

SYNTHETIC SLINGS

Plasma® Eye & Eye Slings



Plasma® Slings Ratings in Hitch Configurations

Vertical, choker and basket hitches.
Basket hitches at varying angles
ratings based on Design Factor of 5:1

Vertical	Choker	90°	60°	45°	30°
	 120° or >				

PLASMA® EYE & EYE SLINGS

Nominal Size				Slings Ratings in Pounds					
Dia. Inches	Dia. MM	Circ. Inches	MBL lbs.	Plasma® 12 Strand – 12 x 12 Construction					
1	24	3	110,000	22,000	17,600	44,000	37,400	30,800	22,000
1 1/16	26	3 1/4	129,200	25,840	20,672	51,680	43,928	36,176	25,840
1 1/8	28	3 1/2	147,000	29,400	23,520	58,800	49,980	41,160	29,400
1 1/4	30	3 3/4	165,000	33,000	26,400	66,000	56,100	46,200	33,000
1 5/16	32	4	196,000	39,200	31,360	78,400	66,640	54,880	39,200
1 1/2	36	4 1/2	221,000	44,200	35,360	88,400	75,140	61,880	44,200
				Plasma® 12 x 12					
1 5/8	40	5	291,000	58,200	46,560	116,400	98,940	81,480	58,200
1 3/4	44	5 1/2	314,000	62,800	50,240	125,600	106,760	87,920	62,800
2	48	6	355,000	71,000	56,800	142,000	120,700	99,400	71,000
2 1/8	52	6 1/2	428,000	85,600	68,480	171,200	145,520	119,840	85,600
2 1/4	56	7	481,000	96,200	76,960	192,400	163,540	134,680	96,200
2 1/2	60	7 1/2	530,000	106,000	84,800	212,000	180,200	148,400	106,000
2 5/8	64	8	596,000	119,200	95,360	238,400	202,640	166,880	119,200
2 3/4	68	8 1/2	660,000	132,000	105,600	264,000	224,400	184,800	132,000
3	72	9	780,000	156,000	124,800	312,000	265,200	218,400	156,000
3 1/8	76	9 1/2	850,000	170,000	136,000	340,000	289,000	238,000	170,000
3 1/4	80	10	940,000	188,000	150,400	376,000	319,600	263,200	188,000
3 1/2	84	10 1/2	1,108,000	221,600	177,280	443,200	376,720	310,240	221,600
3 5/8	88	11	1,250,000	250,000	200,000	500,000	425,000	350,000	250,000
3 3/4	92	11 1/2	1,317,000	263,400	210,720	526,800	447,780	368,760	263,400
4	96	12	1,520,000	304,000	243,200	608,000	516,800	425,600	304,000
4 1/8	100	12 1/2	1,622,000	324,400	259,520	648,800	551,480	454,160	324,400
4 1/4	104	13	1,697,000	339,400	271,520	678,800	576,980	475,160	339,400
4 1/2	108	13 1/2	1,827,000	365,400	292,320	730,800	621,180	511,560	365,400
4 5/8	112	14	1,880,000	376,000	300,800	752,000	639,200	526,400	376,000
4 3/4	116	14 1/2	1,927,000	385,400	308,320	770,800	655,180	539,560	385,400
5	120	15	2,069,500	413,900	331,120	827,800	703,630	579,460	413,900
5 1/8	124	15 1/2	2,212,000	442,400	353,920	884,800	752,080	619,360	442,400
5 1/4	128	16	2,355,000	471,000	376,800	942,000	800,700	659,400	471,000
5 1/2	132	16 1/2	2,497,500	499,500	399,600	999,000	849,150	699,300	499,500
5 5/8	136	17	2,640,000	528,000	422,400	1,056,000	897,600	739,200	528,000
5 3/4	140	17 1/2	2,782,500	556,500	445,200	1,113,000	946,050	779,100	556,500
6	144	18	2,925,000	585,000	468,000	1,170,000	994,500	819,000	585,000
6 1/8	148	18 1/2	3,068,000	613,500	490,880	1,227,200	1,043,120	859,040	613,600
6 1/4	152	19	3,210,500	642,100	513,680	1,284,200	1,091,570	898,940	642,100
6 1/2	156	19 1/2	3,353,000	670,600	536,480	1,341,200	1,140,020	938,840	670,600
6 5/8	160	20	3,496,000	699,200	559,360	1,398,400	1,188,640	978,880	699,200
6 3/4	164	20 1/2	3,638,500	727,700	582,160	1,455,400	1,237,090	1,018,780	727,700
7	168	21	3,781,000	756,200	604,960	1,512,400	1,285,540	1,058,680	756,200
7 1/8	172	21 1/2	3,963,500	792,700	634,160	1,585,400	1,347,590	1,109,780	792,700
7 1/4	176	22	4,066,000	813,200	650,560	1,626,400	1,382,440	1,138,480	813,200
7 1/2	180	22 1/2	4,209,000	841,800	673,440	1,683,600	1,431,060	1,178,520	841,800
7 5/8	184	23	4,351,500	870,300	696,240	1,740,600	1,479,510	1,218,420	870,300
7 3/4	188	23 1/2	4,494,000	898,800	719,040	1,797,600	1,527,960	1,258,320	898,800
8	192	24	4,637,000	927,400	741,920	1,854,800	1,576,580	1,298,360	927,400
8 1/8	196	24 1/2	4,779,000	955,800	764,640	1,911,600	1,624,860	1,338,120	955,800
8 1/4	200	25	4,922,000	984,400	787,520	1,968,800	1,673,480	1,378,160	984,400

• Minimum Break Load (MBL) in pounds and is determined using spliced test samples in accordance with Cordage Institute 1500-02 – Test Method for Fiber Ropes
• The recommended Design Factor (DF) of 5:1 on this chart is based on several existing lifting sling standards including ASME B30.9. This DF takes into account various factors including the use of HMPE (High Modulus Polyethylene) fiber which is extremely durable and resistant to repeated high loads. Plasma® rope slings have and can be used with different DF ratios; however, this decision must be made by a qualified person or designer of the lift in conjunction with the rope manufacturer. Cortland does not recommend the use of slings in a choker hitch at a lifting angle less than 120°.