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120° Flush Shear Rivets: MS14218, BRFZ and Their Partners

Part number · alloys and marks · head sizes · hole · partners · not equivalent

Head sizes, MS14218C Table I

Dash	Diameter	Head Ø A, in	Head height B (ref), in	Crown C, in	Head with crown, in	Shank D, in	Length dashes
-3	3/32 in	.123	.022	.004-.008	.026-.030	.094	2 to 12
-4	1/8 in	.162	.027	.004-.008	.031-.035	.125	3 to 16
-5	5/32 in	.210	.035	.005-.009	.040-.044	.156	3 to 24
-6	3/16 in	.258	.044	.005-.009	.049-.053	.187	4 to 28
-7	7/32 in	.312	.053	.006-.010	.059-.063	.222	5 to 28
-8	1/4 in	.358	.061	.006-.011	.067-.072	.250	5 to 32
-9	9/32 in	.405	.069	.007-.012	.076-.081	.283	6 to 32
-10	5/16 in	.454	.077	.007-.012	.084-.089	.310	7 to 32

The hole

Rivet	Nominal hole, in	Drill of that size	Test hole, in	Knife-edge sheet, in
3/32 in	0.096	Fig. 4-90 gives #40 (0.098)	0.098 (#40)	0.020 (AD)
1/8 in	0.1285	#30	0.1285	0.025
5/32 in	0.159	#21	0.161 (#20)	0.032
3/16 in	0.191	#11	0.1935 (#10)	0.040
7/32 in	0.228	#1	0.228	0.050
1/4 in	0.257	F	0.257	0.050 (AD)
9/32 in	0.290	L	0.290	0.063 (E)
5/16 in	0.323	P	0.316 (O)	0.071 (E)

Key points

- **120° flush shear head** with a small crown: driving flattens it into the countersink.
- **MS14218 = BRFZ** item by item, by NSN; BACR15FV, VRFZ, 3M1022 and 3M1321 too.
- **Marks on the shank end:** E ring, AD dot, B cross, D none, T diamond.
- **Hole:** MIL-HDBK-5J nominal, 5/32 in 0.159 (#21); no public installation table.
- **Not equivalent:** MS20426 and NAS1097 (100°), MS14219 (tension head).
- **No oversize** in any public source. The SRM governs.

SOURCES · MS14218C, Rivet, Solid, 120° Flush Interference Shear Head · MIL-HDBK-5J, Tables 8.1.2.2,,, and · FAA-H-8083-31B, AMT Handbook — Airframe, Chapter 4 · FLIS records · Brown Tool, CC14218-6S countersink cutter

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