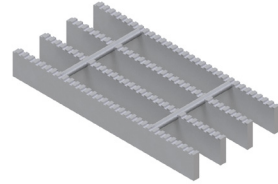




# LOAD TABLES | HEAVY DUTY, METRIC

## LOAD TABLES - HD

Grating Type: **30HW102**  
 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

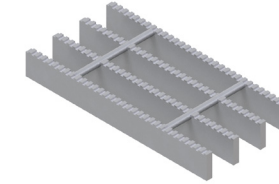
Bearing Bar Size (mm)	Approx. Weight (kg/m <sup>2</sup> )	Ped. Span (mm)	Load / Deflection	SPAN (mm)														Section Properties													
				305	457	610	762	915	1067	1219	1372	1524	1677	1829	1981	2134	2286	2438	S <sub>x</sub> (mm <sup>3</sup> /m)	I <sub>x</sub> (mm <sup>4</sup> /m)											
25 x 6	47.9	1,274.00	U	158.7	70.6	39.7	25.4	17.6	13.0	9.9	7.8												13,380								
			D <sub>u</sub>	0.7	1.5	2.8	4.3	6.2	8.4	11.0	13.9																				
			C	24.2	16.1	12.1	9.7	8.1	6.9	6.1	5.4																				
			D <sub>c</sub>	0.6	1.2	2.2	3.4	5.0	6.7	8.8	11.1												129.80E+3								
32 x 6	58.6	1,578.00	U	280.7	124.8	70.2	44.9	31.2	22.9	17.6	13.9	11.2	9.3												23,670						
			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	42.8	28.5	21.4	17.1	14.3	12.2	10.7	9.5	8.6	7.8																		
			D <sub>c</sub>	0.4	0.9	1.7	2.6	3.7	5.1	6.6	8.4	10.3	12.5												305.31E+3						
38 x 6	69.1	1,859.00	U	434.5	193.2	108.7	69.6	48.3	35.5	27.2	21.5	17.4	14.4	12.1	10.3												36,640				
			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	66.3	44.2	33.1	26.5	22.1	18.9	16.6	14.7	13.3	12.1	11.0	10.2																
			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												588.02E+3				
38 x 10	100.8	2,052.00	U	644.9	286.8	161.3	103.3	71.7	52.7	40.3	31.9	25.8	21.3	17.9	15.3	13.2												54,380			
			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															
			C	98.4	65.6	49.2	39.4	32.8	28.1	24.6	21.9	19.7	17.9	16.4	15.1	14.1															
			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												872.84E+3			
51 x 6	90.4	2,387.00	U	846.3	376.3	211.7	135.5	94.1	69.1	52.9	41.8	33.9	28.0	23.5	20.1	17.3	15.1	13.2												71,360	
			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	129.1	86.1	64.6	51.6	43.0	36.9	32.3	28.7	25.8	23.5	21.5	19.9	18.4	17.2	16.1													
			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												1.60E+6	
64 x 6	111.7	2,879.00	U	1,394.1	619.9	348.8	223.2	155.0	113.9	87.2	68.9	55.8	46.1	38.8	33.0	28.5	24.8	21.8												117,560	
			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	212.6	141.8	106.3	85.1	70.9	60.8	53.2	47.3	42.5	38.7	35.5	32.7	30.4	28.4	26.6													
			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												3.38E+6	
76 x 6	132.9	3,344.00	U	2,078.0	923.9	519.8	332.7	231.1	169.8	130.0	102.7	83.2	68.8	57.8	49.2	42.5	37.0	32.5												175,220	
			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	316.9	211.3	158.5	126.8	105.7	90.6	79.3	70.5	63.4	57.6	52.8	48.8	45.3	42.3	39.6													
			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												6.15E+6	
76 x 10	195.5	3,691.00	U	3,084.5	1,371.5	771.6	493.9	343.0	252.0	193.0	152.5	123.5	102.1	85.8	73.1	63.0	54.9	48.3												260,090	
			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	470.4	313.7	235.3	188.2	156.9	134.5	117.7	104.6	94.1	85.6	78.4	72.4	67.2	62.8	58.8													
			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												9.13E+6	

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.

30HW102 (mm)										
# of Bars	2	3	4	5	6	7	8	9	10	11
6mm Bars	36	66	96	126	156	186	216	246	276	306
10mm Bars	40	70	100	130	160	190	220	250	280	310
# of Bars	12	13	14	15	16	17	18	19	20	21
6mm Bars	336	366	396	426	456	486	516	546	576	606
10mm Bars	340	370	400	430	460	490	520	550	580	610
# of Bars	22	23	24	25	26	27	28	29	30	31
6mm Bars	636	666	696	726	756	786	816	846	876	906
10mm Bars	640	670	700	730	760	790	820	850	880	910

## LOAD TABLES - HD

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 Surface: **Serrated**



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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	154.2	3,788.00	U	2,897.8	1,288.5	724.9	464.0	322.3	236.8	181.3	143.2	116.0	95.9	80.6	68.7	59.2	51.6	45.4												244,350	
			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	441.9	294.7	221.0	176.8	147.4	126.3	110.5	98.3	88.4	80.4	73.7	68.0	63.2	59.0	55.3													
			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												10.13E+6	
89 x 10	229.2	4,181.00	U	4,301.5	1,912.6	1,076.1	688.8	478.4	351.5	269.1	212.6	172.2	142.3	119.6	101.9	87.9	76.6	67.3												362,710	
			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	656.0	437.4	328.1	262.5	218.8	187.5	164.1	145.8	131.3	119.3	109.4	101.0	93.8	87.5	82.1													
			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												15.03E+6	
102 x 6	175.5	4,215.00	U	3,853.7	1,713.5	964.1	617.1	428.6	314.9	241.1	190.5	154.3	127.5	107.2	91.3	78.7	68.6	60.3												324,960	
			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	587.7	391.9	293.9	235.2	196.0	168.0	147.0	130.7	117.6	106.9	98.0	90.5	84.0	78.4	73.5													
			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												15.53E+6	
102 x 10	260.8	4,652.00	U	5,720.3	2,543.5	1,431.0	916.0	636.1	467.4	357.9	282.8	229.1	189.3	159.1	135.5	116.9	101.8	89.5												482,360	
			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	872.4	581.7	436.3	349.1	290.9	249.4	218.2	194.0	174.6	158.7	145.5	134.3	124.7	116.4	109.1													
			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												23.06E+6	
127 x 10	323.9	5,552.00	U	9,163.8	4,074.6	2,292.5	1,467.4	1,019.1	748.8	573.3	453.0	366.9	303.3	254.8	217.1	187.2	163.1	143.4												772,720	
			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	1,397.5	931.9	699.0	559.2	466.0	399.5	349.5	310.7	279.6	254.2	233.0	215.1	199.8	186.4	174.8													
			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												46.75E+6	
152 x 10	387.1	6,405.00	U	13,414.9	5,964.8	3,355.9	2,148.1	1,491.8	1,096.1	839.3	663.1	537.2	443.9	373.0	317.9	274.1	238.8	210.0												1,131,180	
			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	2,045.8	1,364.1	1,023.2	818.6	682.2	584.8	511.7	454.8	409.4	372.2	341.1	314.9	292.4	272.9	255.9													
			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												82.80E+6	