We’re never satisfied at Stryker because we know additional effort makes a difference. Regardless of the accomplishment, everything can be improved and we tirelessly search for opportunities to uncover that improvement. We take full responsibility for everything we do. We communicate honestly with our customers and with ourselves. Integrity is an essential part of who we are.

We are a team of high achievers. We take pride in anticipating the needs of surgeons and the medical industry before they even ask. We strive to make our customers successful by working on their behalf.

Our focus is on innovation, but more importantly, on inventive ideas that stand the test of time. We seek out people of imagination and with experience to understand the impact of our work. We partner with surgeons and medical professionals who are leaders in their field to advance medical care.

Our mission is to improve health. We take the work seriously, for in the end, we help make a difference in people’s lives.

**Leibinger Universal Mandible System: Design Options**

The Leibinger Universal Mandible System features full and half size aluminum containers for fracture and reconstruction implant modules.

- Comprehensive Implant Modules for both mandible fracture and reconstruction applications
- Dedicated Instrument Trays with color coded instruments for easy identification
We take the work seriously, for in the end, we help make a difference in people's lives.
**Procedural Guide**

**Contour & Application:** Mandible Fracture Plate

1. Expose fracture(s).
2. Use benders to contour Fracture Plate. Benders include plate pockets to reduce hole deformation.
3. Cut Fracture Plate with the right handle (R) in the area labeled "CUT." Slide the plate through the cutter from left to right. Cut will take place within the window.
4. Insert the drill guide through trocar and drill hole.
5. Measure desired screw length using a depth gauge.
6. Insert screw and repeat process for each screw until fracture fixation is complete.

**Contour & Application:** Primary Reconstruction Plate

1. Expose defect and select appropriate template. Recommended screw placement for each segment includes:
   - Neutral Bone Screws: 4ea-2.0mm, 4ea-2.3mm
   - SMARTLock Screws: 3ea-2.0mm, 3ea-2.3mm
2. Cut Primary Reconstruction Plate with the right handle (R) in the area labeled "CUT." Slide the plate through the cutter from left to right. Cut will take place within the window.
3. Contour Primary Reconstruction Plate to match template using benders. Benders include plate pockets to reduce hole deformation.
4. Insert drill guide through trocar and drill hole.
5. Measure desired screw length using a depth gauge.
6. Once plate is in place, remove screws and plate. After mandibular resection, replace "pre-bent" plate and screws. Recommend using temporary recon screw holder.

**Contour & Application:** Secondary Reconstruction Plate

1. Expose defect and select appropriate template. Recommended screw placement for bone graft fixation only:
   - Neutral Bone Screws: 4ea-2.3mm
   - SMARTLock Screws: 4ea-2.3mm
   - 2.0mm screws are recommended for bone graft fixation only
2. To cut, lock plate in left handle (L) labeled "CUT." Place cutting mechanism in right handle (R) flush alongside the plate recess in the left handle. Slide (R) handle up until plate is seated within locking mechanism.
3a. Contour Reconstruction Plate to match template using benders. Benders include plate pockets to reduce the amount of hole deformation.
3b. Roller benders can be used for in-plane or out-of-plane bending.
4. Insert drill guide through trocar and drill hole.
5. Measure desired screw length using a depth gauge.
6. Once plate is in place, remove screws and plate. After mandibular resection, replace "pre-bent" plate and screws. Recommend using temporary recon screw holder.

**Important Notice:** The materials contained in this booklet have been provided for general educational information purposes only. The information contained in this booklet cannot and should not replace the independent medical judgment of the treating physician. As a manufacturer, Stryker does not provide medical advice or services and does not recommend specific technique or instruction. It is always the responsibility of the treating physician to determine the appropriate treatment and technique, based on the physician's medical knowledge and the individual circumstances of the particular case. It is also the treating physician's sole responsibility to inform the patient about potential risks, complications, and benefits of certain products and procedures. In addition, the information contained herein is not intended to and should not replace the instructions-for-use provided with the Leibinger Universal Mandible System. The treating physician should review the instructions-for-use in their entirety before using any Stryker product because the materials contained herein may not include all relevant potential risks and complications. Under no circumstances should the material in this booklet be provided to the patient unless the treating physician has reviewed the material and approved its use for the particular patient. Please be aware that health care information can change quickly and the treating physician is responsible for confirming that the information contained herein is current. For further information about the Leibinger Universal Mandible System, please contact Stryker Craniomaxillofacial at 800 962 6558.
2.0/2.3 Mandible Fracture Fixation Module

The Leibinger Universal Mandible Fracture Module

Unique Features:
- Low Profile Mini and 3D plates (Blue)
- Fracture plates (Gold) have laser etchings across top of the plate to aid in top/bottom orientation
- Plates accommodate multiple screw diameters and designs
- Universal screwdriver for 2.0mm, 2.3mm and 2.7mm screws
- 2.0mm and 2.3mm Compression plate options (only to be used with neutral bone screws)
- Simplified instrumentation
- MMF Self-Drilling screws available in full size module

1/2 Size Mandible Fracture Module

SMARTLoad Screw Delivery Field
- The screw field design features a recessed screw hole that may facilitate easy loading of the screw by guiding the tip of the screwdriver blade into the head of the screw.

SMARTLock Self-Locking Screws
SMARTLock is cutting edge technology designed as a one step system to achieve secure "locking" fixation of the screw to the plate.

SmartLock screws are manufactured with fine threads on the underside of the screw head, which upon insertion are designed to engage the circular "lip" within the hole. This enables the SmartLock construct (both plate/screw) to function as an internal, external fixator. Unlike other systems on the market, this unique "lip" design allows for up to 10° of angulation of the screw while still maintaining full locking capabilities.

Unique Advantages
- Locking capability with up to 10° of angulation
- 2.0mm or 2.3mm screw placement in a single plate
- One step locking screw
- Low profile Cross-Pin head design
- Single locking screw design for both fracture and reconstruction applications
- Made from high strength titanium alloy
- Plates do not require the use of bending inserts
- Color coded Grey

In addition, recessed screw holes may decrease the amount of screw spillage that may occur when loading.

Customizable screw markers allow for maximum storage of popular screw sizes and designs.
Mandible Fracture Module Details

**Mandible: Inlay of Full Module**

- **3D Plates (Blue)**
  Profile height: 1.0mm
- **Mini Plates (Blue)**
  Profile height: 1.0mm

**Mandible: Inlay of 1/2 Module**

- **3D Plates (Blue)**
  Profile height: 1.0mm
- **Mini Plates (Blue)**
  Profile height: 1.0mm

**Mandible: Bottom of Full Module**

- **Fracture Plates (Gold)**
  Profile height: 1.5mm
- **Compression Plates (Gold)**
  Profile height: 1.5mm

**Mandible: Bottom of 1/2 Module**

- **Fracture Plates (Gold)**
  Profile height: 1.5mm
- **Compression Plates (Gold)**
  Profile height: 1.5mm
2.0/2.3 Mandible Reconstruction Fixation Module

**Universal Mandible System: Overview**
The Leibinger Universal Mandible System represents the next generation of bone fixation that offers maximum flexibility and cutting edge technology.

The Leibinger Universal Mandible Reconstruction Module incorporates cutting-edge technology that allows the surgeon complete control during mandibular reconstruction.

**Unique Features:**
- Plates accommodate multiple screw diameters and designs
- Laser etchings across the top of the plate to aid in top/bottom orientation
- Universal screwdriver blade for 2.0mm, 2.3mm and 2.7mm screws
- Low profile primary reconstruction plates
- Simplified instrumentation
- Precontoured plates
- Cross-Pin screw head design
- SmartLock Locking Screw Technology
- Color coded implants and instrumentation
- Precontoured Reconstruction Plates
- SMARTLoad Screw Field

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**Temporary Recon Screw Holder**

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**2.0/2.3mm Screw Options**
Multiple diameter screw placement in all mandible plates.

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**Neutral Bone Screw**

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**SMARTLock Screw**

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**Condyles**

Temporary Condylar Prostheses with plate pockets,
56-25001 Left   56-25002 Right

Temporary condylar prostheses are attached to the Reconstruction Plate with fastening screws.
Mandible Reconstruction Module Details

Mandible Reconstruction: Inlay of Module

Primary Reconstruction Straight Plates
(Gold) Profile height: 1.5mm

Primary Reconstruction Hemi Plates
(Gold) Profile height: 1.5mm

Mandible Reconstruction: Bottom of Module

Reconstruction Straight Plates
(Silver) Profile height: 2.8mm

Reconstruction Hemi Plates
(Silver) Profile height: 2.8mm

Reconstruction Full Plates
(Silver) Profile height: 2.8mm
### 2.0/2.3mm Mandible Fracture & Recon

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
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#### Modules & Inlays
- **29-13051** Universal Mandible Fracture Module, Full Size, empty
- **29-13053** Inlay for Fracture Module, Full Size
- **29-20323** Universal Mandible Fracture Module, Half Size, empty
- **29-20231** Inlay for Fracture Module, Half Size
- **29-13061** Universal Mandible Recon Module, Full Size, with Inlay

#### 2.0/2.3mm Mandible Fracture Instruments
- **60-16005** 1.6 x 15mm, 5mm working length, Stryker End
- **60-16007** 1.6 x 19mm, 7mm working length, Stryker End
- **60-16035** 1.6 x 115mm, 35mm working length, Stryker End
- **60-19035** 1.9 x 115mm, 35mm working length, Stryker End
- **60-16535** 1.6 x 85mm, 26mm working length, Stryker End
- **60-19535** 1.9 x 85mm, 26mm working length, Stryker End
- **60-16526** 1.6 x 85mm, 26mm working length, Stryker End
- **60-19526** 1.9 x 85mm, 26mm working length, Stryker End

#### 2.0/2.3mm Fracture Plates, Gold
- **55-15585** 6 Hole for 2.3mm screw
- **55-15580** 6 Hole for 2.0mm screws
- **55-15575** 4 Hole for 2.3mm screws
- **55-15570** 4 Hole for 2.0mm screws

#### 2.0/2.3mm Compression Plates, Gold
- **50-19918** 1.9 x 29mm, 18mm working length, 90°, Dental End
- **50-19908** 1.9 x 19mm, 8mm working length, 90°, Dental End
- **50-16918** 1.6 x 29mm, 18mm working length, 90°, Dental End
- **50-19035** 1.9 x 29mm, 18mm working length, 90°, Dental End
- **50-16035** 1.6 x 29mm, 18mm working length, 90°, Dental End

#### 2.0mm Mini Plates, Blue
- **55-10506** Mini Plate with Bar, 4 hole
- **55-10505** Mini Plate with Bar, 6 hole

#### 2.0/2.3mm Secondary Recon Plates, Silver
- **50-20358** 2.0 x 8mm
- **50-20362** 2.0 x 12mm

#### 2.0mm Self-Tapping Screws, Gold (5/Pkg)
- **50-20404** 2.0 x 4mm
- **50-20405** 2.0 x 5mm
- **50-20406** 2.0 x 6mm
- **50-20407** 2.0 x 8mm
- **50-20410** 2.0 x 10mm
- **50-20412** 2.0 x 12mm
- **50-20414** 2.0 x 14mm
- **50-20416** 2.0 x 16mm
- **50-20418** 2.0 x 18mm
- **50-20420** 2.0 x 20mm

#### 2.0mm Locking Screws, Grey (5/Pkg)
- **50-23420** 2.3 x 20mm
- **50-23416** 2.3 x 16mm
- **50-23414** 2.3 x 14mm
- **50-23412** 2.3 x 12mm
- **50-23410** 2.3 x 10mm
- **50-23408** 2.3 x 8mm
- **50-23406** 2.3 x 6mm
- **50-23404** 2.3 x 4mm

#### 2.3mm Locking Screws, Grey (5/Pkg)
- **50-23518** 2.0 x 18mm
- **50-23516** 2.0 x 16mm
- **50-23514** 2.0 x 14mm
- **50-23512** 2.0 x 12mm
- **50-23510** 2.0 x 10mm
- **50-23508** 2.0 x 8mm
- **50-23506** 2.0 x 6mm
- **50-23504** 2.0 x 4mm

#### 2.0/2.3mm Fracture Plates, Gold
- **55-15504** Fracture Plate, 4 Hole
- **55-15505** Fracture Plate with Bar, 4 Hole
- **55-15506** Fracture Plate, 6 Hole
- **55-15507** Fracture Plate with Bar, 6 Hole
- **55-155014** Fracture Plate, 14 Hole
- **55-15524** Fracture Plate C-Shaped, 4 Hole
- **55-15526** Angled Fracture Plate, 115°, 6 Hole
- **55-15536** Angled Fracture Plate, 140°, 6 Hole

#### 2.0mm 3-D Plates, Blue
- **55-10532** 3-D Plate, Curved, 6x2 Hole
- **55-10534** 3-D Plate, Square 4x2 Hole
- **55-10562** 3-D Plate, Rectangular, 3 x 2 Hole

#### 2.0mm 3-D Plates, Gold
- **55-10506** Mini Plate, 8mm Bar, 4 Hole
- **55-10505** Mini Plate, 8mm Bar, 6 Hole
- **55-10504** Mini Plate, 4 Hole
- **55-10503** Mini Plate, 6 Hole

#### Secondary Recon Plates, Silver (2.8mm profile)
- **55-28911** 11 hole, w/template
- **55-28917** 17 hole, w/template
- **55-28920** Hemi, 6 x 17 hole, right, 34°, w/template
- **55-28922** Hemi, 6 x 17 hole, left, 34°, w/template
- **55-28925** Hemi, 6 x 17 hole, right, 17°, w/template
- **55-28926** Hemi, 6 x 17 hole, left, 17°, w/template
- **55-28930** Full, 6 x 17 x 6 hole, w/template
- **55-28932** Full, 6 x 15 x 6 hole, w/template
- **55-28934** Full, 6 x 13 x 6 hole, w/template

#### Temporary Condylar Prostheses (1/Pkg)
- **56-25001** Left
- **56-25002** Right

#### Condyle Fastening Screws (2/Pkg)
- **56-25000** Condyle Fastening Screws
A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate the breadth of Stryker product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

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