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### The AO Principles of Internal Fixation

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

- Anatomic reduction
- Stable internal fixation
- Preservation of blood supply
- Early, active mobilization

The fundamental aims of fracture treatment in the limbs and fusion of the spine are the same. A specific goal is returning as much function as possible to the injured neural elements.

### AO Principles as Applied to the Spine

#### Anatomic Alignment

Restoration of normal spinal alignment to improve the biomechanics of the spine.

#### Stable Internal Fixation

Stabilization of the spinal segment to promote bony fusion.

#### Preservation of Blood Supply

Creation of an optimal environment for fusion.

#### Early, Active Mobilization

Minimization of damage to the spinal vasculature, dura, and neural elements, which may contribute to pain reduction and improved function for the patient.

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2. Ibid.
**Indications**

The Click’X Monoaxial Screw and Hook System is a non-cervical spinal fixation device intended for use as a posterior pedicle screw fixation system (T1 through S2), a posterior hook fixation system (T1 through L5), or as an anterolateral fixation system (T8 through L5). Pedicle screw fixation is limited to skeletally mature patients. These devices are indicated for all of the following, regardless of the intended use: degenerative disc disease (defined as discogenic back pain with degeneration of the disc, confirmed by history and radiographic studies), spondylolisthesis, trauma (i.e. fracture or dislocation), deformities or curvatures (i.e. scoliosis, kyphosis, and/or lordosis, Scheuermann’s disease), tumor, stenosis, pseudoarthrosis, and failed previous fusion.

When treating patients with degenerative disc disease (DDD), transverse bars are not cleared for use as part of the posterior pedicle screw construct.

*Please refer to product insert (GP0001) for complete system description indications, contraindications and warnings.

**Features and Benefits**

**Low-profile system**
- Low implant profile of 12.5 mm

**Compatible with Click’X polyaxial screws**
- Uses the same locking cap and 6.0 mm rod size

**Top-opening and tightening**
- Top-loading for easy rod introduction

**Technique adaptable**
- Designed to correct scoliosis by global derotation or segmental translation
**Implants**

**Click’X Hooks**
- Multiple hook profiles for use around the lamina, pedicle or transverse process
- Low-profile design minimizes soft tissue interference
- Specialized lamina hooks for thoracic and lumbar applications
- Transverse hooks available for use with transverse bars
- Down-angled Lamina Hooks are placed in an upward direction
- Up-angled Lamina Hooks are placed in a downward direction
- Offset hooks ease rod reduction
- Color-coded by size

**Click’X Monoaxial Screws**

**Dual core thread design**
- Constant outer diameter optimizes pull-out strength
- Core diameter transitions to provide cancellous and cortical bone-specific threads
- Cortical threads engage the pedicle
- Cancellous threads engage the vertebral body

**Other Features**
- Top-loading/tightening for easy rod introduction
- Rounded tip promotes safe screw insertion
- Self-tapping tip
- Double-lead thread on 4.2 mm–7.0 mm screws for easy insertion
- Color-coded by diameter for 4.2 mm, 5.2 mm, 6.2 mm, 7.0 mm, 8.0 mm and 9.0 mm diameters
- Thread lengths from 25 mm to 100 mm
Implants (continued)

**Locking Cap**
Freely rotating “guiding forks” align the locking cap with the rod. This feature, along with buttress threading, ensures proper alignment.

**Transverse Bars**
- Provide a lateral extension from the 6.0 mm rod to the screw or transverse hook [499.422–430]
- Lengths of 15 mm, 20 mm, 25 mm and 30 mm
- Eliminate the need for severe rod contours which might otherwise be required for direct hook or screw-to-rod connection

**Low Profile Transconnectors**
- Used as construct stabilizer to reduce rotation
- Preassembled for ease of placement
- Four fixed lengths (15 mm, 18 mm, 21 mm, and 24 mm) and five adjustable lengths (25.5 mm–83 mm)

**Staples and Washers**
- Provide secure anchorage for anterolateral constructs in the thoracolumbar spine
- Three staple sizes for use with 5.2 mm, 6.2 mm, and 7.0 mm screws
**Instruments**

**Hook Preparation Instruments**

![Hook Preparation Instruments](image)

- Small Lamina Finder 388.104
- Medium Lamina Finder 388.105
- Large Lamina Finder 388.106

**Lamina Finders**

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Lamina Finder</td>
<td>388.104</td>
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<tr>
<td>Medium Lamina Finder</td>
<td>388.105</td>
</tr>
<tr>
<td>Large Lamina Finder</td>
<td>388.106</td>
</tr>
</tbody>
</table>

- To prepare the lamina for placement of a lamina hook
- Tips match hook bodies of small, medium and large lamina hooks
- Colored bands on shaft correspond to color-coded small (fuchsia), medium (blue) and large (green) lamina hooks

**Pedicle Finder [388.103]**

To open the facet capsule and locate the pedicle for placement of a pedicle hook
Hook Placement Instruments

**Hook Holding Forceps, lateral [388.107]**
Allows rod and locking cap to be engaged while holding hook

**Hook Holding Forceps, straight [388.108]**
Facilitates placement of hooks

**Hook Holding Forceps, curved [388.109]**
Allows hook to be held while rod is in place

**Hook Positioner [388.110]**
Securely guides hook into place
Screw Insertion Instruments

**Footed Screwdriver with T-Handle [388.102]**
Facilitates convenient insertion of screws without a holding sleeve

**Footed Screwdriver Shaft, 6 mm hex coupling [396.303]**
Used with Ratchet Handle [388.101] as an alternative method for inserting monoaxial screws

**Ratchet Handle [388.101]**

**Holding Sleeve, for Click’X preassembled screws [388.367]**
Used in conjunction with 3.5 mm Hexagonal Screwdriver with T-Handle

**3.5 mm Hexagonal Screwdriver with T-Handle [314.131]**
For convenient insertion of Click’X monoaxial screws

**Anterior Approach Instrument**

**Staple Impactor, for 6.0 mm to 8.0 mm staples [385.807]**
- Used to drive staple into vertebral body
- Self-retaining to hold staple during insertion
Rod Contouring Instruments

6.0 mm Coated Rod Templates, 150 mm [388.902] and 500 mm [388.905]
To determine the length and contour of the rod

Rod Bender, with bend radius adjustment [388.961]
- For contouring rods
- Knob is used to adjust the bend radius

Pipe Rod Benders [388.117]
- For contouring rods
- Knurled handles ease gripping the benders
- Thumbscrew holds rod in place while bending

In Situ Benders, right [388.112] and left [388.113]
- For in situ bending of the rod
- Round, knurled, ergonomic handles
Construct Assembly Instruments

Rod Holding Forceps, for 6.0 mm rods [388.449]

- To place and maneuver the rod into the implant opening
- Ratchet locking mechanism ensures a consistent and stable grip on the 6.0 mm rod
- Quick release permits one-handed application for easy maneuvering and rod placement
- Provide a point of fixation against which to compress and distract

Long Screwdriver with knurled handle, for Click’X Locking Cap [388.366]

- Retains the Click’X Locking Cap to provide controlled insertion
- Knurled handle reduces torque applied to locking cap

Rod Reduction Instruments

Rod Pusher [388.114]

- Assists in placing rod into implant opening
- Silicone handle for ergonomic grip
**Rod Reduction Instruments** (continued)

**Rocker Forks**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Rocker Fork</td>
<td>388.388</td>
</tr>
<tr>
<td>Medium Rocker Fork</td>
<td>396.304</td>
</tr>
<tr>
<td>Large Rocker Fork</td>
<td>388.115</td>
</tr>
</tbody>
</table>

- Provide vertical reduction of rod into implant
- Feature cam-shaped pivots for leverage
- Provide clearance for locking cap insertion
- Shorter forks optimize fit between closely-spaced implants

**Bi-Planar Persuader [03.604.001] and Lateral Implant Holder, for Bi-Planar Persuader [03.604.002]**

- Provide both horizontal and vertical reduction
- Lateral Implant Holder eases implant attachment
- Simple attachment and removal reduce operative time
- Ratcheting handle permits gradual reduction and maintains rod position
Distraction and Compression Instruments

Parallel Distraction Forceps [388.118]
Parallel Compression Forceps [388.119]

- For manipulation of the construct to achieve the desired sagittal plane contour
- Tips remain parallel during distraction or compression
- Curved handles improve visibility
- Distraction or compression position can be maintained using the speed-lock nut

Rod Holding Forceps, for 6.0 mm rods [388.449]

(See photo and description on page 9)
**Instruments** (continued)

### Final Tightening Instruments

- **3.5 mm Hexagonal Screwdriver Shaft [388.079]**
- **3.5 mm Hexagonal Screwdriver Shaft, long [388.329]**

- **Torque Limiting Handle [321.133]**
  Used with the 3.5 mm Hexagonal Screwdriver Shaft [388.079] or 3.5 mm Hexagonal Screwdriver Shaft, long [388.329], with 6 mm hex coupling, for final tightening of the Click’X Locking Cap. Maximum torque applied to the locking cap setscrew is 7 Nm.

### Transconnector Instruments

- **Rod Pusher, dual position, for Click’X [388.369]**
  Provides countertorque on the rod during final tightening

- **Long Small Hexagonal Screwdriver [388.31]**
  To secure transconnectors

- **Measuring Template, for Low Profile Transconnectors for 6.0 mm Rods [388.865]**
  To determine appropriate transconnector length
Prepare lamina for a lamina hook

Using the appropriate size Lamina Finder, small [388.104], medium [388.105] or large [388.106], separate the ligamentum flavum from the underside of the lamina to ensure good bony contact with the lamina hook.

Prepare pedicle for a pedicle hook

Using the Pedicle Finder [388.103], open the facet capsule and locate the pedicle.

Remove a small piece of the inferior articular process to ensure proper seating of the pedicle hook. Pedicle hooks should be placed in an up-going direction only.
2  **Place hook**

Attach the hook to the appropriate Hook Holding Forceps. Place the hook in the desired location. The Hook Positioner [388.110] may also be used to facilitate placement of the hook.

3  **Place remaining hooks**

Repeat steps 1 and 2 to place hooks as determined in the preoperative plan.
1 Prepare pedicles and determine screw lengths

Locate pedicles and use an awl to perforate the cortex. Use a probe to open the pedicle canal. The markings on the probe indicate the pedicle depth, for selecting the appropriate length screw.

All Click’X monoaxial screws are self-tapping; however, if tapping is preferred, use the appropriate tap and tap handle.

The Pedicle Preparation Instrument Set [105.077] should be used with the Click’X Monoaxial Screw and Hook Instrument and Titanium Implant Set [145.296].

2 Insert Click’X monoaxial screws

Footed Screwdriver

Insert the self-retaining Footed Screwdriver with T-Handle [388.102] into the head of the appropriate monoaxial screw.

Insert the monoaxial screw into the prepared pedicle. Repeat for each pedicle screw.
2 **Insert Click’X monoaxial screws** (continued)

**Alternative Instruments for Screw Insertion:**

**Footed Screwdriver Shaft and Ratchet Handle**
Use the self-retaining Footed Screwdriver Shaft [396.303] with the Ratchet Handle [388.101].

3.5 mm Hexagonal Screwdriver Shaft with Ratchet Handle and Holding Sleeve
Use the appropriate 3.5 mm Hexagonal Screwdriver Shaft [388.079] or [388.329] with the Ratchet Handle [388.101] and Holding Sleeve [388.367].

3 **Confirm implant position**
Position of implants should be confirmed radiographically.
1 Determine rod contour and length

To determine the contour of the rod, use the 6.0 mm Coated Rod Template [388.902 or 388.905]. Cut the rod to length, as needed.

2 Contour the rod

Contour the rod to match the rod template using the Rod Bender, with bend radius adjustment [388.961]. Alternatively, the In Situ Benders [right, 388.112 and left, 388.113] or Pipe Rod Benders [388.117] may be used to contour the rod.

Using Pipe Rod Benders

In Situ Benders

Contouring the rod with the Rod Bender
1. **Align rod to hooks and screws**

Use the Rod Holding Forceps [388.449] to insert the rod into the openings of the top-loading monoaxial screws or hooks. If necessary, use the following instruments to aid reduction.

**Option 1: Rod Pusher**

Seat the rod into the screw or hook using the Rod Pusher [388.114].

**Option 2: Rocker Forks**

Use the Rocker Fork, small [388.388], medium [396.304], or large [388.115] as a lever to seat the rod into the implant opening.
Option 3: Bi-Planar Persuader
Use the Bi-Planar Persuader [03.604.001] and Lateral Implant Holder for Bi-Planar Persuader [03.604.002] in situations where the rod is lateral to and/or above the implant opening.
Option 3: Bi-Planar Persuader (continued)

**Attach Implant**

Attach the Lateral Implant Holder to the side of the screw or hook. Ensure that the clasp of the Lateral Implant Holder is completely closed.
Option 3: Bi-Planar Persuader (continued)

Engage Rod

1. Place Bi-Planar Persuader over the Lateral Implant Holder. Ensure that the directional positioning switch is in the “Down” position.

2. Turn the black directional knob to move the Persuader on the Lateral Implant Holder.

3. Engage the rod with the approximating arms and squeeze the ratcheting handle to position the rod above the implant opening. Rotate the directional knob to fully seat the rod within the implant opening.

   The approximating arms can also be used to pull the rod up and over the side of the implant.

**DOWN**
To move the Persuader downward, turn the directional positioning switch to the “D” or “Down” position. Rotate the directional knob counterclockwise.

**UP**
To move the Persuader upward, turn the directional positioning switch to the “U” or “Up” position. Rotate the directional knob clockwise.
2 Insert locking caps

Load a Titanium Click’X Locking Cap [498.570] using the Long Screwdriver with knurled handle [388.366]. The screwdriver tongs should fit firmly into the slots of the locking cap.

Ensure that the rod is fully seated in the implant opening before engaging the locking cap. Insert the locking cap and hand tighten to capture the rod within the implant opening.

When using the Bi-Planar Persuader to reduce the rod, the approximating arms will serve as a guide for the locking cap screwdriver.

Repeat for the remaining screws and hooks, until all locking caps are installed.

3 Remove rod reduction instrument

To remove the Bi-Planar Persuader from the Lateral Implant Holder, turn the directional positioning switch to the “Up” position and rotate the directional knob until it disengages from the Lateral Implant Holder. Open the Lateral Implant Holder’s clasp to remove it from the implant.
Distraction and Compression

If necessary, grasp the rod with the Rod Holding Forceps [388.449] and slowly rotate the rod in the proper direction. Ensure that the blue setscrews of the locking caps are not tightened at this time.

1. **Determine point of fixation**
   Use the Rod Holding Forceps as a point of fixation against which to distract or compress.

2. **If distraction is required**
   Use the Parallel Distraction Forceps [388.118] to distract the construct. Once in the desired position, tighten the setscrews of the locking caps with the 3.5 mm Hexagonal Screwdriver with T-Handle [314.131], or Ratchet Handle [388.101] with the 3.5 mm Hexagonal Screwdriver Shaft [388.079].

3. **If compression is required**
   Use the Parallel Compression Forceps [388.119] to compress the construct. Once in the desired position, tighten the setscrews of the locking caps with the 3.5 mm hexagonal screwdriver.
Final Tightening

Place the Rod Pusher, dual position, for Click’X [388.369] over the screw or hook head. Attach the 3.5 mm Hexagonal Screwdriver Shaft, long [388.329] to the Torque Limiting Handle [321.133] and insert the shaft through the Rod Pusher cannula and into the locking cap blue setscrew. Tighten until the Torque Limiting Handle clicks, which indicates that 7 Nm of torque has been applied.

Repeat for all locking caps.
The Low Profile Transconnector is used to stabilize the construct and to increase rotational stability.

Use the Measuring Template, for Low Profile Transconnectors [388.865] to measure the distance between the two rods.

Choose a transconnector of the appropriate length. Ensure that the transconnector setscrews are not advanced. Apply the transconnector to the rods. Use the Long Small Hexagonal Screwdriver [388.31] to secure the transconnector to the rods by tightening the setscrews on each end.

For a transconnector with angular adjustment, tighten the stargrind setscrew to lock the angle between the rods.

To adjust the length of the transconnector, slide the ends to the appropriate length and tighten the center setscrew.

*Note: If any part of the construct requires further adjustment, all transconnector setscrews must be loosened. After final adjustment, retighten all the setscrews.*
Transverse Bar Attachment (Optional)

The transverse bar provides an extension to the hook or screw in situations where the rod contour or patient anatomy prevents a direct hook or screw-to-rod connection. The bar lengths are 15 mm, 20 mm, 25 mm and 30 mm.

Placement of transverse bar

Place the opening of the transverse bar over the 6.0 mm rod. Loosely attach the transverse bar to the rod by tightening the setscrew with the Long Small Hexagonal Screwdriver [388.31].

Introduce the transverse bar into the screw or transverse hook opening. Use the Rod Pusher [388.114] if necessary.

Secure the transverse bar to the hook or screw by inserting the locking cap and tightening the set screw.

Secure the transverse bar to the rod by tightening the setscrew firmly.

Anterior Approach

Staples and washers can be used to provide secure anchorage for anterolateral constructs.

Insert staple

For the 6.2 mm and 7.0 mm staples, use the Staple Impactor [385.807] to position the staple on the anterolateral aspect of the thoracolumbar spine, to accommodate optimal screw placement.

Drive the tips through the cortical bone and seat the staple using the impactor and a small mallet.

Final Construct

Insert the screws through the staples or washers. Complete the construct using the rod and locking caps.
Click’X Monoaxial Screw and Hook Instrument and Titanium Implant Set [145.296]

Click’X Monoaxial Titanium Screw and Screw Instrument Set [145.298]

Graphic Case for Click’X Monoaxial Screws and Screw Instruments

690.151

Implants

Titanium Click’X Monoaxial Pedicle Screws

<table>
<thead>
<tr>
<th>DIAMETER</th>
<th>THREAD LENGTH</th>
<th>QTY.</th>
<th>DIAMETER</th>
<th>THREAD LENGTH</th>
<th>QTY.</th>
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<td>487.116</td>
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<td>487.148</td>
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<td>8</td>
<td>498.570</td>
<td>Titanium Click’X Locking Cap, 25 ea.</td>
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</table>
Click’X Monoaxial Screw and Hook Instrument and Titanium Implant Set [145.296] (continued)

Click’X Monoaxial Titanium Screw and Screw Instrument Set [145.298] (continued)

**Instruments**

- 388.101 Ratchet Handle, 6 mm hex coupling
- 388.102 Footed Screwdriver with T-Handle, for monoaxial screws, 2 ea.
- 396.303 Footed Screwdriver Shaft, 6 mm hex coupling, for monoaxial screws, 2 ea.
- 388.449 Rod Holding Forceps, for 6.0 mm rods, 2 ea.
- 314.131 3.5 mm Hexagonal Screwdriver with T-Handle, 2 ea.
- 388.367 Holding Sleeve, for Click’X Preassembled Screws, 2 ea.
- 388.388 Rocker Fork, small
- 396.304 Rocker Fork, medium
- 388.115 Rocker Fork, large
- 690.151 Graphic Case for Click’X Monoaxial Screws and Screw Instruments

Note: For additional information, please refer to package insert.

For detailed cleaning and sterilization instructions, please refer to http://us.synthes.com/Medical+Community/Cleaning+and+Sterilization.htm or to the below listed inserts, which will be included in the shipping container:

—Processing Synthes Reusable Medical Devices—Instruments, Instrument Trays and Graphic Cases—DJ1305
—Processing Non-sterile Synthes Implants—DJ1304
Click’X Monoaxial Titanium Hook and Hook Instrument Set [145.293]

Titanium Click’X Implants

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<td>499.411</td>
<td>Medium Lamina Hook, 8 ea.</td>
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<tr>
<td>499.412</td>
<td>Large Lamina Hook, 8 ea.</td>
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<tr>
<td>499.413</td>
<td>Thoracic Lamina Hook, 4 ea.</td>
</tr>
<tr>
<td>499.419</td>
<td>Small Tall Body Lamina Hook, 2 ea</td>
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<td>Medium Tall Body Lamina Hook, 2 ea</td>
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<tr>
<td>499.421</td>
<td>Large Tall Body Lamina Hook, 2 ea</td>
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<tr>
<td>499.414</td>
<td>Pedicle Hook, 10 ea.</td>
</tr>
<tr>
<td>499.416</td>
<td>Transverse Process Hook, right, 4 ea.</td>
</tr>
<tr>
<td>499.417</td>
<td>Transverse Process Hook, left, 4 ea.</td>
</tr>
<tr>
<td>499.440</td>
<td>Lamina hook Offset, right, 2 ea.</td>
</tr>
<tr>
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<td>Lamina hook Offset, left, 2 ea.</td>
</tr>
<tr>
<td>499.442</td>
<td>Up-Angled Lamina Hook, 4 ea.</td>
</tr>
<tr>
<td>499.444</td>
<td>Up-Angled Lamina Hook, offset right, 2 ea.</td>
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<td>499.445</td>
<td>Up-Angled Lamina Hook, offset left, 2 ea.</td>
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<tr>
<td>499.418</td>
<td>Down-Angled Lamina Hook, 4 ea.</td>
</tr>
<tr>
<td>499.446</td>
<td>Down-Angled Lamina Hook, offset right, 2 ea.</td>
</tr>
<tr>
<td>499.447</td>
<td>Down-Angled Lamina Hook, offset left, 2 ea.</td>
</tr>
<tr>
<td>499.422</td>
<td>Small Lamina Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.423</td>
<td>Medium Lamina Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.424</td>
<td>Large Lamina Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.425</td>
<td>Thoracic Lamina Hook, transverse, 2 ea.</td>
</tr>
</tbody>
</table>

Titanium Click’X Implants (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>499.431</td>
<td>Small Tall Body Lamina Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.432</td>
<td>Medium Tall Body Lamina Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.433</td>
<td>Large Tall Body Lamina Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.426</td>
<td>Pedicle Hook, transverse, 2 ea.</td>
</tr>
<tr>
<td>499.428</td>
<td>Transverse Process Hook, transverse right, 2 ea.</td>
</tr>
<tr>
<td>499.429</td>
<td>Transverse Process Hook, transverse left, 2 ea.</td>
</tr>
<tr>
<td>499.430</td>
<td>Down-Angled Lamina Hook, transverse, 2 ea.</td>
</tr>
</tbody>
</table>

Instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>388.103</td>
<td>Pedicle Finder</td>
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<tr>
<td>388.104</td>
<td>Small Lamina Finder</td>
</tr>
<tr>
<td>388.105</td>
<td>Medium Lamina Finder</td>
</tr>
<tr>
<td>388.106</td>
<td>Large Lamina Finder</td>
</tr>
<tr>
<td>388.107</td>
<td>Hook Holding Forceps, lateral</td>
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<tr>
<td>388.108</td>
<td>Hook Holding Forceps, straight, 2 ea.</td>
</tr>
<tr>
<td>388.109</td>
<td>Hook Holding Forceps, curved</td>
</tr>
<tr>
<td>388.110</td>
<td>Hook Positioner</td>
</tr>
<tr>
<td>690.152</td>
<td>Graphic Case for Click’X Monoaxial Hooks and Hook Instruments</td>
</tr>
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</table>
### 6.0 mm Titanium Transverse Bars

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<tr>
<th>LENGTH</th>
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<td>15 mm</td>
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<td>499.450</td>
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<tr>
<td>20 mm</td>
<td>2</td>
<td>499.451</td>
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<tr>
<td>25 mm</td>
<td>2</td>
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<tr>
<td>30 mm</td>
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### Titanium Staples

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<tr>
<td>5.2 mm</td>
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<td>498.301</td>
</tr>
<tr>
<td>6.2 mm</td>
<td>6</td>
<td>498.302</td>
</tr>
<tr>
<td>7.0 mm</td>
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### Titanium Washers

<table>
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<tr>
<th>INNER/OUTER DIAMETER</th>
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<th>Description</th>
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<tbody>
<tr>
<td>5.0 mm / 16 mm</td>
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<td>498.035</td>
</tr>
<tr>
<td>6.0 mm / 16 mm</td>
<td>6</td>
<td>498.036</td>
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<tr>
<td>7.0 mm / 16 mm</td>
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<td>498.037</td>
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<tr>
<td>8.0 mm / 16 mm</td>
<td>6</td>
<td>498.038</td>
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<tr>
<td>5.0 mm / 18 mm</td>
<td>6</td>
<td>498.045</td>
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<tr>
<td>6.0 mm / 18 mm</td>
<td>6</td>
<td>498.046</td>
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<tr>
<td>7.0 mm / 18 mm</td>
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<td>498.047</td>
</tr>
<tr>
<td>8.0 mm / 18 mm</td>
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### Graphic Case for Click’X Monoaxial Rods and Connectors

<table>
<thead>
<tr>
<th>Description</th>
<th>QTY.</th>
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</thead>
<tbody>
<tr>
<td>690.153</td>
<td></td>
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</tbody>
</table>

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**Titanium Click’X Implants**

- **Click’X Locking Cap, 15 ea.**
  - 6.0 mm Titanium Rods
    - 200 mm: 2 ea. (498.108)
    - 300 mm: 2 ea. (498.112)
    - 400 mm: 2 ea. (498.116)
    - 500 mm: 4 ea. (498.119)
- **Titanium Low Profile Transconnectors, for 6.0 mm rods**
  - 15 mm: 2 ea. (497.791)
  - 18 mm: 2 ea. (497.792)
  - 21 mm: 3 ea. (497.793)
  - 24 mm: 3 ea. (497.794)
  - 25.5 mm–30.5 mm: 4 ea. (497.795)
  - 31.5 mm–34 mm: 3 ea. (497.796)
  - 35 mm–41 mm: 3 ea. (497.797)
  - 42 mm–55 mm: 2 ea. (497.798)
  - 56 mm–83 mm: 2 ea. (497.799)
  - Titanium Preassembled Transconnector Clamp, 4 ea. (498.813)
  - 3.5 mm Transconnector Bar, 80 mm, 2 ea. (498.120)
  - 3.5 mm Transconnector Bar, 120 mm, 2 ea. (498.125)
- **Titanium Preassembled Transconnector Clamp, 4 ea.**
- **Graphic Case for Click’X Monoaxial Rods and Connectors**
  - 690.153
Click’X Monoaxial Rod Instrument Set [145.294]
388.112 In Situ Bender, right
388.113 In Situ Bender, left
388.117 Pipe Benders, 2 ea.
388.905 Coated Rod Template, for 6.0 mm rod, 500 mm
388.902 Coated Rod Template, for 6.0 mm rod, 150 mm
388.961 Rod Bender, with bend radius adjustment
388.114 Rod Pusher
388.118 Parallel Distraction Forceps
388.119 Parallel Compression Forceps
388.366 Long Screwdriver with knurled handled, for Click’X Locking Cap, 2 ea.
388.369 Rod Pusher, dual position, for Click’X
321.133 Torque Limiting Handle, quick release
388.079 3.5 mm Hexagonal Screwdriver Shaft, 6 mm hex coupling
388.329 3.5 mm Hexagonal Screwdriver Shaft, 6 mm hex coupling, long
388.31 Long Small Hexagonal Screwdriver
388.865 Measuring Template, for Low Profile Transconnectors for 6.0 mm Rods
385.807 Staple Impactor, for 6.0 mm to 8.0 mm staples
690.154 Graphic Case for Click’X Monoaxial Rod Instruments

Click’X Monoaxial Bi-Planar Persuader Instrument Set [01.604.601]
03.604.001 Bi-Planar Persuader, for Click’X Monoaxial, 2 ea.
03.604.002 Lateral Implant Holder, for Click’X Monoaxial Bi-Planar Persuader, 2 ea.
690.156 Graphic Case for Click’X Monoaxial Bi-Planar Persuader Instruments

Also Available

Implants
9.0 mm Titanium Click’X Monoaxial Pedicle Screws

<table>
<thead>
<tr>
<th>THREAD LENGTH</th>
<th>THREAD LENGTH</th>
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<tr>
<td>487.162</td>
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<td>487.171</td>
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<tr>
<td>487.166</td>
<td>487.172</td>
</tr>
</tbody>
</table>

Instrument
03.604.003 Simple Persuader, for Click’X Monoaxial

Screw Racks, Trays and Modules
690.155 Screw Rack, for Click’X Monoaxial Screws
304.151 Locking Cap Tray, for Click’X Monoaxial Screw Rack
304.152 Click’X Monoaxial Hook Implant Module
304.153 Click’X Monoaxial Transverse Bar Module
304.154 Click’X Monoaxial Transconnector Module