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CherryMAX® Rivet CR3212-5-08

CR3212-5-08 is a 5/32" diameter blind rivet from the CherryMAX® series, designed for use in aerospace structures where one-sided access is required. It features a 100° flush countersunk head and a mechanically locked stem, providing durable, vibration-resistant fastening for long grip ranges.

Basic Specifications

- Shank Diameter: 5/32 inch (≈ 0.156 inch)
- Grip Range: 0.438 – 0.500 inch
- Overall Length: 0.625 – 0.645 inch
- Head Diameter: ≈ 0.281 inch
- Head Height: ≈ 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 11.13 – 12.7 mm
- Use CR3212-5-07 or shorter variants for thinner assemblies
- Use CR3212-5-09 or longer variants for thicker applications
- 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
- 08 — Length code for 0.438 – 0.500 inch grip range.

Key Features and Installation Characteristics

- Flush 100° head provides smooth surface for aerodynamic structures
- Recommended hole diameter: 0.161 – 0.164 inch
- Mechanically locked stem ensures secure hold with audible "click"
- Stem remains fully captured — no mandrel protrusion after setting
- Optimized for blind installation with no access to the reverse side.

Coating and Visual Identification Notes

- Sleeve: gold (chromate) or silver (anodized), depending on coating
- Mandrel: cadmium-plated, silver-gray finish
- Typical markings: CR3212-5-08, AF3212-5-08, NAS9302B-5-08
- Part must be verified by number — color alone is not sufficient.

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: ≤ 1.8 seconds.

Practical Notes from Technician

- Slight pre-set movement of rivet is acceptable
- Ensure hole diameter is within specification (0.161–0.164 inch)
- Do not use lubricant — may compromise mechanical locking
- Use reduced setting force in composite materials to prevent delamination
- Maintain installation tools in good working condition
- Minimum air pressure: 85 psi
- Click sound confirms successful stem lock
- Mandrel 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.