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CherryMAX® Rivet CR3212-6-04

CR3212-6-04 is a 3/16" diameter high-strength blind rivet from the CherryMAX® series. It features a 100° flush countersunk head and a mechanically locked stem, offering durable and vibration-resistant installation for aerospace structures where only one-sided access is available. This variant is optimized for medium grip ranges.

Basic Specifications

- Shank Diameter: 3/16 inch (≈0.187 inch)
- Grip Range: 0.188 – 0.250 inch
- Overall Length: 0.500 – 0.520 inch
- Head Diameter: ≈0.344 inch
- Head Height: ≈0.062 inch
- Head Style: 100° flush countersunk
- Sleeve — Aluminum alloy 5056, anodized or chromate conversion coated
- Mandrel — Alloy steel 8740, cadmium plated
- Standards Compliance: NAS9302B, MS20600, MIL-SPEC (AS), BACR15FR6
- Manufacturer: Cherry Aerospace, USA.

Material Thickness Selection Guidelines

- Recommended for material stack thickness between 4.8 – 6.35 mm
- Use CR3212-6-03 or shorter variants for thinner stack-ups
- Use CR3212-6-05 or longer variants for thicker joints
- Compatible with pneumatic tools: Cherry G747, G83, G84, G704B, or equivalent.

Part Identification and Marking Structure

- CR — CherryMAX series
- 32 — Rivet type
- 12 — 100° flush head configuration
- 6 — Nominal shank diameter 3/16 inch
- 04 — Length code for 0.188 – 0.250 inch grip range.

Key Features and Installation Characteristics

- Flush 100° countersunk head provides clean aerodynamic surface
- Recommended hole diameter: 0.192 – 0.195 inch
- Mechanically locked stem with audible “click” ensures complete engagement
- Mandrel is retained inside the sleeve — no protruding elements
- Ideal for blind installation where backside access is restricted.

Coating and Visual Identification Notes

- Sleeve: anodized (silver) or chromate-coated (gold)
- Mandrel: cadmium-plated, silver-gray finish
- Typical markings: CR3212-6-04, AF3212-6-04, NAS9302B-6-04
- Always verify using part number — color alone is not sufficient.

Additional Technical Characteristics

- Shear Strength: up to 68,000 PSI
- Tensile Strength: up to 95,000 PSI
- Operating Temperature Range: -65°F to +250°F (-54°C to +121°C)
- Minimum Countersink Depth: 0.050 inch
- Head Seat Radius: 0.130 – 0.150 inch
- Installation Air Pressure: 90 psi nominal
- Typical Installation Time: ≤ 1.6 seconds.

Practical Notes from Technician

- Slight movement before setting is acceptable
- Hole size must be maintained within 0.192–0.195 inch
- Do not apply lubricants — may compromise stem lock
- Use reduced force for composites or layered structures
- Installation tools must be clean and well-calibrated
- Minimum air pressure: 85 psi
- “Click” sound confirms proper stem lock engagement
- Stem tail should be flush with sleeve within ± 0.005 inch.

Note: This technical information is based on the official documentation provided by Cherry Aerospace and is intended solely for reference in product selection and specification.