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## CherryMAX® Rivet CR3212-6-03

CR3212-6-03 is a 3/16" diameter blind rivet from the CherryMAX® series. Designed for structural aerospace applications requiring a short-to-medium grip range, it features a 100° flush countersunk head and a mechanically locked stem, ensuring durable, vibration-resistant installation where only one-sided access is available.

### Basic Specifications

- Shank Diameter: 3/16 inch (≈0.187 inch)
- Grip Range: 0.126 – 0.187 inch
- Overall Length: 0.437 – 0.457 inch
- Head Diameter: ≈0.344 inch
- Head Height: ≈0.062 inch
- Head Style: 100° flush countersunk
- Sleeve — Aluminum alloy 5056, anodized or chromate 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 3.2 – 4.75 mm
- Use CR3212-6-02 or shorter variants for thinner assemblies
- Use CR3212-6-04 or longer variants for thicker joints
- Compatible with pneumatic installation 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
- 03 — Length code for 0.126 – 0.187 inch grip range.

## Key Features and Installation Characteristics

- Flush 100° countersunk head for aerodynamic surface installations
- Recommended hole diameter: 0.192 – 0.195 inch
- Audible and tactile “click” confirms proper mechanical stem locking
- Stem remains fully retained inside the sleeve — no mandrel exposure
- Optimized for blind-side installation where backside access is restricted.

## Coating and Visual Identification Note

- Sleeve: gold (chromate) or silver (clear anodized)
- Mandrel: cadmium-plated, silver-gray finish
- Common part markings: CR3212-6-03, AF3212-6-03, NAS9302B-6-03
- Identification must be verified by part number — not color alone.

## 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: ≤ 1.5 seconds.

## Practical Notes from Technician

- Slight pre-installation play is acceptable
- Hole diameter must be maintained at 0.192–0.195 inch
- Avoid lubricants — may compromise stem locking function
- Use reduced force when installing in composite materials
- Installation tools must be clean and well-calibrated
- Minimum operating air pressure: 85 psi
- Click sound confirms proper stem engagement
- Stem tail must be flush with sleeve within  $\pm 0.005$  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.