



| | AlphaUSA 5000 Series Hex Flange Nut Clip | AlphaUSA 6000 Series Pierce Nut Clip | Extruded & Threaded Barrel Type Clip | Weld Nut Style Clip | Cage Nut Style Clip | Spring Nut Style #1 Clip | Spring Nut Style #2 Clip |
|--|---|---|---|---------------------|---------------------|-----------------------------|-----------------------------|
| Installation - self wrenching | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Metric sizes available - M8 thru M12 sizes available | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Metric sizes available - M4 thru M8 sizes available | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ergonomic standard - meets 45N installation maximum requirement | ✓ | ✓ | | | | ✓ | ✓ |
| Fastener standard - meets published property class 10 proof load requirements | ✓ | ✓ | | | | | |
| Fastener standard - meets published property class 10 prevailing torque maximum requirements | ✓ | ✓ | | | | | |
| Fastener standard - meets published property class 10 first on & third off requirements | ✓ | ✓ | | | | | |
| Fastener standard - maintains published joint clamp load in extreme vibration environments | ✓ | ✓ | | | | | |
| Fastener standard - maintains published fastener standard joint clamp load in extreme thermal cycling environments | ✓ | ✓ | | | | | |
| Thread integrity - resistant to joint threads seizing due to rust | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Thread integrity - nut thread lead-in to bolt at installation for anti-cross threading | ✓ | ✓ | ✓ | | | | |
| Thread integrity - nut self-aligns to bolt at installation for anti-cross threading | ✓ | | | | | | |
| Rigid connection - zero panel movement under load/unload cyclical events - no squeak & rattle | ✓ | ✓ | | | | | |
| Coating and finishing - available in all customer specific fastener coatings | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hydrogen embrittlement resistant - manufactured using embrittlement resistant pre-heat-treated material | ✓ | ✓ | | | | | |
| Serviceability - joint disassembly using common box / open style wrench or socket | ✓ | ✓ | | ✓ | ✓ | | |
| Manufacturing Efficiency - designed for minimization of material waste in product manufacture | ✓ | ✓ | | ✓ | | ✓ | ✓ |
| Manufacturing Efficiency - designed for simplification of part production tooling and infrastructure | ✓ | ✓ | | | | | |