

Grating for the floor board

Material Grating : Steel SS400

Surface treatment Grating : fusion galvanizing

Material Grating : SUS304 Stainless Steel

The steel model choice table

Type	Stress flexibility Span mm	500	600	700	800	900	1000
UF 19	Stress kN/cm ²	1.25	1.80	2.45	3.20	4.06	5.01
	Deflection mm	0.16	0.34	0.63	1.07	1.72	2.62
UF 25	Stress kN/cm ²	0.72	1.04	1.42	1.85	2.34	2.89
	Deflection mm	0.07	0.15	0.28	0.47	0.75	1.15
UF 32	Stress kN/cm ²	0.44	0.64	0.86	1.13	1.43	1.76
	Deflection mm	0.03	0.07	0.13	0.22	0.36	0.55
UF 38	Stress kN/cm ²	0.31	0.45	0.61	0.80	1.01	1.25
	Deflection mm	0.02	0.04	0.08	0.13	0.21	0.33
UF 44	Stress kN/cm ²	0.23	0.34	0.46	0.60	0.76	0.93
	Deflection mm	0.01	0.03	0.05	0.09	0.14	0.21

Type and Numbers UF

Type	Size (mm)	The moment of inertia (cm ⁴)	modulus section (cm ³)	weight (kg/m²) The closing end
UF 19	FB 19×4.5	0.257	0.271	32.0
UF 25	FB 25×4.5	0.586	0.469	38.9
UF 32	FB 32×4.5	1.23	0.768	47.4
UF 38	FB 38×4.5	2.06	1.08	54.8
UF 44	FB 44×4.5	3.19	1.45	62.1

The SUS304 stainless steel model choice table

Type	Stress flexibility Span mm	500	600	700	800	900	1000
UFS 15	Stress kN/cm ²	2.26	3.25	4.43	5.78		
	Deflection mm	0.40	0.82	1.52	2.60		
UFS 20	Stress kN/cm ²	1.27	1.83	2.49	3.25	4.12	5.08
	Deflection mm	0.17	0.35	0.64	1.10	1.76	2.68
UFS 25	Stress kN/cm ²	0.81	1.17	1.59	2.08	2.64	3.25
	Deflection mm	0.09	0.18	0.33	0.56	0.90	1.38
UFS 32	Stress kN/cm ²	0.50	0.71	0.97	1.27	1.61	1.99
	Deflection mm	0.04	0.09	0.16	0.27	0.43	0.66
UFS 38	Stress kN/cm ²	0.35	0.51	0.69	0.90	1.14	1.41
	Deflection mm	0.02	0.05	0.09	0.16	0.26	0.39
UFS 45	Stress kN/cm ²	0.25	0.36	0.49	0.64	0.81	1.00
	Deflection mm	0.01	0.03	0.06	0.10	0.15	0.24

Type and Numbers UFS

Type	Size (mm)	The moment of inertia (cm ⁴)	modulus section (cm ³)	weight (kg/m²) The closing end
UFS 15	FB 15×4	0.113	0.150	21.8
UFS 20	FB 20×4	0.267	0.267	30.7
UFS 25	FB 25×4	0.521	0.417	35.9
UFS 32	FB 32×4	1.09	0.683	43.5
UFS 38	FB 38×4	1.83	0.963	50.2
UFS 45	FB 45×4	3.04	1.35	57.8

Universal design grating

The table below shows the stress and deflection when a uniformly distributed load of 3.6KN/m² is applied to a grating supported at both ends.

1100	1200	1300	1400	1500	1600	1700	1800	1900
3.50	4.16	4.89	5.67					
1.68	2.38	3.28	4.41					
2.14	2.54	2.98	3.46	3.97	4.52	5.10	5.72	
0.80	1.13	1.56	2.10	2.77	3.59	4.57	5.74	
1.51	1.80	2.12	2.45	2.82	3.20	3.62	4.06	4.52
0.48	0.68	0.93	1.26	1.65	2.14	2.73	3.43	4.26
1.13	1.34	1.58	1.83	2.10	2.39	2.70	3.02	3.37
0.31	0.44	0.60	0.81	1.07	1.38	1.76	2.21	2.74

L/500 L/400 L/300 Deflection/Span

Steel pich distance table

The number of bearing bars	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Width of the grating 「b」 dimensions	128	159	190	221	252	283	314	345	376	407	438	469	500	531

The number of bearing bars	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Width of the grating 「b」 dimensions	562	593	624	654	685	716	747	778	809	840	871	902	933	964	995

The table below shows the stress and deflection when a uniformly distributed load of 3.6KN/m² is applied to a grating supported at both ends.

1100	1200	1300	1400	1500	1600	1700	1800	1900
6.15								
3.93								
3.94	4.68	5.50						
2.01	2.85	3.93						
2.40	2.86	3.36	3.89	4.47	5.08	5.74		
0.96	1.36	1.87	2.52	3.32	4.30	5.48		
1.70	2.03	2.38	2.76	3.17	3.60	4.07	4.56	5.08
0.57	0.81	1.12	1.51	1.98	2.57	3.27	4.11	5.11
1.21	1.45	1.70	1.97	2.26	2.57	2.90	3.25	3.62
0.35	0.49	0.67	0.91	1.19	1.55	1.97	2.48	3.07

L/500 L/400 L/300 Deflection/Span

SUS304 Stainless Steel pich distance table

The number of bearing bars	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Width of the grating 「b」 dimensions	128	159	190	221	252	283	314	344	375	406	437	468	499	530

The number of bearing bars	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Width of the grating 「b」 dimensions	561	592	623	654	685	716	747	778	809	840	871	902	933	963	994