

WaveTherm's Hybrid SOLIDWEDGE™ represents an innovative approach to secure and cool rugged single board computers. This evolutionary design delivers revolutionary performance gains by facilitating maximum air flow through a card-edge retaining device with simultaneous conduction-cooling properties. Through conductive distribution of the thermal loads of higher wattage boards to the cold wall, and to lower wattage adjacent boards, the Hybrid SOLIDWEDGE™ enables more efficient board-level and system level thermal designs.

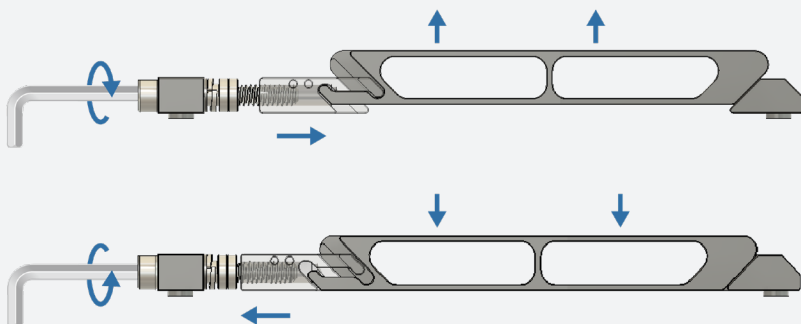
## AIR FLOW THRU AND CONDUCTION COOLING



**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, which in turn pulls each of the connected segments down to its released position.



Shorter Version Pictured

## FEATURES

- 400lbs clamping force
- Mass: 11g
- Air Flow thru design
- Conduction Cooling - Shared Thermal Load
- Zero Insertion Force
- Self Retracting Segments
- Positive Retraction System
- Large Drive Screw (6-32)
- Models Available for Download
- Torque to 10 in lbs

## MATERIALS

Active Wedge Segments: 6061-T6511

Front Mounting Block: 6061-T6511

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

## 3D MODEL:

<https://a360.co/3Ru43Wa>

The Hybrid SOLIDWEDGE™ design is an evolutionary device that enables higher performance single board computers. The design also features a larger drive screw size which, creates higher contact forces between the heat frame and cold wall surfaces, which significantly improves thermal performance. The interconnected links of the Hybrid SOLIDWEDGE™ allow a positive retraction of all segments without the use of springs or other mechanisms.

## PART NUMBER BUILDER

Required

Additional Specifications

<b>HW3</b>	<b>64</b>	<b>350</b>	<b>225</b>	<b>XXX</b>	<b>XX</b>			
Wedge:	Spacing:	Height:	Width:	Hex:	Finish:			
		0.350"	0.225"					
6.4" MOUNTING HOLE SPACING								
HW - HYBRID WEDGE 3 - ACTIVE SEGMENTS				M2.5 Hex Key - [M25] 3/32" Hex Key - [332]				
<div> <div></div> BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 [BA]         <div></div> HARD BLACK ANODIZE PER MIL-A-8625, TYPE III, CLASS 2 [BH]         <div></div> CHEMICAL FILM CLEAR [CC]         <div></div> CHEMICAL FILM GOLD [CG]         <div></div> ELECTROLESS NICKEL [EN] </div> <div>See last page for more plating info</div>								
						1	2	3

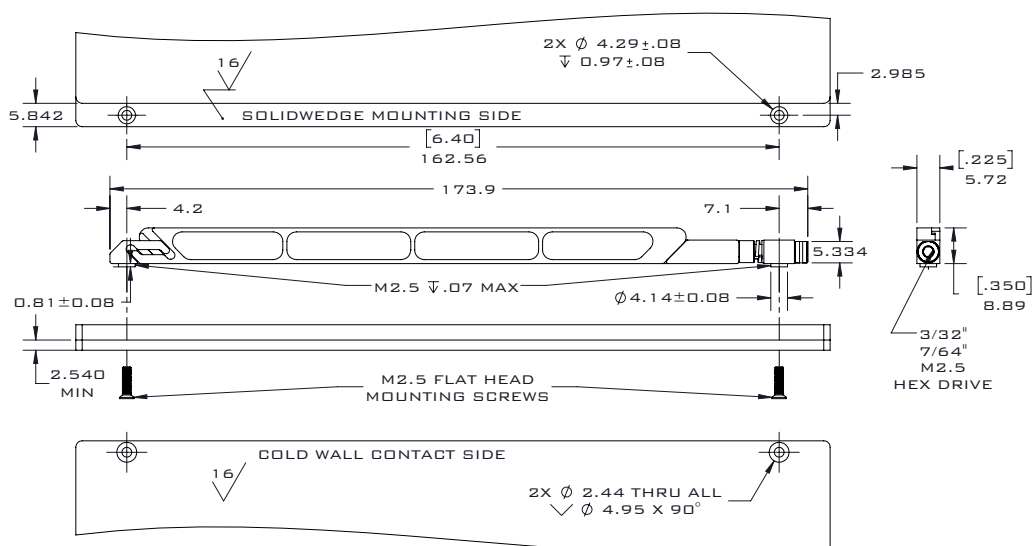
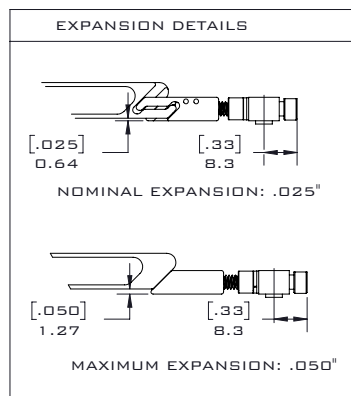
RECOMMENDED PART NUMBER: HW3-64-350-225-332-BA

## MOUNTING DETAILS

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES.

TOLERANCES:  
TWO PLACE DECIMAL: ±.01  
THREE PLACE DECIMAL: ±.005



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,
✓ RoHS	AMS-2700	and SOLIDWEDGE™ straps in WaveTherm product
✓ REACH		assemblies.

### ALUMINUM PLATING



#### BLACK ANODIZED - BA

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



#### BLACK ANODIZED HARDENED - BH

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



#### CHEMICAL FILM CLEAR - CC

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



#### CHEMICAL FILM GOLD - CG

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



#### ELECTROLESS NICKEL - EN

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

Images for demonstration only

\*varies based on plating vendor's certificates of conformance