

Expandable Pedicle
Screw for Greater
Fixation in Mechanically
Demanding Constructs



SYSTEM FEATURES & BENEFITS

Significantly increased pullout and
holding strength

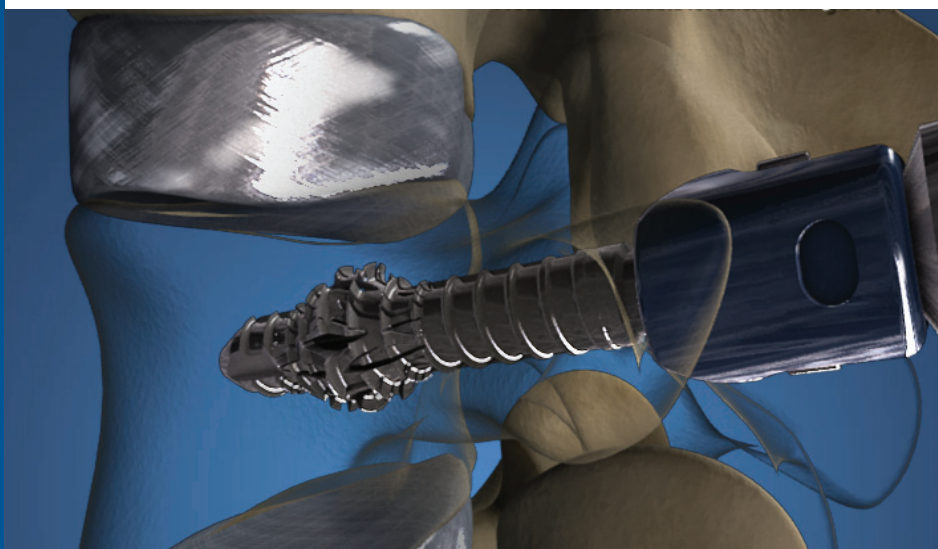
- 56% increased fixation compared to a standard pedicle screw in compromised bone¹
- 30% greater holding strength in regular bone when compared to a standard pedicle screw¹

Optimized expansion zone for improved
fixation¹

Proven to be fully revisable¹

Unicortical shorter length OsseoScrew
provides similar biomechanical stability
compared to longer length bicortical
standard screw¹

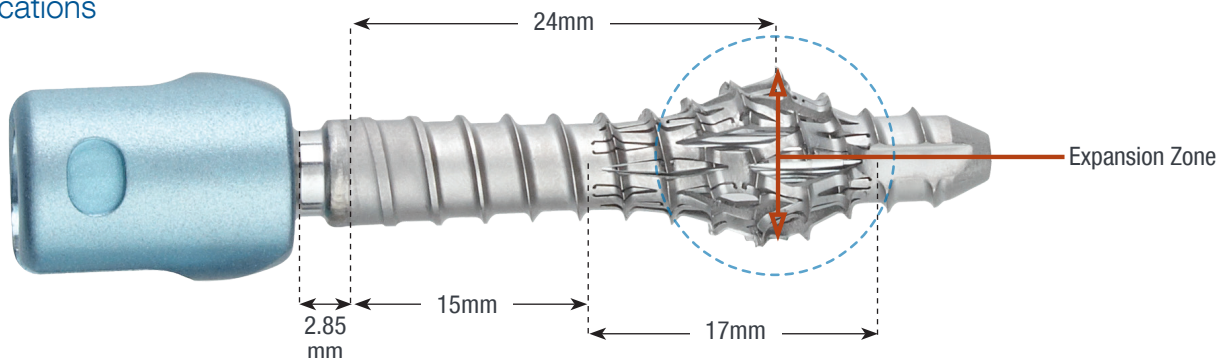
Unique expandable design improves
resistance to toggle



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Alphatec Spine®
Solutions for the Aging Spine®

Implant Specifications

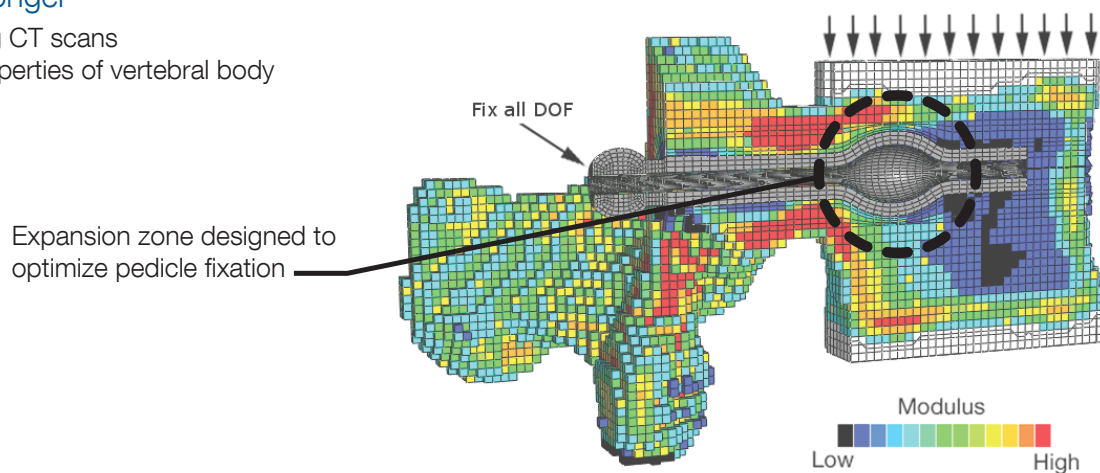


Screw Types	Material	Diameter	Length	Pre-Expansion Zone Shaft Length	Distance to Peak Expansion Zone	Peak Diameter Upon Expansion	Expansion Zone Length	Screw Angulation
Polyaxial, High Top, and Sacral	Titanium	6.5mm	40, 45, 50 and 55mm	15mm	24mm (from proximal thread)	10mm	17mm	76 degrees (Medial/Lateral) 60 degrees (Cephalad/Caudal)
Polyaxial, High Top, and Sacral	Titanium	7.5mm	40, 45, 50 and 55mm	15mm	24mm (from proximal thread)	11mm	17mm	76 degrees (Medial/Lateral) 60 degrees (Cephalad/Caudal)

There is an additional 2.85mm length from the undersurface of the screw body to the most proximal thread. Screw length is reduced by 1.5mm after expansion. Length is measured from the tip of the screw to the proximal thread. The pitch is 2.8mm and the minor diameter is 1.5mm less than the major diameter

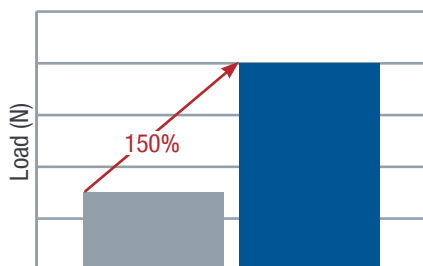
Clinically Proven Stronger¹

Patient-based FEA using CT scans
Mapped mechanical properties of vertebral body

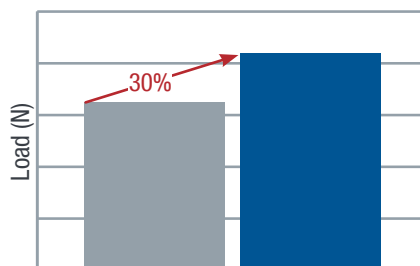


Standard Pedicle Screw

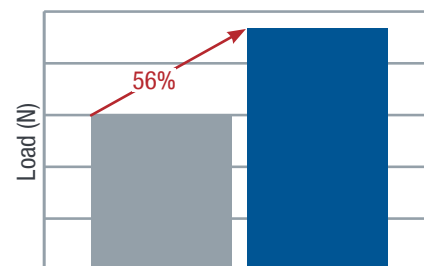
OsseoScrew Expandable Pedicle Screw



Expanding Screw failure energy was ~150% greater than standard pedicle screw ($p < 0.0001$)



Expandable screw ultimate load was 30% greater than standard pedicle screw ($p < 0.05$)



Expandable screw ultimate holding strength in the osteoporotic spine (DEXA = -2.9) was 56% greater than standard pedicle screw

For more information, visit alphatecspine.com or contact Customer Service at 760.431.9286

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