

LOAD TABLES | STANDARD DUTY, METRIC

STANDARD DUTY - METRIC

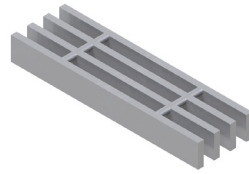
Load Tables - ADA

Grating Type: **17W102**

Design Code: **NAAMM MBG 534-19**

Material: **ASTM A1011CS Type B**

Surface: **Smooth**



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 = 124.11 MPa

Bearing Bar Size (mm)	Approx. Weight (kg/m ²)	Ped. Span (mm)	Load / Deflection	SPAN (mm)												Section Properties				
				610	762	915	1067	1220	1372	1524	1677	1829	1982	2134	2286	2438	S _x (mm ³)/m	I _x (mm ⁴)/m		
																S _x (mm ³)/m	I _x (mm ⁴)/m			
25 x 5	59.1	1,673.00	U	81.0	51.9	36.0	26.5	20.3	16.0	13.0	10.7						30,360			
			D _u	1.9	3.0	4.3	5.8	7.6	9.6	11.8	14.3									
			C	24.7	19.8	16.5	14.1	12.4	11.0	9.9	9.0									
			D _c	1.5	2.4	3.4	4.6	6.1	7.7	9.5	11.4							385.58E+3		
32 x 5	73.3	1,980.00	U	127.0	81.3	56.5	41.5	31.8	25.1	20.3	16.8	14.1	12.0				47,590			
			D _u	1.5	2.4	3.4	4.6	6.0	7.7	9.4	11.4	13.6	16.0							
			C	38.7	31.0	25.8	22.1	19.4	17.2	15.5	14.1	12.9	11.9							
			D _c	1.2	1.9	2.7	3.7	4.8	6.1	7.6	9.1	10.9	12.8					756.65E+3		
38 x 5	88.0	2,268.00	U	182.3	116.7	81.0	59.6	45.6	36.0	29.2	24.1	20.3	17.3	14.9	13.0			68,310		
			D _u	1.3	2.0	2.8	3.9	5.0	6.4	7.9	9.5	11.4	13.3	15.5	17.7					
			C	55.6	44.5	37.1	31.8	27.8	24.7	22.2	20.2	18.5	17.1	15.9	14.8					
			D _c	1.0	1.6	2.3	3.1	4.0	5.1	6.3	7.6	9.1	10.7	12.4	14.2				1.30E+6	
45 x 5	102.2	2,548.00	U	248.7	159.2	110.6	81.2	62.2	49.2	39.8	32.9	27.7	23.6	20.3	17.7	15.6			93,190	
			D _u	1.1	1.7	2.4	3.3	4.3	5.5	6.8	8.2	9.7	11.4	13.2	15.2	17.3				
			C	75.8	60.7	50.6	43.3	37.9	33.7	30.3	27.6	25.3	23.3	21.7	20.2	19.0				
			D _c	0.9	1.4	1.9	2.6	3.5	4.4	5.4	6.5	7.8	9.1	10.6	12.1	13.8				2.07E+6
51 x 5	116.2	2,814.00	U	324.0	207.4	144.1	105.9	81.1	64.1	51.9	42.9	36.0	30.7	26.5	23.1	20.3			121,440	
			D _u	0.9	1.5	2.1	2.9	3.8	4.8	5.9	7.2	8.5	10.0	11.6	13.3	15.1				
			C	98.8	79.1	65.9	56.5	49.4	43.9	39.5	36.0	33.0	30.4	28.3	26.4	24.7				
			D _c	0.8	1.2	1.7	2.3	3.0	3.8	4.7	5.7	6.8	8.0	9.3	10.6	12.1				3.08E+6
64 x 5	144.3	3,326.00	U	506.3	324.1	225.1	165.4	126.7	100.1	81.1	67.0	56.3	48.0	41.4	36.0	31.7			189,750	
			D _u	0.8	1.2	1.7	2.3	3.0	3.8	4.7	5.7	6.8	8.0	9.3	10.6	12.1				
			C	154.4	123.6	103.0	88.3	77.2	68.7	61.8	56.2	51.5	47.5	44.1	41.2	38.6				
			D _c	0.6	0.9	1.4	1.9	2.4	3.1	3.8	4.6	5.4	6.4	7.4	8.5	9.7				6.02E+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.

17W102 (mm)

# of Bars	2	3	4	5	6	7	8	9	10	11
5mm Bars	22	39	56	73	90	107	124	141	158	175
# of Bars	12	13	14	15	16	17	18	19	20	21
5mm Bars	192	209	226	243	260	277	294	311	328	345
# of Bars	22	23	24	25	26	27	28	29	30	31
5mm Bars	362	379	396	413	430	447	464	481	498	515
# of Bars	32	33	34	35	36	37	38	39	40	41
5mm Bars	532	549	566	583	600	617	634	651	668	685

STANDARD DUTY - METRIC

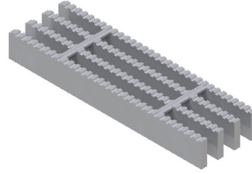
Load Tables - ADA

Grating Type: **17W102**

Design Code: **NAAMM MBG 534-19**

Material: **ASTM A1011CS Type B**

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 = 124.11 MPa

Bearing Bar Size (mm)	Approx. Weight (kg/m ²)	Ped. Span (mm)	Load / Deflection	SPAN (mm)												Section Properties			
				610	762	915	1067	1220	1372	1524	1677	1829	1982	2134	2286	2438	S _x (mm ³)/m	I _x (mm ⁴)/m	
25 x 5	45.8	1,367.00	U	47.3	30.3	21.0	15.4	11.8	9.3									17,710	
			D _u	2.5	3.9	5.6	7.6	9.9	12.5										171.80E+3
			C	14.4	11.5	9.6	8.2	7.2	6.4										
			D _c	2.0	3.1	4.5	6.1	7.9	10.0										
32 x 5	60.0	1,693.00	U	83.6	53.5	37.2	27.3	20.9	16.5	13.4	11.1	9.3						31,320	
			D _u	1.9	2.9	4.2	5.7	7.5	9.4	11.6	14.1	16.8							404.08E+3
			C	25.5	20.4	17.0	14.6	12.8	11.3	10.2	9.3	8.5							
			D _c	1.5	2.3	3.4	4.6	6.0	7.5	9.3	11.3	13.4							
38 x 5	74.0	1,994.00	U	129.4	82.8	57.5	42.3	32.4	25.6	20.7	17.1	14.4	12.3	10.6				48,490	
			D _u	1.5	2.3	3.4	4.6	6.0	7.6	9.4	11.3	13.5	15.8	18.3					778.26E+3
			C	39.5	31.6	26.3	22.6	19.7	17.5	15.8	14.4	13.2	12.1	11.3					
			D _c	1.2	1.9	2.7	3.7	4.8	6.1	7.5	9.1	10.8	12.7	14.7					
45 x 5	88.9	2,285.00	U	186.1	119.1	82.8	60.8	46.6	36.8	29.8	24.6	20.7	17.6	15.2	13.2			69,750	
			D _u	1.2	2.0	2.8	3.8	5.0	6.3	7.8	9.4	11.2	13.2	15.3	17.6				1.34E+6
			C	56.8	45.4	37.9	32.4	28.4	25.2	22.7	20.7	18.9	17.5	16.2	15.1				
			D _c	1.0	1.6	2.2	3.1	4.0	5.1	6.2	7.6	9.0	10.5	12.2	14.0				
51 x 5	102.9	2,561.00	U	252.0	161.3	112.1	82.3	63.0	49.8	40.4	33.4	28.0	23.9	20.6	17.9	15.8		94,450	
			D _u	1.1	1.7	2.4	3.3	4.3	5.4	6.7	8.1	9.7	11.3	13.1	15.1	17.2			2.12E+6
			C	76.9	61.5	51.3	43.9	38.4	34.2	30.8	28.0	25.6	23.7	22.0	20.5	19.2			
			D _c	0.9	1.3	1.9	2.6	3.4	4.3	5.4	6.5	7.7	9.1	10.5	12.1	13.7			
64 x 5	131.0	3,088.00	U	415.2	265.8	184.6	135.6	103.9	82.1	66.5	54.9	46.2	39.3	33.9	29.6	26.0		155,590	
			D _u	0.8	1.3	1.9	2.6	3.3	4.2	5.2	6.3	7.5	8.8	10.2	11.8	13.4			4.47E+6
			C	126.6	101.3	84.4	72.4	63.3	56.3	50.7	46.1	42.2	39.0	36.2	33.8	31.7			
			D _c	0.7	1.0	1.5	2.0	2.7	3.4	4.2	5.1	6.0	7.1	8.2	9.4	10.7			

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17W102 (mm)

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