

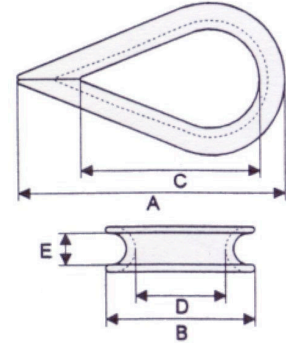


THIMBLES

Standard Wire Rope Thimbles

- Manufactured to U.S. Fed. Spec. FF-T-276B, Type II
- For light duty applications with fibre or wire ropes to protect rope eyes against cuts and abrasions
- Electroplated zinc coating

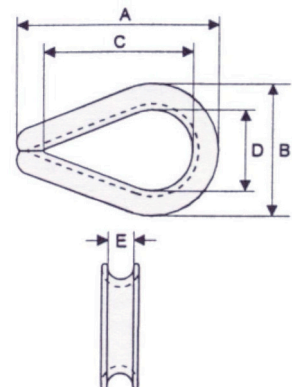
Size	Dimensions (inches)					Weight (lbs/100)	Vanguard Code
	A	B	C	D	E		
1/8	1.92	1.18	1.33	0.70	0.19	3	2905 0008
3/16	1.92	1.13	1.38	0.72	0.24	3	2905 0012
1/4	1.95	1.09	1.38	0.71	0.29	3	2905 0016
5/16	2.11	1.22	1.52	0.81	0.36	4	2905 0020
3/8	2.25	1.43	1.70	0.94	0.40	6	2905 0024
1/2	2.70	1.78	1.85	1.18	0.61	10	2905 0032
5/8	3.48	2.32	2.32	1.37	0.74	32	2905 0040
3/4	3.72	2.70	2.58	1.61	0.81	48	2905 0048
7/8	4.97	3.08	3.54	1.89	1.00	76	2905 0056
1	5.57	3.72	4.13	2.52	1.07	92	2905 0100



Heavy Wire Rope Thimbles

- Manufactured to U.S. Fed. Spec. FF-T-276B, Type III
- Made from cold rolled steel, hot dip galvanized, for protection of rope eyes in demanding applications
- Also available in Stainless Steel where corrosive elements call for greater protection

Size	Dimensions (inches)					Weight (lbs/100)	Vanguard Code	
	A	B	C	D	E		Galvanized	Stainless Steel
1/4	2.22	1.49	1.65	0.89	0.32	6	2906 0016	2961 0016
5/16	2.53	1.82	1.88	1.08	0.40	11	2906 0020	2961 0020
3/8	2.89	2.06	2.11	1.14	0.53	21	2906 0024	2961 0024
7/16	3.25	2.32	2.39	1.24	0.55	27	2906 0028	2961 0028
1/2	3.63	2.70	2.86	1.47	0.60	51	2906 0032	2961 0032
9/16	3.53	2.77	2.66	1.53	0.56	51	2906 0036	2961 0036
5/8	4.26	3.07	3.33	1.75	0.76	69	2906 0040	2961 0040
3/4	5.09	3.73	3.68	2.04	0.95	153	2906 0048	2961 0048
7/8	5.66	4.05	4.32	2.19	1.09	187	2906 0056	2961 0056
1	6.56	4.50	4.80	2.32	1.25	248	2906 0100	2961 0100
1 1/8	7.00	5.53	5.17	2.99	1.50	332	2906 0108	2961 0108
1 1/4	9.00	6.50	7.50	3.20	1.64	816	2906 0116	2961 0116
1 3/8 - 1 1/2	9.00	6.75	7.50	3.30	1.90	1,040	2906 0124	2961 0124
1 3/4	12.00	8.11	8.64	4.10	1.50	1,510	2906 0148	2961 0148
2	15.30	9.90	11.90	6.03	2.00	2,170	2906 0200	2961 0200



Warning:

Thimbles are not designed to support loads!

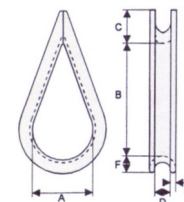
THIMBLES, SLEEVES



Stainless AN - Thimbles

- For applications using small diameter galvanized or stainless cables

Size	Item No.	Dimensions (inches)						Weight (lbs/100)	Vanguard Code
		A	B	C	D	E	F		
3/64 - 1/16 - 5/64	C-3	0.350	0.671	0.187	0.093	0.032	0.078	0.15	2960 0004
3/32 - 1/8 - 7/64	C-4	0.350	0.671	0.218	0.140	0.032	0.078	0.43	2960 0006
5/32	C-5	0.400	0.796	0.218	0.171	0.032	0.109	0.60	2960 0010
3/16	C-6	0.500	1.000	0.312	0.203	0.032	0.171	0.98	2960 0012
1/4	C-8	0.700	1.406	0.406	0.265	0.032	0.171	1.50	2960 0016
5/16	C-10	0.900	1.796	0.437	0.328	0.040	0.218	3.50	2960 0020
3/8	C-12	1.000	2.000	0.625	0.390	0.060	0.265	8.50	2960 0024



Warning:

Thimbles are not designed to support loads!

Oval Sleeves

Available in Aluminum, Copper, Zinc Plated, and Stainless Steel (see Prefix*)

Cable Size	Dimensions (inches)				Weight (lbs/100)		Vanguard Suffix Code*
	A	B	C	D	Alum	Copper	
3/64	0.133	0.196	0.071	0.375	0.06	0.20	.... 0003
1/16	0.172	0.250	0.078	0.375	0.08	0.25	.... 0004
3/32	0.278	0.404	0.130	0.500	0.25	0.60	.... 0006
1/8	0.343	0.500	0.156	0.625	0.58	1.00	.... 0008
5/32	0.375	0.562	0.187	0.687	0.70	2.30	.... 0010
3/16	0.440	0.665	0.223	1.000	1.45	5.30	.... 0012
1/4	0.536	0.818	0.290	1.125	2.80	7.00	.... 0016
5/16	0.687	1.031	0.375	1.250	4.10	12.20	.... 0020
3/8	0.750	1.156	0.438	1.437	5.70	15.60	.... 0024
7/16	0.937	1.437	0.500	1.938	11.60		.... 0028
1/2	1.062	1.625	0.562	2.000	17.20		.... 0032

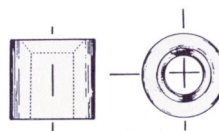
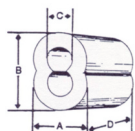
Stop Sleeves

Available in Aluminum and Copper (see Prefix*)

Cable Size	Dimensions (inches)		Weight (lbs/100)		Vanguard Suffix Code*
	A	B	Alum	Copper	
1/16	0.156	0.250	0.04	0.20	.... 0004
3/32	0.313	0.344	0.25	0.80	.... 0006
1/8	0.313	0.344	0.23	0.70	.... 0008
5/32	0.344	0.438	0.40	1.20	.... 0010
3/16	0.344	0.438	0.35	1.05	.... 0012
1/4	0.688	0.688	2.10	6.10	.... 0016

Prefix*

Aluminum	2950
Copper	2952
Zinc Plated	2954
Stainless Steel	2955



Prefix*

Aluminum	2951
Copper	2953

Note:

Properly swaged, **oval sleeves** are capable of maintaining over 90% of the breaking strength of the cable. However, to determine the exact holding strength, a pull test must be performed prior to use. The maximum holding strength of **stop sleeves** is approximately 1/3 of the strength of the cable. **Safety Margins must be maintained in line with the respective applications.**



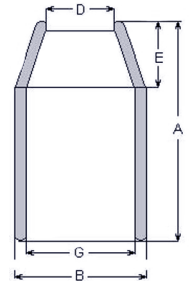
SLEEVES

Flemish Eye Sleeves

- Made from specially processed low carbon steel
- For use with 6 x 19 and 6 x 37 RRL classification steel wire ropes



Rope Size	Dimensions (before swage)					Maximum Dimensions (after swage)		Weight (lbs)	Vanguard Code
	A	B	D	E	G	1st Stage	2nd Stage		
1/4	1.00	0.66	0.31	0.28	0.47		0.57	0.045	2956 0016
5/16	1.50	0.91	0.38	0.44	0.62		0.08	0.137	2956 0020
3/8	1.50	0.91	0.47	0.39	0.66		0.75	0.120	2956 0024
7/16	2.00	1.22	0.53	0.65	0.85		1.01	0.310	2956 0028
1/2	2.00	1.22	0.63	0.56	0.91		1.01	0.280	2956 0032
9/16	2.75	1.47	0.70	0.63	1.03		1.24	0.630	2956 0036
5/8	2.75	1.47	0.75	0.63	1.09		1.24	0.500	2956 0040
3/4	3.19	1.72	0.91	0.84	1.28		1.46	0.900	2956 0048
7/8	3.56	2.03	1.03	1.00	1.53		1.68	1.380	2956 0056
1	4.00	2.28	1.16	1.13	1.72	2.00	1.93	1.900	2956 0100
1 1/8	4.81	2.50	1.28	1.25	1.94	2.25	2.13	2.570	2956 0108
1 1/4	5.19	2.78	1.44	1.41	2.16	2.50	2.32	3.440	2956 0116
1 3/8	5.81	3.00	1.56	1.56	2.36	2.75	2.52	4.200	2956 0124
1 1/2	6.25	3.25	1.69	1.69	2.63	2.87	2.71	4.880	2956 0132
1 3/4	7.25	3.84	1.94	1.97	3.13	3.84	3.10	7.850	2956 0148
2	8.50	4.38	2.25	2.25	3.63	3.81	3.56	11.000	2956 0200



Note:

The cold swaging of dies is a delicate process, requiring considerate movement of the steel in the fitting, as it is forced under great pressure to flow into the crevices between wires and strand, as well as elongating parallel to the wire rope. For this reason, swaging must be performed by way of multiple pressings. This will also prevent excessive 'flashing', a term used to describe the material which is squeezed out into the area between the die faces. Excessive flashing can result in scoring and/or cracking of the sleeves!

Inspect swaging dies frequently for nicks or scratches, which should be polished out! Apply lubricants to the die blocks prior to swaging!

After swaging, measure the OD of the sleeve and compare the results against the figures shown in the table to assure that the sleeve has been properly swaged.