NEXSPAN2™ TECHNICAL SUBMITTAL

F & H SERIES

F SERIES

H SERIES

OVERVIEW & INFORMATION

Allfasteners NexSpan2™ F Series is changing the game as modern contractors seek to simplify the design, fabrication, and installation of MEP equipment platforms and other steel structures.

NexSpan2™ F Series' modular design paired with the patent pending NexSpan2™ T-Bolt and a complete range of connectors, provide an effortless framing system, eliminating the need for site welding and heavy cranes.

APPLICATIONS

- **Data Centers**
  - Floor/Roof Mounted MEP Equipment Platforms
  - Walkable Ceiling Structures
  - Raised Floor Structures
  - Chiller Piping Stands/Racks
  - Multi-Level Trapeze Supports
  - Transformer Platforms
  - Tank/Pump Skids
- **Hospitals**
  - Floor/Roof Mounted MEP Equipment Platforms
  - HVAC Equipment Stands (VRF)
  - Medical Gas Piping Stanchions
- **Airports**
  - Floor/Roof Mounted MEP Equipment Platforms
  - HVAC Equipment Stands (VRF)
  - Chiller Piping Stanchions
- **Water/Waste Treatment Plants**
  - Adjustable Pipe Stanchions
  - Pump Stations
  - Multi-Level Pipe Racks
- **For Installing in Challenging Environments**

KEY BENEFITS

- Similar loading properties to welded steel frames
- No on-site welding needed
- Reduced need for crane work and heavy lifting equipment
- Easy adjustment/leveling
- Well suited for installation in challenging environments
- Rapidly assemble with only an impact driver or torque wrench
- Compact packaging allows for simple transport
- Cost effective compared to welding structural steel
- T-Bolts feature a positioning lip, indicating correct installation
- Hot Dip Galvanized (per ASTM A123/A123M Standard)
- Made in the USA

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MODULAR DESIGN FOR FAST INSTALLATION

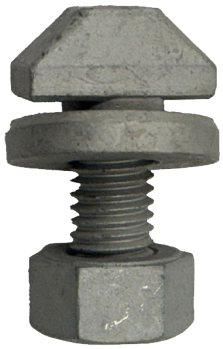
Allfasteners' NexSpan2™ F Series offers unparalleled efficiency, durability, and adaptability, making it the optimal choice for contractors operating in dynamic environments.

With its modular design, rapid installation process, and ability to support heavy loads, contractors can confidently rely on NexSpan2™ to meet the rigorous demands of modern construction projects, such as data centers, hospitals, waste/water treatment plants, and airports ensuring both quality and efficiency from start to finish.

INFO

T-BOLT & SLOTS

The AF T-Bolt assembly is intended for use with the NexSpan2™ F Series product line, allowing for easy installation utilizing the members' slotted design. The T-bolt's toothed head design and grip washer prevents movement and loosening once fully tightened.



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APPLICATION EXAMPLES

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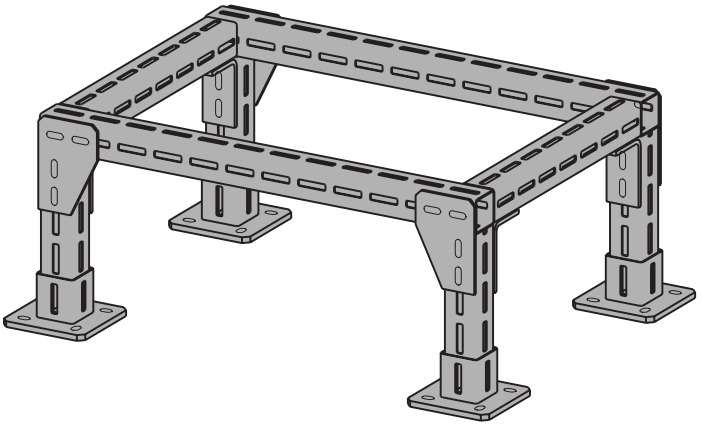
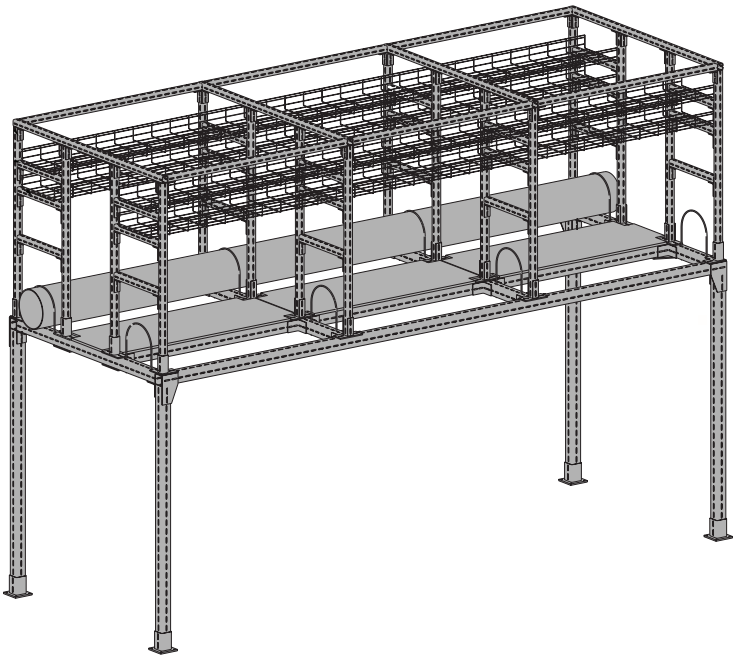
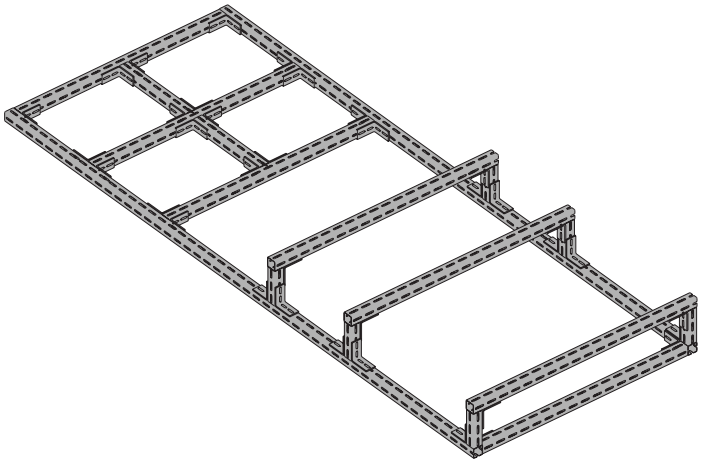
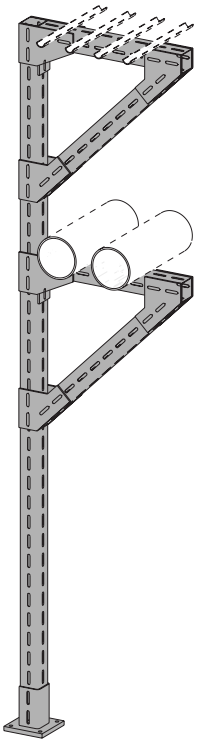
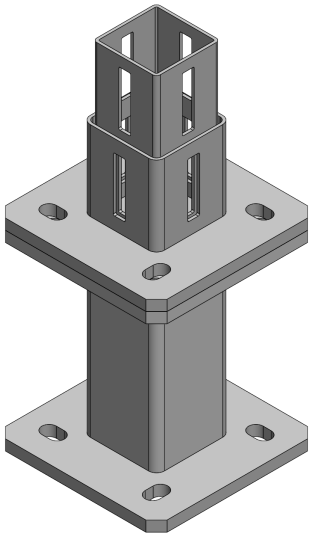
APPLICATION EXAMPLES











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ORDERING INFORMATION

TABLE 1: NEXSPAN2™ F SERIES ORDERING INFORMATION

PART #	SIZE	LENGTH	SLOT WIDTH
14NSF310	3 x 3 x 1/8"	10'	0.5625”
14NSF320	3 x 3 x 1/8"	20'	0.5625”
14NSF410	4 x 4 x 1/8"	10'	0.5625”
14NSF420	4 x 4 x 1/8"	20'	0.5625”
14NSF6310	6 x 3 x 1/8"	10'	0.5625”
14NSF6320	6 x 3 x 1/8"	20'	0.5625”

TABLE 2: NEXSPAN2™ T-BOLT ORDERING INFORMATION

PART #	NEXSPAN2 SIZE	FITS PART #
2TBN12138-USA	1/2-13 x 1.38" ASTM A490 Equivalent T-Bolt	All F Series

TABLE 3: NEXSPAN2™ END CAP ORDERING INFORMATION

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-EC3	3"	14NSF310 & 14NSF320
14NSF-EC4	4"	14NSF410 & 14NSF420

TABLE 4: NEXSPAN2™ SPLICE CONNECTOR ORDERING INFORMATION

PART #	NEXSPAN2 SIZE	FITS PART #
New Product Coming Soon		

TABLE 5: NEXSPAN2™ ANGLE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-A63	1/4"	3"	14NSF310 & 14NSF320
14NSF-A64	1/4"	4"	14NSF410 & 14NSF420

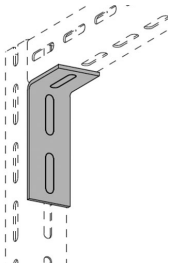
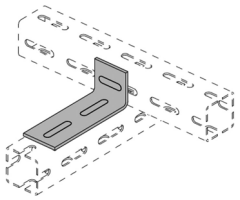


TABLE 6: NEXSPAN2™ ANGLE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-A73	1/4"	3"	14NSF310 & 14NSF320
14NSF-A74	1/4"	4"	14NSF410 & 14NSF420



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ORDERING INFORMATION

TABLE 7: NEXSPAN2™ ANGLE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-A83	1/4"	3"	14NSF310 & 14NSF320
14NSF-A84	1/4"	4"	14NSF410 & 14NSF420

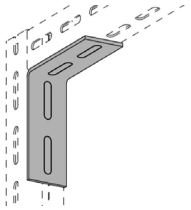


TABLE 8: NEXSPAN2™ ANGLE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-A93	1/4"	3"	14NSF310 & 14NSF320
14NSF-A94	1/4"	4"	14NSF410 & 14NSF420

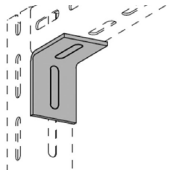


TABLE 9: NEXSPAN2™ ANGLE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-A03	1/4"	3"	14NSF310 & 14NSF320
14NSF-A04	1/4"	4"	14NSF410 & 14NSF420

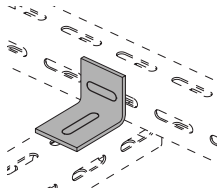


TABLE 10: NEXSPAN2™ POST BASE ORDERING INFORMATION

PART #	BOTTOM PLATE THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-B13	5/8"	3"	14NSF310 & 14NSF320
14NSF-B14	5/8"	4"	14NSF410 & 14NSF420

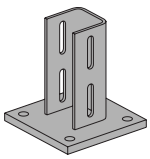


TABLE 11: NEXSPAN2™ POST BASE ORDERING INFORMATION

PART #	BOTTOM PLATE THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-B23 (Default Base)	3/8"	3"	14NSF310 & 14NSF320
14NSF-B24 (Default Base)	3/8"	4"	14NSF410 & 14NSF420

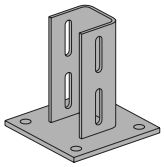


TABLE 12: NEXSPAN2™ POST BASE ORDERING INFORMATION

PART #	BOTTOM PLATE THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-B33	1/4" Steel Only	3"	14NSF310 & 14NSF320
14NSF-B34	1/4" Steel Only	4"	14NSF410 & 14NSF420

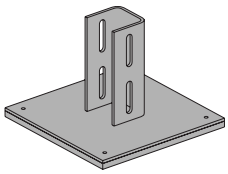
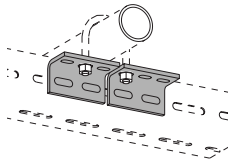


TABLE 13: NEXSPAN2™ PIPE SUPPORT BRACKET ORDERING INFORMATION

PART #	FITS PIPE SIZE	NEXSPAN2 SIZE	FITS PART #
14NSF-PS13	1/2" to 2-1/2" Pipe	3"	14NSF310 & 14NSF320
14NSF-PS14	1/2" to 2-1/2" Pipe	4"	14NSF410 & 14NSF420



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ORDERING INFORMATION

TABLE 14: NEXSPAN2™ PIPE SUPPORT BRACKET ORDERING INFORMATION

PART #	FITS PIPE SIZE	NEXSPAN2 SIZE	FITS PART #
14NSF-PS23	3" to 8" Pipe	3"	14NSF310 & 14NSF320
14NSF-PS24	3" to 8" Pipe	4"	14NSF410 & 14NSF420

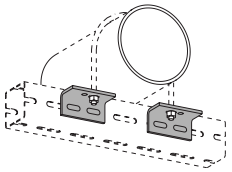


TABLE 15: NEXSPAN2™ PLATE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-P63	1/4"	3"	14NSF310 & 14NSF320
14NSF-P64	1/4"	4"	14NSF410 & 14NSF420

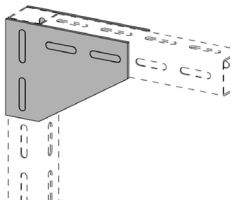


TABLE 16: NEXSPAN2™ PLATE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-P73	1/4"	3"	14NSF310 & 14NSF320
14NSF-P74	1/4"	4"	14NSF410 & 14NSF420

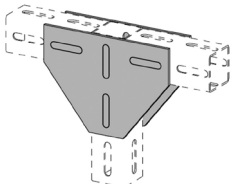


TABLE 17: NEXSPAN2™ PLATE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-P83	1/4"	3"	14NSF310 & 14NSF320
14NSF-P84	1/4"	4"	14NSF410 & 14NSF420

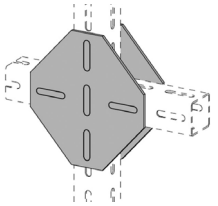


TABLE 18: NEXSPAN2™ PLATE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-P93	1/4"	3"	14NSF310 & 14NSF320
14NSF-P94	1/4"	4"	14NSF410 & 14NSF420

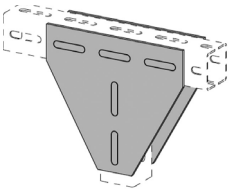
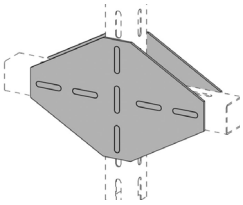


TABLE 19: NEXSPAN2™ PLATE ORDERING INFORMATION

PART #	THICKNESS	NEXSPAN2 SIZE	FITS PART #
14NSF-P03	1/4"	3"	14NSF310 & 14NSF320
14NSF-P04	1/4"	4"	14NSF410 & 14NSF420



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TECHNICAL SPECIFICATIONS

TABLE 20: MEMBER PROPERTIES

	UNITS	14NSF3	14NSF4	14NSF6X3
Depth	in	3.000	4.000	6.000
Width	in	3.000	4.000	3.000
Thickness	in	0.125	0.125	0.125
Wt/ft.	lb/ft	4.4	6.0	6.4

TABLE 21: MATERIAL INFORMATION

	UNITS	14NSF3	14NSF4	14NSF6X3
Minimum Specified Yield Strength	ksi	50	50	50
Minimum Specified Tensile Strength	ksi	62	62	62
Modulus of Elasticity	ksi	29000	29000	29000

TABLE 22: SLOT DIMENSIONS

	UNITS	14NSF3	14NSF4	14NSF6X3
Height x Width	in.	9/16" x 2-3/4"	9/16" x 2-3/4"	9/16" x 2-3/4"

TABLE 23: GROSS SECTION PROPERTIES

	UNITS	14NSF3	14NSF4	14NSF6X3
Design Thickness	in	0.116	0.116	0.116
Area	in^2	1.300	1.770	2.000
Moment of Inertia Ix	in^4	1.780	4.400	9.430
Moment of Inertia Iy	in^4	1.780	4.400	3.230
Radius of Gyration rx	in	1.170	1.580	2.170
Radius of Gyration ry	in	1.170	1.580	1.270

TABLE 24: EFFECTIVE SECTION PROPERTIES

	UNITS	14NSF3	14NSF4	14NSF6X3
Effective Area	in^2	1.039	1.509	1.609
Effective Web Area Awx	in^2	0.485	0.717	1.050
Effective Web Area Awy	in^2	0.485	0.717	0.485
Effective Moment of Inertia Ix	in^4	1.505	3.904	7.713
Effective Moment of Inertia Iy	in^4	1.505	3.904	2.684
Effective Section Modulus Sx	in^3	1.003	1.952	2.571
Effective Section Modulus Sy	in^3	1.003	1.952	1.789
Effective Radius of Gyration rx	in	1.204	1.608	2.189
Effective Radius of Gyration ry	in	1.204	1.608	1.292

TABLE 25: TORSIONAL PROPERTIES

	UNITS	14NSF3	14NSF4	14NSF6X3
Torsional Constant J	in^4	2.840	6.910	7.730
HSS Torsional Constant C	in^3	1.920	3.490	3.900

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BEAM & COLUMN LOAD TABLES FOR NEXSPAN2™ 14NSF3

BEAMS

CASE 1 - UNIFORMLY DISTRIBUTED LOAD

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	10005	0.04	NA	NA	NA
36	6663	0.09	NA	NA	NA
48	4989	0.17	NA	NA	4024
60	3983	0.26	NA	3858	2565
72	3311	0.37	NA	2668	1770
84	2830	0.51	2609	1949	1289
96	2468	0.66	1986	1480	975
108	2185	0.84	1557	1158	759
120	1958	1.03	1249	926	603
144	*	*	845	621	396
168	*	*	598	433	268
192	*	*	435	309	182
216	*	*	320	220	120
240	*	*	235	155	74

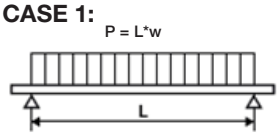
CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	5002	0.03	NA	NA	NA
36	3331	0.07	NA	NA	NA
48	2494	0.13	NA	NA	NA
60	1991	0.21	NA	NA	1603
72	1655	0.30	NA	NA	1106
84	1415	0.41	NA	1218	806
96	1234	0.53	NA	925	610
108	1092	0.67	973	724	474
120	979	0.83	781	579	377
144	*	*	528	388	248
168	*	*	374	271	168
192	*	*	272	193	114
216	*	*	200	138	75
240	*	*	147	97	46

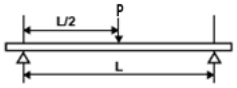
NOTES:

1. These load tables are based on the allowable stress method, using an elastic capacity with a factor of safety Ω of 1.67, and AISC 360 *Specification for Structural Steel Buildings*.
2. The load values in these tables are based on simply supported beams.
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. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.
6. Concentrated loads greater than 4000 lbs require a bearing plate with a length equal to or greater than the width of the tube.

CASE 1:



CASE 2:



COLUMNS

UNBRACED HEIGHT (in.)	ALLOWABLE CONCENTRIC LOAD (lbs.)			
	K=0.65	K=0.80	K=1.0	K=1.2
24	30846	30651	30332	29946
36	30375	29946	29248	28418
48	29729	28986	27796	26408
60	28918	27796	26034	24032
72	27956	26408	24032	21416
84	26861	24857	21863	18689
96	25651	23180	19603	15972
108	24345	21416	17322	13366
120	22964	19603	15086	10941

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BEAM & COLUMN LOAD TABLES FOR NEXSPAN2™ 14NSF3

BEAMS

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
24	3752	0.04	NA	NA	NA
36	2498	0.09	NA	NA	NA
48	1871	0.17	NA	NA	1476
60	1493	0.26	NA	1415	941
72	1241	0.38	NA	979	649
84	1061	0.52	957	715	473
96	925	0.68	728	543	358
108	819	0.85	571	425	278
120	734	1.05	458	340	221
144	*	*	310	228	145
168	*	*	219	159	98
192	*	*	160	113	67
216	*	*	117	81	44
240	*	*	86	57	27

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
24	2501	0.04	NA	NA	NA
36	1665	0.09	NA	NA	NA
48	1247	0.16	NA	NA	1053
60	995	0.25	NA	NA	671
72	827	0.36	NA	698	463
84	707	0.48	683	510	337
96	617	0.63	520	387	255
108	546	0.80	408	303	199
120	489	0.99	327	242	158
144	*	*	221	162	104
168	*	*	157	113	70
192	*	*	114	81	48
216	*	*	84	58	32
240	*	*	62	40	19

NOTES:

1. These load tables are based on the allowable stress method, using an elastic capacity with a factor of safety Ω of 1.67, and AISC 360 *Specification for Structural Steel Buildings*.
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3. Beam weight has already been deducted from the tables.
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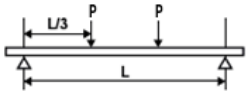
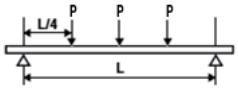
6. Concentrated loads greater than 4000 lbs require a bearing plate with a length equal to or greater than the width of the tube.

CASE 3:



CASE 4:



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BEAM & COLUMN LOAD TABLES FOR NEXSPAN2™ 14NSF4

BEAMS

CASE 1 - UNIFORMLY DISTRIBUTED LOAD

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	19471	0.03	NA	NA	NA
36	12970	0.07	NA	NA	NA
48	9717	0.12	NA	NA	NA
60	7763	0.19	NA	NA	6680
72	6458	0.28	NA	NA	4624
84	5524	0.38	NA	5093	3381
96	4822	0.50	NA	3884	2573
108	4275	0.63	4088	3052	2017
120	3836	0.77	3295	2456	1617
144	*	*	2258	1675	1093
168	*	*	1628	1200	772
192	*	*	1215	887	559
216	*	*	927	669	410
240	*	*	719	509	299

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
24	9735	0.02	NA	NA	NA
36	6485	0.06	NA	NA	NA
48	4858	0.10	NA	NA	NA
60	3881	0.16	NA	NA	NA
72	3229	0.22	NA	NA	2890
84	2762	0.30	NA	NA	2113
96	2411	0.40	NA	NA	1608
108	2137	0.50	NA	1908	1261
120	1918	0.62	NA	1535	1011
144	*	*	1411	1047	683
168	*	*	1017	750	482
192	*	*	759	554	350
216	*	*	580	418	256
240	*	*	449	318	187

NOTES:

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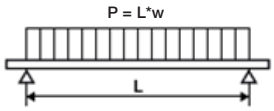
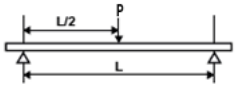
CASE 1:



CASE 2:



COLUMNS

UNBRACED HEIGHT (in.)	ALLOWABLE CONCENTRIC LOAD (lbs.)			
	K=0.65	K=0.80	K=1.0	K=1.2
24	44781	44623	44363	44047
36	44399	44047	43471	42778
48	43869	43253	42253	41061
60	43196	42253	40736	38956
72	42388	41061	38956	36528
84	41453	39697	36952	33854
96	40400	38179	34768	31010
108	39238	36528	32448	28075
120	37979	34768	30038	25122

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BEAM & COLUMN LOAD TABLES FOR NEXSPAN2™ 14NSF4

BEAMS

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
24	7301	0.03	NA	NA	NA
36	4864	0.07	NA	NA	NA
48	3644	0.13	NA	NA	NA
60	2911	0.20	NA	NA	2450
72	2421	0.28	NA	NA	1696
84	2071	0.39	NA	1868	1240
96	1808	0.51	NA	1425	944
108	1603	0.64	1500	1120	740
120	1438	0.79	1209	901	593
144	*	*	828	615	401
168	*	*	597	440	283
192	*	*	446	325	205
216	*	*	340	245	150
240	*	*	264	187	110

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
24	4867	0.03	NA	NA	NA
36	3242	0.07	NA	NA	NA
48	2429	0.12	NA	NA	NA
60	1940	0.18	NA	NA	1748
72	1614	0.27	NA	NA	1210
84	1381	0.36	NA	1333	885
96	1205	0.47	NA	1016	673
108	1068	0.60	NA	799	528
120	959	0.74	862	643	423
144	*	*	591	438	286
168	*	*	426	314	202
192	*	*	318	232	146
216	*	*	243	175	107
240	*	*	188	133	78

NOTES:

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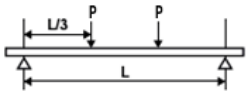
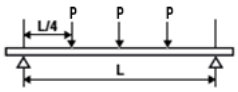
CASE 3:



CASE 4:



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BEAM & COLUMN LOAD TABLES FOR NEXSPAN2™ 14NSF63

BEAMS

CASE 1 - UNIFORMLY DISTRIBUTED LOAD

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	25646	0.02	NA	NA	NA
36	17087	0.05	NA	NA	NA
48	12804	0.08	NA	NA	NA
60	10231	0.13	NA	NA	NA
72	8514	0.19	NA	NA	NA
84	7286	0.25	NA	NA	6718
96	6363	0.33	NA	NA	5127
108	5644	0.42	NA	NA	4034
120	5067	0.52	NA	4907	3250
144	4199	0.74	NA	3375	2224
168	3576	1.01	3292	2446	1601
192	*	*	2487	1839	1192
216	*	*	1930	1419	908
240	*	*	1529	1115	700

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
24	12823	0.02	NA	NA	NA
36	8543	0.04	NA	NA	NA
48	6402	0.07	NA	NA	NA
60	5115	0.10	NA	NA	NA
72	4257	0.15	NA	NA	NA
84	3643	0.20	NA	NA	NA
96	3181	0.26	NA	NA	NA
108	2822	0.34	NA	NA	2521
120	2533	0.41	NA	NA	2031
144	2099	0.60	NA	NA	1390
168	1788	0.81	NA	1529	1001
192	1552	1.07	NA	1150	745
216	*	*	1206	887	567
240	*	*	956	697	438

NOTES:

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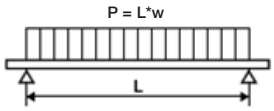
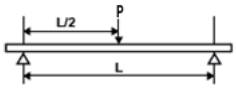
4. Load values indicated as “NA” were found to be higher than the maximum allowable load, and therefore not applicable.
5. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.
6. Values are based on the 6” tube dimension being in the vertical direction, with the 3” tube dimension in the horizontal direction.
7. Column data is not available for the 6x3 NexSpan2™ F Series tubes.
8. Concentrated loads greater than 4000 lbs require a bearing plate with a length equal to or greater than the width of the tube.

CASE 1:



CASE 2:



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BEAM & COLUMN LOAD TABLES FOR NEXSPAN2™ 14NSF63

BEAMS

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
24	9617	0.02	NA	NA	NA
36	6407	0.05	NA	NA	NA
48	4801	0.08	NA	NA	NA
60	3836	0.13	NA	NA	NA
72	3193	0.19	NA	NA	NA
84	2732	0.26	NA	NA	2465
96	2386	0.34	NA	NA	1881
108	2116	0.43	NA	NA	1480
120	1900	0.53	NA	1800	1192
144	1574	0.76	NA	1238	816
168	1341	1.03	1208	897	587
192	*	*	912	675	437
216	*	*	708	521	333
240	*	*	561	409	257

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
24	6411	0.02	NA	NA	NA
36	4271	0.04	NA	NA	NA
48	3201	0.08	NA	NA	NA
60	2557	0.12	NA	NA	NA
72	2128	0.18	NA	NA	NA
84	1821	0.24	NA	NA	1758
96	1590	0.32	NA	NA	1342
108	1411	0.40	NA	NA	1056
120	1266	0.49	NA	NA	851
144	1049	0.71	NA	883	582
168	894	0.97	862	640	419
192	*	*	651	481	312
216	*	*	505	371	238
240	*	*	400	292	183

NOTES:

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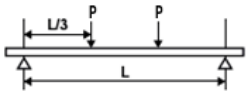
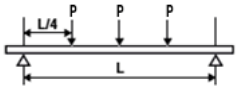
CASE 3:



CASE 4:



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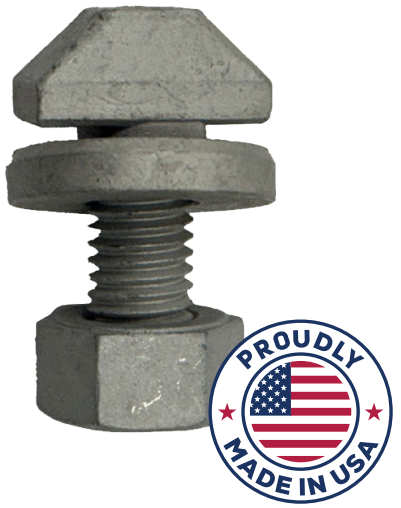
NEXSPAN2™ F SERIES T-BOLT

PART# 2TBN12138-USA



The AF T-Bolt assembly is intended for use with the NexSpan2™ F Series product line, allowing for easy installation utilizing the members' slotted design. The T-bolt's toothed head design and grip washer prevents movement and loosening once fully tightened.

Engineered for efficiency in the field, the assembly helps reduce install time while maintaining consistent, reliable performance across a wide range of applications. Its robust construction is designed to withstand demanding jobsite conditions, ensuring long-term durability and secure connections.

Patent pending, the AF T-Bolt represents an innovative fastening solution built to enhance both speed and confidence during installation.

TECHNICAL DETAILS

PACK QTY	200
BOLT MATERIAL	ASTM A490 Equivalent
FINISH	Magni Coated
ALLOWABLE BOLT TENSION	11,094 lbs.
ALLOWABLE BOLT PULL-OUT	1,000 lbs.
ALLOWABLE BOLT SHEAR	6,676 lbs.
ALLOWABLE BOLT SLIP IN SHEAR	2,000 lbs.
ALLOWABLE BOLT BEARING PERPENDICULAR TO SLOT	2,610 lbs.
TIGHTENING TORQUE	140 ft-lbs.
DIAMETER	0.5 in.
BOLT LENGTH	1.47 in.
OVERALL LENGTH	2.00 in.
HEAD WIDTH	1.125 in.
WASHER DIAMETER	1.250 in.
WASHER THICKNESS	0.250 in.
NUT	7/8 in. WAF Heavy Hex

***Note:** All loads have a factor of safety of 2.0. The loads for Bearing and Pull-Out are based on the NexSpan2™ F Series product line tube members. Allowable Bolt Tension and Shear capacities provided for reference. Pullout, Slip and Bearing typically govern the design.

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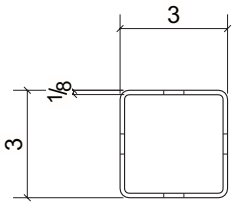
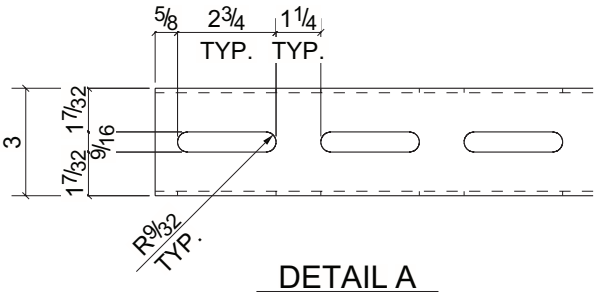
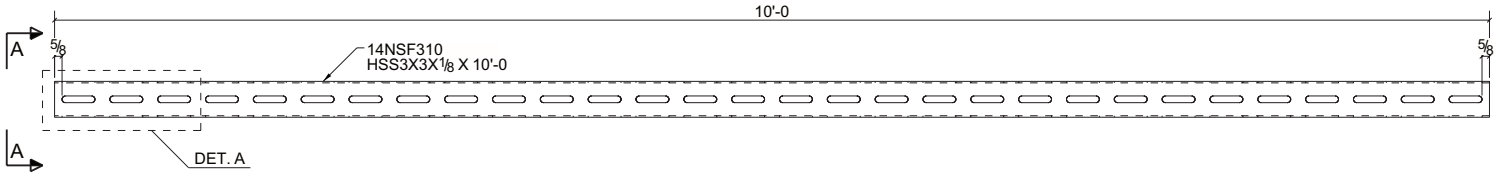
TECHNICAL SPECIFICATIONS

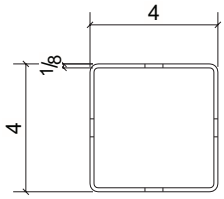


A - A

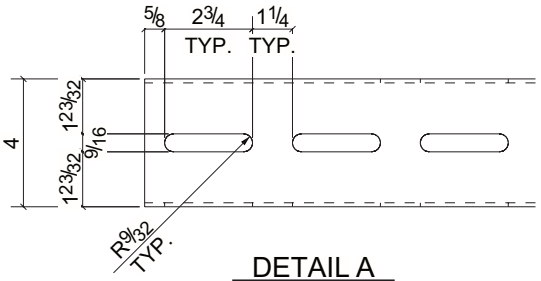


DETAIL A
TYP. @ ALL 4 SIDES

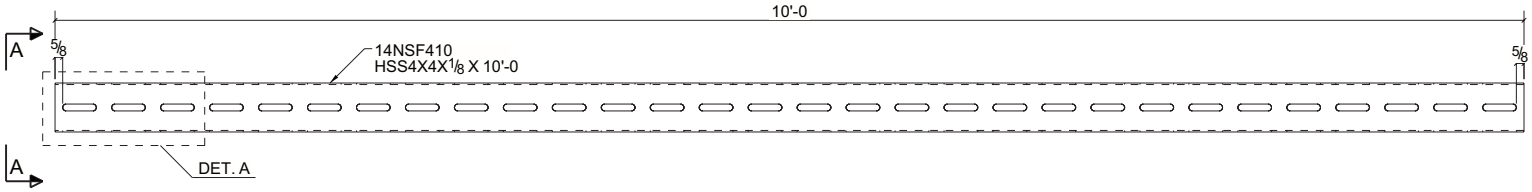




A - A



DETAIL A
TYP. @ ALL 4 SIDES



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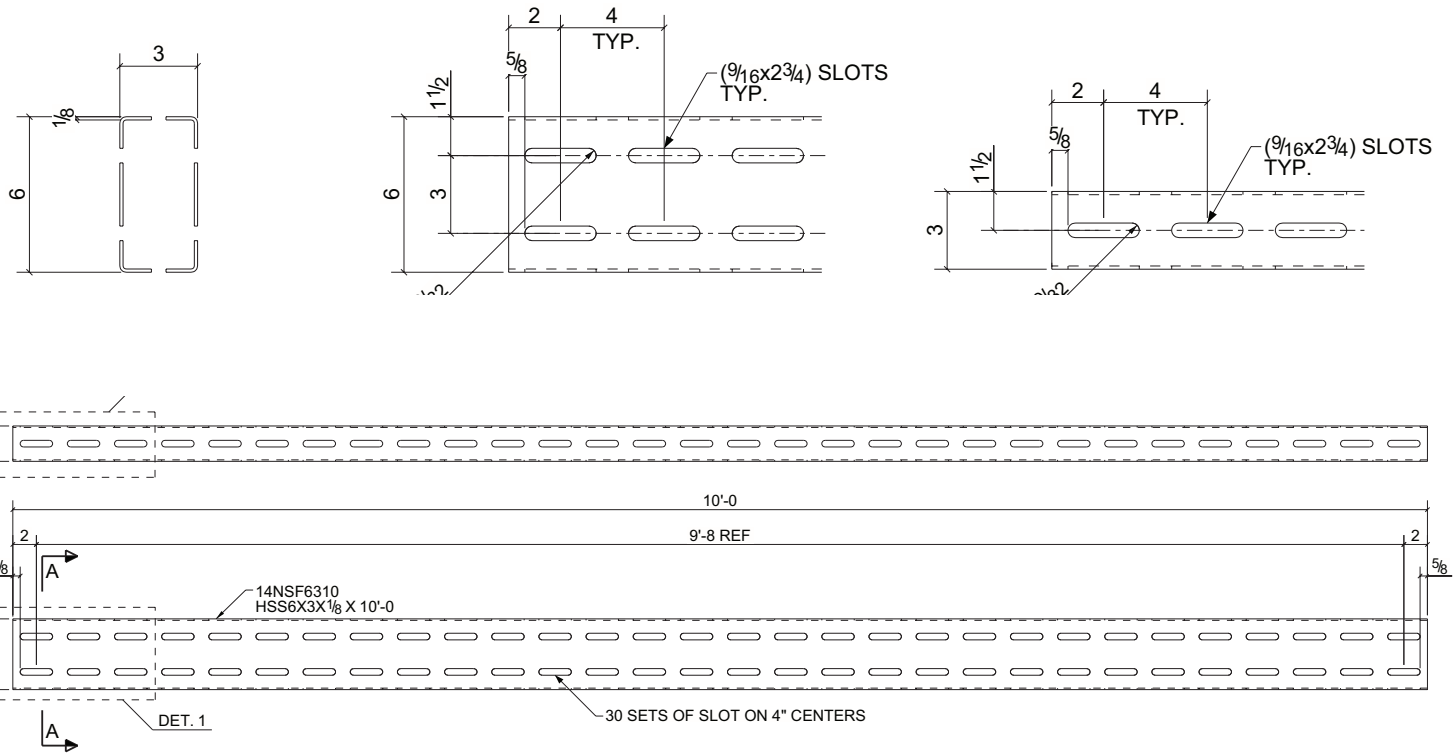
TECHNICAL SPECIFICATIONS



Selection of the product for adequacy should be made by individuals with knowledge of the intended application, locations, loadings, specifications and requirements of the project.

PROJECT INFORMATION		APPROVAL STAMP
PROJECT:		☐ APPROVED
ADDRESS:		☐ APPROVED AS NOTED
CONTRACTOR:		☐ NOT APPROVED
ENGINEER:		REMARKS:
SUBMITTAL DATE:		
NOTES:		

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NEXSPAN2™ H SERIES TECHNICAL SUBMITTAL

FOR OVERHEAD MEP APPLICATIONS

INFO

OVERVIEW & INFORMATION

Allfasteners NexSpan2™ H Series is a system for overhead MEP applications where heavy load capacities are required.

When it comes to challenging environments such as airports, data centers, hospitals, and waste/water treatment plants, NexSpan2™ H Series is the intersection between high load capacity and simplicity.

NexSpan2™ H Series consists of a slotted hollow structural tube design, universal beam clamps, and threaded rod, which ensure a quick, easy, and reliable support structure.

APPLICATIONS

- **Airports**
  - Heavy mechanical piping
  - Large HVAC ductwork
  - Industrial heating & cooling units
- **Data Centers**
  - Heavy chiller piping
  - Large HVAC ductwork
  - Industrial cooling equipment
- **Hospitals**
  - Large HVAC ductwork
  - Chemical process piping
  - Industrial heating & cooling units
- **Water/Waste Treatment Plants**
  - Pipe support stands & racks
- **Supplemental Steel**
- **Overhead Trapeze Applications**

PENDING PATENT PENDING

MADE IN USA

KEY BENEFITS

- No on-site welding needed
- No need for heavy lifting equipment
- Suited for installation in challenging environments
- Assembled with impact driver or torque wrench only
- Easy to level
- Hot dip galvanized (per ASTM A123/A123M Standard)
- Meets MSS SP 58 design requirments for Type 59 Trapeeze

Revit/BIM files available

- Compact packaging allows for simple transport in the back of a van
- Cost effective
- Made in the USA
- Made by AISC Certified Fabricator

AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISC FOUNDED 1921

Certified AISC Fabricator
#22001115120RFN

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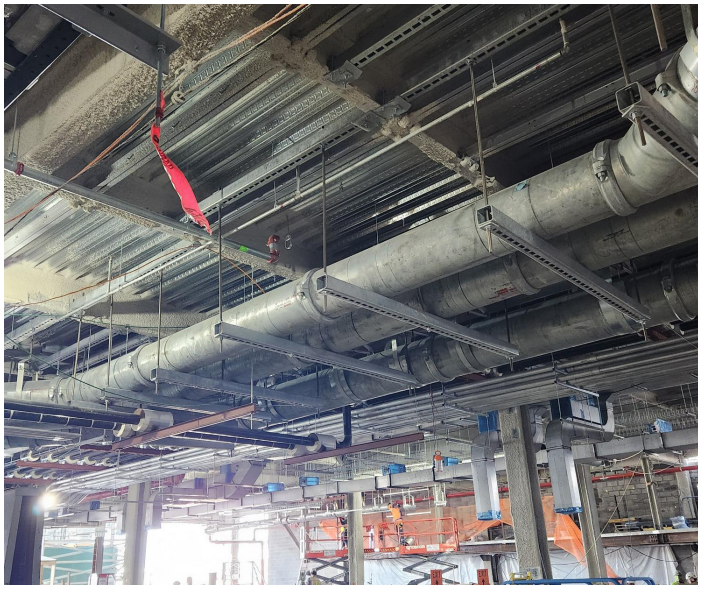
APPLICATION EXAMPLES



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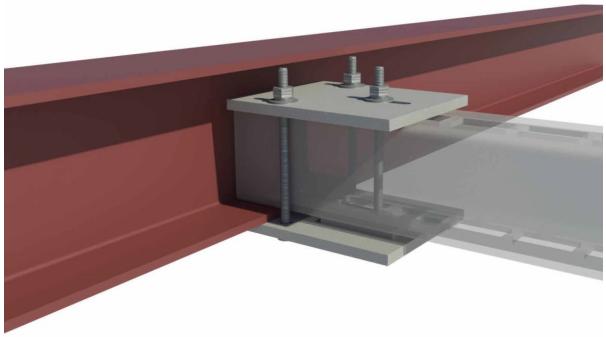
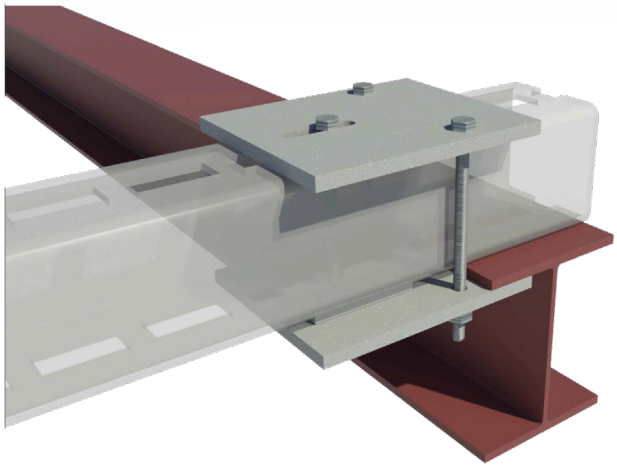
BEAM SUPPORTED APPLICATION EXAMPLES



RESTING ON LOWER FLANGE



RESTING ON UPPER FLANGE

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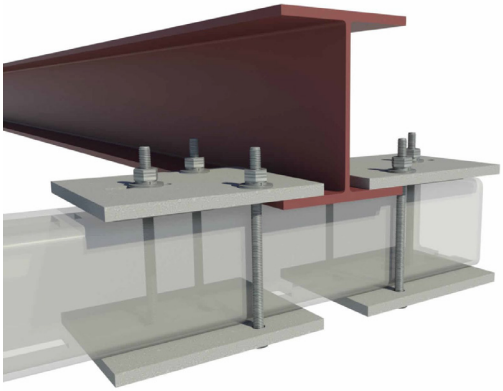
BEAM SUPPORTED APPLICATION EXAMPLES



MOUNTED BELOW I-BEAM

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TRAPEZE APPLICATION EXAMPLES

NOTES

1. See Allowable Load Charts for NexSpan2™ H Series tube capacities.
2. Capacity of the supporting member may dictate allowable configurations.
3. For resting on lower flange configurations, ensure a minimum seat distance of the tube equal to or greater than 3", at both ends of the tube. See installation instructions.
4. For resting on upper flange configurations, ensure the tube sits across the entire beam flange. See installation instructions.
5. For mounting below I-beam configurations, the maximum allowable hanging load is 5400 lbs per I-beam mounting location. Where the load distribution is symmetrical across the length of the NexSpan2™ member, the load at each I-beam mounting location is half the total load on the NexSpan2™ member. Where the load distribution is not symmetrical across the length of the NexSpan2™ member, the load at each I-beam mounting location should be assumed to be equal to the total load on the NexSpan2™ member, or an analysis should be performed to verify the actual loads on each I-beam mounting location.
6. When 14NSH84 is used as supplemental steel, a bolted or welded connection to the supporting member is required.

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ORDERING INFORMATION - TUBES

TABLE 26: NEXSPAN2™ H SERIES ORDERING INFORMATION

PART #	SIZE	LENGTH	SLOT WIDTH	WEIGHT PER FOOT
14NSH310	3 x 3 x 1/4"	10'	0.6875"	8.3 lb/ft
14NSH410	4 x 4 x 1/4"	10'	1.250"	11.5 lb/ft
14NSH510	5 x 5 x 1/4"	10'	1.250"	14.7 lb/ft
14NSH320	3 x 3 x 1/4"	20'	0.6875"	8.3 lb/ft
14NSH420	4 x 4 x 1/4"	20'	1.250"	11.5 lb/ft
14NSH520	5 x 5 x 1/4"	20'	1.250"	14.7 lb/ft

ORDERING INFORMATION - CLAMPS

TABLE 27: NEXSPAN2™ UNIVERSAL CLAMP ORDERING INFORMATION

PART #	BOLT LENGTH	FITS PART #
14NSHC6	6"	14NSH3, 14NSH4, 14NSH5
14NSHC7	7"	
14NSHC8	8"	
14NSHC9	9"	

Notes:

1. Clamps are sold individually. Two (2) clamps are required for NexSpan2™ supplemental steel installation.
2. To determine appropriate bolt length, use the following equation: (tube size) + (I-beam flange thickness) + (2.25“) ≤ (bolt length).
3. Clamp kits come standard with (2) 1/8", (2) 1/4", (2) 3/8" and (1) 1/2" filler plates. Extra plates can be ordered below.

TABLE 28: NEXSPAN2™ FILLER PLATE ORDERING INFORMATION

PART #	HOLE SIZE	WIDTH	THICKNESS	FITS PART #
2SW091612400	9/16"	4"	1/2"	14NSH3, 14NSH4, 14NSH5
2SW091638400	9/16"	4"	3/8"	
2SW091614400	9/16"	4"	1/4"	
2SW091618400	9/16"	4"	1/8"	

FRONT ELEVATION VIEW

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ORDERING INFORMATION - TRAPEZE

TABLE 29: SQUARE WASHER INFORMATION

PART #	HOLE SIZE	WIDTH	THICKNESS	ROD DIAMETER
2SW091638300	9/16"	3"	3/8"	1/2"
2SW111638300	11/16"	3"	3/8"	5/8"
2SW131612400	13/16"	4"	1/2"	3/4"
2SW111612400	1-1/16"	4"	1/2"	1"

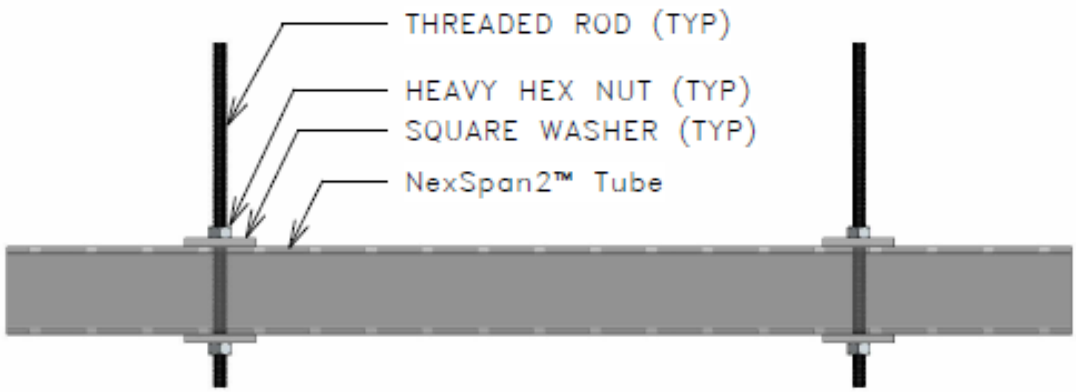
TABLE 30: THREADED ROD A307 MATERIAL INFORMATION

PART #	SIZE	COATING
2TRZ1213	1/2-13	Zinc Plated
2TRZ5811	5/8-11	Zinc Plated
2TRZ3410	3/4-10	Zinc Plated
2TRZ0108	1-8	Zinc Plated

TABLE 31: HEAVY HEX NUT INFORMATION

PART #	SIZE	WAF	HEIGHT	MATERIAL/FINISH
2HHN1213	1/2-13	7/8"	31/64"	A563 Grade A Zinc
2HHN5811	5/8-11	1-1/16"	39/64"	A563 Grade A Zinc
2HHN3410	3/4-10	1-1/4"	47/64"	A563 Grade A Zinc
2HHN0108	1-8	1-5/8"	63/64"	A563 Grade A Zinc

Note: For each rod, which has to be connected to both the supplemental steel tube and the trapeze tube, (4) HH nuts and (4) square washers are required; (2) rods are needed to install each NexSpan2™ trapeze.



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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
24	8894	0.02	NA	NA	NA
36	5915	0.05	NA	NA	NA
48	4420	0.09	NA	NA	NA
60	3520	0.14	NA	NA	NA
72	2917	0.21	NA	NA	2819
84	2484	0.28	NA	NA	2048
96	2157	0.37	NA	NA	1545
108	1901	0.47	NA	1835	1197
120	1694	0.57	NA	1463	946
144	1379	0.83	1330	971	612
168	*	*	932	668	404
192	*	*	667	465	263
216	*	*	480	320	161
240	*	*	341	211	82

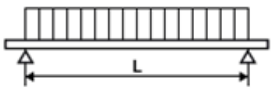
CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	4447	0.02	NA	NA	NA
36	2957	0.04	NA	NA	NA
48	2210	0.07	NA	NA	NA
60	1760	0.12	NA	NA	NA
72	1458	0.17	NA	NA	NA
84	1242	0.23	NA	NA	NA
96	1078	0.30	NA	NA	966
108	950	0.38	NA	NA	748
120	847	0.47	NA	NA	591
144	689	0.67	NA	607	383
168	574	0.92	NA	417	253
192	*	*	417	291	164
216	*	*	300	200	100
240	*	*	213	132	51

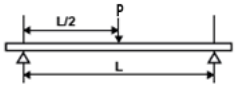
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.

CASE 1: P = L*w



CASE 2:



HSS 3"X3"X1/4" W/ 11/16" WIDE SLOTS

TECHNICAL DATA							
t_{des} (in)	Slot Length (in)	E (ksi)	Fy (ksi)	A (in^2)	I (in^4)	S (in^3)	Ma (lbs-ft)
0.233	2-9/16	29000	50	2.12	2.41	1.60	2228

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

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
24	3335	0.02	NA	NA	NA
36	2218	0.05	NA	NA	NA
48	1657	0.09	NA	NA	NA
60	1320	0.15	NA	NA	NA
72	1094	0.21	NA	NA	1034
84	931	0.29	NA	NA	751
96	809	0.38	NA	NA	567
108	712	0.48	NA	673	439
120	635	0.59	NA	537	347
144	517	0.84	488	356	225
168	*	*	342	245	148
192	*	*	245	171	96
216	*	*	176	117	59
240	*	*	125	78	30

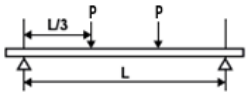
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	2223	0.02	NA	NA	NA
36	1478	0.05	NA	NA	NA
48	1105	0.09	NA	NA	NA
60	880	0.14	NA	NA	NA
72	729	0.20	NA	NA	NA
84	621	0.27	NA	NA	536
96	539	0.35	NA	NA	404
108	475	0.45	NA	NA	313
120	423	0.55	NA	383	248
144	344	0.79	NA	254	160
168	*	*	244	175	106
192	*	*	174	122	69
216	*	*	126	84	42
240	*	*	89	55	22

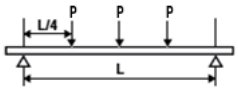
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.

CASE 3:



CASE 4:



Revision Date: 02/27/2026

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
24	15902	0.02	NA	NA	NA
36	10581	0.04	NA	NA	NA
48	7914	0.07	NA	NA	NA
60	6309	0.11	NA	NA	NA
72	5235	0.16	NA	NA	NA
84	4464	0.21	NA	NA	NA
96	3883	0.28	NA	NA	3751
108	3429	0.35	NA	NA	2931
120	3063	0.43	NA	NA	2341
144	2507	0.62	NA	2419	1564
168	2104	0.84	NA	1714	1086
192	*	*	1729	1248	767
216	*	*	1301	921	540
240	*	*	987	680	372

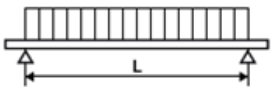
CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	7951	0.01	NA	NA	NA
36	5290	0.03	NA	NA	NA
48	3957	0.06	NA	NA	NA
60	3154	0.09	NA	NA	NA
72	2617	0.12	NA	NA	NA
84	2232	0.17	NA	NA	NA
96	1941	0.22	NA	NA	NA
108	1714	0.28	NA	NA	NA
120	1531	0.35	NA	NA	1463
144	1253	0.50	NA	NA	978
168	1052	0.69	NA	NA	679
192	897	0.90	NA	780	479
216	774	1.15	NA	575	338
240	*	*	617	425	232

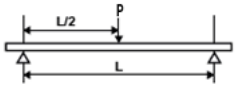
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.

CASE 1: P = L*w



CASE 2:



HSS 4"X4"X1/4" W/ 1-1/4" WIDE SLOTS

TECHNICAL DATA							
t_{des} (in)	Slot Length (in)	E (ksi)	Fy (ksi)	A (in^2)	I (in^4)	S (in^3)	Ma (lbs-ft)
0.233	2-9/16	29000	50	2.79	5.73	2.87	3982

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

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
24	5963	0.02	NA	NA	NA
36	3967	0.04	NA	NA	NA
48	2967	0.07	NA	NA	NA
60	2366	0.11	NA	NA	NA
72	1963	0.16	NA	NA	NA
84	1674	0.22	NA	NA	NA
96	1456	0.28	NA	NA	1376
108	1285	0.36	NA	NA	1075
120	1148	0.44	NA	NA	859
144	940	0.63	NA	888	574
168	789	0.86	NA	629	398
192	*	*	634	458	281
216	*	*	477	338	198
240	*	*	362	249	136

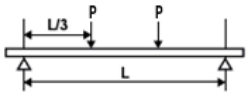
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
24	3975	0.02	NA	NA	NA
36	2645	0.04	NA	NA	NA
48	1978	0.07	NA	NA	NA
60	1577	0.10	NA	NA	NA
72	1308	0.15	NA	NA	NA
84	1116	0.20	NA	NA	NA
96	970	0.26	NA	NA	NA
108	857	0.33	NA	NA	767
120	765	0.41	NA	NA	613
144	626	0.59	NA	NA	409
168	526	0.81	NA	449	284
192	448	1.06	NA	327	201
216	*	*	340	241	141
240	*	*	258	178	97

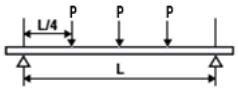
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.

CASE 3:



CASE 4:



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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
36	18754	0.03	NA	NA	NA
48	14038	0.06	NA	NA	NA
60	11202	0.09	NA	NA	NA
72	9306	0.12	NA	NA	NA
84	7948	0.17	NA	NA	NA
96	6925	0.22	NA	NA	NA
108	6126	0.28	NA	NA	NA
120	5484	0.34	NA	NA	5296
144	4512	0.50	NA	NA	3599
168	3810	0.68	NA	NA	2563
192	3275	0.88	NA	2945	1880
216	2852	1.12	NA	2243	1402
240	*	*	2414	1732	1051

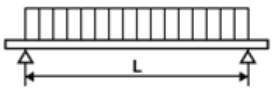
CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
36	9377	0.02	NA	NA	NA
48	7019	0.04	NA	NA	NA
60	5601	0.07	NA	NA	NA
72	4653	0.10	NA	NA	NA
84	3974	0.14	NA	NA	NA
96	3462	0.18	NA	NA	NA
108	3063	0.22	NA	NA	NA
120	2742	0.28	NA	NA	NA
144	2256	0.40	NA	NA	2249
168	1905	0.55	NA	NA	1602
192	1637	0.72	NA	NA	1175
216	1426	0.91	NA	1402	876
240	1253	1.13	NA	1083	657

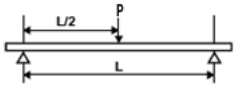
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.

CASE 1: P = L*w



CASE 2:



HSS 5"X5"X1/4" W/ 1-1/4" WIDE SLOTS

TECHNICAL DATA							
t_{des} (in)	Slot Length (in)	E (ksi)	Fy (ksi)	A (in^2)	I (in^4)	S (in^3)	Ma (lbs-ft)
0.233	2-9/16	29000	50	3.72	12.69	5.08	7050

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

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
36	7032	0.03	NA	NA	NA
48	5264	0.06	NA	NA	NA
60	4200	0.09	NA	NA	NA
72	3490	0.13	NA	NA	NA
84	2980	0.17	NA	NA	NA
96	2597	0.23	NA	NA	NA
108	2297	0.29	NA	NA	2418
120	2056	0.35	NA	NA	1943
144	1692	0.51	NA	NA	1320
168	1428	0.69	NA	NA	940
192	1228	0.90	NA	1080	690
216	1069	1.14	NA	823	514
240	*	*	885	635	385

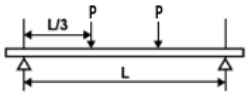
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
36	4688	0.03	NA	NA	NA
48	3509	0.05	NA	NA	NA
60	2800	0.08	NA	NA	NA
72	2326	0.12	NA	NA	NA
84	1987	0.16	NA	NA	NA
96	1731	0.21	NA	NA	NA
108	1531	0.27	NA	NA	NA
120	1371	0.33	NA	NA	NA
144	1128	0.48	NA	NA	942
168	952	0.65	NA	NA	671
192	818	0.85	NA	771	492
216	713	1.07	NA	587	367
240	626	1.32	NA	453	275

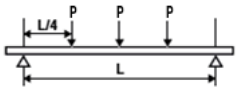
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.

CASE 3:



CASE 4:



Revision Date: 02/27/2026

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LOAD TABLES FOR NEXSPAN2 14NSH84 - 8 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	23337	0.03	NA	NA	NA
60	18635	0.05	NA	NA	NA
72	15494	0.08	NA	NA	NA
84	13245	0.11	NA	NA	NA
96	11554	0.14	NA	NA	NA
108	10234	0.17	NA	NA	NA
120	9175	0.22	NA	NA	NA
144	7576	0.31	NA	NA	NA
168	6423	0.42	NA	NA	NA
192	5548	0.55	NA	NA	5354
216	4860	0.70	NA	NA	4128
240	4302	0.86	NA	NA	3241

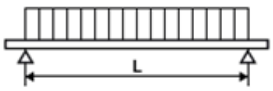
CASE 2 - CONCENTRATED LOAD AT CENTER

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	11668	0.03	NA	NA	NA
60	9317	0.04	NA	NA	NA
72	7747	0.06	NA	NA	NA
84	6622	0.08	NA	NA	NA
96	5777	0.11	NA	NA	NA
108	5117	0.14	NA	NA	NA
120	4587	0.17	NA	NA	NA
144	3788	0.25	NA	NA	NA
168	3211	0.34	NA	NA	NA
192	2774	0.45	NA	NA	NA
216	2430	0.57	NA	NA	NA
240	2151	0.70	NA	NA	2026

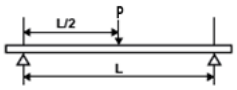
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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 8x4x1/4 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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.
8. Values are based on the 8" tube dimension being in the vertical direction, with the 4" tube direction being in the horizontal direction.

CASE 1: P = L*w



CASE 2:



HSS 8"X4"X1/4" W/ 1-1/4" WIDE SLOTS

TECHNICAL DATA							
t_{des} (in)	Slot Length (in)	E (ksi)	Fy (ksi)	A (in^2)	I (in^4)	S (in^3)	Ma (lbs-ft)
0.233	2-9/16	29000	50	4.66	33.72	8.43	11707

Revision Date: 03/09/2026

LOAD TABLES FOR NEXSPAN2 14NSH84 - 8 x 4 x 1/4 H SERIES

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	8751	0.04	NA	NA	NA
60	6988	0.06	NA	NA	NA
72	5810	0.08	NA	NA	NA
84	4967	0.11	NA	NA	NA
96	4332	0.14	NA	NA	NA
108	3838	0.18	NA	NA	NA
120	3440	0.22	NA	NA	NA
144	2841	0.32	NA	NA	NA
168	2408	0.43	NA	NA	NA
192	2080	0.56	NA	NA	1964
216	1822	0.71	NA	NA	1514
240	1613	0.88	NA	NA	1189

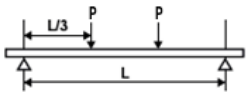
CASE 4 - THREE EQUAL CONCENTRATED LOADS EQUALLY PLACED

SPAN (in.)	MAX ALLOWABLE LOAD P (lbs)	Δ AT MAX ALLOWABLE LOAD (in.)	SPAN/180	SPAN/240	SPAN/360
48	5834	0.03	NA	NA	NA
60	4658	0.05	NA	NA	NA
72	3873	0.07	NA	NA	NA
84	3311	0.10	NA	NA	NA
96	2888	0.13	NA	NA	NA
108	2558	0.17	NA	NA	NA
120	2293	0.21	NA	NA	NA
144	1894	0.30	NA	NA	NA
168	1605	0.40	NA	NA	NA
192	1387	0.53	NA	NA	NA
216	1215	0.67	NA	NA	1080
240	1075	0.83	NA	NA	848

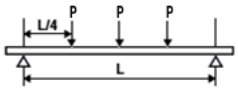
NOTES:

1. The load values in these tables are based on simply supported beams for operating temperatures between -20° and 450° Fahrenheit.
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 8x4x1/4 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.
7. For lengths indicated with an asterisk (*), engineering analysis is required to use loads greater than those listed, which are based on deflection.
8. Values are based on the 8" tube dimension being in the vertical direction, with the 4" tube direction being in the horizontal direction.

CASE 3:



CASE 4:



Revision Date: 03/09/2026

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PROJECT INFORMATION

PROJECT INFORMATION		APPROVAL STAMP
PROJECT:		☐ APPROVED
ADDRESS:		☐ APPROVED AS NOTED
CONTRACTOR:		☐ NOT APPROVED
ENGINEER:		REMARKS:
SUBMITTAL DATE:		
NOTES:		

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