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## CherryMAX® Rivet CR3212-5-03

CR3212-5-03 is a 5/32" diameter blind rivet from the CherryMAX® series, featuring a 100° flush countersunk head and a mechanically locked stem. Designed for aerospace applications, it offers secure and reliable installation in short-to-medium grip range assemblies with no backside access required.

### Basic Specifications

- Shank Diameter: 5/32 inch ( $\approx$ 0.156 inch)
- Grip Range: 0.126 – 0.187 inch
- Overall Length: 0.312 – 0.332 inch
- Head Diameter:  $\approx$ 0.281 inch
- Head Height:  $\approx$ 0.052 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), BACR15FR5
- Manufacturer: Cherry Aerospace, USA.

### Material Thickness Selection Guidelines

- Recommended for material stack thickness between 3.2 – 4.75 mm
- Use CR3212-5-02 or shorter variants for thinner stack-ups
- Use CR3212-5-04 or longer variants for thicker material combinations
- Compatible with pneumatic tools: Cherry G27, G747, G704B, or equivalent.

### Part Identification and Marking Structure

- CR — CherryMAX series
- 32 — Rivet type
- 12 — 100° flush head configuration
- 5 — Nominal diameter 5/32 inch
- 03 — Length code for 0.126 – 0.187 inch grip range.

## Key Features and Installation Characteristics

- Flush 100° head provides smooth aerodynamic finish
- Recommended hole diameter: 0.161 – 0.164 inch
- Audible “click” confirms full mechanical stem lock during installation
- Stem is retained inside the sleeve with no exposed mandrel
- Ideal for blind-side applications requiring short grip length.

## Coating and Visual Identification Notes

- Sleeve finish: gold (chromate) or silver (clear anodized)
- Mandrel: cadmium plated, silver-gray appearance
- Markings: CR3212-5-03, AF3212-5-03, NAS9302B-5-03
- Always confirm part by markings — color is not a reliable identifier.

## Additional Technical Characteristics

- Shear Strength: up to 58,000 PSI
- Tensile Strength: up to 85,000 PSI
- Operating Temperature Range: -65°F to +250°F (-54°C to +121°C)
- Minimum Countersink Depth: 0.040 inch
- Head Seat Radius: 0.110 – 0.130 inch
- Installation Air Pressure: 90 psi nominal
- Typical Installation Time: ≤ 1.3 seconds.

## Practical Notes from Technician

- Minor free movement prior to installation is acceptable
- Hole diameter must be tightly controlled for proper performance
- Lubrication should not be used — may impair locking mechanism
- Use reduced force in composite materials to avoid damage
- Tooling must be clean and properly maintained
- Minimum installation pressure: 85 psi
- An audible “click” confirms complete stem engagement
- Stem tail should be flush with the sleeve ±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.