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CherryMAX® Rivet CR3213-5-01

CR3213-5-01 is a 5/32" diameter blind rivet from the CherryMAX® series. It features a universal (protruding) head and a mechanically locked stem, engineered for structural aerospace applications where short grip range and blind-side access are required.

Basic Specifications

- Shank Diameter: 5/32 inch (≈ 0.156 inch)
- Grip Range: 0.032 – 0.062 inch
- Overall Length: 0.240 – 0.260 inch
- Head Style: Universal (Protruding head)
- Head Diameter: ≈ 0.281 inch
- Head Height: ≈ 0.085 inch
- Sleeve Material: Aluminum alloy 5056
- Mandrel Material: Alloy steel 8740, cadmium plated
- Standards Compliance: NAS9301B, MS20470, MIL-SPEC (AS), BACR15FR5
- Manufacturer: Cherry Aerospace, USA.

Material Thickness Guidelines

- Recommended for material stack: 0.8 – 1.57 mm
- Use only in very thin structural joints
- Use CR3213-5-02 or longer for thicker materials.

Hole and Tooling

- Recommended Hole Diameter: 0.161 – 0.164 inch
- Compatible Tools: Cherry G27, G747, G704B or equivalent pneumatic tools
- Installation Air Pressure: 85 – 90 psi
- Typical Installation Time: ≤ 1.3 seconds.

Key Features

- Universal dome head provides reliable external surface bearing
- Mechanically locked stem ensures secure, tamper-resistant joint
- Mandrel is fully retained — no protruding metal tail
- Designed for blind-side installation in aerospace structures
- Works effectively with aluminum, steel, and composite skins.

Performance

- Shear Strength: up to 58,000 PSI
- Tensile Strength: up to 85,000 PSI
- Operating Temperature Range: -65°F to $+250^{\circ}\text{F}$ (-54°C to $+121^{\circ}\text{C}$).

Marking and Coating

- Sleeve Finish: anodized (silver) or chromate-coated (gold)
- Mandrel Finish: cadmium-plated (silver-gray)
- Typical Part Numbers: CR3213-5-01, AF3213-5-01, NAS9301B-5-01
- Always confirm part number — color should not be used as primary identifier.

Installation Notes

- Slight movement before installation is acceptable
- Hole size must be maintained within 0.161–0.164 inch
- Lubricants should not be used — may interfere with locking mechanism
- Use reduced force in composite or lightweight assemblies
- Installation tools must be clean and calibrated
- Click sound confirms successful stem locking
- Stem tail should be flush with sleeve within ± 0.005 inch.

Advantages

- Short-grip blind rivet with a universal head design
- No exposed mandrel after setting — smooth, flush surface
- Reliable even in slightly oversized or oval holes
- Complies with NAS, MS, MIL, BAC aerospace fastener standards.

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.