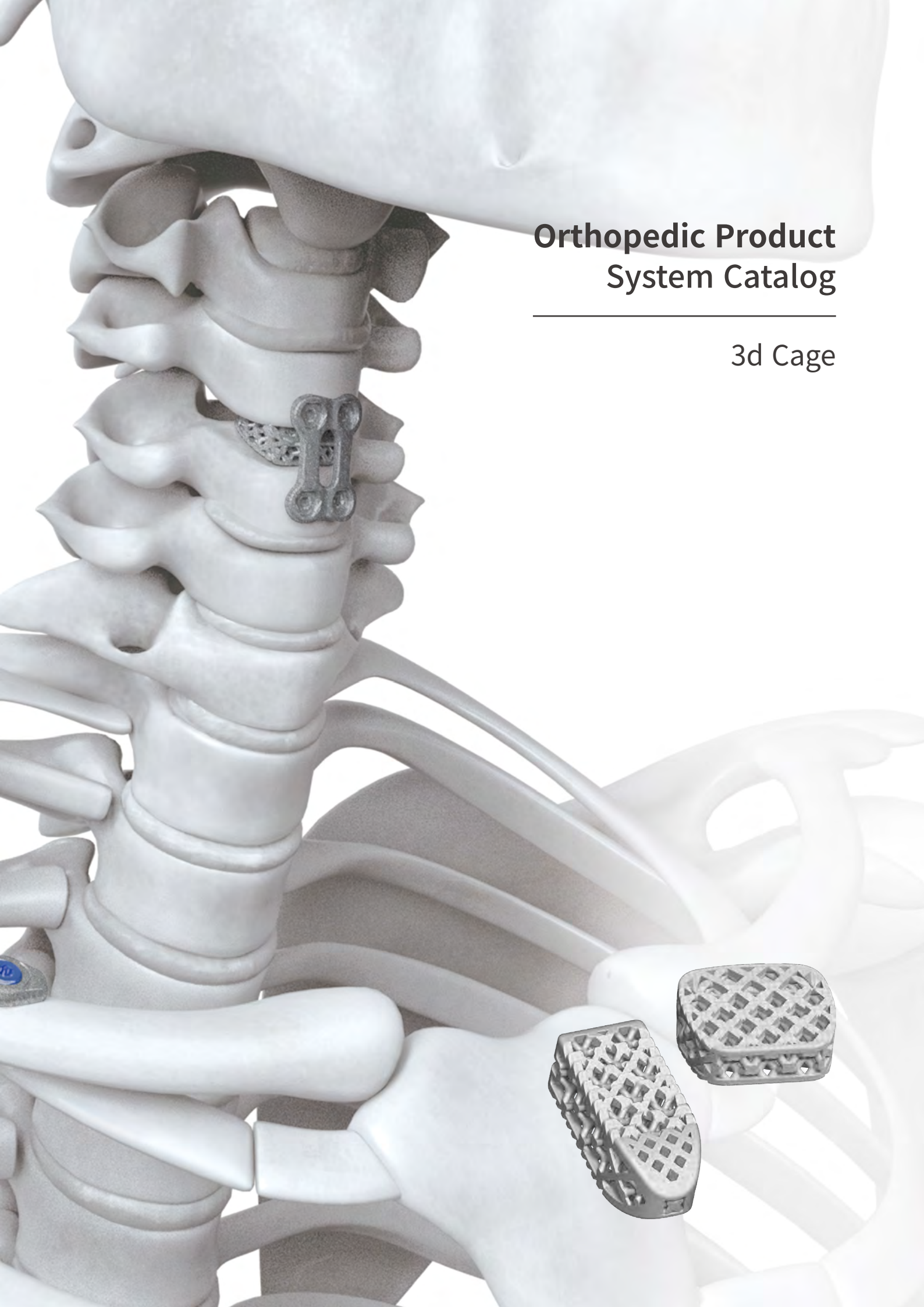
Orthopedic Product
System Catalog

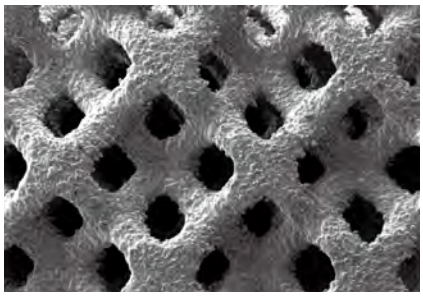
3d Cage



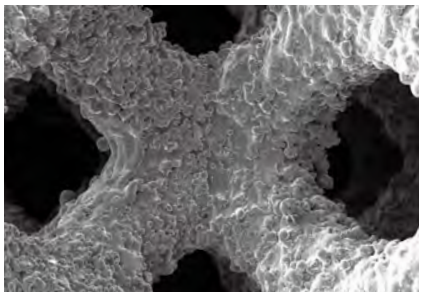
• Osteoconductive porous structure

The unique pore structures and roughened nano-textured surface may help facilitate osseointegration and substantial bone growth throughout the material.

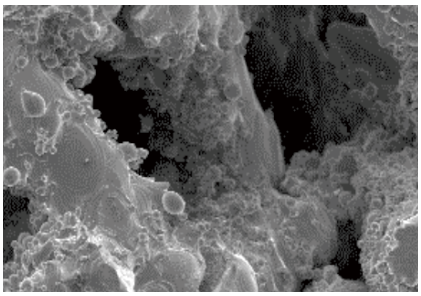
Maximum 88% Porosity



2mm



1mm



0.1mm

• Designed to create better cell attachment and proliferation

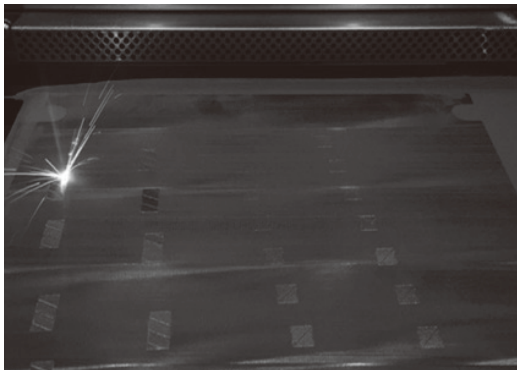
GENOSS™ 3d Cage consists of about 88% porosity and average pore size of 800μm (250μm~1,200μm). The porous and micro structure is designed to create a favorable environment for cell attachment and proliferation

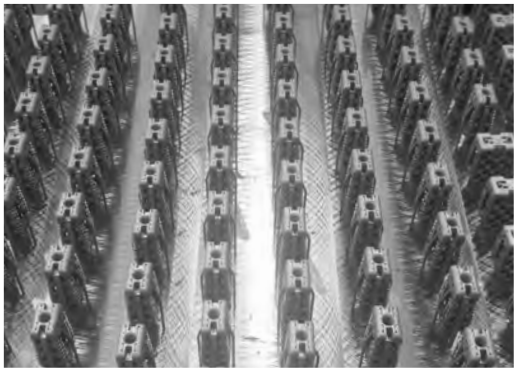
3D printed Ti lumbar cage in Human (1Y 6M)

Green: Mutured bone / Red: Premutured bone / Orange: Soft tissue / Gray: Bone graft material

• SLM Technique

GENOSS™ 3d Cage is produced with Selective Laser Melting[SLM] technique

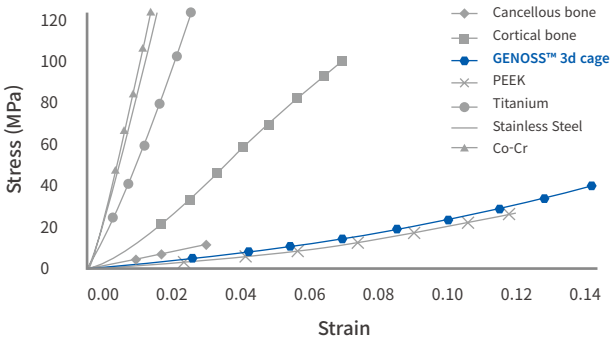




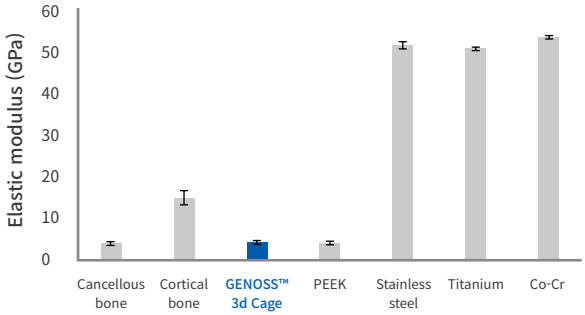
• No subsidence due to similar elastic modulus to cancellous bone

GENOSS™ 3d Cage demonstrated better resistance to subsidence than other different materials.

Stress vs strain curves



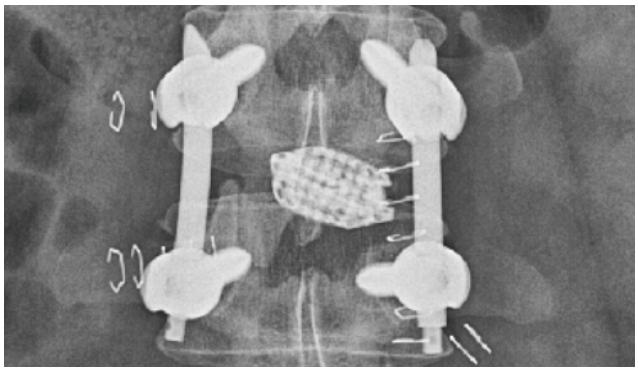
Elastic modulus under compressive forces

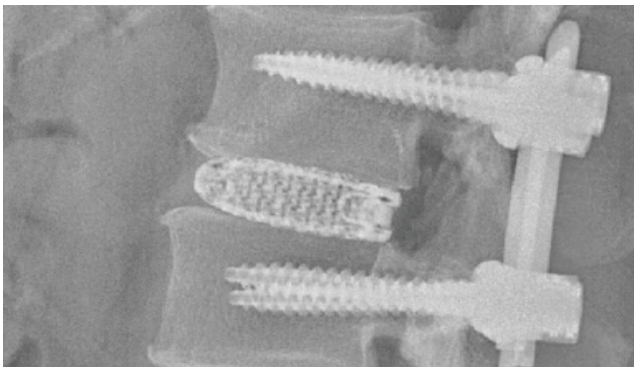


Robert F. Heary, Naresh Parvathreddy, Sujitha Sampath, Nitin Agarwal. Elastic Modulus in the selection of interbody implants[master's thesis]. New Jersey(USA): Journal of Spinal Surgery.2017.165p.

• Less metal acrtifact by diagnostic imaging

High implant porosity provides excellent diagnostic imaging. The fusion area clearly visible by X-Ray, CT and MRI.

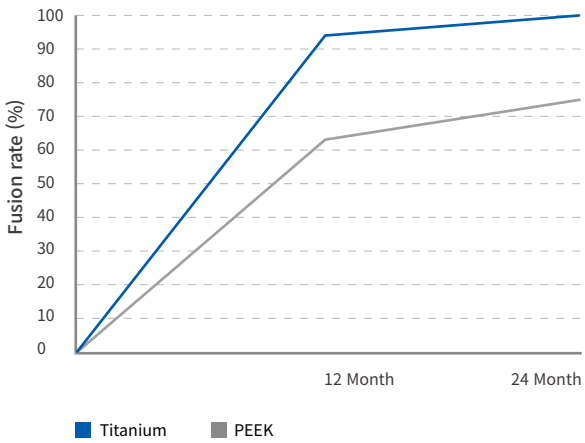




• Comparison of Fusion Rate (Titanium VS PEEK)

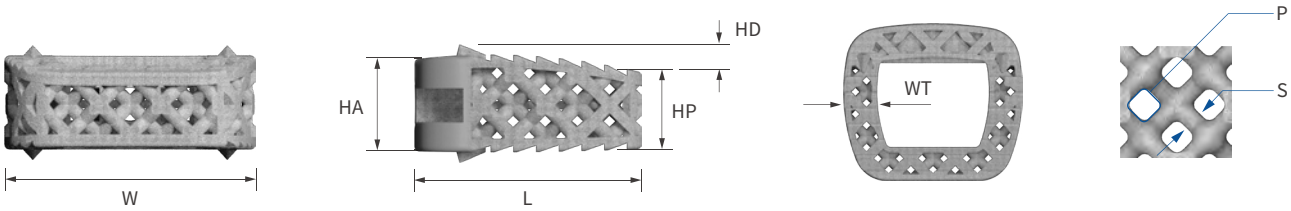
Improvement of clinical outcomes was comparable between the two groups, based on the criteria using computed tomography, 96% in the Titanium group and 64% in the PEEK group showed fusion at 12 month. At 24 months fusion rate in the Titanium group was increased to 100%, while PEEK group showed 76% of fusion rate

1) Nemoto, O., Asazuma, T., Yato, Y., Imabayashi, H., Yasuoka, H. and Fujikawa, A. Comparison of fusion rates following transforaminal lumbar interbody fusion using polyetheretherketone cages of titanium cages with transpedicular instrumentation. Eur Spine J. (2014) 23:2150–2155. DOI:10.1007/s00586-014-3466-9



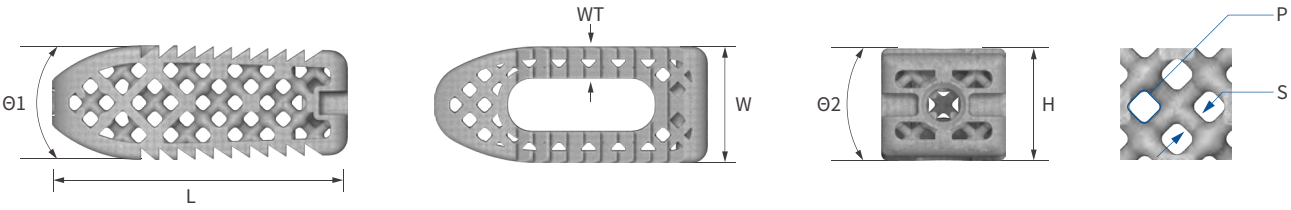
Type Information

Cervical



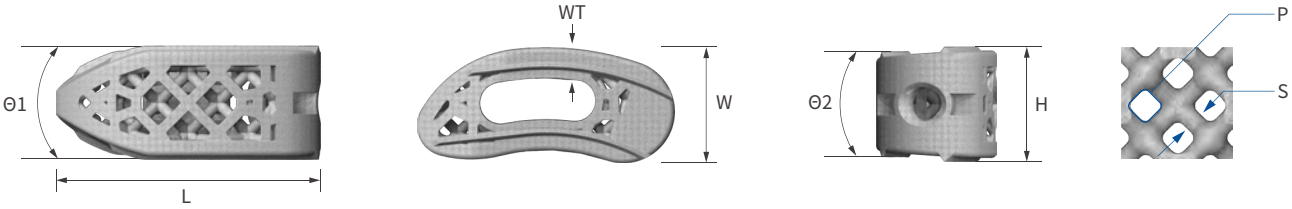
Product	HA(mm)	HD(mm)	HP(mm)	W(mm)	L(mm)	P(mm)	S(∅)	WT(mm)
CT	3~15	0~2	3~13	10~20	11~18	0~1.2	0.7~1.2	3~10

Lumbar



Product	H(mm)	W(mm)	L(mm)	Θ1(°)	Θ2(°)	P(mm)	S(∅)	WT(mm)
LT	7~15	9~16	22~36	10~20	0~8°	0~8°	0~1.2	3~8

TLIF



Product	H(mm)	W(mm)	L(mm)	Θ1(°)	Θ2(°)	P(mm)	S(∅)	WT(mm)
TT	7~15	9~16	22~36	10~20	0~8°	0~8°	0~1.2	3~8

• Order information

Model No.	H(mm)	W(mm)	L(mm)	Θ°
LT(07,09,22,0,0,1.1,0.9,03)	07	09	22	0
LT(08,09,22,0,0,1.1,0.9,03)	08	09	22	0
LT(09,09,22,0,0,1.1,0.9,03)	09	09	22	0
LT(10,09,22,0,0,1.1,0.9,03)	10	09	22	0
LT(11,09,22,0,0,1.1,0.9,03)	11	09	22	0
LT(12,09,22,0,0,1.1,0.9,03)	12	09	22	0
LT(13,09,22,0,0,1.1,0.9,03)	13	09	22	0
LT(14,09,22,0,0,1.1,0.9,03)	14	09	22	0
LT(15,09,22,0,0,1.1,0.9,03)	15	09	22	0
LT(07,11,22,0,0,1.1,0.9,03)	07	11	22	0
LT(08,11,22,0,0,1.1,0.9,03)	08	11	22	0
LT(09,11,22,0,0,1.1,0.9,03)	09	11	22	0
LT(10,11,22,0,0,1.1,0.9,03)	10	11	22	0
LT(11,11,22,0,0,1.1,0.9,03)	11	11	22	0
LT(12,11,22,0,0,1.1,0.9,03)	12	11	22	0
LT(13,11,22,0,0,1.1,0.9,03)	13	11	22	0
LT(14,11,22,0,0,1.1,0.9,03)	14	11	22	0
LT(15,11,22,0,0,1.1,0.9,03)	15	11	22	0
LT(07,09,26,0,0,1.1,0.9,03)	07	09	26	0
LT(08,09,26,0,0,1.1,0.9,03)	08	09	26	0
LT(09,09,26,0,0,1.1,0.9,03)	09	09	26	0
LT(10,09,26,0,0,1.1,0.9,03)	10	09	26	0
LT(11,09,26,0,0,1.1,0.9,03)	11	09	26	0
LT(12,09,26,0,0,1.1,0.9,03)	12	09	26	0
LT(13,09,26,0,0,1.1,0.9,03)	13	09	26	0
LT(14,09,26,0,0,1.1,0.9,03)	14	09	26	0
LT(15,09,26,0,0,1.1,0.9,03)	15	09	26	0
LT(07,11,26,0,0,1.1,0.9,03)	07	11	26	0
LT(08,11,26,0,0,1.1,0.9,03)	08	11	26	0
LT(09,11,26,0,0,1.1,0.9,03)	09	11	26	0
LT(10,11,26,0,0,1.1,0.9,03)	10	11	26	0
LT(11,11,26,0,0,1.1,0.9,03)	11	11	26	0
LT(12,11,26,0,0,1.1,0.9,03)	12	11	26	0
LT(13,11,26,0,0,1.1,0.9,03)	13	11	26	0
LT(14,11,26,0,0,1.1,0.9,03)	14	11	26	0
LT(15,11,26,0,0,1.1,0.9,03)	15	11	26	0
LT(07,09,30,0,0,1.1,0.9,03)	07	09	30	0
LT(08,09,30,0,0,1.1,0.9,03)	08	09	30	0
LT(09,09,30,0,0,1.1,0.9,03)	09	09	30	0
LT(10,09,30,0,0,1.1,0.9,03)	10	09	30	0
LT(11,09,30,0,0,1.1,0.9,03)	11	09	30	0
LT(12,09,30,0,0,1.1,0.9,03)	12	09	30	0
LT(13,09,30,0,0,1.1,0.9,03)	13	09	30	0
LT(14,09,30,0,0,1.1,0.9,03)	14	09	30	0
LT(15,09,30,0,0,1.1,0.9,03)	15	09	30	0
LT(07,11,30,0,0,1.1,0.9,03)	07	11	30	0
LT(08,11,30,0,0,1.1,0.9,03)	08	11	30	0
LT(09,11,30,0,0,1.1,0.9,03)	09	11	30	0
LT(10,11,30,0,0,1.1,0.9,03)	10	11	30	0
LT(11,11,30,0,0,1.1,0.9,03)	11	11	30	0
LT(12,11,30,0,0,1.1,0.9,03)	12	11	30	0
LT(13,11,30,0,0,1.1,0.9,03)	13	11	30	0
LT(14,11,30,0,0,1.1,0.9,03)	14	11	30	0
LT(15,11,30,0,0,1.1,0.9,03)	15	11	30	0
LT(07,09,34,0,0,1.1,0.9,03)	07	09	34	0
LT(08,09,34,0,0,1.1,0.9,03)	08	09	34	0
LT(09,09,34,0,0,1.1,0.9,03)	09	09	34	0
LT(10,09,34,0,0,1.1,0.9,03)	10	09	34	0
LT(11,09,34,0,0,1.1,0.9,03)	11	09	34	0
LT(12,09,34,0,0,1.1,0.9,03)	12	09	34	0
LT(13,09,34,0,0,1.1,0.9,03)	13	09	34	0
LT(14,09,34,0,0,1.1,0.9,03)	14	09	34	0
LT(15,09,34,0,0,1.1,0.9,03)	15	09	34	0
LT(07,11,34,0,0,1.1,0.9,03)	07	11	34	0
LT(08,11,34,0,0,1.1,0.9,03)	08	11	34	0
LT(09,11,34,0,0,1.1,0.9,03)	09	11	34	0
LT(10,11,34,0,0,1.1,0.9,03)	10	11	34	0
LT(11,11,34,0,0,1.1,0.9,03)	11	11	34	0
LT(12,11,34,0,0,1.1,0.9,03)	12	11	34	0
LT(13,11,34,0,0,1.1,0.9,03)	13	11	34	0
LT(14,11,34,0,0,1.1,0.9,03)	14	11	34	0
LT(15,11,34,0,0,1.1,0.9,03)	15	11	34	0
LT(07,09,38,0,0,1.1,0.9,03)	07	09	38	0
LT(08,09,38,0,0,1.1,0.9,03)	08	09	38	0
LT(09,09,38,0,0,1.1,0.9,03)	09	09	38	0

Model No.	H(mm)	W(mm)	L(mm)	Θ°
LT(10,09,38,0,0,1.1,0.9,03)	10	09	38	0
LT(11,09,38,0,0,1.1,0.9,03)	11	09	38	0
LT(12,09,38,0,0,1.1,0.9,03)	12	09	38	0
LT(13,09,38,0,0,1.1,0.9,03)	13	09	38	0
LT(14,09,38,0,0,1.1,0.9,03)	14	09	38	0
LT(15,09,38,0,0,1.1,0.9,03)	15	09	38	0
LT(07,11,38,0,0,1.1,0.9,03)	07	11	38	0
LT(08,11,38,0,0,1.1,0.9,03)	08	11	38	0
LT(09,11,38,0,0,1.1,0.9,03)	09	11	38	0
LT(10,11,38,0,0,1.1,0.9,03)	10	11	38	0
LT(11,11,38,0,0,1.1,0.9,03)	11	11	38	0
LT(12,11,38,0,0,1.1,0.9,03)	12	11	38	0
LT(13,11,38,0,0,1.1,0.9,03)	13	11	38	0
LT(14,11,38,0,0,1.1,0.9,03)	14	11	38	0
LT(15,11,38,0,0,1.1,0.9,03)	15	11	38	0
LT(07,09,40,0,0,1.1,0.9,03)	07	09	40	0
LT(08,09,40,0,0,1.1,0.9,03)	08	09	40	0
LT(09,09,40,0,0,1.1,0.9,03)	09	09	40	0
LT(10,09,40,0,0,1.1,0.9,03)	10	09	40	0
LT(11,09,40,0,0,1.1,0.9,03)	11	09	40	0
LT(12,09,40,0,0,1.1,0.9,03)	12	09	40	0
LT(13,09,40,0,0,1.1,0.9,03)	13	09	40	0
LT(14,09,40,0,0,1.1,0.9,03)	14	09	40	0
LT(15,09,40,0,0,1.1,0.9,03)	15	09	40	0
LT(07,11,40,0,0,1.1,0.9,03)	07	11	40	0
LT(08,11,40,0,0,1.1,0.9,03)	08	11	40	0
LT(09,11,40,0,0,1.1,0.9,03)	09	11	40	0
LT(10,11,40,0,0,1.1,0.9,03)	10	11	40	0
LT(11,11,40,0,0,1.1,0.9,03)	11	11	40	0
LT(12,11,40,0,0,1.1,0.9,03)	12	11	40	0
LT(13,11,40,0,0,1.1,0.9,03)	13	11	40	0
LT(14,11,40,0,0,1.1,0.9,03)	14	11	40	0
LT(15,11,40,0,0,1.1,0.9,03)	15	11	40	0
LT(07,09,22,4,0,1.1,0.9,03)	07	09	22	4
LT(08,09,22,4,0,1.1,0.9,03)	08	09	22	4
LT(09,09,22,4,0,1.1,0.9,03)	09	09	22	4
LT(10,09,22,4,0,1.1,0.9,03)	10	09	22	4
LT(11,09,22,4,0,1.1,0.9,03)	11	09	22	4
LT(12,09,22,4,0,1.1,0.9,03)	12	09	22	4
LT(13,09,22,4,0,1.1,0.9,03)	13	09	22	4
LT(14,09,22,4,0,1.1,0.9,03)	14	09	22	4
LT(15,09,22,4,0,1.1,0.9,03)	15	09	22	4
LT(07,11,22,4,0,1.1,0.9,03)	07	11	22	4
LT(08,11,22,4,0,1.1,0.9,03)	08	11	22	4
LT(09,11,22,4,0,1.1,0.9,03)	09	11	22	4
LT(10,11,22,4,0,1.1,0.9,03)	10	11	22	4
LT(11,11,22,4,0,1.1,0.9,03)	11	11	22	4
LT(12,11,22,4,0,1.1,0.9,03)	12	11	22	4
LT(13,11,22,4,0,1.1,0.9,03)	13	11	22	4
LT(14,11,22,4,0,1.1,0.9,03)	14	11	22	4
LT(15,11,22,4,0,1.1,0.9,03)	15	11	22	4
LT(07,09,26,4,0,1.1,0.9,03)	07	09	26	4
LT(08,09,26,4,0,1.1,0.9,03)	08	09	26	4
LT(09,09,26,4,0,1.1,0.9,03)	09	09	26	4
LT(10,09,26,4,0,1.1,0.9,03)	10	09	26	4
LT(11,09,26,4,0,1.1,0.9,03)	11	09	26	4
LT(12,09,26,4,0,1.1,0.9,03)	12	09	26	4
LT(13,09,26,4,0,1.1,0.9,03)	13	09	26	4
LT(14,09,26,4,0,1.1,0.9,03)	14	09	26	4
LT(15,09,26,4,0,1.1,0.9,03)	15	09	26	4
LT(07,11,26,4,0,1.1,0.9,03)	07	11	26	4
LT(08,11,26,4,0,1.1,0.9,03)	08	11	26	4
LT(09,11,26,4,0,1.1,0.9,03)	09	11	26	4
LT(10,11,26,4,0,1.1,0.9,03)	10	11	26	4
LT(11,11,26,4,0,1.1,0.9,03)	11	11	26	4
LT(12,11,26,4,0,1.1,0.9,03)	12	11	26	4
LT(13,11,26,4,0,1.1,0.9,03)	13	11	26	4
LT(14,11,26,4,0,1.1,0.9,03)	14	11	26	4
LT(15,11,26,4,0,1.1,0.9,03)	15	11	26	4
LT(07,09,30,4,0,1.1,0.9,03)	07	09	30	4
LT(08,09,30,4,0,1.1,0.9,03)	08	09	30	4
LT(09,09,30,4,0,1.1,0.9,03)	09	09	30	4
LT(10,09,30,4,0,1.1,0.9,03)	10	09	30	4
LT(11,09,30,4,0,1.1,0.9,03)	11	09	30	4
LT(12,09,30,4,0,1.1,0.9,03)	12	09	30	4

Model No.	H(mm)	W(mm)	L(mm)	Θ°
LT(13,09,30,4,0,1.1,0.9,03)	13	09	30	4
LT(14,09,30,4,0,1.1,0.9,03)	14	09	30	4
LT(15,09,30,4,0,1.1,0.9,03)	15	09	30	4
LT(07,11,30,4,0,1.1,0.9,03)	07	11	30	4
LT(08,11,30,4,0,1.1,0.9,03)	08	11	30	4
LT(09,11,30,4,0,1.1,0.9,03)	09	11	30	4
LT(10,11,30,4,0,1.1,0.9,03)	10	11	30	4
LT(11,11,30,4,0,1.1,0.9,03)	11	11	30	4
LT(12,11,30,4,0,1.1,0.9,03)	12	11	30	4
LT(13,11,30,4,0,1.1,0.9,03)	13	11	30	4
LT(14,11,30,4,0,1.1,0.9,03)	14	11	30	4
LT(15,11,30,4,0,1.1,0.9,03)	15	11	30	4
LT(07,09,34,4,0,1.1,0.9,03)	07	09	34	4
LT(08,09,34,4,0,1.1,0.9,03)	08	09	34	4
LT(09,09,34,4,0,1.1,0.9,03)	09	09	34	4
LT(10,09,34,4,0,1.1,0.9,03)	10	09	34	4
LT(11,09,34,4,0,1.1,0.9,03)	11	09	34	4
LT(12,09,34,4,0,1.1,0.9,03)	12	09	34	4
LT(13,09,34,4,0,1.1,0.9,03)	13	09	34	4
LT(14,09,34,4,0,1.1,0.9,03)	14	09	34	4
LT(15,09,34,4,0,1.1,0.9,03)	15	09	34	4
LT(07,11,34,4,0,1.1,0.9,03)	07	11	34	4
LT(08,11,34,4,0,1.1,0.9,03)	08	11	34	4
LT(09,11,34,4,0,1.1,0.9,03)	09	11	34	4
LT(10,11,34,4,0,1.1,0.9,03)	10	11	34	4
LT(11,11,34,4,0,1.1,0.9,03)	11	11	34	4
LT(12,11,34,4,0,1.1,0.9,03)	12	11	34	4
LT(13,11,34,4,0,1.1,0.9,03)	13	11	34	4
LT(14,11,34,4,0,1.1,0.9,03)	14	11	34	4
LT(15,11,34,4,0,1.1,0.9,03)	15	11	34	4
LT(08,09,38,4,0,1.1,0.9,03)	08	09	38	4
LT(09,09,38,4,0,1.1,0.9,03)	09	09	38	4
LT(10,09,38,4,0,1.1,0.9,03)	10	09	38	4
LT(11,09,38,4,0,1.1,0.9,03)	11	09	38	4
LT(12,09,38,4,0,1.1,0.9,03)	12	09	38	4
LT(13,09,38,4,0,1.1,0.9,03)	13	09	38	4
LT(14,09,38,4,0,1.1,0.9,03)	14	09	38	4
LT(15,09,38,4,0,1.1,0.9,03)	15	09	38	4
LT(08,11,38,4,0,1.1,0.9,03)	08	11	38	4
LT(09,11,38,4,0,1.1,0.9,03)	09	11	38	4
LT(10,11,38,4,0,1.1,0.9,03)	10	11	38	4
LT(11,11,38,4,0,1.1,0.9,03)	11	11	38	4
LT(12,11,38,4,0,1.1,0.9,03)	12	11	38	4
LT(13,11,38,4,0,1.1,0.9,03)	13	11	38	4
LT(14,11,38,4,0,1.1,0.9,03)	14	11	38	4
LT(15,11,38,4,0,1.1,0.9,03)	15	11	38	4
LT(08,09,40,4,0,1.1,0.9,03)	08	09	40	4
LT(09,09,40,4,0,1.1,0.9,03)	09	09	40	4
LT(10,09,40,4,0,1.1,0.9,03)	10	09	40	4
LT(11,09,40,4,0,1.1,0.9,03)	11	09	40	4
LT(12,09,40,4,0,1.1,0.9,03)	12	09	40	4
LT(13,09,40,4,0,1.1,0.9,03)	13	09	40	4
LT(14,09,40,4,0,1.1,0.9,03)	14	09	40	4
LT(15,09,40,4,0,1.1,0.9,03)	15	09	40	4
LT(08,11,40,4,0,1.1,0.9,03)	08	11	40	4
LT(09,11,40,4,0,1.1,0.9,03)	09	11	40	4
LT(10,11,40,4,0,1.1,0.9,03)	10	11	40	4
LT(11,11,40,4,0,1.1,0.9,03)	11	11	40	4
LT(12,11,40,4,0,1.1,0.9,03)	12	11	40	4
LT(13,11,40,4,0,1.1,0.9,03)	13	11	40	4
LT(14,11,40,4,0,1.1,0.9,03)	14	11	40	4
LT(15,11,40,4,0,1.1,0.9,03)	15	11	40	4
LT(07,09,22,8,0,1.1,0.9,03)	07	09	22	8
LT(08,09,22,8,0,1.1,0.9,03)	08	09	22	8
LT(09,09,22,8,0,1.1,0.9,03)	09	09	22	8
LT(10,09,22,8,0,1.1,0.9,03)	10	09	22	8
LT(11,09,22,8,0,1.1,0.9,03)	11	09	22	8
LT(12,09,22,8,0,1.1,0.9,03)	12	09	22	8
LT(13,09,22,8,0,1.1,0.9,03)	13	09	22	8
LT(14,09,22,8,0,1.1,0.9,03)	14	09	22	8
LT(15,09,22,8,0,1.1,0.9,03)	15	09	22	8
LT(07,11,22,8,0,1.1,0.9,03)	07	11	22	8
LT(08,11,22,8,0,1.1,0.9,03)	08	11	22	8
LT(09,11,22,8,0,1.1,0.9,03)	09	11	22	8
LT(10,11,22,8,0,1.1,0.9,03)	10	11	22	8

Model No.	H(mm)	W(mm)	L(mm)	Θ°
LT(11,11,22,8,0,1.1,0.9,03)	11	11	22	8
LT(12,11,22,8,0,1.1,0.9,03)	12	11	22	8
LT(13,11,22,8,0,1.1,0.9,03)	13	11	22	8
LT(14,11,22,8,0,1.1,0.9,03)	14	11	22	8
LT(15,11,22,8,0,1.1,0.9,03)	15	11	22	8
LT(08,09,26,8,0,1.1,0.9,03)	08	09	26	8
LT(09,09,26,8,0,1.1,0.9,03)	09	09	26	8
LT(10,09,26,8,0,1.1,0.9,03)	10	09	26	8
LT(11,09,26,8,0,1.1,0.9,03)	11	09	26	8
LT(12,09,26,8,0,1.1,0.9,03)	12	09	26	8
LT(13,09,26,8,0,1.1,0.9,03)	13	09	26	8
LT(14,09,26,8,0,1.1,0.9,03)	14	09	26	8
LT(15,09,26,8,0,1.1,0.9,03)	15	09	26	8
LT(08,11,26,8,0,1.1,0.9,03)	08	11	26	8
LT(09,11,26,8,0,1.1,0.9,03)	09	11	26	8
LT(10,11,26,8,0,1.1,0.9,03)	10	11	26	8
LT(11,11,26,8,0,1.1,0.9,03)	11	11	26	8
LT(12,11,26,8,0,1.1,0.9,03)	12	11	26	8
LT(13,11,26,8,0,1.1,0.9,03)	13	11	26	8
LT(14,11,26,8,0,1.1,0.9,03)	14	11	26	8
LT(15,11,26,8,0,1.1,0.9,03)	15	11	26	8
LT(09,09,30,8,0,1.1,0.9,03)	09	09	30	8
LT(10,09,30,8,0,1.1,0.9,03)	10	09	30	8
LT(11,09,30,8,0,1.1,0.9,03)	11	09	30	8
LT(12,09,30,8,0,1.1,0.9,03)	12	09	30	8
LT(13,09,30,8,0,1.1,0.9,03)	13	09	30	8
LT(14,09,30,8,0,1.1,0.9,03)	14	09	30	8
LT(15,09,30,8,0,1.1,0.9,03)	15	09	30	8
LT(09,11,30,8,0,1.1,0.9,03)	09	11	30	8
LT(10,11,30,8,0,1.1,0.9,03)	10	11	30	8
LT(11,11,30,8,0,1.1,0.9,03)	11	11	30	8
LT(12,11,30,8,0,1.1,0.9,03)	12	11	30	8
LT(13,11,30,8,0,1.1,0.9,03)	13	11	30	8
LT(14,11,30,8,0,1.1,0.9,03)	14	11	30	8
LT(15,11,30,8,0,1.1,0.9,03)	15	11	30	8
LT(09,09,34,8,0,1.1,0.9,03)	09	09	34	8
LT(10,09,34,8,0,1.1,0.9,03)	10	09	34	8
LT(11,09,34,8,0,1.1,0.9,03)	11	09	34	8
LT(12,09,34,8,0,1.1,0.9,03)	12	09	34	8
LT(13,09,34,8,0,1.1,0.9,03)	13	09	34	8
LT(14,09,34,8,0,1.1,0.9,03)	14	09	34	8
LT(15,09,34,8,0,1.1,0.9,03)	15	09	34	8
LT(09,11,34,8,0,1.1,0.9,03)	09	11	34	8
LT(10,11,34,8,0,1.1,0.9,03)	10	11	34	8
LT(11,11,34,8,0,1.1,0.9,03)	11	11	34	8
LT(12,11,34,8,0,1.1,0.9,03)	12	11	34	8
LT(13,11,34,8,0,1.1,0.9,03)	13	11	34	8
LT(14,11,34,8,0,1.1,0.9,03)	14	11	34	8
LT(15,11,34,8,0,1.1,0.9,03)	15	11	34	8
LT(10,09,38,8,0,1.1,0.9,03)	10	09	38	8
LT(11,09,38,8,0,1.1,0.9,03)	11	09	38	8
LT(12,09,38,8,0,1.1,0.9,03)	12	09	38	8
LT(13,09,38,8,0,1.1,0.9,03)	13	09	38	8
LT(14,09,38,8,0,1.1,0.9,03)	14	09	38	8
LT(15,09,38,8,0,1.1,0.9,03)	15	09	38	8
LT(10,11,38,8,0,1.1,0.9,03)	10	11	38	8
LT(11,11,38,8,0,1.1,0.9,03)	11	11	38	8
LT(12,11,38,8,0,1.1,0.9,03)	12	11	38	8
LT(13,11,38,8,0,1.1,0.9,03)	13	11	38	8
LT(14,11,38,8,0,1.1,0.9,03)	14	11	38	8
LT(15,11,38,8,0,1.1,0.9,03)	15	11	38	8
LT(10,09,40,8,0,1.1,0.9,03)	10	09	40	8
LT(11,09,40,8,0,1.1,0.9,03)	11	09	40	8
LT(12,09,40,8,0,1.1,0.9,03)	12	09	40	8
LT(13,09,40,8,0,1.1,0.9,03)	13	09	40	8
LT(14,09,40,8,0,1.1,0.9,03)	14	09	40	8
LT(15,09,40,8,0,1.1,0.9,03)	15	09	40	8
LT(10,11,40,8,0,1.1,0.9,03)	10	11	40	8
LT(11,11,40,8,0,1.1,0.9,03)	11	11	40	8
LT(12,11,40,8,0,1.1,0.9,03)	12	11	40	8
LT(13,11,40,8,0,1.1,0.9,03)	13	11	40	8
LT(14,11,40,8,0,1.1,0.9,03)	14	11	40	8
LT(15,11,40,8,0,1.1,0.9,03)	15	11	40	8

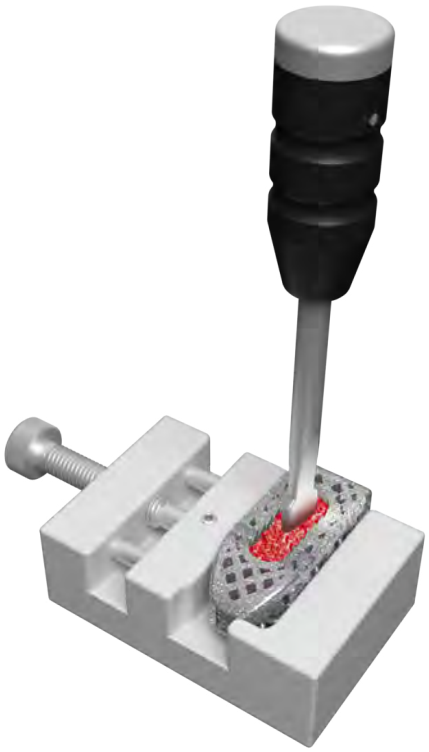
GENOSS™

3d Cage

Surgical Technic

• **STEP 1** Cage preparation

Prepare 3d Cage that has the same size Reamer Sharp. Assemble 3d Cage with the Holder. Compact the bone grafts manually in the cage with the graft compactor.



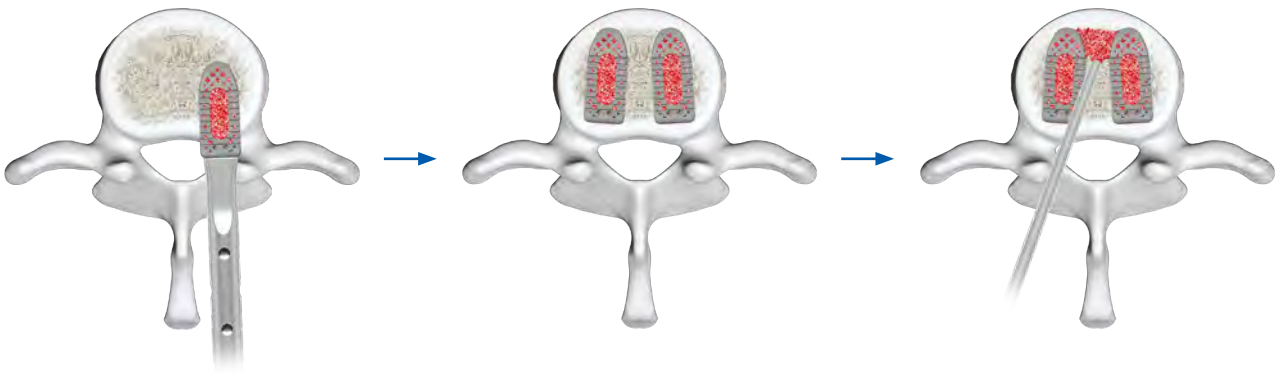
• **STEP 2** Cage insertion

Insert cage in opened disc space with Its serrated sides facing endplates. To ensure that the intervertebral space is freely accessible to the cage, leave contralateral distractor in place during the cage placement. After insertion posterior end of the cage should be countersunk at least 2~4mm deep to the poseterior rim of the vertebral body holder from cage. Compact the Autograft bone in space between cages and vertebral body wall after removing the holder.

Note

The position of the cage corresponds to that of the handles of the impactor. The implant is correctly oriented when the handles are vertical. The neural elements should always be kept in view during the cage implantation step.

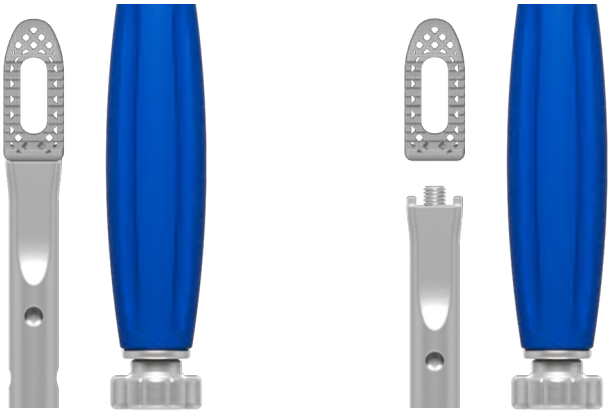
Fixation hardware like pedicle screw system is to be used in addition to 3d Cage.



• **STEP 3** Cage Holder Tap Assemble, Disassemble

Tap Assemble
Connect the cage to tap type holder assembly by rotating the knob.

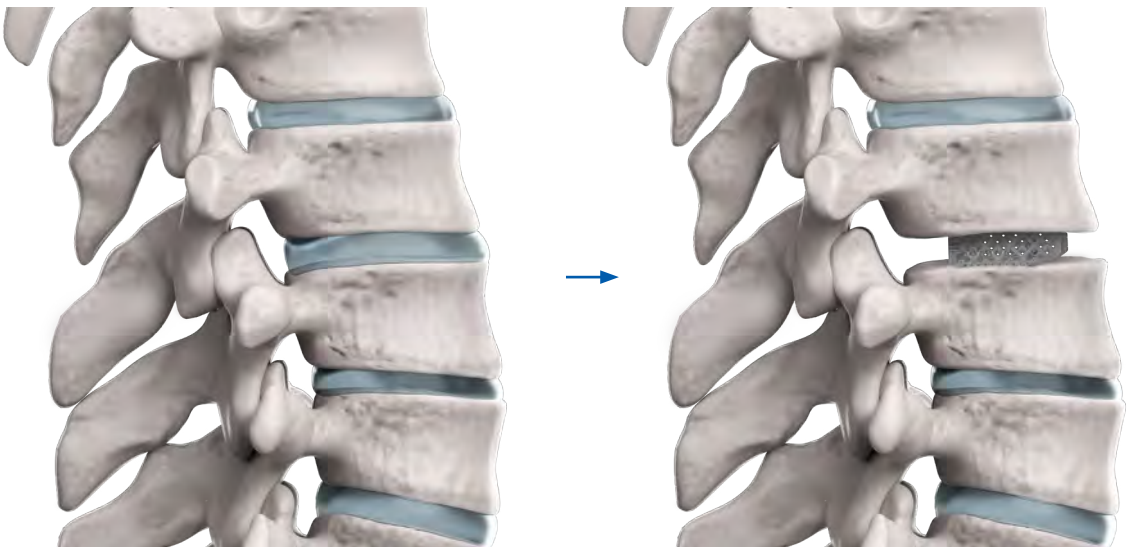
Tap Disassemble
Position and aligned the cage between the intervertebral bodies. Rotate the knob in the opposite direction to disassemble the tap type holder from the cage if desired cage positioning is achieved.



Assemble　　Disassemble

• **STEP 4** Completion of Surgery

After Implantation of 3d Cage, final implant positioning via fluoroscopy is advised. 3d Cage is intended to be used with posterior supplemental fixation (e.g., pedicle screws or other posterior fixation device) intended for use in the lumbosacral spine. Perform wound closure as usual.



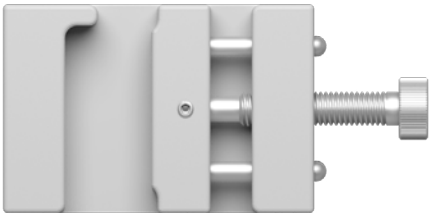
• **STEP 5** Closure

Once satisfactory decompression of the exiting and traversing nerve roots is confirmed, the wound should be closed in a routine manner.

• **STEP 6** Revision

Surgical revision may be indicated for many reasons, including new or unresolved pain or neurological symptoms, changes in implant positioning, non-union or incomplete fusion, etc. The surgeon must use own professional judgment to determine the appropriate revision strategy taking into consideration the patient's health, the nature of the problem or implant failure, the patient's bone density and the surgeon's expertise with other spinal treatments and instrumentation.

• Instrument

Instrument	Reference No.	Description
	21100001	Bone Curette - Left
	21100002	Bone Curette - Right
	11100044	Cage Holder Tap Type
	21100004	Cancellous Bone Funnel
	21100005	Cancellous Bone Impactor
	21100006	Dura Retractor
	21100007	Graft Holder
	21100008	Graft Impactor - 3mm
	21100009	Graft Impactor - 5mm
	21100010	Last Impactor
	21100011	Osteotome - Left
	21100012	Osteotome - Right

Instrument	Reference No.	Description
	21100014	Reamer Blunt - 7
	21100015	Reamer Blunt - 8
	21100016	Reamer Blunt - 9
	21100017	Reamer Blunt - 10
	21100018	Reamer Blunt - 11
	21100019	Reamer Blunt - 12
	21100020	Reamer Blunt - 13
	21100021	Reamer Sharp - 07x0°
	21100022	Reamer Sharp - 08x0°
	21100023	Reamer Sharp - 09x0°
	21100024	Reamer Sharp - 10x0°
	21100025	Reamer Sharp - 11x0°
	21100026	Reamer Sharp - 12x0°
	21100027	Reamer Sharp - 13x0°
	21100028	Reamer Sharp - 07x4°
	21100029	Reamer Sharp - 08x4°
	21100030	Reamer Sharp - 09x4°
	21100031	Reamer Sharp - 10x4°
	21100032	Reamer Sharp - 11x4°
	21100033	Reamer Sharp - 12x4°
	21100034	Reamer Sharp - 13x4°
	21100035	Reamer Sharp - 07x8°
	21100036	Reamer Sharp - 08x8°
	21100037	Reamer Sharp - 09x8°
	21100038	Reamer Sharp - 10x8°
	21100039	Reamer Sharp - 11x8°
	21100040	Reamer Sharp - 12x8°
	21100041	Reamer Sharp - 13x8°
	21100042	T-Handle
	11100043	Clavicle Plate Screw Kit

• Important product information

DEVICE DESCRIPTION

The 3d Cage is a device designed for usage in the posterior/transforaminal lumbar inter-body fusion procedures. It consists of block made of titanium alloy.

MATERIAL

The 3d Cage is made from titanium 6-aluminum 4-vanadium ELI Powder (ASTM F3001).

INDICATION FOR USE

The 3d Cage is an intervertebral body fusion device indicated for use in skeletally mature patients with Degenerative Disc Disease (DDD) at one or two contiguous levels from L2-L5. DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies. The DDD patients may also have up to Grade I spondylolisthesis at the involved level(s). These patients should be skeletally mature and have six months of non-operative therapy.
The device is intended to be used with supplemental fixation system and autograft bone.

CONTRAINDICATIONS

1. Acute or chronic infections
2. Major bone defects in the vertebral bodies
3. Severe osteoporosis
4. Previous interbody fusion site
5. Allergy to Titanium alloy
6. Excessive stresses on bone and implants (severe obesity, pregnancy)

PRECAUTION

1. Open the package after selecting the appropriate size of implant.
2. Check any damage in the package or product.
3. Surgeons should be fully aware of the surgical technique, indications, and contra-indications.
4. Check any biological or biomechanical factors which might make bad surgical result.
5. Read the instructions in the package thoroughly before usage.

※ CHOICE OF IMPLANTS

The implant is chosen by its height, width, length and angle depends on each Size and shape of patient's bone structures. These features are crucial to success of the surgery so surgeon is responsible for this choice. Notice that patients with overweight may responsible for additional stresses and strains on device. This can cause implant's fatigue fracture more faster and/ or deformation of the implants. After implantation, implants are exposure to stresses and strains. Surgeon should consider those surrounding environments, while selecting implant and postoperative follow up period. Otherwise, if implants been damaged by fracture or deformation before complete synostosis, it may result in further side effects or necessitate the early removal of the implants

DIRECTIONS FOR USE

1. Expose and approach to the affected disc and adjacent vertebral bodies.
2. Distract the segment with the Lumbar distractor.
3. Connect the selected implant to the holder.
4. Pack the inner hole of cage with autogenous bone.
5. Orient implant and holder in the correct alignment and carefully insert the implant into the distracted segment.
6. Release the distractor and remove all instruments.
7. Verify and confirm the position of cage.
8. Close the wound carefully.

※ REMOVAL OF IMPLANTS

For the best results, the same type of 3d Cage instruments as used for implantation should be used for implant removal purposes. Cage holder is available to adapt to the removal drive sizes in a fixation screws. It should be noted that where excessive bone or fibrous growth has occurred from the first surgery, there may be added stress on the removal instruments and the implants. Both instrument and implant may be prone to possible breakage. In this case it is necessary to first remove the bone and/or tissue from around the implants.

Instruments sterilization

* It is the responsibility of the user to clean and disinfection in an appropriate method if manufacturer recommendations cleaning and disinfection methods are not followed. Only sterile products should be placed in the operative field. Unless marked sterile and clearly labeled as such in an unopened sterile package provided by the company, all instruments used in surgery must be sterilized by the hospital prior to use. Carry out the sterilization process as below.
1 Remove all packaging materials
2 Cleaning
1. Rinse the contaminated device with cold tap water for 2 minutes.
2. Use a soft brush or cloth to remove contaminants from the device.
* Do not use metal brushes or steel wool for cleaning
3. The enzyme detergent is mixed with water at a ratio of 1: 250.
4. Soak the surgical instrument thoroughly for 5 minutes in prepared(diluted) detergent. And then wipe out gently with a soft brush until the visible contamination is completely removed.
5. Rinse in flowing water for 2 minutes.
6. Immerse the device completely into the new diluted detergent solution and perform the ultrasonic cleaning at 40 kHz for 10 min.
7. Rinse the device thoroughly with clean tap water for 2 minutes to remove the detergent.
8. Finally, rinse with purified water for 2 minutes.
9. Remove excess moisture from the device with a clean, soft, lint-free cloth or clean compressed air.
Note: Above cleaning process 1)~9) is applied to re-usable instruments.
3 Sterilization
These products are recommended to be sterilized by the hospital using the following validated cycle parameters

Method	Steam
Pressure	Gravity
Temperature	270°F (132°C)
Exposure Time	30 Min
Dry Time	30 Min

* ANSI/AAMI/ISO 17665- 1:2006/(R)2013
Note: Because of the many variables involved in sterilization, each medical facility should calibrate and verify the sterilization process(e.g., temperatures, times) used for their equipment.
Note: The instruments can be re-sterilized a maximum of hundred times.
4 Additional Infromation
1. Cleaning Agent Information:
Manufacturer used the following cleaning agents during validation of reprocessing (ENDOZIME AW TRIPLE PLUS with APA)
2. Instument Cleaning Accessories Information: It is recommended that the cleaning brush should be at least 4mm in diameter and at least 15mm in length. If have to clean for difficult area like lumens and channels.
3. Instrument sterilization process is available until 20 times of using, recommend changing instruments after using more than 20 times.
4. It is recommended to using an FDA cleared sterilization wraps for sterilization.

⚠ CAUTION

1. Avoid excessive shock when inserting the implant.
2. Protect the operation site safely for a certain period for ensuring stable fusion.
3. Only the surgeons specially trained in the 3d Cage™ or similar devices should perform the operation.
4. Surgical plan should be prepared before operation through radiography.
5. Severe adverse effects can occur when
1) Implantation site is not appropriate anatomically.
2) Selected implant is excessively large compared to the disc space.
3) Dislocation of vertebral body occur due to the inadequate modification during implantation.
4) Surgical tools are misused.
5) Implantation site is fractured by excessive load.
6. If any part of the implant is damaged during operation, the implant should be replaced. If damaged product is used. severe adverse effects can occur.
7. If the surgeon doesn't follow the instructions in package insert, adverse effects can occur.
8. If any problem happens in the implanted product, pain can be caused and re-operation might be required.
9. Radiological examination should be executed periodically after the operation.
10. Imperfect fusion may cause the extrusion or fracture of the implant.
11. Excessive load to the implant or surrounding tissue may cause the extrusion or fracture of the implant.
12. Do not use this product in the case of pseudo-arthrosis with pain due to the failure of previous fusion.
* Federal law restricts this device to be used, or sold by or on the order of a physician.

POTENTIAL ADVERSE EFFECTS

1. Delayed union of the fusion
2. Non fusion
3. Pseudarthrosis
4. Neurologic complications
5. Paralysis
6. Tissue lesions
7. Pain as sequel to the operation
8. Implant migration
9. Superficial and deep infection or signs/ symptoms of infection
10. Implant material sensitivity or allergic reaction
11. Implant creep into the vertebral body
12. Decrease in bony density due to stress shielding
13. Neurologic and/or dural lesions during the procedure
14. Micro-debris by wear/degradation around the implant
15. Fracture of another vertebra during placement
16. Breakage of implant
17. Bone resorption
18. Loss of disc height
19. Injury or damage to adjacent bones, discs, or soft tissues (carotid or vertebral artery, nerves, esophagus or trachea)
20. Death (in worst case)
Note: This list of adverse events is by no means complete. Additional surgery may be necessary to correct these potential adverse effects.

EXPIRY DATE

The expiry date is described on the container and packaging.
Do not use the device if the expiration date has passed.

MAGNETIC RESONANCE(MR) COMPATIBILITY

The 3d Cage has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration, or image artifact in the MR environment. The safety of The 3d Cage™ in the MR environment is unknown. Scanning a patient who has this device may result in patient injury

Warning

· Do not use if package is opened or damaged
· These devices are to be used as indicated. The safety and effectiveness when implanted in the spine for any other indications has not been established.
· When more than two involved spinal levels are treated, longer operative times and higher blood loss are likely to occur.

SYMBOLS

REF	Catalogue number	LOT	Batch code
	Do not re-use		Date of manufacture
	Caution		Use by Date
STERILE EO	Sterilized using ethylene oxide		Manufacture
	Temperature limit		Do not use If package is damaged
	Consult instructions for use	Rx only	By prescription only
EC REP	Authorized representative	CE 2195	CE Mark

PRESERVATION

Store this product in a dry place at room temperature.

Orthopedic Product
System Catalog

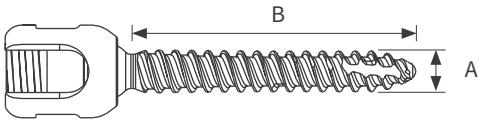
Pedicle Screw

• Device Description

The Lumbar Pedicle Screw is a device designed for usage in the posterior lumbar inter-body fusion procedures. It It consists of pedicle screw(poly, mono type), reduction screw(poly, mono type), set screw, rods, crosslink as well as connecting and bolting elements Various forms and sizes of these implants are avallable so that adaptations can always be made to take into account the pathology and the individual patient.

• Indication

The Lumbar Pedicle Screw is intended to provide immobilization and stabilization of spinal segments in the treatment of the following: Degenerative spondylolisthesls objective evidence of neurologic impairment, fracture, dislocation, scoliosis, kyphosis spinal tumor, and faled previous fusion(pseudarthrosis), In addition, the system isindicated for spinal pedide screw fixation in patients with severe spondylolisthesis(Grade 3 and 4) at the L5-51 joint receiving fusion using autogenous graft, having thedevice removed after the development of a solid fusion mass.



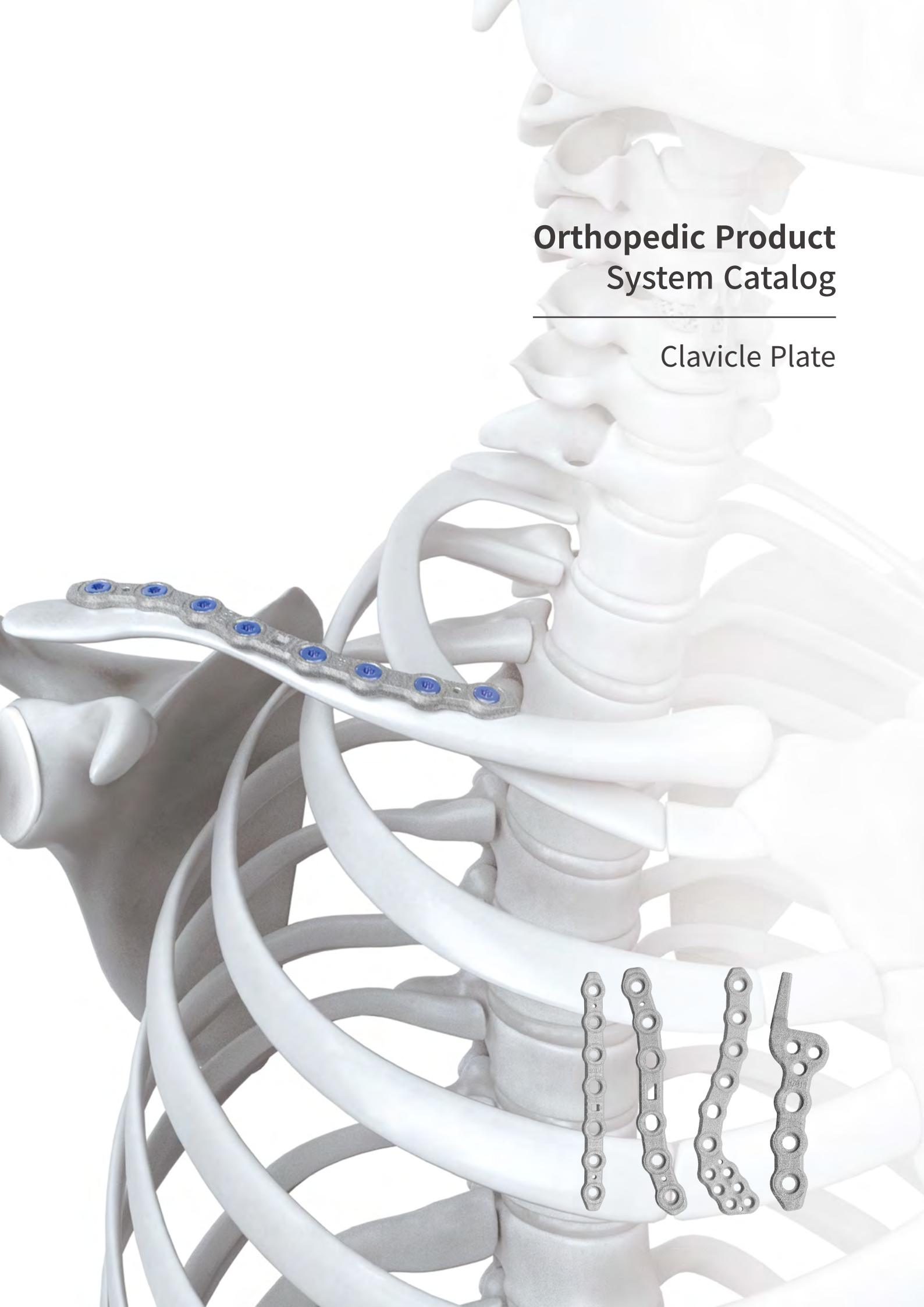
N : Non S.L.A Surface treatment (Non-sterile)
A : Anodizing Surface treatment (Non-sterile)
LLP : Lumbar Pedicle Screw Poly Type
LLM : Lumbar Pedicle Screw Mono Type

• Order information

No.	REF	A(⌀)	B(mm)	No.	REF	A(⌀)	B(mm)	No.	REF	A(⌀)	B(mm)
1	LLP/M 4025 N/A	4.0	25.0	23	LLP/M 5530 N/A	5.5	30.0	45	LLP/M 6560 N/A	6.5	60.0
2	LLP/M 4030 N/A	4.0	30.0	24	LLP/M 5535 N/A	5.5	35.0	46	LLP/M 6565 N/A	6.5	65.0
3	LLP/M 4035 N/A	4.0	35.0	25	LLP/M 5540 N/A	5.5	40.0	47	LLP/M 7030 N/A	7.0	30.0
4	LLP/M 4040 N/A	4.0	40.0	26	LLP/M 5545 N/A	5.5	45.0	48	LLP/M 7035 N/A	7.0	35.0
5	LLP/M 4045 N/A	4.0	45.0	27	LLP/M 5550 N/A	5.5	50.0	49	LLP/M 7040 N/A	7.0	40.0
6	LLP/M 4050 N/A	4.0	50.0	28	LLP/M 5555 N/A	5.5	55.0	50	LLP/M 7045 N/A	7.0	45.0
7	LLP/M 4530 N/A	4.5	30.0	29	LLP/M 5560 N/A	5.5	60.0	51	LLP/M 7050 N/A	7.0	50.0
8	LLP/M 4535 N/A	4.5	35.0	30	LLP/M 5565 N/A	5.5	65.0	52	LLP/M 7055 N/A	7.0	55.0
9	LLP/M 4540 N/A	4.5	40.0	31	LLP/M 6030 N/A	6.0	30.0	53	LLP/M 7060 N/A	7.0	60.0
10	LLP/M 4545 N/A	4.5	45.0	32	LLP/M 6035 N/A	6.0	35.0	54	LLP/M 7065 N/A	7.0	65.0
11	LLP/M 4550 N/A	4.5	50.0	33	LLP/M 6040 N/A	6.0	40.0	55	LLP/M 7070 N/A	7.0	70.0
12	LLP/M 4555 N/A	4.5	55.0	34	LLP/M 6045 N/A	6.0	45.0	56	LLP/M 7075 N/A	7.0	75.0
13	LLP/M 4560 N/A	4.5	60.0	35	LLP/M 6050 N/A	6.0	50.0	57	LLM 7530 N/A	7.5	30.0
14	LLP/M 4565 N/A	4.5	65.0	36	LLP/M 6055 N/A	6.0	55.0	58	LLM 7535 N/A	7.5	35.0
15	LLP/M 5030 N/A	5.0	30.0	37	LLP/M 6060 N/A	6.0	60.0	59	LLM 7540 N/A	7.5	40.0
16	LLP/M 5035 N/A	5.0	35.0	38	LLP/M 6065 N/A	6.0	65.0	60	LLM 7545 N/A	7.5	45.0
17	LLP/M 5040 N/A	5.0	40.0	39	LLP/M 6530 N/A	6.5	30.0	61	LLM 7550 N/A	7.5	50.0
18	LLP/M 5045 N/A	5.0	45.0	40	LLP/M 6535 N/A	6.5	35.0	62	LLM 7555 N/A	7.5	55.0
19	LLP/M 5050 N/A	5.0	50.0	41	LLP/M 6540 N/A	6.5	40.0	63	LLM 7560 N/A	7.5	60.0
20	LLP/M 5055 N/A	5.0	55.0	42	LLP/M 6545 N/A	6.5	45.0	64	LLM 7565 N/A	7.5	65.0
21	LLP/M 5060 N/A	5.0	60.0	43	LLP/M 6550 N/A	6.5	50.0	65	LLM 7570 N/A	7.5	70.0
22	LLP/M 5065 N/A	5.0	65.0	44	LLP/M 6555 N/A	6.5	55.0	66	LLM 7575 N/A	7.5	75.0

Orthopedic Product
System Catalog

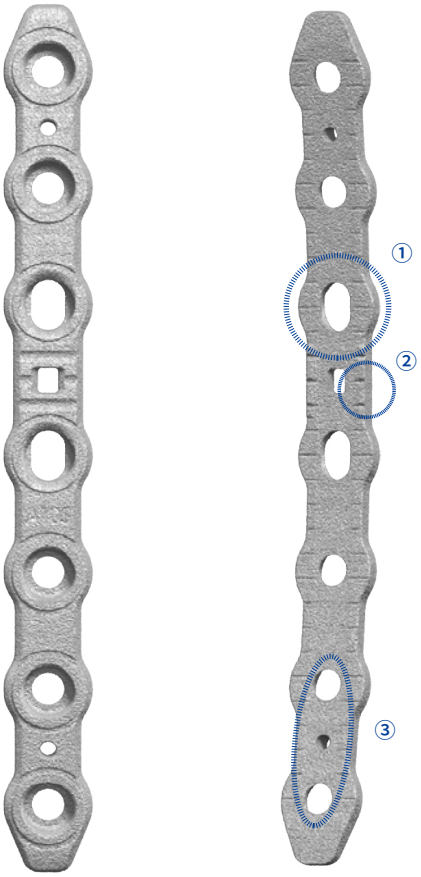
Clavicle Plate



• Easy Surgery

Low Profile & Narrow Body

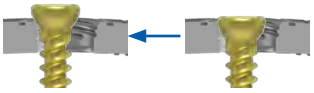
Line Up : 2.4T, 2.8T, 3.2T SLIM



① Multi Hole

Coupled with Compression Screw & Locking Screw

1 Coupled with Compression Screw



Initial Location of screw
(1.0mm Reduction)

2 Coupled with Locking Screw

Full Locking

② Footprint of Bottom

Preserve the Blood Supply & Anti Slip

③ Locking Hole

Coupled with 3.5 Locking Screw

T15 Hexalobe Connection

All use One Driver & Just fit

 2.7 Locking Screw

 2.7 Non-Locking Screw

 3.5 Locking Screw

 3.5 Non-Locking Screw

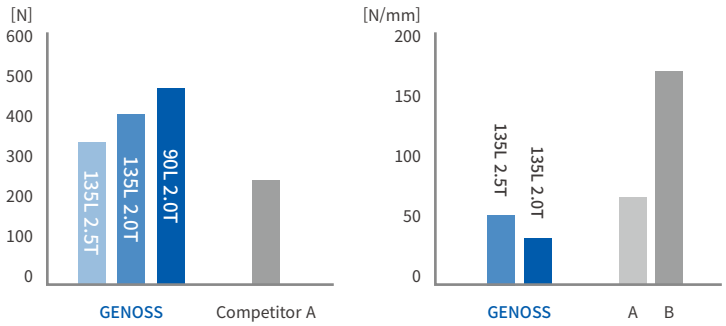
 3.5 Compression Screw

• Stability

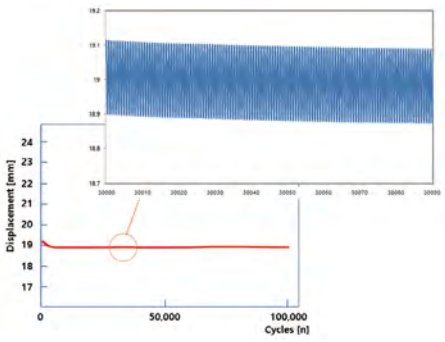
Strong & Flexible

Verification Tests

4 Point Bending Test

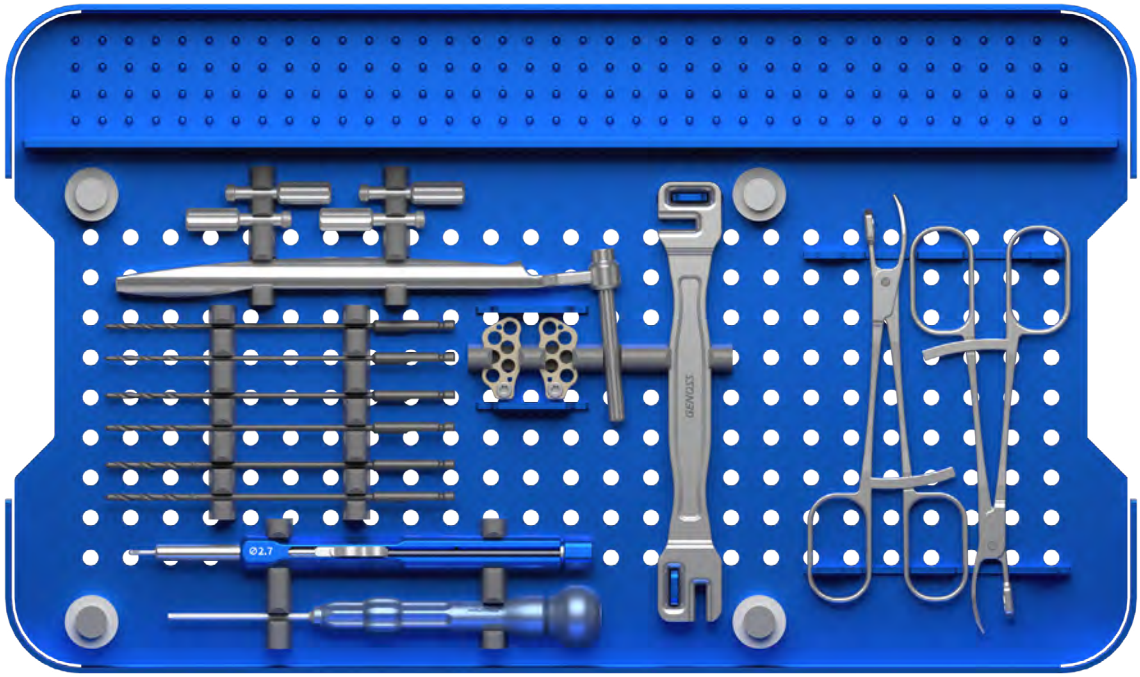


Micro Motion Test



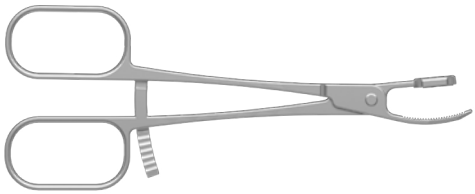
• Easy Surgery

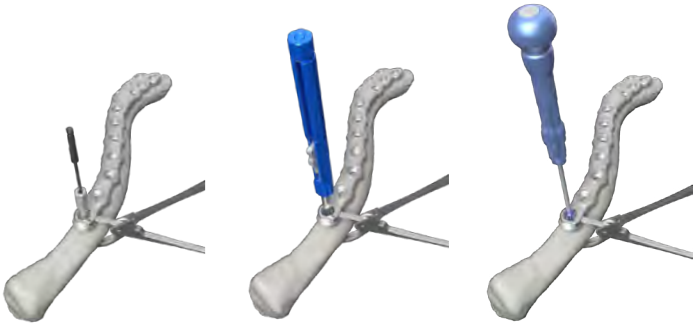
Simplification & Usability
Optimization & Configuration of Template
One Pass Surgery



• Plate Holder

After Fixation, One Pass Surgery

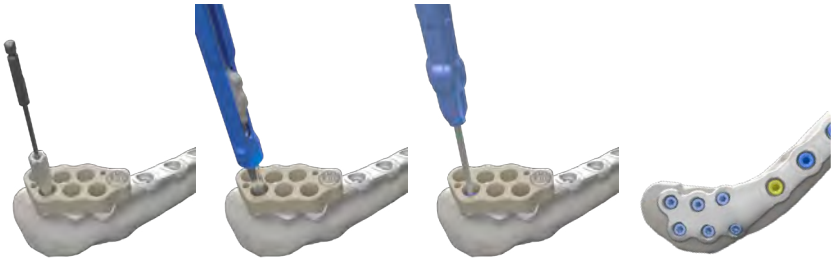




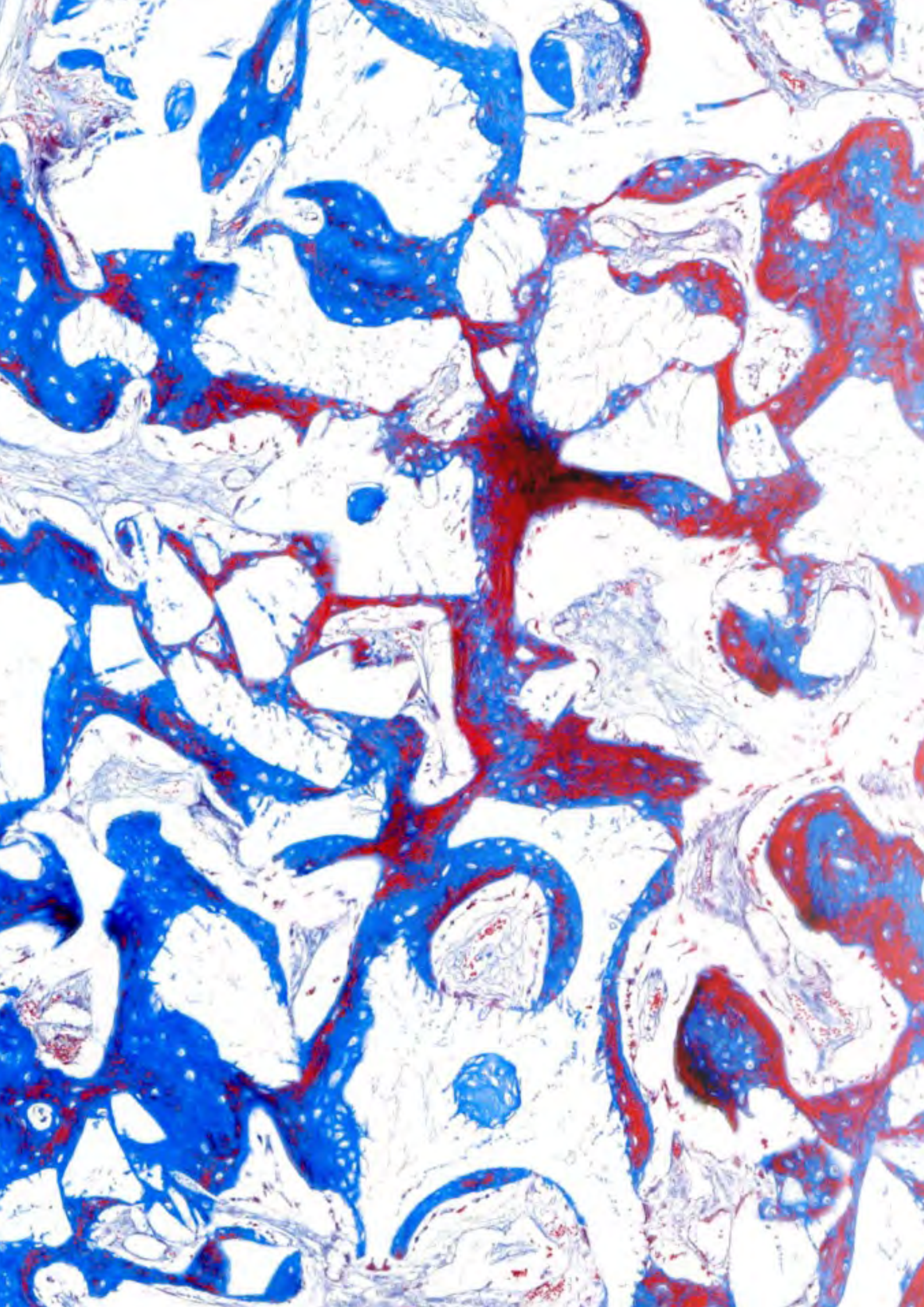
Drilling Measurement Insertion

• Guide Block

After Assembly, One Pass Surgery



Drilling Measurement Insertion



Orthopedic Product
System Catalog

Regeneration

ORTHOPEDIC OSTEON™

• Application

Bone filling
Fractures with bone defects
Pseudoarthrosis with or without bone defects
Tibial osteotomy
In certain cases of arthroplasty revision

• Composition of ORTHOPEDIC OSTEON™

100% Synthetic bone graft : HA scaffold coated with β-TCP

ORTHOPEDIC OSTEON™ = **HA 70% + β-TCP 30%**

• Specification of ORTHOPEDIC OSTEON™

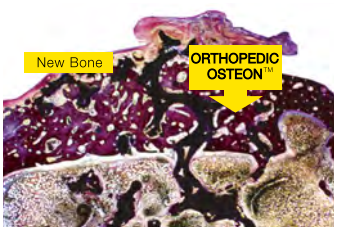
100% Synthetic bone graft
Interconnected porous structure similar to that of human cancellous bone
Osteoconductive material as a bone growth scaffold

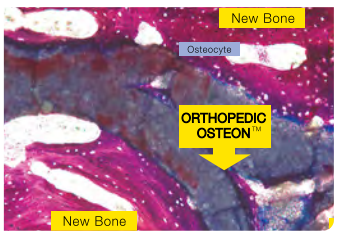
• Products

Product	REF	Particle Size (mm)	Volume (cc)
ORTHOPEDIC OSTEON™	GOBG2040 GOBG4070	2.0~4.0 4.0~7.0	3.0cc / 4.0cc / 5.0cc / 10.0cc / 15.0cc / 20.0cc

• In vivo Test-Rabbit Femur Model

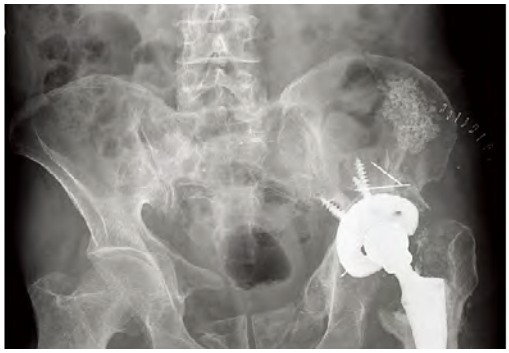
12 weeks after bone grafting in rabbit femur
New bone was well formed in the pores and around ORTHOPEDIC OSTEON™

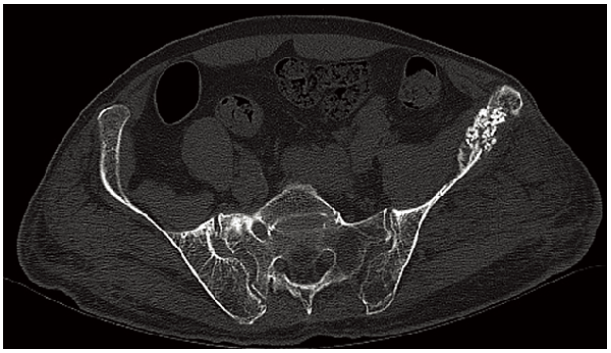




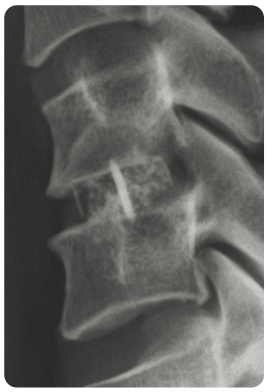
• Clinical Cases

Clinical Case 1

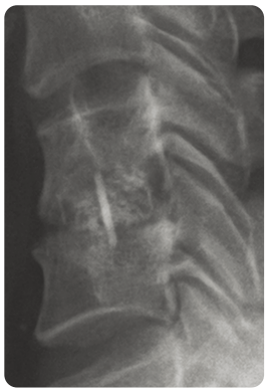




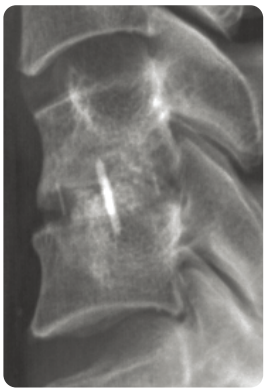
Clinical Case 2



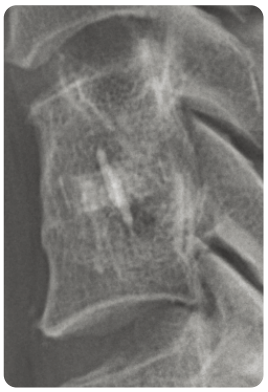
Post OP



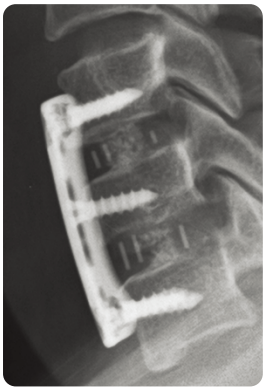
Post 1M



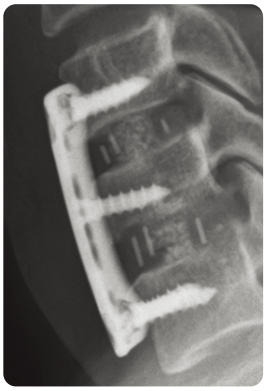
Post 4M



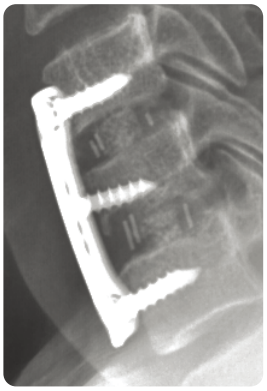
Post 16M



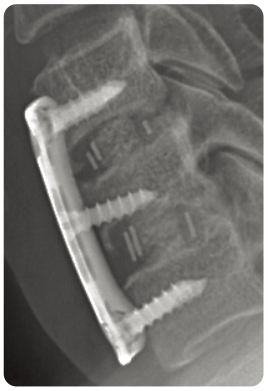
Post OP



Post 1M



Post 4M



Post 12M

ORTHOPEDIC OSTEON™ Collagen

OSTEON™ Collagen is a bone void filler composed of synthetic bone (OSTEON™) and bovine Type I Collagen.

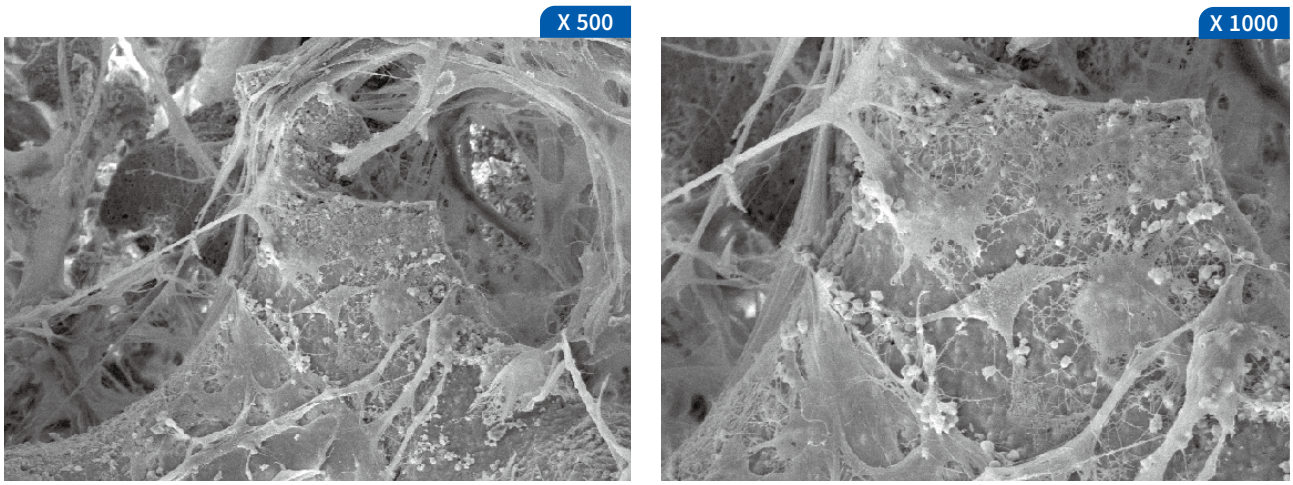
• Application

Bone filling
Fractures with bone defects
Pseudoarthrosis with or without bone defects
Tibial osteotomy
In certain cases of arthroplasty revision

• Characteristics

Collagen coating facilitates easy handling and shortenes operation time
Moldable to various defect shape after being wet
Collagen dissolves after helping the initial handling
Excellent new bone formation and space maintenance
Hemostatic function

• Cell adhesion test In vitro cell test



Osteoblasts spread well on the OSTEON™ Collagen

• In vivo

Animals : New Zealand white rabbit
Implantation Area : Calvaria
Period : 8 weeks
Staining method : Goldner Trichrome

• Products

Type	REF	Size (mm)	Type	REF	Volume (cc)
Cylinder	BOCC1010	Ø10 X 10	Block	BOCB080910	8 X 9 X 10
	BOCC1020	Ø10 X 20		BOCB101112	10 X 11 X 12
	BOCC1520	Ø15 X 20		BOCB151617	15 X 16 X 17
Stick	BOCC0330	Ø3 X 30	Strip	BOCB102005	10 X 20 X 5
	BOCC0430	Ø4 X 30		BOCB205005	20 X 50 X 5

* Other sizes are available.

ORTHOPEDIC OSTEON™ 2

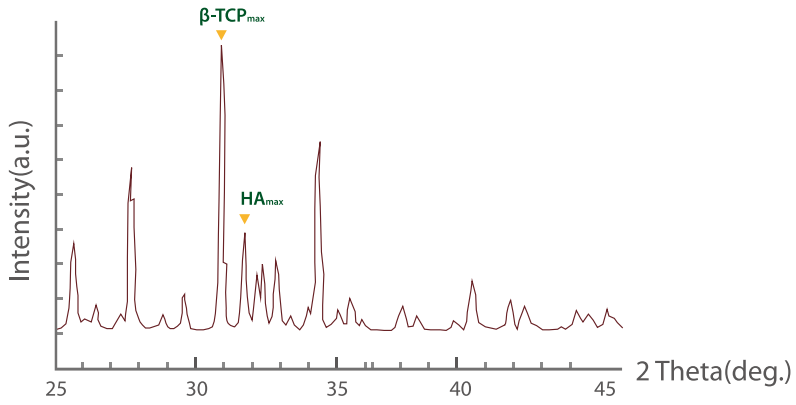
• Application

Bone filling
Fractures with bone defects
Pseudoarthrosis with or without bone defects
Tibial osteotomy
In certain cases of arthroplasty revision

• Composition of ORTHOPEDIC OSTEON™ 2

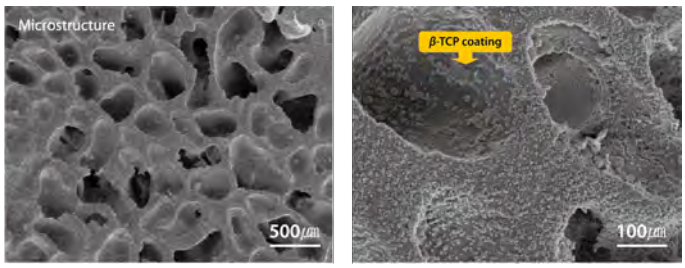
Osteoconductive biphasic calcium phosphate with high β-TCP

ORTHOPEDIC OSTEON™ 2 = **HA 30% + β-TCP 70%**



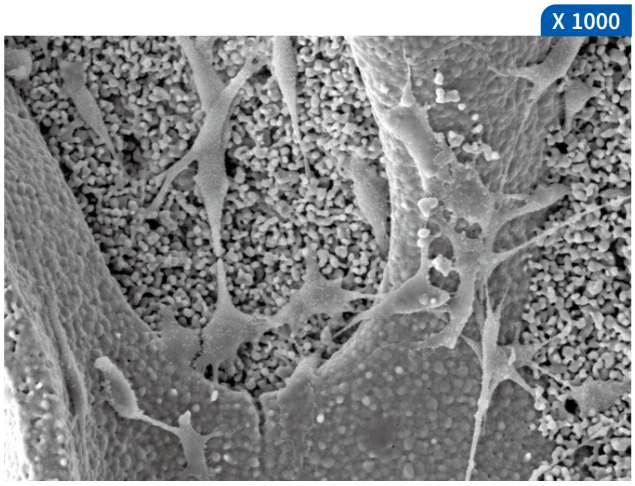
• Specification of ORTHOPEDIC OSTEON™ 2

Highly resorbable due to high β-TCP content
Easy manipulation
Excellent wettability
Osteoconductive synthetic bonegraft
Pore size: 250μm
Porosity : 70%



• Cell adhesion test

Osteoblasts attached & spread well



• Animal test

12-week follow up in rabbit calvaria

OSTEON™ | OSTEON™ 2

• Products

Product	REF	Particle Size (mm)	Volume (cc)
ORTHOPEDIC OSTEON™ 2	OT7G2040500 OT7G20401000 OT7G20401500 OT7G20402000	2.0~4.0	5.0cc / 10.0cc 15.0cc / 20.0cc
	OT7G4070500 OT7G40701000 OT7G40701500 OT7G40702000	4.0~7.0	5.0cc / 10.0cc 15.0cc / 20.0cc

* Other sizes are available.

ORTHOPEDIC OSTEON™ 2 Collagen

OSTEON™ 2 Collagen is a bone void filler composed of synthetic bone (OSTEON™ 2) and bovine Type I Collagen.

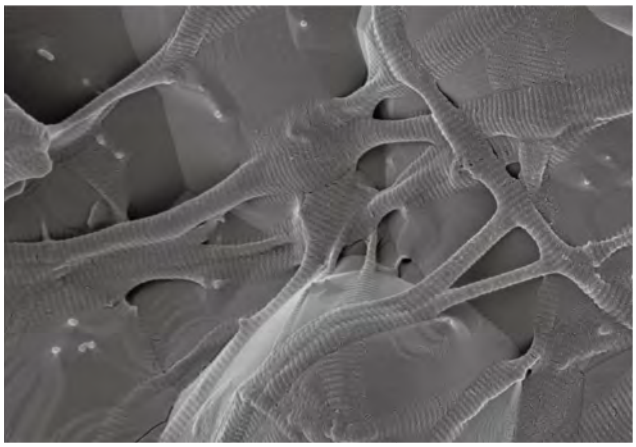
• Application

Bone filling
Fractures with bone defects
Pseudoarthrosis with or without bone defects
Tibial osteotomy
In certain cases of arthroplasty revision

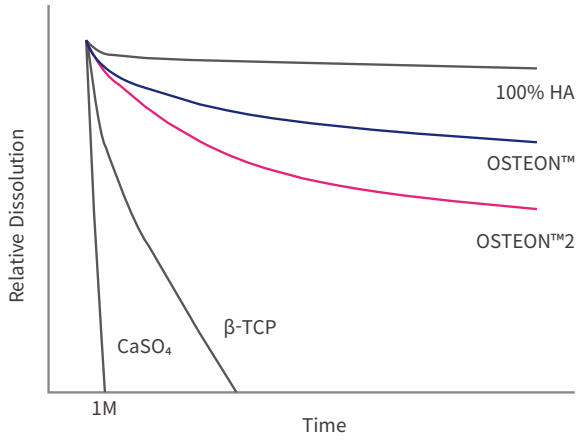
• Characteristics

Bone void filler composed of synthetic bone graft (OSTEON™ 2) and bovine type I collagen.
Moldable to various defect shape after being wet
Collagen coating facilitates easy handling and shortenes operation time
OSTEON™ 2 is highly resorbable due to higher β-TCP content (HA: β-TCP = 30:70)
Collagen is absorbed slower over several weeks after helping the initial shaping

• SEM Image



• Degradation test of OSTEON™ 2

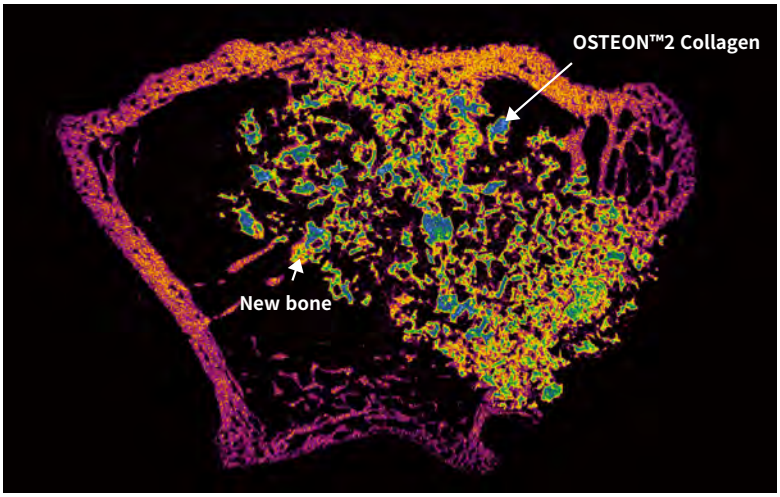


• Animal test

Animal : New Zealand white rabbit

Implantation Area : Femur

Period : 6 weeks



• Products

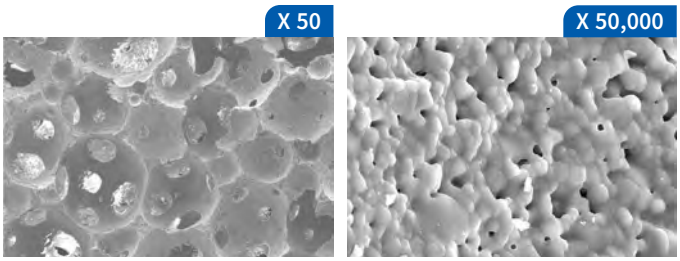
Type	Art No.	Size (mm)	Type	Art No.	Size (mm)
Cylinder	OOCC1010M	Ø10 X 10	Block	OOCB080910M	8 X 9 X 10
	OOCC1020M	Ø10 X 20		OOCB101112M	10 X 11 X 12
	OOCC1520M	Ø15 X 20		OOCB151617M	15 X 16 X 17
Stick	OOCC0330M	Ø3 X 30	Strip	OOCB102005M	10 X 20 X 5
	OOCC0430M	Ø4 X 30		OOCB205005M	20 X 50 X 5

* Other sizes are available.

ORTHOPEDIC OSTEON™ 3

• Application

Bone filling
Fractures with bone defects
Pseudoarthrosis with or without bone defects
Tibial osteotomy
In certain cases of arthroplasty revision



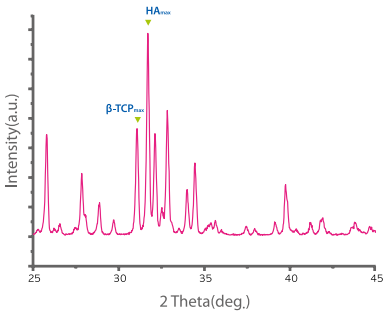
• Characteristics

Easy manipulation
Excellent wettability
Osteoconductive synthetic bone graft
Pore size : 200~400μm
Porosity : 80%

• Composition of ORTHOPEDIC OSTEON™ 3

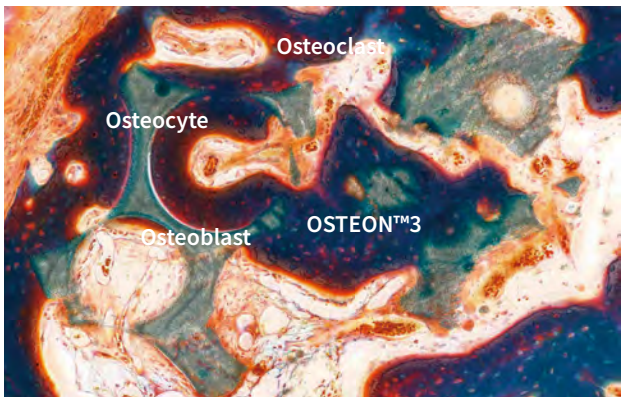
OSTEON™ 3 is a biphasic calcium phosphate composed of
60% HA(Hydroxyapatite) and 40% β-TCP(Beta-Tricalcium Phosphate)

ORTHOPEDIC OSTEON™ 3 = **HA 60% + β-TCP 40%**

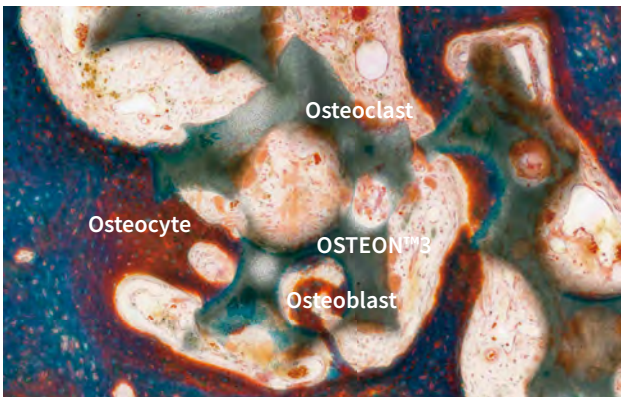


• Animal test Beagle mandible

Histologic result of OSTEON 3



8W



16W

ORTHOPEDIC OSTEON™ 3 Collagen

OSTEON™ 3 Collagen is a bone void filler composed of synthetic bone (OSTEON™3) and porcine Type I Collagen.

• Application

Bone Tissue Defects

Bone filling for bone defects due to fractures

Pseudoarthrosis (nonunion) bone defects

Tibial osteotomy

Joint arthroplasty corrections

• Characteristics

Composed of Hydroxyapatite (HA) and β-tricalcium phosphate (β-TCP) with added

Porcine Type I collagen

Biocompatible and biodegradable properties

• Histological Analysis (Animal Study)

Study Results

In a Beagle mandibular defect model, immature bone formation was observed around the graft material at 4 weeks, and more extensive new bone formation was seen at 8 weeks.

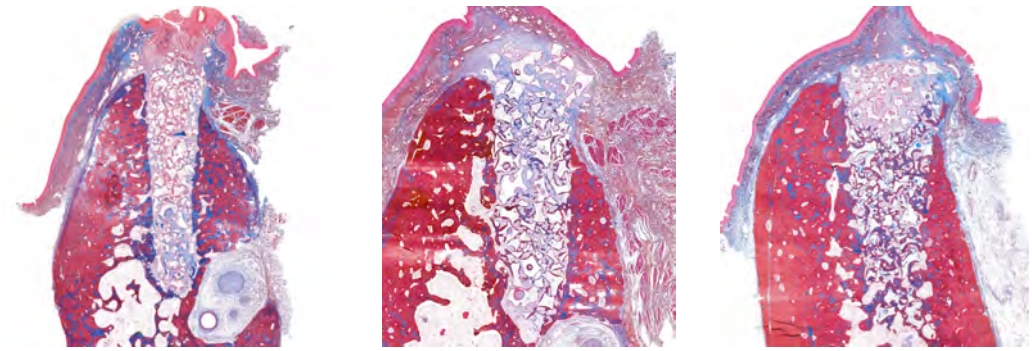
Histological Images

Show new bone formation and remaining graft material

No inflammatory response, indicating good biocompatibility

• Animal test Rabbit radius

Histologic result of OSTEON 3 Collagen



2W 4W 12W

GENOSS

Distributed by GENOSS Co., Ltd.
12F, 76, Changnyong-daero 256beon-gil, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of KOREA

Manufacturer FIMS Co., Ltd.
2F, 56, Changnyong-daero 256beon-gil, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of KOREA

CAT-OS (Rev.2,2408)