

VALKYRIE®

Thoracic Fixation System

PRODUCT INTRODUCTION



MORE BONE. FASTER. Valkyrie's HAnano surface on the screws combine several properties known to improve osseointegration in one unique surface modification. The combination of high wettability and optimal surface chemistry with optimized nano-roughness, mediates bioactivity and specific protein adsorption to the implant (Figure A). These properties regulate cell behavior and influence tissue regeneration by increasing the osteoblast functions, thus building more bone faster.

PEEK PLATES

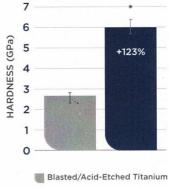
- · Low profile radiolucent plate
- Patient specific contouring (without the need for plate bending tools)
- Easily cut for emergent re-entry (without heavy plate cutters)
- Similar stiffness to native bone prevents stress shielding
- · Zero-chance cross threading design

HAnano-MODIFIED TITANIUM SCREWS

- · Double lead threads reduce insertion time
- Stab-and-grab retention
- Surface-modified screws compared to traditional non-treated screws*
 - · Minimal fusion time (2 week osseointegration begins)
 - · Increased screw retention (67%)
 - · Increased bone strength (123%)
 - · Clinical evidence (300,000+ implants, 30+ in vivo and in vitro studies)
 - · Bacterial resistant
 - · Minimal concern of delamination (2000-4000 times thinner than traditional coatings)

SINGLE-USE INSTRUMENTATION

- · MACH Screw Clip System eliminates steps in the O.R.
- · Power driver option minimizes O.R. time
- · Disposable instruments eliminate need for reprocessing and potential for infection
- Driver also acts as screw measurement device guaranteeing optimal screw length every time and eliminating guesswork



■ Blasted/Acid-Etched Titanium with HAnano Surface

Valkyrie's surface modification catalyzes the biological response and has proven to accelerate osseeintegration of implants to enhance early bone growth in more than 30 pre-clinical studies. The nano-thin surface modification has been shown to increase the anchoring of titanium implants by 35% and increase tissue density by 123% at 3 weeks.

* Complete labeling and technical data available