



**RAF Electronic Hardware**

# **ELECTRONIC HARDWARE & CNC PRECISION TURNED COMPONENTS**

**Empowering Innovation. Engineering Value.®**



***Customer Driven. Continuous Improvement.***

**[www.rafhdwe.com](http://www.rafhdwe.com)**





### CAPTIVE PANEL SCREWS

- 6 styles of captive panel screws; 7 swaged retainer types.
- Brass, steel, stainless steel.
- More than 40 metallic finishes.
- Threads: 2-56 to 3/8-16.
- Lengths: 21/32" to 2".
- Head diameters: 5/16" to 3/4".
- Available as standard parts in American & Metric dimensions.

Our captive screws and retainers assure easy and secure assembly and are invaluable for equipment panels where mounting hardware is subject to loss. In addition to standard models, variations can be chosen such as slotted, unslotted or hex heads, washers for oval head styles, and retainer spring and washer sets.



### SPACERS

- Round and hexagonal profiles.
- Aluminum, brass, steel, stainless steel, nylon, phenolic.
- More than 40 metallic finishes.
- Length: 3/32" to 2".
- Diameters: 1/8" to 3/4" with clearance holes from 0.064" to 0.505".
- Available as standard parts in American & Metric dimensions.

Our spacers are used for applications requiring close control of dimensions, such as PCB mounting and come in a variety of outside dimensions and lengths. In addition to standard models, swage configurations are available to accommodate circuit boards with thickness from 1/32" to 1/4".



### STANDOFFS

- Internal thread styles.
- Round, hex, square profiles.
- Aluminum, brass, steel, stainless steel, nylon.
- Threads: 2-56 to 5/16-18.
- Length: 3/32" to 10".
- Diameters: 1/8" to 5/8".
- Available as standard parts in American & Metric dimensions.

Standoffs are the basic standard for PCB mounting and are available in round, hex, and square styles with regular and swaged ends. Swages include plain and knurled shanks and front, back or front and back-faced knurls. They are available in a wide variety of materials and finishes for every application.



### JACK SCREWS

- Standard design hex jack screws.
- Supplied with washers and nuts.
- Material: steel with zinc plate per ASTM-B-633 (yellow chromate).
- Thread lengths: 3/16" to 3/4".
- Body diameter: 3/16" hex.
- Body length: 3/16"; threads 4-40.
- Available as standard parts in American & Metric dimensions.

Standard 3/16" hex jack screws are primarily used to secure D-type cable connectors in computer and other electronic equipment. They come as a complete set including 2 flat washers, one lock washer, and one nut. Hex jack screws meet all the important industry specifications and can be customized for your application.

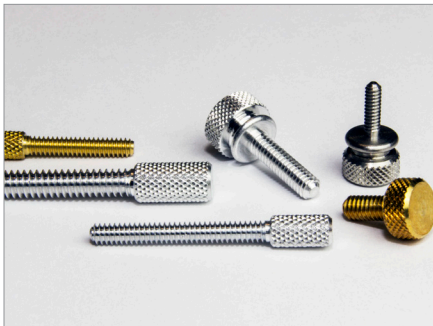


### PRECISION SHOULDER SCREWS

- Slotted and socket heads available.
- Brass, steel, stainless steel.
- Threads: 4-40 to 3/8-16.
- Shoulder lengths: 0.1250" to 1.500"; Shoulder diameters: 0.1245" to 0.4995".
- Head diameters: 1/4" to 5/8".
- Available as standard parts in American & Metric dimensions.

Shoulder screws are useful as a precision spacer and bearing surface for a wide variety of applications. They are manufactured with exacting tolerances (shoulder diameter: +.000/- .001; shoulder length: +.002/- .000). Undercuts on each side of the shoulder assure perfect seating for precise low friction assembly.





### THUMB SCREWS

- Washer face, plain, and push styles.
- Aluminum, brass, steel, stainless steel.
- More than 40 metallic finishes.
- Threads: 4-40 to 1/4-20.
- Lengths: 1/2" to 2-1/2".
- Head diameters: 3/16" to 1/2".
- Available as standard parts in American & Metric dimensions.

Thumb screws add the finishing touch to front panels or other equipment and offer the ease of no-tool assembly and dis-assembly for many applications. These components have easy-to-grip diamond knurl head surfaces plus a choice of materials and finishes that will complement any design.



### MALE-FEMALE STANDOFFS

- Round and hex profiles.
- Aluminum, brass, steel, stainless steel, nylon.
- More than 40 metallic finishes.
- Threads: 2-56 to 5/16-18.
- Lengths: 5/32" to 10".
- Diameters: 3/16" to 1/2".
- Available as standard parts in American & Metric dimensions.

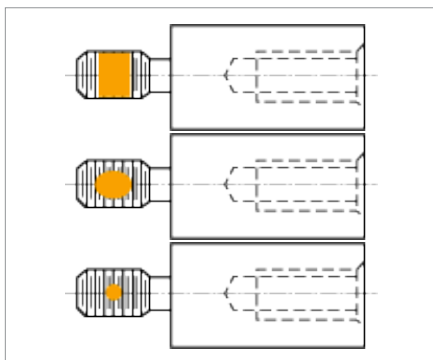
Male-female standoffs are used for printed circuit board mounting and other applications requiring close controls of dimensions, such as PC/104 modules. They are available in a variety of materials, finishes, lengths, and diameters. A male-male standoff is also available.



### HANDLES & FERRULES

- Round, rectangular, and oval profiles.
- Fixed, offset, 2- and 3-position, free-fall and infinite position styles.
- Aluminum, brass, steel, stainless steel.
- More than 40 metallic finishes.
- Lengths: 3/4" to 7".
- Available as standard parts in American & Metric dimensions.

We offer 11 attractive and functional handle lines for applications ranging from rack-mounted equipment to stylish carrying cases. They are available in an extensive selection of sizes, materials, finishes, and colors. In addition, a choice of handle ferrules is offered to reinforce and complete the installation.



### THREAD-LOCKING PRODUCTS

- Make threaded fasteners of all sizes and configurations, self-locking and self-sealing.
- Use with both male and female threads.
- Automotive and military approved.
- 5 different products to satisfy the needs of every application.

The ND family of factory pre-applied products is completely dry, fused to the fastener and requires no curing time after installation. ND Patch®, ND 360(DEG) Ring-Patch®, and ND Pell-It® provide locking, sealing, and are reusable. ND Microspheres® is an affordable alternative to micro-encapsulated adhesives; ND Vibra-Tite® keeps any fastener from loosening even under extreme vibration.



### CUSTOM DESIGN PRODUCTS

- Various product and style types
- Wide range of material options.
- More than 40 metallic finishes.
- Manufactured to blueprint.
- 100 piece minimum order.

Contact us to discuss your custom design product needs. Our team can work with various materials, finishes, coatings, styles, and sizes to design the product for your project requirements.



## CNC PRECISION MACHINED PARTS

- Precision contacts and bodies to Military specs
- Tolerance on diameters to  $\pm .0002''$
- Short run and prototype
- Right angle and  $45^\circ$  bent contacts
- Turned diameters from  $.010''$  to  $.750''$
- Turn key product, heat treated and plated

CNC precision machining made to your blueprint, featuring primary, secondary, and complete engineering support. Capabilities include: crimping, plating, slotting, knurling, assembling, threading, heat treating, and zone annealing. Short to medium runs with quick turnaround are our specialty.



Contacts and Sub-Assemblies



Right Angle Contacts



Contacts and Bodies

### CERTIFICATIONS:

- ISO 9001:2008 Certified
- MIL-I-45208A
- MIL-STD-45622
- MIL-C-39029
- Certified Dock to Stock

### MARKETS SERVED:

- Microwave Components
- Defense
- Aerospace
- Cable Harness Manufacturers
- Satellite Communications
- Contract Manufactures
- Medical
- Fastener

### INDUSTRIES SERVED:

- Electronics
- Commercial
- Hardware
- Defense
- Aerospace
- Light Assemblies
- Telecommunications
- Instruments
- Fiber Optics

### SERVICES PROVIDED:

- Precision CNC Machining
- Zone Annealing & Right-Angle Bend Expertise
- Slotting
- Knurling
- Threading
- Heat Treating
- Crimping
- Plating
- Assembly
- Complete Secondary, Toolroom, & Engineering Support

### DISTRIBUTED BY:



## RAF Electronic Hardware

95 Silvermine Rd, Seymour, CT 06483  
(203) 888-2133 phone • (203) 888-9860 fax  
[info@rafhdwe.com](mailto:info@rafhdwe.com) • [www.rafhdwe.com](http://www.rafhdwe.com)

We accept:

