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## CherryMAX® Rivet CR3213-4-09

CR3213-4-09 is a 1/8" diameter blind rivet from the CherryMAX® series. It features a universal (protruding) head and a mechanically locked stem, designed for aerospace structural assemblies requiring blind-side access and extended grip range.

### Basic Specifications

- Shank Diameter: 1/8 inch (≈0.125 inch)
- Grip Range: 0.501 – 0.562 inch
- Overall Length: 0.700 – 0.725 inch
- Head Style: Universal (Protruding head)
- Head Diameter: ≈0.219 inch
- Head Height: ≈0.068 inch
- Sleeve Material: Aluminum alloy 5056
- Mandrel Material: Alloy steel 8740, cadmium plated
- Standards Compliance: NAS9301B, MS20470, MIL-SPEC (AS), BACR15FR4
- Manufacturer: Cherry Aerospace, USA.

### Material Thickness Guidelines

- Recommended for material stack: 12.73 – 14.3 mm
- Use CR3213-4-08 for thinner stack-ups
- Use CR3213-4-10 or longer for thicker material combinations.

### Hole and Tooling

- Recommended Hole Diameter: 0.129 – 0.132 inch
- Compatible Tools: Cherry G27, G747, G704B or equivalent pneumatic riveters
- Installation Air Pressure: 85 – 90 psi
- Typical Installation Time: ≤ 1.9 seconds.

## Key Features

- Universal dome head provides high-load surface bearing
- Mechanically locked stem delivers vibration-resistant fastening
- Mandrel is fully retained — no exposed stem after installation
- Blind-side installation suitable for limited-access aerospace assemblies
- Functions effectively in aluminum, titanium, and composite structures.

## Performance

- Shear Strength: up to 50,000 PSI
- Tensile Strength: up to 75,000 PSI
- Operating Temperature Range: -65°F to +250°F (-54°C to +121°C).

## Marking and Coating

- Sleeve Finish: anodized (silver) or chromate-coated (gold)
- Mandrel Finish: cadmium-plated, silver-gray
- Typical Markings: CR3213-4-09, AF3213-4-09, NAS9301B-4-09
- Always confirm by part number — color alone is not a reliable indicator.

## Installation Notes

- Slight movement before setting is acceptable
- Hole diameter must be 0.129–0.132 inch
- Do not use lubricants — may impair mechanical locking
- Use lower pressure when installing in composite or sandwich structures
- Stem must be flush with sleeve within  $\pm 0.005$  inch.

## Advantages

- Extended grip blind rivet with a universal head
- Fully retained mandrel — no tail exposure
- Reliable performance even in imperfect or oversized holes
- Complies with NAS, MIL, MS, and BAC aerospace 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.