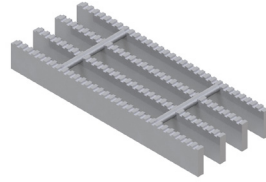




# LOAD TABLES | HEAVY DUTY, METRIC

## LOAD TABLES - HD CLOSE-MESH

Grating Type: **24W102**  
 Design Code: **NAAMM MBG 534-19**  
 Material: **ASTM A1011CS Grade 250**  
 Surface: **Serrated**



U = Safe Uniform Load (kPa)  
 D<sub>u</sub> = Deflection Due to Safe Uniform Load (mm)  
 C = Safe Concentrated Load (kN/meter of grating width)  
 D<sub>c</sub> = Deflection Due to Safe Concentrated Load (mm)  
 Allowable Extreme Fiber Stress = 137.9 MPa

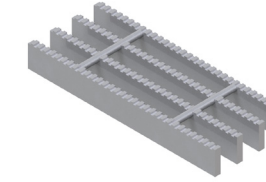
Bearing Bar Size (mm)	Approx. Weight (kg/m <sup>2</sup> )	Ped. Span (mm)	Load / Deflection	SPAN (mm)														Section Properties												
				305	457	610	762	915	1067	1219	1372	1524	1677	1829	1981	2134	2286	2438	S <sub>x</sub> (mm <sup>3</sup> /m)	I <sub>x</sub> (mm <sup>4</sup> /m)										
25 x 6	58.5	1,348.00	U	198.4	88.2	49.6	31.8	22.1	16.2	12.4	9.8											16,730								
			D <sub>u</sub>	0.7	1.5	2.8	4.3	6.2	8.4	11.0	13.9																			
			C	30.3	20.2	15.1	12.1	10.1	8.6	7.6	6.7																			
			D <sub>c</sub>	0.6	1.2	2.2	3.4	5.0	6.7	8.8	11.1																			
32 x 6	71.9	1,669.00	U	350.8	156.0	87.8	56.2	39.0	28.7	21.9	17.3	14.0	11.6											29,580						
			D <sub>u</sub>	0.5	1.2	2.1	3.2	4.7	6.3	8.3	10.5	12.9	15.7																	
			C	53.5	35.7	26.8	21.4	17.8	15.3	13.4	11.9	10.7	9.7																	
			D <sub>c</sub>	0.4	0.9	1.7	2.6	3.7	5.1	6.6	8.4	10.3	12.5																	
38 x 6	85.1	1,966.00	U	543.1	241.5	135.9	87.0	60.4	44.4	34.0	26.8	21.7	18.0	15.1	12.9											45,800				
			D <sub>u</sub>	0.4	0.9	1.7	2.6	3.7	5.1	6.7	8.4	10.4	12.6	15.0	17.6															
			C	82.8	55.2	41.4	33.1	27.6	23.7	20.7	18.4	16.6	15.1	13.8	12.7															
			D <sub>c</sub>	0.3	0.7	1.3	2.1	3.0	4.1	5.3	6.7	8.3	10.1	12.0	14.1															
38 x 10	124.4	2,170.00	U	806.2	358.5	201.7	129.1	89.7	65.9	50.4	39.9	32.3	26.7	22.4	19.1	16.5	14.3											67,980		
			D <sub>u</sub>	0.4	0.9	1.7	2.6	3.7	5.1	6.7	8.4	10.4	12.6	15.0	17.6	20.4	23.4													
			C	122.9	82.0	61.5	49.2	41.0	35.1	30.8	27.3	24.6	22.4	20.5	18.9	17.6	16.4													
			D <sub>c</sub>	0.3	0.7	1.3	2.1	3.0	4.1	5.3	6.7	8.3	10.1	12.0	14.1	16.3	18.7													
51 x 6	111.7	2,524.00	U	1,057.9	470.4	264.6	169.4	117.6	86.4	66.2	52.3	42.4	35.0	29.4	25.1	21.6	18.8	16.6											89,200	
			D <sub>u</sub>	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	16.8	19.1												
			C	161.3	107.6	80.7	64.6	53.8	46.1	40.4	35.9	32.3	29.3	26.9	24.8	23.1	21.5	20.2												
			D <sub>c</sub>	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	13.4	15.2												
64 x 6	138.3	3,044.00	U	1,742.6	774.8	435.9	279.0	193.8	142.4	109.0	86.1	69.8	57.7	48.5	41.3	35.6	31.0	27.3											146,940	
			D <sub>u</sub>	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												
			C	265.8	177.2	132.9	106.3	88.6	76.0	66.5	59.1	53.2	48.3	44.3	40.9	38.0	35.5	33.2												
			D <sub>c</sub>	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	164.8	3,535.00	U	2,597.4	1,154.9	649.8	415.9	288.9	212.2	162.5	128.4	104.0	86.0	72.2	61.5	53.1	46.2	40.7											219,020	
			D <sub>u</sub>	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												
			C	396.1	264.1	198.1	158.5	132.1	113.2	99.1	88.1	79.3	72.1	66.1	61.0	56.6	52.8	49.6												
			D <sub>c</sub>	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	242.8	3,902.00	U	3,855.6	1,714.3	964.5	617.4	428.8	315.0	241.2	190.6	154.4	127.6	107.2	91.4	78.8	68.6	60.3											325,110	
			D <sub>u</sub>	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												
			C	588.0	392.1	294.1	235.3	196.1	168.1	147.1	130.7	117.7	107.0	98.0	90.5	84.0	78.4	73.6												
			D <sub>c</sub>	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.

24HW102 (mm)										
# of Bars	2	3	4	5	6	7	8	9	10	11
6mm Bars	30	54	78	102	126	150	174	198	222	246
10mm Bars	34	58	82	106	130	154	178	202	226	250
# of Bars	12	13	14	15	16	17	18	19	20	21
6mm Bars	270	294	318	342	366	390	414	438	462	486
10mm Bars	274	298	322	346	370	394	418	442	466	490
# of Bars	22	23	24	25	26	27	28	29	30	31
6mm Bars	510	534	558	582	606	630	654	678	702	726
10mm Bars	514	538	562	586	610	634	658	682	706	730

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Bearing Bar Size (mm)	Approx. Weight (kg/m <sup>2</sup> )	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 <sub>x</sub> (mm <sup>3</sup> /m)	I <sub>x</sub> (mm <sup>4</sup> /m)										
89 x 6	191.4	4,005.00	U	3,622.3	1,610.6	906.2	580.0	402.8	296.0	226.6	179.1	145.0	119.9	100.7	85.8	74.0	64.5	56.7											305,440	
			D <sub>u</sub>	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												
			C	552.4	368.3	276.3	221.0	184.2	157.9	138.2	122.8	110.5	100.5	92.1	85.0	79.0	73.7	69.1												
			D <sub>c</sub>	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	284.5	4,421.00	U	5,376.8	2,390.7	1,345.1	861.0	597.9	439.3	336.4	265.8	215.3	177.9	149.5	127.4	109.9	95.7	84.2											453,390	
			D <sub>u</sub>	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												
			C	820.0	546.8	410.1	328.1	273.4	234.4	205.1	182.3	164.1	149.2	136.7	126.2	117.2	109.4	102.6												
			D <sub>c</sub>	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	218.0	4,457.00	U	4,817.1	2,141.9	1,205.1	771.3	535.7	393.6	301.4	238.1	192.9	159.4	134.0	114.1	98.4	85.7	75.4											406,190	
			D <sub>u</sub>	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												
			C	734.6	489.8	367.4	294.0	245.0	210.0	183.7	163.3	147.0	133.6	122.5	113.1	105.0	98.0	91.9												
			D <sub>c</sub>	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	323.9	4,919.00	U	7,150.4	3,179.4	1,788.8	1,145.0	795.2	584.3	447.3	353.5	286.3	236.6	198.8	169.4	146.1	127.3	111.9											602,940	
			D <sub>u</sub>	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												
			C	1,090.4	727.1	545.4	436.3	363.6	311.7	272.7	242.4	218.2	198.4	181.8	167.9	155.9	145.5	136.4												
			D <sub>c</sub>	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	402.9	5,870.00	U	11,454.8	5,093.2	2,865.6	1,834.2	1,273.9	936.0	716.6	566.2	458.7	379.1	318.5	271.4	234.0	203.9	179.3											965,900	
			D <sub>u</sub>	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												
			C	1,746.9	1,164.8	873.7	699.0	582.5	499.3	436.9	388.4	349.6	317.8	291.3	268.9	249.7	233.0	218.5												
			D <sub>c</sub>	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	481.8	6,772.00	U	16,768.6	7,456.0	4,194.9	2,685.1	1,864.8	1,370.2	1,049.1	828.9	671.4	554.9	466.3	397.3	342.6	298.4	262.4											1,413,980	
			D <sub>u</sub>	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												
			C	2,557.2	1,705.2	1,279.0	1,023.3	852.8	731.0	639.6	568.6	511.7	465.2	426.4	393.6	365.5	341.2	319.9												
			D <sub>c</sub>	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												

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.