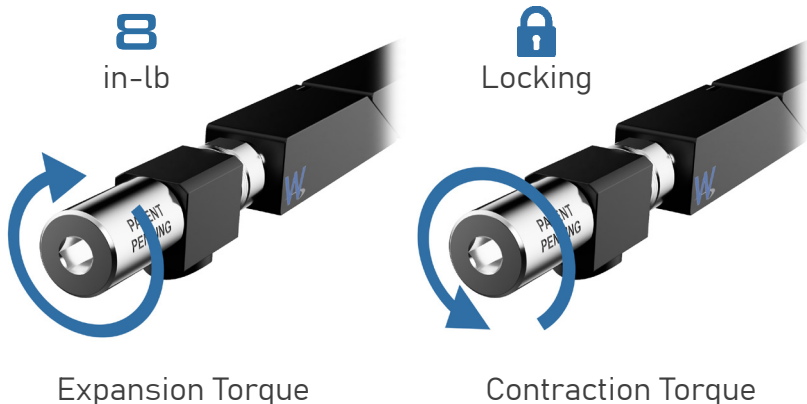


The Torque Limiting SOLIDWEDGE™ limits torque as the SOLIDWEDGE™ is expanded, creating consistent clamping forces for maintainers without the need for torque drivers or specialized tools. The slip clutch ratchet mechanism prevents over-tightening and provides audible feedback when the specified torque is reached. Torque is not limited in reverse, ensuring retraction of the SOLIDWEDGE™.

OPTIMIZED FOR 2 LEVEL MAINTENANCE



TORQUE TOLERANCE

8 ±1 in-lb

FEATURES

- Torque Limited Expansion
- Full Torque Contraction
- Ideal for 2 Level Maintenance (2LM)
- Audible + Tactile Ratchet Feedback
- RoHS + REACH + ITAR Compliant
- Low Profile Design

MECHANISM MATERIALS

Screw, Pin, Clip:
300 Series Stainless Steel
(passivated per AMS - 2700)

Drive Head, Flat Washer: Nitronic 60

Spring: 17-7 SS

Lubrication: MIL-PRF-27617, Vacuum

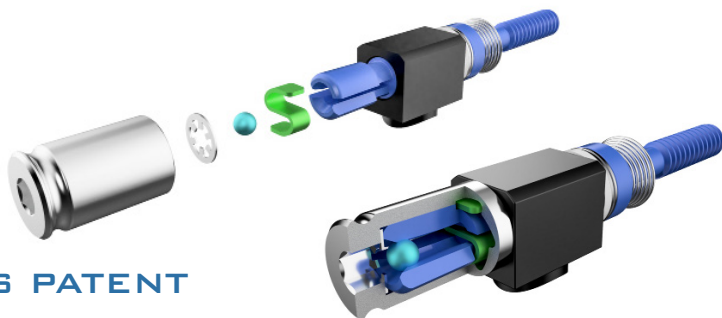
WEDGELOCK MATERIALS

Active Wedge Segments: 6061-T6511

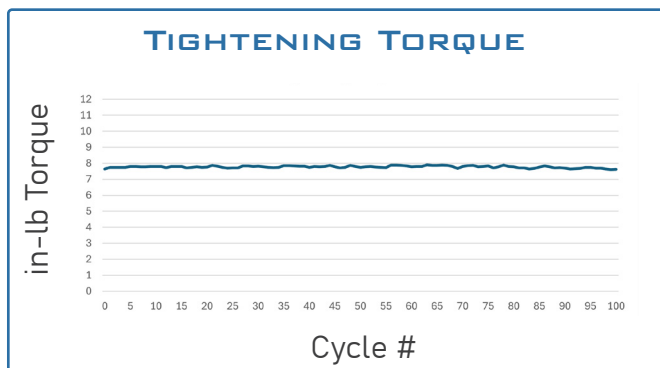
Front Mounting Block: 6061-T6511

Lock Nut: Nitronic 60

TORQUE LIMITING SLIP CLUTCH



US PATENT
PENDING



The SOLIDWEDGE™ is a breakthrough technology that allows conduction cooled modules to operate at higher thermal loads in higher temperature environments.

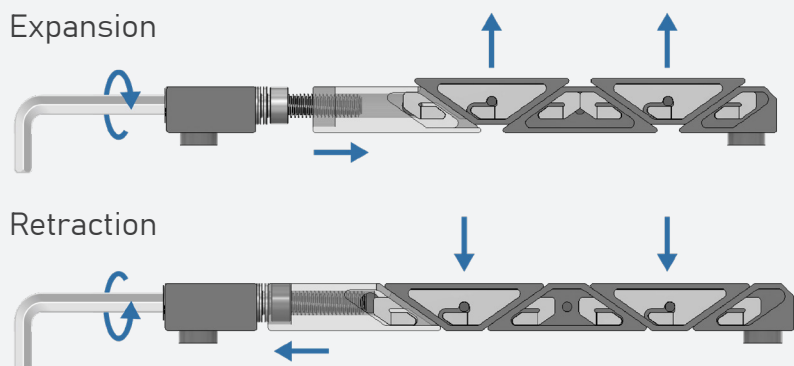
OPTIMIZED FOR VITA 48 AND CPCI



**US PATENT
8,456,846**

POSITIVE RETRACTION

Adjacent wedge segments are connected to prevent a stuck wedge lock. Turning the drive screw counterclockwise retracts the threaded drive wedge, pulling each of the connected segments down to their relaxed position.



SW5 Pictured

THERMAL RESISTANCE

~TBD °C/W Resistance per Card Edge

FEATURES

- Torque Limiting Slip Clutch Ratchet Extended Testing
- Lot Control Etching Available
- TBD lb Clamping Force
- Mass: 17 g
- #6-32 Drive Screw
- Zero Insertion Force
- Low Profile Design
- Self-Retracting Segments
- Superior Plating Endurance
- Optimized for VITA Specifications
- Models Available for Download

SELF LOCKING THREADS

The EMUGE Self-Lock™ locking feature is integrated into the lock nut and works without any additional mechanical or chemical locking devices, therefore temperature variations do not noticeably affect it. This eliminates the need for secondary locking features and reduces FOD. <https://info.emuge.com/self-lock>

3D MODEL:

<https://a360.co/4fqihSJ>

The SOLIDWEDGE™ design provides three times the thermal contact area of conventional wedge locks. The design also features a larger screw size, which creates higher contact forces between the heat frame and cold wall surfaces, significantly improving thermal performance.

The interconnected links of the SOLIDWEDGE™ feature positive retraction of all segments without the use of springs or other mechanisms.

PART NUMBER BUILDER

Required

Additional Specifications

The diagram illustrates a 20° Wedge Segment with the following specifications:

- Segment Identification:** SWT3 - 27 - 330 - 330 - XXX - XX - 20D - ET
- Dimensions:**
 - Wedge: (indicated by a diagram of the wedge shape)
 - Spacing: 2.7" MOUNTING HOLE SPACING
 - Height: 0.330"
 - Width: 0.330"
 - Hex: (indicated by a diagram of the hexagonal base)
 - Finish: (indicated by a diagram of the finish)
- Material and Coating:**
 - SWT - SOLIDWEDGE
 - T - TORQUE LIMITING
 - 3 - ACTIVE SEGMENTS
 - BLACK ANODIZED HARDENED WITH TEFLON
 - ELECTROLESS NICKEL HEX BORON NITRIDE
- Keyways:**
 - 3/32" HEX KEY - [332]
 - M2.5 HEX KEY - [M25]
 - 7/64" HEX KEY - [764]
- Testing:** EXTENDED TESTING
- Notes:**
 - See last page for more plating info
 - [BHT]
 - [HXN]

RECOMMENDED PART NUMBER: SWT3-27-330-330-332-BHT-20D-ET

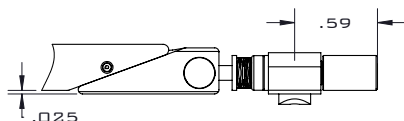
MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED

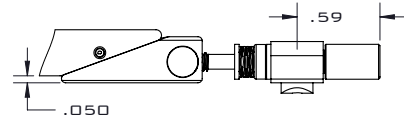
DIMENSIONS ARE IN INCHES.

TOLERANCES:
TWO PLACE DECIMAL: $\pm .01$
THREE PLACE DECIMAL: $\pm .005$

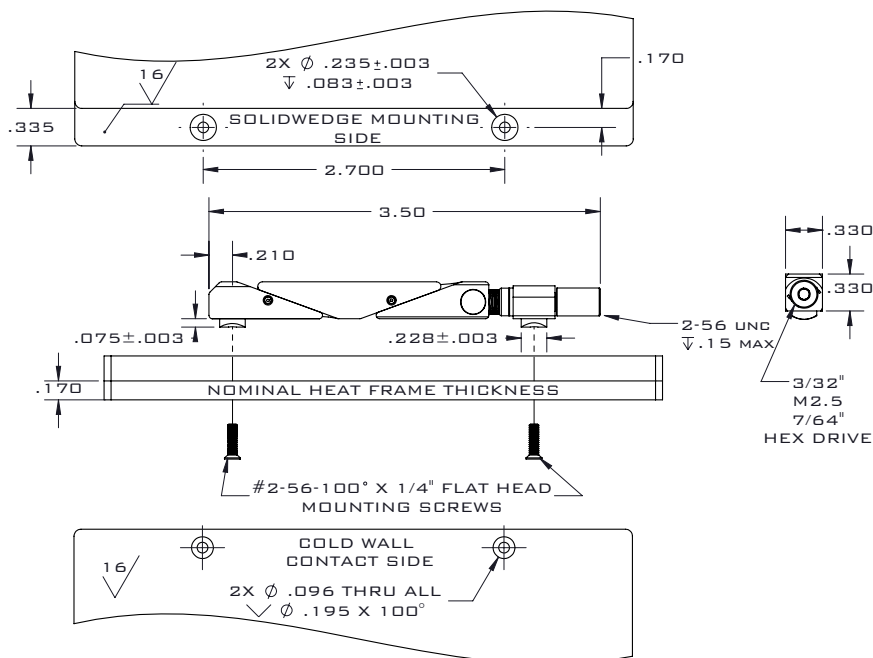
EXPANSION DETAILS



NOMINAL EXPANSION: .025"



MAXIMUM EXPANSION: .050"



Standard material specs for WaveTherm's SOLIDWEDGE™, injector/ejectors, and OpenCOTS products.

ASSEMBLY HARDWARE



300 SERIES STAINLESS STEEL

Compliance	Specification	Use Case
✓ DFARS	Passivated per	Standard material for screws, nuts, washers, and SOLIDWEDGE™ straps in WaveTherm product assemblies.
✓ RoHS	AMS-2700	
✓ REACH		

ALUMINUM PLATING



BLACK ANODIZED - BA

Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-A-8625	Provides reliable corrosion resistance and durability. Ideal for use in demanding applications requiring high insertion/extraction counts.
✓ REACH	Type II Class 2	



ELECTROLESS NICKEL - EN

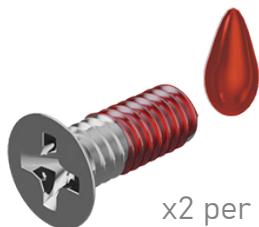
Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-C-26074	Provides excellent thermal performance and excellent electrical conductivity. Ideal for high-performance thermal management.
✓ REACH	Class 4 or* Class 4 Grade B Grade B	

Images for demonstration only

*varies based on plating vendor's certificates of conformance

SOLIDWEDGE™ INSTALLATION

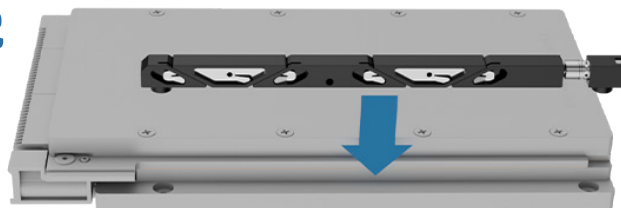
1



x2 per SOLIDWEDGE

Apply Loctite 2760 to #2-56-100° flat head mounting screws (not included)

2



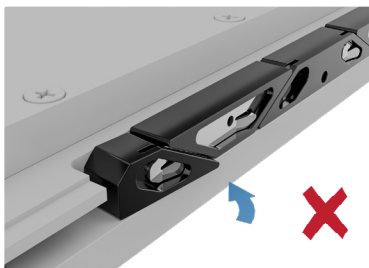
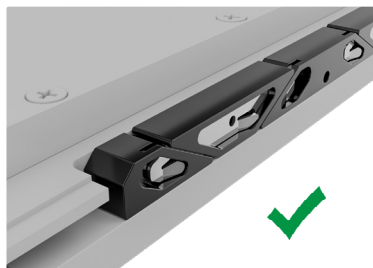
Align SOLIDWEDGE to mounting hole locations

3

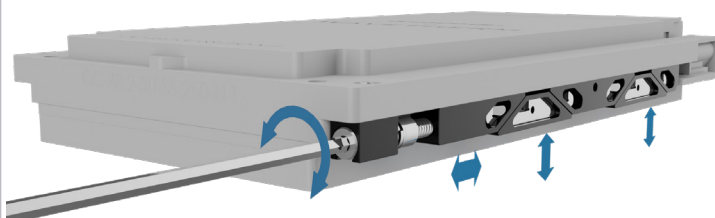


Install screws and torque to 2 in-lbs. Ensure mounting screw doesn't hit drive screw.
(reference mounting drawing for max thread engagement)

CHECK INSTALL



Check alignment on both mounting blocks after torquing and press to straighten if necessary.



Ensure SOLIDWEDGE is functioning correctly by expanding and contracting with a hex key.

WARNING:



SOLIDWEDGES are not intended to be mounted directly to PCBs. The opposing force of the mounting blocks may result in board damage.