

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

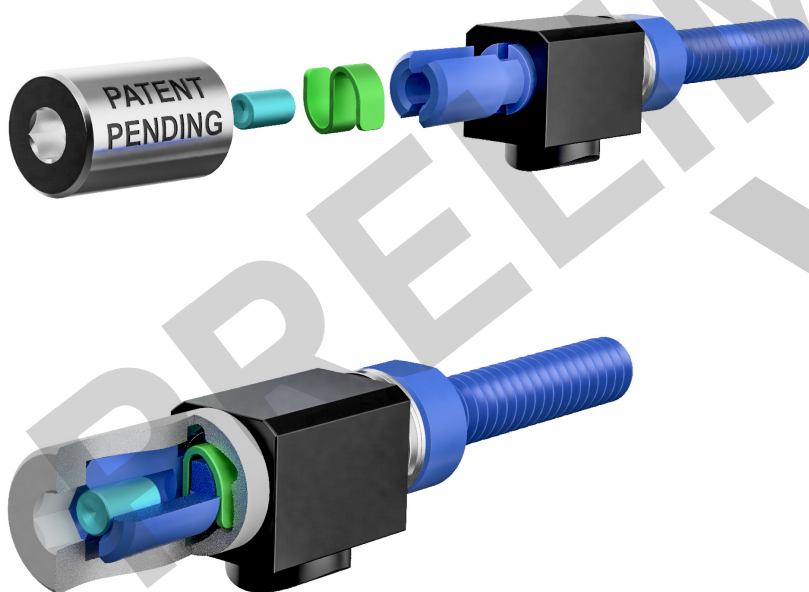


Expansion Torque



Contraction Torque

TORQUE LIMITING SLIP CLUTCH



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

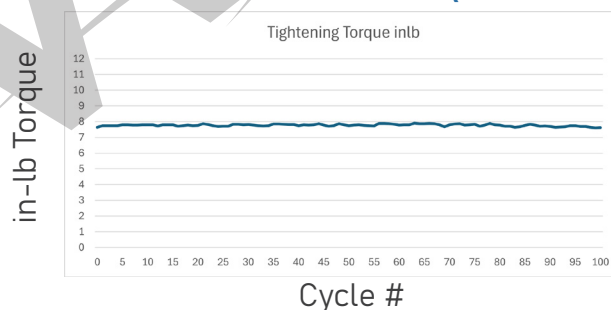
MECHANISM MATERIALS

Screws, Nuts, Clip, Washers:
300 Series Stainless Steel
(passivated per AMS - 2700)

Drive Head: Nitronic 60

Lubrication: MIL-PRF-27617, Vacuum

TIGHTENING TORQUE



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

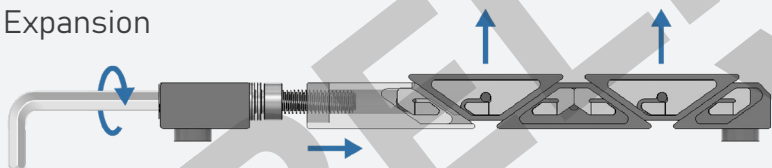


**US PATENT
8,456,846**

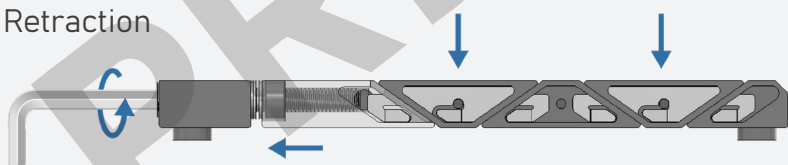
POSITIVE RETRACTION

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.

Expansion



Retraction



SW5 Pictured

THERMAL RESISTANCE

~0.17 °C/W Resistance per Card Edge

FEATURES

Torque Limiting Slip Clutch Ratchet
600 lb Clamping Force
Mass: 14 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

WEDGELOCK MATERIALS

Active Wedge Segments: 6061-T6511

Front Mounting Block: 6061-T6511

Screws, Nuts, Washers:
300 Series Stainless Steel
(passivated per AMS - 2700)

Helicoil Wire Insert: Nitronic 60

3D MODEL:

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

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

SWT3 - 32 - 270 - 250 - XXX - XX - 30D - B075

Wedge:	Spacing:	Height: 0.270"	Width: 0.250"	Hex:	Finish:
3.2" MOUNTING HOLE SPACING					
SW - SOLIDWEDGE T - TORQUE LIMITING 3 - ACTIVE SEGMENTS		3/32" HEX KEY - [332] M2.5 HEX KEY - [M25] 7/64" HEX KEY - [764]			

1	2
30° WEDGE SEGMENTS	
BOSS LENGTH 0.075"	

	BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2	[BA]
	HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2	[BH]
	CHEMICAL FILM CLEAR	[CC]
	CHEMICAL FILM GOLD	[CG]
	ELECTROLESS NICKEL	[EN]

See last page for more plating info

RECOMMENDED PART NUMBER: SWT3-32-270-250-332-BA-30D-B075

MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES:
TWO PLACE DECIMAL: ±.01
THREE PLACE DECIMAL: ±.005

EXPANSION DETAILS

NOMINAL EXPANSION: .025"
MAXIMUM EXPANSION: .050"

Top View: 16° chamfer, 2X Ø .235±.003, .130, 3.200, .255, SOLIDWEDGE MOUNTING SIDE.

Side View: .21, .59, .250, .270, .075±.003, Ø.228±.003, 2-56 UNC, .15 MAX, NOMINAL HEAT FRAME THICKNESS, #2-56-100" X 1/4" FLAT HEAD MOUNTING SCREWS, 3/32" M2.5 7/64" HEX DRIVE.

Contact View: 16° chamfer, 2X Ø .096 THRU ALL, √ Ø .195 X 100°, COLD WALL CONTACT SIDE.

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	



BLACK ANODIZED HARDENED - BH

Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-A-8625	Provides superior corrosion resistance and high durability. Ideal for use in harsh and rugged environments with high insertion/extraction counts.
✓ REACH	Type III Class 2	



CHEMICAL FILM CLEAR - CC

Compliance	Specification	Properties and Use Case
✓ RoHS	MIL-DTL-5541	Provides good corrosion resistance and electrical conductivity with lower durability. Not ideal for high insertion/extraction counts.
✓ REACH	Type II Class 1A Clear	



CHEMICAL FILM GOLD - CG

Compliance	Specification	Properties and Use Case
✗ RoHS	MIL-DTL-5541	Provides good electrical conductivity with lower durability. Not suited for high insertion/extraction counts.
✗ REACH	Type I Class 1A Gold	
	or* Class 1A Gold	



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 Grade B	
	or* AMS-C-26074 Class 4 Grade B	

Images for demonstration only

*varies based on plating vendor's certificates of conformance