

Vitagrid load tables

Bending Stress = 225 MPa

U = kg/m² UDL

C = kg/m width line load

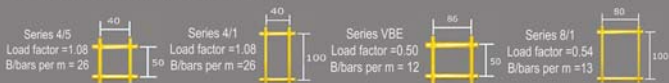
d = deflection at centre Deflection does not exceed 1/200 or 10mm

Note: Galvanizing will increase masses/m² by 9% on average.

Use of series table

For other loadings to suit your needs in different series shown on the "additional grating series table" below - please select the load factor of the required series and multiply the load shown under the required span in the SERIES VE table ONLY by the factor. The result will be the load of that series at that span. Do not apply the load factors to the deflections as these remain consistent. Loads have been reduced to accommodate deflection and bending stress criteria. Masses shown are average theoretical and may vary dependent on mill tolerances.

Additional Grating Series



Mildsteel Walkway Load Table Series "VE"



B/Bar	Banded Mass /m ² VE40	Banded Mass /m ² VE100	LOAD	Spans shown in mm									
				500	750	1000	1250	1500	1800	2000	2250	2500	
25 x 3	24	20	U	4853	2155	908	465	269					
			d	1.6	3.75	5.00	6.25	7.50					
			C	1213	809	568	364	253					
			d	1.33	3.00	5.00	6.25	7.50					
25 x 4.5	32	28	U	7278	3231	1363	698	404					
			d	1.67	3.75	5.00	6.25	7.50					
			C	1820	1213	852	545	379					
			d	1.33	3.00	5.00	6.25	7.50					
30 x 3	28	24	U	6987	3105	1571	804	465	269				
			d	1.39	3.13	5.00	6.25	7.50	9.00				
			C	1747	1164	874	628	436	302				
			d	1.11	2.50	4.45	6.25	7.50	9.00				
30 x 4.5	37	33	U	10482	4659	2355	1206	698	404	294			
			d	1.39	3.13	5.00	6.25	7.50	9.00	10.00			
			C	2621	1747	1310	942	654	455	368			
			d	1.11	2.50	4.45	6.25	7.50	9.00	10.00			
40 x 3	34	30	U	12423	5521	3105	1905	1103	638	465	292		
			d	1.04	2.35	4.17	6.25	7.50	9.00	10.00	10.00		
			C	3105	2070	1553	1242	1034	718	582	409		
			d	0.83	1.88	3.34	5.21	7.50	9.00	10.00	10.00		
40 x 4.5	47	43	U	18634	8281	4659	2858	1655	958	698	436	286	
			d	1.04	2.35	4.17	6.25	7.50	9.00	10.00	10.00	10.00	
			C	4659	3105	2329	1864	1551	1077	872	613	447	
			d	0.83	1.88	3.34	5.21	7.50	9.00	10.00	10.00	10.00	

Light = > 3 kN/m²

Medium = > 5 kN/m²

Heavy = > 7.5kN/m²

Load table

Series "VFE"

Series 5/5
centres



Series 5/1
centres



B/Bar	Banded Mass /m ² 50/50	Banded Mass /m ² 50/100	L O A D	Spans shown in mm									
				500	750	1000	1250	1500	1750	1800	2000	2250	
25 X 3	21	17	U	4077	1810	763	391	226					
			d	1.6	3.75	5.00	6.25	7.50					
			C	1019	680	477	306	213					
			d	1.33	3.00	5.00	6.25	7.50					
25 x 4.5	28	24	U	6114	2714	1145	586	339	213				
			d	1.67	3.75	5.00	6.25	7.50	8.75				
			C	1529	1019	716	458	318	234				
			d	1.33	3.00	5.00	6.25	7.50	8.75				
30 X 3	24	20	U	5869	2608	1320	675	391	246	226			
			d	1.39	3.13	5.00	6.25	7.50	8.75	9.00			
			C	1467	978	734	528	366	270	254			
			d	1.11	2.50	4.45	6.25	7.50	8.75	9.00			
30 X 4.5	32	28	U	8805	3914	1978	1013	586	370	339	247		
			d	1.39	3.13	5.00	6.25	7.50	8.75	9.00	10.00		
			C	2202	1467	1100	791	549	404	382	309		
			d	1.11	2.50	4.45	6.25	7.50	8.75	9.00	10.00		
40 X 3	29	25	U	10435	4638	2608	1600	927	584	536	391	245	
			d	1.04	2.35	4.17	6.25	7.50	8.75	9.00	10.00	10.00	
			C	2608	1739	1305	1043	869	638	603	489	344	
			d	0.83	1.88	3.34	5.21	7.50	8.75	9.00	10.00	10.00	
40 X 4.5	40	36	U	15653	6956	3914	2401	1390	875	805	586	366	
			d	1.04	2.35	4.17	6.25	7.50	8.75	9.00	10.00	10.00	
			C	3914	2608	1956	1566	1303	957	905	732	515	
			d	0.83	1.88	3.34	5.21	7.50	8.75	9.00	10.00	10.00	

Light = > 3 kN/m²

Medium = > 5 kN/m²

Heavy = > 7.5kN/m²

Load table

Series "30/50"

Series 3/5
centres



Series 3/1
centres



B/Bar	Banded Mass /m ² 30/50	Banded Mass /m ² 30/100	L O A D	Spans shown in mm									
				500	750	1000	1250	1500	1750	1800	2000	2250	
25 X 3	29	25	U	6940	3082	1298	665	385					
			d	1.6	3.75	5.00	6.25	7.50					
			C	1735	1157	812	521	362					
			d	1.33	3.00	5.00	6.25	7.50					
25 x 4.5	40	36	U	10408	4620	1949	998	578	363				
			d	1.67	3.75	5.00	6.25	7.50	8.75				
			C	2603	1735	1218	779	542	398				
			d	1.33	3.00	5.00	6.25	7.50	8.75				
30 X 3	33	29	U	9991	4440	2247	1150	665	419	385			
			d	1.39	3.13	5.00	6.25	7.50	8.75	9.00			
			C	2498	1665	1250	898	623	459	432			
			d	1.11	2.50	4.45	6.25	7.50	8.75	9.00			
30 X 4.5	46	42	U	14989	6662	3368	1725	998	629	578	420		
			d	1.39	3.13	5.00	6.25	7.50	8.75	9.00	10.00		
			C	3748	2498	1873	1347	935	688	651	526		
			d	1.11	2.50	4.45	6.25	7.50	8.75	9.00	10.00		
40 X 3	42	38	U	17765	7895	4440	2724	1577	994	912	665	418	
			d	1.04	2.35	4.17	6.25	7.50	8.75	9.00	10.00	10.00	
			C	4440	2960	2221	1776	1479	1085	1027	832	585	
			d	0.83	1.88	3.34	5.21	7.50	8.75	9.00	10.00	10.00	
40 X 4.5	58	54	U	26647	11842	6662	1087	2367	1490	1370	998	623	
			d	1.04	2.35	4.17	6.25	7.50	8.75	9.00	10.00	10.00	10.00
			C	6662	4440	3330	2666	2218	1629	1540	1247	877	
			d	0.83	1.88	3.34	5.21	7.50	8.75	9.00	10.00	10.00	

Light = > 3 kN/m²

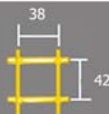
Medium = > 5 kN/m²

Heavy = > 7.5kN/m²

Vitagrid load tables

Stainless Steel Loading Table Series "VE"

Series VE40 openings



Series VE100 openings



B/Bar	B/Bar Type	Banded Mass /m ² VE40	Banded Mass /m ² VE100	LOAD	Spans shown in mm								
					500	750	1000	1250	1500	1800	2100	2400	
25 x 4.5	2	32	28	U	6923	2902	1222	625	362				
				d	1.76	3.75	5	6.25	7.5				
				C	1730	1153	763	489	339				
				d	1.42	3.19	5	6.25	7.5				
30 x 4.5	5	36	32	U	9969	4431	2092	1070	620	358	215		
				d	1.49	3.35	5	6.25	7.5	9	10		
				C	2492	1661	1246	835	581	402	282		
				d	1.19	2.68	4.77	6.25	7.5	9	10		
40 x 4.5	8	46	42	U	17724	7877	4431	2530	1464	847	507	297	
				d	1.12	2.52	4.48	6.25	7.5	9	10	10	
				C	4431	2954	2215	1772	1371	952	667	446	
				d	0.9	2.02	3.59	5.61	7.5	9	10	10	
50 x 4.5	10	55	51	U	27692	12589	6923	4431	2876	1663	997	584	
				d	0.89	2	3.56	5.57	7.5	9	10	10	
				C	6982	4615	3461	2769	2308	1871	1309	877	
				d	0.71	1.16	2.85	4.46	6.42	9	10	10	

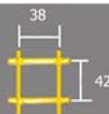
Light = > 3 kN/m²

Medium = > 5 kN/m²

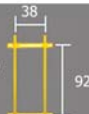
Heavy = > 7.5kN/m²

Aluminium Loading Table Series "VE"

Series VE40 openings



Series VE100 openings



Bending Stress criteria: 160 MPa

B/Bar	Banded Mass /m ² VE40	Banded Mass /m ² VE100	LOAD	Spans shown in mm								
				500	700	900	1000	1200	1300	1400	1600	1700
25 x 4.5	13	11	U	2858	1028	481	350	202	159			
			d	2.5	3.5	4.5	5	6	6.5			
			C	861	442	268	217	151	129			
			d	2.5	3.5	4.5	5	6	6.5			
30 x 4.5	15	13	U	4994	1796	840	612	335	236	211		
			d	2.5	3.5	4.5	5	6	6.5	7		
			C	1505	772	468	379	250	213	183		
			d	2.5	3.5	4.5	5.8	6.5	7	7.5		
40 x 4.5	19	17	U	12173	4375	2047	1490	851	669	535	358	299
			d	2.5	3.5	4.5	5	6	6.25	7	8	8.5
			C	3671	1880	1139	923	634	541	466	357	316
			d	2.5	3.5	4.5	5	6	6.5	7	8	8.5

Light = > 3 kN/m²

Medium = > 5 kN/m²

Heavy = > 7.5kN/m²

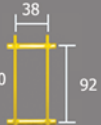
Heavy Duty Load Table

Series "VE"

Series VE40 openings



Series VE100 openings



B/Bar	Banded Mass/m ² VE40	LOAD	Spans shown in mm								
			500	750	1000	1250	1500	1800	2400	2750	3000
50 x 5	53.6	U	30092	13374	7107	4814	3125	1807	635	396	260
		d	0.89	2.0	3.6	5.6	7.5	9.0	10.0	10.0	10.0
		C	7523	5015	3761	3008	2508	2033	953	669	487
		d	0.71	1.61	2.9	4.5	6.4	9.0	10.0	10.0	10.0
50 x 6	62.6	U	36111	16490	9028	5777	3749	2170	763	475	312
		d	0.89	2.0	3.56	5.57	7.5	9.0	10.0	10.0	10.0
		C	9028	6018	4513	3611	3008	2440	1144	803	585
		d	0.71	1.61	2.85	4.46	6.42	9.0	10.0	10.0	10.0
60 x 6	73.4	U	45060	20027	11265	7209	5006	3271	1150	717	471
		d	0.74	1.66	2.95	4.61	6.64	9.0	10.0	10.0	10.0
		C	13000	8667	6499	5200	4333	3611	1989	1397	1019
		d	0.59	1.33	2.36	3.69	5.32	7.65	10.0	10.0	10.0
65 x 6	78.8	U	61027	27122	15256	9764	6780	4708	1692	1056	692
		d	0.68	1.53	2.71	4.24	6.11	8.8	10.0	10.0	10.0
		C	15256	10170	7628	6102	5200	4237	2539	1783	1299
		d	0.54	1.22	2.17	0.34	4.89	7.04	10.0	10.0	10.0
80 x 6	95.1	U	92445	41086	23111	14791	10271	7133	3183	1986	1303
		d	0.55	1.23	2.19	3.42	4.92	7.09	10.0	10.0	10.0
		C	23111	15407	11555	9244	7703	6420	4773	3352	2443
		d	0.44	0.99	1.75	2.74	3.94	5.67	10.0	10.0	10.0
100 x 6	116.7	U	144444	64197	36111	23111	15356	11145	6269	3913	2568
		d	0.43	0.98	1.73	2.71	3.91	5.62	10.0	10.0	10.0
		C	36111	24074	18055	14443	12036	10031	7523	6603	4813
		d	0.35	0.78	1.39	2.17	3.13	4.5	8.0	10.0	10.0

UDL Loading Table for Vitex Expanded Metal

Vitex Type	UDL Loading				
	600mm	750mm	900mm	1000mm	1200mm
W82RZ	450kg	320kg	-	-	-
W80ARZ	500kg	350kg	-	-	-
W80HRZ	1050kg	895kg	760kg	500kg	350kg
W83R	1230kg	1050kg	875kg	560kg	400kg

System Handrail Loading Table

■ = on application

HS = handrail system - Stanchion centres shown under different column loadings need to be spaced at these centres to achieve the loads shown.

Mild Steel	Stanchion size	HS	Light Duty 0.36 KN/m	Medium Duty 0.50 KN/m	Heavy Duty 0.74 KN/m	Extra Heavy 1.0 KN/m	Crowd Loading 3.0 KN/m	Approx. Mass
Handrail size	Stanchion size							per metre
34 x 2.5	43 x 2.5	1A	1 600	1 400				6.8 kg
34 x 2.5	43 x 3.0	2A	1 600	1 400				7.8 kg
38 x 2.5	48 x 4.0	3A	1 800	1 600	1 400	1 300		8.7 kg
43 x 2.5	60 x 3.0	4A	1 800	1 800	1 800	1 800		12.2 kg
60 x 4.0	95 x 4.0	5A	1 800	1 800	1 800	1 800	1 700	20 kg
Stainless Steel								
Handrail size	Stanchion size							
32 x 1.5	38 x 2.0	1B	1 300					5.5 kg
38 x 2.0	50 x 2.0	2B	1 700	1 500				6.6 kg