

Steel Grating Loading Table of 30 mm Spacing Bearing Bar

MILD STEEL GRATING TABLE OF LOADS AND DEFLECTIONS

Bearing Bar Center 30mm

TYPE	Mass kg/m ²		SPAN	PAN	SPAN	SPAN	SPAN	SPAN									
			200	400	600	800	1000	1200									
WB(20x5)	33	U	377	94	41	23	15	10	SPAN								
WBF(20x5)	36	D	0.34	1.37	3.05	5.44	8.73	12.21	1400								
WB(25x3)	26.3	U	354	88	39	22	14	9									
WBF(25x3)	29.3	D	0.28	1.1	2.47	4.43	6.94	9.35									
WB(25x5)	40.4	U	590	147	65	36	23	16	12	SPAN							
WBF(25x5)	43.4	D	0.28	1.1	2.47	4.35	6.82	9.92	13.9	1600							
WB(32x3)	32.8	U	580	145	64	36	23	16	11	9	SPAN						
WBF(32x3)	35.8	D	0.21	0.86	1.93	3.45	5.41	7.85	10.09	14.19	1800						
WB(40x3)	40.3	U	906	223	100	56	36	25	18	14	11	SPAN					
WBF(40x3)	43.3	D	0.17	0.69	1.54	2.74	4.32	6.25	8.39	11.2	14.21	2000					
WB(32x5)	50.9	U	967	244	107	60	38	26	19	15	11						
WBF(32x5)	53.9	D	0.22	0.86	1.94	3.44	5.35	7.64	10.42	14.13	16.81						
WB(38x5)	60.5	U	1252	313	139	78	50	34	25	19	15	12	SPAN				
WBF(38x5)	63.5	D	0.18	0.74	1.66	2.97	4.66	6.61	9.05	11.81	15.05	18.51	2200				
WB(40x5)	62.9	U	1511	377	167	94	60	41	30	23	18	15					
WBF(40x5)	65.9	D	0.17	0.69	1.54	2.76	4.31	6.14	8.37	11.02	13.02	17.8					
WB(50x3)	49.6	U	1416	354	157	88	56	39	28	22	17	14	11	SPAN			
WBF(50x3)	52.6	D	0.14	0.55	1.24	2.2	3.43	4.97	6.65	8.95	11.16	14.09	16.37	2400			
WB(45x5)	70.4	U	1912	478	212	119	76	53	39	29	23	19	15				
WBF(45x5)	73.4	D	0.15	0.61	1.38	2.45	3.83	5.56	7.62	9.73	12.44	15.76	18.39				
WB(50x5)	77.9	U	2361	590	262	147	94	65	48	36	29	23	19	16	SPAN		
WBF(50x5)	80.9	D	0.14	0.55	1.24	2.2	3.45	4.97	6.82	8.78	11.39	13.86	16.88	20.28	2600		
WB(65x5)	100.4	U	3990	997	443	248	159	110	81	62	49	39	32	27	2800		
WBF(65x5)	103.4	D	0.11	0.42	0.95	1.7	2.65	3.81	5.22	6.84	8.7	10.61	12.82	15.4	3000		
															23	20	17
															18.18	21.4	24.18

U=Uniform load kN/ m² D=Maximum deflection mm

Spans in the table above have a deflection, D<4mm for U=2kN/ m², which is a limiting deflection for pedestrian comfort
If single plate area is less than 1 m², mass will increase.

CONVERSION DATA: SERRATED GRATING

grating size	20x5	25x3	25x5	32x3	32x5	38x5	40x3	40x5	45x5	50x3	50x5	85x5
Multiply U by:	-	0.77	0.77	0.81	0.81	0.84	0.87	0.87	0.85	0.88	0.88	0.9
Multiply deflection by:	-	1.14	1.14	1.11	1.11	1.09	1.07	1.07	1.08	1.07	1.07	1.05

NOTE:all deflections are theoretical and are based on standard engineering practices.They are provided for design selection only and should not be consider as absolute

STANDARD WIDTH

Number of bearing bars	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Nominal width	125	155	185	215	245	275	305	335	365	395	425	455	485	515	545
Number of bearing bars	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Nominal width	575	605	635	665	695	725	755	785	815	845	875	905	935	965	995

MAX

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