

Heavy Duty Grating

Use this table when evaluating spans & loads for the following types of Heavy Duty steel grating:
38-W-4 and 38-W-2

38 Space Load Table



Bearing Bar Size	Section Modulus psf	Moment of Inertia psf	Approx. Weight psf	Maximum Safe Span						
				H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1 x 1/4	0.211	0.105	5.4	0'-8"	0'-8"	0'-7"	0'-9"	0'-6"	0'-5"	0'-5"
1 x 5/16	0.263	0.132	6.5	0'-10"	0'-9"	0'-8"	0'-10"	0'-6"	0'-5"	0'-6"
1 x 3/8	0.316	0.158	7.6	0'-10"	0'-10"	0'-8"	0'-11"	0'-7"	0'-6"	0'-7"
1-1/4 x 1/4	0.329	0.206	6.5	0'-11"	0'-10"	0'-9"	1'-0"	0'-8"	0'-6"	0'-7"
1-1/4 x 5/16	0.411	0.257	7.8	1'-0"	0'-11"	0'-10"	1'-2"	0'-8"	0'-7"	0'-9"
1-1/4 x 3/8	0.493	0.308	9.2	1'-1"	1'-0"	0'-11"	1'-4"	0'-9"	0'-7"	0'-10"
1-1/2 x 1/4	0.474	0.355	7.6	1'-1"	1'-0"	0'-10"	1'-3"	0'-9"	0'-7"	0'-10"
1-1/2 x 5/16	0.592	0.444	9.2	1'-3"	1'-1"	1'-0"	1'-6"	0'-10"	0'-8"	1'-0"
1-1/2 x 3/8	0.711	0.533	10.8	1'-4"	1'-3"	1'-1"	1'-9"	0'-11"	0'-9"	1'-2"
1-3/4 x 1/4	0.645	0.564	8.6	1'-4"	1'-2"	1'-0"	1'-7"	0'-10"	0'-9"	1'-0"
1-3/4 x 5/16	0.806	0.705	10.5	1'-5"	1'-3"	1'-2"	1'-11"	0'-11"	0'-10"	1'-3"
1-3/4 x 3/8	0.967	0.846	12.4	1'-7"	1'-5"	1'-3"	2'-3"	1'-1"	1'-0"	1'-6"
2 x 1/4	0.842	0.842	9.7	1'-5"	1'-4"	1'-2"	2'-0"	1'-0"	0'-11"	1'-4"
2 x 5/16	1.053	1.053	11.9	1'-8"	1'-6"	1'-4"	2'-5"	1'-1"	1'-0"	1'-7"
2 x 3/8	1.263	1.263	14.0	1'-9"	1'-8"	1'-6"	2'-10"	1'-3"	1'-2"	1'-11"
2-1/4 x 1/4	1.066	1.199	10.8	1'-8"	1'-6"	1'-4"	2'-5"	1'-1"	1'-1"	1'-8"
2-1/4 x 5/16	1.332	1.499	13.2	1'-10"	1'-8"	1'-6"	3'-0"	1'-3"	1'-3"	2'-0"
2-1/4 x 3/8	1.599	1.799	15.6	2'-0"	1'-10"	1'-8"	3'-6"	1'-5"	1'-5"	2'-5"
2-1/2 x 1/4	1.316	1.645	11.9	1'-10"	1'-8"	1'-6"	2'-11"	1'-3"	1'-3"	2'-0"
2-1/2 x 5/16	1.645	2.056	14.5	2'-1"	1'-11"	1'-9"	3'-7"	1'-6"	1'-6"	2'-6"
2-1/2 x 3/8	1.974	2.467	17.2	2'-3"	2'-1"	2'-0"	4'-2"	1'-8"	1'-9"	2'-11"
3 x 1/4	1.895	2.842	14.0	2'-2"	2'-1"	1'-11"	4'-1"	1'-8"	1'-8"	2'-10"
3 x 5/16	2.368	3.553	17.2	2'-6"	2'-4"	2'-3"	4'-9"	1'-11"	2'-0"	3'-6"
3 x 3/8	2.842	4.263	20.4	2'-10"	2'-8"	2'-7"	5'-0"	2'-3"	2'-5"	4'-2"
3-1/2 x 1/4	2.579	4.513	16.2	2'-8"	2'-6"	2'-5"	5'-1"	2'-1"	2'-2"	3'-9"
3-1/2 x 5/16	3.224	5.641	19.9	3'-1"	2'-11"	2'-10"	5'-6"	2'-6"	2'-8"	4'-8"
3-1/2 x 3/8	3.868	6.770	23.7	3'-6"	3'-4"	3'-4"	5'-10"	2'-11"	3'-2"	5'-3"
4 x 1/4	3.368	6.737	18.3	3'-2"	3'-0"	2'-11"	5'-10"	2'-7"	2'-9"	4'-11"
4 x 5/16	4.211	8.421	22.6	3'-8"	3'-7"	3'-7"	6'-3"	3'-2"	3'-5"	5'-7"
4 x 3/8	5.053	10.105	26.9	4'-3"	4'-2"	4'-2"	6'-8"	3'-8"	4'-0"	6'-0"
4-1/2 x 1/4	4.263	9.592	20.4	3'-9"	3'-7"	3'-7"	6'-7"	3'-2"	3'-5"	5'-10"
4-1/2 x 5/16	5.329	11.990	25.3	4'-5"	4'-4"	4'-4"	7'-1"	3'-11"	4'-3"	6'-4"
4-1/2 x 3/8	6.395	14.388	30.1	5'-1"	5'-0"	5'-1"	7'-6"	4'-7"	5'-0"	6'-9"
5 x 1/4	5.263	13.158	22.6	4'-4"	4'-3"	4'-3"	7'-4"	3'-10"	4'-2"	6'-6"
5 x 3/8	7.895	19.737	33.3	5'-10"	5'-10"	5'-11"	8'-4"	5'-6"	6'-0"	7'-6"
5 x 1/2	10.526	26.316	44.1	6'-5"	6'-5"	6'-6"	9'-2"	6'-4"	6'-8"	8'-3"
6 x 1/4	7.579	22.737	26.9	5'-10"	5'-10"	5'-11"	8'-9"	5'-4"	5'-11"	7'-10"
6 x 3/8	11.368	34.105	39.8	6'-11"	7'-0"	7'-1"	10'-0"	6'-11"	7'-3"	9'-0"
6 x 1/2	15.158	45.474	52.7	7'-8"	7'-8"	7'-10"	11'-1"	7'-7"	8'-0"	9'-11"
7 x 1/4	10.316	36.105	31.2	7'-1"	7'-2"	7'-3"	10'-3"	7'-1"	7'-5"	9'-2"
7 x 3/8	15.474	54.158	46.2	8'-1"	8'-2"	8'-4"	11'-8"	8'-1"	8'-5"	10'-6"
7 x 1/2	20.632	72.211	61.2	8'-11"	9'-0"	9'-2"	12'-11"	8'-11"	9'-4"	11'-6"