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CherryMAX® Rivet CR3212-5-09

CR3212-5-09 is a 5/32" diameter high-strength blind rivet from the CherryMAX® series. It features a 100° flush countersunk head and a mechanically locked stem, ensuring secure, flush, and vibration-resistant installation. Designed for aerospace structures with extended grip range requirements and limited backside access.

Basic Specifications

- Shank Diameter: 5/32 inch (≈0.156 inch)
- Grip Range: 0.501 – 0.562 inch
- Overall Length: 0.687 – 0.707 inch
- Head Diameter: ≈0.281 inch
- Head Height: ≈0.052 inch
- Head Style: 100° flush countersunk
- Materials:
 - Sleeve — Aluminum alloy 5056, anodized or chromate conversion 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 12.73 – 14.3 mm
- Use CR3212-5-08 or shorter variants for thinner assemblies
- Use CR3212-5-10 or longer variants for thicker material stacks
- Compatible with pneumatic tools: Cherry G747, G27, G704B, or equivalent.

Part Identification and Marking Structure

- CR — CherryMAX series
- 32 — Rivet type
- 12 — 100° flush head configuration
- 5 — Nominal shank diameter 5/32 inch
- 09 — Length code for 0.501 – 0.562 inch grip range.

Key Features and Installation Characteristics

- Flush 100° head designed for countersunk holes
- Recommended hole diameter: 0.161 – 0.164 inch
- Mechanically locked stem provides audible "click" upon correct setting
- Mandrel is fully retained inside the sleeve — no exposed tail
- Blind-side installation simplifies assembly in limited-access areas.

Coating and Visual Identification Notes

- Sleeve color: gold (chromate) or silver (anodized), depending on coating
- Mandrel: cadmium-plated, silver-gray finish
- Common markings: CR3212-5-09, AF3212-5-09, NAS9302B-5-09
- Always verify part number — color alone 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: ≤ 1.9 seconds.

Practical Notes from Technician

- Slight movement prior to installation is normal
- Strictly maintain hole size tolerance (0.161–0.164 inch)
- Do not use lubricants during installation — may interfere with locking
- Use reduced setting force for composite or sensitive materials
- Tools must be clean, functional, and properly maintained
- Minimum installation pressure: 85 psi
- Listen for click to confirm stem lock engagement
- Stem tail must 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.