



CTL AMERICA
rethink what's possible®

valeo® C+CSC with Lumen

A REVOLUTION IN INTERBODY FUSION CERVICAL INTERBODY FUSION DEVICE



MATERIAL MATTERS

The Valeo C+CSC with Lumen cage incorporates a revolutionary design with two forms of silicon nitride, a porous inner core and an outer cortical shell, diffusion-bonded to create an integrated implant perfectly suited for cervical spinal fusion procedures.

Silicon Nitride Cancellous Structured Ceramic (CSC™) inner core

Revolutionary porous silicon nitride.

Precision-engineered with an average porosity of 67-71% and pore size between 350-600 microns to mimic natural cancellous bone.

Cancellous scaffold facilitates bony in-growth.*

*M.C.Anderson, R.Olsen. "Bone ingrowth into porous silicon nitride." Journal of Biomedical Materials Research May 2009.

Silicon Nitride Micro-composite Ceramic (MC^{2®}) outer shell

Hydrophilic nature attracts fluids, enhancing protein absorption and cell adhesion.

Non-metallic composition eliminates artifacts with MRI or CT imaging during post-op assessment.

Textured to increase surface area for bony apposition.

Fine-grained, dense microstructure provides mechanical stability and fracture resistance.

SHEEP LUMBAR SPINE FUSION STUDY* L2-L3 AND L4-L5 JOINT SPACES

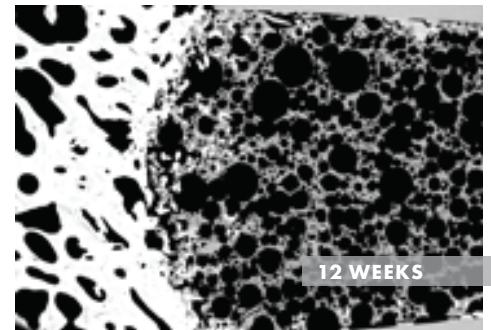


Image of an implant after 12 weeks in situ. Silver stained bone is white, silicon nitride is grey, and other soft tissues are black. In this image, bone has penetrated more than 3mm into the CSC.



Implant Footprints and Sizes

Two footprints, lordotic and parallel angles to restore cervical alignment.

Footprints:

16x12mm and 17x14mm

Lordosis:

0° parallel and 6°

Heights:

5–12mm, 1mm increments for better fit.

Valeo C+CSC with Lumen Cervical Spinal Implants Features and Benefits

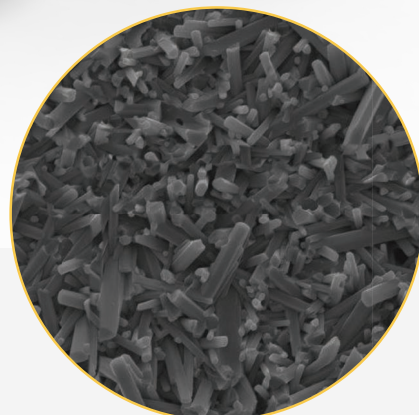
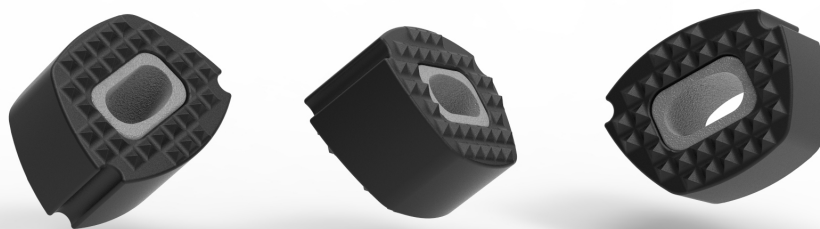
Multiple knurls resist migration.

Large dovetail feature enables greater insertion control.

Material is 100% biocompatible (ISO 10993).

100% of implants are tested before shipping.

Sterilized and pre-packaged for convenience in the operating room.



Silicon nitride's nano-textured surface at 10 microns ▶

Valeo® C +CSC with Lumen Cervical Infterbody Fusion System

16 X 12

11.209.2005	C + CSC 16x12mm 5H 0°
11.209.2006	C + CSC 16x12mm 6H 0°
11.209.2007	C + CSC 16x12mm 7H 0°
11.209.2008	C + CSC 16x12mm 8H 0°
11.209.2009	C + CSC 16x12mm 9H 0°
11.209.2010	C + CSC 16x12mm 10H 0°
11.209.2011	C + CSC 16x12mm 11H 0°
11.209.2012	C + CSC 16x12mm 12H 0°
11.209.2605	C + CSC 16x12mm 5H 6°
11.209.2606	C + CSC 16x12mm 6H 6°
11.209.2607	C + CSC 16x12mm 7H 6°
11.209.2608	C + CSC 16x12mm 8H 6°
11.209.2609	C + CSC 16x12mm 9H 6°
11.209.2610	C + CSC 16x12mm 10H 6°
11.209.2611	C + CSC 16x12mm 11H 6°
11.209.2612	C + CSC 16x12mm 12H 6°

17 X 14

11.209.1005	C + CSC 17x14mm 5H 0°
11.209.1006	C + CSC 17x14mm 6H 0°
11.209.1007	C + CSC 17x14mm 7H 0°
11.209.1008	C + CSC 17x14mm 8H 0°
11.209.1009	C + CSC 17x14mm 9H 0°
11.209.1010	C + CSC 17x14mm 10H 0°
11.209.1011	C + CSC 17x14mm 11H 0°
11.209.1012	C + CSC 17x14mm 12H 0°
11.209.1605	C + CSC 17x14mm 5H 6°
11.209.1606	C + CSC 17x14mm 6H 6°
11.209.1607	C + CSC 17x14mm 7H 6°
11.209.1608	C + CSC 17x14mm 8H 6°
11.209.1609	C + CSC 17x14mm 9H 6°
11.209.1610	C + CSC 17x14mm 10H 6°
11.209.1611	C + CSC 17x14mm 11H 6°
11.209.1612	C + CSC 17x14mm 12H 6°

Why keep using the same material expecting different results?