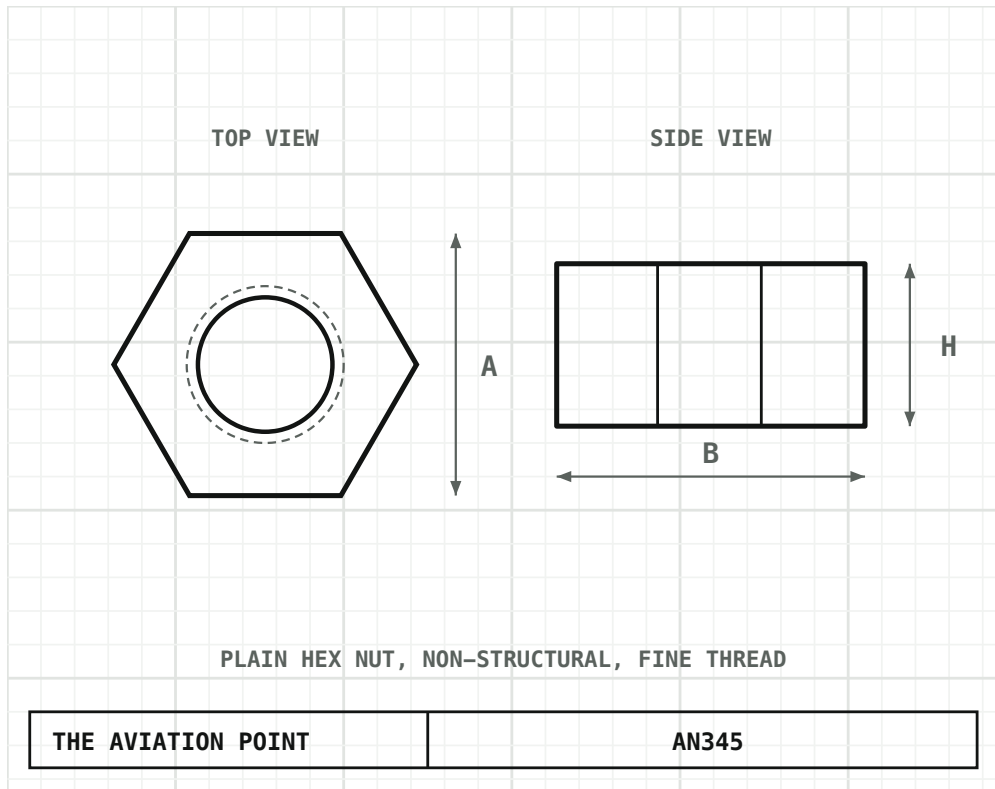
THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM

AN345 nut — plain hex nut, non-structural, fine thread

AN345: plain hexagon nut, non-structural, fine thread, No. 0 to 3/8, in alloy steel, corrosion-resistant steel, brass and aluminum alloy.



Engineering drawing · dimensions in inches

Specification

Item	Value
Type	Plain hex nut
Material	Steel, 50,000 psi tensile strength, minimum, commercial grade; corrosion-resistant steel, AN-QQ-S-770, condition QT, class II (431), or MIL-S-7720, composition FM (303); brass, commercial grade; aluminum alloy, QQ-A-268 or QQ-A-355, heat treated to 62,000 psi tensile strength, minimum, per MIL-H-6088
Finish	Steel: cadmium plate, QQ-P-416, type II, class 3. Corrosion-resistant steel: passivate. Brass: none. Aluminum alloy: anodize, MIL-A-8625.
Procurement	MIL-S-933
Status	Inactive for design after 31 Mar 1970; use MS35650. Cancelled after 31 Mar 1970 except the aluminum alloy nuts and dash numbers 1, 3 and 5. Notice 1 (1 Nov 1989): remains inactive for new design; valid for acquisition when needed.

Dimensions by size

Dimension, in	No. 0-80 UNF-2B	No. 1-72 UNF-2B	No. 2-64 UNF-2B	No. 3-56 UNF-2B	No. 4-48 UNF-2B	No. 5-44 UNF-2B	No. 6-40 UNF-2B	No. 8-36 UNF-2B	No. 10-32 UNF-2B	1/4-28 UNF-2B	5/16-24 UNF-2B	3/8-24 UNF-2B
A max — A, max (across flats)	.156	.156	.188	.188	.250	.313	.313	.344	.375	.438	.563	.625
A min — A, min (across flats)	.150	.150	.180	.180	.241	.302	.302	.332	.362	.423	.545	.607
B — B, ref (across corners)	.180	.180	.217	.217	.289	.362	.362	.398	.433	.506	.650	.722
C max — C dia, max (washer face)	.156	.156	.188	.188	.250	.313	.313	.344	.375	.438	.563	.625
C min — C dia, min (washer face)	.140	.140	.169	.169	.225	.282	.282	.310	.336	.394	.507	.563
H max — H, max (thickness)	.050	.050	.066	.066	.098	.114	.114	.130	.130	.193	.225	.257
H min — H, min (thickness)	.043	.043	.057	.057	.087	.102	.102	.117	.117	.178	.208	.239

Dimensions in inches, as tabulated in the standard (letters as on its drawing).

Part numbers

No. 0-80 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-0	Alloy steel	Cancelled after 31 Mar 1970
AN345C0	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B0	Brass	Cancelled after 31 Mar 1970

No. 2-64 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-2	Alloy steel	Cancelled after 31 Mar 1970
AN345C2	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B2	Brass	Cancelled after 31 Mar 1970

No. 4-48 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-4	Alloy steel	Cancelled after 31 Mar 1970
AN345C4	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B4	Brass	Cancelled after 31 Mar 1970

No. 1-72 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-1	Alloy steel	Inactive for design
AN345C1	Corrosion-resistant steel	Inactive for design
AN345B1	Brass	Inactive for design

No. 3-56 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-3	Alloy steel	Inactive for design
AN345C3	Corrosion-resistant steel	Inactive for design
AN345B3	Brass	Inactive for design

No. 5-44 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-5	Alloy steel	Inactive for design
AN345C5	Corrosion-resistant steel	Inactive for design
AN345B5	Brass	Inactive for design

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM

No. 6-40 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-6	Alloy steel	Cancelled after 31 Mar 1970
AN345C6	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B6	Brass	Cancelled after 31 Mar 1970

No. 8-36 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-8	Alloy steel	Cancelled after 31 Mar 1970
AN345C8	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B8	Brass	Cancelled after 31 Mar 1970

No. 10-32 UNF-2B 4 part numbers

Part no.	Material	Status
AN345-10	Alloy steel	Cancelled after 31 Mar 1970
AN345C10	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B10	Brass	Cancelled after 31 Mar 1970
AN345DD10	Aluminum alloy	Inactive for design

1/4-28 UNF-2B 4 part numbers

Part no.	Material	Status
AN345-416	Alloy steel	Cancelled after 31 Mar 1970
AN345C416	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B416	Brass	Cancelled after 31 Mar 1970
AN345DD416	Aluminum alloy	Inactive for design

5/16-24 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-516	Alloy steel	Cancelled after 31 Mar 1970
AN345C516	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B516	Brass	Cancelled after 31 Mar 1970

3/8-24 UNF-2B 3 part numbers

Part no.	Material	Status
AN345-616	Alloy steel	Cancelled after 31 Mar 1970
AN345C616	Corrosion-resistant steel	Cancelled after 31 Mar 1970
AN345B616	Brass	Cancelled after 31 Mar 1970

How to read the part number

Part	Meaning
Format	AN345<material><dash>
-	Material: Alloy steel, cadmium plated (hyphen kept before the dash number)
C	Material: Corrosion-resistant steel, passivated (C replaces the hyphen)
B	Material: Brass, no finish (B replaces the hyphen)
DD	Material: Aluminum alloy, anodized (DD replaces the hyphen)
Example	AN345C3 — Corrosion-resistant steel plain hex nut, No. 3-56 UNF-2B thread

Notes

- **Cancelled: use MS35650.** AN345 is cancelled (Inactive for design after 31 Mar 1970; use MS35650.). Replacement named by the standard: MS35650. The old number AN345-0 still turns up on drawings and IPCs: check the replacement for each part before you order.
- Part number: AN345- (alloy steel), AN345C (corrosion-resistant steel), AN345B (brass) or AN345DD (aluminum alloy), followed by the dash number of the size: AN345-10, AN345C10, AN345B10.
- Cancelled after 31 Mar 1970, except the aluminum alloy nuts and dash numbers 1, 3 and 5 in all materials. The interchangeability table on MS35650 gives the substitute parts.
- No. 1, 2, 3, 4, 5, 6 and 8 sizes: not recommended for new design.
- Aluminum alloy nuts: inactive for design after 19 July 1955.
- An optional chamfer may be used in lieu of the washer face. Chamfer 30° ±5°.
- Thread T per MIL-S-7742, countersunk 110° to the O.D. of the thread.
- Class 2 threads may be substituted for class 2B threads until existing stocks of nuts with class 2 threads are exhausted.
- B is a reference dimension, for design purposes only and not an inspection requirement.
- H is measured at a point approximately halfway between the minor diameter of the hole and the flat of the nut.
- For aluminum alloy nuts, tolerances on A may conform to the applicable material specifications for bar and rod.
- Nuts shall be free of all loose or hanging burrs or slivers which might become dislodged under usage.
- In case of conflict, the requirements of this standard take precedence over those of MIL-S-933.
- Approved data governs. Use the part the SRM, drawing or IPC calls for.

SOURCES · AN345 Rev. 6, 31 Mar 1970 — Nut, Plain, Hexagon, Non-Structural, Fine Thread

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/nuts/an345/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.