MatrixORTHOGNATHIC.
Specialized implants and instruments for orthognathic surgery.
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**Warning**

This description alone does not provide sufficient background for direct use of the instrument set. Instruction by a surgeon experienced in handling these instruments is highly recommended.

**Reprocessing, Care and Maintenance of Synthes Instruments**

For general guidelines, function control and dismantling of multi-part instruments, please contact your local sales representative or refer to:

www.synthes.com/reprocessing
MatrixORTHOGNATHIC. Specialized implants and instruments for orthognathic surgery.

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 anatomical reduction, stable fixation, preservation of blood supply, and early, active mobilization.\textsuperscript{1,2} Plate and screw osteosynthesis has been established and clinically recognized for some time.

Keeping the AO philosophy at its core, Matrix is the new plating platform for internal fixation of the cranio-maxillofacial skeleton – addressing neuro, craniofacial, mandibular, and orthognathic surgery. Matrix is a simple yet comprehensive system that offers flexibility and ease of use.

Simple
- All screws work with all plates within each Matrix system
- One blade for all screws within each Matrix system
- Color coding by strength for easy identification

Effective
- Low plate-screw profile, where applicable
- Self retaining screws/blades
- Rounded edges on plates

Efficient
- Standardized instrumentation
- Reduces inventory for hospitals, without compromising clinical solutions


One screw diameter for all orthognathic indications

Reversible L-plates

Simple yet comprehensive system for orthognathic surgery

Maxilla  Mandible  Mandible
MatrixORTHOGNATHIC is a simple yet comprehensive system that offers precise implants and instruments for orthognathic surgery.

- One standard screw diameter for all orthognathic indications in the midface and mandible
- Reversible plates allow for reduced inventory (where applicable)
- Etched lines, in 1 mm increments, on implants provide visual aid for plate bending (where applicable)
- Color coding by strength for easy identification
- Compatible with MatrixMIDFACE systems
- The Implants and Instruments Module for MatrixORTHOGNATHIC has multiple auxiliary bins and it can be configured to accommodate various combinations of plates

**MatrixORTHOGNATHIC screws**

*One standard screw diameter:*
- Ø 1.85 mm screws (LeFort I*, BSSO, Genioplasty*)
- Ø 2.1 mm screws serve as emergency screws

*Screw designs include:*
- Self-drilling (purple)
- Self-tapping (blue)
- Emergency (pink)

*Screws lengths/thread pitch include:*
- 4 mm – 8 mm/0.6 mm thread pitch
- 10 mm – 28 mm/1.0 mm thread pitch

*Screw recess design allows for:*
- Self-retention for screwdriver blades
- Reduced screwdriver blade cam-out**
- Easy screw/blade re-engagement

Made from titanium alloy

*Notes:*
- A Ø 1.5 mm MatrixMIDFACE screw is also compatible with the MatrixORTHOGNATHIC System.
- See page 16 and 19 “Precautions” for limitations regarding mandibular applications.
- See page 30 for ordering information.

** Data on file at Synthes
MatrixORTHOGNATHIC plates

Maxillary plates:
- Low profile
- All plates made from commercially pure titanium

L-plates:
- Straight and anatomic design
- Reversible design
- Bar width increases as bar length gets longer
- Etched lines, in 1 mm increments, to facilitate bending and placement
- Plates available in 0.5 mm (blue), 0.7 mm (pink) and 0.8 mm (gold) thicknesses

Adaption plates:
- Plates available with 20 holes
- Plates available in 0.5 mm (blue), 0.7 mm (pink), and 0.8 mm (gold) thicknesses

Sagittal split plates:
- Etched lines, in 1 mm increments, to facilitate bending and placement
- Low profile
- All plates made from commercially pure titanium

SplitFix plates:
- Double-strut design with a low profile
- Slider allows intraoperative correction of occlusion during plate fixation
- Plates available 0.7 mm (pink) thickness

Curved and straight BSSO plates:
- Both designs with 6 mm to 12 mm bar lengths
- Plates available in 1.0 mm (gold) thickness

Genioplasty plates:
- Prebent chin plates with 4 mm to 10 mm offsets
- For ease of identification offset etched on plates
- Etched midline for easy centering
- Low profile
- Plates available in 0.7 mm (pink) thickness
- Plates made from commercially pure titanium

Vertical ramus osteotomy (VRO) plates:
- Prebent VRO plates with 0 mm to 6 mm offsets
- For ease of identification offset and site
  (L = Left or R = Right) etched on plates
- Left and right design
- Low profile
- Plates available in 0.7 mm (pink) thickness
- Plates made from commercially pure titanium
The color coding of implants in the MatrixORTHOGNATHIC system helps to identify the level of strength. The color-coding scale for plates and screws conforms to the Matrix System Strength color-coding scheme:

Matrix Plates
- Blue = 0.5 mm thick plates
- Pink = 0.7 mm thick plates
- Gold = 0.8 mm thick and greater plates

Matrix Screws
- Blue = Ø 1.85 mm self-tapping screws
- Purple = Ø 1.85 mm self-drilling screws
- Pink = Ø 2.1 mm self-tapping emergency screws

Also available:
- Bronze = self-tapping Ø 1.5 mm MatrixMIDFACE screws
- Silver = self-drilling Ø 1.5 mm MatrixMIDFACE screws

Notes:
- A Ø 1.5 mm MatrixMIDFACE screw is also compatible with the MatrixORTHOGNATHIC system.
- See page 16 and 19 “Precautions” for limitations regarding mandibular applications.
- See page 30 for ordering information.

### Matrix Ø 1.85 mm screws

<table>
<thead>
<tr>
<th>Screw diameter</th>
<th>Lengths</th>
<th>Thread pitch</th>
<th>Drill bit diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85 mm</td>
<td>4–8 mm</td>
<td>0.6 mm</td>
<td>1.4 mm</td>
</tr>
<tr>
<td>1.85 mm</td>
<td>10–28 mm</td>
<td>1.0 mm</td>
<td>1.4 mm</td>
</tr>
</tbody>
</table>

### Matrix Ø 2.1 mm screws (emergency)

<table>
<thead>
<tr>
<th>Screw diameter</th>
<th>Lengths</th>
<th>Thread pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 mm</td>
<td>4–8 mm</td>
<td>0.6 mm</td>
</tr>
<tr>
<td>2.1 mm</td>
<td>10–18 mm</td>
<td>1.0 mm</td>
</tr>
</tbody>
</table>

### MatrixMIDFACE Ø 1.5 mm screws

<table>
<thead>
<tr>
<th>Screw diameter</th>
<th>Lengths</th>
<th>Thread pitch</th>
<th>Drill bit diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm</td>
<td>4–8 mm</td>
<td>0.6 mm</td>
<td>1.1 mm</td>
</tr>
<tr>
<td>1.5 mm</td>
<td>10–18 mm</td>
<td>0.6 mm</td>
<td>1.25 mm</td>
</tr>
</tbody>
</table>

* For surgical technique and product information for MatrixORTHOGNATHIC LOCK see 036.001.388.
In 1958, the AO formulated four basic principles, which have become the guidelines for internal fixation\(^1\), \(^2\). 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 or splintage, as the personality of the fracture and the injury requires. The MatrixORTHOGNATHIC plates and screws are optimized 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.

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

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## Intended Use and Indications

### Intended Use
The Synthes MatrixORTHOGNATHIC System is intended for use as a stable internal bone fixation system in orthognathic surgery (surgical correction of dentofacial deformities).

### Indications
The Synthes MatrixORTHOGNATHIC System is indicated for use in oral, craniofacial and maxillofacial surgery, such as trauma, reconstruction, orthognathic surgery (surgical correction of dentofacial deformities) of the craniofacial skeleton, mandible and chin, and surgical treatment of obstructive sleep apnea.

<table>
<thead>
<tr>
<th>Implant</th>
<th>Picture</th>
<th>Recommended anatomic location</th>
<th>Indication(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix 90-degree L-Plate, 2+2 holes, reversible; 0.5, 0.7 and 0.8 mm thick</td>
<td></td>
<td>Maxilla</td>
<td>Orthognathic Trauma Reconstruction</td>
</tr>
<tr>
<td>Matrix L-Plate, 3+3 holes, reversible; 0.5, 0.7 and 0.8 mm thick</td>
<td></td>
<td>Maxilla</td>
<td>Orthognathic Trauma Reconstruction</td>
</tr>
<tr>
<td>Matrix Anatomic L-Plate, 3+3 holes, reversible; 0.5, 0.7 and 0.8 mm thick</td>
<td></td>
<td>Maxilla</td>
<td>Orthognathic Trauma Reconstruction</td>
</tr>
<tr>
<td>Matrix L-Plate, 4+3 holes, reversible; 0.5, 0.7 and 0.8 mm thick</td>
<td></td>
<td>Maxilla</td>
<td>Orthognathic Trauma Reconstruction</td>
</tr>
<tr>
<td>Implant</td>
<td>Picture</td>
<td>Recommended anatomic location</td>
<td>Indication(s)</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Matrix L-Plate, with centre space 7 mm, 2+2 holes; 0.5 and 0.7 mm thick</td>
<td><img src="image" alt="Matrix L-Plate" /></td>
<td>Maxilla</td>
<td>Orthognathic Trauma</td>
</tr>
<tr>
<td>Matrix Maxillary Plate, prebent, left and right; 0.8 mm thick</td>
<td><img src="image" alt="Matrix Maxillary Plate" /></td>
<td>Maxilla</td>
<td>Orthognathic Trauma</td>
</tr>
<tr>
<td>Matrix Sagittal Split Plate, curved, with intersection bar, 6 holes; 1.0 mm thick</td>
<td><img src="image" alt="Matrix Sagittal Split Plate" /></td>
<td>Mandible</td>
<td>Orthognathic Trauma</td>
</tr>
<tr>
<td>Matrix Sagittal Split Plate, straight, with intersection bar, 4 holes; 1.0 mm thick</td>
<td><img src="image" alt="Matrix Sagittal Split Plate" /></td>
<td>Mandible</td>
<td>Orthognathic Trauma</td>
</tr>
<tr>
<td>Matrix SplitFix Plate, 4 holes; 0.7 mm thick</td>
<td><img src="image" alt="Matrix SplitFix Plate" /></td>
<td>Mandible</td>
<td>Orthognathic</td>
</tr>
<tr>
<td>Matrix Chin Plate, double curved, with offset, 5 holes; 0.7 mm thick</td>
<td><img src="image" alt="Matrix Chin Plate" /></td>
<td>Mandible</td>
<td>Orthognathic</td>
</tr>
<tr>
<td>Matrix Vertical Ramus Osteotomy Plate, with offset, left and right; 0.7 mm thick</td>
<td><img src="image" alt="Matrix Vertical Ramus Osteotomy Plate" /></td>
<td>Mandible</td>
<td>Orthognathic</td>
</tr>
</tbody>
</table>
Maxillary/LeFort I Plate Fixation

1 Select plate design

After the osteotomy has been performed and the new position of the maxilla has been established, select the appropriate plate shape and thickness that best suits the bony anatomy, treatment objective and the quantity and quality of bone.

- L-plates and 90 degree L-plates are recommended for both medial and lateral buttress fixation.
- Prebent Maxillary plates are recommended for medial buttress fixation.
- Anatomic L-Plates are recommended for lateral buttress fixation.

2 Select and form bending template

**Instruments**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.511.360</td>
<td>Bending Templates for Matrix Anatomic L-plates, 3+3 holes</td>
</tr>
<tr>
<td>03.511.362</td>
<td>Matrix Anatomic L-plates, 3+3 holes</td>
</tr>
<tr>
<td>03.511.363</td>
<td>Bending Templates for Matrix L-plates, 3+3 holes</td>
</tr>
<tr>
<td>03.511.365</td>
<td>Matrix L-plates, 3+3 holes</td>
</tr>
<tr>
<td>03.511.366</td>
<td>Bending Templates for Matrix 90° L-Plates, 2+2 holes</td>
</tr>
<tr>
<td>03.511.368</td>
<td>Matrix 90° L-Plates, 2+2 holes</td>
</tr>
</tbody>
</table>

Select the appropriate shape and length of bending template according to the plate selection and form it to the bony anatomy.
3

Adapt plate to the bone

<table>
<thead>
<tr>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.503.035  Bending Pliers 3D for MatrixMIDFACE Plates</td>
</tr>
<tr>
<td>03.503.038  Bending Pliers for MatrixMIDFACE Plates</td>
</tr>
<tr>
<td>03.503.039  Plate Cutter for MatrixMIDFACE</td>
</tr>
</tbody>
</table>

Cut and contour the plate according to the bending template and bony anatomy using the plate cutter and the bending pliers, respectively. Bend the plate between the holes as necessary. Ensure that the plate is adapted to the bony anatomy.

**Note:** Etched lines, in 1 mm increments, to facilitate bending and placement.

**Precaution:** Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.

**Warnings:**
- Do not alter the bend of the prebent plates by more than 1 mm in either direction.
- Do not excessively bend the plates as it may produce internal stresses which may become the focal point for eventual breakage of the implant.
Fixate plate to the bone

If pilot hole is desired, select the appropriate ø 1.4 mm drill bit length to allow for the adequate clearance of nerves, tooth buds and/or tooth roots.

Insert the appropriate length ø 1.85 mm Matrix screws to fixate the plate to the underlying bone.

Note: Self-tapping and self-drilling screws are available.

Precautions:
- Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation. Always irrigate during drilling.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires a minimum of two screws per segment.
Select plate design

After the sagittal split osteotomy, adjust the occlusion and the joint-bearing segment, and stabilize by intermaxillary fixation.

Select the appropriate plate shape that best suits the bony anatomy, treatment objective and the quantity and quality of bone.

The straight and curved sagittal split plates are available for mono-cortical screw placement.

The SplitFix plate with adjustable slider is also available if intraoperative occlusal adjustments are necessary (see additional technique steps on pages 17 to 21).

Notes:

– For bicortical screw placement, Ø 1.85 mm Matrix screws are available in lengths of up to 28 mm (position screws). Pre-drill using a Ø 1.4 mm drill bit without stop.
– The 10–28 mm length screws have a larger head diameter for better visibility and force transmission.
Select and form bending template

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.511.369 – 03.511.372</td>
<td>Bending Template for Matrix Plate, for sagittal split, curved</td>
</tr>
<tr>
<td>03.511.373 – 03.511.376</td>
<td>Bending Template for Matrix Plate, for sagittal split, straight</td>
</tr>
</tbody>
</table>

Select the appropriate shape and length of bending template according to the plate selection and form it to the bony anatomy.
3

Adapt plate to the bone

Instrument

03.503.038  Bending Pliers for MatrixMIDFACE Plates (2 required)

Contour the plate according to the bending template and bony anatomy using the bending pliers. Bend the plate between the holes as necessary. Ensure that the plate is adapted to the bony anatomy.

Note: Etched lines, in 1 mm increments, to facilitate bending and placement.

Precaution: Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.

Warnings:
– Do not alter the bend of the prebent plates by more than 1 mm in either direction.
– Do not excessively bend the plates as it may produce internal stresses which may become the focal point for eventual breakage of the implant.
Fixate plate to the bone

If pilot hole is desired, select the appropriate 1.4 mm drill bit length to allow for the adequate clearance of nerves, tooth buds and/or tooth roots.

Insert the appropriate length 1.85 mm Matrix screws to fixate the plate to the underlying bone.

Note: Self-tapping and self-drilling screws are available.

Precautions:
- Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation.
  
  Always irrigate during drilling.
- The Ø 1.5 mm MatrixMIDFACE screw is not recommended for sagittal split fixation.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires a minimum of two screws per segment.
1  
**Select plate design**

The SplitFix plates with self-holding slider are available for cases in which intra-operative occlusal adjustments are necessary.

After sagittal split osteotomy, adjust the occlusion and the proximal segment, and stabilize by intermaxillary fixation. Select the appropriate SplitFix plate that best suits the bony anatomy, treatment objective and the quantity and quality of bone.

2  
**Select and form bending template**

**Instruments**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.511.377</td>
<td>Bending template for Matrix</td>
</tr>
<tr>
<td>03.511.378</td>
<td>SplitFix Plate</td>
</tr>
</tbody>
</table>

Select the appropriate length of bending template according to the plate selection and form it to the bony anatomy.
3
Adapt plate to the bone

Instrument

<table>
<thead>
<tr>
<th>Instrument Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.503.038</td>
<td>Bending Pliers for MatrixMIDFACE Plates</td>
</tr>
</tbody>
</table>

Contour the plate according to the bending template and bony anatomy using the bending pliers. Bend the plate between the holes as necessary. Ensure that the plate is adapted to the bony anatomy.

Notes:
- Etched lines, in 1 mm increments, to facilitate bending and placement.
- Since the slider will not slide in the contoured section, the plate should be contoured as far proximally as possible.

Precaution: Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots and the edge of the bone.

Warning: Do not excessively bend the plates as it may produce internal stresses which may become the focal point for eventual breakage of the implant.
Primary plate fixation

If pilot hole is desired, select the appropriate \( \varnothing 1.4 \) mm drill bit length to allow for the adequate clearance of nerves, tooth buds and/or tooth roots.

Fixate the SplitFix plate to the bone by drilling and inserting the proper length \( \varnothing 1.85 \) mm Matrix Screws in the specified sequence as shown in Figure 2 (1,2,3). Screws should be placed mono-cortically.

Note: Self-tapping and self-drilling screws are available.

Precautions:
- Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone, and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation. Always irrigate during drilling.
- The \( \varnothing 1.5 \) mm MatrixMIDFACE screw is not recommended for sagittal split fixation.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires a minimum of two screws per segment.
5

Intraoperative correction of occlusion

Release the intermaxillary fixation and inspect the occlusion. If the occlusion needs to be adjusted, loosen the screw 3 in the slider plate.

The distal bone segment can now be shifted horizontally and vertically until the occlusion has been corrected.

Retighten the screw 3 in the slider. The process can be repeated as many times as necessary.

Note: Ensure that the desired condylar positioning has been achieved.
Final plate fixation

Using a 1.4 mm drill bit to pre-drill, insert the remaining 1.85 mm Matrix screws of the appropriate length in holes 4 and 5.

Remove the screw 3 and slider plate component. Repeat this step on contralateral side. Ensure fixation of the mandible is adequate to withstand the sagittal forces.

Precautions:
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone, and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation. Always irrigate during drilling.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires two screws per segment.

Warnings:
- The slider is used strictly for intraoperative use only; do not leave it in situ.
- Previous changes in the temporomandibular joint may affect surgical outcome.
1
Select plate design

After the osteotomy has been performed and the position/advancement of the genioglossus segment has been established, select the plate size that best suits the bony anatomy, treatment objective, and the quantity and quality of bone.

The prebent double curved Matrix chin plates are available in 4 mm to 10 mm offsets.
2

Adapt plate to the bone

Instruments

| 03.503.038 | Bending Pliers for MatrixMIDFACE Plates (2 required) |

Contour the selected plate to the bone using the bending pliers. Bend the plate between the holes as necessary. Ensure the plate is adapted to the bony anatomy.

Note: Etched centerline helps with plate alignment on the bone.

Precaution: Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.

Warnings:
- Do not alter the bend in the prebent plates to achieve more than a 1 mm adjustment in either direction.
- Do not excessively bend the plates as it may produce internal stresses which may become the focal point for eventual breakage of the implant.
3

Fixate plate to the bone

If pilot hole is desired, select the appropriate Ø 1.4 mm drill bit length to allow for the adequate clearance of nerves, tooth buds and/or tooth roots.

Insert the appropriate length Ø 1.85 mm Matrix screws to fixate the plate to the underlying bone.

**Note:** Self-tapping and self-drilling screws are available.

**Precautions:**
- Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone, and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation. Always irrigate during drilling.
- The Ø 1.5 mm MatrixMIDFACE screw is not recommended for genioplasty fixation.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires a minimum of two screws per segment.
Vertical Ramus Osteotomy Fixation

1 Select plate design

After the vertical ramus osteotomy has been performed, position the distal segment with the teeth wired into intermaxillary fixation on a pre-planned surgical splint. Select the appropriate plate design that best suits the bony step created from the overlap of the bony segments, and the quantity and quality of bone.

The Matrix Vertical Ramus Osteotomy plates are prebent, available in left and right design and in 0 (flat), 2, 4 and 6 mm offsets.
2

Adapt plate to the bone

Instrument

03.503.038  Bending Pliers for MatrixMIDFACE Plates
(2 required)

Contour the selected plate to the bone using the bending pliers. Bend the plate between the holes as necessary.

In reducing the acute bend of the plate, the bony edge of the proximal segment can be trimmed down to enable easier adaptation of the plate to the bone. Ensure that the plate is adapted to the bony anatomy.

Precaution:
– Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.

Warnings:
– Do not alter the bend in the prebent plates by more than 1 mm in either direction.
– Do not excessively bend the plates as it may produce internal stresses which may become the focal point for eventual breakage of the implant.
Primary plate fixation

To fixate the Matrix Vertical Ramus Osteotomy plate to the bone, use a 90° screwdriver (see brochure 036.000.011) with a Ø 1.4 mm drill bit to pre-drill and insert the Ø 1.85 mm Matrix screws of the appropriate length in the specified sequence 123. The two screws on the proximal segment are fixed first. Place the third screw at the sliding slot by using the Subcondylar Ramus Fixation Set (see technique guide 036.000.564).

The screws placed on the proximal bone segment can be fixed bi-cortically whereas the screws placed on the distal segment are recommended to be fixed mono-cortically in the region where the path of inferior alveolar nerve may be damaged.

Note: Self-tapping and self-drilling screws are available.

Precautions:
- Confirm that plate positioning, drill bit and screw length allow for adequate clearance of nerves, tooth buds and/or tooth roots, and the edge of the bone.
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation. Always irrigate during drilling.
- The Ø 1.5 mm MatrixMIDFACE screw is not recommended for vertical ramus osteotomy fixation.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires a minimum of two screws per segment.
4
Repeat steps for bilateral procedure
Repeat steps 123 on the contralateral side.

5
Intraoperative correction of occlusion

Release the intermaxillary fixation and inspect the occlusion. If the occlusion needs to be adjusted, loosen the screw 3 in the plate slot.

The distal bone segment can now be shifted in the sagittal plane until the occlusion has been corrected.

Retighten the screw 3 in the plate slot.

The process can be repeated if necessary.

Note: Ensure that the desired condylar position has been achieved.
Final plate fixation

Using a 90° screwdriver with a Ø 1.4 mm drill bit, insert the remaining Ø 1.85 mm Matrix screws of the appropriate length in holes 4 and 5. Alternatively, the screws may be inserted transorally with a standard screwdriver shaft.

Optional: Remove the screw 3 from the plate slot.

Repeat this step for the contra-lateral side.

Tighten all screws to ensure fixation of the mandible is adequate to withstand the sagittal forces.

Precautions:
- Drilling speed should never exceed 1800 RPM. Higher rates can result in thermal generated necrosis of the bone and an increased hole diameter. The detriments of an oversized hole include reduced pullout force, increased ease of screws stripping in bone, and/or suboptimal fixation. Always irrigate during drilling.
- Use the appropriate amount of screws to achieve stable fixation. Stable fixation requires 2 screws per segment.

Warning: Previous changes in the temporomandibular joint or preoperative temporomandibular disorder may affect surgical outcomes.
### Matrix screws, Titanium alloy (TAN)*

**Matrix screws Ø 1.85 mm, self-tapping, in clip**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Length</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.204.01C</td>
<td>4 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.205.01C</td>
<td>5 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.206.01C</td>
<td>6 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.208.01C</td>
<td>8 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.210.01C</td>
<td>10 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.212.01C</td>
<td>12 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.214.01C</td>
<td>14 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.216.01C</td>
<td>16 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.218.01C</td>
<td>18 mm</td>
<td></td>
</tr>
</tbody>
</table>

**Matrix screws Ø 1.85 mm, self-drilling, in clip**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.224.01C</td>
<td>4 mm</td>
</tr>
<tr>
<td>04.511.225.01C</td>
<td>5 mm</td>
</tr>
<tr>
<td>04.511.226.01C</td>
<td>6 mm</td>
</tr>
<tr>
<td>04.511.228.01C</td>
<td>8 mm</td>
</tr>
</tbody>
</table>

**Matrix screws Ø 2.1 mm, self-tapping, in clip**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Length</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.234.01C</td>
<td>4 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.235.01C</td>
<td>5 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.236.01C</td>
<td>6 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.238.01C</td>
<td>8 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.240.01C</td>
<td>10 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.242.01C</td>
<td>12 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.244.01C</td>
<td>14 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.246.01C</td>
<td>16 mm</td>
<td></td>
</tr>
<tr>
<td>04.511.248.01C</td>
<td>18 mm</td>
<td></td>
</tr>
</tbody>
</table>

* Refer to page 43 for the ordering information on sterile implants and drill bits.

** 4–12 mm screw lengths are also available in packs of 4 screws in clip. Substitute ".01C" with ".04C" in the part number to order.

Other Matrix screws additionally available.
**Matrix plates, Pure titanium**

**90-degree L-plates, 2 + 2 holes, reversible**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Bar length</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.301</td>
<td>short</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.302</td>
<td>medium</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.303</td>
<td>long</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.304</td>
<td>short</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.305</td>
<td>medium</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.306</td>
<td>long</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.307</td>
<td>short</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.308</td>
<td>medium</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.309</td>
<td>long</td>
<td>0.8 mm</td>
</tr>
</tbody>
</table>

**L-plates, 3 + 3 holes, reversible**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Bar length</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.321</td>
<td>short</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.322</td>
<td>medium</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.323</td>
<td>long</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.324</td>
<td>short</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.325</td>
<td>medium</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.326</td>
<td>long</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.327</td>
<td>short</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.328</td>
<td>medium</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.329</td>
<td>long</td>
<td>0.8 mm</td>
</tr>
</tbody>
</table>

* Refer to page 43 for the ordering information on sterile implants and drill bits.
**Implants**

### L-plates, 4 + 3 holes, reversible

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Bar length</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.331</td>
<td>short</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.332</td>
<td>medium</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.333</td>
<td>large</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.334</td>
<td>short</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.335</td>
<td>medium</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.336</td>
<td>large</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.337</td>
<td>short</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.338</td>
<td>medium</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.339</td>
<td>large</td>
<td>0.8 mm</td>
</tr>
</tbody>
</table>

### Anatomic L-plates, 3 + 3 holes, reversible*

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Bar length</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.341</td>
<td>short</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.342</td>
<td>medium</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.343</td>
<td>long</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.344</td>
<td>short</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.345</td>
<td>medium</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.346</td>
<td>long</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.511.347</td>
<td>short</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.348</td>
<td>medium</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>04.511.349</td>
<td>long</td>
<td>0.8 mm</td>
</tr>
</tbody>
</table>

### L-Plates, 2 + 2 holes

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Intersection bar</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.350</td>
<td>7 mm</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.511.370</td>
<td>7 mm</td>
<td>0.7 mm</td>
</tr>
</tbody>
</table>

* Refer to page 43 for the ordering information on sterile implants and drill bits.
Maxillary plates, prebent, thickness 0.8 mm*

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Shape</th>
<th>Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.381</td>
<td>left</td>
<td>2 mm</td>
</tr>
<tr>
<td>04.511.382</td>
<td>right</td>
<td>2 mm</td>
</tr>
<tr>
<td>04.511.383</td>
<td>left</td>
<td>4 mm</td>
</tr>
<tr>
<td>04.511.384</td>
<td>right</td>
<td>4 mm</td>
</tr>
<tr>
<td>04.511.385</td>
<td>left</td>
<td>6 mm</td>
</tr>
<tr>
<td>04.511.386</td>
<td>right</td>
<td>6 mm</td>
</tr>
<tr>
<td>04.511.387</td>
<td>left</td>
<td>8 mm</td>
</tr>
<tr>
<td>04.511.388</td>
<td>right</td>
<td>8 mm</td>
</tr>
<tr>
<td>04.511.389</td>
<td>left</td>
<td>10 mm</td>
</tr>
<tr>
<td>04.511.390</td>
<td>right</td>
<td>10 mm</td>
</tr>
</tbody>
</table>

MatrixMIDFACE Adaption Plates, 20 holes*

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.503.346</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>04.503.376</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>04.503.396</td>
<td>0.8 mm</td>
</tr>
</tbody>
</table>

Sagittal split plates, thickness 1.0 mm*

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Shape</th>
<th>Bar length</th>
<th>Holes</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.401</td>
<td>curved</td>
<td>6 mm</td>
<td>6</td>
</tr>
<tr>
<td>04.511.402</td>
<td>curved</td>
<td>8 mm</td>
<td>6</td>
</tr>
<tr>
<td>04.511.403</td>
<td>curved</td>
<td>10 mm</td>
<td>6</td>
</tr>
<tr>
<td>04.511.404</td>
<td>curved</td>
<td>12 mm</td>
<td>6</td>
</tr>
<tr>
<td>04.511.421</td>
<td>straight</td>
<td>6 mm</td>
<td>4</td>
</tr>
<tr>
<td>04.511.422</td>
<td>straight</td>
<td>8 mm</td>
<td>4</td>
</tr>
<tr>
<td>04.511.423</td>
<td>straight</td>
<td>10 mm</td>
<td>4</td>
</tr>
<tr>
<td>04.511.424</td>
<td>straight</td>
<td>12 mm</td>
<td>4</td>
</tr>
</tbody>
</table>

* Refer to page 43 for the ordering information on sterile implants and drill bits.
**SplitFix plates, 4 holes, thickness 0.7 mm**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.441</td>
<td>33 mm</td>
</tr>
<tr>
<td>04.511.442</td>
<td>40 mm</td>
</tr>
</tbody>
</table>

*Note: Slider needs to be ordered separately.*

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.443</td>
<td>Slider for Matrix SplitFix Plate</td>
</tr>
</tbody>
</table>

**Chin plates, double curved, 5 holes, thickness 0.7 mm**

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.461</td>
<td>4 mm</td>
</tr>
<tr>
<td>04.511.462</td>
<td>6 mm</td>
</tr>
<tr>
<td>04.511.463</td>
<td>8 mm</td>
</tr>
<tr>
<td>04.511.464</td>
<td>10 mm</td>
</tr>
</tbody>
</table>

**Vertical ramus osteotomy plates, thickness 0.7 mm**

<table>
<thead>
<tr>
<th>Art. No</th>
<th>Offset</th>
<th>Left/Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.501</td>
<td>0 mm</td>
<td>left</td>
</tr>
<tr>
<td>04.511.502</td>
<td>0 mm</td>
<td>right</td>
</tr>
<tr>
<td>04.511.520</td>
<td>2 mm</td>
<td>right</td>
</tr>
<tr>
<td>04.511.521</td>
<td>2 mm</td>
<td>left</td>
</tr>
<tr>
<td>04.511.540</td>
<td>4 mm</td>
<td>right</td>
</tr>
<tr>
<td>04.511.541</td>
<td>4 mm</td>
<td>left</td>
</tr>
<tr>
<td>04.511.560</td>
<td>6 mm</td>
<td>right</td>
</tr>
<tr>
<td>04.511.561</td>
<td>6 mm</td>
<td>left</td>
</tr>
</tbody>
</table>

* Refer to page 43 for the ordering information on sterile implants and drill bits.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.511.003</td>
<td>Plate Holder for Matrix Plates</td>
</tr>
<tr>
<td>03.511.004</td>
<td>Matrix Screwdriver Handle, with Locking, with Hexagonal Coupling</td>
</tr>
<tr>
<td>03.503.034</td>
<td>Plate Holder, long</td>
</tr>
<tr>
<td>03.503.035</td>
<td>Bending Pliers 3D for MatrixMIDFACE Plates</td>
</tr>
<tr>
<td>03.503.038</td>
<td>Bending Pliers for MatrixMIDFACE Plates</td>
</tr>
</tbody>
</table>
MatrixMIDFACE Screwdriver Shafts, Self-holding, with Hexagonal coupling
03.503.201 short, length 52 mm
03.503.202 medium, length 76 mm
03.503.203 long, length 96 mm

Matrix Drill Bits Ø 1.4 mm with Stop, for J-Latch Coupling*
03.511.244 length 44.5/4 mm
03.511.246 length 44.5/6 mm
03.511.248 length 44.5/8 mm
03.511.252 length 44.5/12 mm

Matrix Drill Bits Ø 1.4 mm without Stop, for J-Latch Coupling*
03.511.310 length 80 mm
03.511.320 length 110 mm
03.511.330 length 125 mm

* Refer to page 43 for the ordering information on sterile implants and drill bits.
## Transbuccal Instruments MatrixMANDIBLE*

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.511.340</td>
<td>Matrix Drill Bit Ø 1.4 mm, length 125 mm, for J-Latch Coupling, for Nos. 03.503.045 and 03.503.047</td>
</tr>
<tr>
<td>03.503.045</td>
<td>Drill Sleeve, long, for MatrixMANDIBLE</td>
</tr>
<tr>
<td>397.213</td>
<td>Cannula and Obturator 2.0</td>
</tr>
<tr>
<td>397.211</td>
<td>Universal Handle for Drill Sleeves</td>
</tr>
<tr>
<td>397.420</td>
<td>Cheek Retractor 2.0, for No. 397.213</td>
</tr>
<tr>
<td>397.232</td>
<td>Cheek Retractor, for MatrixMANDIBLE, U-shaped, flexible</td>
</tr>
</tbody>
</table>

* For specific information on the transbuccal instruments, refer to the MatrixMANDIBLE technique guide (036.000.971).
397.430  Cheek Retractor Ring 2.0, for No. 397.213

60035258  Drill depth chart for transbuccal instrumentation**

** For MatrixORTHOGNATHIC, the drill depth chart shows the length of the position screw (bicortical)
### MatrixORTHOGNATHIC Bending Templates

<table>
<thead>
<tr>
<th>Bending Template</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix Anatomic L-Plate, 3+3 holes</td>
<td>03.511.360 short, 03.511.361 medium, 03.511.362 long</td>
</tr>
<tr>
<td>Matrix L-Plate, 3+3 holes</td>
<td>03.511.363 short, 03.511.364 medium, 03.511.365 long</td>
</tr>
<tr>
<td>Matrix 90° L-Plate, 2+2 holes</td>
<td>03.511.366 short, 03.511.367 medium, 03.511.368 long</td>
</tr>
<tr>
<td>Matrix Sagittal Split Plate, curved, 6 holes</td>
<td>03.511.369 with intersection bar 6 mm, 03.511.370 with intersection bar 8 mm, 03.511.371 with intersection bar 10 mm, 03.511.372 with intersection bar 12 mm</td>
</tr>
<tr>
<td>Matrix Sagittal Split Plate, straight, 6 holes</td>
<td>03.511.373 with intersection bar 6 mm, 03.511.374 with intersection bar 8 mm, 03.511.375 with intersection bar 10 mm, 03.511.376 with intersection bar 12 mm</td>
</tr>
<tr>
<td>Matrix SplitFix Plate, 4 holes</td>
<td>03.511.377 length 33 mm, 03.511.378 length 40 mm</td>
</tr>
</tbody>
</table>
68.511.001  Module for MatrixORTHOGNATHIC Implants and Instruments, 3/3, with Lid, without Contents

61.503.603  MatrixMIDFACE Instrument Tray, with Lid, without Contents, 2/3

61.503.841  Instrument Tray for Transbuccal Instrument Set, for MatrixMANDIBLE, 1/3, with Lid
## Implants

**MatrixMIDFACE Screws, Titanium Alloy (TAN)***, **

**Self-tapping screws Ø 1.5 mm**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Length</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.503.204.01C</td>
<td>4 mm</td>
<td></td>
</tr>
<tr>
<td>04.503.205.01C</td>
<td>5 mm</td>
<td></td>
</tr>
<tr>
<td>04.503.206.01C</td>
<td>6 mm</td>
<td></td>
</tr>
<tr>
<td>04.503.208.01C</td>
<td>8 mm</td>
<td></td>
</tr>
<tr>
<td>04.503.210.01C</td>
<td>10 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.503.212.01C</td>
<td>12 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.503.214.01C</td>
<td>14 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.503.216.01C</td>
<td>16 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.503.218.01C</td>
<td>18 mm</td>
<td>coarse</td>
</tr>
</tbody>
</table>

**Self-drilling screws Ø 1.5 mm**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.503.224.01C</td>
<td>4 mm</td>
</tr>
<tr>
<td>04.503.225.01C</td>
<td>5 mm</td>
</tr>
<tr>
<td>04.503.226.01C</td>
<td>6 mm</td>
</tr>
<tr>
<td>04.503.228.01C</td>
<td>8 mm</td>
</tr>
</tbody>
</table>

**Self-drilling screws Ø 1.85 mm, in clip**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.224.01C</td>
<td>4 mm</td>
</tr>
<tr>
<td>04.511.225.01C</td>
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<td>04.511.226.01C</td>
<td>6 mm</td>
</tr>
<tr>
<td>04.511.228.01C</td>
<td>8 mm</td>
</tr>
</tbody>
</table>

**Self-tapping screws Ø 1.85 mm**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Length</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.511.260</td>
<td>20 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.511.262</td>
<td>22 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.511.264</td>
<td>24 mm</td>
<td>coarse</td>
</tr>
<tr>
<td>04.511.266</td>
<td>26 mm</td>
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</tr>
<tr>
<td>04.511.268</td>
<td>28 mm</td>
<td>coarse</td>
</tr>
</tbody>
</table>

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### Transbuccal Instruments

**Drill Sleeve, long, for MatrixORTHOGNATHIC**

**Drill bits, length 125 mm, for Nos. 03.503.045 and 03.503.047**

**Depth Gauge for Screws Ø 1.5 to 2.0 mm, measuring range up to 45 mm**

**Screwdriver Shafts MatrixMIDFACE, with holding sleeve, with Hexagonal Coupling**

**Handles, with Hexagonal Coupling**

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* Refer to page 43 for the ordering information on sterile implants and drill bits.

** 4–12 mm screw lengths are also available in packs of 4 screws in clip. Substitute 
“.01C” with “.04C” in the part number to order.
Additionally Available

Drill Bits*  

**Matrix Drill Bit Ø 1.4 mm, for Mini Quick Coupling**  
03.511.284 with Stop, length 44.5/4 mm  
03.511.286 with Stop, length 44.5/6 mm  
03.511.288 with Stop, length 44.5/8 mm  
03.511.292 with Stop, length 44.5/12 mm  
03.511.311 length 80 mm  
03.511.321 length 110 mm  
03.511.280 length 110/32 mm  
03.511.331 length 125 mm  

**Drill Bits Ø 1.5 mm, for J-Latch Coupling**  
317.640 with Stop, length 44.5/4 mm  
317.660 with Stop, length 44.5/6 mm  
317.680 with Stop, length 44.5/8 mm  
317.720 with Stop, length 44.5/12 mm  
316.510 length 80 mm  
316.520 length 125 mm  

**MatrixMIDFACE Drill Bits, for J-latch Coupling**  
Diameter Length  
03.503.244 1.1 mm with stop, 44.5/4 mm  
03.503.246 1.1 mm with stop, 44.5/6 mm  
03.503.248 1.1 mm with stop, 44.5/8 mm  
03.503.110 1.25 mm with stop, 44.5/10 mm  
03.503.112 1.25 mm with stop, 44.5/12 mm  
03.503.120 1.25 mm 80 mm  
03.503.121 1.25 mm 125 mm  

**MatrixMIDFACE Drill Bits, for Mini Quick Coupling**  
Diameter Length  
03.503.284 1.1 mm with stop, 44.5/4 mm  
03.503.286 1.1 mm with stop, 44.5/6 mm  
03.503.288 1.1 mm with stop, 44.5/8 mm  
03.503.140 1.25 mm with stop, 44.5/10 mm  
03.503.142 1.25 mm with stop, 44.5/12 mm  
03.503.150 1.25 mm 80 mm  
03.503.151 1.25 mm 125 mm  

**Drill Bit Ø 1.5 mm, for Mini Quick Coupling**  
317.740 with Stop, length 44.5/4 mm  
317.760 with Stop, length 44.5/6 mm  
317.780 with Stop, length 44.5/8 mm  
317.820 with Stop, length 44.5/12 mm  
316.710 length 80 mm  
316.521 length 125 mm  

** Refer to page 43 for the ordering information on sterile implants and drill bits.  
** A Ø 1.5 mm drill bit can be used in dense bone to facilitate screw insertion (from 12 mm lengths).
Modules

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>61.511.001</td>
<td>Module for MatrixORTHOGNATHIC Plate, Screw and Instrument Set, with Lid,</td>
</tr>
<tr>
<td></td>
<td>without Contents, 1/2</td>
</tr>
<tr>
<td>61.511.002</td>
<td>MatrixMIDFACE/ORTHOGNATHIC Instrument Tray, size 1/2, with Lid</td>
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<tr>
<td>68.505.060</td>
<td>MatrixORTHOGNATHIC Mini Module, for Instrument Tray, for Screwdriver 90°</td>
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<tr>
<td>61.503.600</td>
<td>Module MatrixMIDFACE for use with sterile implants, with Lid, without</td>
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<td>Contents, 1/3</td>
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Sets

<table>
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<tr>
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<tbody>
<tr>
<td>01.505.001</td>
<td>Screwdriver 90°</td>
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<tr>
<td>01.505.300</td>
<td>Universal Screw Removal Set</td>
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<tr>
<td>115.680</td>
<td>Fixation Set for Subcondyles and for Ramus</td>
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</table>

Screw/plate overview

<table>
<thead>
<tr>
<th></th>
<th>Pack of 1 unit</th>
<th>Pack of 4 units</th>
<th>Pack of 1 unit, sterile</th>
<th>Pack of 4 units, sterile</th>
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<tbody>
<tr>
<td><strong>Self-tapping screws</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(in clips)</td>
<td>04.5xx.xxx.01C</td>
<td>04.5xx.xxx.04C</td>
<td>04.5xx.xxx.01S</td>
<td>04.5xx.xxx.04S</td>
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<tr>
<td>(up to 12 mm screw</td>
<td></td>
<td>(up to 12 mm screw length)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>length)</td>
<td></td>
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<tr>
<td><strong>Self-tapping screws</strong></td>
<td>04.511.26x</td>
<td>04.511.26xS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø 1.85 mm, lengths 20–28 mm</td>
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<td></td>
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<tr>
<td><strong>Self-drilling screws</strong></td>
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<td></td>
</tr>
<tr>
<td>(in clips)</td>
<td>04.5xx.xxx.01C</td>
<td>04.5xx.xxx.04C</td>
<td>04.5xx.xxx.01S</td>
<td>04.5xx.xxx.04S</td>
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<tr>
<td><strong>Emergency screws</strong></td>
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<tr>
<td>(in clips)</td>
<td>04.5xx.xxx.01C</td>
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<td>04.5xx.xxx.01S</td>
<td></td>
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<tr>
<td><strong>Plates</strong></td>
<td>04.5xx.xxx</td>
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<td>04.5xx.xxxS</td>
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<tr>
<td><strong>Drill bits</strong></td>
<td>xxx.xxx</td>
<td></td>
<td>xxx.xxxS</td>
<td></td>
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