



BAR GRATING - STAINLESS STEEL

IMPERIAL - Type 19-4 Spacing

19-4

19/16"

TABLE OF SAFE LOADS - IMPERIAL

U - Safe Uniform Load, in lbs. per sq. ft.

C - Safe Concentrated Load, in lbs. per foot of grating width

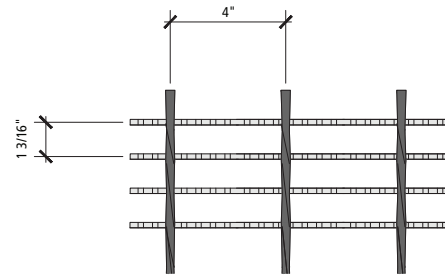
D - Deflection in inches

For serrated surface, increase depth by 1/4" for load rate.

GENERAL

Loads and deflections are theoretical and based on static loading.

Note: Spans to the right of heavy line not recommended. Deflections shown based on tabulated loadings. For lesser design loads reduce deflection in direct proportion. For serrated surface increase depth by one size.



19-4 SPACING

304 & 316 STAINLESS STEEL TYPE 19-4																	
SIZE OF BEARING BAR	APPROX. WT/LBS/SQ.FT TYPE 19-4		SPAN IN INCHES														
			1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"
3/4" X 1/8"	0.00	U	1578	701	394	252	176	129	99	78							
		D	0.026	0.063	0.114	0.178	0.257	0.350	0.457	0.579							
		C	789	526	394	316	263	226	198	176							
		D	0.022	0.051	0.091	0.143	0.206	0.280	0.366	0.463							
3/4" X 3/16"	5.64	U	2369	1053	592	379	263	193	148	117							
		D	0.026	0.063	0.114	0.178	0.257	0.350	0.457	0.579							
		C	1184	790	592	473	394	339	296	263							
		D	0.022	0.051	0.091	0.143	0.206	0.280	0.366	0.463							
1" X 1/8"	4.99	U	2809	1248	702	449	312	229	176	139	112	93					
		D	0.023	0.048	0.085	0.134	0.193	0.262	0.343	0.434	0.536	0.648					
		C	1404	936	702	561	468	401	351	312	281	256					
		D	0.021	0.040	0.069	0.107	0.154	0.209	0.274	0.348	0.428	0.519					
1" X 3/16"	7.19	U	4208	1870	1052	673	468	343	263	208	169	139					
		D	0.023	0.048	0.085	0.134	0.193	0.262	0.343	0.434	0.536	0.648					
		C	2104	1403	1052	842	702	601	527	468	421	382					
		D	0.021	0.040	0.069	0.107	0.154	0.209	0.274	0.348	0.428	0.519					
1 1/4" X 1/8"	6.09	U	4386	1949	1097	702	488	358	274	217	176	144	122	103	90		
		D	0.021	0.040	0.069	0.107	0.154	0.209	0.274	0.348	0.428	0.519	0.617	0.724	0.840		
		C	2193	1462	1097	877	731	627	548	488	439	399	366	338	313		
		D	0.020	0.033	0.055	0.085	0.123	0.168	0.220	0.277	0.343	0.414	0.494	0.580	0.672		
1 1/4" X 3/16"	8.84	U	6577	2923	1644	1052	731	537	411	324	263	218	182	156	134		
		D	0.021	0.040	0.069	0.107	0.154	0.209	0.274	0.348	0.428	0.519	0.617	0.724	0.840		
		C	3289	2192	1644	1315	1097	940	822	731	658	598	548	506	470		
		D	0.020	0.033	0.055	0.085	0.123	0.168	0.220	0.277	0.343	0.414	0.494	0.580	0.672		
1 1/2" X 1/8"	7.19	U	6315	2807	1579	1010	702	516	394	312	252	209	176	150	129	99	78
		D	0.014	0.032	0.058	0.090	0.129	0.175	0.229	0.289	0.357	0.433	0.514	0.603	0.700	0.914	1.158
		C	3157	2105	1579	1263	1052	902	790	702	631	574	527	486	451	394	351
		D	0.013	0.026	0.046	0.071	0.102	0.140	0.183	0.231	0.285	0.345	0.412	0.483	0.561	0.732	0.925
1 1/2" X 3/16"	10.48	U	9475	4211	2369	1515	1052	773	592	468	379	313	263	224	193	148	117
		D	0.014	0.032	0.058	0.090	0.129	0.175	0.229	0.289	0.357	0.433	0.514	0.603	0.700	0.914	1.158
		C	4737	3158	2369	1894	1579	1353	1184	1052	948	861	790	729	677	592	527
		D	0.013	0.026	0.046	0.071	0.102	0.140	0.183	0.231	0.285	0.345	0.412	0.483	0.561	0.732	0.925
1 3/4" X 3/16"	11.71	U	12892	5730	3223	2063	1432	1052	805	637	516	427	358	306	263	201	159
		D	0.012	0.028	0.049	0.077	0.110	0.150	0.196	0.247	0.306	0.371	0.441	0.518	0.600	0.784	0.992
		C	6446	4297	3223	2579	2149	1842	1612	1432	1290	1172	1074	992	921	805	717
		D	0.013	0.023	0.039	0.061	0.089	0.120	0.157	0.198	0.245	0.296	0.352	0.414	0.480	0.627	0.793
2" X 3/16"	13.78	U	16838	7484	4210	2694	1871	1374	1052	832	673	557	468	399	343	263	208
		D	0.012	0.024	0.043	0.067	0.097	0.131	0.171	0.218	0.268	0.325	0.386	0.452	0.525	0.686	0.868
		C	8419	5613	4210	3369	2806	2405	2105	1871	1684	1531	1403	1295	1203	1052	935
		D	0.006	0.018	0.035	0.054	0.077	0.105	0.137	0.174	0.214	0.259	0.308	0.363	0.420	0.549	0.694
2 1/4" X 3/16"	15.49	U	21313	9473	5328	3410	2369	1740	1332	1052	852	704	592	504	436	333	263
		D	0.005	0.020	0.038	0.060	0.085	0.116	0.152	0.193	0.238	0.288	0.343	0.403	0.467	0.610	0.771
		C	10657	7104	5328	4263	3552	3045	2664	2369	2131	1938	1776	1640	1522	1332	1184
		D	0.009	0.017	0.030	0.047	0.069	0.093	0.122	0.154	0.191	0.230	0.274	0.322	0.373	0.488	0.617
2 1/2" X 3/16"	17.08	U	26313	11695	6578	4210	2924	2148	1644	1300	1052	870	731	623	537	411	324
		D	0.006	0.018	0.035	0.054	0.077	0.105	0.137	0.174	0.214	0.259	0.308	0.363	0.420	0.549	0.694
		C	13156	8771	6578	5263	4385	3759	3290	2924	2631	2392	2193	2024	1880	1644	1462
		D	0.012	0.017	0.028	0.043	0.062	0.084	0.109	0.139	0.171	0.207	0.247	0.290	0.336	0.439	0.556

Maximum allowable fiber stress of 18,000 P.S.I.





BAR GRATING - STAINLESS STEEL

METRIC - Type 30-102 Spacing

30-102

30mm

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BAR
GRATING

TABLE OF SAFE LOADS

U - Safe Uniform Load, in kPa

C - Safe Concentrated Load, in kN per meter

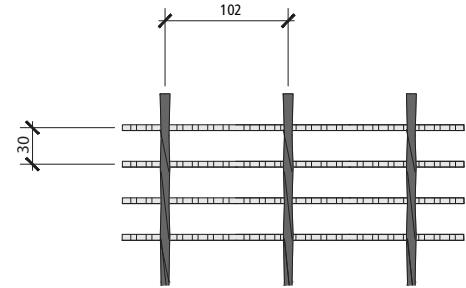
D - Deflection in millimeters

For serrated surface, increase depth by 7mm for load rate.

GENERAL

Loads and deflections are theoretical and based on static loading.

Note: Spans to the right of heavy line not recommended. Deflections shown based on tabulated loadings. For lesser design loads reduce deflection in direct proportion. For serrated surface increase depth by one size.



30-102 SPACING

		304 & 316 STAINLESS STEEL TYPE 30-102															
SIZE OF BEARING BAR	APPROX. WT/LBS/SQ.FT TYPE 30-102	SPAN IN MILLIMETER															
		305	458	610	762	915	1067	1219	1372	1524	1676	1829	1981	2133	2438	2743	
19 x 3.2	0.00	U	76	34	19	12	8	6	5	4							
		D	0.672	1.608	2.894	4.531	6.519	8.888	11.606	14.705							
		C	38	25	19	15	13	11	9	8							
		D	0.555	1.286	2.310	3.625	5.233	7.104	9.297	11.753							
19 x 4.8	27.54	U	113	50	28	18	13	9	7	6							
		D	0.672	1.608	2.894	4.531	6.519	8.888	11.606	14.705							
		C	57	38	28	23	19	16	14	13							
		D	0.555	1.286	2.310	3.625	5.233	7.104	9.297	11.753							
25 x 3.2	24.36	U	135	60	34	21	15	11	8	7	5	4					
		D	0.585	1.228	2.163	3.391	4.912	6.666	8.712	11.022	13.624	16.460					
		C	67	45	34	27	22	19	17	15	13	12					
		D	0.526	1.023	1.754	2.719	3.918	5.321	6.958	8.829	10.876	13.185					
25 x 4.8	35.10	U	202	90	50	32	22	16	13	10	8	7					
		D	0.585	1.228	2.163	3.391	4.912	6.666	8.712	11.022	13.624	16.460					
		C	101	67	50	40	34	29	25	22	20	18					
		D	0.526	1.023	1.754	2.719	3.918	5.321	6.958	8.829	10.876	13.185					
32 x 3.2	29.73	U	210	93	53	34	23	17	13	10	8	7	6	5	4		
		D	0.526	1.023	1.754	2.719	3.918	5.321	6.958	8.829	10.876	13.185	15.670	18.389	21.342		
		C	105	70	53	42	35	30	26	23	21	19	18	16	15		
		D	0.497	0.848	1.403	2.163	3.128	4.268	5.584	7.046	8.712	10.525	12.542	14.735	17.073		
32 x 4.8	43.16	U	315	140	79	50	35	26	20	16	13	10	9	7	6		
		D	0.526	1.023	1.754	2.719	3.918	5.321	6.958	8.829	10.876	13.185	15.670	18.389	21.342		
		C	158	105	79	63	53	45	39	35	32	29	26	24	23		
		D	0.497	0.848	1.403	2.163	3.128	4.268	5.584	7.046	8.712	10.525	12.542	14.735	17.073		
38 x 3.2	35.10	U	302	134	76	48	34	25	19	15	12	10	8	7	6	5	4
		D	0.351	0.819	1.462	2.280	3.274	4.444	5.818	7.338	9.063	10.993	13.068	15.319	17.775	23.213	29.411
		C	151	101	76	61	50	43	38	34	30	28	25	23	22	19	17
		D	0.322	0.672	1.169	1.813	2.602	3.567	4.648	5.876	7.250	8.771	10.466	12.279	14.238	18.594	23.505
38 x 4.8	51.17	U	454	202	113	73	50	37	28	22	18	15	13	11	9	7	6
		D	0.351	0.819	1.462	2.280	3.274	4.444	5.818	7.338	9.063	10.993	13.068	15.319	17.775	23.213	29.411
		C	227	151	113	91	76	65	57	50	45	41	38	35	32	28	25
		D	0.322	0.672	1.169	1.813	2.602	3.567	4.648	5.876	7.250	8.771	10.466	12.279	14.238	18.594	23.505
45 x 4.8	57.17	U	618	274	154	99	69	50	39	30	25	20	17	15	13	10	8
		D	0.292	0.702	1.257	1.959	2.807	3.801	4.970	6.286	7.777	9.414	11.197	13.156	15.232	19.909	25.201
		C	309	206	154	124	103	88	77	69	62	56	51	48	44	39	34
		D	0.322	0.585	0.994	1.549	2.251	3.040	3.976	5.028	6.227	7.513	8.946	10.525	12.191	15.933	20.143
51 x 4.8	67.28	U	807	358	202	129	90	66	50	40	32	27	22	19	16	13	10
		D	0.292	0.614	1.082	1.696	2.456	3.333	4.356	5.525	6.812	8.244	9.794	11.490	13.331	17.424	22.043
		C	403	269	202	161	134	115	101	90	81	73	67	62	58	50	45
		D	0.146	0.468	0.877	1.374	1.959	2.660	3.479	4.415	5.438	6.578	7.835	9.209	10.671	13.945	17.629
57 x 4.8	75.63	U	1021	454	255	163	113	83	64	50	41	34	28	24	21	16	13
		D	0.117	0.497	0.965	1.520	2.163	2.953	3.859	4.912	6.052	7.309	8.712	10.232	11.870	15.495	19.588
		C	510	340	255	204	170	146	128	113	102	93	85	79	73	64	57
		D	0.234	0.439	0.760	1.199	1.754	2.368	3.099	3.918	4.853	5.847	6.958	8.186	9.472	12.396	15.670
64 x 4.8	83.39	U	1260	560	315	202	140	103	79	62	50	42	35	30	26	20	16
		D	0.146	0.468	0.877	1.374	1.959	2.660	3.479	4.415	5.438	6.578	7.835	9.209	10.671	13.945	17.629
		C	630	420	315	252	210	180	158	140	126	115	105	97	90	79	70
		D	0.292	0.439	0.702	1.082	1.579	2.134	2.777	3.537	4.356	5.262	6.286	7.367	8.537	11.139	14.121

Maximum allowable fiber stress of 124 M.P.A

