

# THE HIVE PRODUCT PORTFOLIO FEATURING SOFT TITANIUM TECHNOLOGY

### HIVE STANDALONE CERVICAL SYSTEM



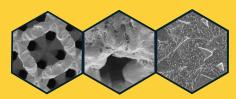


## A BETTER FUSION SOLUTION

Hive Standalone Cervical System includes a full range of implant designs and sizes to accommodate vertebral anatomy, lordosis and surgical technique. The implants incorporate a Soft Titanium lattice structure to deliver maximum durability while optimizing visualization.

### THE HIVE SOFT TITANIUM TECHNOLOGY

#### **BONE ONGROWTH**



- Proprietary NanoHive® acid etch surface treatment drives increased osteoblast recruitment, as compared to untreated surfaces [1]
- · Rapid bone attachment seen at endplates and throughout the lattice [2]
- Macro, micro and nano-scale features on all surfaces, as well as each member of the internal cell structure, are designed to support osteoblast adhesion and optimize the environment for bony on-growth [1,3]

#### ZERO PROFILE AND PLATED CAGE OPTIONS

- · Zero Profile cage designed to minimize contact with nearby vessels and nerves
- · Adjustable anterior plate, to allow for plate rotation and countersinking of the interbody into the disc space



#### **BONE SCREWS**

- · Self drilling/self tapping
- Dia: 3.5 & 4.0 mm
- Length: 12 18mm
- Variable insertion angles

#### WIDE RANGE OF SIZES

- 15mm wide x 12mm deep
- 18mm wide x 14mm deep
- Height: 6 12mm (5mm selective footprints)
- Lordosis: 6°, 12°

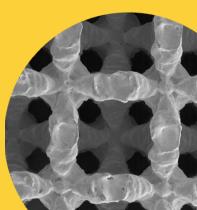
#### IMPROVED VISUALIZATION

- · Low density lattice designed to allow visualization of endplate fusion and bone growth through the cage
- · Reduced CT/MRI scatter and interference



#### REDUCED IMPLANT STIFFNESS

- Patented rhombic dodecahedron lattice with independent endplates reduces the need for stress shielding design features found in other implants
- Soft Titanium lattice allows bone cells growing within the implant walls to experience natural loads, significantly increasing bone strength per Wolff's law



#### INTUITIVE INSTRUMENTATION

 Streamlined instrumentation, including easy to use Angled Driver, accommodates a variety of anatomical conditions and approaches.



[1] N. J. Bassous, C. L. Jones and T. J. Webster, 3-D printed Ti-6Al-4V scaffolds for supporting osteoblast and restricting bacterial functions without using drugs: Predictive equations and experiments, Acta Biomaterialia 96 (2019) 662–673, https://doi.org/10.1016/j.actbio.2019.06.055, [2] CL Jones, D Bichara, J Toy, J Tinley. (2018) "Bone In Growth with 3D-Printed Soft Titanium® Scaffold." [White Paper], NanoHive Medical, LLC.
[3] Ejiofor J., et al, Bone Cell Adhesion on Titanium Implants with Nanoscale Surface Features.

International Journal of Powder Metallurgy, 40(2), 43-53.

