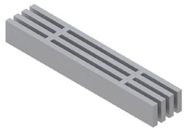
LOAD TABLES - HEELS FRIENDLY

Grating Type: 11W102
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. Wieght (kg/m^2)	Ped. Span (mm)	Load / Deflection	SPAN (mm) 610	762	915	1067	1220	1372	1524	1677	1829	1982	2134	2286	2438	Section Properties S_x (mm^3)/m	I_x (mm^4)/m
25 x 5	89.8	1,865.00	U	125.2	80.1	55.7	40.9	31.3	24.7	20.0	16.6	13.9	11.9				46,920	
			D_u	1.9	3.0	4.3	5.8	7.6	9.6	11.8	14.3	17.0	20.0					
			C	38.2	30.6	25.5	21.8	19.1	17.0	15.3	13.9	12.7	11.8				595.89E+3	
			D_c	1.5	2.4	3.4	4.6	6.1	7.7	9.5	11.4	13.6	16.0					
32 x 5	111.8	2,208.00	U	196.2	125.6	87.3	64.1	49.1	38.8	31.4	26.0	21.8	18.6	16.0	14.0		73,540	
			D_u	1.5	2.4	3.4	4.6	6.0	7.7	9.4	11.4	13.6	16.0	18.5	21.3			
			C	59.9	47.9	39.9	34.2	29.9	26.6	24.0	21.8	20.0	18.4	17.1	16.0		1.17E+6	
			D_c	1.2	1.9	2.7	3.7	4.8	6.1	7.6	9.1	10.9	12.8	14.8	17.0			
38 x 5	134.1	2,528.00	U	281.7	180.3	125.3	92.0	70.5	55.7	45.1	37.3	31.3	26.7	23.0	20.1	17.6	105,570	
			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	20.2		
			C	85.9	68.7	57.3	49.1	43.0	38.2	34.4	31.3	28.7	26.4	24.6	22.9	21.5	2.01E+6	
			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	16.1		

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.

11W102 (mm)

# of Bars	2	3	4	5	6	7	8	9	10	11
5mm Bars	16	27	38	49	60	71	82	93	104	115
# of Bars	12	13	14	15	16	17	18	19	20	21
5mm Bars	126	137	148	159	170	181	192	203	214	225
# of Bars	22	23	24	25	26	27	28	29	30	31
5mm Bars	236	247	258	269	280	291	302	313	324	335
# of Bars	32	33	34	35	36	37	38	39	40	41
5mm Bars	346	357	368	379	390	401	401	423	434	445
# of Bars	42	43	44	45	46	47	48	49	50	51
5mm Bars	456	467	478	489	500	511	522	533	544	555
# of Bars	52	53	54	55	56	57	58	59	60	61
5mm Bars	566	577	588	599	610	621	632	643	654	665
# of Bars	62	63	64	65	66	67	68	69	70	71
5mm Bars	676	676	698	709	720	731	742	753	764	775

Deduct 1.5mm for 3mm bearing bars