

THUMB SCREWS AND WING SCREWS**ANSI/ASME
B18.17
1968 (R1983)****IFI Notes:**

1. *ANSI/ASME B18.17 is a standard developed through the procedures of The American Society of Mechanical Engineers. B18.17 is under the jurisdiction of ASME Standards Committee B18.*
2. *B18.17 covers requirements for wing nuts as well as those for thumb and wing screws. The standards for wing nuts are presented on Page D-28.*
3. *The latest edition of B18.17 was published in 1968. It was reviewed and reaffirmed, without technical change, in 1975 and again in 1983.*
4. *ANSI/ASME B18.17 - 1968 is reprinted with the permission of its publisher, The American Society of Mechanical Engineers, United Engineering Center, 345 E. 47th Street, New York, NY 10017 U.S.A.*

1. Introductory Notes.**1.1 Scope.**

1.1.1 This standard is intended to cover the complete general and dimensional data for the various types of wing nuts, thumb screws, and wing screws recognized as American National Standard.

1.1.2 The inclusion of dimensional data in this standard is not intended to imply that all of the products described are stock production sizes. Consumers are requested to consult with manufacturers concerning lists of stock production sizes.

1.2 Wing Nuts.

(For wing nut standards, refer to page D-28.)

1.3 Thumb Screws.

A thumb screw is a screw having a flattened head designed for manual turning without a driver or wrench. The thumb screws covered by this standard are classified by types on the basis of design characteristics. They consist of the following:

1.3.1 *Type A.* Type A thumb screws are forged one-piece screws having a shoulder under head and are available in two series, regular and heavy. Dimensions are given in Tables 1 and 2, respectively.

1.3.2 *Type B.* Type B thumb screws are forged one-piece screws without shoulder and are available in two series, regular and heavy. Dimensions are given in Tables 3 and 4.

1.4 Wing Screws.

A wing screw is a screw having a wing-shaped head designed for manual turning without a driver or wrench. The wing screws covered by this standard are classified, first, by type, on the basis of the method of manufacture and, secondly, by style, on the basis of design characteristics. They consist of the following:

1.4.1 *Type A.* Type A wing screws are of two-piece construction having cold formed or cold forged wing portions of moderate height. In some sizes they are produced in regular, light and heavy series to best suit the requirements of specific applications. Dimensions are given in Table 5.

1.4.2 *Type B.* Type B wing screws are of hot forged one-piece construction available in two wing styles; Style 1, having wings of moderate height; and Style 2, having high wings. Dimensions are given in Table 6 and 7, respectively.

1.4.3 *Type C.* Type C wing screws are available in two styles; Style 1, a one-piece die cast construction having wings of moderate height; and Style 2, a two-piece construction having a die cast wing portion of moderate height. Dimensions are given in Tables 8 and 9, respectively.

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1.4.4 Type D. Type D wing screws are of two-piece welded construction having stamped sheet metal wing portions of moderate height. Dimensions are given in Table 10.

1.5 Dimensions.

All dimensions in this standard are given in inches, unless otherwise stated.

1.6 Options.

Options, where specified, shall be at the discretion of the manufacturer unless otherwise agreed upon by the manufacturer and the user.

1.7 Terminology.

For definitions of terms relating to fasteners or components thereof used in this standard, refer to the Glossary of Terms for Mechanical Fasteners, ANSI/ASME B18.12, page M-1.

2. General Data.

2.1 Designation.

Where specifying thumb and wing screws, the following data shall be included in the designation and shall appear in the sequence shown: nominal size (number, fraction or decimal equivalent), threads per inch, length (fractions or decimal equivalents), type, style and/or series, point (if other than plain point), materials, and finish. See examples below:

10-32 × 1-1/4, Thumb Screw, Type A, Regular, Steel, Zinc Plated.

.375-16 × 2.00, Wing Screw, Type B, Style 2, Steel, Cadmium Plated.

.250-20 × 1.50, Wing Screw, Type C, Style 2, Zinc Alloy Wings, Steel Shank, Brass Plated.

2.2 Design.

The details of head and wing contour shall be optional with the manufacturer provided the specified overall dimensions are maintained. The design of two-piece wing screws shall be such that the wing portions shall be retained on and not rotate about the shank portions where

screws are tightened and loosened with finger pressure.

2.3 Bearing Surface.

The bearing surface of the shoulder on all wing screws and on Type A thumb screws shall be at right angles to the axis of the screw shank within a tolerance of 4 deg. The surface shall be free from burrs, fins, and protruding surface irregularities.

2.4 Length.

2.4.1 Measurement. The length of screw shall be measured parallel to the axis of the screw from the intersection of the head or shoulder with the shank to the extreme point of the screw.

2.4.2 Standard Lengths. The standard length increments within the practical screw length ranges specified in the respective dimensional tables for the various types and sizes of screws shall be as tabulated below:

Nominal Screw Sizes	Nominal Screw Length		Standard Length Increments
	From	To	
4 thru 1/4	0.25 0.75 1.50	0.75 1.50 3.00	0.12 0.25 0.50
5/16 thru 1/2	0.50 1.50 3.00	1.50 3.00 4.00	0.25 0.50 1.00

2.4.3 Tolerance on Length. The tolerance on length of screw shall be as tabulated below:

Nominal Screw Length	Tolerance on Length
Up to 1 including	±0.03
Over 1 to 2, including	±0.06
Over 2	±0.09

2.5 Threads.

Threads for all types of screws shall be in conformance with ANSI/ASME B1.1, Class 2A, page A-26. For threads with additive finish, the maximum diameters of Class 2A may be exceeded by the amount of the allowance; i.e., the Class 2A maximum diameters apply to an un-



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plated screw or to a screw before plating, whereas the basic diameters (Class 2A maximum diameters plus the allowance) apply to a screw after plating.

2.6 Length of Thread.

All types of thumb and wing screws shall have complete (full form) threads extending as close to the head or shoulder as practicable.

2.7 Points.

Thumb and wing screws shall normally be supplied with plain points (sheared ends). Where so specified, screws may be obtained with cone, cup, dog, flat or oval points conforming with dimensions shown in Table 11.

2.8 Material.**2.8.1 Thumb Screws.**

2.8.1.1 Thumb screws of all types shall normally be made from a good commercial quality carbon steel having 48,000 psi minimum ultimate tensile strength.

2.8.1.2 Where so specified, carbon steel thumb screws shall be case hardened.

2.8.1.3 Thumb screws may also be made from corrosion resistant steel, brass and other materials as agreed upon by the manufacturer and user.

2.8.2 Wing Screws.

2.8.2.1 Type A. Type A wing screws shall normally be supplied in carbon steel with the shank portion case hardened. Where so specified, they may also be made from corrosion resistant steel, brass, or other materials as agreed upon by the manufacturer and user.

2.8.2.2 Type B. Type B wing screws shall normally be made from carbon steel. Where so specified, they may also be made from corrosion resistant steel, brass or other materials as agreed upon by the manufacturer and the user.

2.8.2.3 Type C. Type C, Style 1, wing screws shall be supplied only in die cast zinc alloy.

Type C, Style 2, wing screws shall have wing portion made from die cast zinc alloy with shank portion normally made from carbon steel. Where so specified, the shank portion may be made from corrosion resistant steel, brass, or other materials as agreed upon by the manufacturer and user.

2.8.2.4 Type D. Type D wing screws shall normally be supplied in carbon steel. Where so specified, they may also be made from corrosion resistant steel, brass or other materials as agreed upon by the manufacturer and user.

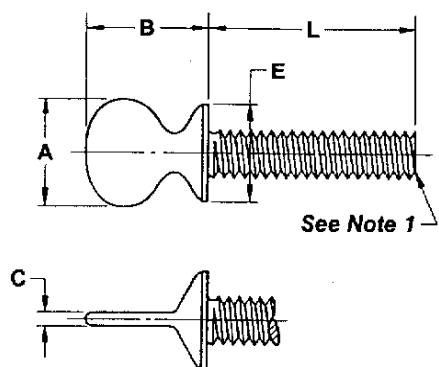
3.9 Finish.

Unless otherwise specified, thumb screws and wing screws shall be supplied with a plain (unplated or uncoated) finish.

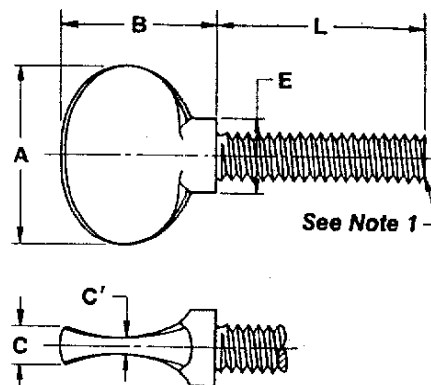
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REGULAR



HEAVY

Table 1 Dimensions of Type A, Regular Thumb Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		E		L	
		Head Width		Head Height		Head Thickness		Shoulder Diameter		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
6 (0.1380)	32	0.31	0.29	0.33	0.31	0.05	0.04	0.25	0.23	0.75	0.25
8 (0.1640)	32	0.36	0.34	0.38	0.36	0.06	0.05	0.31	0.29	0.75	0.38
10 (0.1900)	24 & 32	0.42	0.40	0.48	0.46	0.06	0.05	0.35	0.32	1.00	0.38
12 (0.2160)	24	0.48	0.46	0.54	0.52	0.06	0.05	0.40	0.38	1.00	0.38
1/4 (0.2500)	20	0.55	0.52	0.64	0.61	0.07	0.05	0.47	0.44	1.50	0.50
5/16 (0.3125)	18	0.70	0.67	0.78	0.75	0.09	0.07	0.59	0.56	1.50	0.50
3/8 (0.3750)	16	0.83	0.80	0.95	0.92	0.11	0.09	0.76	0.71	2.00	0.75
See Note 2, 4											

NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. Type A, Regular is equivalent to Type 1 thumb screws covered in Federal Specification FF-T-305.
4. For additional requirements, see Introductory Notes and General Data, page J-22.

Table 2 Dimensions of Type A, Heavy Thumb Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		C'		E		L	
		Head Width		Head Height		Head Thickness		Head Thickness		Shoulder Diameter		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
10 (0.1900)	24	0.89	0.83	0.84	0.72	0.18	0.16	0.10	0.08	0.33	0.31	2.00	0.50
1/4 (0.2500)	20	1.05	0.99	0.94	0.81	0.24	0.22	0.10	0.08	0.40	0.38	3.00	0.50
5/16 (0.3125)	18	1.21	1.15	1.00	0.88	0.27	0.25	0.11	0.09	0.46	0.44	4.00	0.50
3/8 (0.3750)	16	1.41	1.34	1.16	1.03	0.30	0.28	0.11	0.09	0.55	0.53	4.00	0.50
7/16 (0.4375)	14	1.59	1.53	1.22	1.09	0.36	0.34	0.13	0.11	0.71	0.69	2.50	1.00
1/2 (0.5000)	13	1.81	1.72	1.28	1.16	0.40	0.38	0.14	0.12	0.83	0.81	3.00	1.00
See Note 2, 4								1					

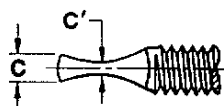
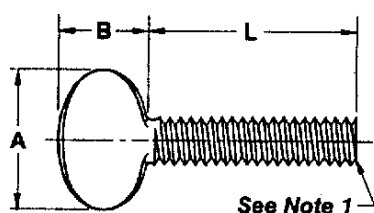
NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. Type A, Heavy, is equivalent to Type 1 thumb screws covered in Federal Specification FF-T-305.
4. For additional requirements, see Introductory Notes and General Data, page J-22.

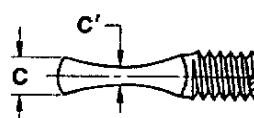
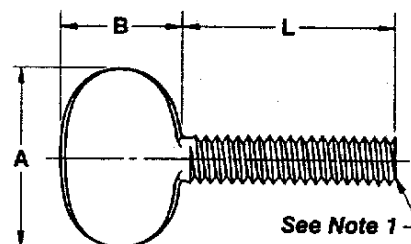


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Table 3 Dimensions of Type B, Regular Thumb Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		C'		L	
		Head Width		Head Height		Head Thickness		Head Thickness		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
6 (0.1380)	32	0.45	0.43	0.28	0.26	0.08	0.06	0.03	0.02	1.00	0.25
8 (0.1640)	32	0.51	0.49	0.32	0.30	0.09	0.07	0.04	0.02	1.00	0.38
10 (0.1900)	24 & 32	0.58	0.54	0.39	0.36	0.10	0.08	0.05	0.03	2.00	0.38
12 (0.2160)	24	0.71	0.67	0.45	0.43	0.11	0.09	0.05	0.03	2.00	0.38
1/4 (0.2500)	20	0.83	0.80	0.52	0.48	0.16	0.14	0.06	0.03	2.50	0.50
5/16 (0.3125)	18	0.96	0.91	0.64	0.60	0.17	0.14	0.09	0.06	3.00	0.50
3/8 (0.3750)	16	1.09	1.03	0.71	0.67	0.22	0.18	0.11	0.08	3.00	0.75
7/16 (0.4375)	14	1.40	1.35	0.96	0.91	0.27	0.24	0.14	0.11	4.00	1.00
1/2 (0.5000)	13	1.54	1.46	1.09	1.03	0.33	0.29	0.15	0.11	4.00	1.00
See Note 2, 4											

NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. Type B, Regular is equivalent to Type II thumb screws covered in Federal Specification FF-T-305.
4. For additional requirements, see Introductory Notes and General Data, page J-22.

Table 4 Dimensions of Type B, Heavy Thumb Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		C'		L	
		Head Width		Head Height		Head Thickness		Head Thickness		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
10 (0.1900)	24	0.89	0.83	0.78	0.66	0.18	0.16	0.08	0.06	2.00	0.50
1/4 (0.2500)	20	1.05	0.99	0.81	0.72	0.24	0.22	0.11	0.09	3.00	0.50
5/16 (0.3125)	18	1.21	1.15	0.88	0.78	0.27	0.25	0.11	0.09	4.00	0.50
3/8 (0.3750)	16	1.41	1.34	0.94	0.84	0.30	0.28	0.14	0.12	4.00	0.50
7/16 (0.4375)	14	1.59	1.53	1.00	0.91	0.36	0.34	0.14	0.12	3.00	1.00
1/2 (0.5000)	13	1.81	1.72	1.09	0.97	0.40	0.38	0.18	0.16	3.00	1.00
See Note 2, 4											

NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. Type B, Heavy, is equivalent to Type II thumb screws covered in Federal Specification FF-T-305.
4. For additional requirements, see Introductory Notes and General Data, page J-22.

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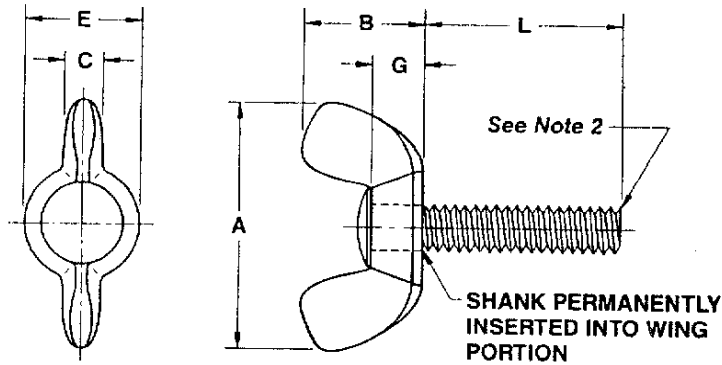


Table 5 Dimensions of Type A, Wing Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	Series	Head Blank Size (Ref)	A		B		C		E		G		L	
				Wing Spread		Wing Height		Wing Thickness		Boss Diameter		Boss Height		Practical Screw Lengths	
				Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
4 (0.1120)	40	Heavy	AA	0.72	0.59	0.41	0.28	0.11	0.07	0.33	0.29	0.14	0.10	0.75	0.25
6 (0.1380)	32	Light	AA	0.72	0.59	0.41	0.28	0.11	0.07	0.33	0.29	0.14	0.10	0.75	0.25
		Heavy	A	0.91	0.78	0.47	0.34	0.14	0.10	0.43	0.39	0.18	0.14		
8 (0.1640)	32	Light	A	0.91	0.78	0.47	0.34	0.14	0.10	0.43	0.39	0.18	0.14	0.75	0.38
		Heavy	B	1.10	0.97	0.57	0.43	0.18	0.14	0.50	0.45	0.22	0.17		
10 (0.1900)	24 & 32	Light	A	0.91	0.78	0.47	0.34	0.14	0.10	0.43	0.39	0.18	0.14	1.00	0.38
		Heavy	B	1.10	0.97	0.57	0.43	0.18	0.14	0.50	0.45	0.22	0.17		
12 (0.2160)	24	Light	B	1.10	0.97	0.57	0.43	0.18	0.14	0.50	0.45	0.22	0.17	1.00	0.38
		Heavy	C	1.25	1.12	0.66	0.53	0.21	0.17	0.58	0.51	0.25	0.20		
1/4 (0.2500)	20	Light	B	1.10	0.97	0.57	0.43	0.18	0.14	0.50	0.45	0.22	0.17	1.50	0.50
		Regular	C	1.25	1.12	0.66	0.53	0.21	0.17	0.58	0.51	0.25	0.20		
		Heavy	D	1.44	1.31	0.79	0.65	0.24	0.20	0.70	0.64	0.30	0.26		
5/16 (0.3125)	18	Light	C	1.25	1.12	0.66	0.53	0.21	0.17	0.58	0.51	0.25	0.20	1.50	0.50
		Regular	D	1.44	1.31	0.79	0.65	0.24	0.20	0.70	0.64	0.30	0.26		
		Heavy	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35		
3/8 (0.3750)	16	Light	D	1.44	1.31	0.79	0.65	0.24	0.20	0.70	0.64	0.30	0.26	2.00	0.75
		Regular	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35		
		Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51		
7/16 (0.4375)	14	Light	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35	4.00	1.00
		Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51		
1/2 (0.5000)	13	Light	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35	4.00	1.00
		Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51		
5/8 (0.6250)	11	Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51	4.00	1.25
See Note 3, 4															

NOTES:

- Sizes shown in bold type are preferred.
- Plain point, unless alternate point from styles shown in Table 11 is specified by user.
- Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
- For additional requirements, see Introductory Notes and General Data, page J-22.

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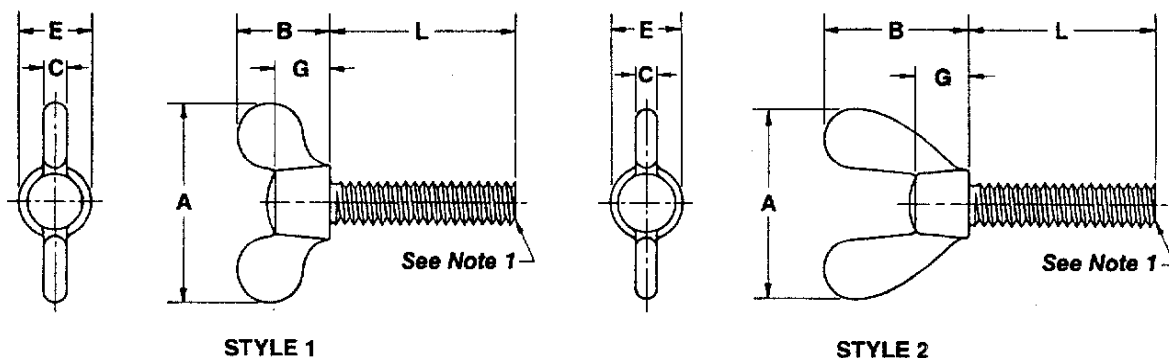
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Table 6 Dimensions of Type B, Style 1 Wing Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		E		G		L	
		Wing Spread		Wing Height		Wing Thickness		Boss Diameter		Boss Height		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
10 (0.1900)	24	0.97	0.91	0.45	0.39	0.15	0.12	0.39	0.36	0.28	0.22	2.00	0.50
1/4 (0.2500)	20	1.16	1.09	0.56	0.50	0.17	0.14	0.47	0.44	0.34	0.28	3.00	0.50
5/16 (0.3125)	18	1.44	1.38	0.67	0.61	0.18	0.15	0.55	0.52	0.41	0.34	3.00	0.50
3/8 (0.3750)	16	1.72	1.66	0.80	0.73	0.20	0.17	0.63	0.60	0.47	0.41	4.00	0.50
7/16 (0.4375)	14	2.00	1.94	0.91	0.84	0.21	0.18	0.71	0.68	0.53	0.47	3.00	1.00
1/2 (0.5000)	13	2.31	2.22	1.06	0.94	0.23	0.20	0.79	0.76	0.62	0.50	3.00	1.00
5/8 (0.6250)	11	2.84	2.72	1.31	1.19	0.27	0.23	0.96	0.92	0.75	0.62	2.50	1.00
See Note 2, 3													

NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. For additional requirements, see Introductory Notes and General Data, page J-22.

Table 7 Dimensions of Type B, Style 2 Wing Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		E		G		L	
		Wing Spread		Wing Height		Wing Thickness		Boss Diameter		Boss Height		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
10 (0.1900)	24	1.01	0.95	0.78	0.72	0.14	0.11	0.39	0.36	0.28	0.22	1.25	0.50
1/4 (0.2500)	20	1.22	1.16	0.94	0.88	0.16	0.13	0.47	0.44	0.34	0.28	2.00	0.50
5/16 (0.3125)	18	1.43	1.37	1.09	1.03	0.17	0.14	0.55	0.52	0.41	0.34	2.00	0.50
3/8 (0.3750)	16	1.63	1.57	1.25	1.19	0.18	0.15	0.63	0.60	0.47	0.41	2.00	0.50
See Note 2, 3													

NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. For additional requirements, see Introductory Notes and General Data, page J-22.



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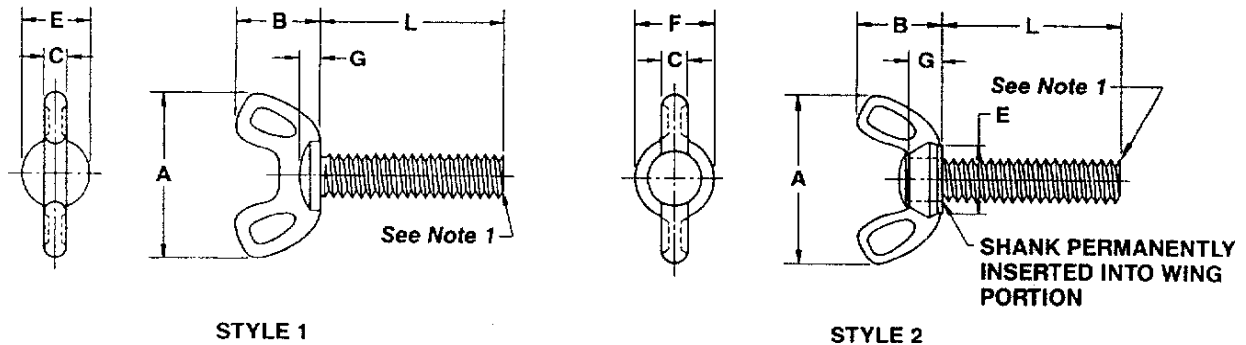


Table 8 Dimensions of Type C, Style 1 Wing Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		F		G		L	
		Wing Spread		Wing Height		Wing Thickness		Boss Diameter		Boss Height		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
6 (0.1380)	32	0.85	0.83	0.45	0.43	0.15	0.12	0.41	0.39	0.12	0.07	0.75	0.25
8 (0.1640)	32	0.85	0.83	0.45	0.43	0.15	0.12	0.41	0.39	0.12	0.07	1.00	0.38
10 (0.1900)	24 & 32	0.85	0.83	0.45	0.43	0.15	0.12	0.41	0.39	0.12	0.07	1.25	0.38
1/4 (0.2500)	20	1.08	1.05	0.56	0.53	0.17	0.14	0.46	0.44	0.12	0.07	1.50	0.50
5/16 (0.3125)	18	1.23	1.20	0.64	0.62	0.22	0.19	0.51	0.49	0.14	0.10	1.50	0.50
3/8 (0.3750)	16	1.45	1.42	0.74	0.72	0.24	0.21	0.63	0.62	0.15	0.12	1.50	0.50
See Note 2, 3													

NOTES:

1. Plain point.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. For additional requirements, see Introductory Notes and General Data, page J-22.

Table 9 Dimensions of Type C, Style 2 Wing Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		E		F		G		L	
		Wing Spread		Wing Height		Wing Thickness		Boss Diameter		Boss Diameter		Boss Height		Practical Screw Lengths	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
6 (0.1380)	32	0.85	0.83	0.43	0.42	0.14	0.12	0.38	0.36	0.41	0.40	0.20	0.18	1.00	0.25
8 (0.1640)	32	0.85	0.83	0.43	0.42	0.14	0.12	0.38	0.36	0.41	0.40	0.20	0.18	1.00	0.38
10 (0.1900)	24 & 32	0.85	0.83	0.43	0.42	0.14	0.12	0.38	0.36	0.41	0.40	0.20	0.18	2.00	0.38
1/4 (0.2500)	20	1.08	1.05	0.57	0.53	0.16	0.14	0.44	0.42	0.48	0.46	0.23	0.21	2.50	0.50
5/16 (0.3125)	18	1.23	1.20	0.64	0.62	0.20	0.18	0.50	0.49	0.57	0.55	0.26	0.24	3.00	0.50
3/8 (0.3750)	16	1.45	1.42	0.74	0.72	0.23	0.21	0.62	0.60	0.69	0.67	0.29	0.27	3.00	0.75
7/16 (0.4375)	14	1.89	1.86	0.91	0.90	0.29	0.28	0.75	0.73	0.83	0.82	0.38	0.37	4.00	1.00
1/2 (0.5000)	13	1.89	1.86	0.91	0.90	0.29	0.28	0.75	0.73	0.83	0.82	0.38	0.37	4.00	1.00
See Note 2, 3															

NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. For additional requirements, see Introductory Notes and General Data, page J-22.



THUMB &
WING SCREWS

THUMB SCREWS AND WING SCREWS

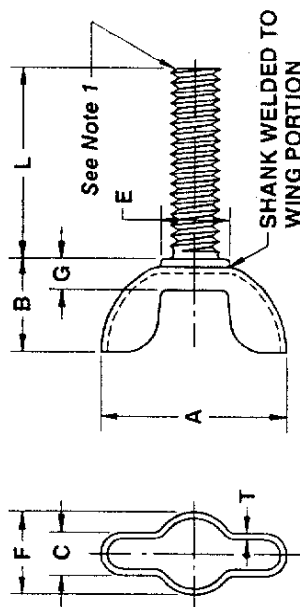
ANSI/ASME
B18.17
1968 (R1983)

Table 10 Dimensions of Type D, Wing Screws

Nominal Size or Basic Screw Diameter	Threads per Inch	A		B		C		E		F		G		T		L	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
6 (0.1380)	32	0.78	0.72	0.40	0.34	0.18	0.12	0.35	0.31	0.40	0.34	0.21	0.14	0.04	0.03	0.75	0.25
8 (0.1640)	32	0.78	0.72	0.40	0.34	0.18	0.12	0.35	0.31	0.40	0.34	0.21	0.14	0.04	0.03	0.75	0.38
10 (0.1900)	24	0.90	0.84	0.46	0.40	0.21	0.15	0.35	0.31	0.53	0.47	0.22	0.16	0.04	0.03	1.00	0.38
12 (0.2160)	24	1.09	1.03	0.46	0.40	0.26	0.20	0.44	0.39	0.61	0.55	0.24	0.18	0.04	0.03	1.00	0.38
1/4 (0.2500)	20	1.09	1.03	0.46	0.40	0.26	0.20	0.47	0.43	0.61	0.55	0.24	0.18	0.04	0.03	1.50	0.50
5/16 (0.3125)	18	1.31	1.25	0.62	0.56	0.29	0.23	0.57	0.53	0.68	0.62	0.29	0.23	0.07	0.05	1.50	0.50
3/8 (0.3750)	16	1.31	1.25	0.62	0.56	0.29	0.23	0.63	0.59	0.68	0.62	0.29	0.23	0.07	0.05	2.00	0.75
See Note 2, 3																	

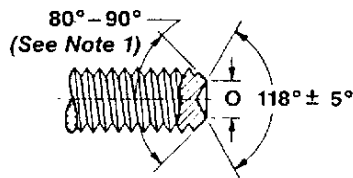
NOTES:

1. Plain point, unless alternate point from styles shown in Table 11 is specified by user.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. For additional requirements, see Introductory Notes and General Data, page J-22.

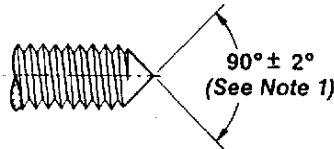
ANSI/ASME
B18.17
1968 (R1983)

THUMB SCREWS AND WING SCREWS

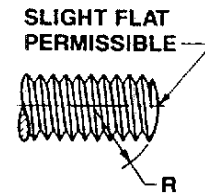
THUMB &
WING SCREWS



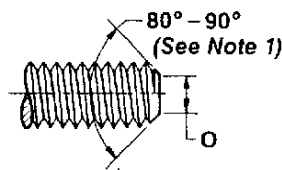
CUP POINT



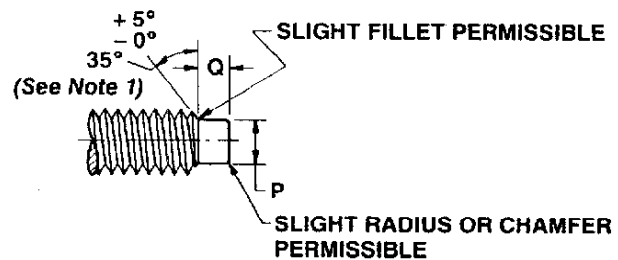
CONE POINT



OVAL POINT



FLAT POINT



DOG POINT

Table 11 Dimensions of Alternate Styles of Points
for Thumb and Wing Screws

Nominal Size or Basic Screw Diameter	O		P		Q		R	
	Cup and Flat Point Diameter		Dog Point				Oval Point Radius	
			Diameter		Length			
	Max	Min	Max	Min	Max	Min	Max	Min
4 (0.1120)	0.061	0.051	0.075	0.070	0.061	0.051	0.099	0.084
6 (0.1380)	0.074	0.064	0.092	0.087	0.075	0.065	0.140	0.109
8 (0.1640)	0.087	0.076	0.109	0.103	0.085	0.075	0.156	0.125
10 (0.1900)	0.102	0.088	0.127	0.120	0.095	0.085	0.172	0.141
12 (0.2160)	0.115	0.101	0.144	0.137	0.115	0.105	0.188	0.156
1/4 (0.2500)	0.132	0.118	0.156	0.149	0.130	0.120	0.219	0.188
5/16 (0.3125)	0.172	0.156	0.203	0.195	0.161	0.151	0.256	0.234
3/8 (0.3750)	0.212	0.194	0.250	0.241	0.193	0.183	0.312	0.281
7/16 (0.4375)	0.252	0.232	0.297	0.287	0.224	0.214	0.359	0.328
1/2 (0.5000)	0.291	0.270	0.344	0.334	0.255	0.245	0.406	0.375
5/8 (0.6350)	0.371	0.347	0.469	0.456	0.321	0.305	0.500	0.469
See Note			3					

NOTES:

1. The external point angles specified shall apply to those portions of the angles which lie below the thread root diameter, it being recognized the angle within the thread profile may be varied due to the manufacturing processes.
2. Where specifying nominal size in decimals, zeros preceding decimal and in fourth decimal place shall be omitted.
3. The axis of dog points shall not be eccentric with the axis of the screw by more than 3 percent of the basic screw diameter or 0.005 in., whichever is the smaller.
4. For additional requirements, see Introductory Notes and General Data, page J-22.