

# **VULCRAFT LOAD TABLE** **OPEN WEB STEEL JOISTS, VH SERIES**

Based on Allowable Stress of 30,000 P.S.I.

The black figures in the following table give the TOTAL safe uniformly-distributed load-carrying capacities, in pounds per linear foot, of VH Series High Strength Steel Joists. The weight of DEAD loads, including the joists, must in all cases be deducted to determine the LIVE-load-carrying capacities of the joists. The load table may be used for parallel chords installed to a maximum slope of 1/2 inch per foot.

The figures shown in blue in this load table are the LIVE loads per linear foot of joist which will produce an approximate deflection of 1/360 of the span. LIVE loads which will produce

a deflection of 1/240 of the span may be obtained by multiplying the figures in blue by 1.5. In no case shall the total load capacity of the joist be exceeded.\*\*

Tests on steel joists designed in accordance with the Standard Specifications have demonstrated that the Standard Load Tables are applicable for concentrated top chord loadings (such as are developed in bulb-tee roof construction) when the sum of the equal concentrated top chord loadings does not exceed the allowable uniform loading for the joist type and span and the loads are placed at spacings not exceeding 33" along the top chord.

**Allowable total safe loads in pounds per linear foot of VH Series Steel Joists — for joist depths 8" to 16" inclusive.**

JOIST TYPE	8VH2	8VH4	10VH2	10VH3	10VH5	12VH2	12VH4	12VH7	14VH2	14VH5	14VH8	16VH5	16VH9
OVERALL DEPTH (inches)	8	8	10	10	10	12	12	12	14	14	14	16	16
RESISTING MOM. (inch-kips)	61	129	73	116	197	94	180	296	111	259	413	289	556
MAX. END. REAC. (pounds)	1700	3100	2000	3300	4000	2300	3900	5000	2300	4800	5900	4800	7000
MOM. OF INERTIA (inches <sup>4</sup> )	9.0	17.1	15.5	19.8	32.4	22.9	37.8	59.4	31.6	61.4	95.7	79.3	147.4
JOIST WT./FT. (pounds/ft.)	4.3	7.0	4.2	5.1	7.7	4.4	6.4	9.7	4.6	7.5	11.1	7.9	12.4
SPAN (ft.)													
8	425	650											
9	378	650											
10	340	620	400	650	650								
	336												
11	309	564	364	600	650								
	253	480											
12	282	517	333	537	650	383	650	650					
	195	370											
13	241	477	288	458	615	354	600	650					
	153	291	264	337	551								
14	207	439	248	395	571	320	557	650	329	650	650		
	123	233	211	270	441	312							
15	181	382	216	344	533	279	520	650	307	640	650		
	100	189	172	219	359	253	418						
16	159	336	190	302	500	245	469	625	288	600	650	600	650
	82	156	141	181	296	209	345	542	288				
17			168	268	454	217	415	588	256	565	650	565	650
			118	151	246	174	287	452	240				
18			150	239	405	193	370	556	228	533	650	533	650
			99	127	208	147	242	381	202	393	613		
19			135	214	364	174	332	526	205	478	621	505	650
			84	108	176	125	206	324	172	334	521	432	
20			122	193	328	157	300	493	185	432	590	480	650
			72	92	151	107	177	277	148	287	447	370	
21						142	272	447	168	392	562	437	650
						92	152	240	127	248	386	320	595
22						129	248	408	153	357	536	398	636
						80	133	208	111	215	336	278	517
23						118	227	373	140	326	513	364	609
						70	116	182	97	189	294	243	453
24						109	208	343	128	300	478	334	583
						62	102	161	85	166	259	214	398
25									118	276	441	308	560
									76	147	229	190	352
26									109	255	407	285	538
									67	131	203	169	313
27									102	237	378	264	508
									60	117	182	151	280
28									94	220	351	246	473
									54	104	163	135	251
29												229	441
												121	226
30												214	412
												110	204
31												200	386
												99	185
32												188	362
												90	168

† Approximate weights per linear foot of steel joists only. Accessories and nailer strip not included.

\*\* 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 of span where a plaster ceiling is attached or suspended; 1/240 of span for all other purposes.

LOADS ABOVE COLORED LINES ARE GOVERNED BY SHEAR.