

STANDARD LOAD TABLE / OPEN WEB STEEL JOISTS, H SERIES

Based on Allowable Stress of 30,000 PSI††

Adopted by the Steel Joist Institute and American Institute of Steel Construction, Inc., October 1, 1974.

Allowable total safe loads in pounds per linear foot of H Series Steel Joists — for joist depths 18" to 22"																				
JOIST TYPE	18H5	18H6	18H7	18H8	18H9	18H10	18H11	20H5	20H6	20H7	20H8	20H9	20H10	20H11	22H6	22H7	22H8	22H9	22H10	22H11
OVERALL DEPTH (inches)	18	18	18	18	18	18	18	20	20	20	20	20	20	20	22	22	22	22	22	22
RESISTING MOM. (inch-kips)	325	383	466	540	627	705	814	365	406	499	602	701	789	912	422	526	653	776	873	1009
MAX. END. REAC. (pounds)	4500	4800	5200	5400	5900	6600	7600	4800	5100	5400	5600	6400	7000	7900	5400	5600	5800	6700	7200	8100
MOM. OF INERTIA (inches ⁴)	101.5	119.8	143.5	164.3	179.0	202.0	229.0	123.9	141.2	171.7	206.5	224.0	253.0	287.0	165.1	200.4	247.6	275.0	309.0	352.0
†JOIST WEIGHT (lbs./ft.)	8.0	9.2	10.4	11.6	12.6	14.0	15.8	8.4	9.6	10.7	12.2	13.2	14.6	16.4	9.7	10.7	12.0	13.8	15.2	16.9
SPAN (ft.)																				
18	500	533	578	600																
19	474	505	547	568	621															
20	450	480	520	540	590			480	510	540	560	640								
21	429	457	495	514	562	629		457	486	514	533	610								
22	409	436	473	491	536	600		436	464	491	509	582	636		491	509	527	609		
23	391	417	452	470	513	574		417	443	470	487	557	609		470	487	504	583	626	
24	375	400	433	450	492	550	633	400	425	450	467	533	583		450	467	483	558	600	
25	347	384	416	432	472	528	608	384	408	432	448	512	560	632	432	448	464	536	576	648
26	321	369	400	415	454	508	585	360	392	415	431	492	538	608	415	431	446	515	554	623
27	297	350	385	400	437	489	563	334	371	400	415	474	519	585	386	415	430	496	533	600
28	276	326	371	386	421	471	543	310	345	386	400	457	500	564	359	400	414	479	514	579
29	258	304	359	372	407	455	524	289	322	372	386	441	483	545	335	386	400	462	497	559
30	241	284	345	360	393	440	507	270	301	360	373	427	467	527	313	373	387	447	480	540
31	225	266	323	348	381	426	490	253	282	346	361	413	452	510	293	361	374	432	465	523
32	212	249	303	338	369	413	475	238	264	325	350	400	438	494	275	342	363	419	450	506
33	199	234	285	327	358	400	461	223	249	305	339	388	424	479	258	322	352	406	436	491
34	187	221	269	311	347	388	447	210	234	288	329	376	412	465	243	303	341	394	424	476
35	177	208	254	294	337	377	434	199	221	272	320	366	400	451	230	286	331	383	411	463
36	167	197	240	278	323	363	419	188	209	257	310	356	389	439	217	271	322	372	400	450
37	81	96	115	132	143	162	183	99	113	137	166	179	203	230	132	160	198	220	247	282
38								178	198	243	293	341	378	427	206	256	314	362	389	438
39								91	104	127	152	165	187	212	122	148	183	203	228	260
40								169	187	230	278	324	364	416	195	243	301	353	379	426
								84	96	117	141	153	172	195	112	136	169	187	210	240
								160	178	219	264	307	346	400	185	231	286	340	369	415
								78	89	108	130	141	159	181	104	126	156	173	195	222
								152	169	208	251	292	329	380	176	219	272	323	360	405
								72	82	100	121	131	148	168	96	117	145	161	180	205
41															167	209	259	308	346	395
42															89	109	134	149	167	191
43															159	199	247	293	330	381
44															83	101	125	139	156	177
															152	190	235	280	315	364
															78	94	116	129	145	165
															145	181	225	267	301	347
															72	88	109	121	136	154

† Approximate Weights per Linear Foot of steel joists only. Accessories and nailer strip not included.
 †† For an approximate total load carrying capacity at a maximum allowable tensile stress of 22,000 psi, the total load carrying capacity shown in the load table should be multiplied by the ratio 22/30.
 ** Section 5.9 of the "Standard Specifications for Open Web Steel Joists, H Series" limits the design LIVE load deflection as follows:
 FLOORS, 1/360 span. ROOFS, 1/360 span where a plaster ceiling is attached or suspended, 1/240 of span for all other cases.

LOADS ABOVE THE COLORED LINES ARE GOVERNED BY SHEAR.

