

# Aesculap<sup>®</sup> SecureSpan<sup>®</sup>

Laminoplasty System



Aesculap Spine

# Aesculap® SecureSpan®



## Content

A Foreword	3
B Features	4
C Surgical Technique	6
D Ordering Information	
D1 Implants	16
D2 Instruments	17

## Foreword

Cervical Laminoplasty is a surgical procedure originating in Japan that has gained acceptance in the United States and other parts of the world. Originally targeted toward the Asian population susceptible to Ossification of the Posterior Longitudinal Ligament (OPLL), it has expanded into treatment for spinal stenosis.



## Features

The SecureSpan® Laminoplasty Fixation System provides a comprehensive solution, which enables a reliable, quick and effective fixation for Laminoplasty procedures.

### SecureSpan® offers the following benefits to the surgeon

- **Solid connection between screw and screwdriver**  
For improved handling, the self-retaining screwdriver keeps the screw fixed while being implanted.
- **Color coded implants**  
Easy visual identification of the correct implant size.
- **Variety of implant sizes**  
Comprehensive size offering provides range of options when choosing the best size to fit each patient's anatomy.

### Instrumentation

- **Ergonomic**
  - One-handed operation of key instruments raises comfort in hand.
  - Easy on/off screw connection speeds implantation.
- **Designed with patient safety in mind**
  - Screwdriver retains implant until properly placed.

## Implants

---

SecureSpan® screws and plates come in a variety of sizes for great intraoperative flexibility.

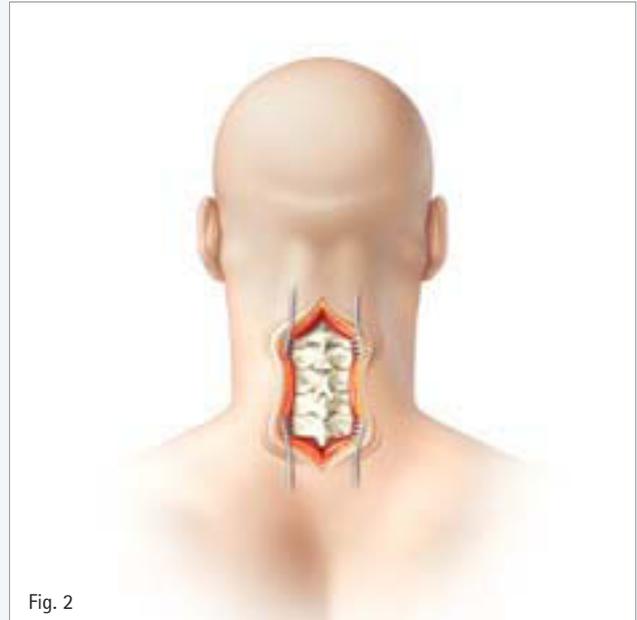
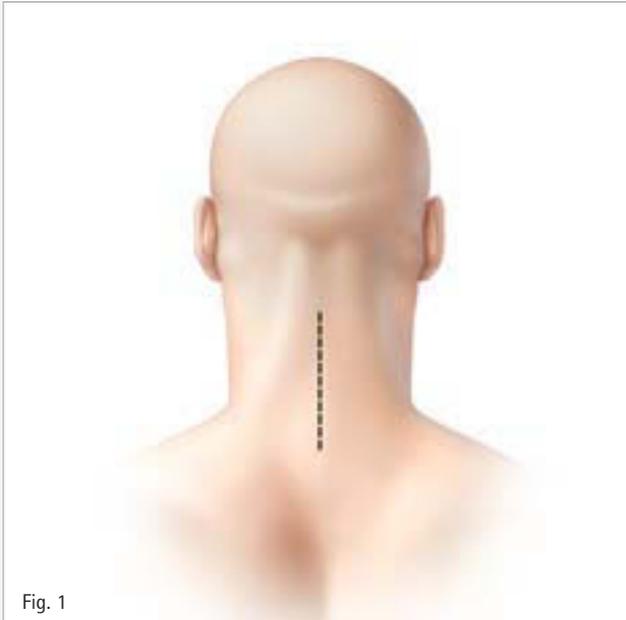
- **The implants are color-coded for easy identification**
- **Plates are available in 5 sizes**  
4 mm, 6 mm, 8 mm, 10 mm and 12 mm
- **2 mm diameter plate attachment screws are offered in lengths of:**  
4 mm, 5 mm, 6 mm, 8 mm, 10 mm and 12 mm
- **2.4 mm diameter revision screws are offered in lengths of:**  
5 mm, 6 mm, 7 mm, 9 mm, 11 mm and 13 mm

# Aesculap® SecureSpan®

C

## Surgical Technique



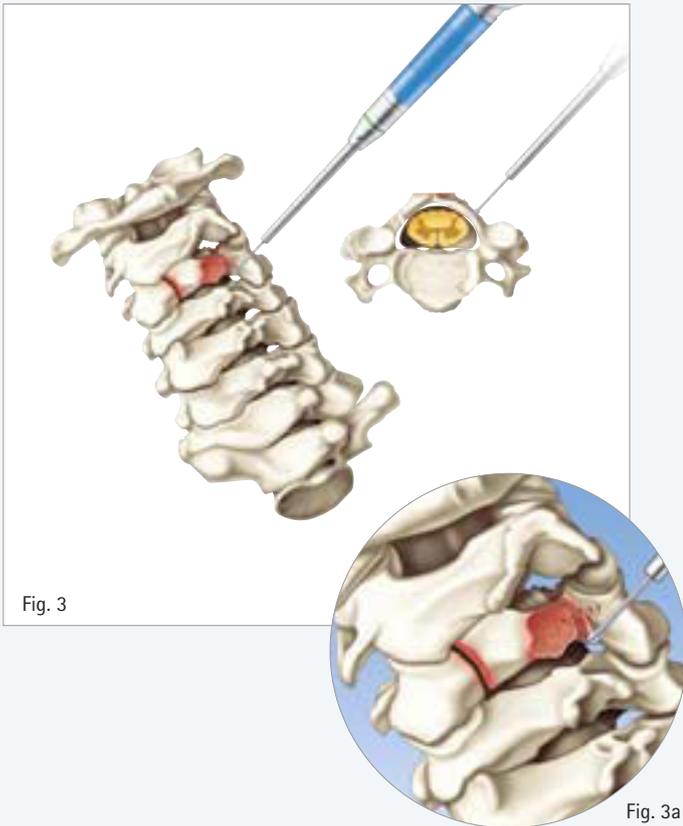


### Approach

Place the patient in a prone position with the neck in slight flexion. Using a midline incision (Fig. 1), expose the laminae, and facets of the desired levels (Fig. 2).

# Aesculap® SecureSpan®

## Surgical Technique



### Preparation

- Prepare the open side trough along the junction of the lamina and lateral mass. Use a high speed burr to transect the lamina 1 cm lateral to the midline. Take care to not contact the underlying dura.  
Decorticate the lamina on the contralateral side by scoring. Using a high speed drill, create a hinge. The hinge trough should be slightly more lateral than the lamina-facet interval with a depth to the dorsal cortex only (Fig. 3).

#### Note:

Cutting too far lateral will lead to extensive burring of the facet without detachment of the lamina, whereas cutting too medial will leave a lateral bony edge that may impinge the spinal cord as it drifts backwards.

### Laminotomy

- Remove soft tissue at the caudal and cranial endpoint as needed.
- Utilizing the lamina lifter, lift the lamina away from the spinal canal (Fig. 4).

#### Note:

The laminae are opened slowly, creating greenstick fractures of the thinned laminae on the hinge side.



Fig. 5

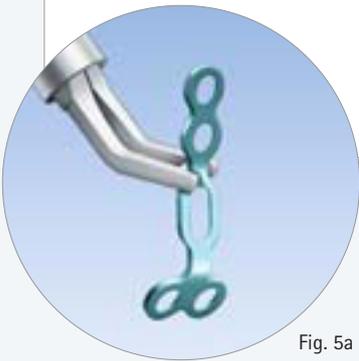


Fig. 5a

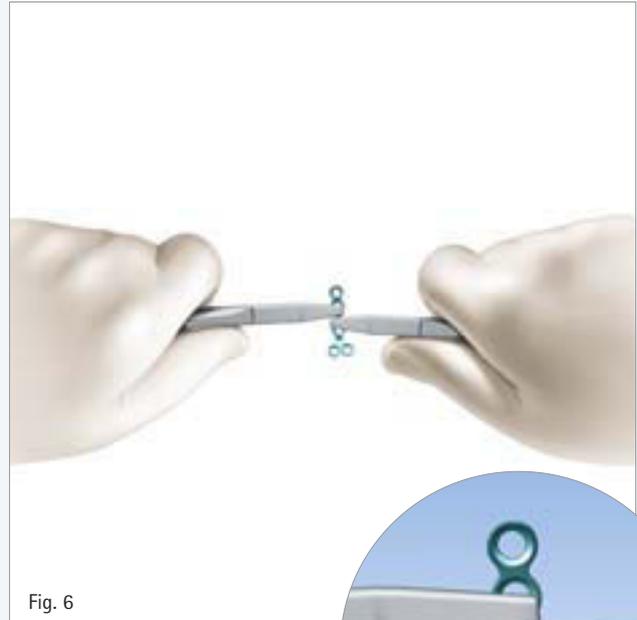


Fig. 6

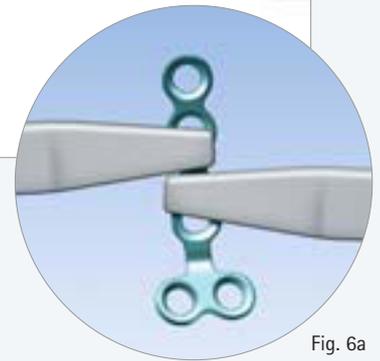


Fig. 6a

### Plate Preparation

- Using the plate holder, pick plate out of the caddy (Fig. 5).

### Plate Holder

Plate sizes are in terms of laminar gap.

- 4 mm brown
- 6 mm turquoise
- 8 mm yellow
- 10 mm light blue
- 12 mm grey/silver

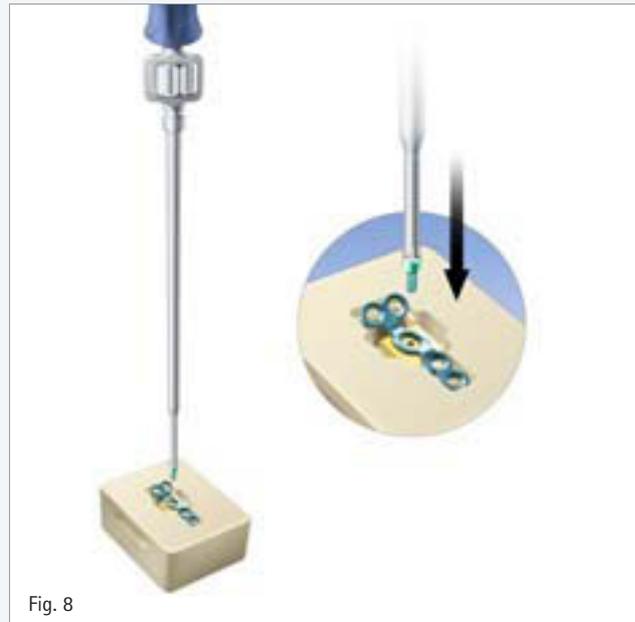
Using the plate benders LX185R, to bend plate to the desired angles (Fig. 6).

#### Caution:

SecureSpan® plates should always be bent in one direction only. SecureSpan® plates should never be bent back.

# Aesculap® SecureSpan®

## Surgical Technique



### Plate and Stabilization Block Placement

- To load screw onto the screwdriver, place screwdriver over screw head and turn screwdriver's thumbwheel until threaded internal shaft is fully engaged into the threaded receptacle in the screw head (Fig. 7).
- Place the stabilization block, e.g. autograft, in the preparation device ME739. Attach the plate to the stabilization block by drilling a hole and inserting the self-tapping 5 mm center screw FG923T (Fig. 8).



Fig. 9



Fig. 9a

- Utilizing the plate holder, place the plate attached to the stabilization block into the laminar opening (Fig. 9).

**Note:**

SecureSpan® should always be used with a stabilization block.

# Aesculap® SecureSpan®

## Surgical Technique

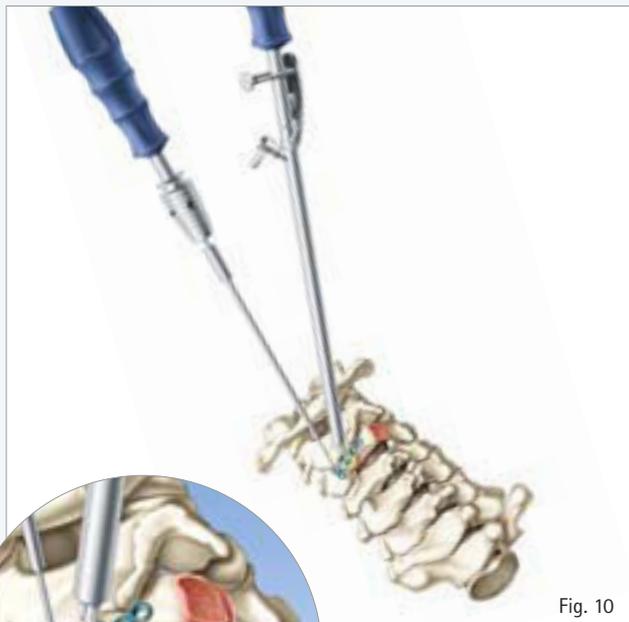


Fig. 10



Fig. 10a



Fig. 11



Fig. 11a

### Drill

- Drill holes into the proper location on the lateral mass. Next drill holes on the lamina (Fig. 10).
- Drills are configured with self stop at lengths of 4 mm, 6 mm, 8 mm, 10 mm and 12 mm.
- An alternative drill and drill guide with an integrated depth stop is provided (Fig. 11).

### Caution:

Ensure safe drill trajectory.



Fig. 12

Fig. 12a

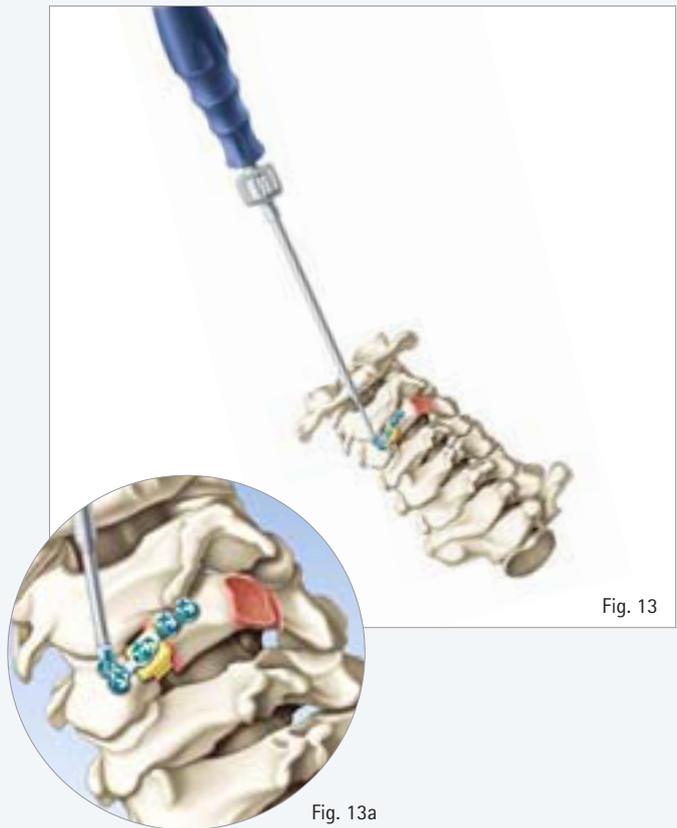


Fig. 13

Fig. 13a

### Secure Plate

- To load plate screw onto the screwdriver, place screwdriver over screw head and turn screwdriver's thumbwheel until threaded internal shaft is fully engaged into the threaded receptacle in the screw head (Fig. 12).
- Screw plate onto lamina at the predetermined hole location (Fig. 13).

# Aesculap® SecureSpan®

## Surgical Technique



Fig. 14



Fig. 14a

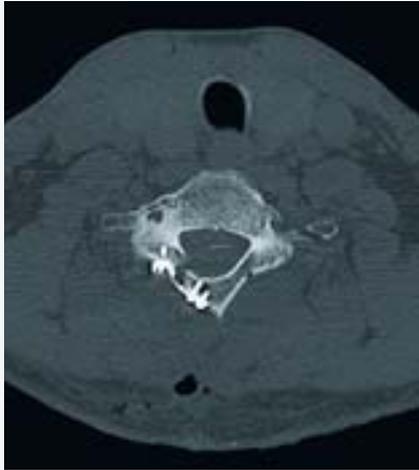


Fig. 15

- Revision screws are provided if needed (Fig. 14).
- Repeat previous steps at adjacent levels as necessary (Fig. 15).

### Explantation

- The Aesculap® SecureSpan® laminoplasty screwdriver has the capability to explant the laminoplasty screw incorporated into its design. The locking feature of the internal threaded screwdriver shaft allows for explantation of the screws even if the screw spins freely in the bone. Explantation is the reverse of the implantation procedure.



## Ordering Information – Implants

### Plates

Art. no.	Description
FG906T	Plate Single Bend Gap 4 mm, Brown
FG907T	Plate Single Bend Gap 6 mm, Turquoise
FG908T	Plate Single Bend Gap 8 mm, Yellow
FG909T	Plate Single Bend Gap 10 mm, Light Blue
FG910T	Plate Single Bend Gap 12 mm, Grey/Silver



### Screws

FG915T	Ø 2.0 mm, Length 4 mm Self Drilling/Tapping
FG916T	Ø 2.0 mm, Length 5 mm Self Drilling/Tapping
FG917T	Ø 2.0 mm, Length 6 mm Self Drilling/Tapping
FG918T	Ø 2.0 mm, Length 8 mm Self Drilling/Tapping
FG919T	Ø 2.0 mm, Length 10 mm Self Drilling/Tapping
FG920T	Ø 2.0 mm, Length 12 mm Self Drilling/Tapping



### Screws

FG925T	Ø 2.4 mm, Length 5 mm Revision Screw
FG926T	Ø 2.4 mm, Length 6 mm Revision Screw
FG927T	Ø 2.4 mm, Length 7 mm Revision Screw
FG928T	Ø 2.4 mm, Length 9 mm Revision Screw
FG929T	Ø 2.4 mm, Length 11 mm Revision Screw
FG930T	Ø 2.4 mm, Length 13 mm Revision Screw



### Screw

FG923T	Allograft Screw for stabilization block (to fix spacer on plate)
--------	--



## Ordering Information – Instruments

### Instruments

Art. no.	Description
FG847R	Lamina Lifter



FG851R	Plate Holder
--------	--------------



FG867R	SecureSpan® Awl
--------	-----------------



LX185R	Plate Bender
--------	--------------



FG861R	Handle for Drill
--------	------------------



# Aesculap® SecureSpan®

## Ordering Information – Instruments

### Instruments

Art. no.	Description
FG856SU	Drill, Length 4 mm
FG857SU	Drill, Length 6 mm
FG858SU	Drill, Length 8 mm
FG859SU	Drill, Length 10 mm
FG860SU	Drill, Length 12 mm



FG868R	SecureSpan® Drill Guide
FG869SU	SecureSpan® Drill for use with Guide



FG848R	Screwdriver
--------	-------------



## Instruments

Art. no.	Description
FG849R	Graft Holder



FG836R	Trial Implant, 4 mm
FG837R	Trial Implant, 6 mm
FG838R	Trial Implant, 8 mm
FG839R	Trial Implant, 10 mm
FG840R	Trial Implant, 12 mm



ME739	SecureSpan® Assembling Block
-------	------------------------------



