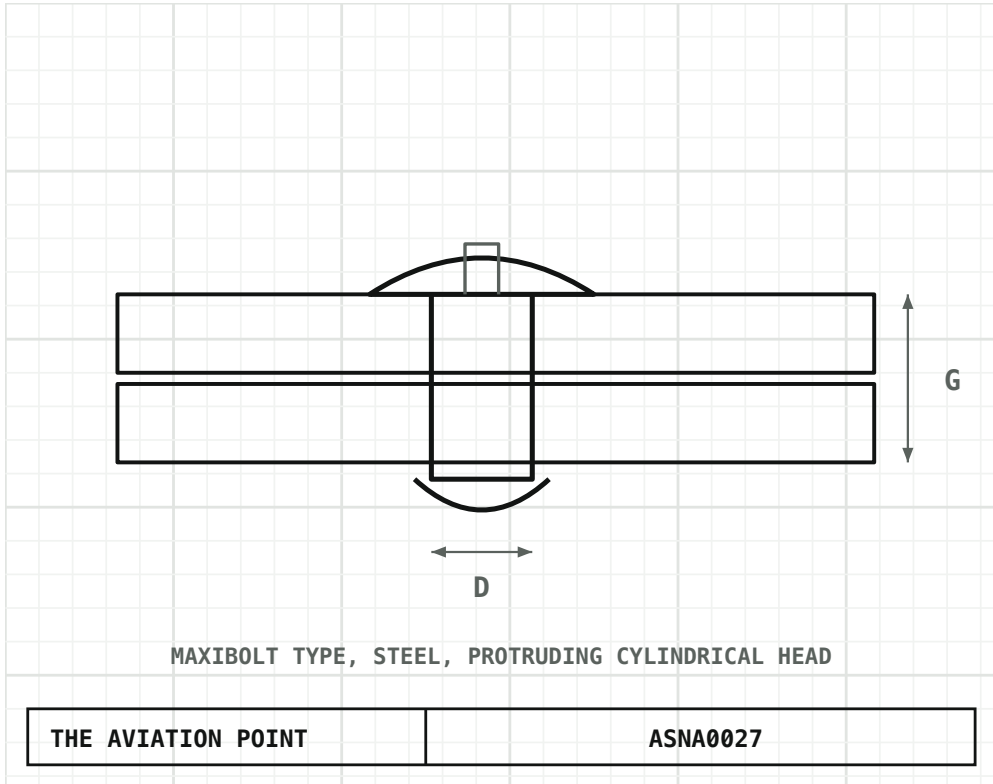
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ASNA0027 — Maxibolt type, steel, protruding cylindrical head

Blind bolt, Maxibolt type, steel or stainless, protruding cylindrical head, as the ASNA standard gives it: part numbers by diameter and grip, the hole and the drill, the tools and the inspection limits.



Engineering drawing · dimensions in inches and millimetres

Specification

Item	Value
Type	Blind bolt, pulled stem with locking collar
Material	Alloy steel (A) or A-286 stainless (B); stem mark C = stainless stem, no mark = alloy-steel stem
Strength	A: 112 ksi class; B: 95 ksi class (the standard prints 95 KSI without naming the property)

Item	Value
Locking	Pulled stem with a locking collar; the collar must never stand beyond the stem after the break
Finish	Not stated in the standard data
Status	Reference data transcribed from the standard, units marked row by row. Check the issue of the standard in force before design use.

Dimensions by size

Dimension, inch first (mm after)	-05	-06	-08
Nominal Ø (code)	5/32 in (0.156 in; 3.97 mm)	3/16 in (0.188 in; 4.76 mm)	1/4 in (0.250 in; 6.35 mm)
Body Ø	0.163 in (4.14 mm)	0.198 in (5.03 mm)	0.259 in (6.58 mm)
Hole †	0.164–0.167 in (4.16–4.24 mm†)	0.199–0.202 in (5.05–5.13 mm†)	0.260–0.263 in (6.60–6.68 mm†)
Drill (chart)	#19 (0.1660 in; 4.22 mm)	#7 (0.2010 in; 5.11 mm)	G (0.2610 in; 6.63 mm)
Max deburr Ø †	0.190 in (4.83 mm†)	0.235 in (5.97 mm†)	0.296 in (7.52 mm†)

Units: no mark = printed in mm and stated by the standard. † = printed with no unit; the inch value is our conversion, reading the figure as mm. Nominal Ø is our reading of the inch code (1/32 in for diameters, 1/16 in for grips). Drill: from the site drill chart, inside the hole range.

Part numbers

-05 · 5/32 in nominal 13 part numbers

Part no.	Grip, in (mm printed)
ASNA0027SA0502	0.094–0.157 (2.39–3.98)
ASNA0027SA0503	0.156–0.220 (3.96–5.59)
ASNA0027SA0504	0.219–0.282 (5.56–7.16)
ASNA0027SA0505	0.281–0.345 (7.14–8.76)
ASNA0027SA0506	0.344–0.407 (8.74–10.34)
ASNA0027SA0507	0.406–0.470 (10.31–11.94)
ASNA0027SA0508	0.469–0.532 (11.91–13.51)
ASNA0027SA0509	0.531–0.595 (13.49–15.11)
ASNA0027SA0510	0.594–0.657 (15.09–16.68)
ASNA0027SA0511	0.656–0.720 (16.66–18.29)
ASNA0027SA0512	0.719–0.782 (18.26–19.86)
ASNA0027SA0513	0.781–0.845 (19.84–21.46)
ASNA0027SA0514	0.844–0.907 (21.44–23.03)

-06 · 3/16 in nominal 13 part numbers

Part no.	Grip, in (mm printed)
ASNA0027SA0602	0.094–0.157 (2.39–3.98)
ASNA0027SA0603	0.156–0.220 (3.96–5.59)
ASNA0027SA0604	0.219–0.282 (5.56–7.16)
ASNA0027SA0605	0.281–0.345 (7.14–8.76)
ASNA0027SA0606	0.344–0.407 (8.74–10.34)
ASNA0027SA0607	0.406–0.470 (10.31–11.94)
ASNA0027SA0608	0.469–0.532 (11.91–13.51)
ASNA0027SA0609	0.531–0.595 (13.49–15.11)
ASNA0027SA0610	0.594–0.657 (15.09–16.68)
ASNA0027SA0611	0.656–0.720 (16.66–18.29)
ASNA0027SA0612	0.719–0.782 (18.26–19.86)
ASNA0027SA0613	0.781–0.845 (19.84–21.46)
ASNA0027SA0614	0.844–0.907 (21.44–23.03)

-08 · 1/4 in nominal 13 part numbers

Part no.	Grip, in (mm printed)
ASNA0027SA0802	0.094–0.157 (2.39–3.98)
ASNA0027SA0803	0.156–0.220 (3.96–5.59)
ASNA0027SA0804	0.219–0.282 (5.56–7.16)
ASNA0027SA0805	0.281–0.345 (7.14–8.76)
ASNA0027SA0806	0.344–0.407 (8.74–10.34)
ASNA0027SA0807	0.406–0.470 (10.31–11.94)
ASNA0027SA0808	0.469–0.532 (11.91–13.51)
ASNA0027SA0809	0.531–0.595 (13.49–15.11)
ASNA0027SA0810	0.594–0.657 (15.09–16.68)
ASNA0027SA0811	0.656–0.720 (16.66–18.29)
ASNA0027SA0812	0.719–0.782 (18.26–19.86)
ASNA0027SA0813	0.781–0.845 (19.84–21.46)
ASNA0027SA0814	0.844–0.907 (21.44–23.03)

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

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How to read the part number



Segment	Reads as	Unit of the code · from
ASNA0027 Standard	Blind bolt with pulled stem and locking collar (MAXIBOLT type), steel or A-286 stainless. Head: protruding cylindrical head.	None: the number of the standard · The standard
S Type	With driving cap or washer, single-action installation, -MB pulling heads	Letter, no unit · Letter list; the meanings marked as a reading come from the partner standards
B Material	A-286 stainless, 95 ksi class	Letter, no unit · Letter list; the meanings marked as a reading come from the partner standards
05 Diameter	5/32 in nominal: 5 × 1/32 in (0.156 in · 3.969 mm, our conversion); body diameter 0.163 in · 4.14 mm; hole 0.164–0.167 in · 4.16–4.24 mm (mm by context); deburr diameter, max 0.190 in · 4.83 mm (mm by context).	1/32 in, by the inch dash logic (the unit of the code is not printed); inch and mm values are our conversion · Diameter and hole table (Dimensions by size, above)
03 Grip	3/16 in nominal grip; stack 0.156–0.220 in · 3.96–5.59 mm.	1/16 in steps, nominal grip (inch dash logic); the range is printed in mm · Grip table (Part numbers, above)

ASNA0027SB0503 reads: **ASNA0027** Maxibolt-type blind bolt, protruding cylindrical head · **S** washer, -MB heads · **B** stainless steel · **05** 5/32 in, hole 4.16–4.24 mm, drill #19 · **03** 3/16 in, stack 3.96–5.59 mm.

Tools by diameter code

Code	Tool	Straight head	90° head	Offset head
05	G83 (or G704B / G747 with the -456 heads)	H83B-5MB	H828-5MB + adapter 744-300	H782 + insert 782-456 + adapter 744-300
06	G83	H83B-6MB	H828-6MB + adapter 744-300	H856-6MB + adapter 744-300
08	G84	H84A-8MB	none on the standard's sheet	none
U type, 05	as S	H83B-5MBU	H828-5MBU	—
U type, 06	as S	H83B-6MBU	H828-6MB with U nosepiece 828-036	—
U type, 08	as S	H84A-8MBU, H84C-8MBU, H84D-8MBU	—	—

From the standards' tooling table and the maker's pulling-head sheets. U-type heads and the titanium -8 head are the maker's catalogue. The G746A is recommended only for Maxibolt -4 and -5.

Inspection limits

Check	Limit, inch first
Gap under the head	Not more than 0.004 in (0.10 mm, printed in mm). Protruding head: on no more than 10 % of the row and never on 2 consecutive fasteners. Countersunk head: over no more than half the periphery, on no more than 20 % of the row, never on 2 consecutive
Countersunk head flush	Ideal 0; accepted +0.05 / −0.10. Unit not stated (the other tolerances on the sheet are mm): not converted
Stem flush B (on the break)	code 05: ±0.010 in (±0.25 mm); code 06: ±0.010 in (±0.25 mm); code 08: ±0.015 in (±0.38 mm). Millimetres printed and stated
Collar flush A (never proud)	code 05: 0 / −0.017 in (−0.43 mm); code 06: 0 / −0.022 in (−0.56 mm); code 08: 0 / −0.029 in (−0.74 mm). Millimetres printed and stated
Collar	Must never stand beyond the stem after the break; check that it is present

Limits as the standard gives them; the aircraft's SRM governs.

Notes

- Part number: ASNA0027 + type letter (S or U) + material letter (A or B) + diameter code (05, 06 or 08) + grip code (02 to 14).
- The A and U letters are read from the partner standards (MS90353, CR7310 and the maker's -MBU heads): confirm them on the standard. A stem marked C is stainless; no mark is alloy steel. The rows show the S / A variant; swap the letters as the code table says.
- The body is bigger than the nominal fraction: code 05 is 5/32 in nominal (0.156 in) but 0.163 in at the body, and the hole is 0.164–0.167 in. Drill from the hole table, never from the nominal.
- Protruding head: deburr the hole edge, up to the largest deburr diameter of the table. The countersink never goes through the sheet: a straight bore of at least 0.008 in (0.2 mm, printed in mm) remains.
- The Maxibolt grip code n is shifted 1/32 in against the Cherry-type codes (code 04 is 0.219–0.282 in here, 0.188–0.250 in on CherryMAX). Lengths in work documents are indicative: measure the stack with a grip gauge.
- Units: no mark = printed in mm and stated by the standard. † = printed with no unit; the inch value is our conversion, reading the figure as mm. Nominal Ø is our reading of the inch code (1/32 in for diameters, 1/16 in for grips). Drill: from the site drill chart, inside the hole range.

SOURCES · ASNA0027 standard · Cherry Aerospace pulling-head sheets · US federal item records and distributor listings

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/blind-fasteners/asna0027/

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