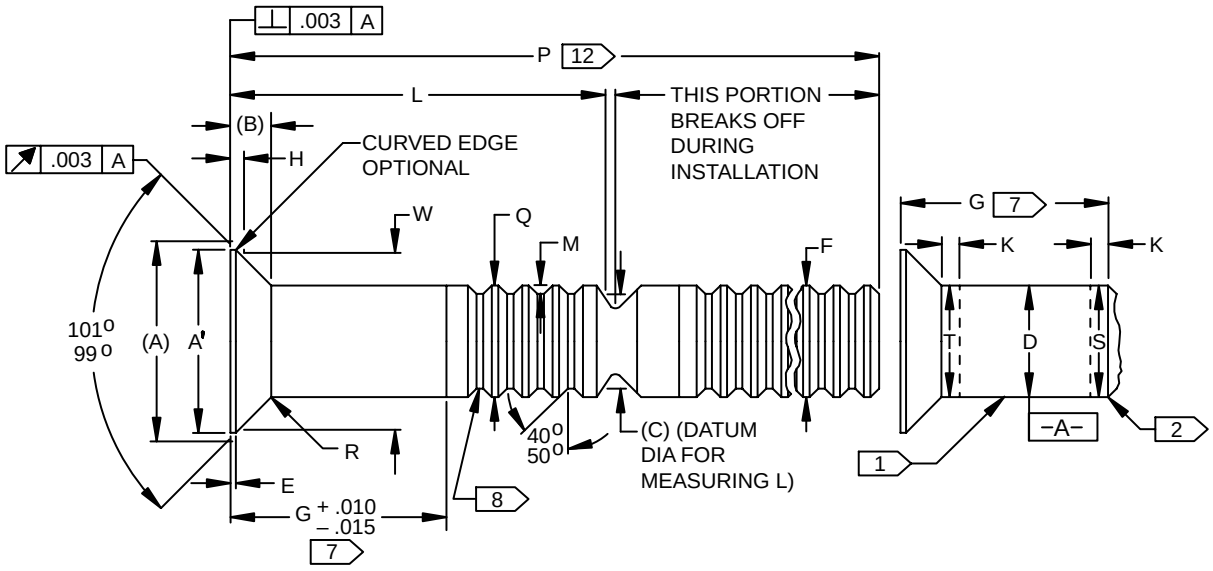


DIMENSIONING AND TOLERANCING PER ANSI Y14.5M–1982.
DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.

TABLE I 11 10

BOEING STANDARD NUMBER BACB30DY 9	NOM SIZE	∅ A REF TO SHARP CORNER MAX 3	∅ A′ MIN	B REF HEAD HEIGHT MAX 3	∅ C REF	∅ D NOMINAL		∅ D .0156 OVERSIZE 6	
						MAX	MIN	MAX	MIN
5 5	.164	.292	.263	.055	.136	.1650	.1635	– – –	– – –
6	.190	.357	.316	.071	.164	.1895	.1880	.2025	.2010
8	.250	.480	.428	.098	.224	.2495	.2480	.2650	.2635
10	.312	.568	.508	.109	.268	.3120	.3105	.3275	.3260
12	.375	.698	.629	.137	.339	.3745	.3730	.3900	.3885

TECHNICAL CHANGES IDENTIFIED BY REVISION BAR.

TABLE I (CONTINUED) 11 10

BOEING STANDARD NUMBER BACB30DY 9	E MAX LAND	∅ F MAX	H GAGE PROTRUSION 4		∅ J NOMINAL 1		∅ J .0156 OVERSIZE 1 6		K MAX 1	L ±.010 7
			NOM	± TOL	MAX	MIN	MAX	MIN		
5 5	.008	.158	.0130	.0018	.1670	.1635	– – –	– – –	.026	G+.188
6	.013	.183	.0224	.0019	.1915	.1880	.2045	.2010	.031	G+.233
8	.017	.243	.0290	.0020	.2515	.2480	.2670	.2635	.042	G+.312
10	.020	.299	.0346	.0021	.3140	.3105	.3295	.3260	.052	G+.440
12	.023	.359	.0404	.0024	.3765	.3730	.3920	.3885	.062	G+.547

TABLE I (CONTINUED) 11 10

BOEING STANDARD NUMBER BACB30DY 9	M		P ±.05 12	∅ Q		R RAD		∅ S NOMINAL 1		∅ S .0156 OVERSIZE 1 6		∅ W GAGE +.0002 –.0000 4
	MAX	MIN		MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
5 5	.012	.008	G+1.19	.158	.152	.020	.010	.1650	.1625	– – –	– – –	.2558
6	.014	.010	G+1.23	.185	.177	.020	.010	.1895	.1870	.2025	.2000	.2980
8	.018	.014	G+1.31	.242	.235	.020	.010	.2495	.2470	.2650	.2625	.4048
10	.023	.017	G+1.44	.305	.294	.025	.010	.3120	.3095	.3275	.3250	.4789
12	.027	.021	G+1.55	.368	.361	.030	.010	.3745	.3720	.3900	.3875	.5940

NOTES

1 SHANK TAPER ALLOWED: “J” DIAMETER FOR “K” LENGTH UNDER HEAD MEASURED FROM TANGENT OF RADIUS “R”; “S” DIAMETER FOR “K” LENGTH AT END OF SHANK; “D” DIAMETER FOR REMAINDER OF SHANK.

2 TAPER AND LOCKING GROOVE ANGLES AT END OF SHANK NEED NOT BLEND. SLIGHT HOOK AT JUNCTURE OF ANGLES AND KNURLING NORMAL TO COLD ROLLING PERMISSIBLE.

3 DIMENSIONS A AND B: FOR ENGINEERING REFERENCE ONLY. NOT FOR INSPECTION PURPOSES. VALUES A AND B ARE CALCULATED LIMITS RESULTING FROM TOLERANCES ON D, W, H, E AND HEAD ANGLE.

4 HEAD PROTRUSION MEASUREMENT IN ACCORDANCE WITH D–11805, INSPECTION METHOD A.

NOTES (CONTINUED)

5 FOR (REPAIR ONLY) OVERSIZE, TO REPLACE BACB30DY5 BOLTS USE BACB30DY6 BOLTS.

6 RESTRICTED USAGE, REPAIR ONLY.

7 G = GRIP. THE NUMBER DESIGNATING GRIP EQUALS REQUIRED GRIP LENGTH DIVIDED BY .0625.

8 4 GROOVES FOR .164, .190 AND .250 SIZES. 5 GROOVES FOR .312 AND .375 SIZES.

9 SEE CODING UNDER USAGE AND APPLICATION FOR COMPLETE BOEING PART NUMBER.

10 SHANK STRAIGHTNESS: WITHIN .004 (FOR .164 AND .190 SIZE) AND .003 (FOR LARGER SIZES) WHEN MEASURED WITH A FEELER GAGE (.25 WIDE) AND SURFACE PLATE.

11 DIMENSIONS FOR PLATED PARTS TO BE MET AFTER PLATING.

12 FOR .0156 OVERSIZE LENGTH IS OPTIONAL TO VENDOR DUE TO VARIATIONS IN PINTAIL LENGTH. PINTAIL MUST BE ADEQUATE FOR INSTALLATION PER BAC5004.

13 FORMERLY TEXTRON AEROSPACE. NAME CHANGE ONLY. NO CHANGE TO PLANT LOCATION OR FACILITIES. STOCK MANUFACTURED UNDER THE TEXTRON AEROSPACE FASTENERS NAME MAY BE PROCURED AND USED UNTIL DEPLETED.

14 HUCK INTERNATIONAL INC (CARSON) IS NOW ALCOA FASTENING SYSTEMS – CARSON. THIS CHANGE WAS A NAME CHANGE ONLY. STOCK MANUFACTURED UNDER THE HUCK NAME MAY BE PROCURED AND USED UNTIL DEPLETED.

PROCUREMENT SPECIFICATION

BPS–F–46 EXCEPT AS NOTED. NO MAGNETIC INSPECTION REQUIRED.

MATERIAL

DASH "–" – ALLOY STEEL, 8740 (PREFERRED) PER MIL–S–6049 OR AMS 6322.
OPTIONAL MATERIAL: 4340 PER MIL–S–5656; OR AMS 6304.
(CADMIUM PLATED ONLY – SEE FINISH CODE BELOW.)

LETTER "A" – A286 CORROSION RESISTANT STEEL PER AMS 5737.
(CADMIUM PLATED OR UNPLATED – SEE FINISH CODE BELOW.)

LETTER "D" – ALLOY STEEL, E4340 PER MIL–S–5000 OR AMS–S–5000.
OPTIONAL MATERIAL; AMS 6304, 8740 PER MIL–S–6049 OR AMS 6322.
(CADMIUM–NICKEL PLATED ONLY – SEE FINISH CODE BELOW.)

HEAT TREATMENT

PER BPS–F–46. SEE BPS–F–46 FOR TEST METHODS.

FINISH

NO LETTER – CADMIUM PLATE PER AMS–QQ–P–416, TYPE II, CLASS 2. IDENTIFY CADMIUM PLATED A286 WITH THIN GREEN DYE ON AT LEAST HALF OF THE PINTAIL PRIOR TO LUBRICATION (FOR "–" AND "A" CODED MATERIALS ONLY).

LETTER "N" – DIFFUSED NICKEL–CADMIUM PLATE PER AMS 2416 FOR ALLOY STEEL (4340, ETC; CODE "D" MATERIAL ONLY).

LETTER "U" – PASSIVATE PER AMS 2700, METHOD 1, TYPE 2 OR TYPE 8, CLASS 1, FOR UNPLATED A286.

SURFACE TEXTURE

PER ASME B46.1 – CONICAL SURFACE OF HEAD, HEAD TO SHANK FILLET AND SHANK 63 MICROINCHES Ra, OTHER SURFACES 125 MICROINCHES Ra.

LUBRICATION

CETYL ALCOHOL PER MIL–L–87132, TYPE I OR TYPE III, GRADE OPTIONAL.

HEAD MARKING

NOMINAL

TWO DEPRESSED BARS (DESIGNATES TYPE OF FASTENER). MANUFACTURER'S SYMBOL/INSIGNIA RECOGNIZED BY MIL–HDBK–57 OR REGISTERED WITH THE U.S. PATENT AND TRADEMARK OFFICE (PTO) OF THE U.S. DEPARTMENT OF COMMERCE TRADEMARK OPTIONAL.

.0156 OVERSIZE

DEPRESSED PLATEAU WITH TWO RAISED BARS AND MANUFACTURER'S SYMBOL/INSIGNIA RECOGNIZED BY MIL–HDBK–57 OR REGISTERED WITH THE U.S. PATENT AND TRADEMARK OFFICE (PTO) OF THE U.S. DEPARTMENT OF COMMERCE.

ADD "DT" FOR 4340 AND AMS 6304 MATERIAL.

ADD "EU" FOR A286 MATERIAL.

MARKING INDENTED .010 MAXIMUM: ARRANGEMENT OPTIONAL.

PROCUREMENT

ALCOA FASTENING SYSTEMS – CARSON (CAGE CODE 17446) 14

CHERRY AEROSPACE LLC (CAGE CODE 11815) 13

THE MANUFACTURERS LISTED IN BPS–F–46SUP AND THEIR AUTHORIZED DISTRIBUTORS ARE THE ONLY APPROVED SOURCES FOR THE ABOVE QUALIFIED PRODUCTS. SEE BPS–F–46SUP FOR PLANT ADDRESSES. 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. IF A MANUFACTURER IS SHOWN ON THIS STANDARD, BUT NOT LISTED IN THE SUPPLEMENT, CONTACT THE DIVISIONAL ENGINEERING STANDARDS FOCAL POINT OR ENGINEERING STANDARDS FOR VERIFICATION.

USAGE AND APPLICATION INFORMATION

STRUCTURE THICKNESS RANGE (FOR DESIGN) MAXIMUM = G + .031 MINIMUM = G – .030

LOCKBOLTS AND COLLARS ARE RECOMMENDED FOR USE IN LIEU OF BOLTS AND NUTS WHERE A PERMANENT TYPE FASTENER IS SATISFACTORY. LOCKBOLTS AND COLLARS PROVIDE REDUCTION IN WEIGHT AND INSTALLED COST.

.0156 OVERSIZE BOLTS ARE TO BE USED AS REPLACEMENTS FOR STANDARD SIZE BACB30DY AND NAS1476 THRU NAS1482 WHEN THE HOLE FOR STANDARD SIZE BOLT IS OVERSIZE OR MUST BE MADE OVERSIZE TO CORRECT DAMAGE OR MISALIGNMENT. 6

CODING

FIRST DASH NUMBER DESIGNATES NOMINAL DIAMETER IN .031 INCREMENTS. SEE TABLE I.

A DASH "–" FOLLOWING THE FIRST DASH NUMBER DESIGNATES 8740 MATERIAL PREFERRED.

LETTER "D" FOLLOWING THE FIRST DASH NUMBER DESIGNATES 4340 MATERIAL PREFERRED.

LETTER "A" FOLLOWING THE FIRST DASH NUMBER DESIGNATES A286 CRES.

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

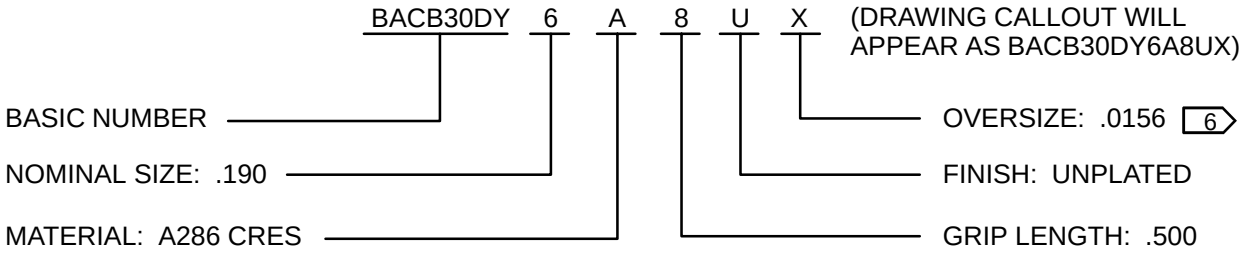
NO LETTER FOLLOWING SECOND DASH NUMBER DESIGNATES CADMIUM PLATED (APPLICABLE TO DASH "–" AND CODE "A" MATERIALS ONLY).

LETTER "N" FOLLOWING SECOND DASH NUMBER DESIGNATES CADMIUM–NICKEL PLATED (APPLICABLE TO CODE "D" MATERIALS ONLY).

LETTER "U" FOLLOWING THE SECOND DASH NUMBER DESIGNATES UNPLATED (APPLICABLE TO CODE "A" MATERIAL ONLY).

LETTER "X" FOLLOWING THE SECOND DASH NUMBER DESIGNATES .0156 OVERSIZE. 6

EXAMPLE OF PART NUMBER



FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK

FASTENER CODE

SEE BACD2074 FOR FASTENER CODES.

INSTALL PER BAC5004–2.

SEE D–590–PREFACE (INDEX) FOR INACTIVATION DEFINITIONS. SEE D–590–SUPERSESSION–LIST FOR SUPERSESSION CLASS DEFINITIONS AND SUPERSESSION LIST. SEE D–590–BOEING–TO–VENDOR FOR VENDOR PART NUMBERS.

INACTIVATION APPLICABILITY

BCA, BH, IDS – INACTIVE FOR NEW DESIGN. SEE BACB30UA FOR NEW DESIGN.

BCA – BACB30DY( )–( ) AND BACB30DY( )D( )N ARE INACTIVE FOR DESIGN AND PROCUREMENT.
BACB30DY( )A( ) IS A CLASS II SUPERSESSION.

BACB30DY( )–( )X AND BACB30DY( )D( )NX ARE INACTIVE FOR DESIGN AND PROCUREMENT.
BACB30DY( )A( )X IS A CLASS II SUPERSESSION