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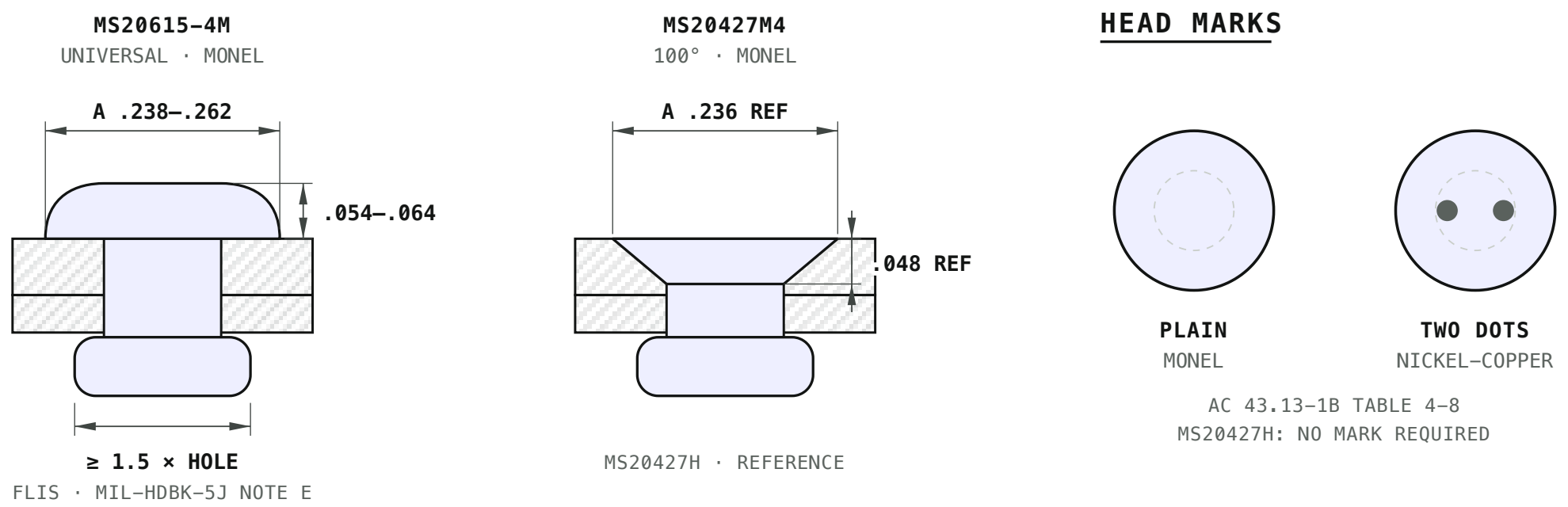
Monel Rivets: Identification, Part Numbers, Drills and Use

Marks · standards · part number · drills · CherryMAX Monel · shear

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

MONEL RIVETS AT 1/8 IN

SECTION · UNIVERSAL AND 100° HEADS



MONEL IN THE SYSTEM

STANDARDS, PART NUMBERS, BLIND RIVETS

STANDARD	HEAD	EXAMPLE	NOTE
MS20615	Universal	MS20615-4M5	Title: brass, copper, nickel-copper
MS20427M	100° countersunk	MS20427M4-5	Cadmium plated: MS20427M4C5
NAS1200	100° flush shear	Data sheet	Monel (NAS1200 data sheet)
CherryMAX CR3522	100° flush, blind	CR3552	CR3552 = 1/64 oversize
CherryMAX CR3523	Universal, blind	CR3553	CR3553 = 1/64 oversize

No heat treatment and no icebox (AC 43.13-1B Table 4-8). The rivet drives cold to a full head.

Shear: 52 ksi driven, 49 to 59 ksi undriven (MIL-HDBK-5J Table 8.1.2(b)); 49,000 psi in AC 43.13-1B Table 4-8.

Head of MS20615 from FLIS records of MS20615-4M; MS20427H prints A and B for reference only, not for inspection.

NOTES

1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on AC 43.13-1B Table 4-8, MS20427H, MIL-HDBK-5J.

REVISIONS

REV	DESCRIPTION	YEAR
A	First issue	2026

The Aviation Point. Structural repair reference

TITLE			
Monel rivets			
DRAWING NO. TAP-DWG-F02	REV A · 2026	SCALE NTS	SHEET 1 OF 1
APPLIES TO Solid rivets, Monel			

DO NOT SCALE DRAWING

MS20615 and MS20427M heads at 1/8 in in section, with the plain and two-dot marks of AC 43.13-1B Table 4-8.

Drills, standard and oversize

Rivet	Pilot	Final drill (in)	1st oversize, 1/64 in	2nd oversize: next size
3/32 in (-3)	3/32 (0.0938)	#40 (0.098)	No public part	1/8 in: #30 (0.1285)
1/8 in (-4)	1/8 (0.125)	#30 (0.1285)	No public part	5/32 in: #21 (0.159)
5/32 in (-5)	5/32 (0.1562)	#21 (0.159)	No public part	3/16 in: #11 (0.191)
3/16 in (-6)	3/16 (0.1875)	#11 (0.191)	No public part	7/32 in: #1 (0.228)
7/32 in (-7)	None printed	#1 (0.228)	No public part	1/4 in: F (0.257)
1/4 in (-8)	1/4 (0.25)	F (0.257)	No public part	5/16 in (1/16 in step above 1/4 in); drill not in the public tables

CherryMAX Monel: drill and hole

Size	Nominal: drill (hole, in)	Oversize 1/64 in: drill (hole, in)
1/8 in (-4)	#30 (0.129 to 0.132)	#27 (0.143 to 0.146)
5/32 in (-5)	#20 (0.160 to 0.164)	#16 (0.176 to 0.180)
3/16 in (-6)	#10 (0.192 to 0.196)	#5 (0.205 to 0.209)
1/4 in (-8)	F (0.256 to 0.261)	I (0.271 to 0.275)

Key points

- **Monel is the letter M** in MS20615 and MS20427 numbers; the head is plain or has two recessed dots.
- **No heat treatment, no icebox.** The rivet drives cold to a full head.
- **Drills go by diameter:** 1/8 in #30, 5/32 in #21, 3/16 in #11, 1/4 in F.
- **Oversize:** the next larger rivet; no public 1/64 in Monel rivet.
- **CherryMAX Monel:** CR3522 (100°), CR3523 (universal); oversize CR3552, CR3553.

Step by step

1. Read the M in the part number.
2. Pilot, then the final drill of the diameter.
3. Countersink 100° for MS20427M.
4. Drive cold; shop head at least 1.5 × the hole.
5. Inspect the shop head; the SRM governs.

Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.

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- **Shear:** 52 ksi driven (MIL-HDBK-5J); 49,000 psi in AC 43.13-1B Table 4-8.

SOURCES · FAA AC 43.13-1B CHG 1, Table 4-8 and par. 7-2g · FAA-H-8083-31B, Aviation Maintenance Technician Handbook, Airframe, chapter 4 · MIL-HDBK-5J, Tables 8.1.2, 8.1.2, 8.1.2.2,, · MS20427 Rev. H · MS20615 Rev. G, public listing · T.O. 1-1A-1 · MIL-R-47196A, 6 Sep 1977 · Cherry Aerospace CA-1011 Rev. A · TM 1-1500-204-23-6, Table 2-11 · US federal item records

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