

Aesculap Spine

MACS TL

Modular Anterior Construct System
for the Thoracic and Lumbar spine



Product Information

Introduction

Surgical treatment of the anterior column has become a topic of discussion within the spine community.

Posterior approaches and subsequent stabilization with transpedicular instrumentation has become the widely accepted methodology, while anterior thoracolumbar stabilization has yet to be fully embraced. However, with innovation comes a philosophical shift.

As with any technological innovation, spinal instrumentation must not only address current trends, but also must provide the means to facilitate better patient outcomes, simplify operative techniques, and achieve rapid fusion.

The MACS TL Anterior Stabilization System, when coupled with a variety of minimally invasive techniques to approach the anterior column, allows for the adjunct posterior instrumentation providing the means for surgeons to improve patient outcomes by decreasing the degree of operative intensity.

With the suite of Miaspas instrument systems offered from Aesculap, surgeons have a great selection of approach solutions to place the MACS TL implant. Surgeons demanding small incisions and impeccable intraoperative views, will appreciate the innovative design of the Miaspas

Mini TTA frame, while the Miaspas TL provides the means to treat the patient through a full endoscopic approach and instrumented stabilization.

MACS TL offers great versatility within its thoughtful design philosophy. The modular construct allows for the treatment of degenerative disc trauma, disease, tumors, et. al., with either a slim plate or dual rod construct. The MACS TL system provides high biomechanical stability due to its angle rigid design, with the safety and simplicity of monocortical screws.



TWIN-SCREW



HMA POLYAXIAL



HMA MONOAXIAL

Concept

CHOICE

Different approaches lead to the goal.

The flexibility to fit the circumstance:

- Open Approach
- Mini-Open Approach with the Miaspas Mini TTA system
- Thoracoscopic Approach with the Miaspas TL system

STABILITY

No matter what the angle.

The system allows for proper screw placement in any situation:

- Polyaxial mechanism, 15° allowable angulation
- Angular rigidity
- Convergent monocortical screws

ACCURACY

Safe screw positioning.

The K-wire driven technique assists intra-operative fluoroscopic navigation:

- Cannulated screws
- Cannulated instruments
- Optional K-wire for the endoscopic technique



Concept

AESTHETICS Form and function.

The implants integrate smoothly into the anatomical structure of the spine:

- Low profile compact design
- Smooth contoured edges
- Color coded implants

VERSATILITY Without compromise.

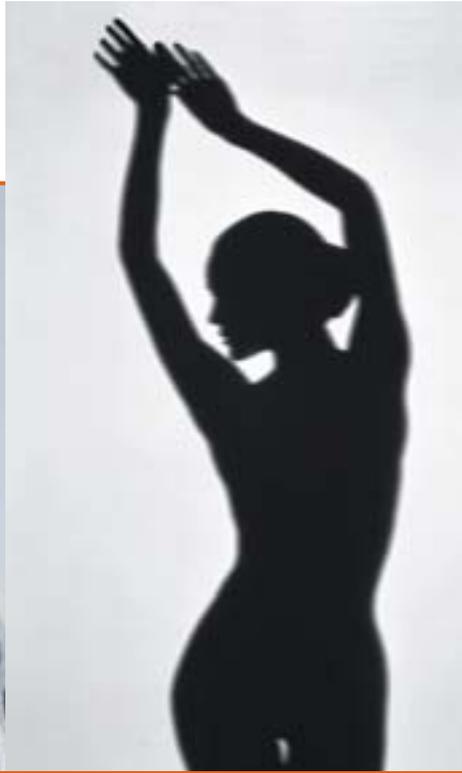
Choose due to indication:

- Twin Screw or HMA concept
- Plates sized from 45 mm to 100 mm in length
- Dual rod constructs for length 100 mm to 200 mm

SOLIDARITY Confluence of approach and application.

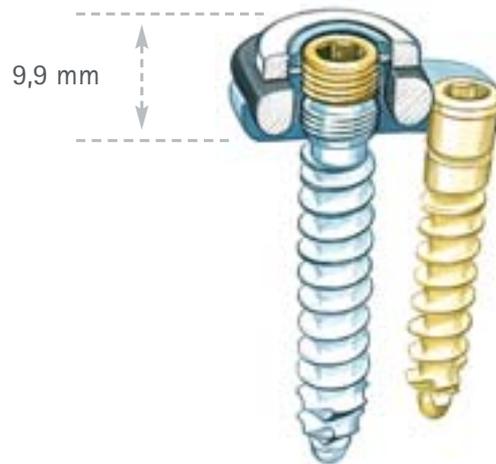
The modular concept match the requirements efficiently:

- Compatible approach and stabilization system
- Optimized stock management
- Flexible packaging solution

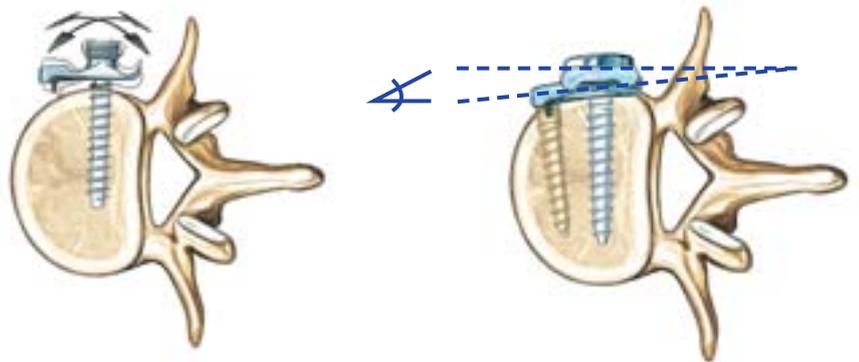


Highlights

- Best protection for soft tissue due to low profile and round edges



- Polyaxial mechanism allows best implant alignment, regardless of screw angle



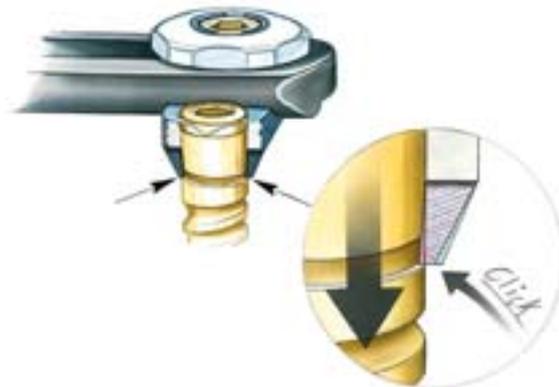
- Cannulated implants and instruments for safe screw positioning



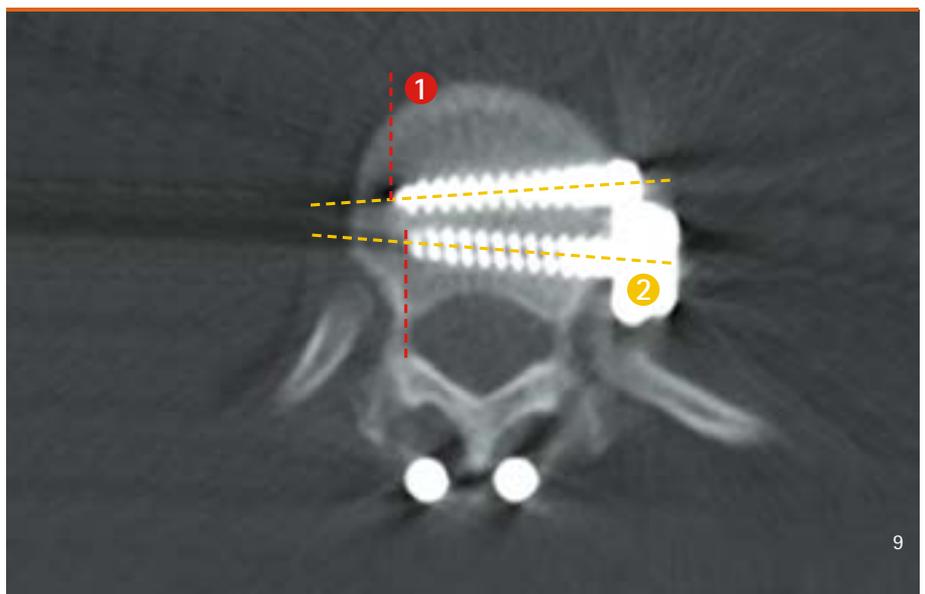
- Simplified thoracoscopic application with guided instrumentation facilitates optimal biomechanical position



- A special locking mechanism prevents the anterior stabilization screw from backing out

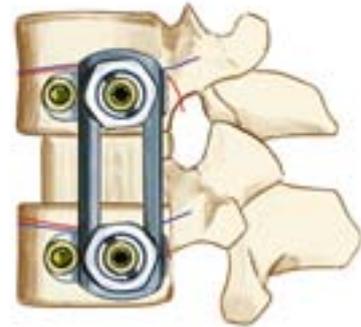


- Safe screw insertion due to monocortical screw design (1)
- Optimal anchorage due to convergent screw positioning (2)

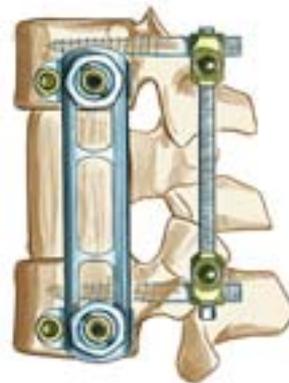


Highlights

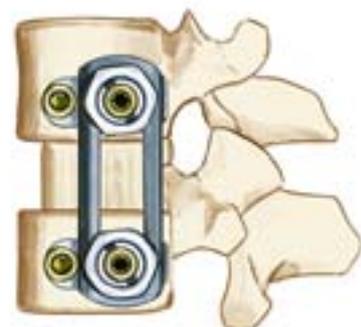
- Parallel screw positioning allows preservation of segmental vessels



- Parallel screw placement allows additional space for pedicle screws in the same vertebral body



- Four point stability guarantees optimal biomechanical angle stability



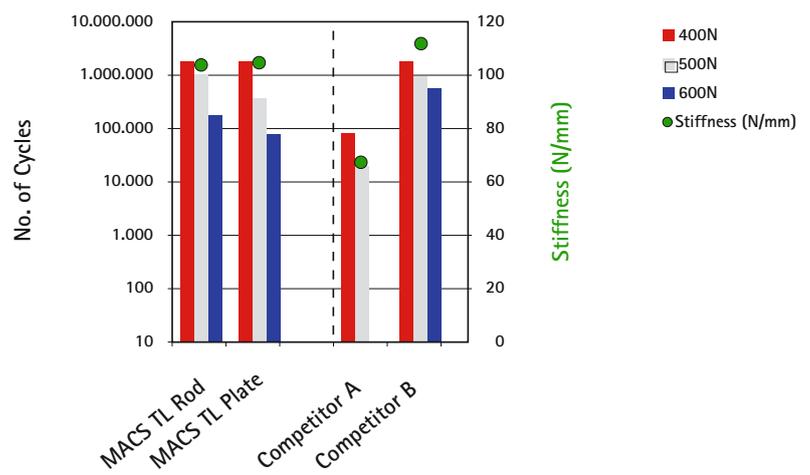
- Special thoracic element for four point stability up to T3



- Larger diameter polyaxial XL screw available for use in patients where additional stability may be desired
- Safe anchoring with elegant cementing through the cannulated and slotted screw
- XL screw may also be used to rescue standard sized polyaxial screws



- Tested biomechanical stability of the implant construct

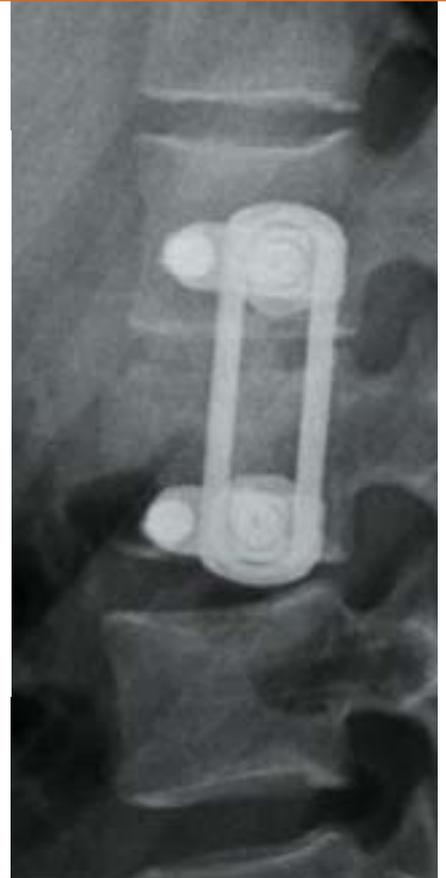
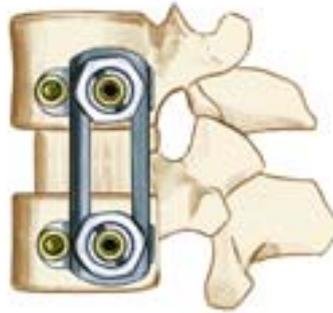


Cases

Case 1:

Monosegmental Fusion

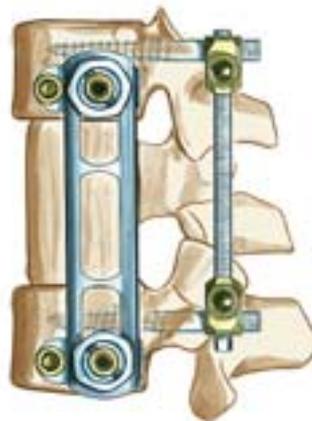
- T12 fracture type A3.1*, burst fracture, female, 24 years, Twin screw construct



Case 2:

Bisegmental Fusion

- T12 fracture type B1.2*, flexion distraction injury fracture, male, 21 years, Twin screw construct/pedicle screws

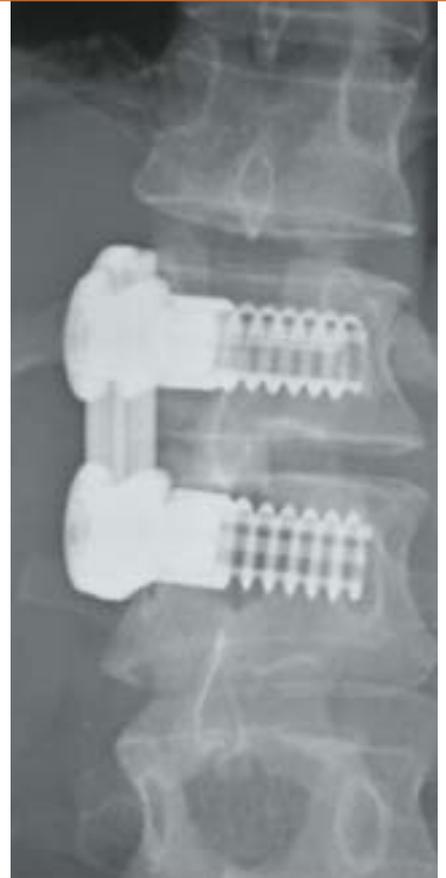


* AO fracture classification according to Magerl of thoracic and lumbar injuries

Case 3:

Pathologic Fracture

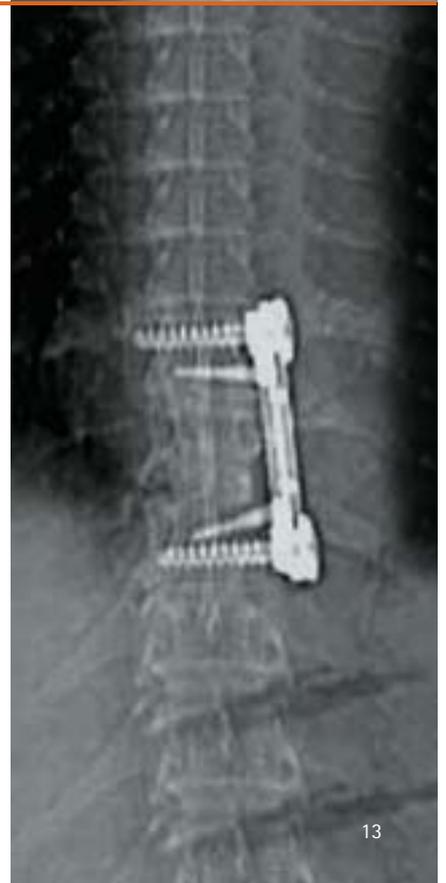
- T12 pathologic fracture, male, 60 years, HMA construct



Case 4:

Bisegmental Fusion Thoracic

- T9 burst fracture, type A3.2*, female, 65 years, Twin screw thoracic construct

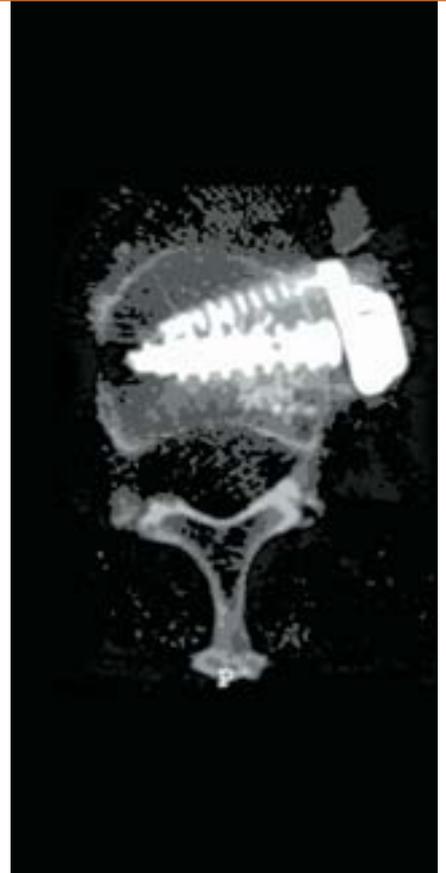


Cases

Case 5:

Pathologic Fracture

- T12 pathologic fracture, male, 60 years, Polyaxial XL screw, additionally fixed with bone cement



Case 6:

Multisegmental Scoliosis

- Multisegmental Scoliosis, female, 14 years
- Multisegmental anterior scoliosis correction with Twin screw stability or HMA screws monoaxial







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