

Sex Bolt Application Guide

Tip: Set your PDF viewer to "Actual size" before printing to maintain scale.

Common Applications by Industry

Application	Description	Typical Sizes	Key Benefits
Furniture Assembly	Modern furniture with visible hardware, table legs, chair connections	8-32 to 1/4"-20 1/2"-1-1/2" barrels	Clean look both sides, easy disassembly, design element
Leather Goods	Bag handles, belt buckles, wallet closures, decorative hardware	6-32 to 8-32 1/4"-1/2" barrels	Professional finish, removable, no exposed threads
Albums & Portfolios	Photo albums, scrapbooks, menu covers, sample books	6-32 1/4"-1" barrels	Add/remove pages easily, durable binding
Signage & Displays	Acrylic sign mounting, wall displays, retail fixtures	8-32 to 10-24 1/2"-2" barrels	Standoff effect, clean mounting, professional look
Electronics	Panel mounting, equipment racks, enclosure covers	M3 to M5 6-20mm barrels	Low profile, easy service access, secure mounting

Selection Criteria by Material Type

For Leather:

- Use decorative heads for visible installations (bags, belts)
- Brass or antique finishes complement leather well
- Slightly longer barrels accommodate leather thickness variation
- Consider decorative washers for added style

For Wood/Furniture:

- Larger thread sizes (8-32, 10-24) for structural strength
- Finish washers prevent wood crushing and add polished look
- Black oxide or brushed finishes for modern furniture
- Pre-drill to prevent splitting

For Acrylic/Plastic:

- Use appropriate barrel length to avoid over-compression
- Decorative heads can create standoff/floating effect
- Avoid overtightening to prevent cracking
- Consider rubber washers to protect surface

For Metal Panels:

- Low-profile styles for flush mounting
- Stainless or black oxide for corrosion resistance
- Ensure adequate thread engagement (minimum 3-4 threads)
- Use anti-seize for dissimilar metals

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Style Selection Guide

Style Type	Best For	Visual Impact	Typical Finishes
Standard Flat Head	General purpose, hidden installations	Low-key, functional	Zinc, nickel, black oxide
Decorative Head	Fashion, leather goods, visible hardware	High - design element	Brass, antique, polished
Low-Profile	Electronics, tight clearances	Minimal protrusion	Aluminum, steel
Button Head	Furniture, comfortable grip areas	Smooth, rounded	Chrome, brushed stainless
Knurled Head	Hand-adjustable, no tools needed	Textured grip surface	Brass, aluminum

Design Considerations

Load-Bearing Capacity:

- Sex bolts are primarily for positioning and light clamping, not heavy structural loads
- Thread size and engagement depth determine maximum load
- For heavy loads, use larger thread sizes (10-24 or 1/4"-20)
- Consider using multiple fasteners to distribute load

Aesthetics and Finish Matching:

- Match finish to surrounding hardware for cohesive look
- Brass ages to patina - consider if this fits your design
- Polished finishes show fingerprints - use brushed for high-touch areas
- Black oxide provides modern industrial aesthetic

Accessibility and Maintenance:

- Both sides must be accessible for installation
- Consider if future disassembly will be needed
- Document barrel length for reordering replacement parts
- Use thread locker sparingly - only for permanent installations

Environmental Factors:

- Outdoor use: Specify stainless steel or brass
- High humidity: Avoid plain steel - use coated or stainless
- Chemical exposure: Stainless steel 316 for harsh environments
- Temperature extremes: Metal expands/contracts - allow slight clearance

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Common Application Mistakes to Avoid

- **Barrel too short:** If barrel doesn't extend through entire material thickness, threads won't engage properly. Always add 1/16"-1/8" clearance.
- **Hole too small:** If clearance hole is too tight, barrel won't pass through or will damage material. Use recommended drill sizes.
- **Overtightening:** Excessive force strips threads, especially in soft materials like brass. Hand-tight plus 1/4 turn is usually sufficient.
- **Mismatched thread sizes:** Male screw and female barrel MUST have identical thread pitch. Verify before assembly.
- **Wrong material selection:** Using steel in corrosive environments or nylon for high-load applications leads to premature failure.
- **No backup support:** Thin or soft materials need washers to prevent pull-through under load.
- **Ignoring thermal expansion:** Metal expands with temperature - very long assemblies may need expansion allowance.

Ordering and Specification Tips

Complete Specification Includes:

1. Thread size (e.g., "8-32", "M5")
2. Barrel length (e.g., "1/2\"", "15mm")
3. Head style (e.g., "flat head", "decorative", "low-profile")
4. Material (e.g., "brass", "stainless steel 304", "aluminum")
5. Finish (e.g., "polished", "black oxide", "antique brass")
6. Quantity needed (order extras for setup and future repairs)

Example Specification:

"8-32 thread, 5/8" barrel length, decorative flat head, brass with polished finish, quantity 100 sets"

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Pro Tips

- Order 10-20% extra for replacements and future repairs
- Keep documentation of exact specifications for easy reordering
- Test fit with sample before ordering large quantities
- Consider buying multiple barrel lengths for different material thicknesses
- Sets (male + female) are often more economical than buying separately

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