



**UnifiM.I.<sup>TM</sup>**

AEROSPACE & DEFENSE, LLC

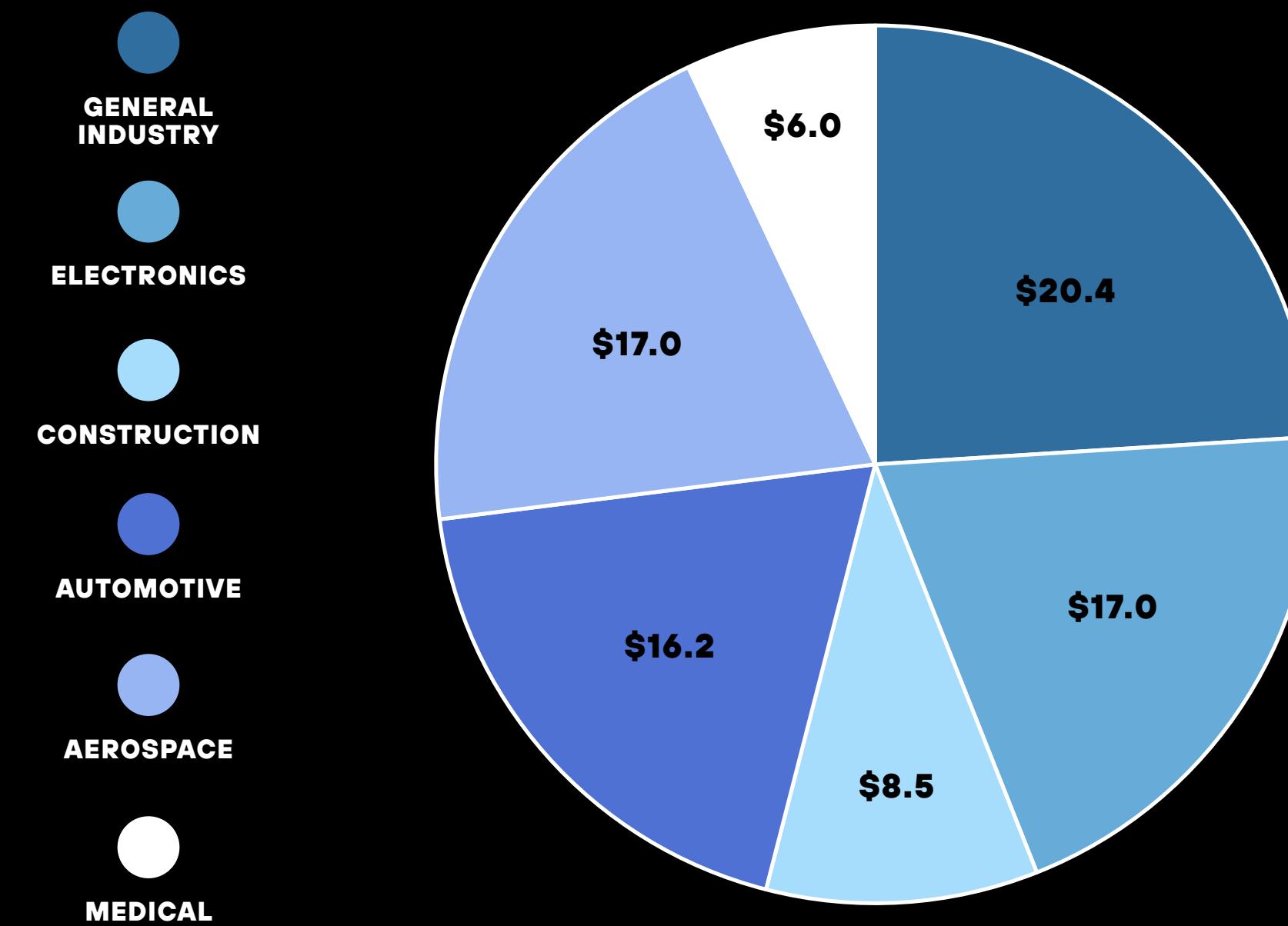
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A FASTENER TECHNOLOGY COMPANY

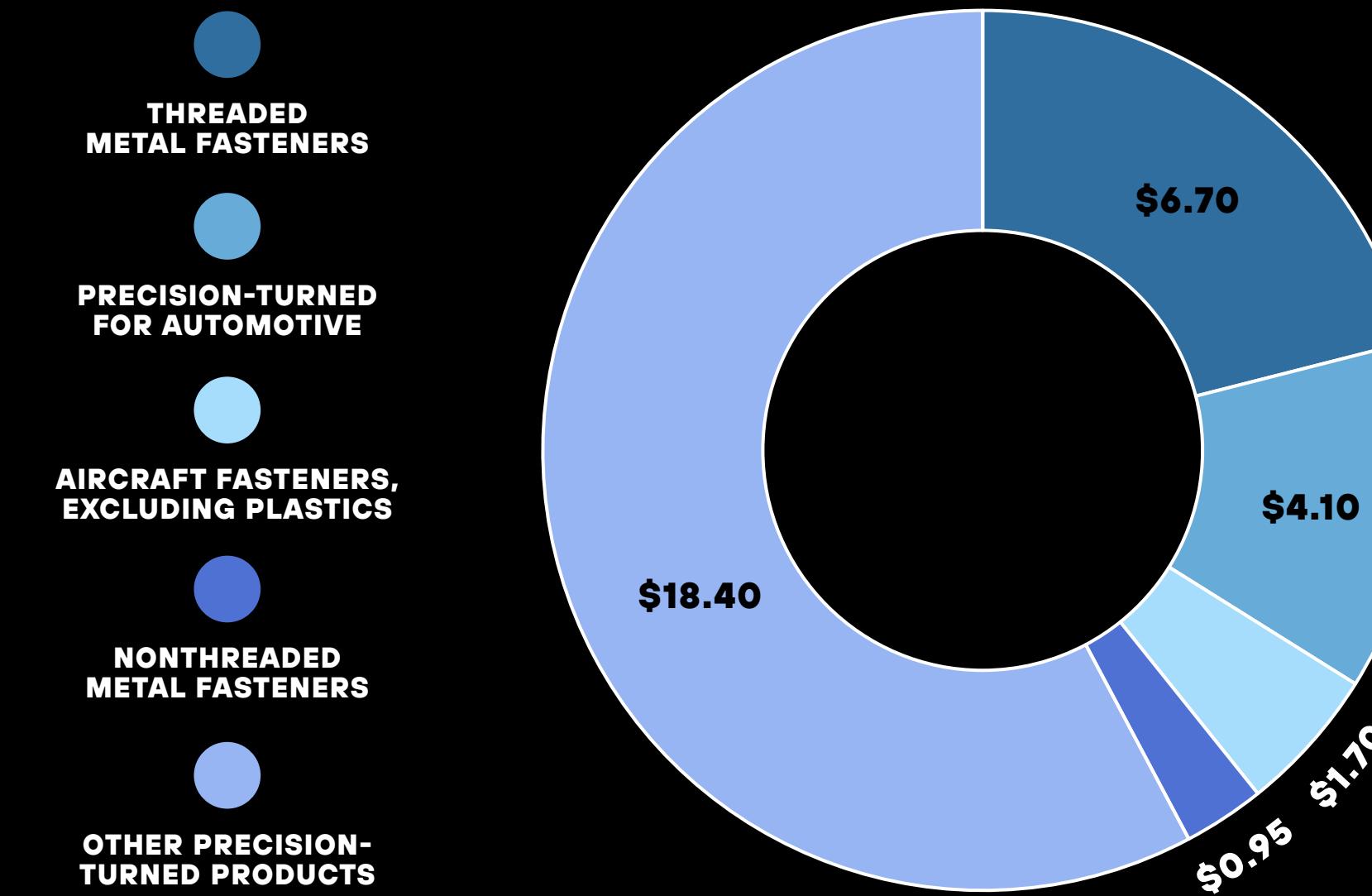


# INDUSTRY BREAKDOWN FOR FASTENERS

GLOBAL FASTENER SEGMENTS - \$85B



2024 REVENUE (\$B)



IBISWorld | Screw, Nut & Bolt Manufacturing in the US | May 2024

StanleyBlack&Decker| Investor Presentation| August 2024





# EXPERIENCE MATTERS

UNIFIM.I. FASTENER TECHNOLOGY  
TRANSFORMED THE MEDICAL  
DEVICE INDUSTRY.

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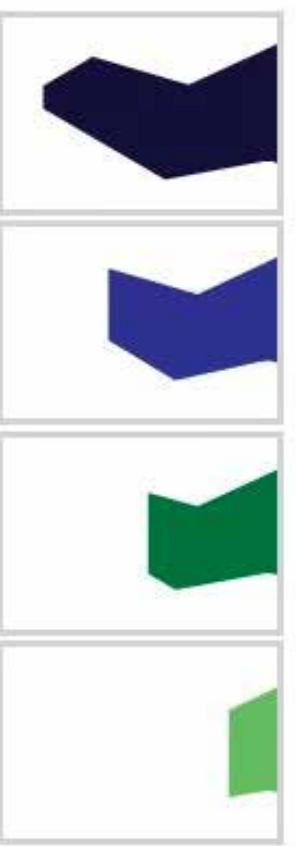
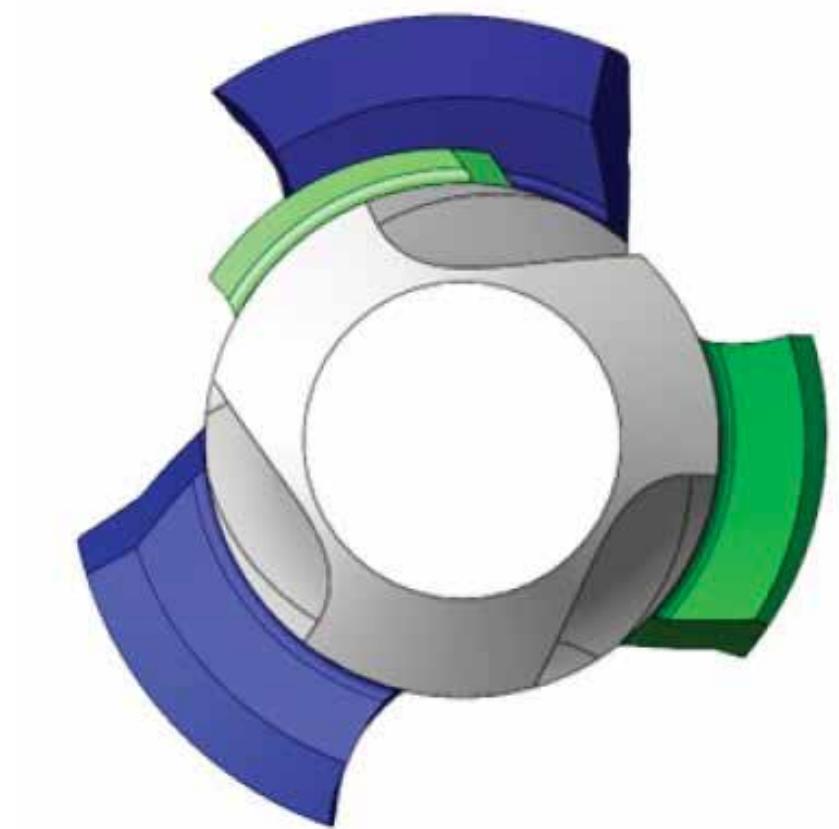
UTILIZED DAILY BY EXPERT SURGEONS  
100 UNIVERSITY HOSPITALS TO  
MAINTAIN IMPLANT STABILITY.



# UNIFIM.I. PERFORMANCE CAPABILITIES

- PRESERVE THE SUBSTRATE
- INSTANTLY INTERLOCK TO THE PRESERVED SUBSTRATE
- MAINTAIN STABILITY OVER TIME

# SUBSTRATE PRESERVING TAP



# EXPERIENCE THE DIFFERENCE

CONVENTIONAL 'BUTTRESS' THREADS VS. UNIFIM.I. THREADS

## INSERTION TEST



### Conventional

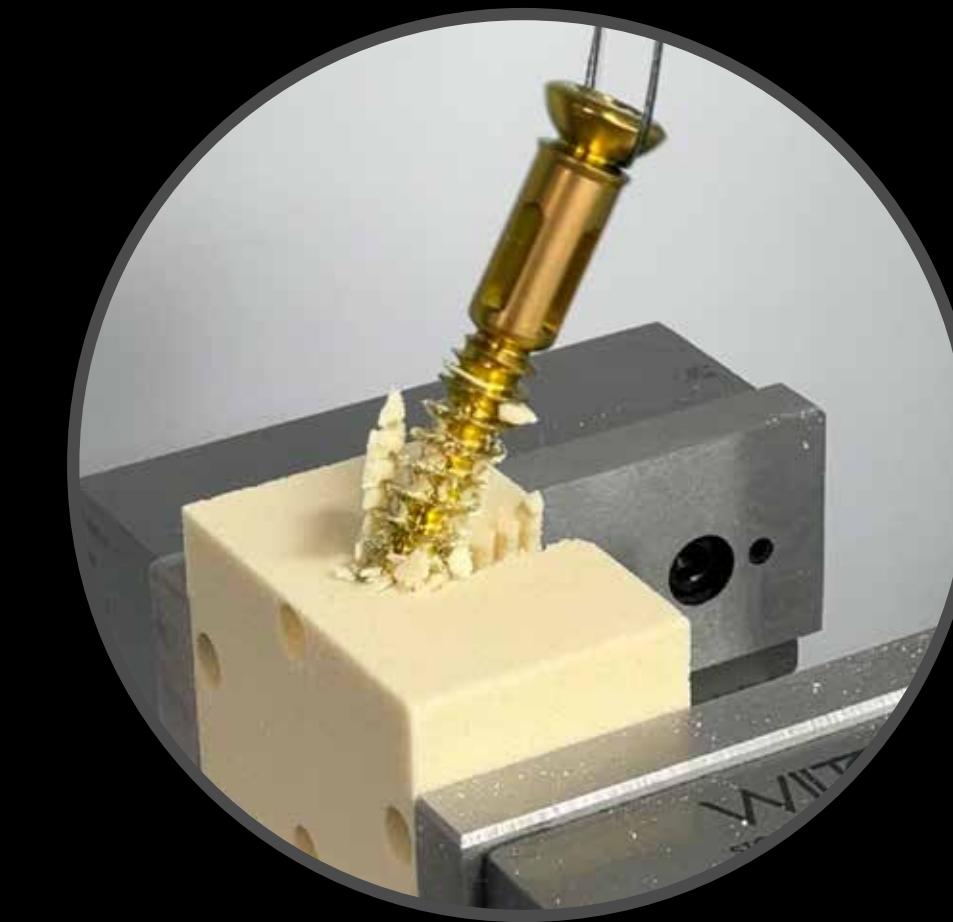
- Crushes and plows during insertion
- Creates a damaged and unstable interface



### UnifiM.I.

- Cleanly prepares and preserves during insertion
- Creates a stable and mechanically integrated interface

## PULL TEST



### Conventional

- Non-integrated
- Interface crushed and fractured
- Limited load resistance on tension side



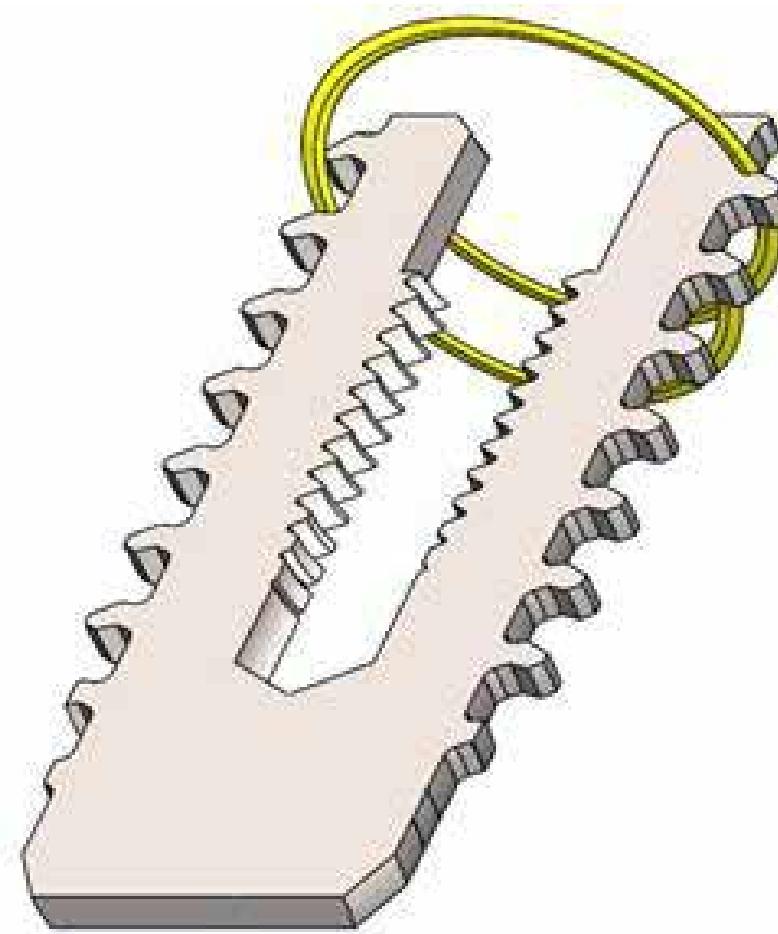
### UnifiM.I.

- Integrated circumferentially
- Interface preserved and maintained
- Full load resistance on tension side via MI



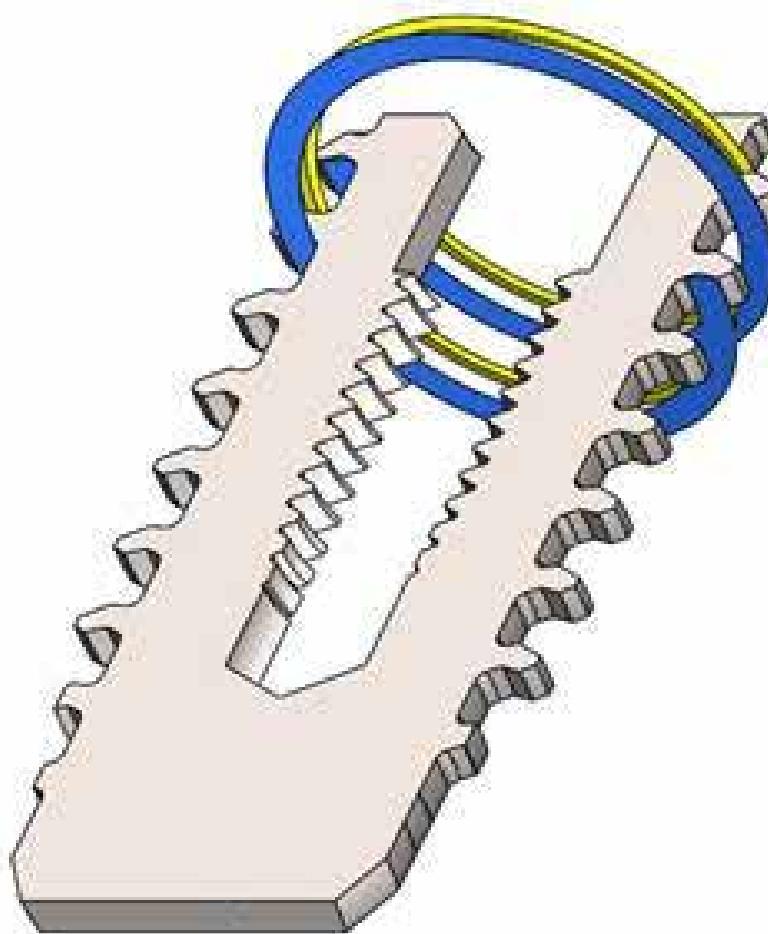
# UnifiM.I. EXPLAINED

## UNIQUE THREAD GEOMETRY: USING UNDERCUTS TO INTERLOCK WITH SUBSTRATE



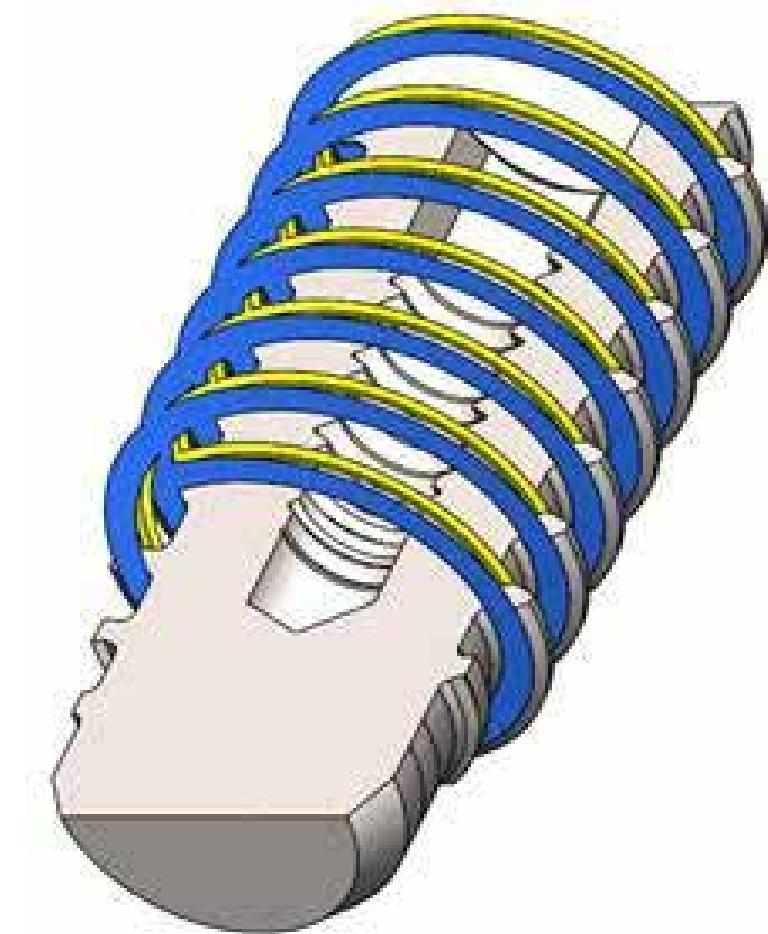
### TRAILING UNDERCUT

Trailing undercut provides circumferential resistance to axial pull-out and toggle.



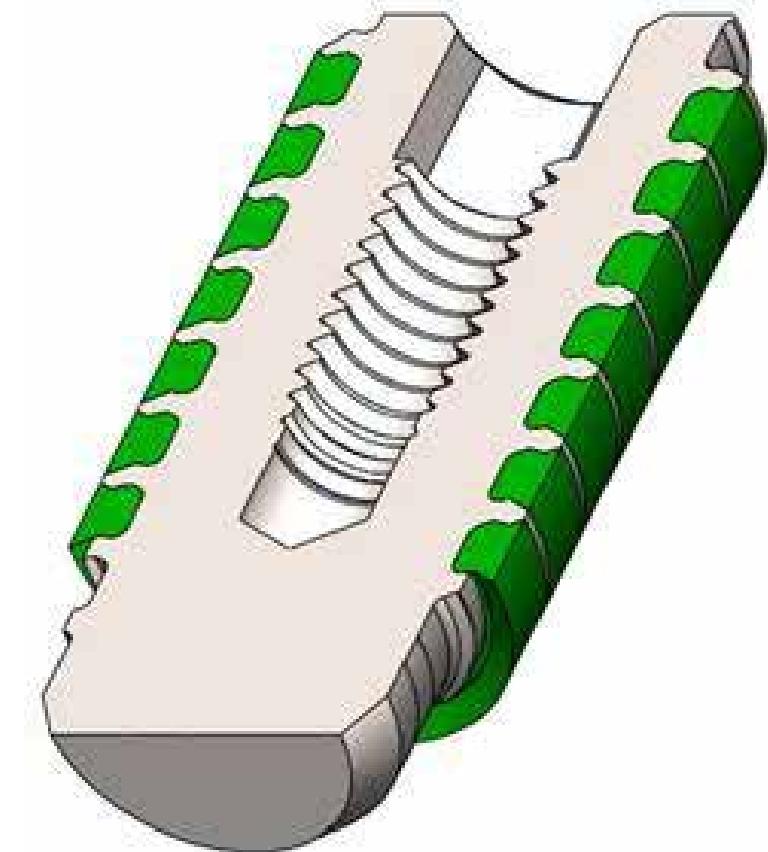
### LEADING UNDERCUT

Leading undercut provides circumferential resistance to axial compression and toggle.



### WORKING LENGTH

The unique undercut geometry resists loads and supports the insert within the substrate down the entire thread length.



### SUBSTRATE CAPTURE

The result is the interlocking of significant substrate volume between threads--providing immediate and lasting stability by sharing loads and reducing stress concentrations.

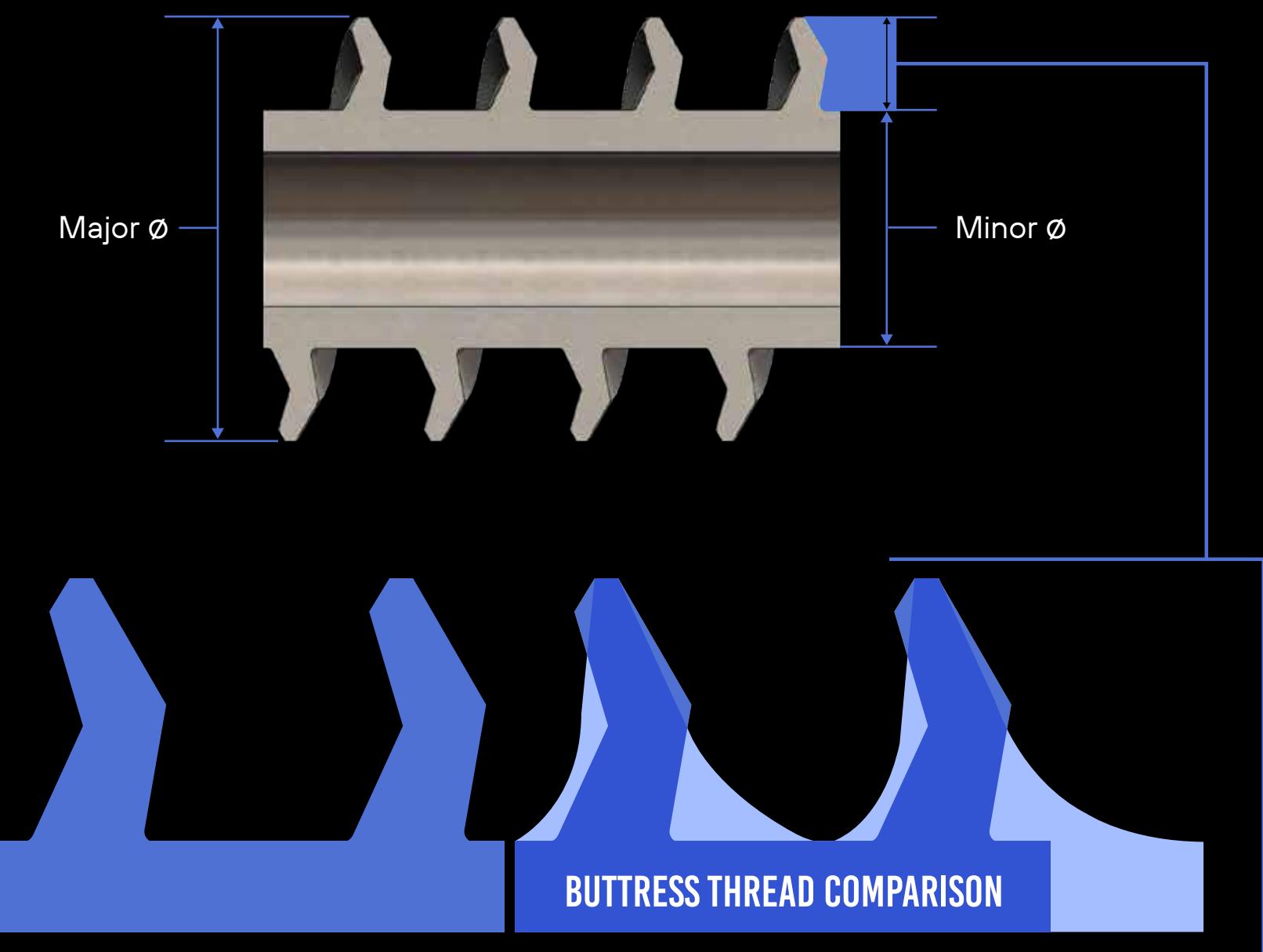


# ADAPTABLE CHARACTERISTICS

BY SUBSTRATE APPLICATION

Ability to control interface depending upon:

- Material Demands
- Application Needs



# PERFORMANCE DRIVEN DESIGN



UNIFIM.I. THREAD FORM



CONVENTIONAL 'BUTRESS' THREAD FORM

# DRILL OPTIMIZATION

TIP ANGLE

SPLIT POINT

PRIMARY & SECONDARY RELIEF

CORNER CHAMFER

FLUTE HELICAL ANGLE

FLUTE EDGE BREAK

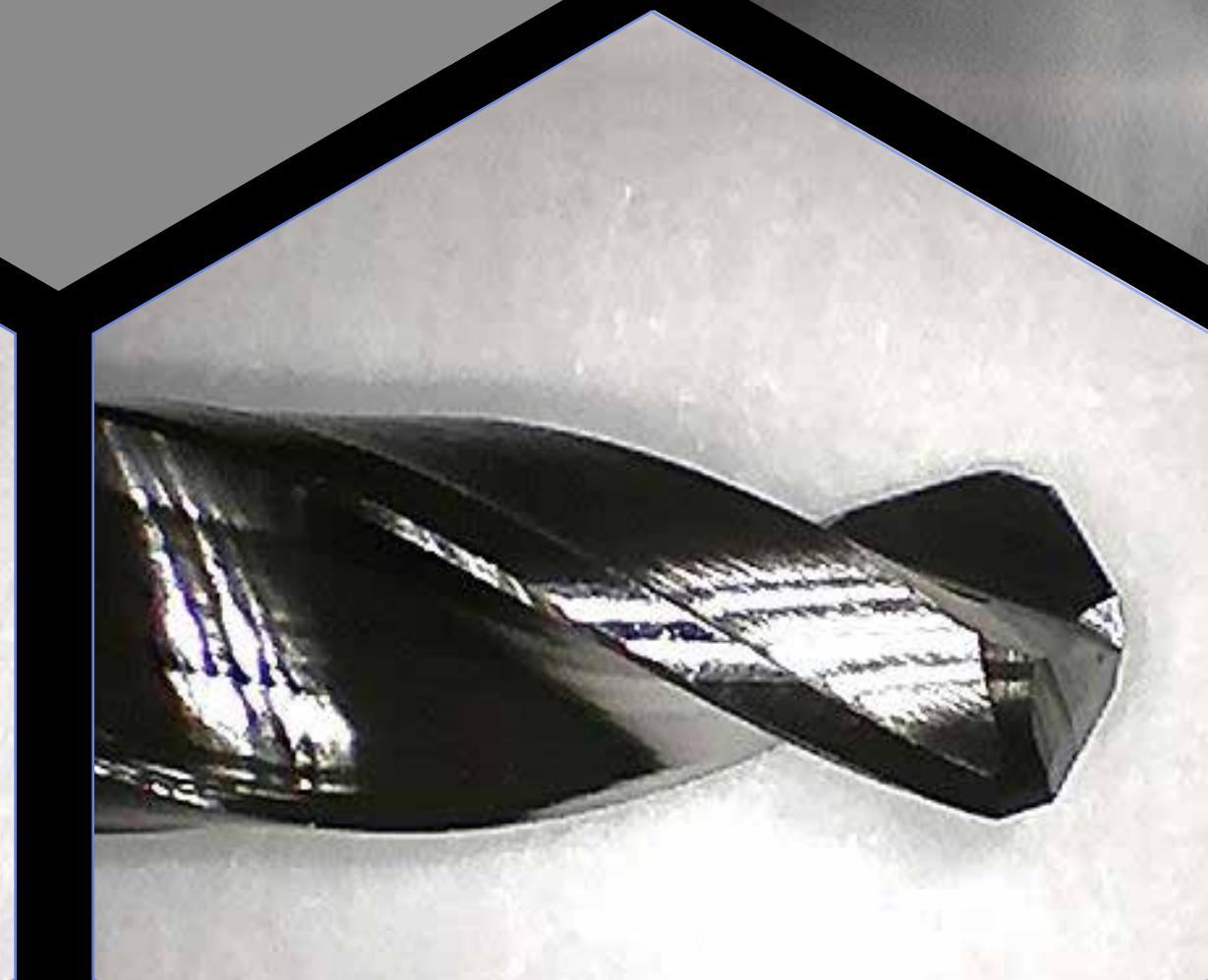
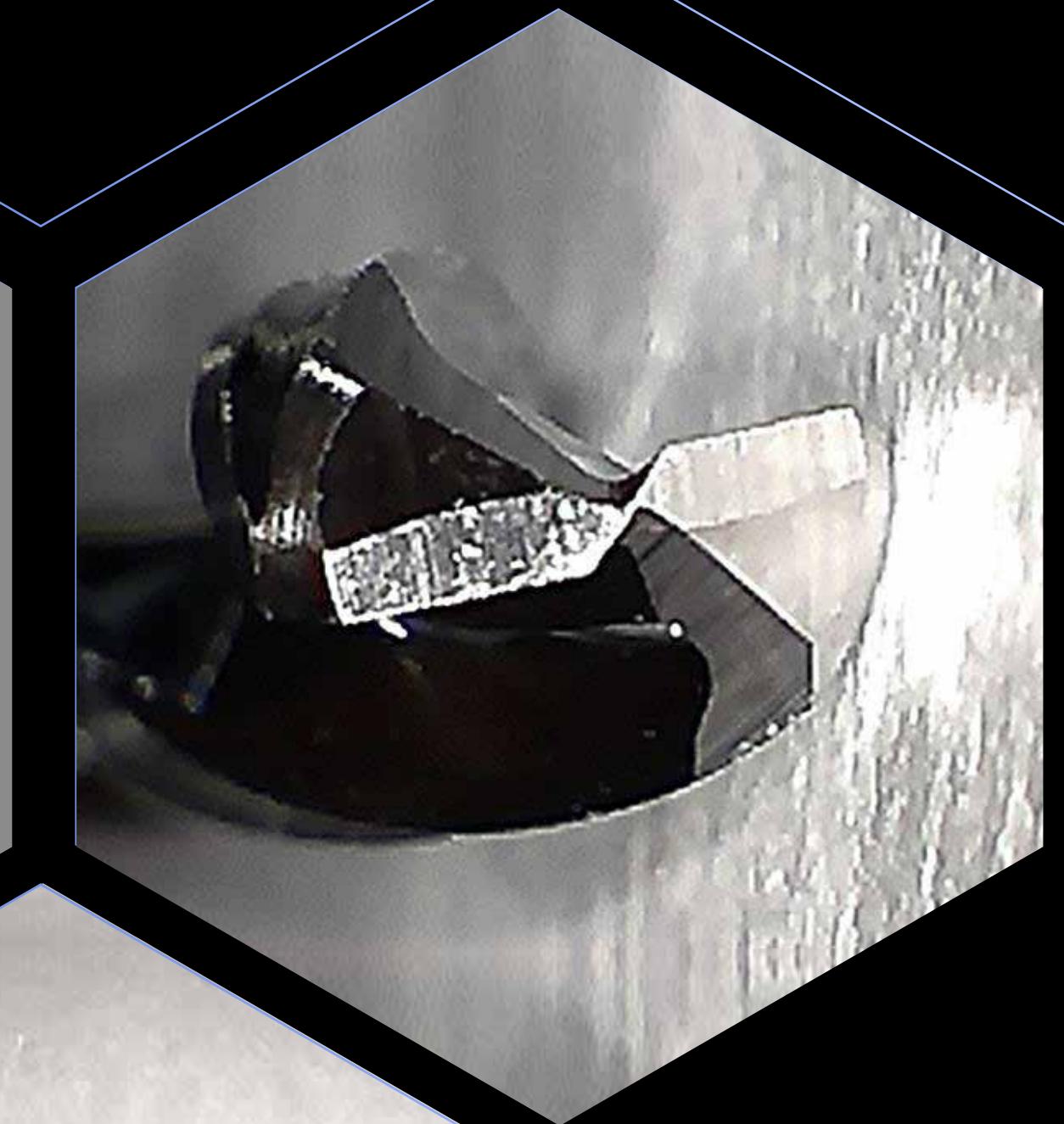
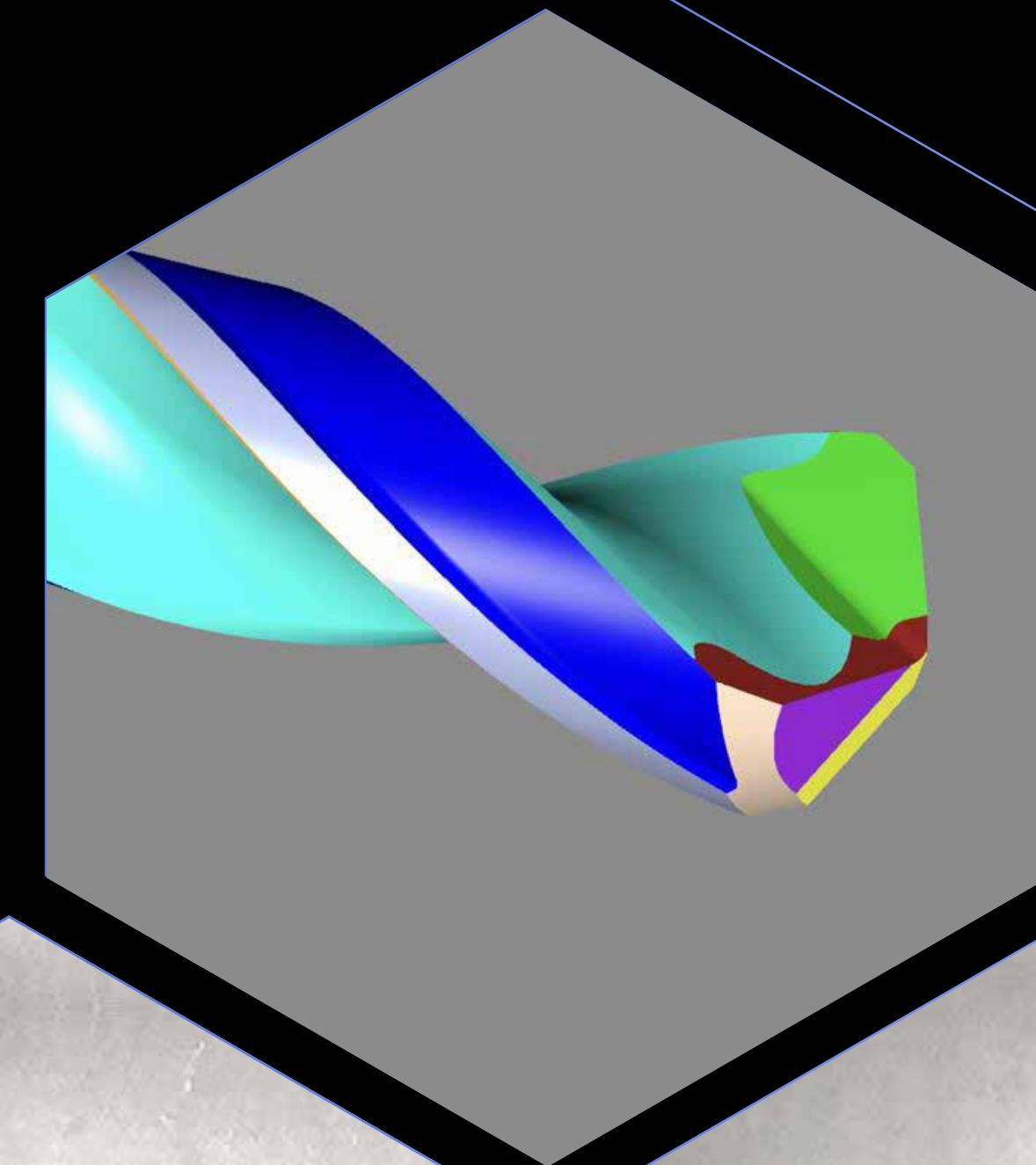
FLUTE MARGIN

## RESULTING IN

MORE ACCURATE HOLE SIZE

FASTER DRILLING SPEED

LOWER HEAT GENERATION



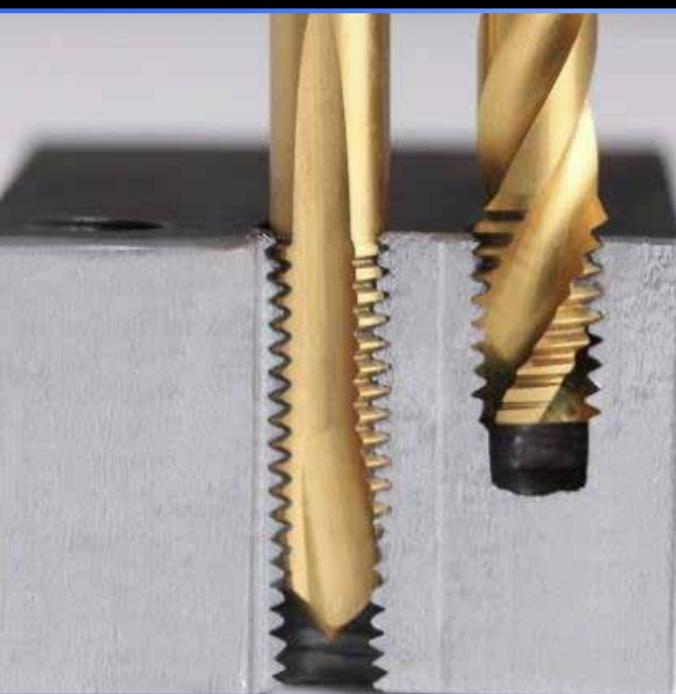
# LEVERAGING KNOWLEDGE

## APPLICATION OF INTELLECTUAL PROPERTY

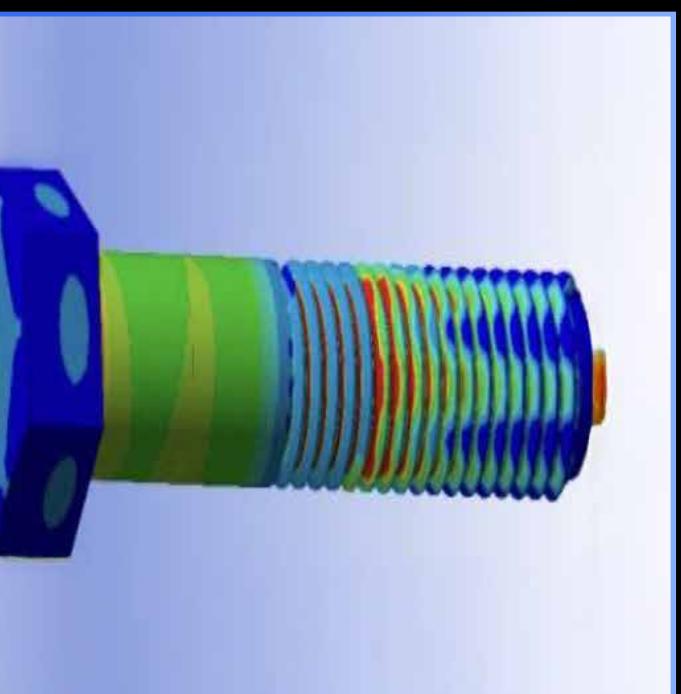
DRILLING



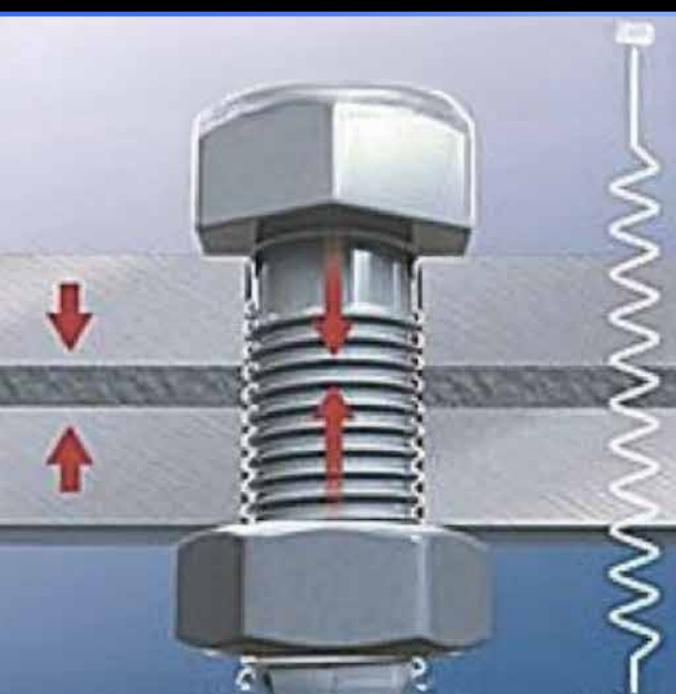
TAPPING



STRESS MANAGEMENT

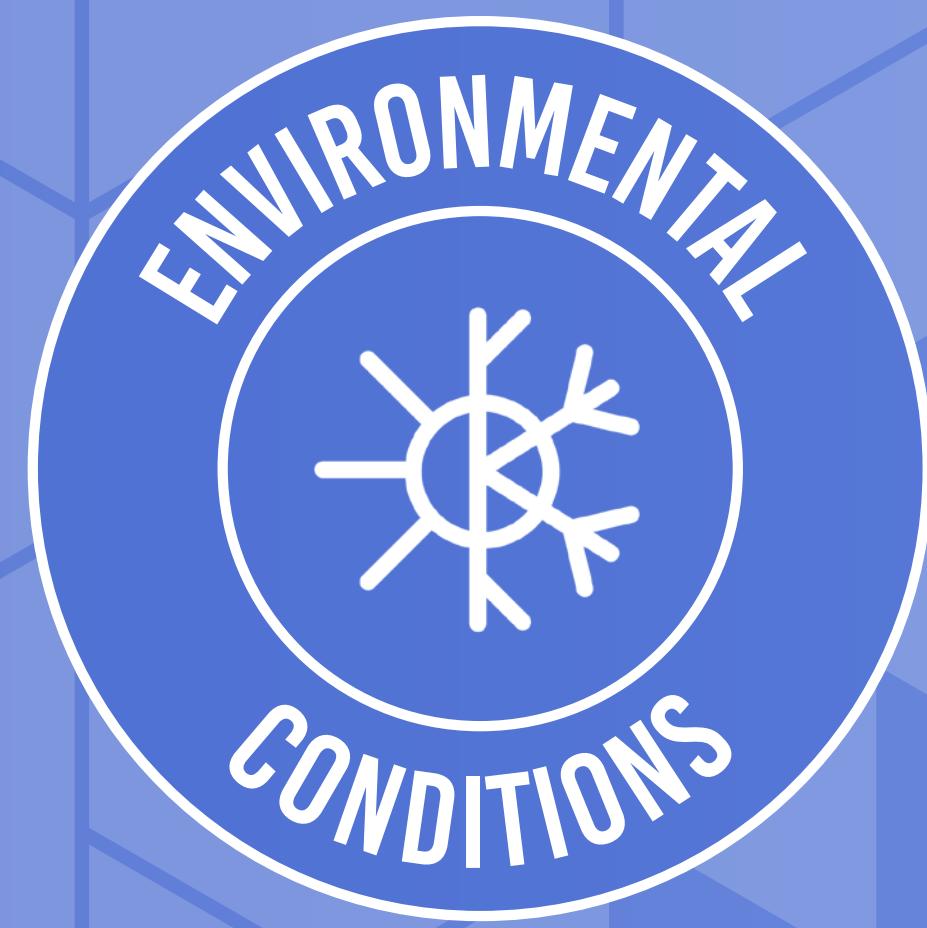


STABILITY



# AEROSPACE & DEFENSE APPLICATIONS

ADDRESSING KEY MARKET CHALLENGES



# UnifiM.I. FASTENER PLATFORM

ENGINEERED TO DISSIPATE VIBRATIONAL  
ENERGY & PROVIDE A LONG-TERM STABLE  
CONNECTION

OPTIMAL MECHANICAL, STRUCTURAL &  
FUNCTIONAL CONNECTION

REDUCE ASSEMBLY TIME, COST & WEIGHT

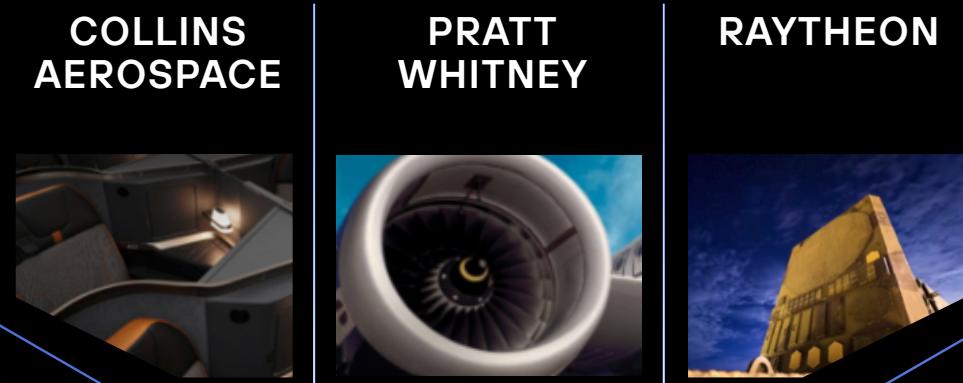
UTILIZE TRADITIONAL MANUFACTURING  
TECHNIQUES



# TARGET PARTNERS



**\$79B**  
SALES



**\$67B**  
SALES

AERONAUTICS  
MISSILES AND FIRE CONTROL  
ROTARY AND MISSION SYSTEMS  
SPACE

**\$1.4B**  
SALES

## GENERAL DYNAMICS



**\$6.6B**  
SALES

ENGINE PRODUCTS  
ENGINEERED STRUCTURES  
FASTENING SYSTEMS  
FORGED WHEELS

**50**

OPERATING UNITS

**115+**

BUSINESS UNITS

**\$1.3B**  
SALES



**TEXTRON**





# UnifiM.I. A&D ACTION PLAN

1. **Demonstrate** technology capabilities
  - a. Tool development of dies, taps and drills
  - b. Drilling and tapping of concrete, wood, and steel substrates
  - c. Vibrational, axial and off-axis load fastener substrate testing

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2. Top down **education** with bottom up preparation

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3. Execute **licensing** models

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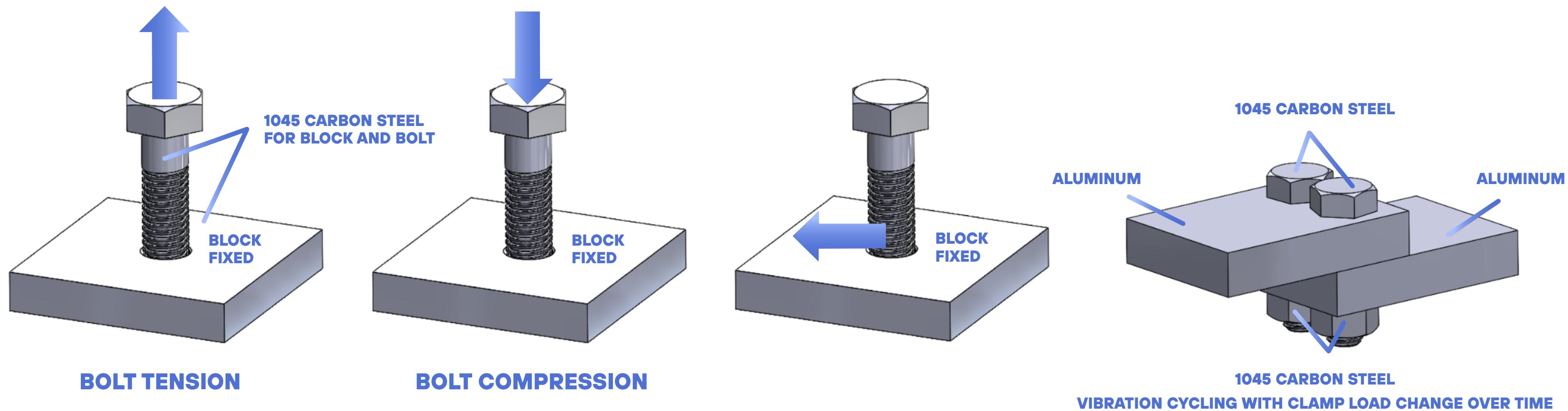
4. Bring **“killer app”** to market with partner

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5. **Influence** design and specifications for next gen projects



# UnifiM.I. A&D VALIDATION POINTS



# RESHAPING THE FUTURE

