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## CherryMAX® Rivet CR3212-6-05

CR3212-6-05 is a 3/16" diameter blind rivet from the CherryMAX® series, designed for aerospace structures requiring secure, high-strength fastening within medium-to-long grip ranges. It features a 100° flush countersunk head and a mechanically locked stem for reliable, blind-side installation.

### Basic Specifications

- Shank Diameter: 3/16 inch (≈0.187 inch)
- Grip Range: 0.251 – 0.312 inch
- Overall Length: 0.562 – 0.582 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 6.4 – 7.9 mm
- Use CR3212-6-04 or shorter variants for thinner stack-ups
- Use CR3212-6-06 or longer variants for thicker material combinations
- 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
- 05 — Length code for 0.251 – 0.312 inch grip range.

## Key Features and Installation Characteristics

- Flush 100° countersunk head ensures clean aerodynamic finish
- Recommended hole diameter: 0.192 – 0.195 inch
- Mechanically locked stem with audible “click” confirms full engagement
- Mandrel is fully retained inside sleeve — no protrusion
- Designed for blind installation in limited-access aerospace assemblies.

## Coating and Visual Identification Notes

- Sleeve: gold (chromate) or silver (anodized), depending on finish
- Mandrel: cadmium-plated, silver-gray appearance
- Typical markings: CR3212-6-05, AF3212-6-05, NAS9302B-6-05
- Always confirm by part number — not visual appearance.

## 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: ≤ 1.7 seconds.

## Practical Notes from Technician

- Slight pre-set movement is normal and acceptable
- Maintain hole diameter at 0.192–0.195 inch for proper stem lock
- Do not use lubricants — can interfere with locking mechanism
- Use reduced force in composite or laminated materials
- Ensure tools are clean, functional, and calibrated
- Minimum installation pressure: 85 psi
- Audible “click” indicates successful locking
- Stem tail must be flush within  $\pm 0.005$  inch of sleeve surface.

**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.