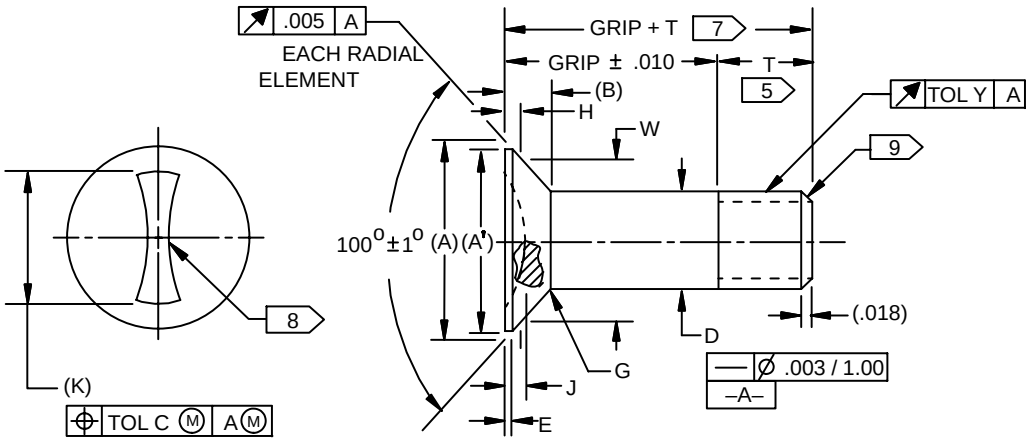


100 DEG FLUSH HEAD
(SEE TABLE I FOR DIMENSIONS)

DIMENSIONING AND TOLERANCING PER ANSI Y14.5M–1982.
DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.
DIMENSIONS TO BE MET AFTER PLATING, EXCEPT AS NOTED.

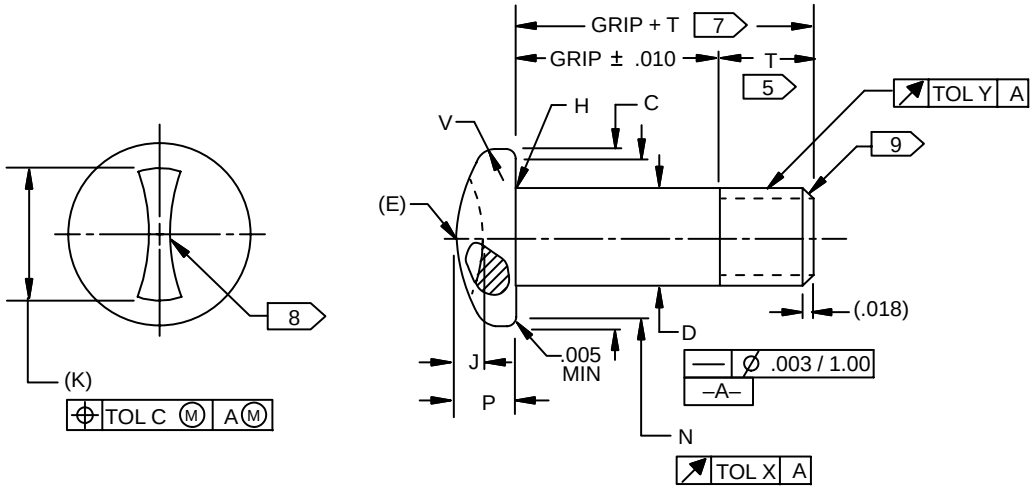
TABLE I

BOEING STANDARD NUMBER BACB30EM 1 6	NOMINAL THREAD SIZE UNJF–3A PER MIL–S–8879	Ø A TO SHARP CORNER REF 2	Ø' A' MIN REF 2	B HEAD HT MAX REF 2	C TOL	Ø D		E MAX	G RAD		Ø H GAGE PROTRUSION 3	
						BEFORE PLATE ± .0002	AFTER PLATE ± .0005		MAX	MIN	NOM	± TOL
3 10	.1900–32	.383	.337	.083	.016	.1881	.1890	.015			.0215	.0015
4	.2500–28	.510	.445	.112	.016	.2481	.2490	.018	.020	.010	.0305	.0017
5	.3125–24	.637	.574	.139	.024	.3106	.3115	.021			.0360	.0018
6	.3750–24	.765	.691	.167	.024	.3731	.3740	.025	.030	.015	.0420	.0019

TECHNICAL CHANGES IDENTIFIED BY REVISION BAR.

TABLE I (CONTINUED)

BOEING STANDARD NUMBER BACB30EM 1 6	J		K REF	T 5		∅ W GAGE +.0002 –.0000 3	Y TOL	MIN BOLT TORQUE IN. LBS. 4	RECESS NO. 8
	MAX	MIN		SHORT THREAD	LONG THREAD				
3 10	.045	.042	.305	– – –	.338	.3270	.0045	50	3
4	.054	.051	.422	.316	.425	.4318	.0045	125	4
5	.064	.061	.490	.375	.469	.5449	.0045	200	5
6	.088	.084	.639	.391	.578	.6580	.0060	380	6



PAN HEAD

(SEE TABLE II FOR DIMENSIONS)

TABLE II

BOEING STANDARD NUMBER BACB30EM 1 6	NOMINAL THREAD SIZE UNJF–3A PER MIL–S–8879	∅ C		∅ D				E RAD REF	H RAD		J	
				BEFORE PLATING		AFTER PLATING						
		MAX	MIN	MAX	MIN	MAX	MIN		MAX	MIN	MAX	MIN
3 10	.1900–32	.373	.357	.1883	.1879	.1895	.1885	.52			.061	.055
4	.2500–28	.492	.473	.2483	.2479	.2495	.2485	.74	.020	.010	.078	.072
5	.3125–24	.615	.594	.3108	.3104	.3120	.3110	1.01			.093	.087
6	.3750–24	.740	.716	.3733	.3729	.3745	.3735	1.26	.030	.015	.129	.121

TABLE II (CONTINUED)

BOEING STANDARD NUMBER BACB30EM [1] [6]	∅K REF	∅N	P		T [5]		V		X TOL	Y TOL	MIN BOLT TORQUE IN. LBS [4]	RECESS NO. [8]
		MIN	MAX	MIN	SHORT THREAD	LONG THREAD	MAX	MIN				
3 [10]	.340	.331	.132	.122	.276	– – –	.060	.050	.005	.0045	50	3
4	.440	.424	.175	.162	.316	.425	.065	.055	.006	.0045	125	4
5	.535	.518	.218	.203	.375	.469	.075	.060	.008	.0045	200	5
6	.685	.611	.261	.244	.391	.578	.080	.065	.009	.0060	380	6

NOTES

[1] TO DETERMINE THE GRIP LENGTH NUMBER, DIVIDE THE DIMENSIONAL THICKNESS OF PARTS BEING JOINED BY .0625. ROUND OFF DECIMALS TO NEXT LARGER WHOLE NUMBER.

TO DETERMINE THE GRIP LENGTH, MULTIPLY THE GRIP LENGTH NUMBER BY .0625. THE GRIP LENGTH IS MEASURED FROM THE TOP OF THE HEAD TO THE END OF THE FULL CYLINDRICAL PORTION OF SHANK.

[2] DIMENSIONS A, A′ AND B ARE INCLUDED FOR ENGINEERING REFERENCE PURPOSES ONLY. VALUES A, A′ AND B ARE CALCULATED LIMITS RESULTING FROM TOLERANCES ON D, W, H, E, AND HEAD ANGLE.

[3] INSPECTION OF GAGE PROTRUSION “H” AT GAGE DIAMETER “W” SHALL CONFORM TO BOEING DOCUMENT D–11805.

[4] VALUES BASED ON USE OF SOLID DRIVER. THE RECESS SHALL NOT DISTORT AT TORQUE VALUES LESS THAN THOSE SHOWN ABOVE. TORQUE TEST ON A SAMPLE BASIS AS FOLLOWS: SAMPLE PER MIL–STD–105, LEVEL S1, 4PCT AQL. USE APPLICABLE NASM33750 DRIVER; AXIAL FORCE SHALL NOT EXCEED 15 POUNDS. AT MINIMUM TORQUE PER TABLE I AND TABLE II, BOLTS SHALL NOT FRACTURE AND DISTORTION SHALL NOT RAISE METAL ADJACENT TO SLOT MORE THAN .005 ABOVE THE SURROUNDING AREA.

[5] THE “T” DIMENSION IS NOMINAL AND DOES NOT HAVE AN APPLIED TOLERANCE. “T” IS NOT TO BE INSPECTED BUT IS USED IN CALCULATION OF NOMINAL BOLT LENGTH. [7]

[6] SEE CODING UNDER USAGE AND APPLICATION FOR COMPLETE BOEING PART NUMBER.

[7] THE TOLERANCE ±.015 SHALL BE APPLIED TO A NOMINAL LENGTH DIMENSION DETERMINED BY ADDING THE NOMINAL GRIP LENGTH (GRIP LENGTH NUMBER TIMES .0625) AND “T” FROM TABLE I AND TABLE II.

[8] RECESS STYLE I PER NASM33750, EXCEPT DIMPLE IS OPTIONAL.

NOTES (CONTINUED)

9 END SHALL BE FLAT AND CHAMFERED PER BPS–F–69.

10 SIZE 3 FLUSH HEAD BOLTS ARE AVAILABLE IN LONG THREAD ONLY; SIZE 3 PAN HEAD BOLTS ARE AVAILABLE IN SHORT THREAD ONLY.

11 NO LONGER IN OPERATION. PARTS MANUFACTURED PRIOR TO JANUARY 17, 1994 MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.

12 HUCK LAKEWOOD (FORMERLY DEUTSCH FASTENER CORP) IS NO LONGER IN OPERATION. PARTS MANUFACTURED AT THAT FACILITY (CAGE CODE 97928) UNDER EITHER NAME PRIOR TO OCTOBER 1, 1999 MAY BE RECEIVED BY BOEING AND ITS SUBCONTRACTORS UNTIL OCTOBER 1, 2004.

PROCUREMENT SPECIFICATION

NAS498, EXCEPT AS NOTED.

MATERIAL

ALLOY STEEL – 4340 PER MIL–S–5000; 8740 PER MIL–S–6049 OR AMS 6322; OR AMS 6304.

HEAT TREATMENT

160 TO 200 KSI PER MIL–H–6875 (FOR 4340 OR 8740) OR PER AMS 7455 (FOR AMS 6304).

FINISH

DIFFUSED NICKEL–CADMIUM PLATE PER AMS 2416.

SURFACE TEXTURE

PER ASME B46.1. “D” DIAMETER, BEARING SURFACE OF HEAD, THREAD FLANKS AND THREAD ROOT, 32 MICROINCHES Ra; BOTTOM SURFACE OF RECESS, 250 MICROINCHES Ra; ALL OTHER SURFACES, 125 MICROINCHES Ra.

MARKING

BOEING PART NUMBER, INCLUDING DASH NUMBERS AND LETTERS AS APPLICABLE, PLUS SUPPLIER’S SYMBOL/INSIGNIA PER MIL–HDBK–57 OR REGISTERED WITH THE U.S. PATENT AND TRADEMARK OFFICE (PTO) OF THE U.S. DEPARTMENT OF COMMERCE. MARKING DEPRESSED .010 MAXIMUM ARRANGEMENT OF MARKING OPTIONAL. “BAC” MAY BE OMITTED ON .1900–32 OR .2500–28 SIZE.

PROCUREMENT

FAIRCHILD FASTENERS, INDUSTRY OPERATIONS,
13001 E TEMPLE AVE, PO BOX 730, CITY OF INDUSTRY CA 91746–1417
(CAGE CODE 06950)

FAIRCHILD FASTENERS, INDUSTRY OPERATIONS, 135 NORTH UNRUH AVENUE,
CITY OF INDUSTRY CA 91744 (CAGE CODE 1RC86)

FAIRCHILD AEROSPACE FASTENER DIVISION, CHATSWORTH OPERATIONS,
9631 DESOTO AVE, CHATSWORTH CA 91311–5013 (CAGE CODE 9N513) 11

HI–SHEAR CORP, 2600 SKYPARK DR, TORRANCE CA 90509 (CAGE CODE 73197)

HUCK INTERNATIONAL INC, LAKEWOOD OPERATIONS, 3969 PARAMOUNT BLVD,
LAKEWOOD CA 90712–4193 (CAGE CODE 97928) 12

SPS TECHNOLOGIES, AEROSPACE PRODUCTS DIVISION, HIGHLAND AVE,
JENKINTOWN PA 19046 (CAGE CODE 56878)

THE MANUFACTURERS LISTED AND THEIR AUTHORIZED DISTRIBUTORS ARE THE ONLY APPROVED SOURCES FOR THE ABOVE QUALIFIED PRODUCTS. NO CHANGES IN PRODUCT DESIGN, BASIC METHODS OF MANUFACTURE, PLANT SITE OR QUALITY LEVEL SHALL BE MADE WITHOUT PRIOR NOTIFICATION AND PRIOR APPROVAL IN WRITING FROM THE BOEING COMPANY. MANUFACTURERS OF COMPETITIVE PRODUCTS MAY APPLY TO A SUPPLIER MANAGEMENT AND PROCUREMENT DEPARTMENT OF THE BOEING COMPANY FOR QUALIFICATION.

USAGE AND APPLICATION INFORMATION

SEE BACB30EW FOR OVERSIZE PARTS.

THESE BOLTS ARE FOR USE IN APPLICATIONS REQUIRING SHORT TIME EXPOSURE TO TEMPERATURES UP TO 900 F AND NOT REQUIRING REMOVAL AFTER EXPOSURE TO HIGH TEMPERATURES.

CODING

NO CODE FOLLOWING BASIC NUMBER DESIGNATES 100 DEGREE HEAD.

LETTER "–P" FOLLOWING BASIC NUMBER DESIGNATES PAN HEAD.

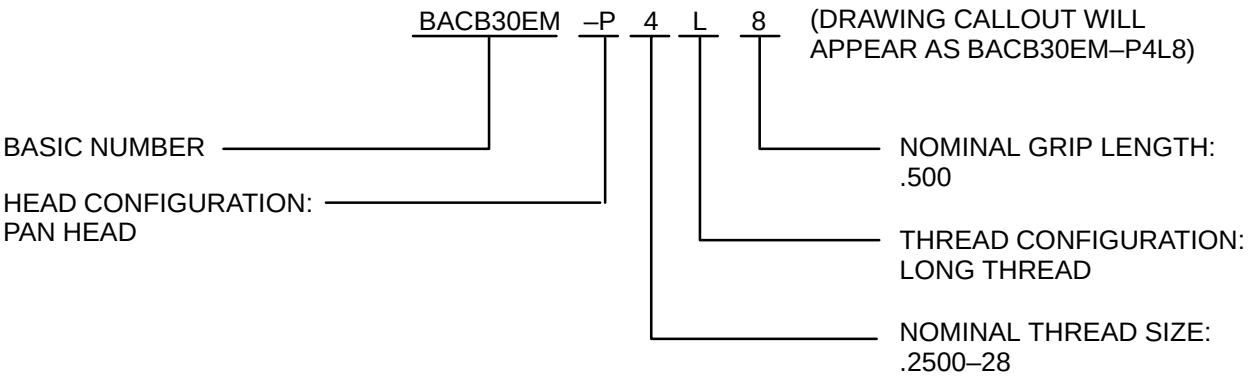
FIRST DASH NUMBER DESIGNATES NOMINAL THREAD SIZE IN .0625 INCREMENTS.

DASH ("–") FOLLOWING FIRST DASH NUMBER DESIGNATES SHORT THREAD.

LETTER "L" FOLLOWING FIRST DASH NUMBER DESIGNATES LONG THREAD.

SECOND DASH NUMBER DESIGNATES NOMINAL GRIP LENGTH IN .0625 INCREMENTS.

EXAMPLE OF PART NUMBER



SEE D–590 PREFACE (INDEX) FOR INACTIVATION DEFINITIONS. SEE D–590–SUPERSESSION–LIST FOR SUPERSESSION CLASS DEFINITIONS AND SUPERSESSION LIST.

INACTIVATION APPLICABILITY

BCAG – BACB30EM IS INACTIVE FOR NEW DESIGN.
SEE BACB30LP.