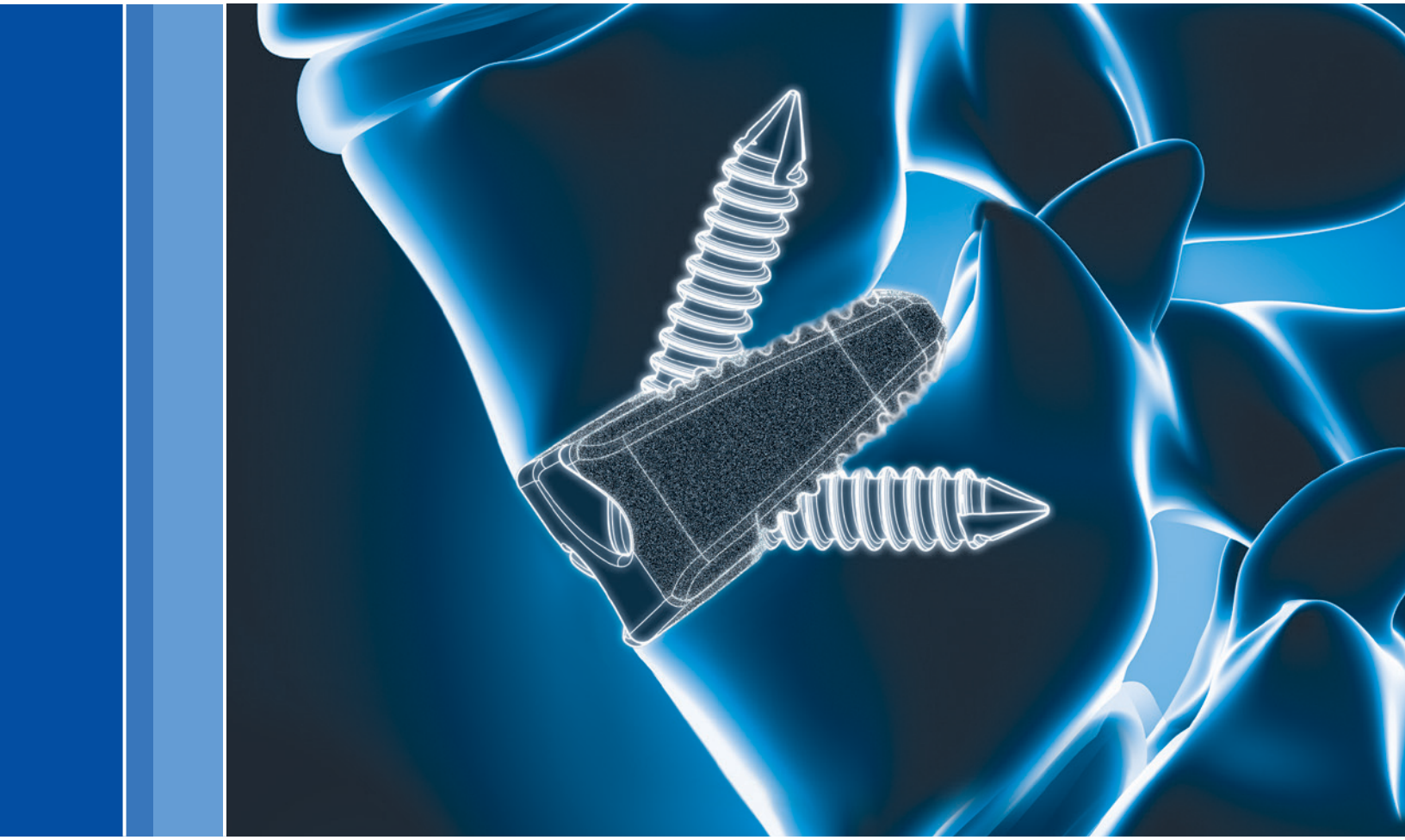
Arcadius®XP L Spinal System

Product Brochure



Aesculap Spine

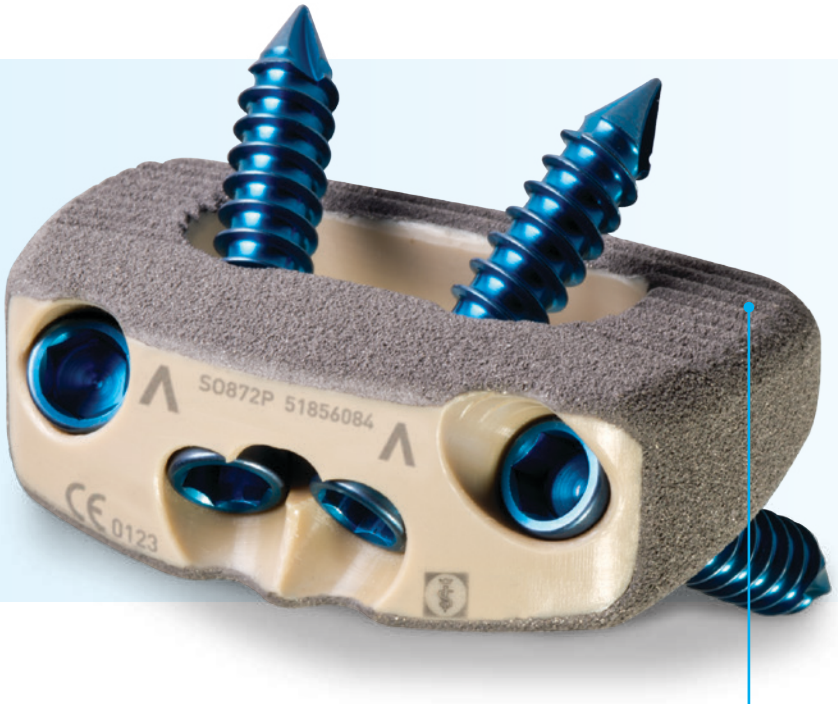
AESCULAP®
Implant Systems

A new fusion of speed and stability.

Arcadius®XP L Spinal System

The ideal combination of optimized stability, improved imaging properties, and operational simplicity, the Arcadius^{XP} L is a unique interbody device offering an intuitive approach to ALIF procedures.

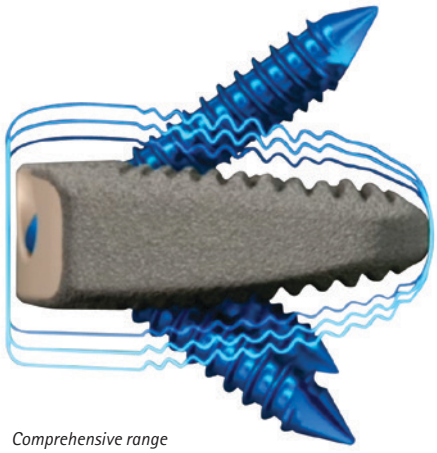
The Plasmapore®^{XP} osteoconductive coating enhances implant stability and improves imaging properties. A unique implant design and flexible instrumentation provide accessibility for screw insertion at all indicated levels and challenging patient anatomies.



The Arcadius^{XP} L is a unique stand alone interbody device with an osteoconductive coating.

Arcadius^{XP} L System Features

- Plasmapore^{XP} osteoconductive coating
- Wide variety of implant options
- Generous graft window
- Surface texturing
- X-Ray marker pins
- Midline accessibility for screw insertion
- Divergent screw design
- Dual locking mechanism with single-step activation
- Self-centering, self-drilling, and self-tapping bone screws
- Comprehensive array of instrumentation



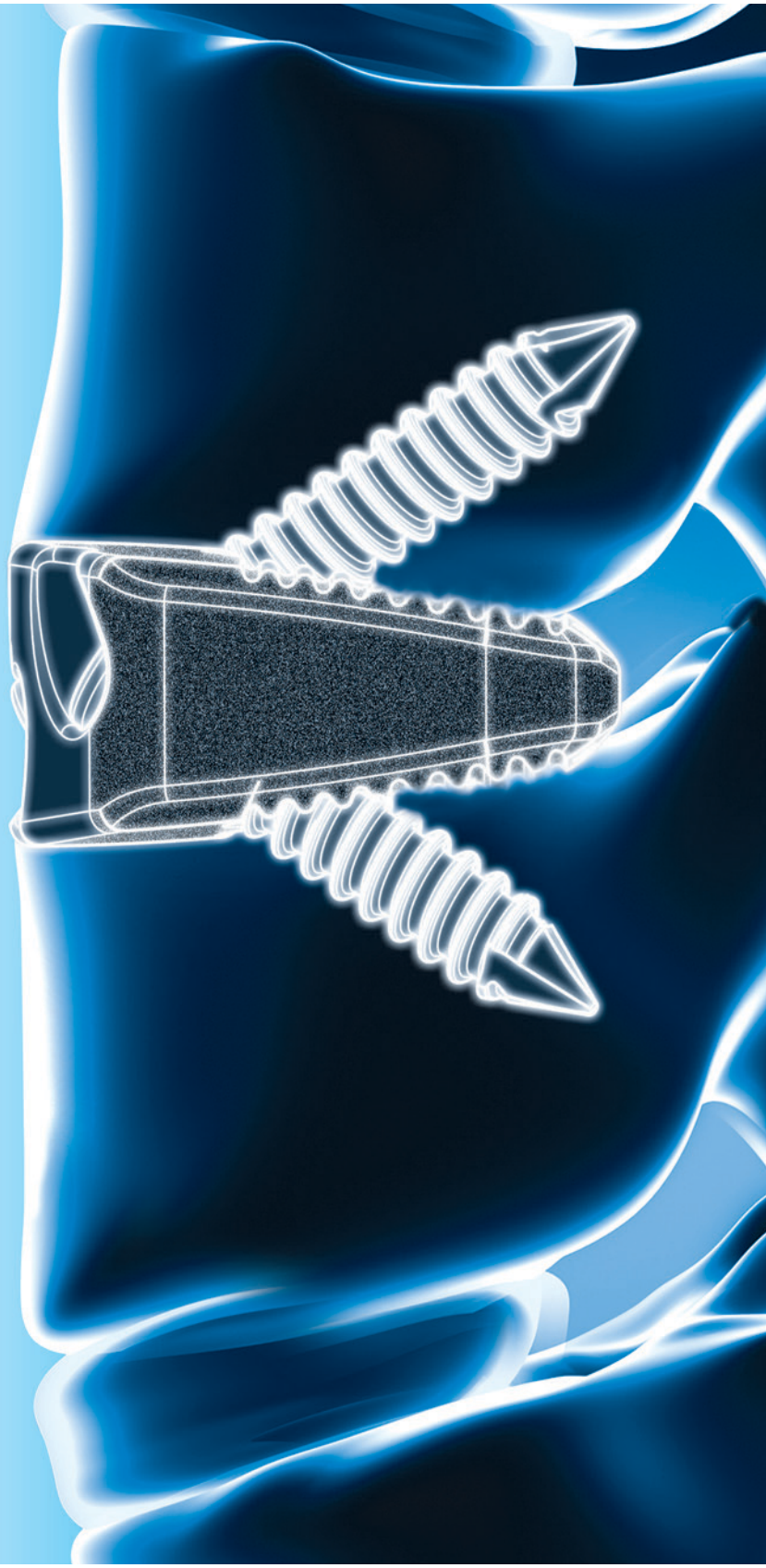
Comprehensive range of sizes allows an optimized fit.

The Arcadius^{XP} L is intended for spinal fusion procedures at one or two contiguous levels in the lumbar spine from L2 to S1.
For complete indications, contraindications, precautions, and warnings see inside back cover.

Built on experience.

The design advantages of the Arcadius®XP L are the result of 30 years of innovation in spinal technology and 20 years of success in applying Plasmapore® coatings to Titanium orthopedic and spine implants:

- **Innovative Surface-Enhancing Technology:** Plasmapore®XP is an osteoconductive pure Titanium porous coating with proven biocompatibility*
- **Enhanced Stability:** The benefits of a stable divergent bone screw design plus the roughened surface area provided by PlasmaporeXP coating deliver enhanced implant stability
- **Excellent Imaging Properties:** PlasmaporeXP coating and X-Ray marker pins allow for improved visibility during imaging
- **Operational Simplicity:** Unique implant design and flexible instrumentation provide accessibility from all angles for ease in screw insertion
- **Optimized Implant Fit:** Wide variety of implant sizes ensures compatibility with varying patient anatomies



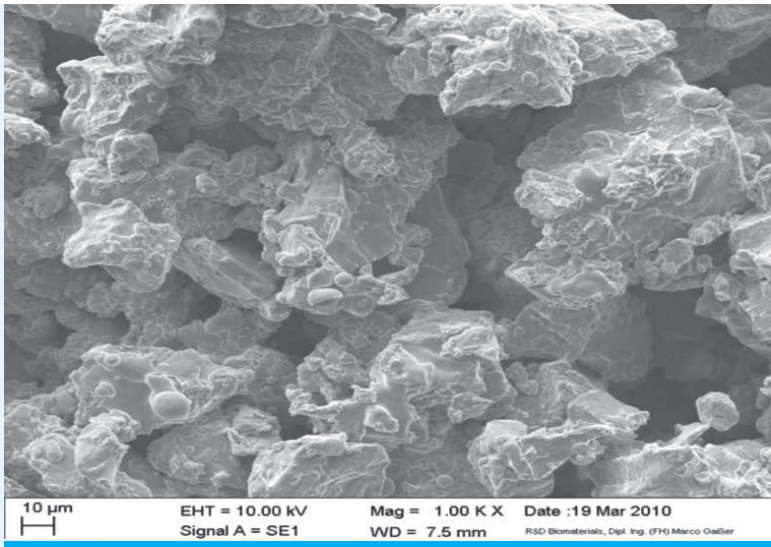
*Data on file.

Stability that starts on the surface.

Plasmapore®XP Coating

The Arcadius®XP L is a stand alone ALIF device that features PlasmaporeXP, an osteoconductive pure Titanium porous coating:

- Surface-enhancing technology
- Proven biocompatibility
- Enhances implant stability
- Improves imaging properties



PlasmaporeXP Pure Ti coating over PEEK-Optima®*

Thickness: 60-150 µm • Porosity: 35-60% • Tissue-compatible

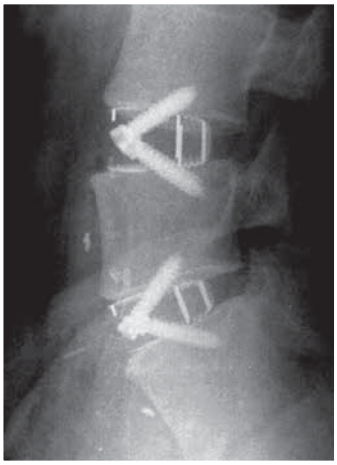
PlasmaporeXP: A Surface-Enhancing Technology

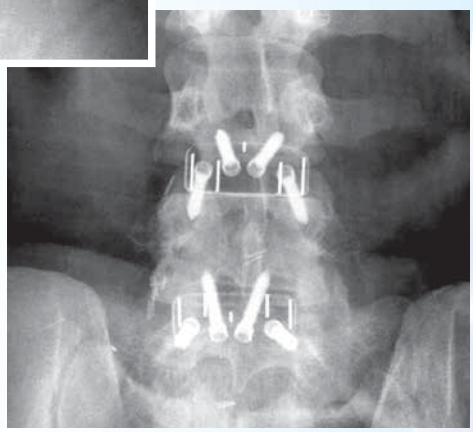
A limitation of PEEK is that it has little direct bone contact. Aesculap has developed a way to complement the PEEK interbody implant with a surface-enhancing osteoconductive technology, PlasmaporeXP:

- The roughened surface provides several benefits that lead to improved implant stability:
  - Allows a greater surface area of the implant to be in direct contact with bone, which leads to higher mechanical strength
  - Increases migration resistance of the PEEK interbody implant
- PlasmaporeXP coating has a high adhesion strength to PEEK:
  - Mechanical testing studies reveal that the adhesion strength of PlasmaporeXP to PEEK exceeds the shear and tensile strength of PEEK**

*PEEK-Optima is a registered trademark of Invibio Biomaterial Solutions.

Easier to see.





X-Ray images provided courtesy of Jeffrey A. Kozak, MD.

Excellent Imaging Properties

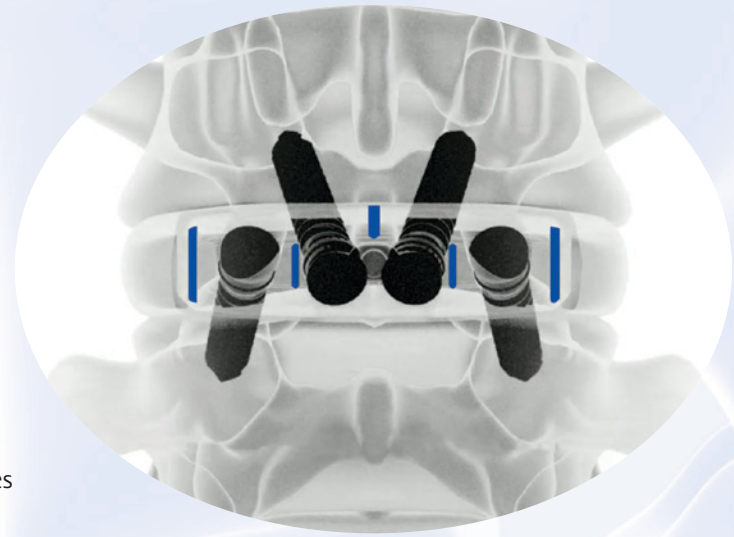
The combination of the Plasmapore®XP coating and X-Ray marker pins allows for improved visibility during imaging:

- PEEK is a radiolucent material, allowing for visualization of bone growth adjacent to the implant; PlasmaporeXP allows for clear delineation of implant contours during imaging
- 5 X-Ray marker pins allow for intraoperative positioning and verification
- PlasmaporeXP provides excellent visibility and does not create any artifacts in CT or MRI
- Zero-profile implant design maintains excellent imaging properties in both AP and lateral views

Enhanced Stability

Enhanced stability is provided by combining the benefits of the divergent bone screw design with the roughened surface of PlasmaporeXP:

- **Divergent Screw Design:** It has been shown that implants with divergent screw designs offer more stability than implants with convergent screw designs in lateral bending, extension, and axial rotation
- **Increased Migration Resistance:** Testing has proven that the addition of the PlasmaporeXP coating increases resistance to expulsion of the PEEK implant**
- **Higher Mechanical Strength:** The roughness of the PlasmaporeXP coating allows a greater surface area of the implant to be in direct contact with bone



**Data on file.

Innovation from every angle.

Operational Simplicity

The Arcadius®XP L Spinal System was designed for ease in screw insertion:

- **Unique Implant Design:** Medial screw hole orientation provides ease of use to the surgeon as surgical instruments cross the midline of the incision and do not encounter soft tissue
- **Accessible Insertion Angle:** 35° screw insertion angle allows for ease in screw insertion
- **Comprehensive Array of Flexible Instrumentation:** Intuitively designed to accommodate steep angles and further assist with ease in screw insertion
- **Simple Bone Screw Insertion:** Bone screws are self-centering, self-drilling, and self-tapping for fast insertion
- **Simple and Secure Locking Mechanism:** Integrated dual locking mechanism with single-step activation

Medial Divergence Angle

Screw Insertion Angle

Optimized Implant Fit

The Arcadius®XP L implants were designed to provide an optimized implant fit:

- Intrinsic design does not add profile to the anterior border of the vertebral body
- Wide variety of implant options meets the requirements of varying patient anatomies
- Implants are available in two footprints, six heights, and three lordotic angles

Implant Options

Lordotic Angle (°)	Height (mm)	Item Number	
		25mm x 35mm	29mm x 40mm
4	10	S0810P	S0825P
	12	S0812P	S0827P
	14	S0814P	S0829P
	16	S0816P	S0831P
	18	S0818P	S0833P
	20	S0820P	S0835P
9	10	S0840P	S0855P
	12	S0842P	S0857P
	14	S0844P	S0859P
	16	S0846P	S0861P
	18	S0848P	S0863P
	20	S0850P	S0865P
14	10	S0870P	S0885P
	12	S0872P	S0887P
	14	S0874P	S0889P
	16	S0876P	S0891P
	18	S0878P	S0893P
	20	S0880P	S0895P

Visit **aesculapimplantsystems.com/Arcadius** today and experience a new era of interbody fusion.

Indications & Contraindications

Indications & Intended Use

- Intended to be used with four bone screws if no supplemental fixation is used
- Indicated as an Intervertebral body fusion device designed for use with autograft
- Intended for spinal fusion procedures at one or two contiguous levels in the lumbar spine from L2 to S1
- Indicated for use in patients with degenerative disc disease (DDD) with up to Grade 1 spondylolisthesis at the involved level(s). DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies. These patients may have had previous non-fusion spinal surgery at the involved spinal level(s).
- Patients should be skeletally mature and have undergone a regimen of at least six months of non-operative treatment prior to being treated with the Aesculap Implant Systems device

Contraindications

- Acute or chronic infections or severe defects of the osseous structures of the vertebral bodies, which need to be sound for the stable implantation of the Arcadius®XP L Spinal System
- Bone tumors in the region of the implant anchoring
- Unwillingness or inability of the patient to follow the instructions for postoperative treatment
- Any medical or surgical condition that could preclude the potential success of the implantation
- Pregnancy
- Osteoporosis or similar bone density loss
- Systemic or metabolic illnesses
- Drug abuse or alcoholism
- Generally poor condition of the patient
- Adiposity
- Psychosocial issues; lack of cooperation by the patient
- All cases that are not listed under indications

Aesculap Implant Systems, LLC | 3773 Corporate Parkway | Center Valley, PA | 18034
Phone 866-229-3002 | Fax 610-984-9096 | www.aesculapimplantsystems.com

Aesculap Implant Systems, LLC - a B. Braun company

DOC1063 2M 2/13