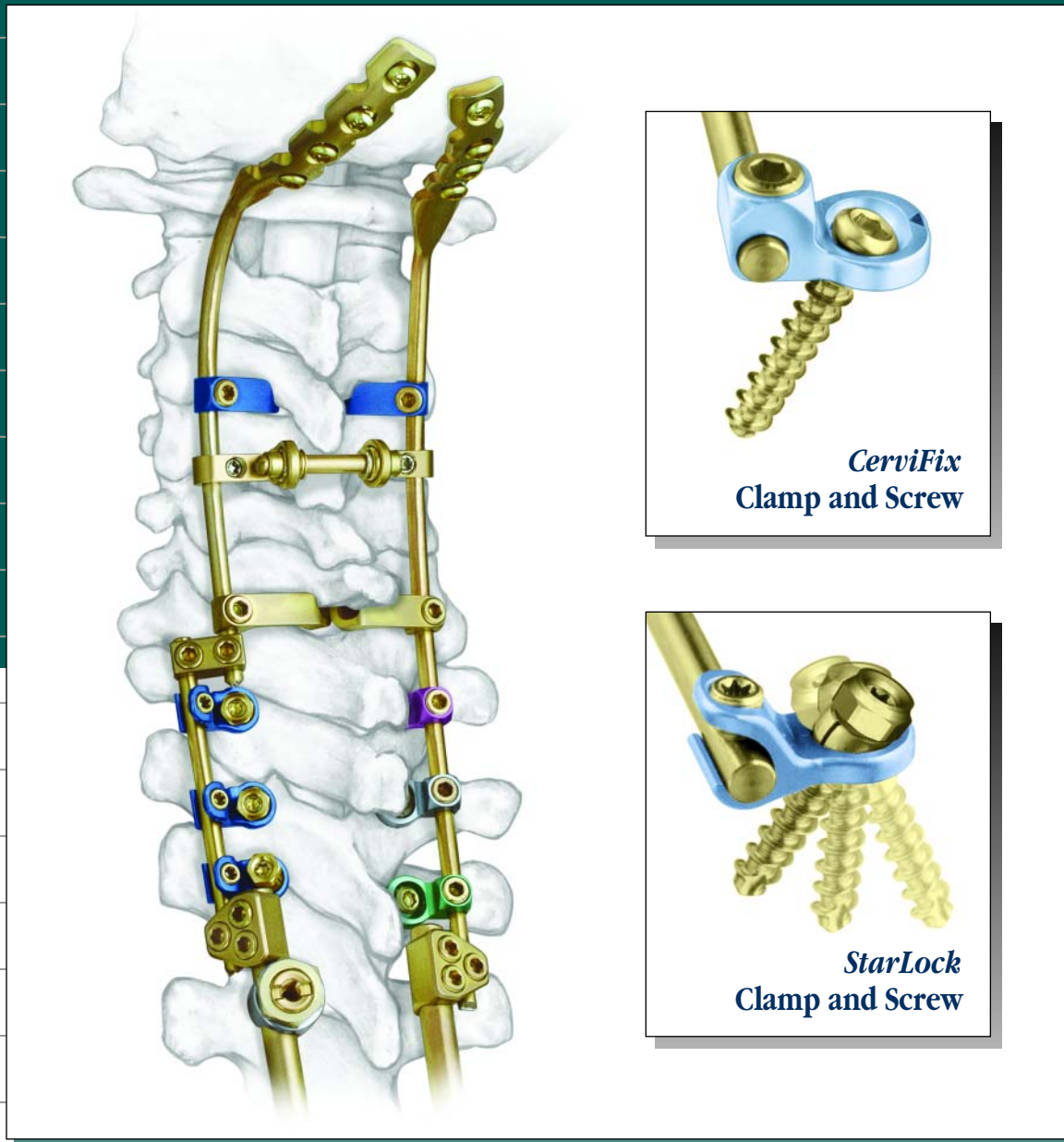


# The CerviFix™ System

*Including the StarLock Components*



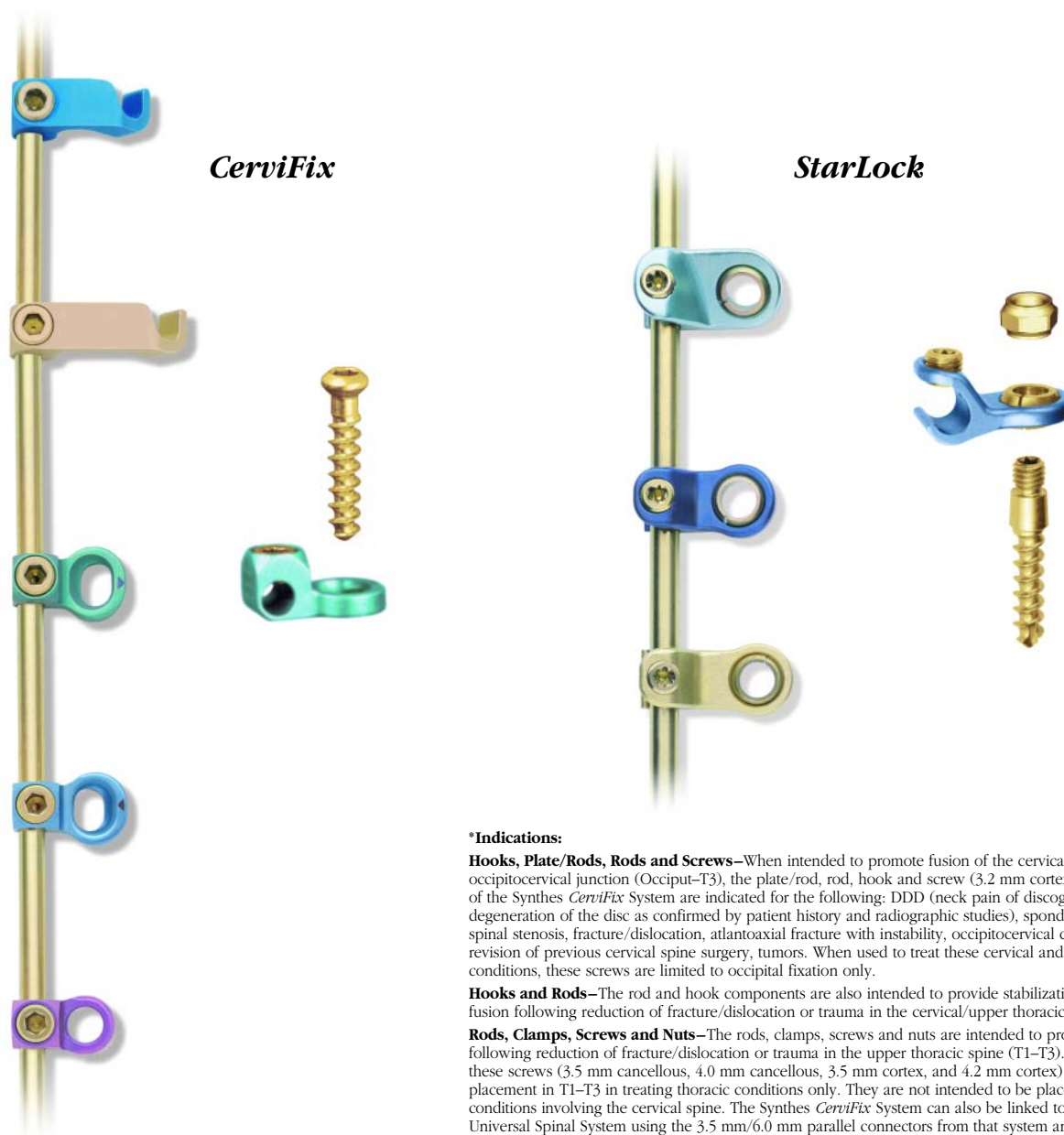
# The CerviFix System

The *CerviFix* System is a comprehensive set of implants, including clamps, screws, hooks, and rods, designed for posterior stabilization of the upper spine.\* It provides the flexibility required to meet variable patient anatomy.

The *CerviFix* System has the versatility to extend to the occiput and to cross the cervicothoracic junction. Linking the *CerviFix* System to the Universal Spinal System allows a continuous construct spanning from the occiput to the sacrum.

## Two different clamp/screw designs address varying surgical needs:

1. The *CerviFix* clamps and screws permit optimal variability in clamp placement along the rod, facilitating proper device alignment.
2. The *StarLock* clamps attach after screw insertion and create a rigid, locked construct.



### \*Indications:

**Hooks, Plate/Rods, Rods and Screws**—When intended to promote fusion of the cervical spine and occipitocervical junction (Occiput–T3), the plate/rod, rod, hook and screw (3.2 mm cortex) components of the Synthes *CerviFix* System are indicated for the following: DDD (neck pain of discogenic origin with degeneration of the disc as confirmed by patient history and radiographic studies), spondylolisthesis, spinal stenosis, fracture/dislocation, atlantoaxial fracture with instability, occipitocervical dislocation, revision of previous cervical spine surgery, tumors. When used to treat these cervical and occipitocervical conditions, these screws are limited to occipital fixation only.

**Hooks and Rods**—The rod and hook components are also intended to provide stabilization to promote fusion following reduction of fracture/dislocation or trauma in the cervical/upper thoracic (C1–T3) spine.

**Rods, Clamps, Screws and Nuts**—The rods, clamps, screws and nuts are intended to promote fusion following reduction of fracture/dislocation or trauma in the upper thoracic spine (T1–T3). The use of these screws (3.5 mm cancellous, 4.0 mm cancellous, 3.5 mm cortex, and 4.2 mm cortex) is limited to placement in T1–T3 in treating thoracic conditions only. They are not intended to be placed in or treat conditions involving the cervical spine. The Synthes *CerviFix* System can also be linked to the Synthes Universal Spinal System using the 3.5 mm/6.0 mm parallel connectors from that system and via the *CerviFix* tapered rods using lamina hooks, transverse process hooks, pedicle hooks, 4.2 mm screws, and the 5.0 mm/6.0 mm parallel connector.

# CerviFix Implants



## Titanium Clamps

### Medial [498.947] (green)

Provides 15° nominal medial screw angulation (5°–25° range when 3.5 mm cancellous screws are used) and sufficient variability in screw placement in the cephalocaudal plane.



### Lateral [498.948] (blue)

Provides 15° nominal lateral screw angulation (5°–25° range when 3.5 mm cancellous screws are used) and sufficient variability in screw placement in the cephalocaudal plane.



### Neutral [498.955] (purple)

Permits screw insertion perpendicular to the rod.



## Titanium Screws



### 3.5 mm Cancellous Bone Screws

Fully threaded, [403.508–403.540]  
8 mm–40 mm lengths\*

For use with the clamps, facilitating adequate screw insertion and allowing an additional 10° angulation in all directions



### 4.0 mm Cancellous Bone Screws

5.0 mm head, fully threaded  
[409.010–409.026]  
10 mm–26 mm lengths\*

For emergency applications



### 3.2 mm Cortex Screws

[403.308.99–403.322.99]  
8 mm–22 mm lengths\*

For use in the occiput with the Occipital Plate/Rod

\* 2 mm increments

# CerviFix Implants



## Titanium Occipital Plate/Rod [498.956]

- Provides simple, stable anatomic fixation of the occipitocervical junction
- Contourable implant fits varying patient anatomy
- Fixes to occiput with the 3.2 mm Cortex Screws



## 3.5 mm Titanium Rods [498.120, 498.125, 498.957]

- 80 mm, 120 mm, 240 mm lengths
- Contourable



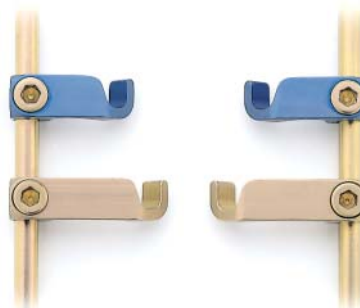
## Titanium Hard Rods [498.936, 498.937, 498.938, 498.939] additionally available

- 3.5 mm/5.0 mm and 3.5 mm/6.0 mm
- 120 mm/170 mm and 240 mm/250 mm lengths
- Link the *CerviFix* System to the Universal Spinal System (USS)



## Preassembled Transconnector

- Easy placement after *CerviFix* construct is in position
- Variable axis connection increases flexibility of use
- Bridges rod distances from 32 mm to 60 mm [498.916] and 32 mm to 75 mm [498.917]
- Connection is easily locked and may be unlocked with the same instrument



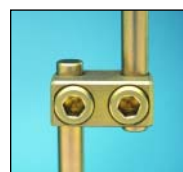
## Titanium Hooks

- For sublaminar insertion and stabilization
- For right [498.940] and left [498.941] applications
- Shorter hooks for right [498.942] and left [498.943] applications



## 3.5 mm/6.0 mm Titanium Parallel Rod Connector [498.960]

- Links the *CerviFix* System to the Universal Spinal System, bridging the cervicothoracic junction



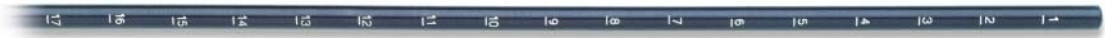
## 3.5 mm/3.5 mm Titanium Parallel Rod Connector [498.935]

- Extends an existing construct
- Provides a lateral offset to assist in crossing the cervicothoracic junction

# CerviFix Instruments



Template for Occipital Plate/Rod [388.869]



Template for 3.5 mm Rod [388.868]



Plate/Rod Cutter  
[391.990]



Bending Pliers for  
3.5 mm Titanium Rods  
[388.005]



Rod Cutter for  
3.5 mm Titanium Rods  
[388.016]

# CerviFix Instruments



**Awl, for 2.0 mm hole [388.01]**



**2.0 mm Drill Bit, quick coupling, with 65 mm stop, 165 mm [388.03]**



**Drill Guide, with graduation for 2.0 mm drill bit [388.029]**

Depth can be preset to provide stop for safe drilling



**2.0 mm Kirschner Wire, with stop [388.04]**



**Handle with quick coupling, small [311.43.99]**



**Tap for 3.5 mm Cancellous Bone Screws, 145 mm, 50 mm calibration [388.05]**

Calibrations allow tapping depth to be monitored when used with the tap sleeve



**Tap for 3.2 mm Cortex Bone Screws, 145 mm 50 mm calibration [388.06]**



**Tap Sleeve [388.07]**



**Depth Gauge for 2.7 mm and small screws [319.04]**



**Small Hexagonal Screwdriver, long [314.57]**



**Holding Sleeve [314.08]**



**Holding Forceps for 3.5 mm Rods [388.011]**

Permit in situ rod bend adjustment



**Holding Forceps [387.53]**



**Clamp Holding Forceps [388.034]**



**Compression Forceps [388.015]**

Facilitate restoration of lordosis



**Crimper, for use with Transconnector [388.038]**



# The *StarLock* Components

The *StarLock* implants create a rigid, locked variable axis clamp and screw construct, and are compatible with the *CerviFix* implants.\*

## The *StarLock* implants allow independent screw placement

- Clamps attach after screw insertion
- Clamps with different offsets accommodate medial-lateral variability

## The *StarLock* implants eliminate the need for preassembly

- Rod may be attached after clamp placement

## The *StarLock* implants create a rigid, locked construct

- Resistant to screw backout
- Resistant to construct pullout
- Based on fundamental AO ASIF principles



# *StarLock* Implants

## Titanium Clamps



**Upgoing (left/right)**  
[498.963/498.962]  
(left = blue, right = medium green)

Provide up to 50° screw angulation  
in the cephalocaudal plane



**Neutral** [498.961] (medium blue)

Provides 25° of screw angulation  
in all directions



**Offset Neutral** [498.964] (gold)

Provides an additional 2 mm offset  
between the rod and screw to  
accommodate medial-lateral variability



## **Offset Upgoing (left/right) [498.967/498.966], additionally available**

Provides an additional 2 mm offset between the rod and the screw

## **Extended Offset Neutral [498.969], additionally available**

Provides an additional 4 mm offset between the rod and the screw

\* *StarLock* and *CerviFix* screws are not interchangeable



# StarLock Implants

## Titanium Screws

- Self-tapping tip eliminates the need for tapping
- Self-retaining *StarDrive* recess facilitates screw loading



**3.5 mm Titanium Cancellous  
StarLock Screws**  
[497.301–497.312]

10 mm–30 mm lengths (thread + collar)

- For primary applications



**4.0 mm Titanium Cancellous  
StarLock Screws**  
[497.341–497.352]

10 mm–30 mm lengths (thread + collar)

- For emergency applications



**3.5 mm Titanium Cortex  
StarLock Screws**  
[497.321–497.333]

32 mm–54 mm lengths (thread + collar)

- Longer screw lengths accommodate special applications
- Larger core diameter for increased bending strength



**Titanium Nut [498.965]**

5.5 mm width across flats

- Rigidly locks screw to clamp

# StarLock Instruments



**3.5 mm/4.0 mm StarDrive  
Screwdriver, self-retaining [388.032]**

Eliminates the need for a holding sleeve



**Socket Wrench, 5.5 mm width across  
flats [388.031]**

- Self-retaining tip facilitates loading and insertion of the 5.5 mm nut
- Provides countertorque when used with the screwdriver, facilitating screw tightening



**Clamp Removal Tool [388.035]**

Disengages the clamp from the screw if removal is required

## Also Available



**Persuader for StarLock [388.036]**

Facilitates rod insertion to the clamp



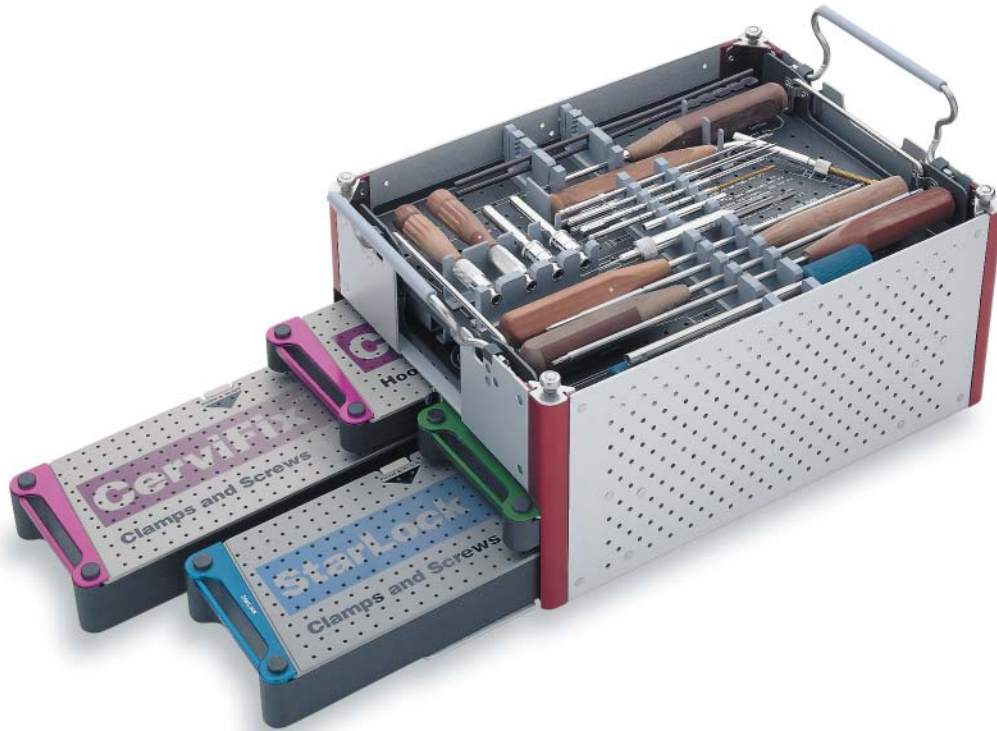
**Reamer for StarLock [388.037]**

Removes excess bone around the screw head



**Holding Sleeve for StarLock Screws  
[388.033]**

## The *CerviFix* System



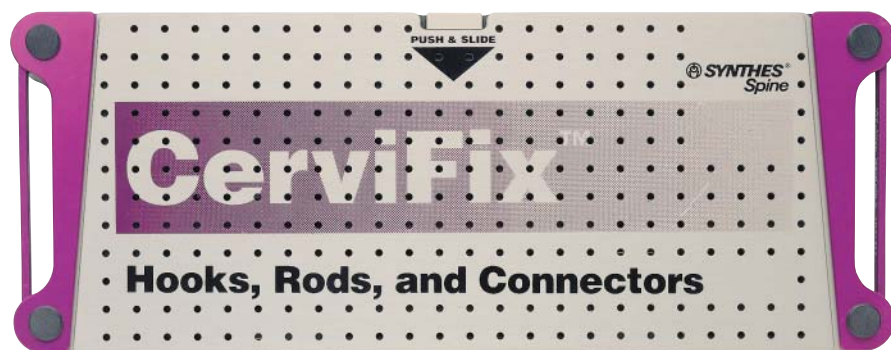
### The *CerviFix* System consists of the following sets:

- 145.889 *CerviFix* Instrument Set (includes Graphic Case 690.006)
- 145.864 *CerviFix* Titanium Hook, Rod, and Connector Module Set
- 145.888 *CerviFix* Titanium Clamp and Screw Module Set
  
- 105.887 *StarLock* Instrument and Titanium Implant Set, which consists of:
  - 145.887 *StarLock* Titanium Clamp and Screw Module Set
  - 388.031 Socket Wrench, 5.5 mm width across flats, 2 ea.
  - 388.032 3.5 mm/4.0 mm *StarLock* Screwdriver, self-retaining, 2 ea.
  - 388.035 Clamp Removal Tool
  
- 145.887 *StarLock* Titanium Clamp and Screw Module Set  
(included in Set 105.887, may also be ordered separately)

### System Configurations

For <i>CerviFix</i> procedures only:	For <i>StarLock</i> procedures only:	For both <i>CerviFix</i> and <i>StarLock</i> procedures:
145.889	145.889	145.889
145.864	145.864	145.864
145.888	105.887	145.888
		105.887

## CerviFix Titanium Hook, Rod and Connector Module Set [145.864]



### Module Contents

304.864	CerviFix Titanium Hook, Rod and Connector Module Case
498.120	3.5 mm Titanium Rod, 80 mm, 4 ea.
498.125	3.5 mm Titanium Rod, 120 mm, 4 ea.
498.957	3.5 mm Titanium Rod, 240 mm, 2 ea.
498.916	Titanium Transconnector, 60 mm, 2 ea.
498.917	Titanium Transconnector, 75 mm, 2 ea.
498.940	Titanium Hook, right, 2 ea.
498.941	Titanium Hook, left, 2 ea.
498.942	Titanium Small Hook, right, 2 ea.
498.943	Titanium Small Hook, left, 2 ea.
498.935	Titanium Parallel Rod Connector, 3.5 mm/3.5 mm, 4 ea.
498.960	Titanium Parallel Rod Connector, 3.5 mm/6.0 mm, 4 ea.
498.956	Titanium Occipital Plate/Rod, 4 ea.
403.308.99– 403.318.99	3.2 mm Titanium Cortex Screws, 8 mm–18 mm,* 8 ea.

### Also Available

403.320.99	3.2 mm Titanium Cortex Screw, 20 mm
403.322.99	3.2 mm Titanium Cortex Screw, 22 mm
498.950	Titanium Trans-Connector Clamp, right
498.951	Titanium Trans-Connector Clamp, left
498.936	3.5/5.0 mm Titanium Hard Rod, 120/170 mm
498.937	3.5/6.0 mm Titanium Hard Rod, 120/170 mm
498.938	3.5/6.0 mm Titanium Hard Rod, 240/250 mm
498.939	3.5/6.0 mm Titanium Hard Rod, 240/250 mm

\* 2 mm increments

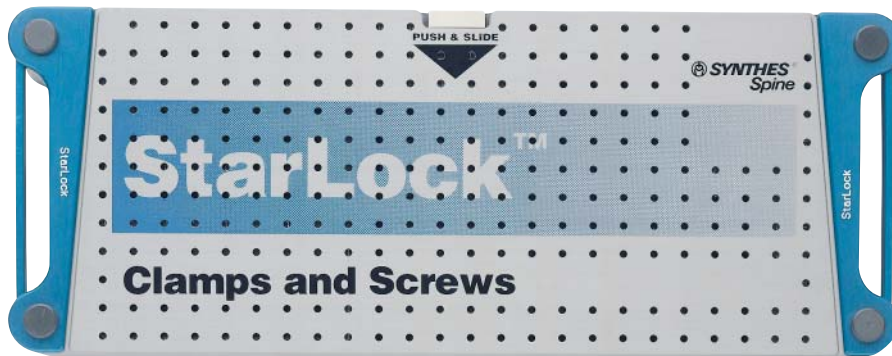


## Module Contents

304.888	<i>CerviFix</i> Titanium Clamp and Screw Module Case		
498.947	Titanium Medial Clamp, 6 ea.	498.948	Titanium Lateral Clamp, 12 ea.
		498.955	Titanium Neutral Clamp, 6 ea.
			3.5 mm Titanium Cancellous Bone Screws
		403.508–	8, 10, 24–40 mm,* 6 ea.
		403.540	12–22 mm,* 12 ea.

\* 2 mm increments

## StarLock Titanium Clamp and Screw Module Set [145.887]



### Module Contents

304.887	StarLock Titanium Clamp and Screw Module Case
498.961	Titanium Neutral StarLock Clamp, 14 ea.
498.962	Titanium Upgoing StarLock Clamp, right, 4 ea.
498.963	Titanium Upgoing StarLock Clamp, left, 4 ea.
498.964	Titanium Offset Neutral StarLock Clamp, 4 ea.
498.965	Titanium Nut, 5.5 mm width across flats, 32 ea.

	3.5 mm Titanium Cancellous StarLock Screws
497.301	10 mm <sup>†</sup> , 6 ea.
497.302– 497.305	12–18 mm, <sup>†*</sup> 12 ea.
497.306– 497.308	20–24 mm, <sup>†*</sup> 6 ea.
497.309	26 mm <sup>†</sup> , 4 ea.
497.311– 497.312	28–30 mm, <sup>†*</sup> 4 ea.

	4.0 mm Titanium Cancellous StarLock Screws
497.341	10 mm, <sup>†</sup> 4 ea.
497.342– 497.345	12–18 mm, <sup>†*</sup> 8 ea.
497.346– 497.349	20–26 mm, <sup>†*</sup> 4 ea.
497.351– 497.352	28–30 mm, <sup>†*</sup> 4 ea.

	3.5 mm Titanium Cortex StarLock Screws
497.321– 497.329	32–48 mm, <sup>†*</sup> 4 ea.
497.331– 497.333	50–54 mm, <sup>†*</sup> 4 ea.

### Also Available

498.966	Titanium Offset Upgoing StarLock Clamp, right
498.967	Titanium Offset Upgoing StarLock Clamp, left
498.969	Titanium Extended Offset Neutral StarLock Clamp

<sup>†</sup> length includes thread + collar

\* 2 mm increments



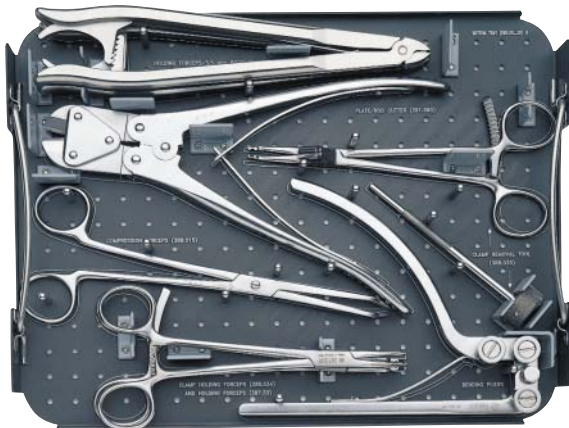
## CerviFix Instrument Set [145.889]

The **CerviFix Graphic Case [690.006]** consists of:

- 690.006.00 Lid
- 690.006.10 Base
- 690.006.20 Top Instrument Tray
- 690.006.30 Bottom Instrument Tray



- 311.43.99 Handle with quick coupling, 2 ea.
- 314.08 Holding Sleeve, 2 ea.
- 314.57 Small Hexagonal Screwdriver, long, 2 ea.
- 319.04 Depth Gauge for 2.7 mm and small screws
- 388.01 Awl for 2.0 mm hole
- 388.029 Drill Guide with graduation for 2.0 mm drill bit
- 388.03 2.0 mm Drill Bit, quick coupling, with 65 mm stop, 165 mm, 2 ea.
- 388.04 2.0 mm Kirschner Wire with stop, 2 ea.
- 388.05 Tap for 3.5 mm Cancellous Bone Screws, 145 mm, 50 mm calibration
- 388.06 Tap for 3.2 mm Cortex Screws, 145 mm, 50 mm calibration
- 388.07 Tap Sleeve
- 388.868 Template for 3.5 mm Rod, 240 mm
- 388.869 Template for Occipital Plate/Rod



- 387.53 Holding Forceps
- 388.005 Bending Pliers for 3.5 mm Titanium Rods
- 388.011 Holding Forceps for 3.5 mm Rods, 2 ea.
- 388.015 Compression Forceps
- 388.034 Clamp Holding Forceps
- 388.038 Crimper for use with Transconnector
- 391.990 Plate/Rod Cutter

- 388.031 Socket Wrench, 5.5 mm width across flats, 2 ea.
- 388.032 3.5 mm/4.0 mm *StarDrive* Screwdriver, self-retaining, 2 ea.
- 388.035 Clamp Removal Tool

1049 M. Aebi, J.S. Thalgott and J.K. Webb.  
*AO ASIF Principles in Spine Surgery.*  
Berlin; Springer-Verlag. 1998.

- 388.016 Rod Cutter for 3.5 mm Titanium Rods
- 388.036 Persuader for *StarLock*
- 388.037 Reamer for *StarLock*
- 388.033 Holding Sleeve for *StarLock* Screws





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