

## Advanced Thumbscrew Hold-Down



Advanced Thumbscrew Hold-Down (P/N: 200-34562-101)

CarlisleIT's Advanced Thumbscrew Hold-Downs are the lightweight, high-performance option for when a more advanced hold-down solution is needed. Developed to meet the extreme performance standards of ABS1699, ASNA2168, and RTCA/DO-160, these hold-downs retain equipment even when not fully tightened and provide superior installation force compared to standard military-style hold-downs.

### FEATURES & BENEFITS

**Safety:**

- » Resists vibration and shock even when not fully engaged

**Function:**

- » Secure ratcheting locking mechanism
- » Easy engagement and dis-engagement

### CONSTRUCTION

**Materials:**

- » Aluminum components with anodized finish
- » Acetal/Delrin
- » RoHS compliant

**Fasteners:**

- » Installation via #6-32 (.138-32) UNC screws using standard tooling

### SPECIFICATIONS

**Conforms to:**

- » ASNA2168
- » ABS1699
- » RTCA/DO-160

**Designed for use with:**

- » ARINC 404A
- » ARINC 600
- » ARINC 628
- » ARINC 704A
- » ARINC 738A-1

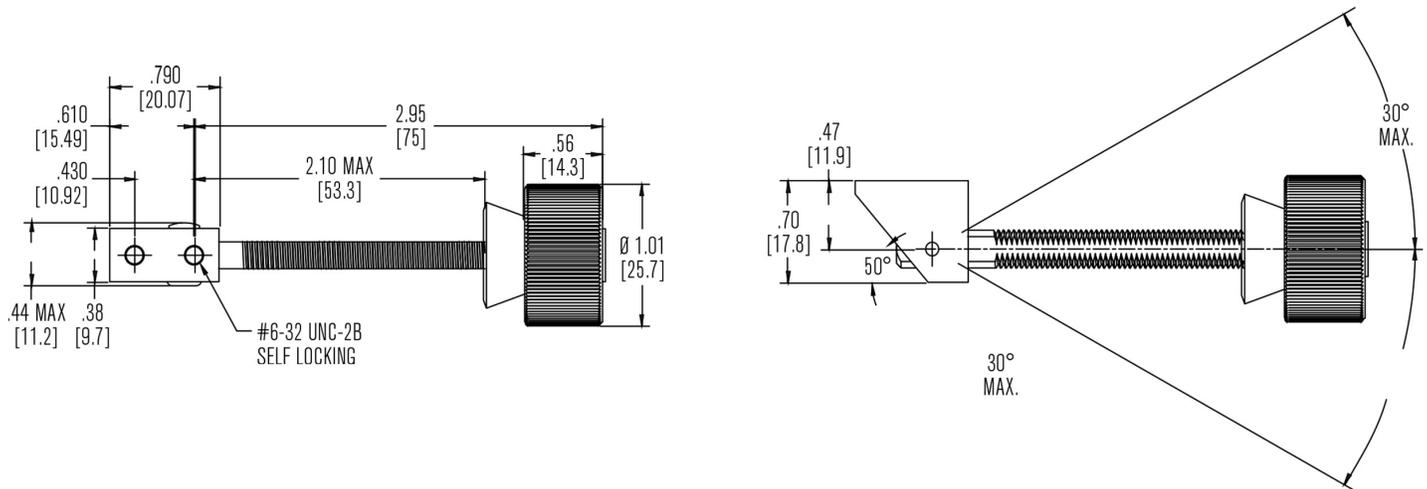
**Weight:**

- » 32 g max

**Patent No.:**

- » US 8,870,149

# Advanced Thumbscrew Hold-Down



## TESTED TO MEET THE FOLLOWING REQUIREMENTS

### Temperature

- » Cat D3 per section 4.0 of RTCA/DO-160G

### Maximum Working Load

- » 465 lbf (207 daN)

### Operational Shock

- » 6g 11ms ½ sine shock pulse (3 shocks in all 6 directions)

### Crash Safety Impulse

- » 15g 11ms ½ sine shock pulse (1 shock in all 6 directions)
- » 20Gs per section 7.3.1 of RTCA/DO-160G (1 shock in all 6 directions)

### Crash Safety Sustained

- » 12g (1min all 6 directions)
- » 20Gs per section 7.3.3 of RTCA/DO-160G (3 seconds in all 6 directions)

### Robust Vibration

- » Sinusoidal (3 hours for each direction up to 2.5G)
- » Random Cat R, Curve B & B1 per section 8.7.2 of RTCA/DO-160G
- » BPS-C-157 section 3.6.4

### Unbalance (Tire Burst)

- » 36 seconds up to 10G in each direction

### Max Flight Acceleration

- » 6.5G up, 4.5G down, 3G other directions for 3min

### Windmilling

- » Sweep (9-30Hz) for 160 minutes between 4 & 5.6G, 1 sweep 9-2Hz at 3G

### Mechanical Endurance

- » 1,000 cycles

### Flammability

- » F3 Horizontal per Title 14 CFR 25.853(a), Appendix F, Part I (a)(1)(iv)

### Optical Smoke Density

- » Title 14 CFR 25.853(d), Appendix F, Part V
- » BSS 7238
- » AITM 2.0007 per ABD0031 (6.3) (7.3 & 7.31 & 7.3.2 Table 1)

### Generation of Toxic Gasses

- » BSS 7239
- » AITM 3.0005 per ABD0031 (7.4)



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