DESIGN OF NEXSPAN2™ H SERIES

LOAD TABLES

LOAD TABLES FOR NEXSPAN2™ 14NSH3 - 3 x 3 x 1/4 H SERIES

CASE 1 - UNIFORMLY DISTRIBUTED LOAD

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	4350	0.09	NA	NA	NA
60	3464	0.14	NA	NA	NA
72	2871	0.21	NA	NA	2774
84	2444	0.28	NA	NA	2015
96	2122	0.37	NA	NA	1519
108	1870	0.47	NA	1805	1177
120	1666	0.57	NA	1438	929

CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	2175	0.07	NA	NA	NA
60	1732	0.12	NA	NA	NA
72	1435	0.17	NA	NA	NA
84	1222	0.23	NA	NA	NA
96	1061	0.3	NA	NA	950
108	935	0.38	NA	NA	736
120	833	0.47	NA	NA	581

CASE 3 - TWO EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	1631	0.09	NA	NA	NA
60	1299	0.15	NA	NA	NA
72	1076	0.21	NA	NA	1017
84	916	0.29	NA	NA	739
96	795	0.38	NA	NA	557
108	701	0.48	NA	662	432
120	624	0.59	NA	528	341

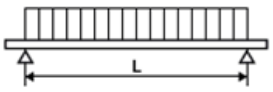
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	1087	0.09	NA	NA	NA
60	866	0.14	NA	NA	NA
72	717	0.2	NA	NA	NA
84	611	0.27	NA	NA	527
96	530	0.35	NA	NA	398
108	467	0.45	NA	NA	308
120	416	0.55	NA	376	243

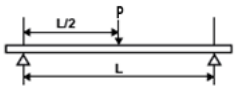
NOTES:

1. The load values in these tables are based on simply supported beams.
2. The span is measured from the supports.
3. Beam weight has already been deducted from the tables.
4. Load values indicated as “NA” were found to be higher than the maximum allowable load, and therefore not applicable.
5. HSS 3x3x1/4 is compatible with rods up to 5/8”.
6. The maximum allowable load is based on a minimum factor of safety of 3. Deflection (Δ) is based on max allowable load. Span/[length] loads are based on deflection criteria.

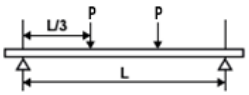
CASE 1: P = L*w



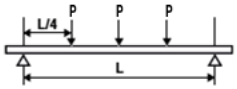
CASE 2:



CASE 3:



CASE 4:



HSS 3"X3"X1/4" ASTM A500 GR. C W/ 11/16" WIDE SLOTS

TECHNICAL DATA					
E(ksi)	Fy(ksi)	A(in²)	I(in⁴)	S(in³)	Ma(lbs-ft)
29000	50	1.80	2.37	1.58	2193

DESIGN OF NEXSPAN2™ H SERIES

LOAD TABLES

LOAD TABLES FOR NEXSPAN2™ 14NSH4 - 4 x 4 x 1/4 H SERIES

CASE 1 - UNIFORMLY DISTRIBUTED LOAD

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	7598	0.07	NA	NA	NA
60	6056	0.11	NA	NA	NA
72	5024	0.16	NA	NA	NA
84	4284	0.21	NA	NA	NA
96	3725	0.28	NA	NA	3598
108	3288	0.35	NA	NA	2811
120	2936	0.43	NA	NA	2243

CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	3799	0.06	NA	NA	NA
60	3028	0.09	NA	NA	NA
72	2512	0.12	NA	NA	NA
84	2142	0.17	NA	NA	NA
96	1862	0.22	NA	NA	NA
108	1644	0.28	NA	NA	NA
120	1468	0.35	NA	NA	1402

CASE 3 - TWO EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	2849	0.07	NA	NA	NA
60	2271	0.11	NA	NA	NA
72	1884	0.16	NA	NA	NA
84	1606	0.22	NA	NA	NA
96	1397	0.28	NA	NA	1320
108	1233	0.36	NA	NA	1031
120	1101	0.44	NA	NA	823

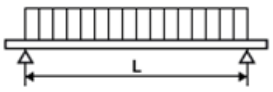
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	1899	0.07	NA	NA	NA
60	1514	0.1	NA	NA	NA
72	1256	0.15	NA	NA	NA
84	1071	0.2	NA	NA	NA
96	931	0.26	NA	NA	NA
108	822	0.33	NA	NA	736
120	734	0.41	NA	NA	587

NOTES:

1. The load values in these tables are based on simply supported beams.
2. The span is measured from the supports.
3. Beam weight has already been deducted from the tables.
4. Load values indicated as “NA” were found to be higher than the maximum allowable load, and therefore not applicable.
5. HSS 4x4x1/4 is compatible with rods up to 1”.
6. The maximum allowable load is based on a minimum factor of safety of 3. Deflection (Δ) is based on max allowable load. Span/[length] loads are based on deflection criteria.

CASE 1: P = L*w



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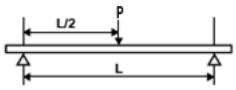
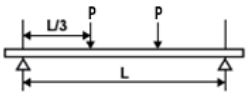
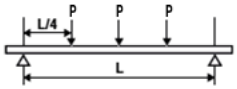


CASE 3:



CASE 4:



HSS 4"X4"X1-1/4" ASTM A500 GR. C W/ 1-1/4" WIDE SLOTS

TECHNICAL DATA					
E(ksi)	Fy(ksi)	A(in²)	I(in⁴)	S(in³)	Ma(lbs-ft)
29000	50	2.21	5.51	2.75	3824

DESIGN OF NEXSPAN2™ H SERIES

LOAD TABLES

LOAD TABLES FOR NEXSPAN2™ 14NSH5 - 5 x 5 x 1/4 H SERIES

CASE 1 - UNIFORMLY DISTRIBUTED LOAD

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	13785	0.06	NA	NA	NA
60	11000	0.09	NA	NA	NA
72	9138	0.12	NA	NA	NA
84	7803	0.17	NA	NA	NA
96	6799	0.22	NA	NA	NA
108	6014	0.28	NA	NA	NA
120	5383	0.34	NA	NA	5198

CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	6892	0.04	NA	NA	NA
60	5500	0.07	NA	NA	NA
72	4569	0.1	NA	NA	NA
84	3901	0.14	NA	NA	NA
96	3399	0.18	NA	NA	NA
108	3007	0.22	NA	NA	NA
120	2691	0.28	NA	NA	NA

CASE 3 - TWO EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	5169	0.06	NA	NA	NA
60	4125	0.09	NA	NA	NA
72	3426	0.13	NA	NA	NA
84	2926	0.17	NA	NA	NA
96	2549	0.23	NA	NA	NA
108	2255	0.29	NA	NA	NA
120	2018	0.35	NA	NA	1907

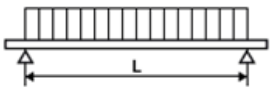
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	3446	0.05	NA	NA	NA
60	2750	0.08	NA	NA	NA
72	2284	0.12	NA	NA	NA
84	1950	0.16	NA	NA	NA
96	1699	0.21	NA	NA	NA
108	1503	0.27	NA	NA	NA
120	1345	0.33	NA	NA	NA

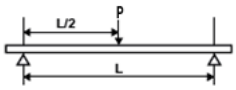
NOTES:

1. The load values in these tables are based on simply supported beams.
2. The span is measured from the supports.
3. Beam weight has already been deducted from the tables.
4. Load values indicated as “NA” were found to be higher than the maximum allowable load, and therefore not applicable.
5. HSS 5x5x1/4 is compatible with rods up to 1”.
6. The maximum allowable load is based on a minimum factor of safety of 3. Deflection (Δ) is based on max allowable load. Span/[length] loads are based on deflection criteria.

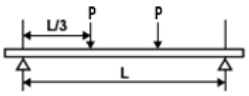
CASE 1: P = L*w



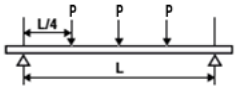
CASE 2:



CASE 3:



CASE 4:



HSS 5"X5"X1-1/4" ASTM A500 GR. C W/ 1-1/4" WIDE SLOTS

TECHNICAL DATA					
E(ksi)	Fy(ksi)	A(in^2)	I(in^4)	S(in^3)	Ma(lbs-ft)
29000	50	3.14	12.46	4.99	6924