable osteosynthesis
- arthrodeses of medium-sized and large joints
- applications on the spinal column
- radioscapoid and/or midcarpal arthrosis

Relative contraindications:

- options for conservative treatment
- no options for adequate postoperative treatment (e.g. temporary strain relief)
- uncooperative patient or patient with restricted intellectual capacity
- alcohol, nicotine and/or drug abuse
- poor skin/soft tissue conditions
- osteoporosis
- acute sepsis
- epilepsy

EXAMPLARY APPLICATIONS



ADVANTAGES AND FEATURES

BIOABSORBABLE MAGNESIUM ALLOY

Use of MAGNEZIX® implants makes any subsequent implant removal unnecessary, and moreover supports the osseous healing process. MAGNEZIX® is bioabsorbable and biocompatible.

Self-tapping screw tip

The self-tapping properties of the screw tip reduce the operation time and simplify the surgical application technique.

Cannulated screw

The screw is cannulated (hollow) to allow controlled positioning of the screw using the guide wire.

This feature supports minimal invasive surgery.

Self-tapping head thread

The self-tapping design of the screw head simplifies insertion and countersinking of the screw head.

Different thread pitches

The threads of the head and the shaft have different thread pitches. This adapted design of the screw generates compressive forces and supports the intended inter-fragmentary compression.

Self-holding screwdriver

The drive of the screw head is of Tx (ISO 10664 - x*) design. The advantages of this ISO standardized technology are:

- enlarged contact area
- improved self-retaining mechanism
- improved torque transmission

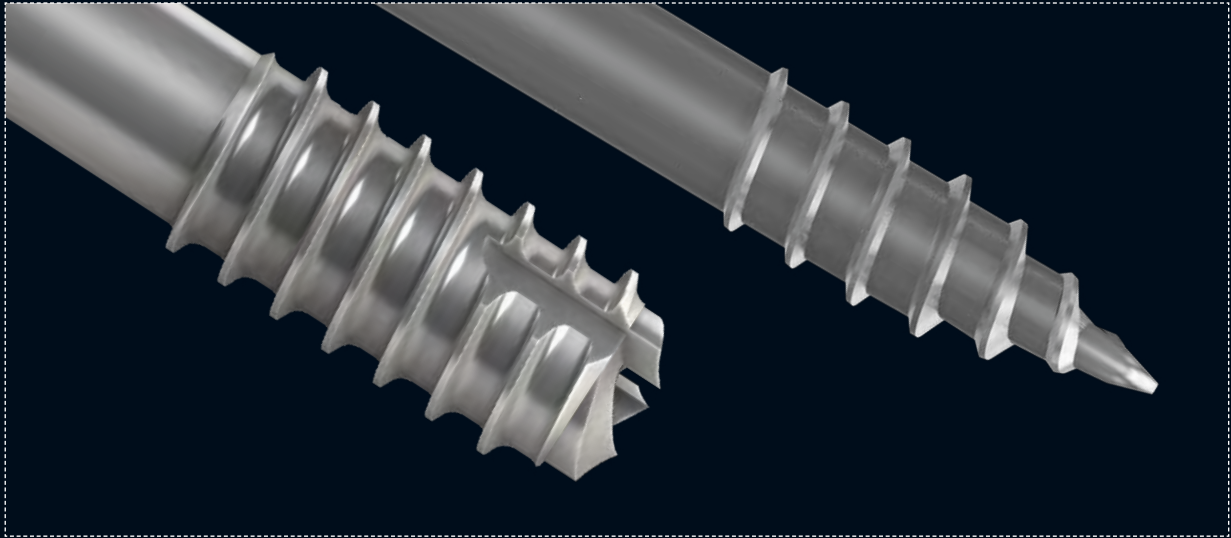
Arthroscopic instruments

In order to support the use of MAGNEZIX® CS 2.7 and 3.2 implants during minimally invasive surgery, arthroscopic instruments were designed.

The arthroscopic double drill guide allows parallel implant positioning through rotation of the instrument over a centrally placed guide wire.

HINTS

In isolated cases, temporary radiolucencies may be observed around the implant. It is recommended to mention this phenomenon in the operating room note/discharge note, pointing out that, based on present knowledge, this does not have any relevant influence on the process of healing. This will inform the caregivers involved in the follow-up treatment of the special aspects of the radiological healing process. Since MAGNEZIX® implants are degraded completely in the body in the course of time and are replaced by endogenous tissue, they do not have to be removed.



SURGICAL TECHNIQUE

MAGNEZIX® CS 2.0 – STEP BY STEP

Prior to implanting a MAGNEZIX® CS 2.0 screw it is necessary to ensure repositioning and temporary stabilization of the fracture or the osteotomy.

Although the MAGNEZIX® CS 2.0 screw has a self-cutting tip, a pilot hole must always be predrilled. The pilot hole also allows precise selection of the correct screw length.

Step 1: Drilling the pilot hole

Position the double drill guide through the soft tissue to the bone. Insert the drill bit through the double drill guide and into the bone, possibly monitoring with the x-ray unit until it is at the required depth.

Important

If no pilot hole is drilled, the precise screw length cannot be correctly determined. Pre-drilling with an incorrect alignment can lead to malfunction of the screw.

Instruments used:

- ① 9020.033 Double Drill Guide, Ø 2.2/1.5 mm
- ② 9020.020 Drill Bit Ø 1.5 mm, length 88/63 mm, for Quick Coupling

Step 2: Determination of screw length

The length of the screw is determined by means of the depth gauge to determine the depth of the pre-drilled pilot hole in the bone (18 mm in the figure).

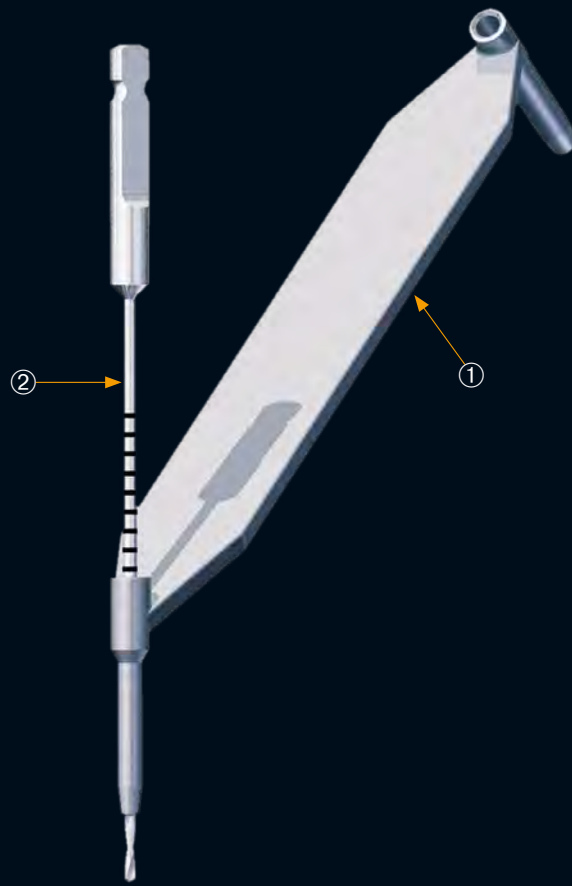
Important

When selecting the length of the screw one has to ensure proper compression of the fracture gap.

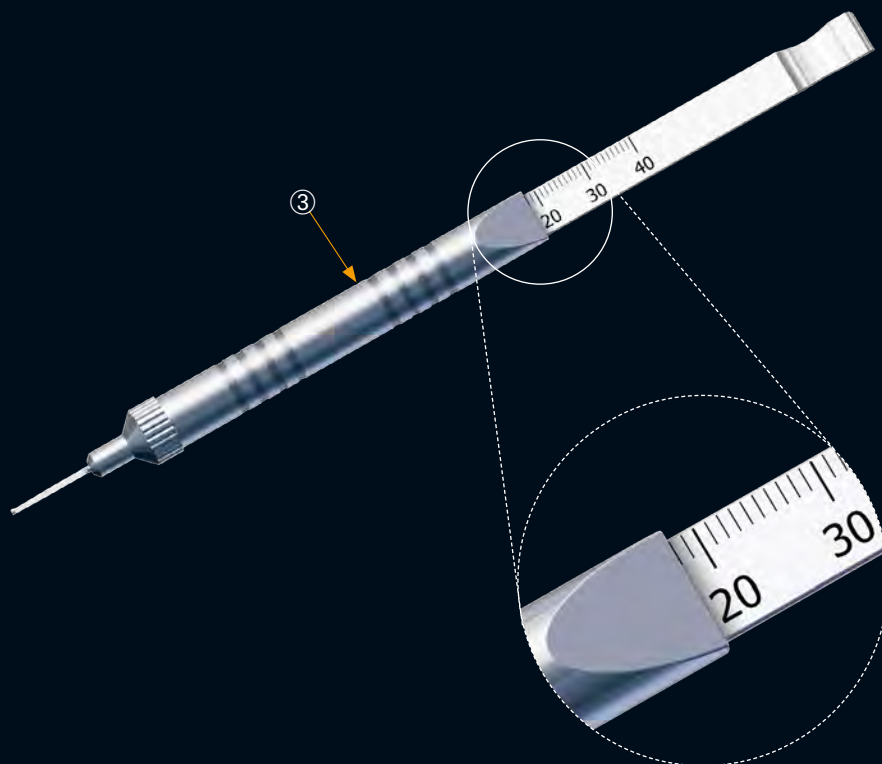
Instruments used:

- ③ 9020.042 Gauge for Screws (until length 40 mm)

STEP 1



STEP 2



Step 3: Countersinking

In order to simplify insertion of the screw head the head-side of the intended implant position is now reamed using the countersink.

Important

If the screw is positioned perpendicular to the bone surface, countersinking to the first ring marking (RM 1) is required in order to achieve adequate countersinking of the screw head.

If the screw is positioned at an angle of 45° to the bone surface, countersinking to the second ring marking (RM 2) is required in order to achieve adequate countersinking of the screw head.

Instruments used:

- ① 9020.033 Double Drill Guide Ø 2.2/1.5 mm
- ② 9020.021 Countersink Ø 2.2/1.5 mm, for Quick Coupling

Step 4: Inserting the screw

The MAGNEZIX® CS 2.0 of the previously determined length (step 2) is now screwed into place.

This should always be done without a power tool.

Important

Bear in mind that the shaft thread could pull out of the distal bone fragment if the induced compression forces are excessive when screwing-in the screw.

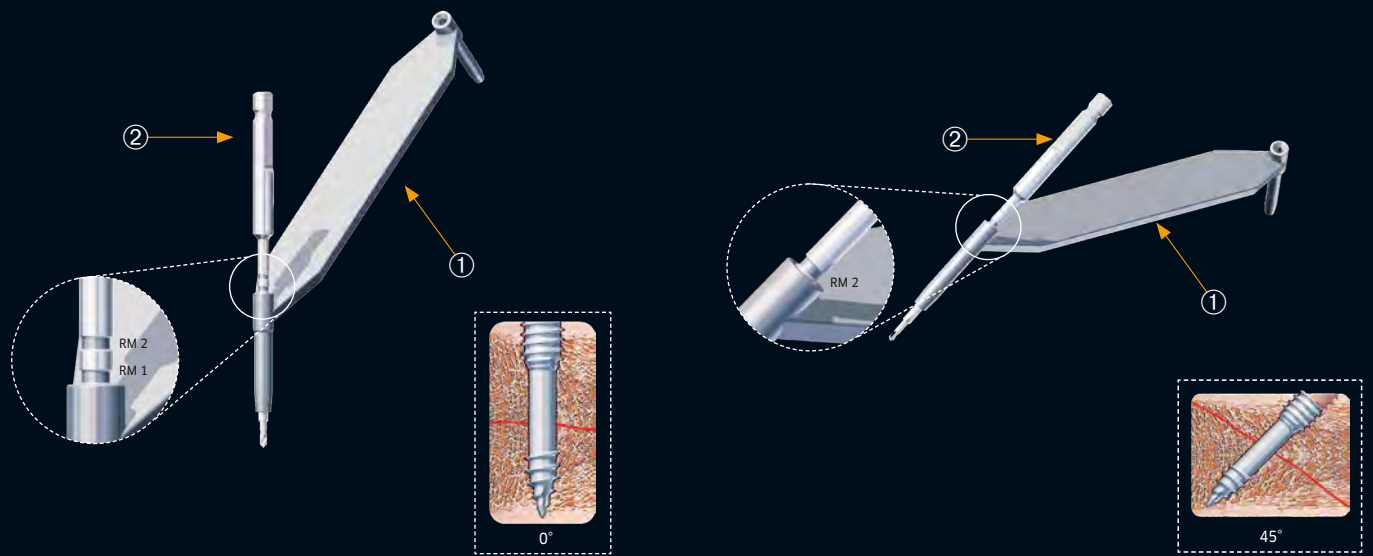
If the selected screw is too short the shaft thread might cross the fracture or osteotomy gap. If this situation results no compression will be generated. Therefore, to ensure the correct position of the threaded shaft it is recommended to check the position using a x-ray unit.

If one finds the thread crossing the fracture or osteotomy gap the screw must be removed and a longer screw has to be selected in order to generate compression. When doing this and in the case of a hard (dense) bone situation, it might be necessary to repeat the pre-drilling process as described in step 1 to further deepen the pre-drilled pilot hole for the selected screw with an adequate length.

Instruments used:

- 6020.104 Screwdriver T4, One-Piece Handle
- Optional:
 - 6020.204 Screwdriver T4, Multi-Part Handle

STEP 3



STEP 4



SURGICAL TECHNIQUE

MAGNEZIX® CS 2.7/3.2 - STEP BY STEP

Prior to implanting a MAGNEZIX® CS 2.7/3.2 screw it is necessary to ensure repositioning and temporary stabilization of the fracture or the osteotomy.

Step 1: Positioning the guide wire

Position the guide wire through the double drill guide with fitted drill guide, if necessary monitor using x-ray imaging, until it is in the required position.

Important

The guide wire is inserted a few millimeters longer than the later selected screw. This prevents the guide wire from being completely drilled off during the subsequent drilling process and removed with the cannulated drill bit. Avoid excess force when inserting the guide wire. Excess force will bend the guide wire and may hinder subsequent reaming or insertion of the screw.

Instruments used:

For MAGNEZIX® CS 2.7

- ① 9027.033 Double Drill Guide Ø 3.1/2.2 mm
- ② 9027.034 Drill Guide, Ø 2.2/1.1 mm
- ③ 9027.040 Guide Wire Ø 1.0 mm, with trocar tip, length 100 mm
or
- ④ 9027.041 Guide Wire Ø 1.0 mm, with threaded tip, length 100 mm

For MAGNEZIX® CS 3.2

- ① 9032.033 Double Drill Guide Ø 3.5/2.5 mm
- ② 9032.034 Drill Guide Ø 2.5/1.3 mm
- ③ 9032.040 Guide Wire Ø 1.2 mm, with trocar tip, length 150 mm
or
- ④ 9032.041 Guide Wire Ø 1.2 mm, with threaded tip, length 150 mm

Step 2: Determination of screw length

The length of the screw is determined by sliding the measuring device over the guide wire to the bone. The end of the guide wire, visible in the scale of the measuring device, indicates the length of the screw to be used (22 mm in the figure).

Important

From the measured length at least 2 mm to 4 mm must be subtracted so that the guide wire is not removed during pre-drilling as described in step 1. The maximum length of the screw must therefore not exceed 20 mm. Only the original guide wires guarantee correct measurement.

Instruments used:

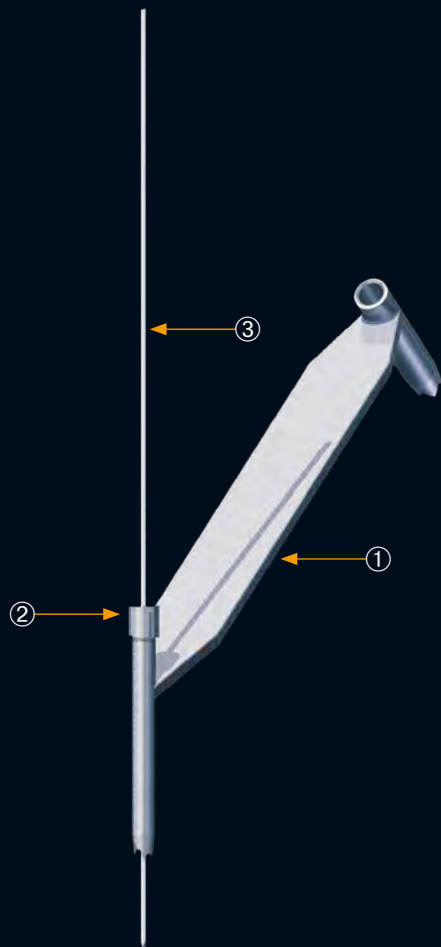
For MAGNEZIX® CS 2.7

- ① 9027.042 Measuring Device for Guide Wires
Ø 1.0 mm, length 100 mm

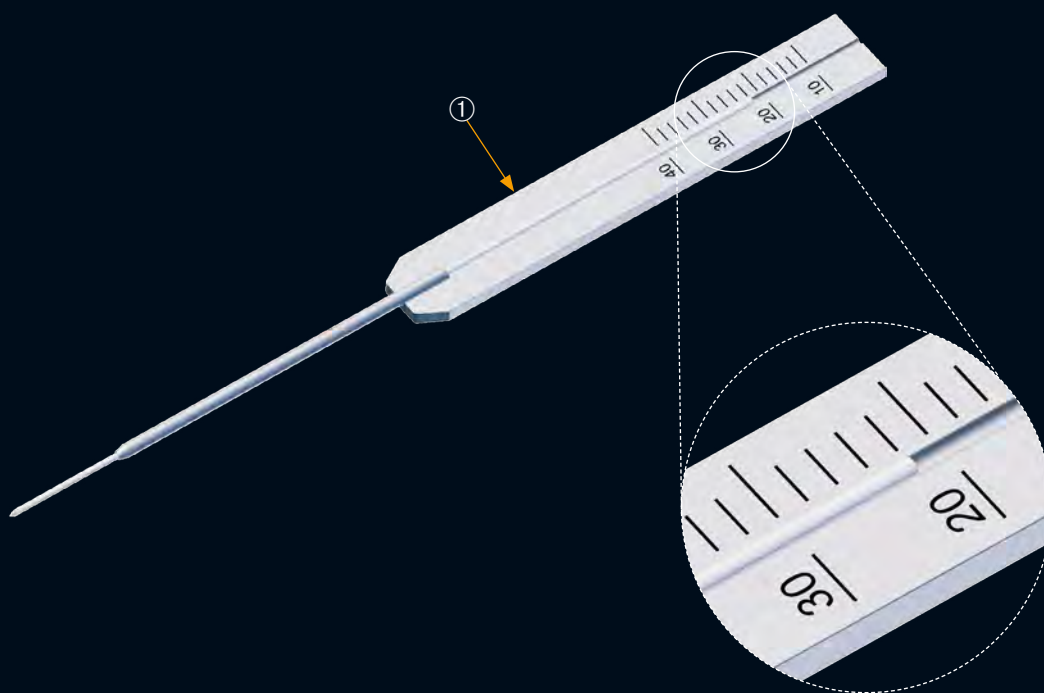
For MAGNEZIX® CS 3.2

- ① 9032.042 Measuring Device for Guide Wires
Ø 1.2 mm, length 150 mm

STEP 1



STEP 2



Step 3: Pre-drilling

For screws with self-tapping tips, pre-drilling over the desired screw lengths is mandatory. At this point, the cannulated drill bit is directed by the underlying guide wire. This facilitates the subsequent tightening of the screw and prevents the rotation of small bone fragments.

The drill bit calibration allows the drill depth reached to be read at the top end of the drill guide. The fine ring marks indicate 2 mm steps, the dominant ring marks indicate 10 mm drill steps.

Important

At least the last 2 mm to 4 mm up to the guide wire tip must not be drilled, so that the guide wire remains in the bone.

Slowly pull the drill bit out vertically from the double drill guide while slowly turning in a forward direction so as to leave the guide wire in position.

Instruments used:

For MAGNEZIX® CS 2.7

- ① 9027.033 Double Drill Guide Ø 3.1/2.2 mm
- ② 9027.020 Drill Bit Ø 2.2/1.1 mm, cannulated, length 100/75 mm

For MAGNEZIX® CS 3.2

- ① 9032.033 Double Drill Guide Ø 3.5/2.5 mm
- ② 9032.020 Drill Bit Ø 2.5/1.3 mm, cannulated, length 160/135 mm

Step 4: Countersinking

In order to simplify insertion of the screw head, the head side of the intended implant position is now reamed using the countersink with the guide wire still in place.

Important

If the screw is positioned perpendicular to the bone surface, countersinking to the first ring marking (RM 1) is required in order to achieve adequate countersinking of the screw head.

If the screw is positioned at an angle of 45° to the bone surface, countersinking to the second ring marking (RM 2) is required in order to achieve adequate countersinking of the screw head.

The countersink is pulled vertically out of the drill guide while still slowly turning in the forward direction so as to leave the guide wire in position.

Instruments used:

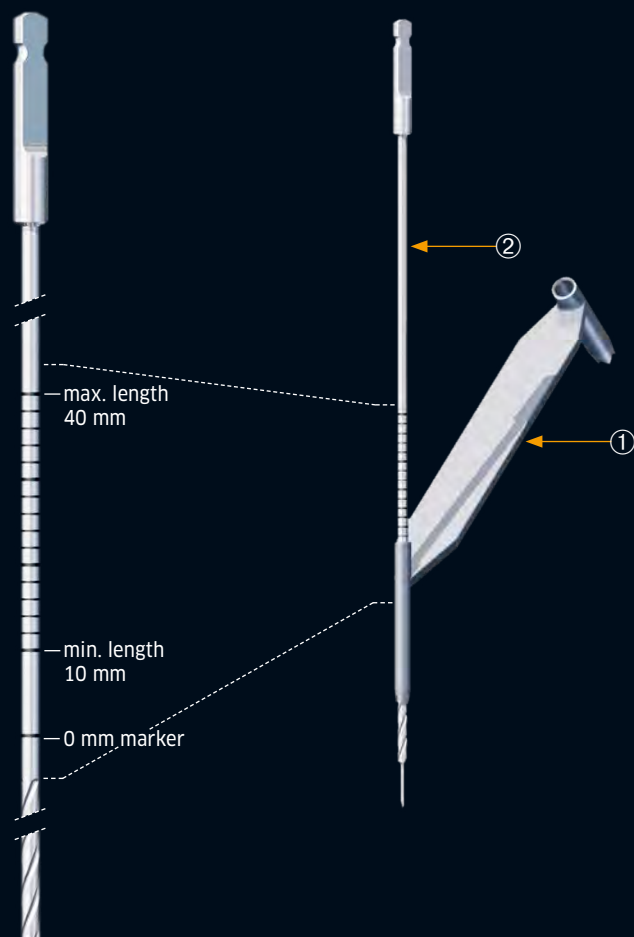
For MAGNEZIX® CS 2.7

- ① 9027.033 Double Drill Guide Ø 3.1/2.2 mm
- ② 9027.021 Countersink Ø 3.1/1.1 mm, cannulated, for Quick Coupling

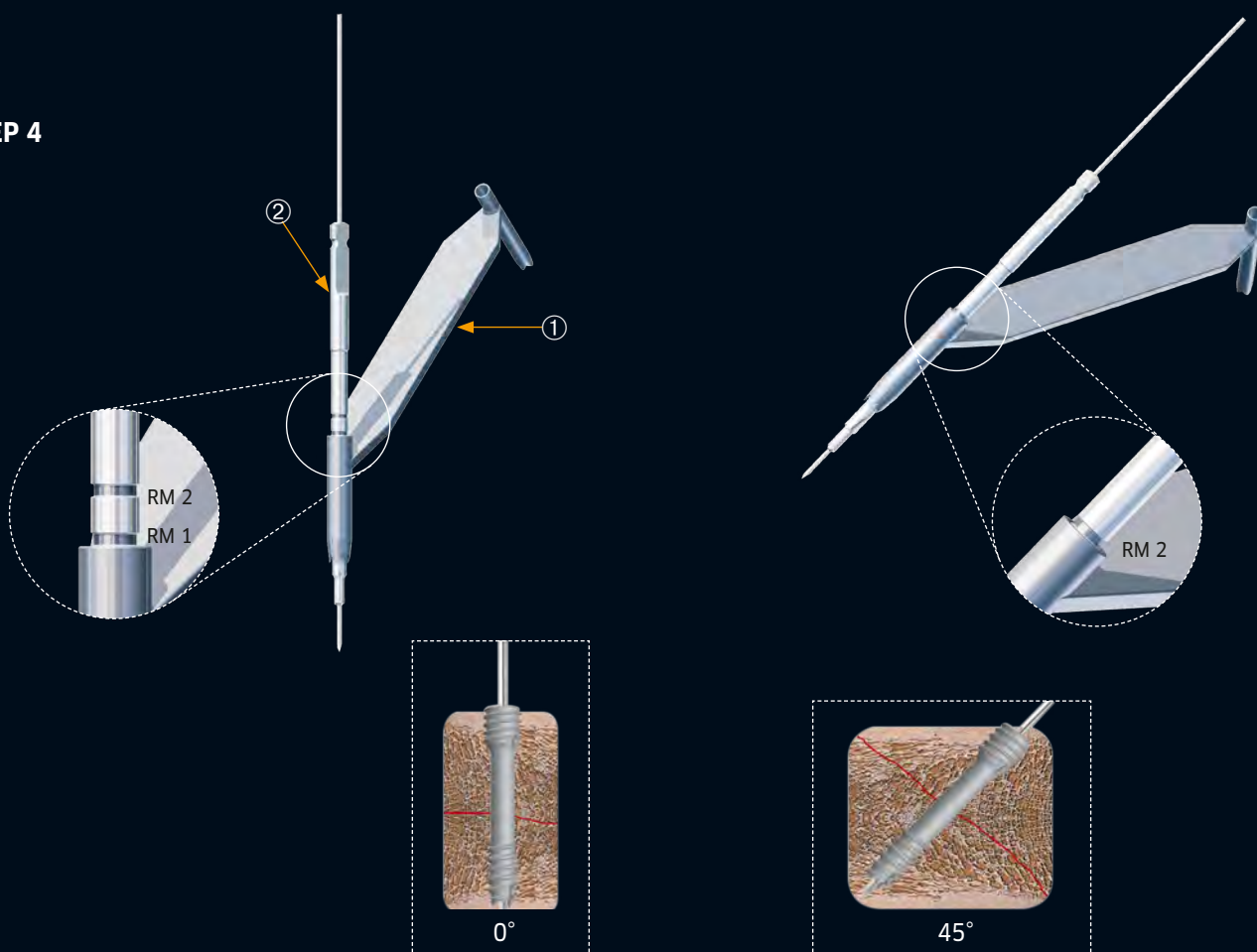
For MAGNEZIX® CS 3.2

- ① 9032.033 Double Drill Guide Ø 3.5/2.5 mm
- ② 9032.021 Countersink Ø 3.5/1.3 mm, cannulated, for Quick Coupling

STEP 3



STEP 4



Step 5: Insertion of the screw

This is now followed by the tightening of the MAGNEZIX® CS over the underlying guide wire in the length previously determined in step 2.

Important

Take care to ensure that the guide wire was not damaged during steps 1 through 4. A damaged guide wire may result in the MAGNEZIX® CS not ending up fully screwed in. In this case the guide wire must be removed before insertion of the screw.

Bear in mind that the shaft thread could pull out of the distal bone fragment if the induced compression forces are excessive when screwing-in the screw.

If the selected screw is too short the shaft thread might cross the fracture or osteotomy gap. If this situation results no compression will be generated. Therefore, to ensure the correct position of the threaded shaft it is recommended to check the position using a x-ray unit.

If one finds the thread crossing the fracture or osteotomy gap the screw must be removed and a longer screw has to be selected in order to generate compression. When doing this and in the case of a hard (dense) bone situation, it might be necessary to repeat the pre-drilling process as described in step 3 to further deepen the pre-drilled pilot hole for the selected screw with an adequate length.

When the screw is in its final position the guide wire is removed.

Instruments used:**For MAGNEZIX® CS 2.7**

6027.108 Screwdriver T7, One-Piece Handle,
Ø 1.1 mm cannulated

9027.033 Double Drill Guide Ø 3.1/2.2 mm

Optional:

6027.208 Screwdriver T7, Multi-Part Handle,
Ø 1.1 mm cannulated

For MAGNEZIX® CS 3.2

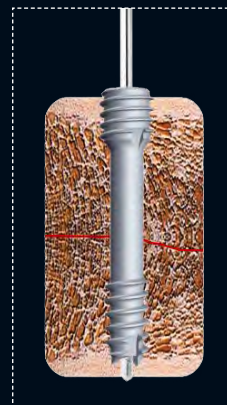
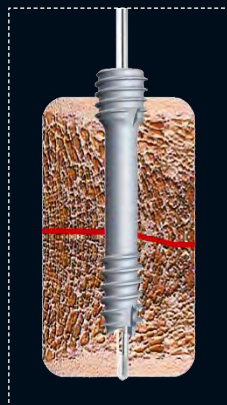
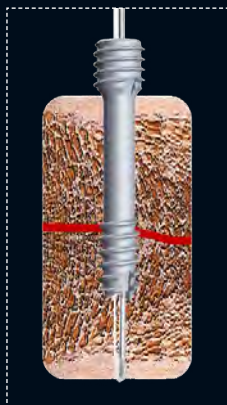
6032.108 Screwdriver T8, One-Piece Handle,
Ø 1.3 mm cannulated

9032.033 Double Drill Guide Ø 3.5/2.5 mm

Optional:

6032.208 Screwdriver T8, Multi-Part Handle,
Ø 1.3 mm cannulated

STEP 5



SURGICAL TECHNIQUE – ARTHROSCOPIC INSTRUMENTATION

MAGNEZIX® CS 2.7/3.2 – STEP BY STEP

Prior to implanting a MAGNEZIX® CS 2.7/3.2 screw it is necessary to ensure repositioning and temporary stabilization of the fracture or the osteotomy.

Step 1: Introduction of the arthroscopic double drill guide and temporary fixation

The arthroscopic double drill guide [9000.030], with the trocar [9000.033] inserted, is introduced into the joint and positioned at the desired location. Prongs at the tip of the instrument help to maintain alignment.

In case, the arthroscopic drill guide is used for fixation of chondral lesions, care should be taken not to harm the chondral surface with the prongs of the instrument.

For temporary stabilization and as a centre of rotation, introduce a guide wire [9000.100 or 9000.120] through the hole of the arthroscopic double drill guide.

Step 2: Guide wire placement for screw positioning

While keeping the arthroscopic double drill guide in place, replace the trocar by the drill insert [9000.032]. Introduce a guide wire [9000.100 or 9000.120] through the drill insert. If necessary monitor using x-ray imaging, until the desired position is reached.

Warning

Ensure that correct guide wires and instruments are used, depending on the desired implant size. Using CS 3.2 guide wires in combination with CS 2.7 instruments/implants might result in jamming.

Important

The guide wire is inserted a few millimeters deeper than the subsequently selected screw. This prevents the guide wire from being completely drilled off during the following drilling process and from removal with the cannulated drill bit. Avoid excess force when inserting the guide wire. Excess force will bend the guide wire and may hinder subsequent reaming or insertion of the screw.

Guide wires used:

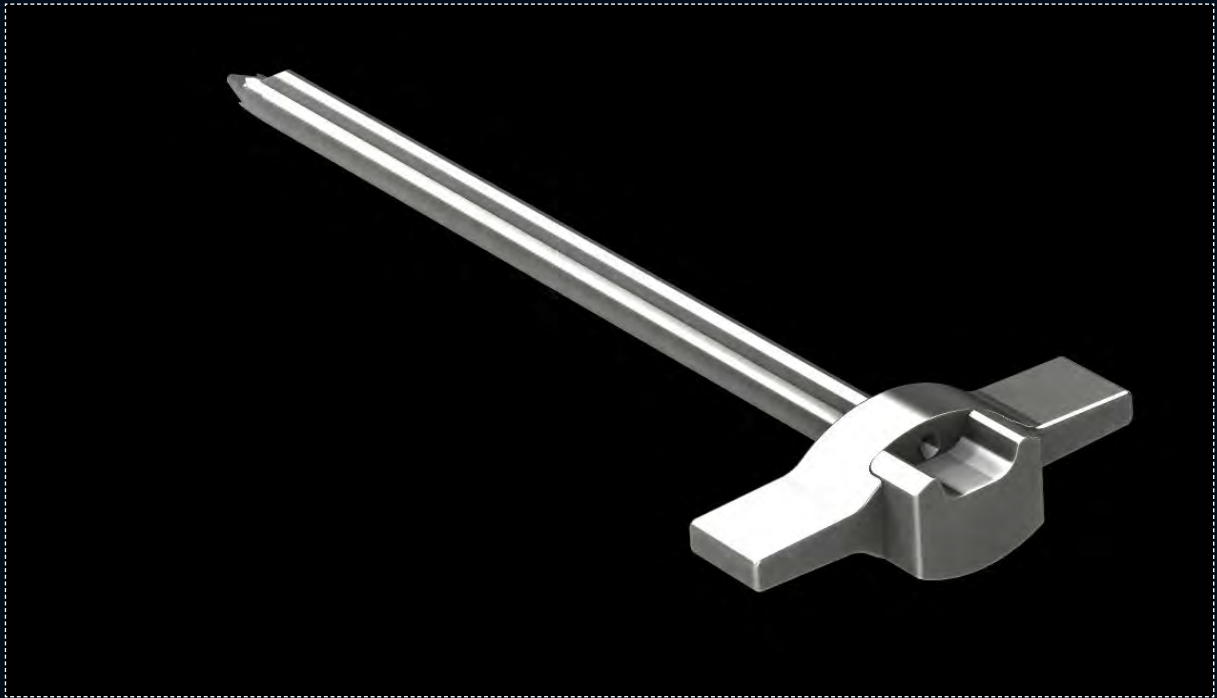
For MAGNEZIX® CS 2.7:

9000.100 Guide Wire Ø 1.0 mm,
with trocar tip, length 250 mm

For MAGNEZIX® CS 3.2:

9000.120 Guide Wire Ø 1.2 mm,
with trocar tip, length 250 mm

STEP 1



STEP 2



Step 3: Determination of screw length

The length of the screw is determined by sliding the measuring device [9000.042] over the guide wire until contact is made with the arthroscopic double drill guide. The end of the guide wire, visible in the scale of the measuring device, indicates the length of the screw to be used (34 mm in the figure).

Finally, measuring device and drill insert are removed, while keeping both guide wires and the arthroscopic drill guide in place.

Important

From the measured length at least 2 mm to 4 mm must be subtracted so that the guide wire is not removed during pre-drilling. Only the original guide wires guarantee correct measurement (length: 250 mm).

Step 4: Pre-drilling

Pre-drilling over the desired screw length is mandatory. The cannulated drill bit [9027.022 or 9032.022] is directed by the underlying guide wire. The drill bit calibration allows the drill depth reached to be read at the top end of the arthroscopic double drill guide. The fine ring marks indicate 2 mm steps, the dominant ring marks indicate 10 mm drill steps.

Color-coding

Instruments that are intended for use with MAGNEZIX® CS 2.7 implants (drill bit, countersink, screwdriver blade) are marked green.

→ MAGNEZIX® CS 2.7: green

→ MAGNEZIX® CS 3.2: no color-coding



Important

At least the last 2 mm to 4 mm up to the guide wire tip must not be drilled, so that the guide wire remains in the bone. Slowly pull the drill bit out vertically from the arthroscopic double drill guide while slowly turning in a forward direction so as to leave the guide wire in position.

Instruments used:

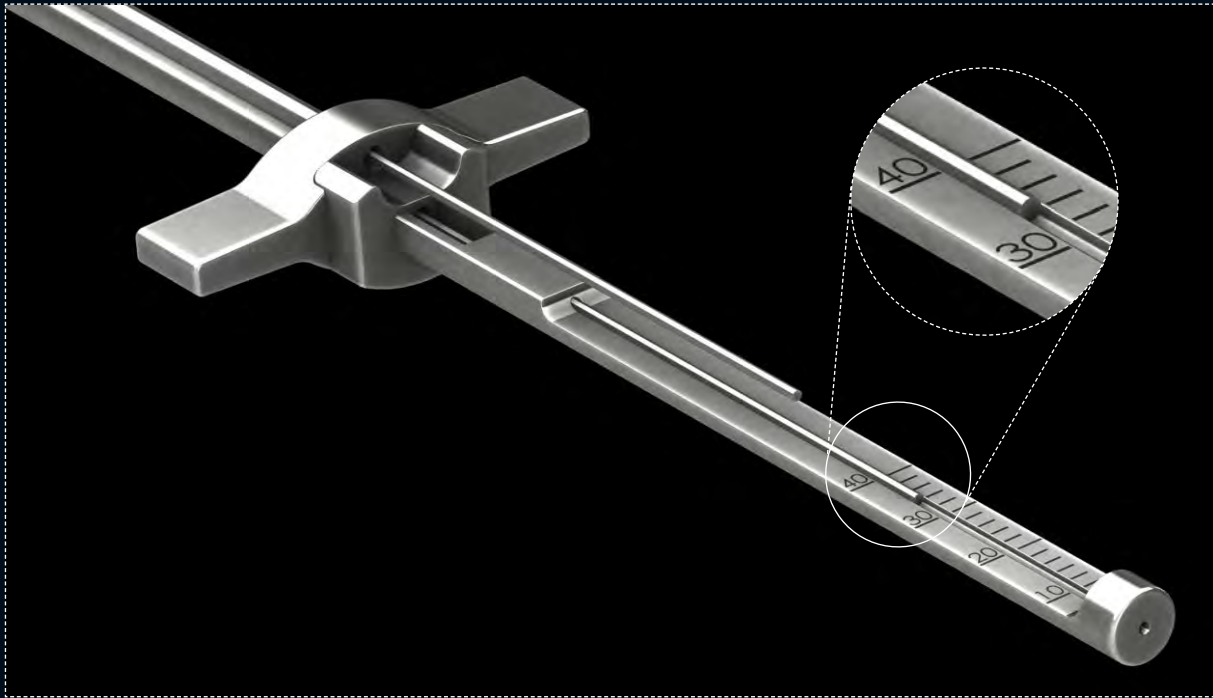
For MAGNEZIX® CS 2.7 (green):

① 9027.022 Drill Bit Ø 2.2/1.1 mm, long, cannulated, for 9000.030

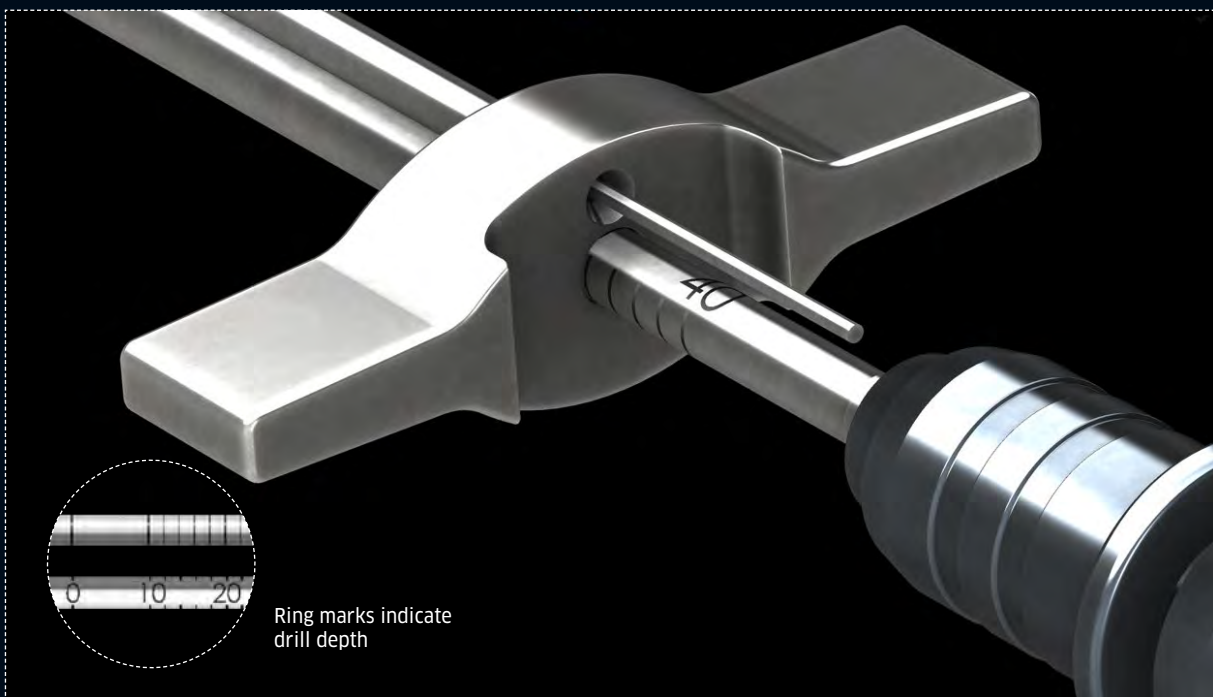
For MAGNEZIX® CS 3.2

① 9032.022 Drill Bit Ø 2.5/1.3 mm, long, cannulated, for 9000.030

STEP 3



STEP 4



Step 5: Countersinking

The head side of the intended implant position is now reamed using the countersink [9027.023 or 9032.023] with the guide wire still in place.

Important

If the screw is positioned perpendicular to the bone surface, countersinking to the first ring marking (RM 1) is required in order to achieve adequate countersinking of the screw head.

If the screw is positioned at an angle of 45° to the bone surface, countersinking to the second ring marking (RM 2) is required in order to achieve adequate countersinking of the screw head.

The countersink is pulled vertically out of the arthroscopic double drill guide while still slowly turning in the forward direction so as to leave the guide wire in position.

Instruments used:

For MAGNEZIX® CS 2.7 (green):

9027.02 Countersink Ø 3.1/1.1 mm, long, cannulated, for 9000.030

For MAGNEZIX® CS 3.2:

9032.023 Countersink Ø 3.5/1.3 mm, long, cannulated, for 9000.030

Step 6: Insertion of screw

This is now followed by the tightening of the MAGNEZIX® CS 2.7/3.2 over the underlying guide wire in the length previously determined in step 3. The laser marking on the shaft of the screwdriver blade [9027.016 or 9032.016] provides information on the implant position. The screw head can either be positioned flush (indicated by the thick ring marking) or below (“-2” or “-4” mm) the bone or chondral surface. Make sure to avoid any protrusions of the screw head.

Important

Take care to ensure that the guide wire was not damaged during steps 1 through 5. A damaged guide wire may result in incomplete insertion of the MAGNEZIX® CS. In this case the guide wire must be removed before insertion of the screw.

Bear in mind that the shaft thread could pull out of the distal bone fragment if the induced compression forces are excessive when screwing-in the screw.

If the selected screw is too short the shaft thread might not fully cross the fracture or osteotomy gap. If this situation occurs, no compression will be generated. Therefore, to ensure the correct position of the threaded shaft it is recommended to check the position using an x-ray unit intensifier.

If the screw is completely screwed in and the threaded portion of the screw overlaps the fracture gap or osteotomy gap, the screw must be removed and a longer screw has to be used to achieve a compression force. When doing this and in the case of a hard (dense) bone situation, it might be necessary to repeat the pre-drilling process as described in step 4 to further deepen the pre-drilled pilot hole for the selected screw with an adequate length. Once the implant is in its final position, remove the guide wire that was used for screw insertion.

Instruments used:

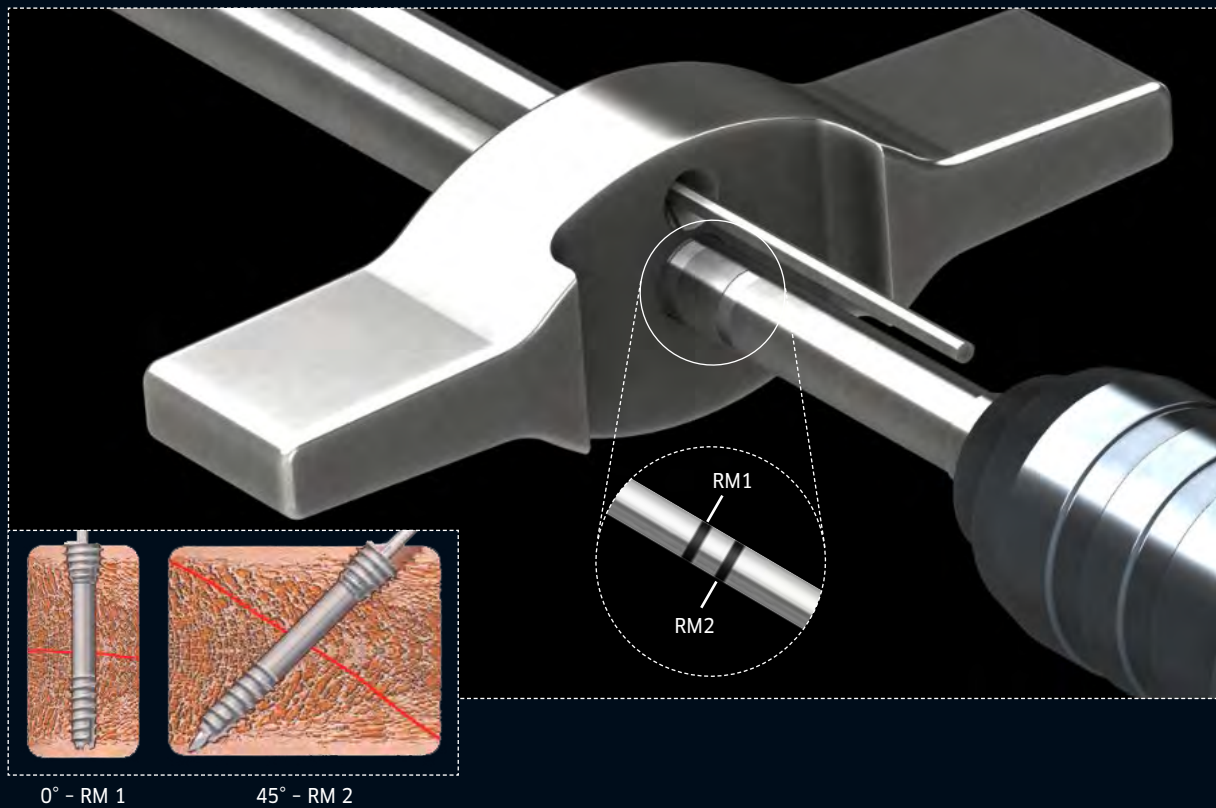
For MAGNEZIX® CS 2.7 (green):

9027.016 Screwdriver Blade T7, long, for Quick Coupling

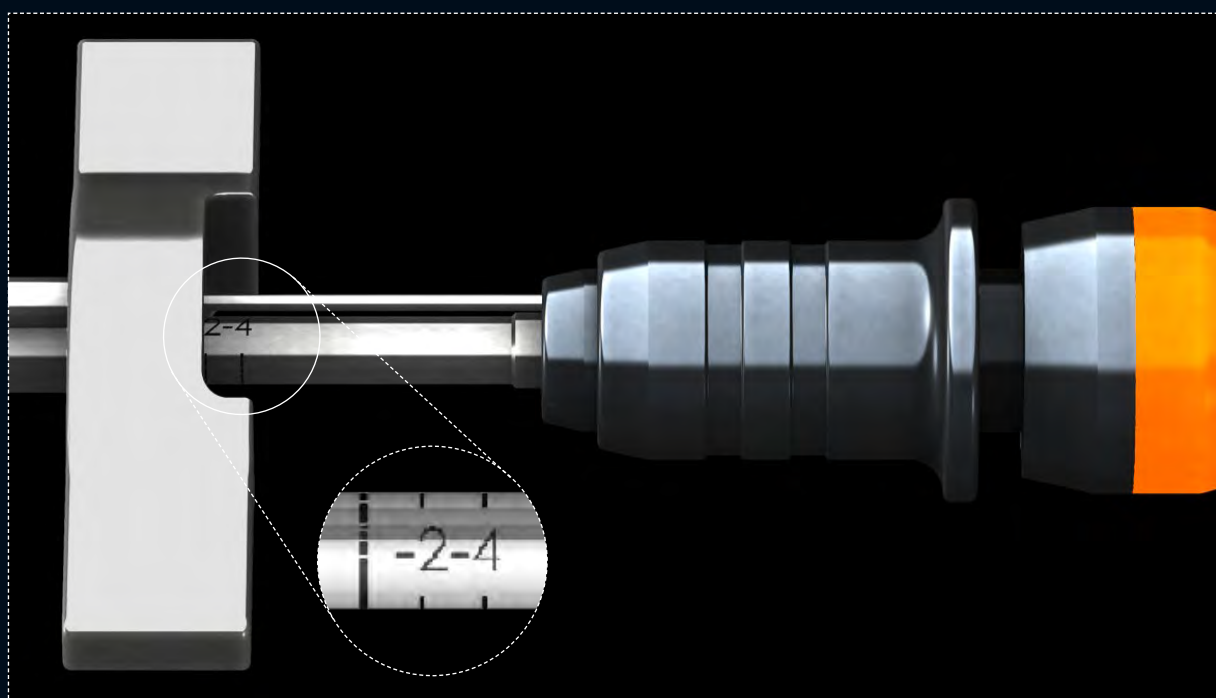
For MAGNEZIX® CS 3.2:

9032.016 Screwdriver Blade T8, long, for Quick Coupling

STEP 5



STEP 6



Step 7: Twist of arthroscopic double drill guide

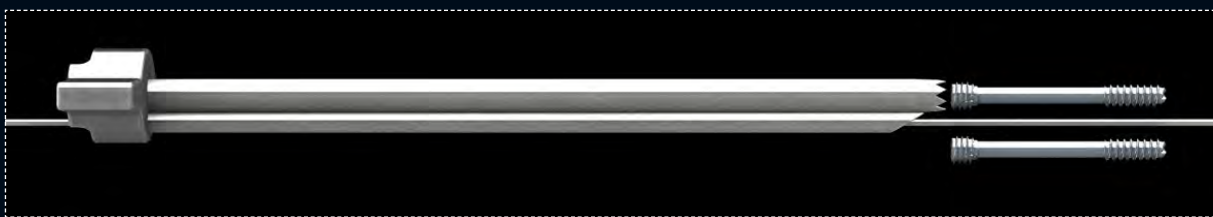
Turn the arthroscopic double drill guide around the residual guide wire.

For implantation of the second screw, repeat steps 2 - 6. Finally, remove the central guide wire and the arthroscopic double drill guide.

Important

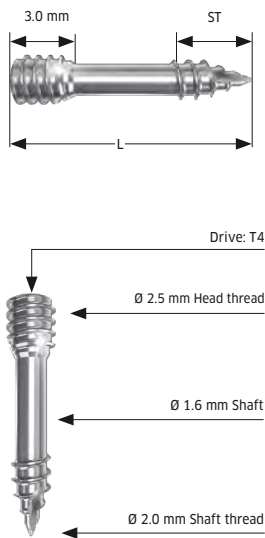
The distance between two screws (centre-centre) is 8 mm in case the arthroscopic drill guide is precisely twisted 180°.

STEP 7

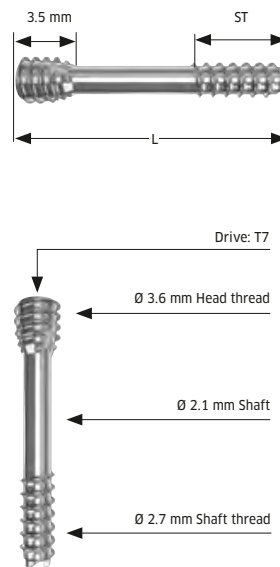


IMPLANTS MAGNEZIX® CS

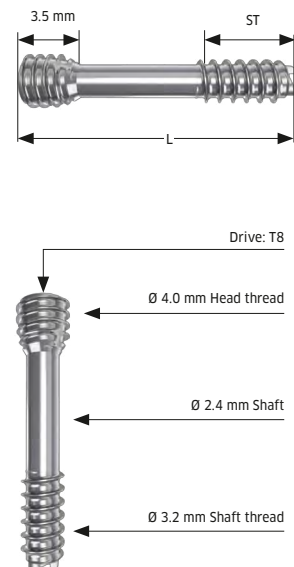
MAGNEZIX® CS 2.0



MAGNEZIX® CS 2.7



MAGNEZIX® CS 3.2



Art. No.	Threaded shaft length ST (mm)	Screw length (mm)
1020.008	4	8
1020.010	4	10
1020.012	4	12
1020.014	5	14
1020.016	5	16
1020.018	5	18
1020.020	6	20
1020.022	6	22
1020.024	6	24

Art. No.	Threaded shaft length ST (mm)	Screw length (mm)
1027.010	4	10
1027.012	5	12
1027.014	5	14
1027.016	7	16
1027.018	7	18
1027.020	7	20
1027.022	7	22
1027.024	7	24
1027.026	7	26
1027.028	7	28
1027.030	7	30
1027.032	9	32
1027.034	9	34

Art. No.	Threaded shaft length ST (mm)	Screw length (mm)
1032.010	4	10
1032.012	5	12
1032.014	5	14
1032.016	7	16
1032.018	7	18
1032.020	7	20
1032.022	7	22
1032.024	7	24
1032.026	7	26
1032.028	7	28
1032.030	7	30
1032.032	9	32
1032.034	9	34
1032.036	9	36
1032.038	9	38
1032.040	9	40

INSTRUMENTS MAGNEZIX® CS 2.0

Art. No.	Description
	9099.001 One-Piece Handle for Screwdriver
	9020.015 Screwdriver Blade T4 and Locking Cap 6020.104 consist. of: 9099.001 and 9020.015
	9099.002 Multi-Part Handle for Screwdriver
	9020.015 Screwdriver Blade T4 and Locking Cap 6020.204 consist. of: 9099.002 and 9020.015
	9020.020 Drill Bit Ø 1.5 mm, length 88/63 mm, for Quick Coupling
	9020.021 Countersink Ø 2.2/1.5 mm, for Quick Coupling
	9020.033 Double Drill Guide, Ø 2.2/1.5 mm
	9020.042 Gauge for Screws (until length 40 mm)
8000.010	Sterilizing Tray CS (8020/8027/8032/8048.001)
8000.011	Lid Sterilizing Tray CS (8020/8027/8032/8048.002)
8020.012	Insert Sterilizing Tray CS 2.0
8020.013	Badge Sterilizing Tray CS 2.0
8020.001*	Sterilizing Tray CS 2.0, consist. of: 8000.010, 8020.012/013, without contents
8020.002*	Lid Sterilizing Tray CS 2.0, consist. of: 8000.011



The figures are not to scale. Instruments of the latest generation can have additional color coding.

*1st generation

INSTRUMENTS MAGNEZIX® CS 2.7

Art. No.	Description
9099.001 9027.015	One-Piece Handle for Screwdriver Screwdriver Blade T7 and Locking Cap 6027.107 consist. of 9099.001 and 9027.015
9099.002 9027.015	Multi-Part Handle for Screwdriver Screwdriver Blade T7 and Locking Cap 6027.207 consist. of 9099.002 and 9027.15
9027.020	Drill Bit Ø 2.2/1.1 mm, cannulated, length 100/75 mm, for Quick Coupling
9027.021	Countersink Ø 3.1/1.1 mm, cannulated, for Quick Coupling
9027.033	Double Drill Guide Ø 3.1/2.2 mm
9027.034	Drill Guide, Ø 2.2/1.1 mm
9027.040	Guide Wire Ø 1.0 mm, with trocar tip, length 100 mm
9027.041	Guide Wire Ø 1.0 mm, with threaded tip, length 100 mm
9027.042	Measuring Device, for Guide Wire Ø 1.0 mm, Guide Wire length 100 mm
9027.050	Cleaning Stylet Ø 1.05 mm, for Ø 1.1 mm cannulated instruments
8000.010	Sterilizing Tray CS (8020/8027/8032/8048.001)
8000.011	Lid Sterilizing Tray CS (8020/8027/8032/8048.002)
8027.012	Insert Sterilizing Tray CS 2.7
8027.013	Badge Sterilizing Tray CS 2.7
8027.001*	Sterilizing Tray CS 2.7, consist. of: 8000.010, 8027.012/013, thout contents
8027.002*	Lid Sterilizing Tray CS 2.7, consist. of: 8000.11
















INSTRUMENTS MAGNEZIX® CS 3.2

Art. No.	Description
	9099.001 One-Piece Handle for Screwdriver
	9099.002 Multi-Part Handle for Screwdriver
	9032.015 Screwdriver Blade T8 and Locking Cap
6032.108 consist. of 9099.001 and 9032.015	
6032.208 consist. of 9099.002 and 9032.015	
	9032.020 Drill Bit Ø 2.5/1.3 mm, cannulated, length 160/135 mm, for Quick Coupling
	9032.021 Countersink Ø 3.5/1.3 mm, cannulated, for Quick Coupling
	9032.033 Double Drill Guide Ø 3.5/2.5 mm
	9032.034 Drill Guide, Ø 2.5/1.3 mm,
	9032.040 Guide Wire Ø 1.2 mm, with trocar tip, length 150 mm,
	9032.041 Guide Wire Ø 1.2 mm, with threaded tip, length 150 mm,
	9032.042 Measuring Device, for Guide Wire Ø 1.2 mm, Guide Wire length 150 mm
	9032.050 Cleaning Stylet Ø 1.25 mm, for Ø 1.3 mm cannulated instruments
8000.010 Sterilizing Tray CS (8020/8027/8032/8048.001)	
8000.011 Lid Sterilizing Tray CS (8020/8027/8032/8048.002)	
8032.012 Insert Sterilizing Tray CS 3.2	
8032.013 Badge Sterilizing Tray CS 3.2	
8032.001* Sterilizing Tray CS 3.2, consist. of: 8000.010, 8032.012/013, without contents	
8032.002* Lid Sterilizing Tray CS 3.2, consist. of: 8000.011	

The figures are not to scale. Instruments of the latest generation can have additional color coding.

*1st generation

INSTRUMENTS MAGNEZIX® CS 2.7/3.2 – ARTHROSCOPIC INSTRUMENTATION

	Art. No.	Description
	9000.030	Arthroscopic Double Drill Guide, for CS
	9000.033	Trocar Ø 4.0, for 9000.030
	9000.032	Drill Insert Ø 4.0 for Guide Wires Ø 1.0/1.2 x 250 mm
	9000.042	Measuring Device for Guide Wires Ø 1.0/1.2 x 250 mm
	9000.100	Guide Wire Ø 1.0 mm, with trocar tip, length 250 mm
	9000.120	Guide Wire Ø 1.2 mm, with trocar tip, length 250 mm
	9027.022	Drill Bit Ø 2.2/1.1 mm, long, cannulated, for 9000.030
	9032.022	Drill Bit Ø 2.5/1.3 mm, long, cannulated, for 9000.030
	9027.023	Countersink Ø 3.1/1.1 mm, cannulated, for 9000.030
	9032.023	Countersink Ø 3.5/1.3 mm, cannulated, for 9000.030
	9027.016	Screwdriver Blade T7, long, for Quick Coupling
	9032.016	Screwdriver Blade T8, long, for Quick Coupling
	9099.007	Small Screwdriver Handle, cannulated, with Quick Coupling
	9000.050*	Cleaning Stylet Ø 1.3 x 300 mm, for cannulated Instruments
	9000.051*	Cleaning Stylet Ø 1.5 x 300 mm, for cannulated Instruments
	8032.101	Sterilizing Tray CS Arthroscopic Instrumentation
	8032.102	Lid CS Arthroscopic Instrumentation
	8032.112	Insert CS Arthroscopic Instrumentation

The figures are not to scale.

*also available

EXEMPLARY TRAY CONFIGURATION



MAGNEZIX® CS 2.0 STANDARD INSTRUMENTATION



MAGNEZIX® CS 2.7 STANDARD INSTRUMENTATION



MAGNEZIX® CS 3.2 STANDARD INSTRUMENTATION



MAGNEZIX® CS 2.7/3.2 ARTHROSCOPIC INSTRUMENTATION



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