

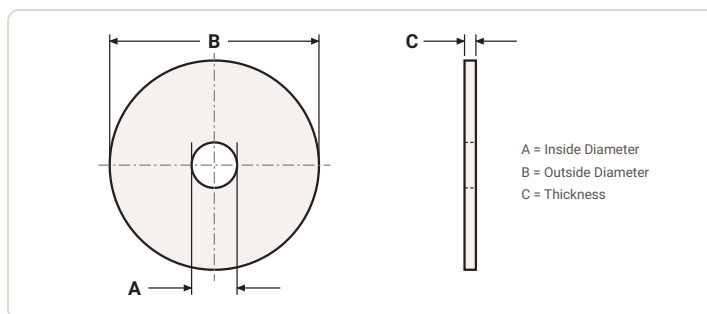


PRODUCT DATA SHEET

Fender Washers – Inch Series

1.0 Dimensions As per ASME B18.21.1 Table 13 (inches)

Thin, extra-wide flat washers (nominal thickness 0.065", approx. 1/16") with a much larger O.D. than USS or SAE washers. Also known as body washers. **Materials:** zinc plated low carbon steel or 18-8 stainless steel.



Size Bolt × O.D.	Inside Diameter (A)		Outside Diameter (B)		Thickness (C)		Approx. Wt. per 100 (lb)	Nutty Stock #	
	Min	Max	Min	Max	Min	Max		Plated Steel	18-8 Stainless
3/16 × 11/16*	.213	.233	0.678	0.698	.047	.080	0.61	—	XFEN3161116
3/16 × 3/4	.213	.233	0.742	0.779	.047	.080	0.74	FEN31634	XFEN31634
3/16 × 1	.213	.233	0.992	1.018	.047	.080	1.38	FEN3161	XFEN3161
3/16 × 1-1/4	.213	.233	1.242	1.279	.047	.080	2.19	FEN316114	XFEN316114
3/16 × 1-1/2	.213	.233	1.492	1.529	.047	.080	3.19	FEN316112	—
3/16 × 2*	.213	.233	1.992	2.029	.047	.080	5.72	FEN3162	—
1/4 × 1	.275	.295	0.992	1.029	.047	.080	1.33	FEN141	XFEN141
1/4 × 1-1/4	.275	.295	1.242	1.279	.047	.080	2.14	FEN14114	XFEN14114
1/4 × 1-1/2	.275	.295	1.492	1.529	.047	.080	3.14	FEN14112	XFEN14112
1/4 × 2	.275	.295	1.992	2.029	.047	.080	5.67	FEN142	XFEN142
5/16 × 1-1/4	.338	.358	1.242	1.279	.047	.080	2.09	FEN516114	XFEN516114
5/16 × 1-1/2	.338	.358	1.492	1.529	.047	.080	3.08	FEN516112	XFEN516112
5/16 × 2	.338	.358	1.992	2.029	.047	.080	5.62	FEN5162	XFEN5162
5/16 × 2-1/2*	.338	.358	2.490	2.510	.047	.080	8.87	FEN516212	—
3/8 × 1-1/4	.400	.420	1.242	1.279	.047	.080	2.02	FEN38114	XFEN38114
3/8 × 1-1/2	.400	.420	1.492	1.529	.047	.080	3.01	FEN38112	XFEN38112
3/8 × 2	.400	.420	1.992	2.029	.047	.080	5.55	FEN382	XFEN382
3/8 × 2-1/2*	.400	.420	2.490	2.510	.047	.080	8.81	FEN38212	—
1/2 × 1-1/2	.525	.545	1.492	1.529	.047	.080	2.84	FEN12112	XFEN12112
1/2 × 2	.525	.545	1.992	2.029	.047	.080	5.38	FEN122	XFEN122
1/2 × 2-1/2	.525	.545	2.492	2.529	.047	.080	8.63	FEN12212	—
1/2 × 3*	.525	.545	2.990	3.010	.047	.080	12.62	FEN123	—
5/8 × 2*	.678	.698	1.990	2.010	.051	.080	5.11	FEN582	—
5/8 × 3*	.678	.698	2.990	3.010	.051	.080	12.34	FEN583	—

* Size not listed in ASME B18.21.1 Table 13; I.D. per the ASME tolerance for that bolt size, O.D. and thickness per common industry practice. Weights are calculated for steel at the nominal 0.065" thickness (stainless is about 2% heavier). — = not stocked; call for availability.

2.0 Material As per ASME B18.21.1, 4.3

Material	Description
Plated Steel	Low carbon steel, unhardened (ASTM F844). No hardness requirement. Zinc plated per ASTM F1941 Fe/Zn 3A.
Stainless Steel	18-8 stainless steel, passivated. Non-magnetic to slightly magnetic; superior corrosion resistance.



3.0 Application & Workmanship

- Covers oversized holes or slots and spreads the load over very large areas of extremely low strength materials (ASME B18.21.1, 4.1.3).
- Originally designed for auto body repair; widely used in sheet metal, plumbing, electrical, signage, drywall, paneling, roofing and trailer work.
- Fender washers are unhardened and are not intended for structural or high-preload joints – use ASTM F436 hardened washers there.
- Washers are free from burrs, loose scale and sharp edges, and meet the flatness and parallelism requirements of ASTM F844. O.D. runout to I.D. does not exceed the I.D. tolerance.

4.0 Surface Finish Plated Steel

Properties	Zinc
Type	Trivalent (Cr+3), RoHS
Color	Clear / blue-bright
Minimum Coating Thickness	0.0001" / 3 microns
Specification	ASTM F1941/F1941M Fe/Zn 3A

Disclaimer: The above is a compilation of data from various industry standards. The Nutty Company, Inc. has made every effort to present the data accurately. However, The Nutty Company, Inc. cannot be held liable for any claim traceable to any errors, typographical or otherwise, contained herein.



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