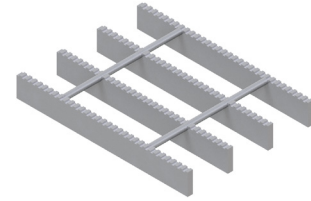


LOAD TABLES | HEAVY DUTY, METRIC

LOAD TABLES - WIDE-GAP

Grating Type: **48HW102**
 Design Code: **NAAMM MBG 534-19**
 Material: **ASTM A1011CS Grade 250**
 Surface: **Serrated**



U = Safe Uniform Load (kPa)
 D_u = Deflection Due to Safe Uniform Load (mm)
 C = Safe Concentrated Load (kN/meter of grating width)
 D_c = Deflection Due to Safe Concentrated Load (mm)
 Allowable Extreme Fiber Stress = 137.9 MPa

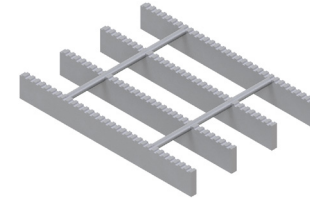
Bearing Bar Size (mm)	Approx. Weight (kg/m ²)	Ped. Span (mm)	Load / Deflection	SPAN (mm)														Section Properties											
				305	457	610	762	915	1067	1219	1372	1524	1677	1829	1981	2134	2286	2438	S _x (mm ³ /m)	I _x (mm ⁴ /m)									
25 x 6	31.9	1,133.00	U	99.2	44.1	24.8	15.9	11.0	8.1	6.2												8,360							
			D _u	0.7	1.5	2.8	4.3	6.2	8.4	11.0												81.13E+3							
			C	15.1	10.1	7.6	6.1	5.0	4.3	3.8																			
			D _c	0.6	1.2	2.2	3.4	5.0	6.7	8.8																			
32 x 6	38.6	1,403.00	U	175.4	78.0	43.9	28.1	19.5	14.3	11.0	8.7	7.0												14,790					
			D _u	0.5	1.2	2.1	3.2	4.7	6.3	8.3	10.5	12.9												190.82E+3					
			C	26.8	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.4																	
			D _c	0.4	0.9	1.7	2.6	3.7	5.1	6.6	8.4	10.3																	
38 x 6	45.2	1,653.00	U	271.6	120.7	67.9	43.5	30.2	22.2	17.0	13.4	10.9	9.0												22,900				
			D _u	0.4	0.9	1.7	2.6	3.7	5.1	6.7	8.4	10.4	12.6												367.51E+3				
			C	41.4	27.6	20.7	16.6	13.8	11.8	10.4	9.2	8.3	7.5																
			D _c	0.3	0.7	1.3	2.1	3.0	4.1	5.3	6.7	8.3	10.1																
38 x 10	65.2	1,825.00	U	403.1	179.2	100.8	64.5	44.8	32.9	25.2	19.9	16.1	13.3	11.2												33,990			
			D _u	0.4	0.9	1.7	2.6	3.7	5.1	6.7	8.4	10.4	12.6	15.0												545.53E+3			
			C	61.5	41.0	30.7	24.6	20.5	17.6	15.4	13.7	12.3	11.2	10.3															
			D _c	0.3	0.7	1.3	2.1	3.0	4.1	5.3	6.7	8.3	10.1	12.0															
51 x 6	58.5	2,123.00	U	528.9	235.2	132.3	84.7	58.8	43.2	33.1	26.1	21.2	17.5	14.7	12.5	10.8												44,600	
			D _u	0.3	0.7	1.2	1.9	2.7	3.7	4.8	6.0	7.4	9.0	10.7	12.6	14.6												999.06E+3	
			C	80.7	53.8	40.3	32.3	26.9	23.1	20.2	17.9	16.1	14.7	13.5	12.4	11.5													
			D _c	0.2	0.5	1.0	1.5	2.1	2.9	3.8	4.8	6.0	7.2	8.6	10.1	11.7													
64 x 6	71.8	2,560.00	U	871.3	387.4	218.0	139.5	96.9	71.2	54.5	43.1	34.9	28.8	24.2	20.6	17.8	15.5	13.6			73,470								
			D _u	0.2	0.5	0.9	1.5	2.1	2.8	3.7	4.7	5.8	7.0	8.4	9.8	11.4	13.1	14.8			2.11E+6								
			C	132.9	88.6	66.5	53.2	44.3	38.0	33.2	29.5	26.6	24.2	22.2	20.5	19.0	17.7	16.6											
			D _c	0.2	0.4	0.7	1.2	1.7	2.3	3.0	3.8	4.6	5.6	6.7	7.8	9.1	10.4	11.9											
76 x 6	85.1	2,973.00	U	1,298.7	577.5	324.9	208.0	144.4	106.1	81.3	64.2	52.0	43.0	36.1	30.8	26.5	23.1	20.3			109,510								
			D _u	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.9	4.8	5.8	6.8	8.0	9.3	10.7	12.2			3.84E+6								
			C	198.1	132.1	99.1	79.3	66.0	56.6	49.5	44.0	39.6	36.0	33.0	30.5	28.3	26.4	24.8											
			D _c	0.2	0.3	0.6	1.0	1.4	1.9	2.4	3.1	3.8	4.6	5.5	6.4	7.5	8.6	9.7											
76 x 10	124.4	3,281.00	U	1,927.8	857.2	482.3	308.7	214.4	157.5	120.6	95.3	77.2	63.8	53.6	45.7	39.4	34.3	30.2			162,560								
			D _u	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.9	4.8	5.8	6.8	8.0	9.3	10.7	12.2			5.71E+6								
			C	294.0	196.0	147.0	117.6	98.0	84.0	73.5	65.4	58.8	53.5	49.0	45.3	42.0	39.2	36.8											
			D _c	0.2	0.3	0.6	1.0	1.4	1.9	2.4	3.1	3.8	4.6	5.5	6.4	7.5	8.6	9.7											

Spans and loads in red exceed a deflection of 6mm for uniform loads of 5kPa. Experience has shown that 6mm deflection is the maximum deflection to give pedestrian comfort, but can be exceeded for other types of loads at the discretion of the specifying professional.

48HW102 (mm)										
# of Bars	2	3	4	5	6	7	8	9	10	11
6mm Bars	54	102	150	198	246	294	342	390	438	486
10mm Bars	58	106	154	202	250	298	346	394	442	490
# of Bars	12	13	14	15	16	17	18	19	20	21
6mm Bars	534	582	630	678	726	774	822	870	918	966
10mm Bars	538	586	634	682	730	778	826	874	922	970

LOAD TABLES - WIDE-GAP

Grating Type: **48HW102**
 Design Code: **NAAMM MBG 534-19**
 Material: **ASTM A1011CS Grade 250**
 Surface: **Serrated**



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 Allowable Extreme Fiber Stress = 137.9 MPa

Bearing Bar Size (mm)	Approx. Weight (kg/m ²)	Ped. Span (mm)	Load / Deflection	SPAN (mm)														Section Properties				
				305	457	610	762	915	1067	1219	1372	1524	1677	1829	1981	2134	2286	2438	S _x (mm ³ /m)	I _x (mm ⁴ /m)		
89 x 6	98.4	3,368.00	U	1,811.1	805.3	453.1	290.0	201.4	148.0	113.3	89.5	72.5	59.9	50.4	42.9	37.0	32.2	28.3			152,720	
			D _u	0.2	0.4	0.6	1.0	1.4	2.0	2.6	3.3	4.0	4.9	5.8	6.8	7.9	9.1	10.3			6.33E+6	
			C	276.2	184.2	138.1	110.5	92.1	79.0	69.1	61.4	55.3	50.2	46.1	42.5	39.5	36.8	34.6				
			D _c	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.2	3.9	4.6	5.4	6.3	7.2	8.2				
89 x 10	146.4	3,717.00	U	2,688.4	1,195.4	672.5	430.5	299.0	219.7	168.2	132.9	107.6	89.0	74.8	63.7	54.9	47.8	42.1			226,690	
			D _u	0.2	0.4	0.6	1.0	1.4	2.0	2.6	3.3	4.0	4.9	5.8	6.8	7.9	9.1	10.3			9.40E+6	
			C	410.0	273.4	205.1	164.1	136.7	117.2	102.5	91.2	82.0	74.6	68.4	63.1	58.6	54.7	51.3				
			D _c	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.2	3.9	4.6	5.4	6.3	7.2	8.2				
102 x 6	111.7	3,748.00	U	2,408.6	1,070.9	602.5	385.7	267.9	196.8	150.7	119.1	96.4	79.7	67.0	57.1	49.2	42.9	37.7			203,100	
			D _u	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.5	4.2	5.0	5.9	6.8	7.9	8.9			9.71E+6	
			C	367.3	244.9	183.7	147.0	122.5	105.0	91.9	81.7	73.5	66.8	61.3	56.5	52.5	49.0	46.0				
			D _c	0.1	0.3	0.4	0.7	1.0	1.4	1.8	2.3	2.8	3.4	4.0	4.7	5.5	6.3	7.1				
102 x 10	166.1	4,137.00	U	3,575.2	1,589.7	894.4	572.5	397.6	292.1	223.7	176.7	143.2	118.3	99.4	84.7	73.0	63.6	56.0			301,470	
			D _u	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.5	4.2	5.0	5.9	6.8	7.9	8.9			14.41E+6	
			C	545.2	363.6	272.7	218.2	181.8	155.9	136.4	121.2	109.1	99.2	90.9	83.9	77.9	72.7	68.2				
			D _c	0.1	0.3	0.4	0.7	1.0	1.4	1.8	2.3	2.8	3.4	4.0	4.7	5.5	6.3	7.1				
127 x 10	205.5	4,936.00	U	5,727.4	2,546.6	1,432.8	917.1	636.9	468.0	358.3	283.1	229.3	189.5	159.3	135.7	117.0	101.9	89.6			482,950	
			D _u	0.1	0.2	0.4	0.7	1.0	1.4	1.8	2.2	2.8	3.3	4.0	4.7	5.4	6.2	7.1			29.22E+6	
			C	873.4	582.4	436.9	349.5	291.3	249.7	218.5	194.2	174.8	158.9	145.7	134.4	124.8	116.5	109.3				
			D _c	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.2	2.7	3.2	3.7	4.3	5.0	5.6				
152 x 10	245.0	5,695.00	U	8,384.3	3,728.0	2,097.5	1,342.5	932.4	685.1	524.5	414.5	335.7	277.5	233.2	198.7	171.3	149.2	131.2			706,990	
			D _u	0.1	0.2	0.4	0.6	0.8	1.1	1.5	1.8	2.3	2.8	3.3	3.9	4.5	5.1	5.8			51.75E+6	
			C	1,278.6	852.6	639.5	511.6	426.4	365.5	319.8	284.3	255.9	232.6	213.2	196.8	182.8	170.6	160.0				
			D _c	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.5	1.8	2.2	2.6	3.1	3.6	4.1	4.7				

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