

TrellOss®-L MPF

Porous Ti Interbody System







A New Foundation for Growth

Introducing TrellOss - L MPF Porous Ti Interbody System

A 3D printed titanium interbody platform featuring a scaffold structure with 70% porosity and a 7 micron roughened surface topography to foster a cellular relevant environment for adhesion and bone ingrowth.¹

Porosity

Open architecture with 70% porosity including varying pore sizes of 300, 500, and 700 microns that mimic cancellous bone allowing for a conducive environment for cellular activity^{1,5,6,7}

Structure

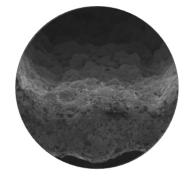
Scaffolding structure provides additional surface area ^{2,3} and an elastic modulus similar to PEEK⁸

Texture

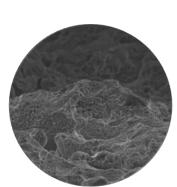
7 micron surface texturing enhances the wicking nature⁹ and creates an environment for potential cellular adhesion^{2,3,4}



SEM image of TrellOss Surface at **50x** magnification



SEM image of TrellOss Surface at 100x magnification



SEM image of TrellOss Surface at **450x** magnification



TrellOss-L Implant

- Rigid teeth help to resist implant migration
- Bullet-tip nose to aid in implant insertion
- Central windows for graft packing and containment
- Implants are sterile-packed to reduce the risk of contamination and hospital reprocessing costs
- Compatible with all MPF plates

TrellOss-L Sizes

Widths	Lordosis	Heights**	Lengths***
18 mm 22 mm	0°, 8°	8 mm-12 mm	45 mm-60 mm
18 mm 22 mm	0°, 8°	14 mm	50 mm-60 mm
18 mm 22 mm	14°	10 mm-14 mm	45 mm-60 mm
18 mm 22 mm	14°	16 mm	50 mm-60 mm
22 mm	20°	12 mm-18 mm	45 mm-60 mm

MPF Sizes

Plates	Heights**	Lengths
1-hole	8 mm-16 mm	10.5 mm-14.5 mm*
2-hole	8 mm-14 mm	21 mm-27 mm***
4-hole	6 mm-14 mm	24.5 mm-32.5 mm***







1-hole plate

2-hole plate

4-hole plate

Screws	Diameters	Lengths***
Self-tapping	5.5 mm 6.0 mm	30 mm-60 mm
Bi-cortical	5.5 mm 6.0 mm	30 mm-60 mm



Self-tapping screws



Bi-cortical screws

References

McGilvray KC, Easley J, Seim HB, et al. Bony ingrowth potential of 3D-printed porous titanium alloy: a direct comparison of interbody cage materials in an in vivo ovine lumbar fusion model. Spine J 2018;18(7):1250-1260.Olivares-Navarrete R, Hyzy SL, Slosar PJ et al. Implant materials generate different peri-implant inflammatory factors: poly-ether-ether-ketone promotes fibrosis and microtextured titanium promotes osteogenic factors. Spine 2015;40(6):399 -404. 2. Olivares-Navarrete R, Hyzy SL, Gittens RA, et al. Rough titanium alloys regulate osteoblast production of angiogenic factors. Spine J 2013;13(11):1563 -70. 3.Rao PJ, Pelletier MH, Walsh WR, et al. Spine Interbody Implants: Material Selection and Modification, Functionalization and Bioactivation of Surfaces to Improve Osseointegration. Orthop Surg 2014;6:81 -89. 4. Ponader S, von Wilmowsky C, Widenmayer M, et al. In vivo performance of selective electron beam-melted ti-6al-4v structures. J Biomed Mater Res A 2010;92A:56 -62. 5. Li JP, Habibovic P, et al.: Bone ingrowth in porous titanium implants produced by 3D fiber deposition. Biomaterials 2007;28:2810. 6. Karageorgiou V, Kaplan D. Porosity of 3D biomaterial scaffolds and osteogenesis. Biomaterials 2005;26(27):5474-91. 7. Permeswaran, V., (2019) Elastic Modulus Characterization of Porous Titanium TrellOss™ Structure, 2922.1-GLBLen-REV1219, Zimmer Biomet Spine, Westminster, CO. 8. Permeswaran, V., (2019) Measuring the Wicking Nature of Porous Titanium TrellOss™ Structure, 2921.1-GLBLen-REV1219, Zimmer Biomet Spine, Westminster, CO





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