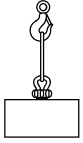
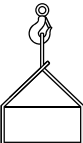
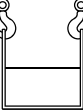


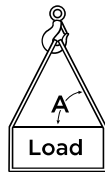
ROUNDSLING INFORMATION

Common Types of Sling Hitches

Hitch	Comments
 <p>Vertical Hitch</p>	One end is placed on the hook, while the other end is attached directly to the load. A tagline should be used to prevent load rotation.
 <p>Choker Hitch</p>	Sling passes through one end around the load and the other end is placed on the hook. Rated capacity is normally 80% of that for a vertical hitch. Load control is a potential problem with only one sling rigged in a choker hitch. Also, the choke point should always be on the sling body—not on the fittings, base of the fitting or tag.
 <p>Basket Hitch</p>	The sling cradles the load while both ends are attached overhead. The rated capacity for a basket hitch is twice that for a vertical hitch. As with the choker hitch, more than one sling rigged in a basket hitch (or some other means) may be necessary to help ensure load control.

Increased sling tension as a function of sling-to-load angle

Angle "A" in degrees from horizontal	Tension Multiplier
90	1.000
85	1.004
80	1.015
75	1.035
70	1.064
65	1.104
60	1.155
55	1.221
50	1.305
45	1.414
40	1.555
35	1.742
30	2.000

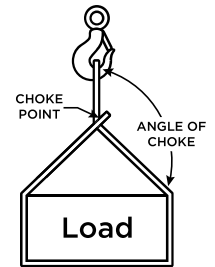


Multiply the load weight (per leg) by the tension factor to determine the increased tension of the sling leg(s)

Reductions in rated capacity as a function of angle of choke

Angle of Choke (degrees)	Angle of Choke Reduction Factor	
	= or >	<
120	180	1.000
105	120	0.82
90	105	0.71
60	90	0.58
0	60	0.50

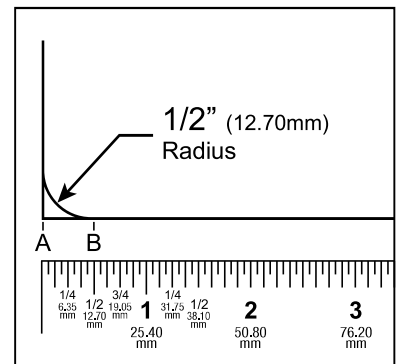
Actual Sling Capacity = Rated Capacity x Reduction Factor



The radii values apply to roundslings that are fully tensioned to their rated capacity regardless of the hitch.

When roundslings are tensioned to lower force values, the minimum radius values will reduce accordingly.

Fractional inches are rounded up to the nearest 1/16" (1.58 mm).



Minimum edge radii suitable for contact unprotected polyester roundslings

Sling Size	Vertical Rated Capacity		Minimum Edge Radii		Minimum Edge Radii		Sling Width at Load	
	lbs.	kgs.	inch	mm	inch	mm	inch	mm
1	2,600	1,200	0.14	3.55	3/16	4.76	0.97	24.63
2	5,300	2,400	0.21	5.33	1/4	6.35	1.29	32.76
3	8,400	3,800	0.26	6.60	5/16	7.93	1.66	42.16
4	10,600	4,800	0.30	7.62	5/16	7.93	1.78	45.21
5	13,200	6,000	0.33	8.38	3/8	9.52	2.00	50.80
6	16,800	7,600	0.40	10.16	7/16	11.11	2.13	54.10
7	21,200	9,600	0.41	10.41	7/16	11.11	2.62	66.54
8	25,000	11,400	0.44	11.17	7/16	11.11	2.85	72.39
9	31,000	14,100	0.50	12.70	1/2	12.70	3.15	80.01
10	40,000	18,200	0.56	14.22	9/16	14.28	3.57	90.67
11	53,000	24,100	0.67	17.01	11/16	17.46	4.00	101.60
12	66,000	30,000	0.72	18.28	3/4	19.05	4.60	116.84
13	90,000	40,900	0.87	22.09	7/8	22.22	5.22	132.58

Suitable connection hardware sizes for Polyester Roundslings when used in Choker and Vertical hitches

Sling Size	Roundslings		Minimum Hardware Size							
	Rated Cap.	Vert. Hitch	Stock Dia. or Thickness				Effective Contact Width			
			lbs.	kgs.	in	mm	in	mm	in	mm
1	2,600	1,200	.39	9.90	7/16	11.11	.97	24.63	1	25.40
2	5,300	2,400	.59	14.98	5/8	15.87	1.29	32.76	1-3/8	34.92
3	8,400	3,800	.72	18.28	3/4	19.05	1.66	42.16	1-3/4	44.45
4	10,600	4,800	.85	21.59	7/8	22.22	1.78	45.21	1-7/8	47.62
5	13,200	6,000	.95	24.13	1	25.40	2.00	50.80	2	50.80
6	16,800	7,600	1.12	28.44	1-1/8	28.57	2.13	54.10	2-1/8	53.97
7	21,200	9,600	1.15	29.21	1-3/16	30.16	2.62	66.54	2-5/8	66.67
8	25,000	11,400	1.25	31.75	1-1/4	31.75	2.85	72.39	2-7/8	73.02
9	31,000	14,100	1.41	35.81	1-1/2	38.10	3.15	80.01	3-1/4	82.55
10	40,000	18,200	1.60	40.64	1-5/8	41.27	3.57	90.67	3-5/8	92.07
11	53,000	24,100	1.90	48.26	2	50.80	4.00	101.60	4	101.60
12	66,000	30,000	2.05	52.07	2-1/8	53.97	4.60	116.84	4-5/8	117.47
13	90,000	40,900	2.46	62.48	2-1/2	63.50	5.22	132.58	5-1/4	133.35

Roundslings Removal from Service Criteria

- If Roundslings identification tag is missing or not readable
- Holes, tears, cuts, embedded materials, excessive abrasive wear, or snags that expose the core yarn of the Roundslings.
- Broken or damaged core yarn.
- If Roundslings has been tied into one or more knots.
- Acid or caustic burns of the Roundslings.
- Melting, charring or weld spatter of any part of the Roundslings.
- Distortion, excessive pitting, corrosion or other damage to fitting(s).
- Broken or worn stitching in the cover which exposes the core yarn.
- Any conditions which cause doubt as to the strength of the Roundslings.



WHERE TO FIND ADDITIONAL INFORMATION:

- WSTDA-RS-1 – RECOMMENDED STANDARD SPECIFICATION FOR SYNTHETIC POLYESTER ROUNDSLINGS
- WSTDA-RS-1HP – RECOMMENDED STANDARD SPECIFICATION FOR HIGH PERFORMANCE YARN ROUNDSLINGS
- WSTDA-RS-2 – RECOMMENDED OPERATING AND INSPECTION MANUAL FOR SYNTHETIC POLYESTER ROUNDSLINGS
- ASME B30.9 – SYNTHETIC ROUNDSLINGS: SELECTION, USE AND MAINTENANCE
- OSHA GUIDANCE ON SAFE SLING USE ([HTTP://WWW.OSHA.GOV/DSG/GUIDANCE/SLINGS/SYNTH-ROUND.HTML](http://www.osha.gov/dsg/guidance/sl原因ings/synth-round.html))
- OSHA 29 CFR 1910.184 SLINGS
- RIGGING HANDBOOKS
- FORMAL TRAINING FROM CERTIFIED THIRD PARTY OR MANUFACTURER