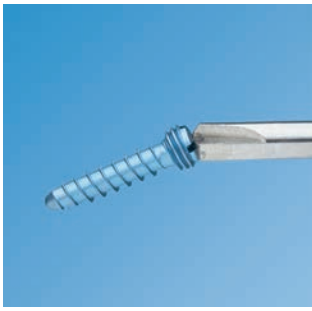
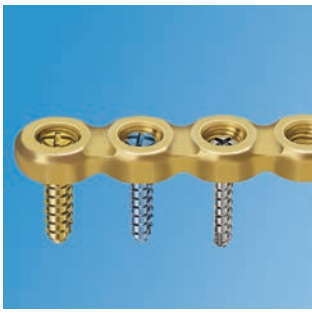
MatrixMANDIBLE. Mandible Plating System.

Surgical Technique





CMF Matrix

This publication is not intended for distribution in the USA.

Instruments and implants approved by the AO Foundation.

DePuy Synthes
COMPANIES OF Johnson&Johnson

Image intensifier control

Warning
This description is not sufficient for immediate application of the instrument set. Instruction by a surgeon experienced in handling these products is highly recommended.

Processing, Reprocessing, Care and Maintenance
For general guidelines, function control and dismantling of multi-part instruments, as well as processing guidelines for implants, please contact your local sales representative or refer to:
http://emea.depuysynthes.com/hcp/reprocessing-care-maintenance
For general information about reprocessing, care and maintenance of Synthes reusable devices, instrument trays and cases, as well as processing of Synthes non-sterile implants, please consult the Important Information leaflet (SE_023827) or refer to:
http://emea.depuysynthes.com/hcp/reprocessing-care-maintenance

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MatrixMANDIBLE. Mandible Plating System.

Introduction

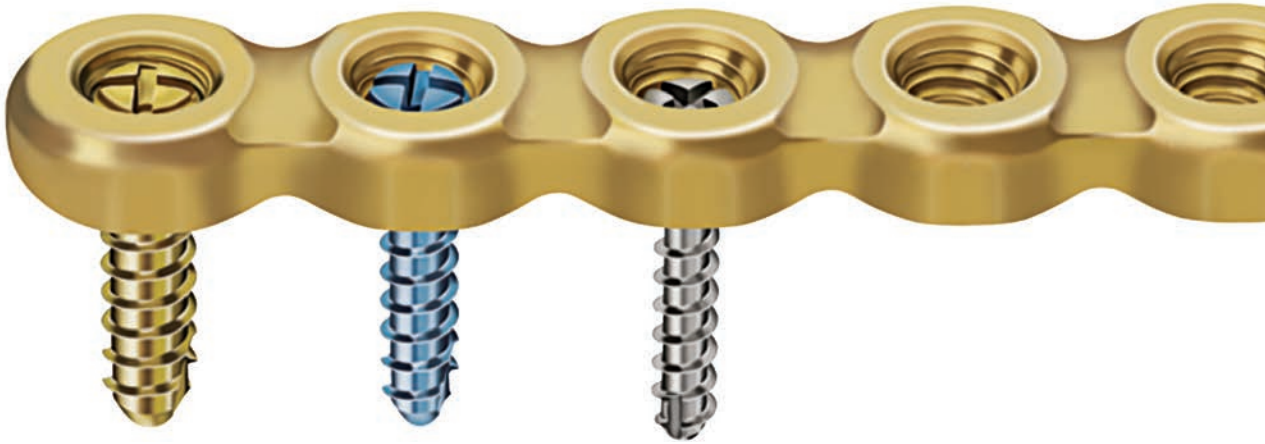
The aim of surgical fracture treatment is to reconstruct the bony anatomy and restore its function. According to the AO, internal fixation is distinguished by precise reduction, stable fixation, preservation of blood supply, and early, functional mobilization[1]. Plate and screw osteosynthesis has been established and clinically recognized for some time.

Keeping the AO philosophy at its core, Matrix is the plating platform for internal fixation of the craniomaxillo-facial skeleton – addressing neuro, craniofacial, mandibular and orthognathic surgery. Matrix is a streamlined, comprehensive system that offers flexibility, ease of use and high quality implants and instruments.

[1] Müller ME, Allgöwer M, Schneider R, Willenegger H (1995) AO Manual of Internal Fixation. 3rd expandet and completly revised ed. 1991. Berlin: Springer-Verlag

Matrix System

- All screws work with all plates within each Matrix system
- One blade for all screws within each Matrix system
- Reduced plate/screw profile where applicable
- Improved screw retention and reduced cam-out*
- Standardized instrumentation
- Color-coding by strength for easy identification
- Rounded edges on plates for less irritation to soft tissue
- Reduced inventory for hospitals without compromising clinical solutions



* Data on file at DePuy Synthes. Mechanical testing is not indicative of clinical outcomes.

Features and Benefits

System Features
- Comprehensive locking plate selection
- Flexible selection of screw and plate combinations
- Color coded system for easy component selection
- Reduced inventory for hospitals without compromising clinical solutions
- Simplified instrumentation compared with previous Synthes Mandible sets
- Color coding guides the user for recommended implant and instrument selection

Plates
- Implant features conical locking technology for reliable screw-to-plate stability
- Plates made from pure titanium
- Plate thicknesses to suit a variety of needs
- Rounded plate profiles and edges
- Improved “angle plate” designs reduce stress in critical areas*
- Large reconstruction plates available for defect bridging
- Three dimensionally preformed reconstruction plates**
- Specialized plates for subcondylar fractures


1.0 mm, malleable

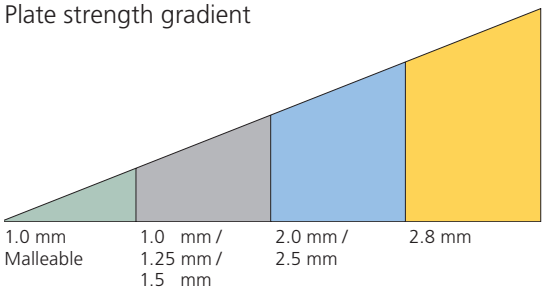

1.0 mm


1.25 mm


1.5 mm


2.0 mm

Plate strength gradient




2.5 mm

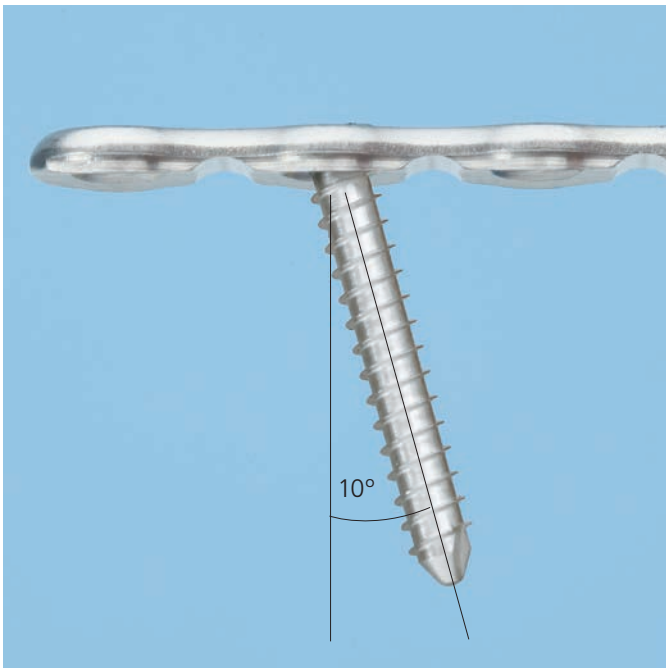

2.8 mm

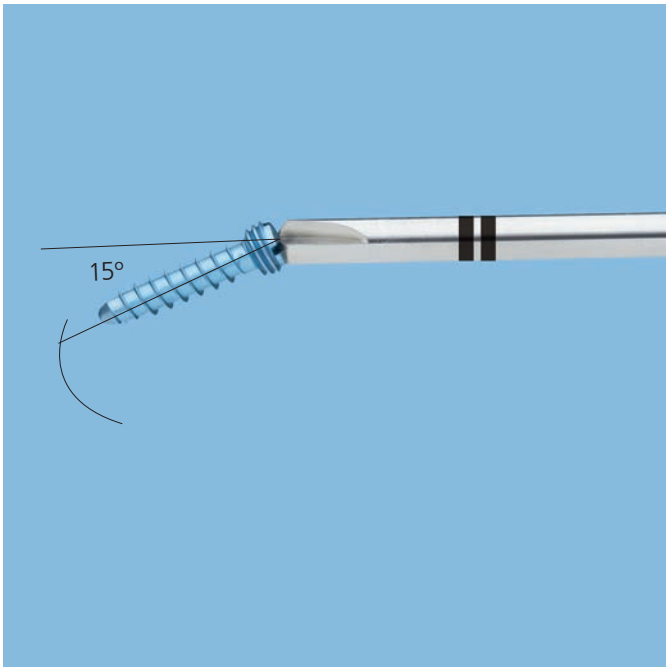
* Data on file at DePuy Synthes. Mechanical testing is not indicative of clinical outcomes.

** See MatrixMANDIBLE Preformed Reconstruction Plates Technique Guide DSEM/CMF/0915/0093 for details.

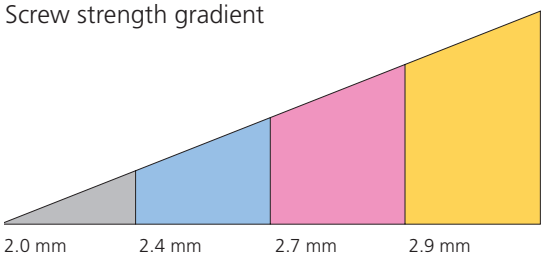
Screws

- Improved cruciform-style drive recess for greater screw/blade retention and torque transmission for reduced cam-out*
- Screws made from titanium alloy (Ti-6Al-7Nb)
- Screw sizes of 2.0, 2.4, 2.7 emergency and 2.9 mm diameters with self-retaining deep cruciform drive recess
- Short screws with fine pitch for enhanced resistance to stripping and increased pull-out performance*
- All screw diameters work with all plates**
- Off-axis screw insertion up to 15° (screw-to-blade axes)
- Screw angulation at least 10° depending on plate size





Screw strength gradient



* Data on file at Synthes. Mechanical testing is not indicative of clinical outcome.

** See surgical technique step 2 “Select and prepare implants” for appropriate precautions regarding this system feature.

Instruments

- One screwdriver blade for all screws
- Standardized instrumentation includes:
  - Diamond deburring rasps added to all cutters
  - Fixed angle bending irons
  - Uniform finish on all instruments reduces glare
  - Marked with "MatrixMANDIBLE" to guarantee compatibility
- Various solutions for intraoral approach:
  - Adjustable plate holder
  - Modular Trocar

AO Principles

In 1958, the AO formulated four basic principles, which have become the guidelines for internal fixation[2]. They are:

Anatomic reduction
Fracture reduction and fixation to restore anatomical relationships. A comprehensive implant and instrument selection offers the ability to address most simple and complex fixation needs.

Stable fixation
Stability by rigid fixation (compression plating) or splintage, as the personality of the fracture and the injury requires. The MatrixMANDIBLE Plating System conical locking plate and screw locking technology is designed to achieve stable bone fixation.

Preservation of blood supply
Preservation of the blood supply to soft tissue and bone by careful handling and gentle reduction techniques. Instrumentation and new gentle profiles and edges on implants minimize disruption of soft tissue and preserves vascular blood flow for bone healing.

Early mobilization
Early and safe mobilization of the body part and patient. The MatrixMANDIBLE system implants, combined with AO technique, provide stable fixation enough to allow a functional aftercare.

[2] Müller ME, Allgöwer M, Schneider R, Willenegger H (1995) AO Manual of Internal Fixation. 3rd expandet and completly revised ed. 1991. Berlin: Springer-Verlag

Intended Use, Indications, Warnings, Precautions, General Adverse Events, Device Specific Adverse Events, and MRI Information

Intended Use

The DePuy Synthes MatrixMANDIBLE plate and screw system is intended for oral, maxillofacial surgery.
The DePuy Synthes MatrixMANDIBLE Reconstruction plates are intended for reconstructive surgery.
The DePuy Synthes MatrixMANDIBLE Subcondylar plates are intended for the trauma of the mandible.

Indications

- Mandibular Trauma
- Reconstructive surgery
- Orthognathic surgery (surgical correction of dentofacial deformities)
- Subcondylar Plates: Fractures of the subcondylar region of the mandible and fractures of the condylar basis region of the mandible.

Plate Thickness	Plate Type	Indications
1.0 mm (malleable)	– Tension Band – Adaption – Strut/3D	**Mandible trauma**  **Orthognathic** 
1.0 mm	– Subcondylar Lambda – Subcondylar Trapezoidal – Subcondylar Strut	**Subcondylar trauma** 
1.25 mm	– Adaption – Straight – Curved/Crescent – Angled	**Mandible trauma** 
1.5 mm	– Straight – Curved/Crescent – Angled – Single Angle – Double Angle	**Mandible trauma**  **Primary and secondary mandibular reconstruction** (used with vascularized bone graft) 

Plate Thickness	Plate Type	Indications
2.0 mm	– Straight – Curved/Crescent – Angled	**Mandible trauma** 
	– Straight – Single Angle – Double Angle	**Primary and secondary mandibular reconstruction** (used with vascularized bone graft)  **Comminuted fractures** 
2.5 mm	– Straight – Single Angle – Double Angle	**Primary and secondary mandibular reconstruction** (used with vascularized or non-vascularized bone graft)  **Comminuted fractures**  **Temporary bridging** with delayed secondary reconstruction 
2.8 mm	– Straight – Single Angle	**Temporary bridging** with delayed secondary reconstruction 

Warnings

These devices can break intraoperatively when subjected to excessive forces or outside the recommended surgical technique. While the surgeon must make the final decision on removal of the broken part based on the associated risk in doing so, we recommend that whenever possible and practical for the individual patient, the broken part be removed. Instruments, screws, and cut plates may have sharp edges or moving joints that may pinch or tear the user's glove or skin. Select the correct implant size, shape, and design.

Do not use 1.5 mm reconstruction plates for load-bearing procedure. Use only in primary and secondary mandibular reconstruction when a vascularized bone graft is used.

Do not use excessive force during screw insertion. Do not overtighten screws.

Precautions

Surgical implants must never be reused. An explanted metal implant must never be re-implanted. Even though the device appears undamaged, it may have small defects and internal stress patterns which could lead to breakage.

Check instruments for wear or damage before starting surgery.

Combination of medical devices
DePuy Synthes has not tested compatibility with devices provided by other manufacturers and assumes no liability in such instances.

General Adverse Events

As with all major surgical procedures, risks, side effects and adverse events can occur. While many possible reactions may occur, some of the most common include:
Problems resulting from anesthesia and patient positioning (e.g. nausea, vomiting, neurological impairments, etc.), thrombosis, embolism, infection or injury of other critical structures including blood vessels, excessive bleeding, damage to soft tissues incl. swelling, abnormal scar formation, functional impairment of the musculoskeletal system, pain, discomfort or abnormal sensation due to the presence of the device, allergy or hyperreactions, side effects associated with hardware prominence, loosening, bending, or breakage of the device, mal-union, non-union or delayed union which may lead to breakage of the implant, reoperation.

Device Specific Adverse Events

Device specific adverse events include but are not limited to:
- Loosening, bending, or breakage of the device
- Non-union, mal-union or delayed union which may lead to breakage of the implant
- Pain, discomfort or abnormal sensation due to the presence of the device
- Infection, nerve and/or tooth root damage and pain
- Soft tissue irritation, laceration or migration of the device through the skin
- Allergic reactions from material incompatibility
- Glove tear or user puncture
- Graft failure
- Restricted or impaired bone growth
- Possible transmission of bloodborne pathogens to the user
- Injury of patient
- Soft tissue thermal damage
- Bone necrosis
- Parasthesia
- Loss of tooth

MRI Information

Magnetic Resonance Environment Torque, Displacement and Image Artifacts according to ASTM F2213-06, ASTM F2052-06e1 and ASTM F2119-07
Non-clinical testing of worst case scenario in a 3 T MRI system did not reveal any relevant torque or displacement of the construct for an experimentally measured local spatial gradient of the magnetic field of 5.4 T/m. The largest image artifact extended approximately 31 mm from the construct when scanned using the Gradient Echo (GE). Testing was conducted on a 3 T MRI system.

Radio-Frequency-(RF-)induced heating according to ASTM F2182-11a
Non-clinical electromagnetic and thermal simulations of worst case scenario lead to temperature rises of 13.7 °C (1.5 T) and 6.5 °C (3 T) under MRI Conditions using RF Coils (whole body averaged specific absorption rate (SAR) of 2 W/kg for 15 minutes).

Precautions: The above mentioned test relies on non-clinical testing. The actual temperature rise in the patient will depend on a variety of factors beyond the SAR and time of RF application. Thus, it is recommended to pay particular attention to the following points:

- It is recommended to thoroughly monitor patients undergoing MR scanning for perceived temperature and/or pain sensations.
- Patients with impaired thermoregulation or temperature sensation should be excluded from MR scanning procedures.
- Generally, it is recommended to use an MRI system with low field strength in the presence of conductive implants. The employed specific absorption rate (SAR) should be reduced as far as possible.
- Using the ventilation system may further contribute to reduce temperature increase in the body.

1
Cutting pliers

Instruments	
03.503.079	Cutting Pliers, for MatrixMANDIBLE Plates 1.0 to 1.5, length 175 mm
329.148.05	Silicone Insert for Cutting Pliers for MatrixMANDIBLE No. 03.503.079

Open the jaws of the cutter, place the plate web section in the angle slot. Confirm that the web section is centered. Squeeze the handles together to cut the plate. The silicone insert will hold the free section of plate until the cutter is released. To remove any burr, rub the plate back and forth on the deburring rasp marked "DEBURR".

Special cleaning instructions
Following each use it is recommended to remove the silicone plate-holding insert for cleaning and sterilization. Insert a round cleaning instrument less than 3 mm in diameter into the hole opposite the silicone insert, and push the insert out of its slot.

Remove the silicon insert per the Dismantling information of the Cutting Pliers (03.503.079) and clean according to the Important Information under www.synthes.com/reprocessing. Store them where indicated in the instrument tray MatrixMANDIBLE Trauma (61.503.830). If the silicone insert shows signs of excessive wear, replace it with a new one and sterilize.

In the OR, while applying sterile technique, manually re-install the plate-holding silicone insert prior to using the cutter in surgery.

Precaution: Avoid deburring plates above the surgical site.

2
Short cut plate cutters (required in pairs)

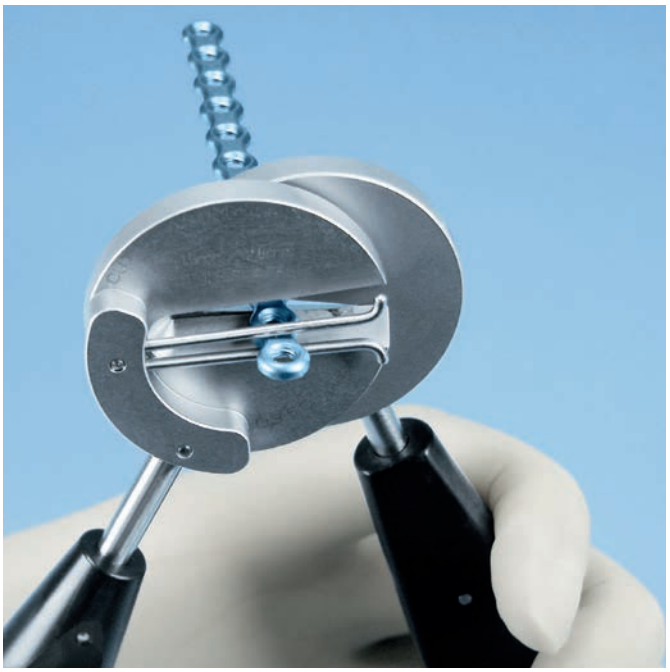
Instrument	
03.503.057	Shortcut for MatrixMANDIBLE Plates, thickness 1.5 to 2.8, with Rasp, required in pairs

Place the selected plate into the slot in one of the cutters and slide it until the bar between the plate holes is wedged into the slot.

Place the flat face of the second shortcut against the flat face of the first with its slot positioned over the plate. Slide this cutter in the direction of the plate until it also wedges against the plate.

Ensure that the plate bar is centered with the flat faces of the cutters, then grab the two handles in one hand and squeeze to rotate the cutters until the plate is cut.

Precaution: Minimize notching or scratching of the implant during contouring. These factors may produce internal stresses which may become the focal point for eventual breakage of the implant.



Deburr the cut portion of the plate as needed by rubbing sharp corners/edges in the recessed diamond file located in the handle.

3

Bending pliers with nose

Instrument	
03.503.056	Bending Pliers with Nose, for MatrixMANDIBLE Plates

In-plane bending

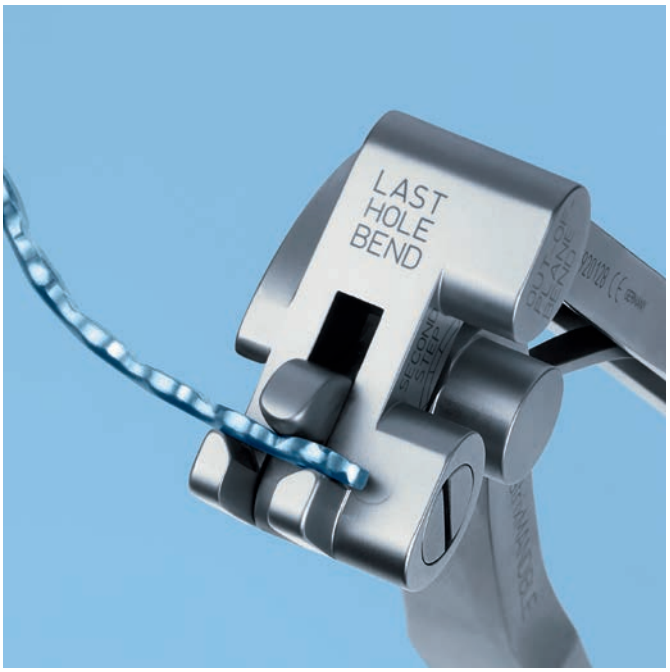
Place the plate into the jaws marked “First Step” (as shown on the laser etch). Squeeze the handles together to achieve the desired in-plane bend. If additional contouring is desired, then continue sliding the plate through the pliers, making small incremental bends.

Out-of-plane bending

Place the plate that was previously bent in-plane into the jaws marked "Second Step" (as shown on the laser etch). Squeeze the handles together to achieve the desired out-of-plane bend. If additional contouring is desired, then continue sliding the plate through the pliers, making small incremental bends.

Bending the last segment of a plate

Place the MatrixMANDIBLE plate in the "duckbill" end of the Bending Pliers with Nose, with underside of the plate web section facing the center bending feature. Squeeze the handles together to make the desired bend. If additional out-of-plane is required, then slide the plate to the next web section and repeat, making small incremental bends.



4
Bending iron for MatrixMANDIBLE plates

Instruments	
03.503.077	Bending Iron for MatrixMANDIBLE Plates, left
03.503.078	Bending Iron for MatrixMANDIBLE Plates, right

In-plane bending
Position the plate in the appropriate pocket of either bending iron, then in the pocket of the other. Appropriate plate pocket is etched with allowable plate thickness. Move the slider over top of the plate to secure it in the pockets.

Keeping the handles in-plane, make the desired in-plane bend.

Out-of-plane bending

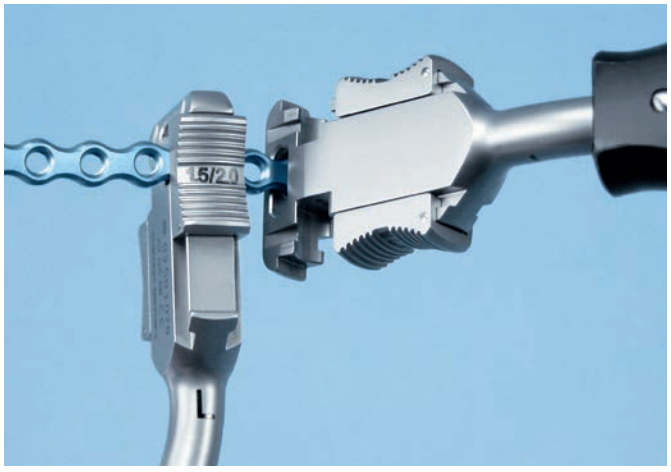
Option 1
Position and secure the plate in the appropriate pocket of either bending iron as shown previously, then use the other bending iron to make the desired out-of-plane bend.

Option 2
Place the plate through the slots in the head of the irons. Rotate the benders outward to achieve the desired out-of-plane bend.

Torsional bending
Position and secure the plate in the appropriate jaw pocket of either bending iron, then in the jaws of the other bending iron, and apply a twisting motion until achieving the desired torsional bend.

Bending the last segment of a plate
Position and secure the plate in the appropriate pocket of either bending iron, then insert the end of the plate into the slot of the other bending iron and make the desired bend. Two holes must be visible to allow sufficient clearance for making a last hole bend.

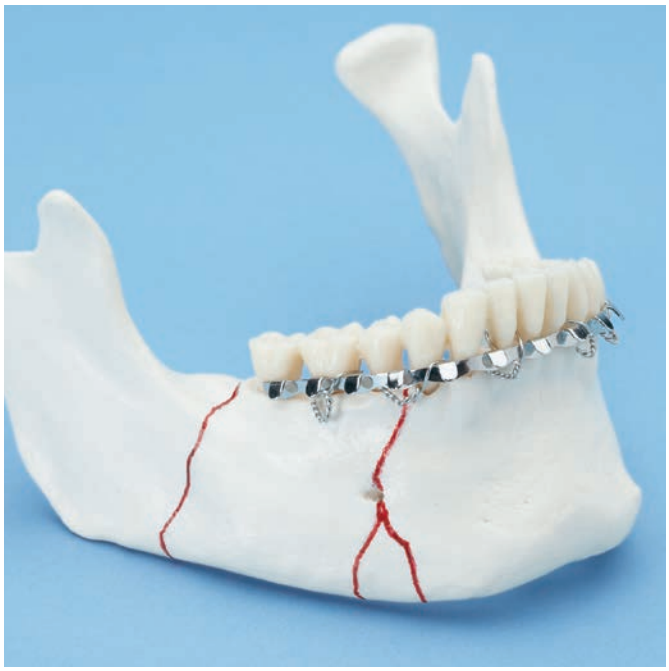
Precaution: Do not use threaded drill guides as benders.



1
Exposure and reduction

Instruments	
398.985	Reduction Forceps with Points, ratchet lock, length 180 mm
398.986	Reduction Forceps with Points, ratchet lock, length 140 mm

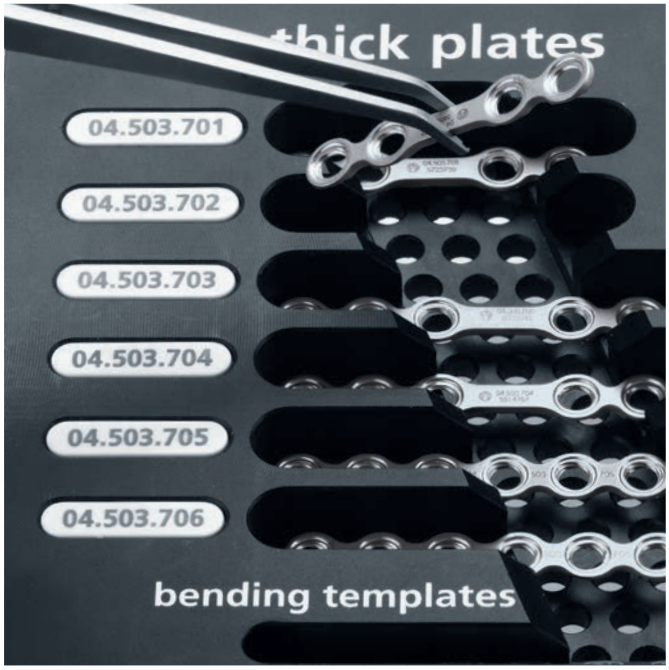
After completing the preoperative plan, expose the fracture or osteotomy site. For trauma, reduce the fracture as required.



2
Select and prepare implants

Instrument	
03.503.034	Plate Holder, Long

Select the appropriate plate depending on indication. Orient the plate so that the topside of the plate is facing out.



Determine the appropriate screw size and type, locking or non-locking. It is recommended that screws of the same color as the selected plate are used.

Precautions:
- 2.0 mm diameter screws should only be used with a blue or gold plate if inserted into a bone graft, or if bone volume does not permit placement of a larger screw.
- Do not use screws shorter than 5 mm with 2.5 mm and 2.8 mm thick plates, as bone purchase might not be sufficient for stable fixation.
- After implant placement is complete, discard any fragments or modified parts in an approved sharps container.

Plates	Recommended Screw	Typical Application
Silver Plates (1.0, 1.25, 1.5 mm thick) Silver-Green Plates (1.0 mm thick Malleable)	Silver Screws ∅ 2.0 mm	Simple Fractures
Light Blue Plates (2.0/2.5 mm thick)	Light Blue Screws ∅ 2.4 mm Pink Screws ∅ 2.7 mm Emergency	Complex Fractures and Reconstruction
Gold Plates (2.8 mm thick)	Gold Screws ∅ 2.9 mm	Reconstruction

Optional Technique

Instruments	
03.503.079	Cutting Pliers, for MatrixMANDIBLE Plates 1.0 to 1.5, length 175 mm
03.503.057	Shortcut for MatrixMANDIBLE Plates, thickness 1.5 to 2.8, with Rasp, required in pairs

Cut the plate to length if needed
Small plates (1.0, 1.25 and 1.5 mm thick) can be cut using the Cutting Pliers. A manual deburring feature is provided on the top of the cutter if deburring is desired.

Note: The elastomeric insert helps to retain the plate after cutting. These should be removed during cleaning and held in the dedicated case bin during sterilization.

Plates 1.5 mm thick and larger can be cut using two short-cuts. A manual deburring feature is provided in the handle of each cutter if deburring is desired.

3

Select and form the bending template

Instruments

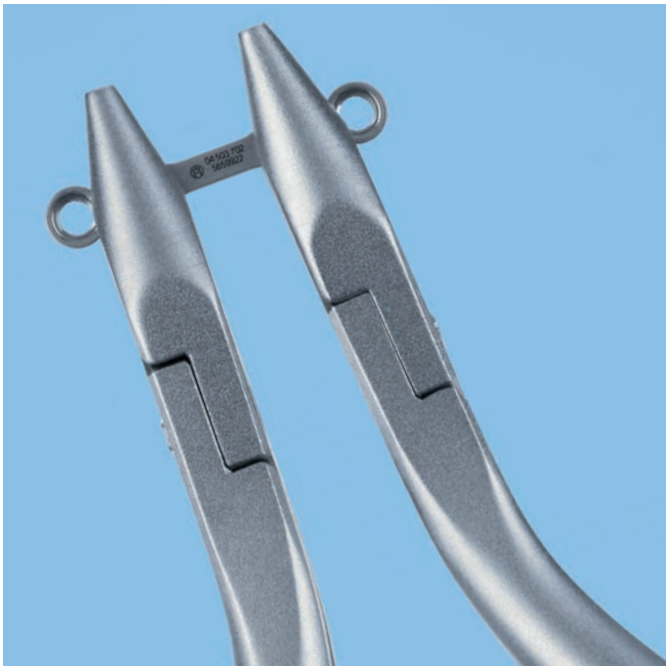
03.503.160– 03.503.184	Bending Templates for MatrixMANDIBLE

Select the appropriate shape and length bending template and form it to the bony anatomy.

Precaution:
- Stable fixation requires a minimum of two screws per segment.
- When using 2.5 mm and 2.8 mm Reconstruction plates as a bridging device with 2.4 or 2.9 mm locking screws, allow at minimum four screws per segment. If limited bone length or poor bone quality exists, a minimum of three 2.9 mm locking screws per segment should be used.

4
Contour the plate
Plates from 1 to 1.5 mm

Instrument	
03.503.038	Bending Pliers for MatrixMIDFACE (required in pairs)



The Bending pliers can be used with plates from 1.0 to 1.5 mm.

Contour the plate to the template. Make final adjustments to match the boney anatomy. An exact match is not required when using locking screws, because plate stability is not dependent on plate-to-bone contact when screws are locked.

Note: Extra care should be taken to match the anatomy when non-locking screws are being used.

Precautions:
- Avoid reverse bends as it may weaken the plate and lead to premature implant failure.
- Avoid sharp bends. Sharp bends include a single out-of-plane bend of >30 degrees between two adjacent holes.

Plates from 1.5 to 2.8 mm

Instruments	
03.503.077	Bending Iron for MatrixMANDIBLE Plates, left
03.503.078	Bending Iron for MatrixMANDIBLE Plates, right

Plates 1.5 mm thick and larger can be contoured using the Bending Irons (in plane, out-of-plane and torsional bending).

Optional instrument	
03.503.056	Bending Pliers with Nose, for MatrixMANDIBLE Plates

Plates 1.5 mm thick and larger can be contoured using the Bending Pliers with Nose in-plane and out of plane.
For torsional bends use the Bending Irons 03.503.077 and 03.503.078.

Plates should be bent in a stepped process. First perform in-plane bends. Out-of-plane bends second. Torsional bends last.

Note: If the Condylar Head Add-on System is used, the last three holes must remain straight. See Technique Guide 036.000.717 for the detailed technique. When using the MatrixMANDIBLE combination bender, follow the steps as shown on the instrument. The "Last Hole Bend" feature should only be used for bending the last hole of the plate.

Optional instrument

03.503.080	MatrixMANDIBLE Bending Screws

Prior to contouring the plate to the patient's anatomy, Bending Insert Screws may be threaded into the plate holes in regions where more extensive* bending is desired. The screwdriver supplied with the set is used to thread these into the mating threads in the selected plate hole. The plate is then bent to the desired geometry with the bending instruments in the set. Once the proper bend is achieved (and prior to fixing the plate to the bone) the screwdriver is used to remove the bending inserts.

Note:* Extensive bending would include bends that exceed the range typical for adapting to the mandible e.g. >20 degrees in torsion and "in-plane" bending, and >30 degrees "out-of-plane" bending.

– Bending inserts are made from biocompatible implant grade material (Ti-6Al,7Nb).

5
Position the plate

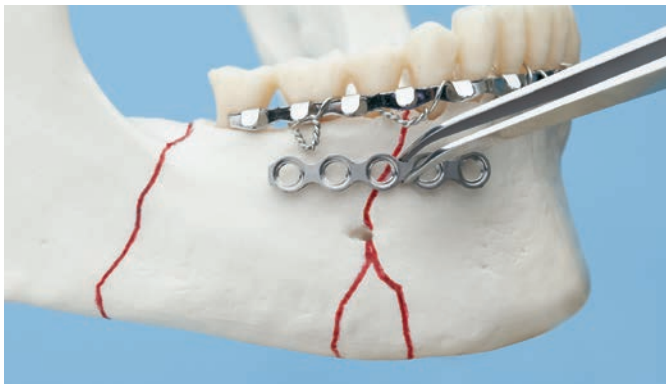
Instruments	
03.503.034	Plate Holder, Long
03.503.062	Holding Forceps for Plates, for MatrixMANDIBLE

Place the plate over the fracture or osteotomy site.

Use the holding forceps for remote placement if desired.

Precautions:
- Avoid placing the holes over the nerve or tooth root.
- If plate requires placement over nerve or tooth root, drill monocortical using the appropriate drill bit with stop.

Note: When self-drilling screws are used in dense cortical bone, it may be necessary to predrill with a 1.5 mm drill bit.



6
Drill the first hole

Three drill guide options are available with this set to meet the preferences of the surgeon.

Precaution:
- Drill speed rate should never exceed 1,800 rpm, particularly in dense, hard bone. Higher drill speed rates can result in:
  - thermal necrosis of the bone,
  - soft tissue burns,
  - an oversized hole, which can lead to reduced pullout force, increased ease of the screws stripping in bone, suboptimal fixation, and/or the need for emergency screws.
- Avoid damaging the plate threads with the drill.
- Always Irrigate during drilling to avoid thermal damage to the bone.
- Irrigate and apply suction for removal of debris potentially generated during implantation or removal

Note: If drill bit breaks, burr around drill bit fragment until access to fragment is possible and fragment can be retrieved from the bone.

Drill Size Guide

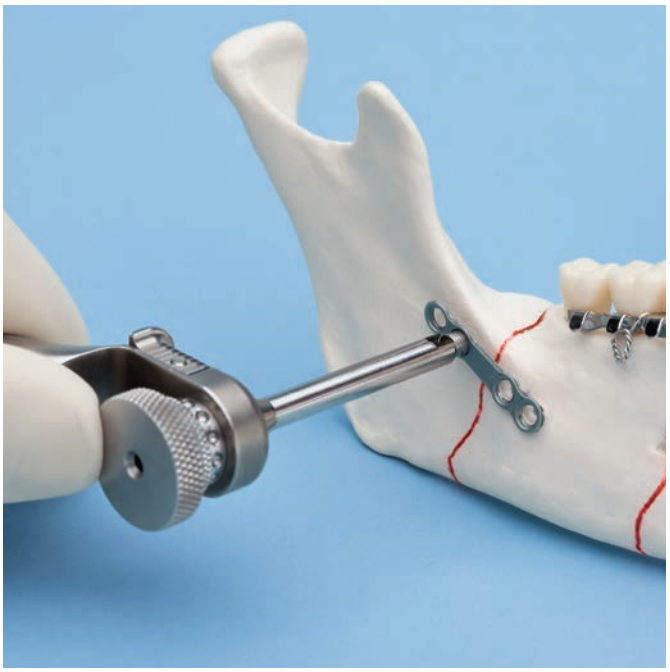
Guide number	Screw diameter (mm)	Drill Bit diameter (mm)
03.503.043	2.0	1.5
03.503.044	2.4	1.8
N/A	2.7 (Emergency)	N/A
03.503.046	2.9	2.4

Option 1 – Cannula and obturator 2.0

Instruments	
397.211	Universal Handle for Drill Sleeves
397.213	Cannula and Obturator 2.0
03.503.045	Drill Sleeve, long, for MatrixMANDIBLE
03.503.047	Drill Sleeve, long, with thread, for MatrixMANDIBLE
03.503.476	MatrixMANDIBLE Drill Bit ∅ 1.5 mm, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047
03.503.477	MatrixMANDIBLE Drill Bit ∅ 1.8 mm, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047
03.503.478	MatrixMANDIBLE Drill Bit ∅ 2.4 mm, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047

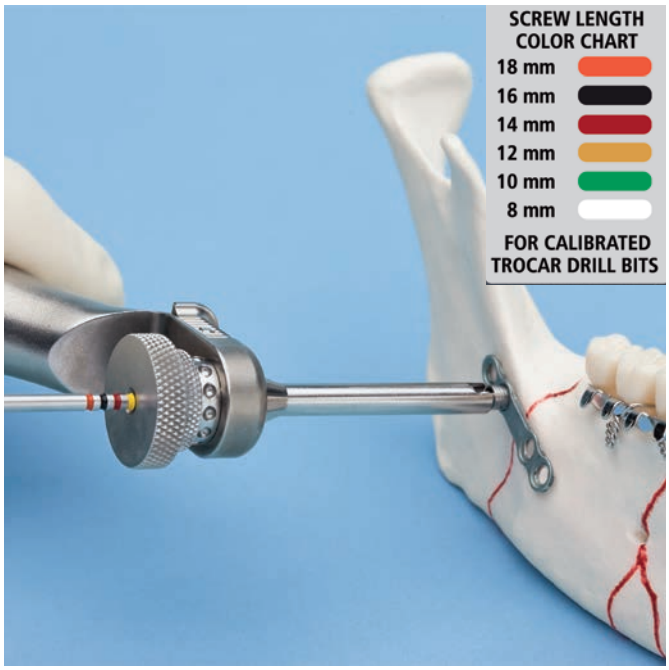
After creating a stab incision pass the cannula with obturator carefully through the soft tissue over the fracture site, then remove the obturator.

Pass the Drill Sleeve through the cannula and snap it in place. Position the tip of the cannula on plate at the hole intended for the first screw. If the Drill Sleeve with thread is used, rotate the Drill Sleeve clockwise to engage the threads into the plate.



With the correct diameter calibrated drill bit, drill directly through the drill sleeve. Depth of drilling can be determined by observing where the colored rings on the drills match the fixed surface on the drill sleeve, and correlating these to the chart in the transbuccal module.

To achieve optimal angular stability with locking screws, the hole must be drilled at a right angle to the plate hole. However, a certain amount of variation can be tolerated.



Note: For trauma applications locking screws may be placed at approximately 10 degrees off axis while maintaining locking capabilities. A small decrease in angular stability can be expected. Note however that maximum angular stability with Matrix locking is very high.

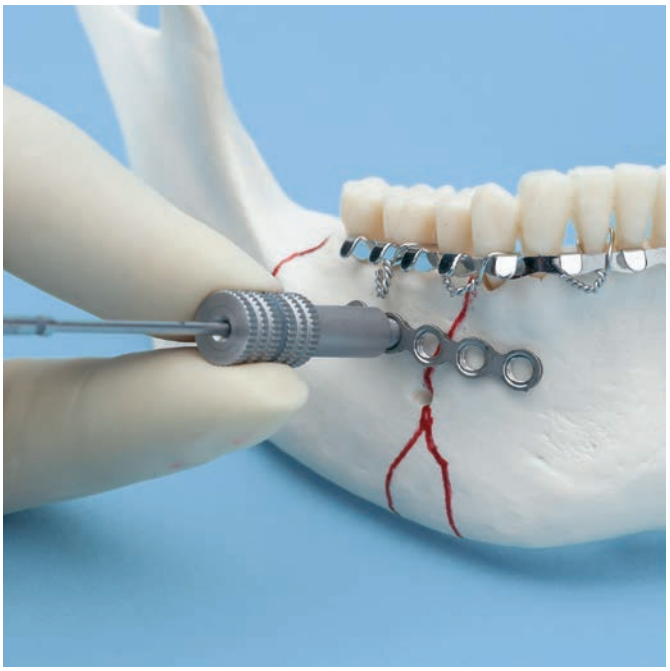
Drill bits with mini quick coupling also available

03.503.479	Drill Bit ∅ 1.5 mm, for MatrixMANDIBLE, length 125 mm, 2-flute, for Mini Quick Coupling, for Nos. 03.503.045 and 03.503.047
03.503.480	Drill Bit ∅ 1.8 mm, for MatrixMANDIBLE, length 125 mm, 2-flute, for Mini Quick Coupling, for Nos. 03.503.045 and 03.503.047
03.503.481	Drill Bit ∅ 2.4 mm, for MatrixMANDIBLE, length 125 mm, 2-flute, for Mini Quick Coupling, for Nos. 03.503.045 and 03.503.047

Optional instruments

397.232	Cheek Retractor for MatrixMANDIBLE, U-shaped, flexible
397.430	Cheek Retractor Ring 2.0, for No. 397.213
397.420	Cheek Retractor, for No. 397.213

Option 2 – Threaded drill sleeves, short



Instruments	
03.503.043	Drill Sleeve 1.5, short, with thread, for MatrixMANDIBLE
03.503.044	Drill Sleeve 1.8, short, with thread, for MatrixMANDIBLE
03.503.046	Drill Sleeve 2.4, short, with thread, for MatrixMANDIBLE
03.503.451	Drill Bit ∅ 1.5 mm, length 90 mm, for J-Latch Coupling*, for No. 03.503.043
03.503.461	Drill Bit ∅ 1.8 mm, length 90 mm, for J-Latch Coupling*, for 03.503.044
03.503.471	Drill Bit ∅ 2.4 mm, length 90 mm, for J-Latch Coupling*, for 03.503.046

If wide exposure is available use the appropriate diameter short threaded drill sleeve. Rotate the drill guide clockwise to engage the threads into the plate. Begin with a plate hole closest to the fracture or osteotomy line.

Note: Drill guides are color coded to match the appropriate screw size.

Option 3 – Double drill guide

Optional instruments	
312.180	Double Drill Guide 2.4/1.8
312.220	Double Drill Guide 2.0/1.5
03.503.451	Drill Bit ∅ 1.5 mm, length 90 mm, for J-Latch Coupling*, for 03.503.043
03.503.461	Drill Bit ∅ 1.8 mm, length 90 mm, for J-Latch Coupling*, for 03.503.044
03.503.471	Drill Bit ∅ 2.4 mm, length 90 mm, for J-Latch Coupling*, for 03.503.046

The double drill guide may be used when good visualization is available. The Double Drill Guide 2.0/1.5 **must** be used when compression is desired in the DCP style plates.

Note: For compression in DCP style plates use standard AO compression plating technique [3,4].

If using locking screws, align the drill guide with the plate so that it is reasonably centered in all planes.

* Drill bits with mini quick coupling also available.

[3] Müller ME, Allgöwer M, Schneider R, Willenegger H (1991) AO Manual of Internal Fixation. 3rd Edition. Berlin: Springer-Verlag

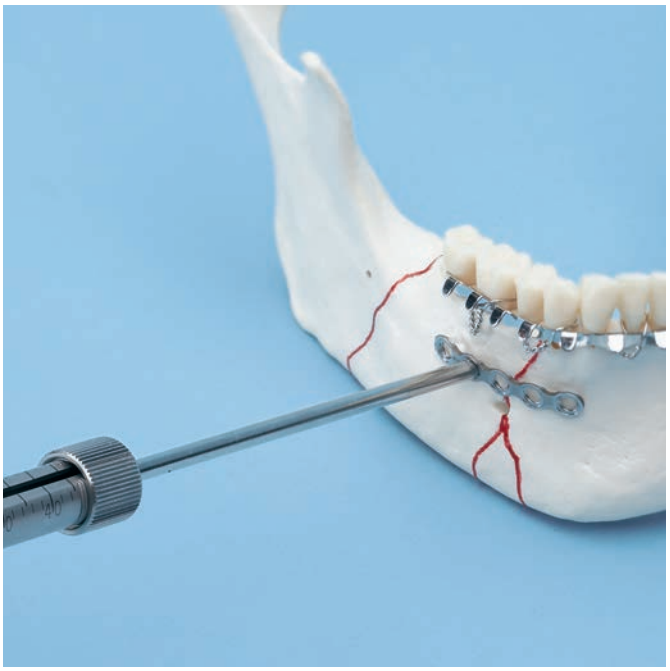
[4] Prein J (1998) Manual of Internal Fixation in the Cranio-Facial Skeleton. Berlin: Springer-Verlag

7
Measure screw length

Instrument	
03.503.036	Depth Gauge for MatrixMANDIBLE, measuring range from 6 to 40 mm

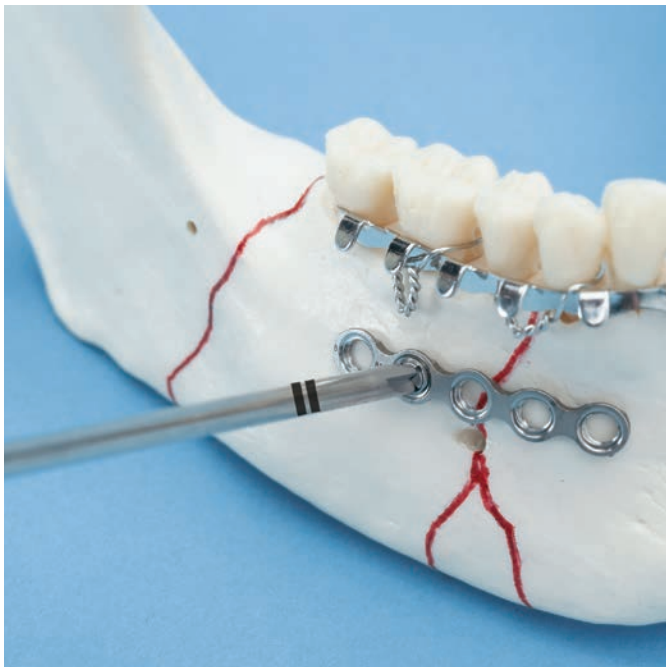
Determine the appropriate screw length using the depth gauge.

Note: Add 2 mm to the determined length of the screw to ensure full bicortical purchase.



8
Insert the screw

Instruments	
03.503.070	Screwdriver Shaft MatrixMANDIBLE, short, self-holding, for Hexagonal Coupling
03.503.071	Screwdriver Shaft MatrixMANDIBLE, medium, self-holding, for Hexagonal Coupling
03.503.072	Screwdriver Shaft MatrixMANDIBLE, long, self-holding, for Hexagonal Coupling
311.004	Screwdriver Handle, lockable, with Hexagonal Coupling
311.007	Handle, large, with Hexagonal Coupling
311.023	Ratcheting Screwdriver Handle, with Hexagonal Coupling



Insert the proper length locking or non-locking screw through the plate and tighten until secure.

Note: If using Cannula 2.0, remove first the Drill Sleeve then pass the Self-Holding Screwdriver with the screw engaged into the blade.

Note: To engage the screw on the blade, align the blade over the cruciform recess and slowly rotate it **counter-clockwise** until the blade drops into the recess; firmly press the blade to fully seat it into the screw. A half **counter-clockwise** rotation of the engaged screwdriver facilitates the screw removal from the clip.

Precaution: Tighten screws in a controlled manner. Applying too much torque to the screws may cause screw/plate deformation, or bone stripping.

9

Drill and place the remaining screws

Insert the second screw on the opposite side of the fracture or osteotomy site following the previously outlined procedure.

Insert all remaining screws alternating to each side of the mandible. Securely tighten all screws unless resection is to follow. Apply additional fixation as desired.

Optional Technique for Bone Resection

1
Resect the mandible

Instruments	
03.503.070	Screwdriver Shaft MatrixMANDIBLE, short, self-holding, for Hexagonal Coupling
03.503.071	Screwdriver Shaft MatrixMANDIBLE, medium, self-holding, for Hexagonal Coupling
03.503.072	Screwdriver Shaft MatrixMANDIBLE, long, self-holding, for Hexagonal Coupling
311.004	Screwdriver Handle, lockable, with Hexagonal Coupling
311.007	Handle, large, with Hexagonal Coupling
311.023	Ratcheting Screwdriver Handle, with Hexagonal Coupling

Once the plate is in place, remove the plate and screws, taking note of each screw's placement.

Resect the mandible.

2
Replace the implants

Place the plate back onto the mandible in its original position. Reinsert each predetermined screw. Check all screws to ensure a secure fit in the plate.

3

Apply bone graft*

2.0 mm thick reconstruction plates (color-coded blue)
A vascularized bone graft must be applied primarily in a single step reconstruction after resection of a tumor, osteomyelitis or osteonecrosis.

2.5 mm thick reconstruction plates (color-coded blue)
A non-vascularized bone graft may be applied for a primary reconstruction. May bridge continuity defects without bone graft temporarily prior to a secondary reconstruction.

2.8 mm thick reconstruction plates (color-coded gold)
May bridge continuity defects without bone graft prior to a secondary reconstruction.

***Note:** Plate fractures are possible when any plate bears the entire functional load for an extended period. The implantation of bone graft, immediately or at a later date, is necessary to support the construct.

* Prein J (1998) Manual of Internal Fixation in the Cranio-Facial Skeleton. Berlin: Springer-Verlag.

1.0 mm thick (silver), pure titanium
1.0 mm thick, malleable (green-silver), pure titanium

04.503.701	MatrixMANDIBLE Mini Tension Band Plate, narrow centre, 2+2 holes, malleable	
04.503.702	MatrixMANDIBLE Mini Tension Band Plate, narrow centre, 2+2 holes	
04.503.780	MatrixMANDIBLE Tension Band Plate, prebent, right, 2+2 holes	
04.503.781	MatrixMANDIBLE Tension Band Plate, prebent, left, 2+2 holes	
04.503.703	MatrixMANDIBLE Mini Tension Band Plate, narrow centre, 3+3 holes, malleable	
04.503.704	MatrixMANDIBLE Mini Tension Band Plate, narrow centre, 3+3 holes	
04.503.750	MatrixMANDIBLE Mini Tension Band Plate, broad centre, 2+2 holes, malleable	
04.503.751	MatrixMANDIBLE Mini Tension Band Plate, broad centre, 2+3 holes, malleable	
04.503.752	MatrixMANDIBLE Mini Tension Band Plate, broad centre, 3+3 holes, malleable	
04.503.783	MatrixMANDIBLE Adaption Plate, 4 holes	
04.503.784	MatrixMANDIBLE Adaption Plate, 6 holes	
04.503.705	MatrixMANDIBLE Adaption Plate, 12 holes	
04.503.706	MatrixMANDIBLE Adaption Plate, 20 holes	

Plates also available in sterile. Add the suffix "S" to the article number.

04.503.707	MatrixMANDIBLE Plate, square, 4 holes, malleable	
04.503.708	MatrixMANDIBLE Strut Plate, 8 holes, malleable	
04.503.709	MatrixMANDIBLE Strut Plate, curved, 8 holes, malleable	
04.503.830	MatrixMANDIBLE Subcondylar Lambda Plate, right, 7 holes, malleable	
04.503.831	MatrixMANDIBLE Subcondylar Lambda Plate, left, 7 holes, malleable	
04.503.832	MatrixMANDIBLE Subcondylar Strut Plate, right, 5 holes, malleable	 
04.503.833	MatrixMANDIBLE Subcondylar Strut Plate, left, 5 holes, malleable	 
04.503.834	MatrixMANDIBLE Subcondylar Trapezoidal Plate, small, 4 holes, malleable	 

Plates also available in sterile. Add the suffix "S" to the article number.

1.25 mm thick (silver), pure titanium

04.503.710	MatrixMANDIBLE DCP Plate, 2+2 holes	
04.503.761	MatrixMANDIBLE Plate, straight, with centre space, 2+2 holes	
04.503.711	MatrixMANDIBLE Plate, crescent, 2+2 holes	
04.503.712	MatrixMANDIBLE DCP Plate, 3+3 holes	
04.503.713	MatrixMANDIBLE DCP Plate, crescent, 3+3 holes	
04.503.714	MatrixMANDIBLE DCP Plate, angled, 3+3 holes	
04.503.756	MatrixMANDIBLE Adaption Plate, 12 holes	

Plates also available in sterile. Add the suffix "S" to the article number.

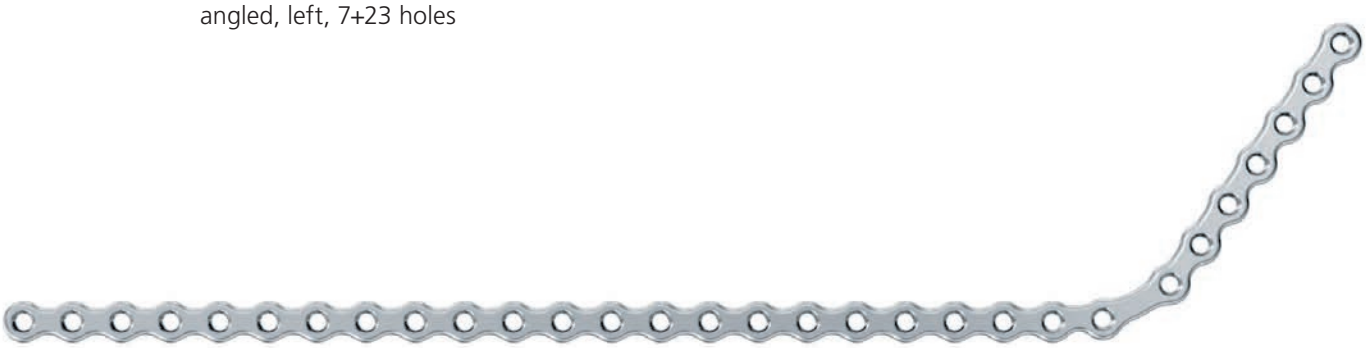
1.5 mm thick (silver), pure titanium

04.503.715	MatrixMANDIBLE Plate, straight, 6 holes	
04.503.716	MatrixMANDIBLE Plate, straight, 3+3 holes	
04.503.717	MatrixMANDIBLE Plate, straight, 12 holes	
04.503.718	MatrixMANDIBLE Plate, straight, 20 holes	
04.503.721	MatrixMANDIBLE Plate, angled, 3+3 holes	
04.503.722	MatrixMANDIBLE Plate, crescent, 3+3 holes	
04.503.723	MatrixMANDIBLE DCP Plate, 2+2 holes	
04.503.724	MatrixMANDIBLE DCP Plate, 3+3 holes	

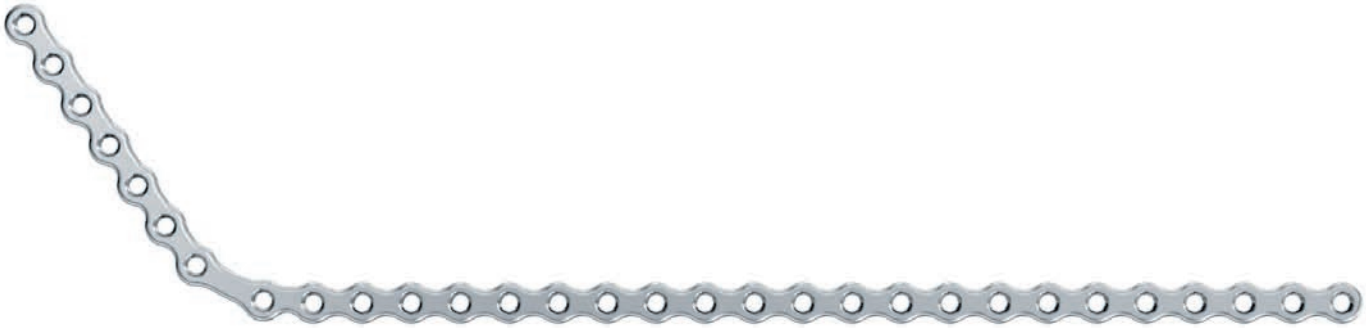
Plates also available in sterile. Add the suffix "S" to the article number.

1.5 mm thick (silver), pure titanium

04.503.785 MatrixMANDIBLE Reconstruction Plate, angled, left, 7+23 holes



04.503.786 MatrixMANDIBLE Reconstruction Plate, angled, right, 7+23 holes

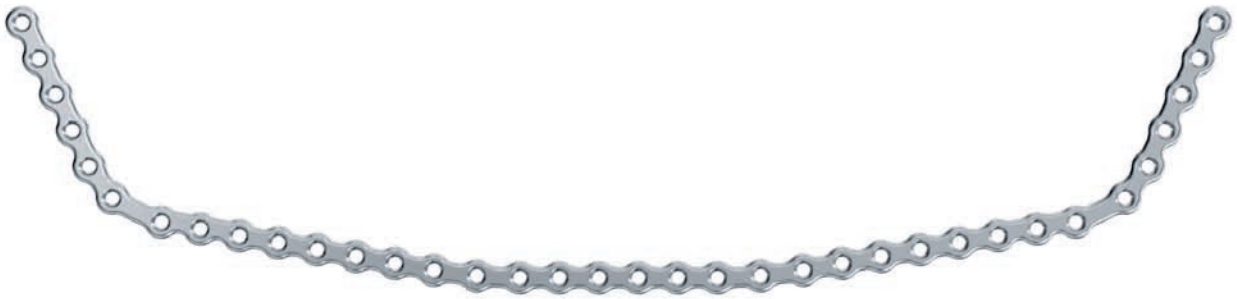


Plates also available in sterile. Add the suffix "S" to the article number.

04.503.787S MatrixMANDIBLE Reconstruction Plate, double-angled, small, sterile

04.503.788S MatrixMANDIBLE Reconstruction Plate, double-angled, medium, sterile

04.503.789S MatrixMANDIBLE Reconstruction Plate, double-angled, large, sterile



Plates also available in sterile. Add the suffix "S" to the article number.

2.0 mm thick (light blue), pure titanium

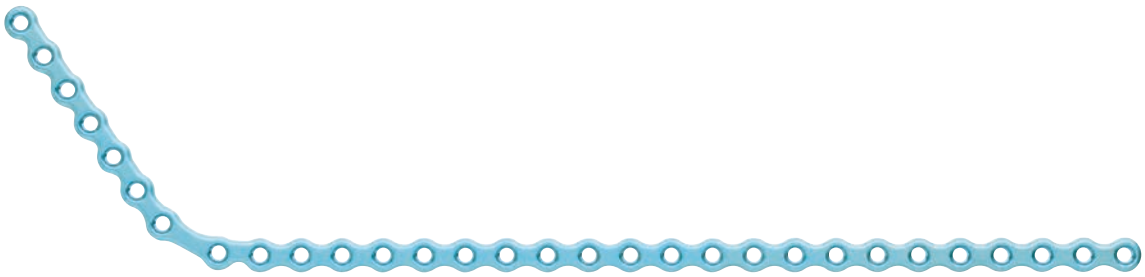
04.503.726	MatrixMANDIBLE Plate, crescent, broad centre, 2+2 holes	
04.503.727	MatrixMANDIBLE Plate, crescent, broad centre, 3+3 holes	
04.503.728	MatrixMANDIBLE Plate, straight, 6 holes	
04.503.729	MatrixMANDIBLE Plate, straight, 12 holes	
04.503.731	MatrixMANDIBLE Plate, angled, broad centre, 3+3 holes	

Plates also available in sterile. Add the suffix "S" to the article number.

04.503.730 MatrixMANDIBLE Plate, straight, 20 holes

04.503.732 MatrixMANDIBLE Reconstruction Plate, angled, left, 7+23 holes

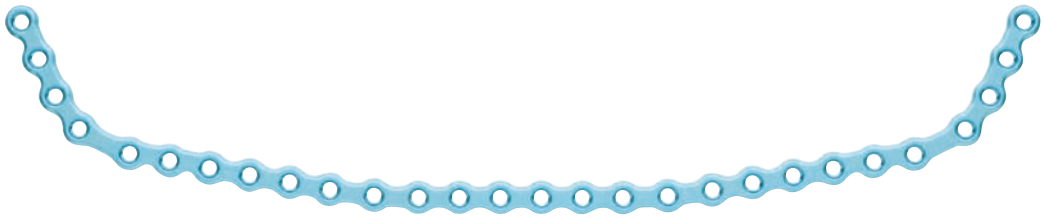
04.503.733 MatrixMANDIBLE Reconstruction Plate, angled, right, 7+23 holes



Plates also available in sterile. Add the suffix "S" to the article number.

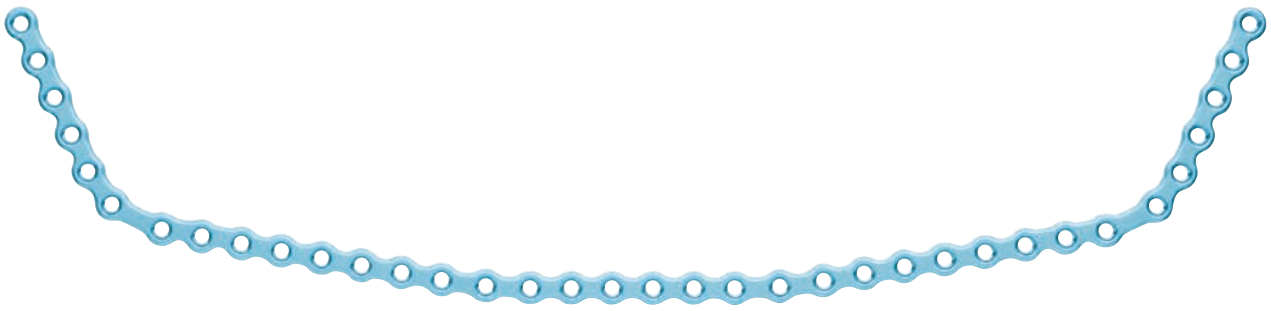
2.0 mm thick (light blue), pure titanium

04.503.734S MatrixMANDIBLE Reconstruction Plate, double-angled, small, 4+20+4 holes, sterile



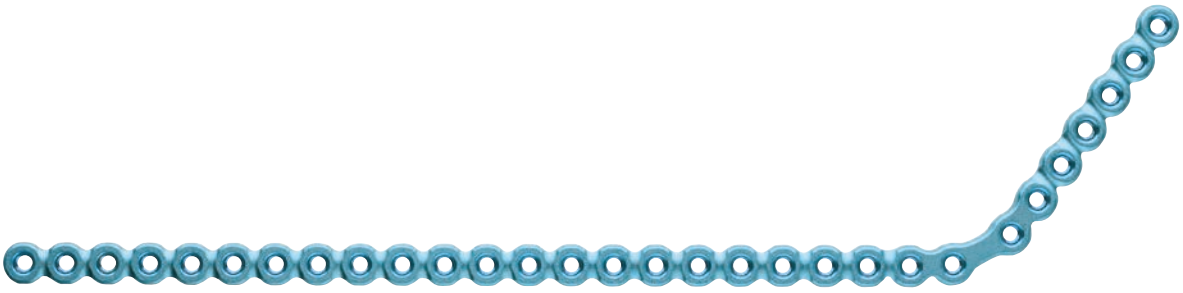
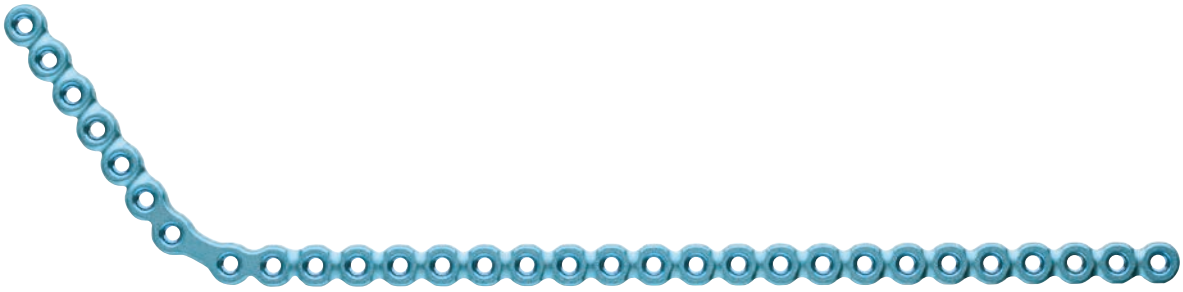
04.503.735S MatrixMANDIBLE Reconstruction Plate, double-angled, medium, 5+22+5 holes, sterile

04.503.736S MatrixMANDIBLE Reconstruction Plate, double-angled, large, 6+24+6 holes, sterile



Plates also available in sterile. Add the suffix "S" to the article number.

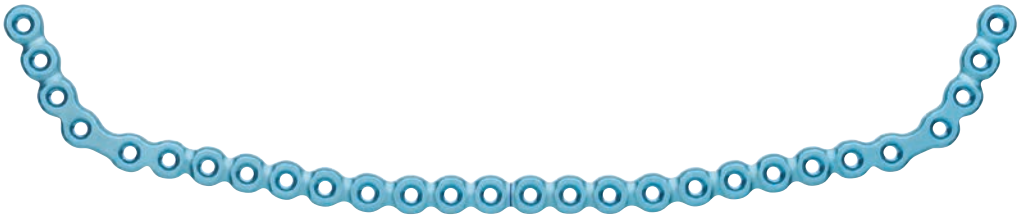
2.5 mm thick (light blue), pure titanium

04.503.737	MatrixMANDIBLE Reconstruction Plate, straight, 12 holes	
04.503.738	MatrixMANDIBLE Reconstruction Plate, straight, 20 holes	
04.503.739	MatrixMANDIBLE Reconstruction Plate, angled, left, 7+23 holes	
04.503.740	MatrixMANDIBLE Reconstruction Plate, angled, right, 7+23 holes	

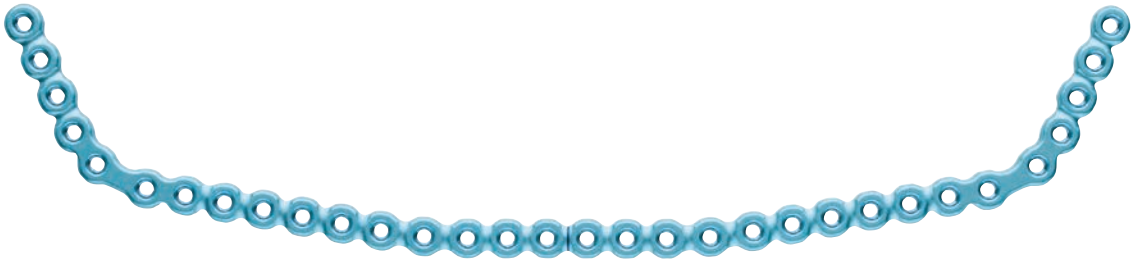
Plates also available in sterile. Add the suffix "S" to the article number.

2.5 mm thick (light blue), pure titanium

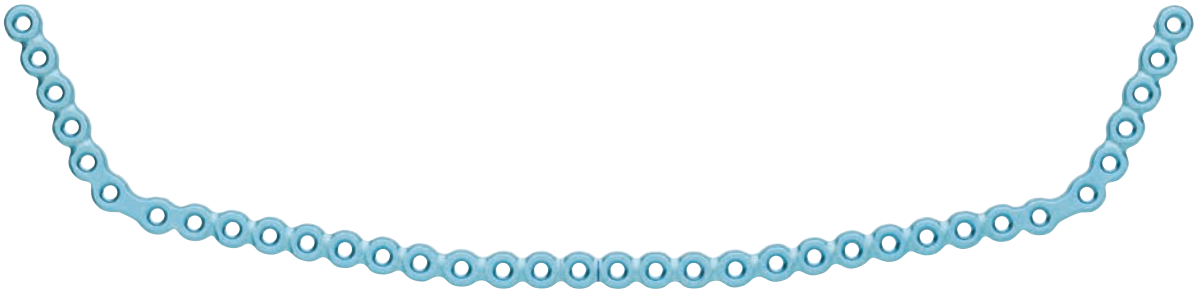
04.503.741S MatrixMANDIBLE Reconstruction Plate, double-angled, small, 4+20+4 holes, sterile



04.503.742S MatrixMANDIBLE Reconstruction Plate, double-angled, medium, 5+22+5 holes, sterile



04.503.743S MatrixMANDIBLE Reconstruction Plate, double-angled, large, 6+24+6 holes, sterile



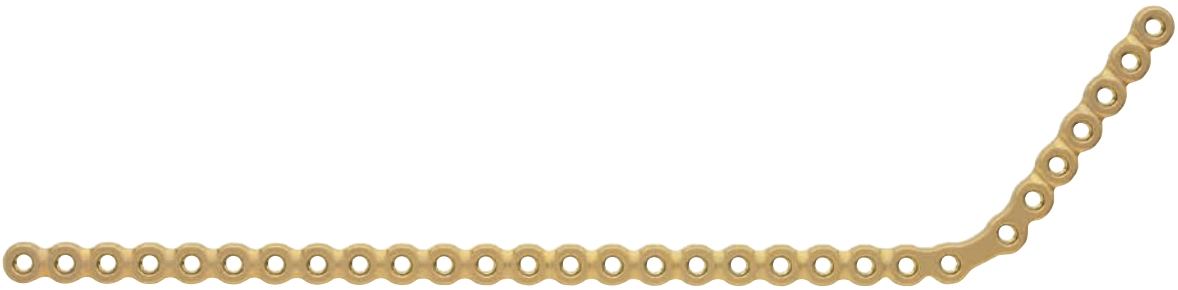
Plates also available in sterile. Add the suffix "S" to the article number.

2.8 mm thick (gold), pure titanium

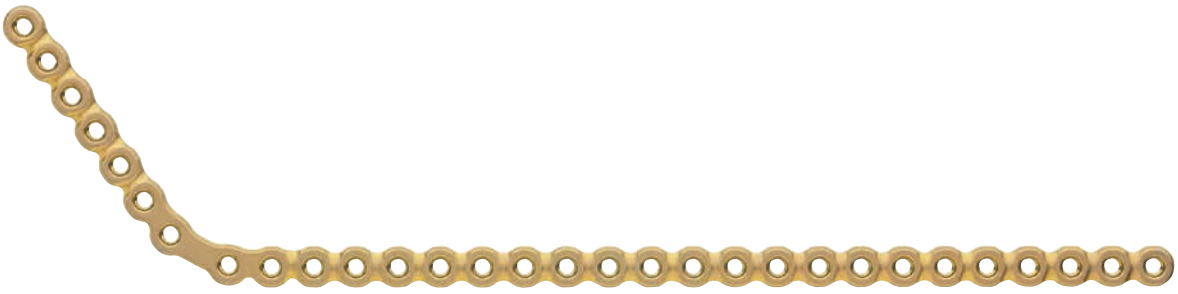
04.503.770	MatrixMANDIBLE Reconstruction Plate, 12 holes

04.503.771	MatrixMANDIBLE Reconstruction Plate, straight, 20 holes

04.503.772	MatrixMANDIBLE Reconstruction Plate, angled, left, 7+23 holes



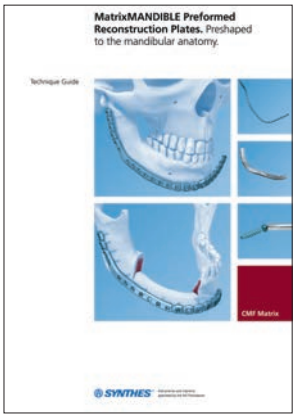
04.503.773	MatrixMANDIBLE Reconstruction Plate, angled, right, 7+23 holes



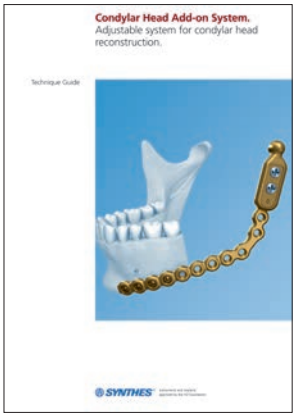
Plates also available in sterile. Add the suffix "S" to the article number.

Also available

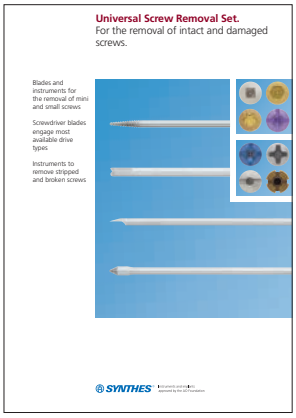
MatrixMANDIBLE Preformed Reconstruction Plates.
For product specific information, refer to the Technique Guide DSEM/CMF/0915/0093.

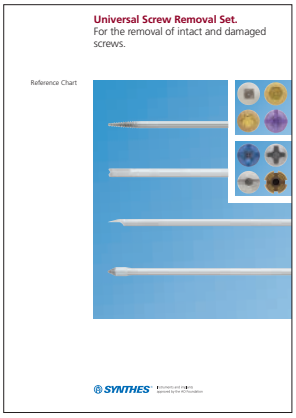


Condylar Head Add-On System.
For product specific information, refer to the Technique Guide 036.000.717.



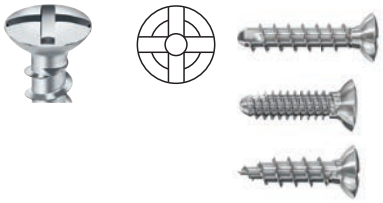
Universal Screw Removal Set.
For product specific information, refer to the Technique Guide 036.000.773 and Reference Chart 036.000.352





Screws Used with the MatrixMANDIBLE Plates

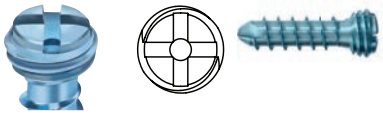
2.0 mm Titanium MatrixMANDIBLE Cortex Screws
- Self-tapping tip
- Standard pitch (1.0 mm), length 5–18 mm
- Fine pitch (0.5 mm), length 4–8 mm
- Self-drilling tip
- Standard pitch (1.0 mm), length 6 and 8 mm



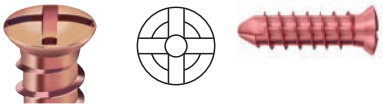
2.0 mm Titanium MatrixMANDIBLE Locking Screws
- Threaded head
- Self-tapping tip
- Standard pitch (1.0 mm), length 5–18 mm
- Self-drilling tip
- Standard pitch (1.0 mm), length 6 and 8 mm

2.4 mm Titanium MatrixMANDIBLE Cortex Screws
- Self-tapping tip
- Standard pitch (1.0 mm), length 5–18 mm

2.4 mm Titanium MatrixMANDIBLE Locking Screws
- Threaded head
- Self-tapping tip
- Standard pitch (1.0 mm), length 8–18 mm



2.7 mm Titanium MatrixMANDIBLE Emergency Cortex Screws
- Self-tapping tip
- Standard pitch (1.0 mm), length 5–18 mm



2.9 mm Titanium MatrixMANDIBLE Locking Screws
- Threaded head
- Self-tapping tip
- Standard pitch (1.0 mm), length 8–18 mm

Instruments

03.503.034	Plate Holder, long	
03.503.036	Depth Gauge for MatrixMANDIBLE, measuring range from 6 to 40 mm	
03.503.085	Depth Gauge for MatrixMANDIBLE, measuring range up to 40 mm	
03.503.038	Bending Pliers for MatrixMIDFACE Plates	
03.503.040	Bending Pliers for MatrixMANDIBLE Plates, right	
03.503.041	Bending Pliers for MatrixMANDIBLE Plates, left	
03.503.043	Drill Sleeve 1.5, short, with thread, for MatrixMANDIBLE	
03.503.044	Drill Sleeve 1.8, short, with thread, for MatrixMANDIBLE	
03.503.046	Drill Sleeve 2.4, short, with thread, for MatrixMANDIBLE	

03.503.056	Bending Pliers with Nose, for MatrixMANDIBLE Plates	
03.503.057	Shortcut for MatrixMANDIBLE Plates, thickness 1.5 to 2.8, with Rasp, required in pairs	
03.503.062	Holding Forceps for Plates, for MatrixMANDIBLE	
03.503.058	MatrixMANDIBLE Plate Holder, adjustable, complete	
03.503.059	Tip for Plate Holder No. 03.503.058	
03.503.066	Screwdriver Shaft MatrixMANDIBLE, short, not self-holding	
03.503.067	Holding Sleeve, short, for No. 03.503.066	
03.503.068	Screwdriver Shaft MatrixMANDIBLE, long, not self-holding	
03.503.069	Holding Sleeve, long, for No. 03.503.068	

03.503.070	Screwdriver Shaft MatrixMANDIBLE, short, self-holding, for Hexagonal Coupling	
03.503.071	Screwdriver Shaft MatrixMANDIBLE, medium, self-holding, for Hexagonal Coupling	
03.503.072	Screwdriver Shaft MatrixMANDIBLE, long, self-holding, for Hexagonal Coupling	
03.503.077	Bending Iron for MatrixMANDIBLE Plates, left	
03.503.078	Bending Iron for MatrixMANDIBLE Plates, right	
03.503.079	Cutting Pliers, for MatrixMANDIBLE Plates 1.0 to 1.5, length 175 mm	
329.148.05	Silicone Insert for Cutting Pliers for MatrixMANDIBLE No. 03.503.079, pack of 5	

03.503.080	MatrixMANDIBLE Bending Screws

03.503.404	Drill Bit ∅ 1.5 mm with Stop, length 50/4 mm, 2-flute, for J-Latch Coupling
03.503.406	Drill Bit ∅ 1.5 mm with Stop, length 50/6 mm, 2-flute, for J-Latch Coupling
03.503.408	Drill Bit ∅ 1.5 mm with Stop, length 50/8 mm, 2-flute, for J-Latch Coupling
03.503.412	Drill Bit ∅ 1.5 mm with Stop, length 50/12 mm, 2-flute, for J-Latch Coupling
03.503.504	Drill Bit ∅ 1.5 mm with Stop, length 50/4 mm, 2-flute, for Mini-Quick Coupling
03.503.506	Drill Bit ∅ 1.5 mm with Stop, length 50/6 mm, 2-flute, for Mini Quick Coupling
03.503.508	Drill Bit ∅ 1.5 mm with Stop, length 50/8 mm, 2-flute, for Mini Quick Coupling
03.503.512	Drill Bit ∅ 1.5 mm with Stop, length 50/12 mm, 2-flute, for Mini Quick Coupling

Drill bits also available in sterile. Add the suffix "S" to the article number.

03.503.476	MatrixMANDIBLE Drill Bit ∅ 1.5 mm, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047	
03.503.477	MatrixMANDIBLE Drill Bit ∅ 1.8 mm, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047	
03.503.478	MatrixMANDIBLE Drill Bit ∅ 2.4 mm, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047	
03.503.479	MatrixMANDIBLE Drill Bit ∅ 1.5 mm, 2-flute, for Mini Quick Coupling, for No. 03.503.045 and No. 03.503.047	
03.503.480	MatrixMANDIBLE Drill Bit ∅ 1.8 mm, 2-flute, for Mini Quick Coupling, for No. 03.503.045 and No. 03.503.047	
03.503.481	MatrixMANDIBLE Drill Bit ∅ 2.4 mm, 2-flute, for Mini Quick Coupling, for No. 03.503.045 and No. 03.503.047	

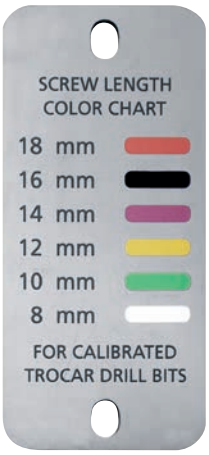
03.503.451	Drill Bit ∅ 1.5 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.043	
03.503.461	Drill Bit ∅ 1.8 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.044	
03.503.471	Drill Bit ∅ 2.4 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.046	
03.503.551	Drill Bit ∅ 1.5 mm, length 90 mm, for Mini Quick Coupling, for No. 03.503.043	
03.503.561	Drill Bit ∅ 1.8 mm, length 90 mm, for Mini Quick Coupling, for No. 03.503.044	
03.503.571	Drill Bit ∅ 2.4 mm, length 90 mm, for Mini Quick Coupling, for No. 03.503.046	

Drill bits also available in sterile. Add the suffix "S" to the article number.

311.004	Screwdriver Handle, lockable, with Hexagonal Coupling	
311.007	Handle, large, with Hexagonal Coupling	
311.023	Ratcheting Screwdriver Handle, with Hexagonal Coupling	
312.180	Double Drill Guide 2.4/1.8	
312.220	Double Drill Guide 2.0/1.5	
397.211	Universal Handle for Drill Sleeves	

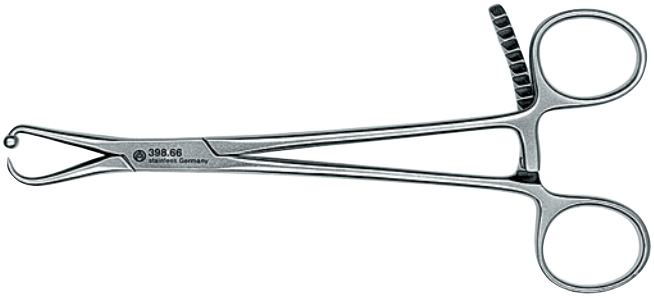
397.213	Cannula and Obturator 2.0	
03.503.045	Drill Sleeve, long, for MatrixMANDIBLE	
03.503.047	Drill Sleeve, long, with thread, for MatrixMANDIBLE	
397.232	Cheek Retractor, for MatrixMANDIBLE, U-shaped, flexible	
397.420	Cheek Retractor 2.0, for No. 397.213	
397.430	Cheek Retractor Ring 2.0, for No. 397.213	

60035258	Drill depth chart for transbuccal instrumentation



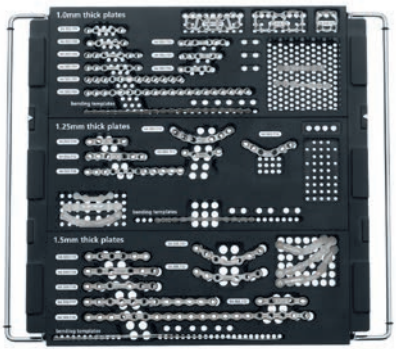
398.985	Reduction Forceps with Points, ratchet lock, length 180 mm
398.986	Reduction Forceps with Points, ratchet lock, length 140 mm

398.660	Holding Forceps with Ball, ratchet lock, length 180 mm



399.980	Reduction Forceps, large, with Points, ratchet lock, length 205 mm	
03.503.092	Reduction Forceps with Points, angled, ratchet lock, length 200 mm	
03.503.094	Reduction Forceps with Points, ratchet lock, length 135 mm	
03.503.160 – 03.503.185	Bending Templates for MatrixMANDIBLE	

MatrixMANDIBLE Modules



01.503.833	MatrixMANDIBLE Trauma Plate Set
61.503.833	Module for MatrixMANDIBLE Trauma Plates, 3/3, with Lid, without Contents

MatrixMANDIBLE Mini Tension Band Plates, thickness 1.0 mm, Pure Titanium

Art. No.	Holes	Center	Malleable
04.503.701	2+2	Narrow	Yes
04.503.702	2+2	Narrow	No
04.503.750	2+2	Broad	Yes
04.503.751	2+3	Broad	Yes
04.503.752	3+3	Broad	Yes
04.503.703	3+3	Narrow	Yes
04.503.704	3+3	Narrow	No

MatrixMANDIBLE Strut Plates, thickness 1.0 mm, malleable, Pure Titanium

Art. No.	Shape	Holes
04.503.707	Square	4
04.503.708	Straight	8
04.503.709	Curved	8

MatrixMANDIBLE Plates, thickness 1.25 mm, Pure Titanium

Art. No.	Holes	Shape
04.503.711	2+2	Crescent

MatrixMANDIBLE Plates, thickness 1.5 mm, Pure Titanium

Art. No.	Holes	Shape
04.503.715	6	Straight
04.503.716	3+3	Straight
04.503.717	12	Straight
04.503.718	20	Straight
04.503.721	3+3	Angled
04.503.722	3+3	Crescent

MatrixMANDIBLE Adaption Plates, Pure Titanium

Art. No.	Holes	Thickness
04.503.705	12	1.0 mm
04.503.706	20	1.0 mm
04.503.756	12	1.25 mm

MatrixMANDIBLE DCP Plates, Pure Titanium

Art. No.	Holes	Thickness	Shape
04.503.710	2+2	1.25 mm	Straight
04.503.712	3+3	1.25 mm	Straight
04.503.713	3+3	1.25 mm	Crescent
04.503.714	3+3	1.25 mm	Angled
04.503.723	2+2	1.5 mm	Straight
04.503.724	3+3	1.5 mm	Straight

MatrixMANDIBLE Bending Templates

Art. No.	For Art. Nos.
03.503.160	04.503.701/702/703/704
03.503.161	04.503.750/751/752
03.503.162	04.503.705/706
03.503.163	04.503.710/712
03.503.164	04.503.711
03.503.165	04.503.713
03.503.166	04.503.714
03.503.167	04.503.756
03.503.168	04.503.715/717/718
03.503.169	04.503.716
03.503.170	04.503.721
03.503.171	04.503.722
03.503.172	04.503.723/724

Additionally available:
MatrixMANDIBLE Subcondylar Plates, thickness 1.0 mm, malleable, Pure Titanium

Art. No.	Holes	Side	Shape
04.503.830	7	Right	Lambda
04.503.831	7	Left	Lambda
04.503.832	5	Right	Strut
04.503.833	5	Left	Strut
04.503.834	4	–	Trapezoidal

MatrixMANDIBLE Adaption Plates, Pure Titanium

Art. No.	Holes	Thickness
04.503.783	4	1.0 mm
04.503.784	6	1.0 mm

MatrixMANDIBLE Mini Tension Band Plates, thickness 1.0 mm, Pure Titanium

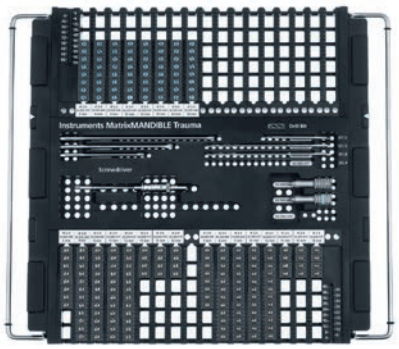
Art. No.	Holes	Side	Shape
04.503.780	2+2	Right	Prebent
04.503.781	2+2	Left	Prebent

MatrixMANDIBLE Tension Band Plate, thickness 1.25 mm, Pure Titanium

Art. No.	Holes	Shape
04.503.761	2+2	Straight

MatrixMANDIBLE Bending Template

Art. No.	For Art. Nos.
03.503.185	04.503.761



01.503.835	MatrixMANDIBLE Trauma Screw Set
61.503.835	Module for MatrixMANDIBLE Trauma Screws, 3/3, with Lid, without Contents

MatrixMANDIBLE Screws, ∅ 2.0 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.554.04C	4 mm	0.5 mm
04.503.555.04C	5 mm	0.5 mm
04.503.556.04C	6 mm	0.5 mm
04.503.558.04C	8 mm	0.5 mm
04.503.410.04C	10 mm	1.0 mm
04.503.412.04C	12 mm	1.0 mm
04.503.414.04C	14 mm	1.0 mm
04.503.416.04C	16 mm	1.0 mm
04.503.418.04C	18 mm	1.0 mm

MatrixMANDIBLE LOCK Screws ∅ 2.0 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.605.04C	5 mm	1.0 mm
04.503.606.04C	6 mm	1.0 mm
04.503.608.04C	8 mm	1.0 mm
04.503.610.04C	10 mm	1.0 mm
04.503.612.04C	12 mm	1.0 mm
04.503.614.04C	14 mm	1.0 mm
04.503.616.04C	16 mm	1.0 mm
04.503.618.04C	18 mm	1.0 mm

MatrixMANDIBLE Screws, ∅ 2.4 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.435.04C	5 mm	1.0 mm
04.503.436.04C	6 mm	1.0 mm
04.503.438.04C	8 mm	1.0 mm
04.503.440.04C	10 mm	1.0 mm
04.503.442.04C	12 mm	1.0 mm
04.503.444.04C	14 mm	1.0 mm
04.503.446.04C	16 mm	1.0 mm
04.503.448.04C	18 mm	1.0 mm

Drill Bits for J-Latch Coupling, 2 flute

Art. No.	∅	Stop	Length	For No.
03.503.451	1.5 mm	No	90 mm	03.503.043
03.503.461	1.8 mm	No	90 mm	03.503.044
03.503.408	1.5 mm	8 mm	50 mm	–

Drill Sleeves, short, with thread, for MatrixMANDIBLE

Art. No.	For drill bit ∅
03.503.043	1.5 mm
03.503.044	1.8 mm

Screwdriver Shafts MatrixMANDIBLE, Self-holding, for Hexagonal Coupling

Art. No.	Length
03.503.070	Short
03.503.071	Medium
03.503.072	Long

Screwdriver MatrixMANDIBLE, with Holding Sleeve, for Hexagonal Coupling

03.503.066	Screwdriver Shaft MatrixMANDIBLE, short, not self-holding
03.503.067	Holding Sleeve, short, for No. 03.503.066

* Also available in packs of 1 screw in Clip. Substitute ".04C" with ".01C" in the part number to order

Additionally available:

04.503.405.04C	MatrixMANDIBLE Screw ∅ 2.0 mm, self-tapping, length 5 mm,Titanium Alloy (TAN), pack of 4 units in Clip
04.503.406.04C	MatrixMANDIBLE Screw ∅ 2.0 mm, self-tapping, length 6 mm, Titanium Alloy (TAN), pack of 4 units in Clip
04.503.408.04C	MatrixMANDIBLE Screw ∅ 2.0 mm, self-tapping, length 8 mm, Titanium Alloy (TAN), pack of 4 units in Clip
04.503.506.01C	MatrixMANDIBLE Screw ∅ 2.0 mm, self-drilling, length 6 mm, Titanium Alloy (TAN), pack of 1 unit in Clip
04.503.508.01C	MatrixMANDIBLE Screw ∅ 2.0 mm, self-drilling, length 8 mm, Titanium Alloy (TAN), pack of 1 unit in Clip
04.503.546.01C	MatrixMANDIBLE LOCK Screw ∅ 2.0 mm, self-drilling, length 6 mm, Titanium Alloy (TAN), pack of 1 unit in Clip
04.503.548.01C	MatrixMANDIBLE LOCK Screw ∅ 2.0 mm, self-drilling, length 8 mm, Titanium Alloy (TAN), pack of 1 unit in Clip
04.503.xxx.04C	Other screws options are available. See the MatrixMANDIBLE Reconstruction Screws set.

03.503.471	Drill Bit ∅ 2.4 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.046
03.503.404	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for J-Latch Coupling
03.503.406	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for J-Latch Coupling
03.503.412	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for J-Latch Coupling
03.503.504	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for Mini Quick Coupling
03.503.506	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for Mini Quick Coupling
03.503.508	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/8 mm, 2-flute, for Mini Quick Coupling
03.503.512	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for Mini Quick Coupling
03.503.551	Drill Bit ∅ 1.5 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.561	Drill Bit ∅ 1.8 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.571	Drill Bit ∅ 2.4 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.046	Drill Sleeve 2.4, short, with thread, for MatrixMANDIBLE
03.503.068	Screwdriver Shaft MatrixMANDIBLE, long, not self-holding
03.503.069	Holding Sleeve, long, for No. 03.503.068

01.503.839	MatrixMANDIBLE Compact Trauma
61.503.839	Module MatrixMANDIBLE Compact Trauma, 3/3, with Lid, without Contents

MatrixMANDIBLE Mini Tension Band Plates, thickness 1.0 mm, Pure Titanium

Art. No.	Holes	Center	Malleable
04.503.702	2+2	Narrow	No
04.503.750	2+2	Broad	Yes
04.503.784	6	–	No

MatrixMANDIBLE Subcondylar Plates, thickness 1.0 mm, malleable, Pure Titanium

Art. No.	Holes	Side	Shape
04.503.830	7	Right	Lambda
04.503.831	7	Left	Lambda
04.503.834	4	–	Trapezoidal

MatrixMANDIBLE Adaption Plates, Pure Titanium

Art. No.	Holes	Thickness
04.503.706	20	1.0 mm
04.503.756	12	1.25 mm

MatrixMANDIBLE Plates, thickness 1.25 mm, Pure Titanium

Art. No.	Holes	Shape
04.503.711	2+2	Crescent

MatrixMANDIBLE DCP Plates, Pure Titanium

Art. No.	Holes	Thickness	Shape
04.503.712	3+3	1.25 mm	Straight
04.503.714	3+3	1.25 mm	Angled
04.503.724	3+3	1.5 mm	Straight

MatrixMANDIBLE Plates, thickness 1.5 mm, Pure Titanium

Art. No.	Holes	Shape
04.503.716	3+3	Straight
04.503.718	20	Straight
04.503.721	3+3	Angled

MatrixMANDIBLE Bending Templates

Art. No.	For Art. Nos.
03.503.160	04.503.701/702/703/704
03.503.161	04.503.750/751/752
03.503.162	04.503.705/706
03.503.163	04.503.710/712
03.503.164	04.503.711
03.503.165	04.503.713
03.503.166	04.503.714
03.503.167	04.503.756
03.503.168	04.503.715/717/718
03.503.169	04.503.716
03.503.170	04.503.721
03.503.171	04.503.722
03.503.172	04.503.723/724

MatrixMANDIBLE Screws, ∅ 2.0 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip

Art. No.	Length	Pitch
04.503.555.04C	5 mm	0.5 mm
04.503.556.04C	6 mm	0.5 mm
04.503.558.04C	8 mm	0.5 mm
04.503.410.04C	10 mm	1.0 mm
04.503.412.04C	12 mm	1.0 mm
04.503.414.04C	14 mm	1.0 mm

MatrixMANDIBLE LOCK Screws ∅ 2.0 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip

Art. No.	Length	Pitch
04.503.605.04C	5 mm	1.0 mm
04.503.606.04C	6 mm	1.0 mm
04.503.608.04C	8 mm	1.0 mm
04.503.610.04C	10 mm	1.0 mm
04.503.612.04C	12 mm	1.0 mm
04.503.614.04C	14 mm	1.0 mm

MatrixMANDIBLE Screws, ∅ 2.4 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip

Art. No.	Length	Pitch
04.503.436.04C	6 mm	1.0 mm
04.503.438.04C	8 mm	1.0 mm
04.503.440.04C	10 mm	1.0 mm
04.503.442.04C	12 mm	1.0 mm
04.503.444.04C	14 mm	1.0 mm

Drill Bits for J-Latch Coupling, 2 flute

Art. No.	∅	Stop	Length	For No.
03.503.404	1.5 mm	4 mm	50 mm	–
03.503.406	1.5 mm	6 mm	50 mm	–
03.503.408	1.5 mm	8 mm	50 mm	–
03.503.412	1.5 mm	12 mm	50 mm	–
03.503.451	1.5 mm	No	90 mm	03.503.043

Drill Sleeves, short, with thread, for MatrixMANDIBLE

Art. No.	For drill bit ∅
03.503.043	1.5 mm

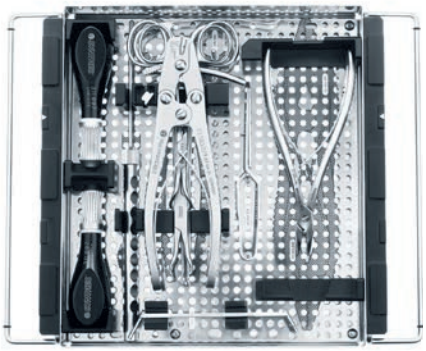
Screwdriver Shafts MatrixMANDIBLE, Self-holding, for Hexagonal Coupling

Art. No.	Length
03.503.071	Medium
03.503.072	Long

Screwdriver MatrixMANDIBLE, with Holding Sleeve, for Hexagonal Coupling

03.503.066	Screwdriver Shaft MatrixMANDIBLE, short, not self-holding
03.503.067	Holding Sleeve, short, for No. 03.503.066

The configuration proposed is based on the implants and instruments popularity with the surgeons. Other configurations are possible using the implants and instruments shown in this Technique Guide.



01.503.830	**MatrixMANDIBLE Trauma Instrument Set**
61.503.830	Instrument Tray MatrixMANDIBLE Trauma, 3/3, with Lid, without Contents

03.503.034	Plate Holder, long
03.503.036	Depth Gauge for MatrixMANDIBLE, measuring range from 6 to 40 mm
03.503.038	Bending Pliers for MatrixMIDFACE (required in pairs)
03.503.062	Holding Forceps for Plates, for MatrixMANDIBLE
03.503.079	Cutting Pliers, for MatrixMANDIBLE Plates 1.0 to 1.5, length 175 mm
398.985	Reduction Forceps with Points, ratchet lock, length 180 mm
398.986	Reduction Forceps with Points, ratchet lock, length 140 mm
311.007	Handle, large, with Hexagonal Coupling
312.220	Double Drill Guide 2.0/1.5

Additionally available:

03.503.040	Bending Pliers for MatrixMANDIBLE Plates, right
03.503.041	Bending Pliers for MatrixMANDIBLE Plates, left
329.148.05	Silicone Insert for Cutting Pliers for MatrixMANDIBLE No. 03.503.079
311.004	Screwdriver Handle, lockable, with Hexagonal Coupling
311.023	Ratcheting Screwdriver Handle, with Hexagonal Coupling
312.180	Double Drill Guide 2.4/1.8
311.006	Handle, medium, with Hexagonal Coupling
03.503.058	MatrixMANDIBLE Plate Holder, adjustable, complete
03.503.059	Tip for Plate Holder No. 03.503.058

01.503.837	**MatrixMANDIBLE Trauma Set, for use with sterile Implants**
61.503.837	Module MatrixMANDIBLE Trauma, 2/3, with Lid, without Contents, for use with sterile implants
03.503.408	Drill Bit ∅ 1.5 mm with Stop, length 50/8 mm, 2-flute, for J-Latch Coupling
03.503.451	Drill Bit ∅ 1.5 mm length 90 mm, for J-Latch Coupling, for No. 03.503.043
03.503.461	Drill Bit ∅ 1.8 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.044
03.503.043	Drill Sleeve 1.5, short, with thread, for MatrixMANDIBLE
03.503.044	Drill Sleeve 1.8, short, with thread, for MatrixMANDIBLE
03.503.070	Screwdriver Shaft MatrixMANDIBLE, short, self-holding, for Hexagonal Coupling
03.503.071	Screwdriver Shaft MatrixMANDIBLE, medium, self-holding, for Hexagonal Coupling
03.503.072	Screwdriver Shaft MatrixMANDIBLE, long, self-holding, for Hexagonal Coupling
03.503.066	Screwdriver Shaft MatrixMANDIBLE, short, not self-holding
03.503.067	Holding Sleeve, short, for No. 03.503.066
03.503.160	MatrixMANDIBLE template for 04.503.701/702/703/704
03.503.161	MatrixMANDIBLE template for 04.503.750/751/752
03.503.162	MatrixMANDIBLE template for 04.503.705/706
03.503.163	MatrixMANDIBLE template for 04.503.710/712
03.503.164	MatrixMANDIBLE template for 04.503.711
03.503.165	MatrixMANDIBLE template for 04.503.713
03.503.166	MatrixMANDIBLE template for 04.503.714
03.503.167	MatrixMANDIBLE template for 04.503.756
03.503.168	MatrixMANDIBLE template for 04.503.715/717/718
03.503.169	MatrixMANDIBLE template for 04.503.716
03.503.170	MatrixMANDIBLE template for 04.503.721
03.503.171	MatrixMANDIBLE template for 04.503.722
03.503.172	MatrixMANDIBLE template for 04.503.723/724
03.503.185	MatrixMANDIBLE template for 04.503.761

Additionally available:

03.503.471	Drill Bit ∅ 2.4 mm , length 90 mm, for J-Latch Coupling, for No. 03.503.046
03.503.404	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for J-Latch Coupling
03.503.406	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for J-Latch Coupling
03.503.412	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for J-Latch Coupling
03.503.504	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for Mini Quick Coupling
03.503.506	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for Mini Quick Coupling
03.503.508	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/8 mm, 2-flute, for Mini Quick Coupling
03.503.512	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for Mini Quick Coupling
03.503.551	Drill Bit ∅ 1.5 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.561	Drill Bit ∅ 1.8 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.571	Drill Bit ∅ 2.4 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.046	Drill Sleeve 2.4, short, with thread, for MatrixMANDIBLE
03.503.068	Screwdriver Shaft MatrixMANDIBLE, long, not self-holding
03.503.069	Holding Sleeve, long, for No. 03.503.068

Ordering sterile implants and drill bits (listed with the screw and plate modules):
– Screws: substitute “C” with “S” in the non-sterile item number.
– Plates and drill bits (above): add an “S” to the item number, e.g. 04.503.703 becomes 04.503.703S in sterile.

01.503.841	**MatrixMANDIBLE Transbuccal Instrument Set**
61.503.841	Instrument Tray for MatrixMANDIBLE Transbuccal Instruments, 1/3, with Lid, without Contents

397.211	Universal Handle for Drill Sleeves
397.213	Cannula and Obturator 2.0
397.232	Cheek Retractor, for MatrixMANDIBLE, U-shaped, flexible
397.430	Cheek Retractor Ring 2.0, for No. 397.213
397.420	Cheek Retractor 2.0, for No. 397.213
03.503.045	Drill Sleeve, long, for MatrixMANDIBLE
03.503.047	Drill Sleeve, long, with thread, for MatrixMANDIBLE

MatrixMANDIBLE Drill Bits, 2-flute, for J-Latch Coupling, for No. 03.503.045 and No. 03.503.047

Art. No.	∅
03.503.476	1.5 mm
03.503.477	1.8 mm
03.503.478	2.4 mm

Additionally available:
Drill Bits, 2-flute, length 125 mm, for Mini Quick Coupling, for No. 03.503.045 and No. 03.503.047

Art. No.	∅
03.503.479	1.5 mm
03.503.480	1.8 mm
03.503.481	2.4 mm

01.503.834	MatrixMANDIBLE Recon Plate Set
61.503.834	Module for MatrixMANDIBLE Recon Plates, 3/3, with Lid, without Contents

MatrixMANDIBLE Plates, thickness 2.0 mm, Pure Titanium

Art. No.	Shape	Center	Holes
04.503.726	Crescent	Broad	2+2
04.503.727	Crescent	Broad	3+3
04.503.728	Straight	–	6
04.503.729	Straight	–	12
04.503.731	Angled	Broad	3+3

MatrixMANDIBLE Reconstruction Plates, Pure Titanium

Art. No.	Shape	Holes	Thickness
04.503.730	Straight	20	2.0 mm
04.503.732	Angled, left	7+23	2.0 mm
04.503.733	Angled, right	7+23	2.0 mm
04.503.737	Straight	12	2.5 mm
04.503.738	Straight	20	2.5 mm
04.503.739	Angled, left	7+23	2.5 mm
04.503.740	Angled, right	7+23	2.5 mm
04.503.770	Straight	12	2.8 mm
04.503.771	Straight	20	2.8 mm
04.503.772	Angled, left	7+23	2.8 mm
04.503.773	Angled, right	7+23	2.8 mm

03.503.080	MatrixMANDIBLE Bending Screws

MatrixMANDIBLE Bending Templates

Art. No.	For Art. No.
03.503.173	04.503.726/727
03.503.174	04.503.728/729/730
03.503.175	04.503.731
03.503.176	04.503.732/733/785/786
03.503.180	04.503.737/738/770/771
03.503.181	04.503.739/740/772/773

Additionally available (do not fit in module):

Double Angle Recon Plates, sterile

Art. No.	Size	Thickness
04.503.787S	Small	1.5 mm
04.503.788S	Medium	1.5 mm
04.503.789S	Large	1.5 mm
04.503.734S	Small	2.0 mm
04.503.735S	Medium	2.0 mm
04.503.736S	Large	2.0 mm
04.503.741S	Small	2.5 mm
04.503.742S	Medium	2.5 mm
04.503.743S	Large	2.5 mm

MatrixMANDIBLE Bending Templates, sterile

Art. No.	For Art. No.
03.503.177S	04.503.734S/787S
03.503.178S	04.503.735S/788S
03.503.179S	04.503.736S/789S
03.503.182S	04.503.741S
03.503.183S	04.503.742S
03.503.184S	04.503.743S

01.503.836	MatrixMANDIBLE Recon Screw Set
61.503.836	Module for MatrixMANDIBLE Recon Screws, 3/3, with Lid, without Contents

MatrixMANDIBLE Screws, ∅ 2.4 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.435.04C	5 mm	1.0 mm
04.503.436.04C	6 mm	1.0 mm
04.503.438.04C	8 mm	1.0 mm
04.503.440.04C	10 mm	1.0 mm
04.503.442.04C	12 mm	1.0 mm
04.503.444.04C	14 mm	1.0 mm
04.503.446.04C	16 mm	1.0 mm
04.503.448.04C	18 mm	1.0 mm

MatrixMANDIBLE LOCK Screws ∅ 2.4 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.638.04C	8 mm	1.0 mm
04.503.640.04C	10 mm	1.0 mm
04.503.642.04C	12 mm	1.0 mm
04.503.644.04C	14 mm	1.0 mm
04.503.646.04C	16 mm	1.0 mm
04.503.648.04C	18 mm	1.0 mm

MatrixMANDIBLE Emergency Screws, ∅ 2.7 mm, self-tapping, Ti Alloy (TAN), pack of 1 unit in Clip

Art. No.	Length	Pitch
04.503.465.01C	5 mm	1.0 mm
04.503.466.01C	6 mm	1.0 mm
04.503.468.01C	8 mm	1.0 mm
04.503.470.01C	10 mm	1.0 mm
04.503.472.01C	12 mm	1.0 mm
04.503.474.01C	14 mm	1.0 mm
04.503.476.01C	16 mm	1.0 mm
04.503.478.01C	18 mm	1.0 mm

MatrixMANDIBLE LOCK Screws ∅ 2.9 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.668.04C	8 mm	1.0 mm
04.503.670.04C	10 mm	1.0 mm
04.503.672.04C	12 mm	1.0 mm
04.503.674.04C	14 mm	1.0 mm
04.503.676.04C	16 mm	1.0 mm
04.503.678.04C	18 mm	1.0 mm

Drill Bits for J-Latch Coupling, Length 90 mm

Art. No.	∅	For Art. No.
03.503.461	1.8 mm	03.503.044
03.503.471	2.4 mm	03.503.046

Drill Sleeves, short, with thread, for MatrixMANDIBLE

Art. No.	For drill bit ∅
03.503.044	1.8 mm
03.503.046	2.4 mm

Screwdriver Shafts MatrixMANDIBLE, Self-holding, for Hexagonal Coupling

Art. No.	Length
03.503.070	Short
03.503.071	Medium
03.503.072	Long

Screwdriver MatrixMANDIBLE, with Holding Sleeve, for Hexagonal Coupling

03.503.068	Screwdriver Shaft MatrixMANDIBLE, long, not self-holding
03.503.069	Holding Sleeve, long, for No. 03.503.068

Additionally available:

03.503.404	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for J-Latch Coupling
03.503.406	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for J-Latch Coupling
03.503.408	Drill Bit ∅ 1.5 mm with Stop, length 50/8 mm, 2-flute, for J-Latch Coupling
03.503.412	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for J-Latch Coupling
03.503.504	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for Mini Quick Coupling
03.503.506	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for Mini Quick Coupling
03.503.508	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/8 mm, 2-flute, for Mini Quick Coupling
03.503.512	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for Mini Quick Coupling
03.503.451	Drill Bit ∅ 1.5 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.043
03.503.551	Drill Bit ∅ 1.5 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.561	Drill Bit ∅ 1.8 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.571	Drill Bit ∅ 2.4 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.043	Drill Sleeve 1.5, short, with thread, for MatrixMANDIBLE
03.503.066	Screwdriver Shaft MatrixMANDIBLE, short, not self-holding
03.503.067	Holding Sleeve, short, for No. 03.503.066
04.503.xxx.04C	Other screws options are available. See the MatrixMANDIBLE Trauma Screws set.

* Also available in packs of 1 screw in Clip. Substitute ".04C" with ".01C" in the part number to order.

01.503.840	MatrixMANDIBLE Compact Recon Set
61.503.840	Module MatrixMANDIBLE Compact Recon, 3/3, with Lid, without Contents

MatrixMANDIBLE Plates, thickness 2.0 mm, Pure Titanium

Art. No.	Shape	Center	Holes
04.503.726	Crescent	Broad	2+2
04.503.727	Crescent	Broad	3+3
04.503.728	Straight	–	6
04.503.729	Straight	–	12
04.503.731	Angled	Broad	3+3

MatrixMANDIBLE Reconstruction Plates, Pure Titanium

Art. No.	Shape	Holes	Thickness
04.503.730	Straight	20	2.0 mm
04.503.732	Angled, left	7+23	2.0 mm
04.503.733	Angled, right	7+23	2.0 mm
04.503.737	Straight	12	2.5 mm
04.503.738	Straight	20	2.5 mm
04.503.739	Angled, left	7+23	2.5 mm
04.503.740	Angled, right	7+23	2.5 mm

03.503.080	MatrixMANDIBLE Bending Insert Screws

MatrixMANDIBLE Bending Templates

Art. No.	For Art. Nos.
03.503.173	04.503.726/727
03.503.174	04.503.728/729/730
03.503.175	04.503.731
03.503.176	04.503.732/733
03.503.180	04.503.737/738/770/771
03.503.181	04.503.739/740/772/773

MatrixMANDIBLE Screws, ∅ 2.4 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip

Art. No.	Length	Pitch
04.503.438.04C	8 mm	1.0 mm
04.503.440.04C	10 mm	1.0 mm
04.503.442.04C	12 mm	1.0 mm
04.503.444.04C	14 mm	1.0 mm
04.503.446.04C	16 mm	1.0 mm

MatrixMANDIBLE LOCK Screws ∅ 2.4 mm, self-tapping, Ti Alloy (TAN), pack of 4 units in Clip*

Art. No.	Length	Pitch
04.503.638.04C	8 mm	1.0 mm
04.503.640.04C	10 mm	1.0 mm
04.503.642.04C	12 mm	1.0 mm
04.503.644.04C	14 mm	1.0 mm
04.503.646.04C	16 mm	1.0 mm

MatrixMANDIBLE Emergency Screws, ∅ 2.7 mm, self-tapping, Ti Alloy (TAN), pack of 1 unit in Clip

Art. No.	Length	Pitch
04.503.468.01C	8 mm	1.0 mm
04.503.470.01C	10 mm	1.0 mm
04.503.472.01C	12 mm	1.0 mm
04.503.474.01C	14 mm	1.0 mm
04.503.476.01C	16 mm	1.0 mm

Drill Sleeves, short, with thread, for MatrixMANDIBLE

Art. No.	For drill bit ∅
03.503.044	1.8 mm

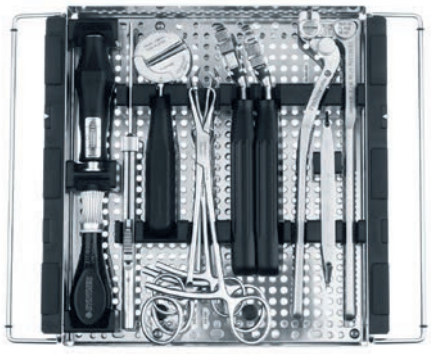
Screwdriver Shafts MatrixMANDIBLE, Self-holding, for Hexagonal Coupling

Art. No.	Length
03.503.071	Medium
03.503.072	Long

Screwdriver MatrixMANDIBLE, with Holding Sleeve, for Hexagonal Coupling

03.503.068	Screwdriver Shaft MatrixMANDIBLE, long, not self-holding
03.503.069	Holding Sleeve, long, for No. 03.503.068

The configuration proposed is based on the implants and instruments popularity with the surgeons. Other configurations are possible using the implants and-instruments shown in this Technique Guide.

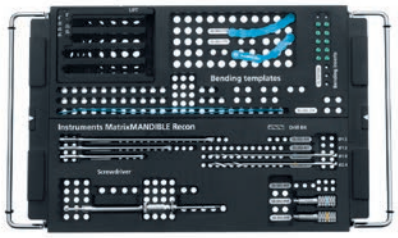


01.503.831	**MatrixMANDIBLE Recon Instrument Set**
61.503.831	Instrument Tray MatrixMANDIBLE Recon, 3/3, with Lid, without Contents

03.503.056	Bending Pliers with Nose, for MatrixMANDIBLE Plates
03.503.077	Bending Iron for MatrixMANDIBLE Plates, left
03.503.078	Bending Iron for MatrixMANDIBLE Plates, right
398.660	Holding Forceps with Ball, ratchet lock, length 180 mm
398.985	Reduction Forceps with Points, ratchet lock, length 180 mm
398.986	Reduction Forceps with Points, ratchet lock, length 140 mm
03.503.057	Shortcut for MatrixMANDIBLE Plates, thickness 1.5 to 2.8, with Rasp, required in pairs
03.503.036	Depth Gauge for MatrixMANDIBLE, measuring range from 6 to 40 mm
311.023	Ratcheting Screwdriver Handle, with Hexagonal Coupling
311.007	Handle, large, with Hexagonal Coupling
312.180	Double Drill Guide 2.4/1.8

Additionally available:

311.004	Screwdriver Handle, lockable, with Hexagonal Coupling
312.220	Double Drill Guide 2.0/1.5
311.006	Handle, medium, with Hexagonal coupling



01.503.838	MatrixMANDIBLE Recon Set, for use with sterile Implants
61.503.838	Module MatrixMANDIBLE Recon, 2/3, with Lid, without Contents, for use with sterile implants
03.503.461	Drill Bit, ∅ 1.8 mm, length 90 mm, for J-Latch-Coupling
03.503.471	Drill Bit, ∅ 2.4 mm, length 90 mm, for J-Latch-Coupling
03.503.044	Drill Sleeve 1.8, short, with thread
03.503.046	Drill Sleeve 2.4, short, with thread
03.503.068	Screwdriver Shaft MatrixMANDIBLE, long, not self-holding
03.503.069	Holding Sleeve, long, for No. 03.503.068
03.503.070	Screwdriver Shaft MatrixMANDIBLE, short, self-holding, for Hexagonal Coupling
03.503.071	Screwdriver Shaft MatrixMANDIBLE, medium, self-holding, for Hexagonal Coupling
03.503.072	Screwdriver Shaft MatrixMANDIBLE, long, self-holding, for Hexagonal Coupling
03.503.080	MatrixMANDIBLE Bending Screws
03.503.173	MatrixMANDIBLE template for 04.503.726/727
03.503.174	MatrixMANDIBLE template for 04.503.728/729/730
03.503.175	MatrixMANDIBLE template for 04.503.731
03.503.176S	MatrixMANDIBLE template for 04.503.732/733 (does not fit in the case)
03.503.180	MatrixMANDIBLE template for 04.503.737/738/770/771
03.503.181S	MatrixMANDIBLE template for 04.503.739/740/772/773 (does not fit in the case)

Additionally available:

03.503.404	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for J-Latch Coupling
03.503.406	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for J-Latch Coupling
03.503.408	Drill Bit ∅ 1.5 mm with Stop, length 50/8 mm, 2-flute, for J-Latch Coupling
03.503.412	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for J-Latch Coupling
03.503.504	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/4 mm, 2-flute, for Mini Quick Coupling
03.503.506	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/6 mm, 2-flute, for Mini Quick Coupling
03.503.508	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/8 mm, 2-flute, for Mini Quick Coupling
03.503.512	Drill Bit ∅ 1.5 mm with Stop, for MatrixMANDIBLE, length 50/12 mm, 2-flute, for Mini Quick Coupling
03.503.451	Drill Bit ∅ 1.5 mm, length 90 mm, for J-Latch Coupling, for No. 03.503.043
03.503.551	Drill Bit ∅ 1.5 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.561	Drill Bit ∅ 1.8 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.571	Drill Bit ∅ 2.4 mm, for MatrixMANDIBLE, length 90 mm, 2-flute, for Mini Quick Coupling
03.503.043	Drill Sleeve 1.5, short, with thread, for MatrixMANDIBLE
03.503.066	Screwdriver Shaft MatrixMANDIBLE, short, not self-holding
03.503.067	Holding Sleeve, short, for No. 03.503.066

Ordering sterile implants and drill bits (listed with the screw and plate modules):
– Screws: substitute "C" with "S" in the non-sterile item number.
– Plates and drill bits (above): add an "S" to the item number, e.g. 04.503.733 becomes 04.503.733S in sterile.

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