Aesculap Spine

Expertise in Spinal Implant Systems





ABC2 Anterior Cervical Stabilization

Fully Dynamic and Self-Locking





Fully dynamic system

- Addressing "Wolff's Theory"
- Faster fusion due to load sharing
- Earlier and more substantial graft incorporation
- Allows for loading forces to the intervertebral implant



ABC E-Plate

- Extension to existing ABC plate
- One or two level extension possible
- Preserve the motion of adjacent disc spaces and fuse fewer levels, extension at a later stage possible if needed
- Cranial and Caudal extension possible may be fused without having to remove the primary plate

Self-locking screws

- "Zero-Step" automatic locking screws
- Spring-loaded locking mechanism integrated
- Time saving and safe procedure

activ C Cervical Disc Prosthesis



Safe treatment in both: single- and multi-level cases

- Combination of spike and keel
- Safe multi-level treatment without the risk of vertebral body split



Physiological center of rotation

- COR adjusted to the requirements of degenerated cervical spine segments
- According to new findings and internal study results, we designed the prosthesis and COR according to changed physiology of degenerated segments



Anatomical design

- Large contact area due to convex shape of the superior prosthesis plate
- Conforms to the anatomy of the vertebral body, thereby ensuring a firm fit

activ L Lumbar Intervertebral Disc Prosthesis





Smallest height 8.5 mm

- Smallest implant height of 8.5 mm
- In more than half the cases the surgeon requires a height smaller than 9mm



Translation

- Inlay can move in AP direction
- Adapts to motion patterns of individual segments
- Correction of minor retrolisthesis
- Posterior center of rotation



User defined combination of spikes and keel

- Both plates inferior and superior can be used as either spike or keel version and in each combination
- Choice of appropriate plate configuration regarding primary stability according to individual anatomy of vertebral body endplates

Interbody Fusion CeSpace – T–Space – ProSpace – A–Space PEEK

Cervical and Lumbar Interbody Devices made of Biocompatible PEEK-Optima®





Position verification despite X-ray transparency

- PEEK-Optima® allows quick and simple assessment of the bone structure and progress towards bone fusion
- Rod style markers for easy and exact implant positioning and localization



Intelligent implant design

- Anatomical shape and serrated profile for an exact implant fit and high primary stability
- Restoration of the natural lordosis in all levels for the spinal balance
- Optimized ratio between contact area and opening
- Complete lumbar and cervical treatment concept

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Thought-out instruments

- Simple in handling
- Reliable and safe
- Reduced and clearly arranged

Interbody Fusion CeSpace – T–Space – ProSpace

Cervical and Lumbar Interbody Devices made of Titanium with Plasmapore[®] Coating





Plasmapore[®] coating: rapid and safe osteointegration

- High primary stability due to a rough surface
- High secondary stability due to a fast migration of bone cells into the Plasmapore[®] structure



Intelligent implant design

- Uniform load sharing on a large contact area
- Restoration of the natural lordosis in all levels for the spinal balance
- Adequate selection of sizes presenting the right implant to fit the patient
- Complete lumbar and cervical treatment concept

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- Thought-out instruments
- Simple in handling
- Reliable and safe
- Reduced and clearly arranged

CASPARevolution Anterior Cervical Plating System

Long-term Experience and proven Results





Mature and safe cervical plating

- Highest level of implant reliability
- Continuously improved since early 1980s
- Safe cervical plating system
- Excellent proven long-term results



Flat implant and intelligent screw design

- Extremely flat plate design
- Prebent lordotic plate facilitates restoration of cervical lordosis
- Undercut below screw head prevents screw "Back-Out"
- Special screw design for solid bony anchoring in application
- Screws for monocortical and bicortical screw placement



Semi-Rigid fixation

- Distributes load to plate and intervertrebral implant
- Faster fusion
- High fusion rate

Expertise in Spinal Implant Systems



Aesculap Spine, part of the B. Braun Group, has been developing spinal systems since the 1980's starting with the Caspar cervical plating system. In close collaboration with clinical authors, implants and handling orientated instruments are designed. Aesculap combines its core competence in surgical instrument manufacturing with unique ideas and innovative engineering to create high quality spinal systems.

Expertise in Spinal Implant Systems is more than just a good product portfolio. Dedicated to patients and surgeons needs our products are designed for safe surgical procedures and best clinical results.

Aesculap Spine offers complete solutions for the spinal column. High quality instrumentation, innovative implants and purpose-orientated training.

S⁴ Cervical System Posterior Occipital Cervical Thoracic Fixation







Large range of implants

- Variety of smooth shank and favoured angle screws
- Occiput plate design for strongest fixation
- $\hfill Possibility to connect with <math display="inline">S^4$ thoracolumbar system



Small implants with wide screw angle

- S⁴ undercut thread design enables for extremely small screw body
- High construct stability
- Allows for fast and safe placement even in challenging small bony structures



- Basic instruments and special guide instruments
- C1 guiding sleeve
- Subcutaneous transarticular screw insertion instruments (C1-C2)
- Innovative occiput instruments
- Colour coding of instruments and implants for ease of use

S⁴ Spinal System Posterior Thoracolumbar Stabilization System

Small, stable, simple, safe





Variable screw options

- Poly- and monoaxial basic screw for open and mini-open surgery
- Cannulated polyaxial screws for percutaneous approach
- Cannulated monoaxial screws for fracture reduction with S⁴ FRI



High biomechanical strength

- Optimum surface contact between head, rod and screw
- High biomechanical stability for the smallest overall size



Minimally invasive approach with Spine Classics MLD

- Proven in hundreds of surgeries by using the mini-open technique
- Ideal for additional insertion of the full line of Aesculap interbody fusion implants

S⁴ Spinal System – Extensions





Wide range of implants

- Lamina, pedicle, thoracic and offset hooks for use in the thoracic spine
- Rigid and adjustable cross connectors provide additional stability
- Specially designed screws for cement augmentation



Spondylolisthesis reduction instrumentation

- The unique design of the S⁴ SRI facilitates simultaneous correction of translation and slip angle via the mechanism of levered derotation
- The system allows reduction of spondylolisthesis with single level fusion, leaving adjacent levels intact if desired



Fracture reduction instrumentation

- The S⁴ FRI allows the performance of three fracture reduction functions either individually or in combination: Disctraction, compression and restoration of the original lordosis
- Modular distraction can be carried out in very small increments by utilising the set wheel

Hydrolift[®] Vertebral Body Replacement

For the Thoracolumbar Spine





Intelligent implant design

- Continuously expandable vertebral body replacement system
- The slim body enables a bone preserving partial corpectomy
- Pre-assembled implants allow a time sparing implantation



Hydraulic distraction

- Hydraulic, continuous distraction
- Tactile feedback
- Digital display for pressure measurement
- Minimized danger of overdistraction



Adjustable endplates

- In-situ freely adjustable endplates
- No time consuming pre-calculation and pre-assembling of implant body and endplates
- Optimized contact to adjacent vertebral bodies
- Minimized danger of damaging vertebral endplates

MACS TL Modular Anterior Construct System

Anterior Stabilization System for the Thoracolumbar Spine





Smooth adaptation respects the anatomy

- Low profile and rounded edges ensure reduced soft tissue irritations
- Polyaxial mechanism allows best implant alignment, regardless of screw angle



Safe screw positioning

- Cannulated implants and instruments for a safe screw positioning
- Monocortical screws for a secure implantation
- A special locking mechanism prevents the anterior stabilization screw from backing out



High stability

- Parallel screw placement allows additional space for pedicle screws in the same vertebral body
- Four point stability guarantees optimal biomechanical, angle stability
- Optimal anchorage due to convergent screw positioning

Expertise in Spinal Instrumentation

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