



GENERAL & TECH INFORMATION

M A S C O . N E T

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Typical Form Tie Spacing For Wall Forms

LATERAL PRESSURE (LBS) IN PSF		LOADS ON FORM TIES (IN KIPS)															
3,000	3.0	5.3	6.0	12.0	18.0	27.0	36.0	48.0	60.0	75.0	90.0	108.0	126.0	147.0	168.0	192.0	
2,900	2.9	5.2	5.8	11.6	17.4	26.1	34.8	46.4	58.0	72.5	87.0	104.4	121.8	142.1	162.4	185.6	
2,800	2.8	5.0	5.6	11.2	16.8	25.2	33.6	44.8	56.0	70.0	84.0	100.8	117.6	137.2	156.8	179.2	
2,700	2.7	4.8	5.4	10.8	16.2	24.3	32.4	43.2	54.0	67.5	81.0	97.2	113.4	132.3	151.2	172.8	
2,600	2.6	4.6	5.2	10.4	15.6	23.4	31.2	41.6	52.0	65.0	78.0	93.6	109.2	127.4	145.6	166.4	
2,500	2.5	4.5	5.0	10.0	15.0	22.5	30.0	40.0	50.0	62.5	75.0	90.0	105.0	122.5	140.0	160.0	
2,400	2.4	4.3	4.8	9.6	14.4	21.6	28.8	38.4	48.0	60.0	72.0	86.4	100.8	117.6	134.4	153.6	
2,300	2.3	4.1	4.6	9.2	13.8	20.7	27.6	36.8	46.0	57.5	69.0	82.8	96.6	112.7	128.8	147.2	
2,200	2.2	3.9	4.4	8.8	13.2	19.8	26.4	35.2	44.0	55.0	66.0	79.2	92.4	107.8	123.2	140.8	
2,100	2.1	3.7	4.2	8.4	12.6	18.9	25.2	33.6	42.0	52.5	63.0	75.6	88.2	102.9	117.6	134.4	
2,000	2.0	3.6	4.0	8.0	12.0	18.0	24.0	32.0	40.0	50.0	60.0	72.0	84.0	98.0	112.0	128.0	
1,900	1.9	3.4	3.8	7.6	11.4	17.1	22.8	30.4	38.0	47.5	57.0	68.4	79.8	93.1	106.4	121.6	
1,800	1.8	3.2	3.6	7.2	10.8	16.2	21.6	28.8	36.0	45.0	54.0	64.8	75.6	88.2	100.8	115.2	
1,700	1.7	3.0	3.4	6.8	10.2	15.3	20.4	27.2	34.0	42.5	51.0	61.2	71.4	83.3	95.2	108.8	
1,600	1.6	2.8	3.2	6.4	9.6	14.4	19.2	26.6	32.0	40.0	48.0	57.6	67.2	78.4	89.6	102.4	
1,500	1.5	2.7	3.0	6.0	9.0	13.5	18.0	24.0	30.0	37.5	45.0	54.0	63.0	73.5	84.0	96.0	
1,400	1.4	2.5	2.8	5.6	8.4	12.6	16.8	22.0	28.0	35.0	42.0	50.4	58.8	68.6	78.4	89.6	
1,300	1.3	2.3	2.6	5.2	7.8	11.7	15.6	20.8	26.0	32.5	39.0	46.8	54.6	63.7	72.8	83.2	
1,200	1.2	2.1	2.4	4.8	7.2	10.8	14.4	19.2	24.0	30.0	36.0	43.2	50.4	58.8	67.2	76.8	
1,100	1.1	2.0	2.2	4.4	6.6	9.9	13.2	17.6	22.0	27.5	33.0	39.6	46.2	53.9	61.6	70.4	
1,000	1.0	1.8	2.0	4.0	6.0	9.0	12.0	16.0	20.0	25.0	30.0	36.0	42.0	49.0	56.0	64.0	
900	0.9	1.6	1.8	3.6	5.4	8.1	10.8	14.4	18.0	22.5	27.0	32.4	37.8	44.1	40.4	57.6	
800	0.8	1.4	1.6	3.2	4.8	7.2	9.6	12.8	16.0	20.0	24.0	28.8	33.6	39.2	44.8	51.2	
700	0.7	1.2	1.4	2.8	4.2	6.3	8.4	11.2	14.0	17.5	21.0	25.2	29.4	34.3	39.2	44.8	
600	0.6	1.1	1.2	2.4	3.6	5.4	7.2	9.6	12.0	15.0	18.0	21.6	25.2	29.4	33.6	38.4	
Area SF (Tie spacing)	1.0 (1'x1')	1.8 (16"x16")	2.0 (1'x2')	4.0 (2'x2')	6.0 (2'x3')	9.0 (3'x3')	12.0 (3'x4')	16.0 (4'x4')	20.0 (4'x5')	25.0 (5'x5')	30.0 (5'x6')	36.0 (6'x6')	42.0 (6'x7')	49.0 (7'x7')	56.0 (7'x8')	64.0 (8'x8')	
Recommend Form Ties			Form Ties SWL (KIPS)				Recommend Form Ties					Form Ties SWL (KIPS)					
1" Threadbar			63.70				She Bolt with 3/4" Coil Inner					18.00					
7/8" Threadbar Taper Tie			32.50				She Bolt with 1/2" Coil Inner					9.00					
7/8" Threadbar			39.20				She Bolt with 1/2" N/C Inner					6.30					
1-1/4" to 1" Coil Taper Tie			34.00				2 Strut 1/2" Coil Tie Heavy					6.75					
5/8" Thread Bar Taper Tie			18.40				2 Strut 1/2" Coil Tie Standard					4.50					
5/8" Threadbar			19.10				Snaptie Heavy					3.125					
5/8" DCR Bar			18.40				Snaptie Standard					2.25					
Use the appropriate Form Ties for loads below their respective line. A safety factor of 2 has been applied to determine safe working loads (SWL) of ties.																	

Note: The above table is based on the following conditions.

Concrete - Made with type 1 cement weighing 150 pcf. contains no admixtures, slump of 4" or less and normal internal vibration to a depth of 4 ft. or less.

Concrete Temperature - For practical purposes, 50 °F is used by many form designers as the temperature of fresh concrete during winter, with 70°F being used as the summer temperature. This "rule of thumb" appears to work satisfactory unless the concrete has been heated or cooled to a controlled temperature.

Form Ties - Safe working loads are based on a factor of safety of approximately 2 to 1 (ultimate to SWL).