

# **NEXSPAN2™ H SERIES** **SUBMITTAL PACKAGE** FOR OVERHEAD MEP APPLICATIONS

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## OVERVIEW & INFORMATION

Allfasteners NexSpan2™ H Series is a pre-engineered 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.



PATENT PENDING

## 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



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



Certified AISC Fabricator  
#22001115120RFN



## NOT A REPLACEMENT FOR STRUT CHANNEL

NexSpan2™ H Series superior load capacities allow it to go where strut channel cannot. The A500 grade hollow structural tube make it comparable to steel dunnage, I-beams, and double welded C-channel, and provide pre-engineered support for heavy pipework, large HVAC ductwork, HVAC units, and other suspended components.

By incorporating NexSpan2™ into your next project, you'll achieve superior results while minimizing design time, reducing welding hours on site, and avoiding the lead times associated with custom fabricated steel.



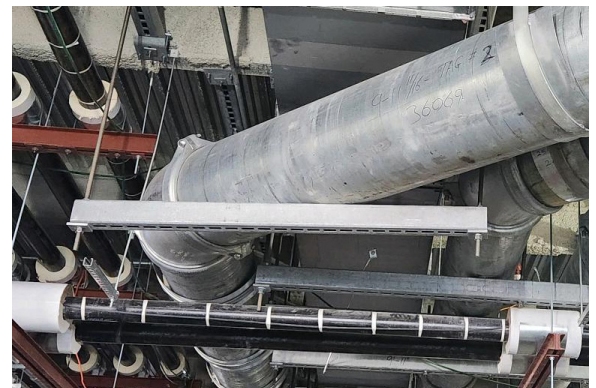
## UNIVERSAL BEAM CLAMPS

The NexSpan2™ H Series is designed for overhead applications and can be securely mounted to I-beam flanges for use as supplemental steel.

Available in three sizes, 3", 4", and 5".

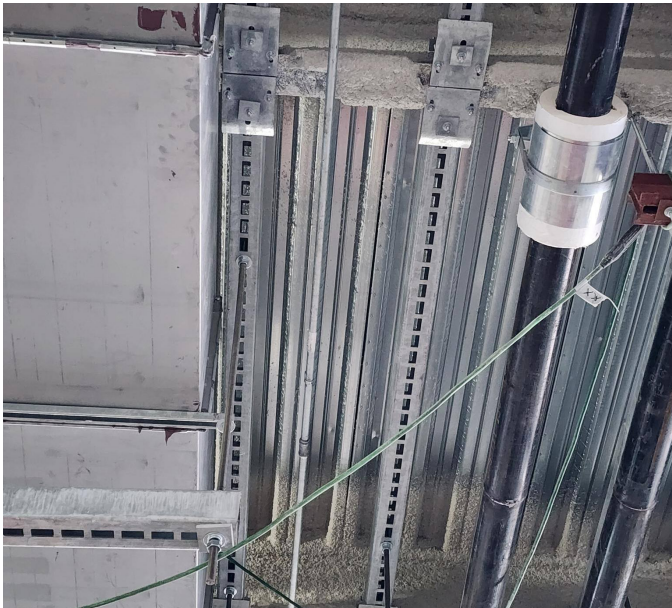
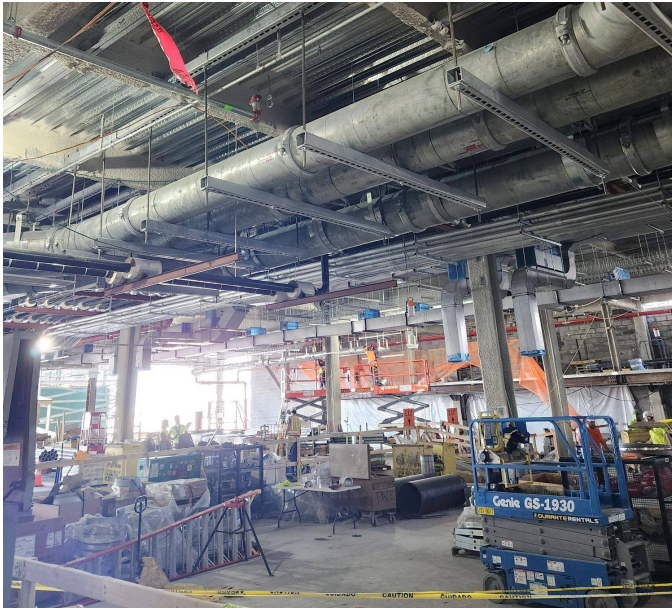
### WHY USE NEXSPAN2™

- Lightweight, reducing handling labor and reducing weight carried by building structure. Modular design allows for quick adjustments and modifications
- Slotted design allows for quick length adjustments
- Sleek profile enhances aesthetic appeal and maximizes space efficiency
- Ideal for supporting electrical and mechanical systems, HVAC units, and other suspended components
- Provides reliable and safe hanging solutions for various construction needs
- Simplifies the installation process compared to traditional steel structures



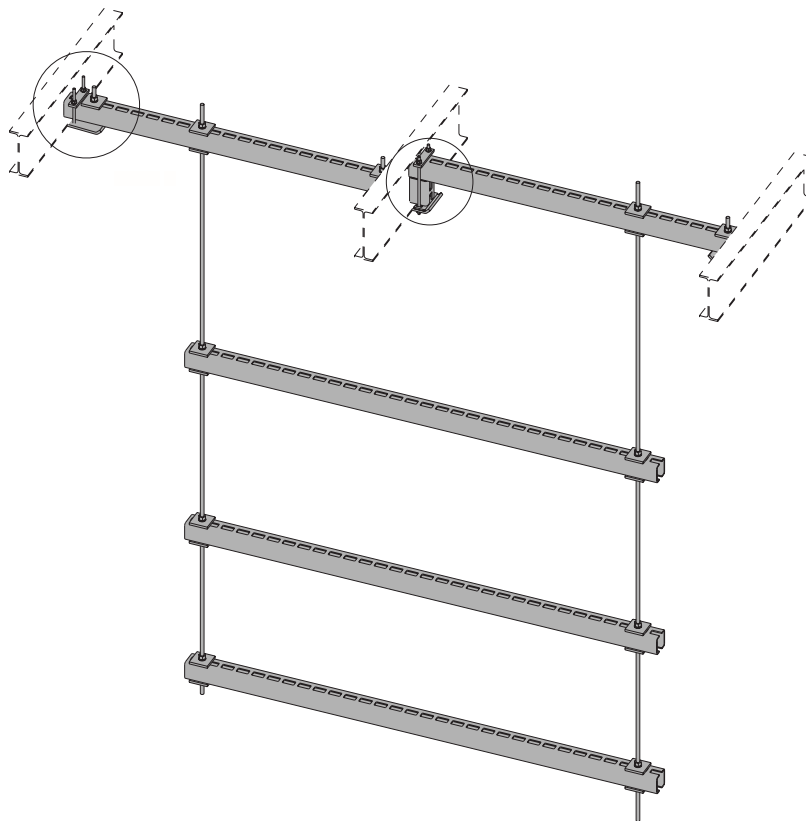
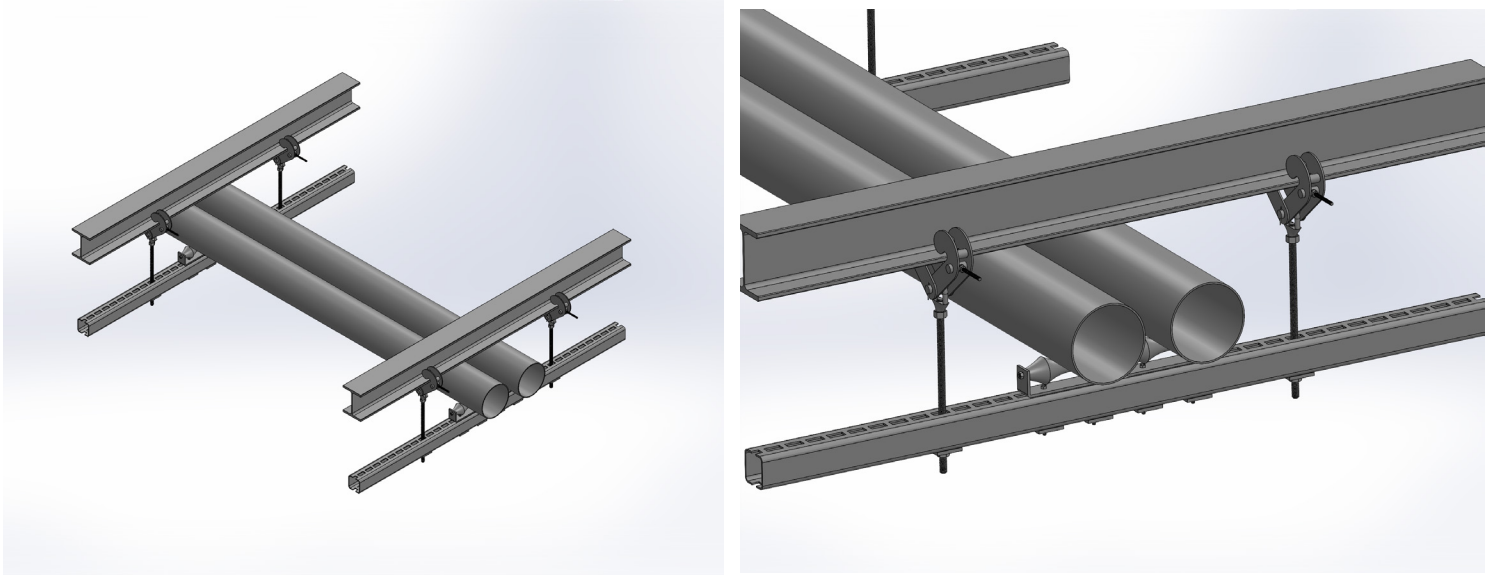


APPLICATION EXAMPLES

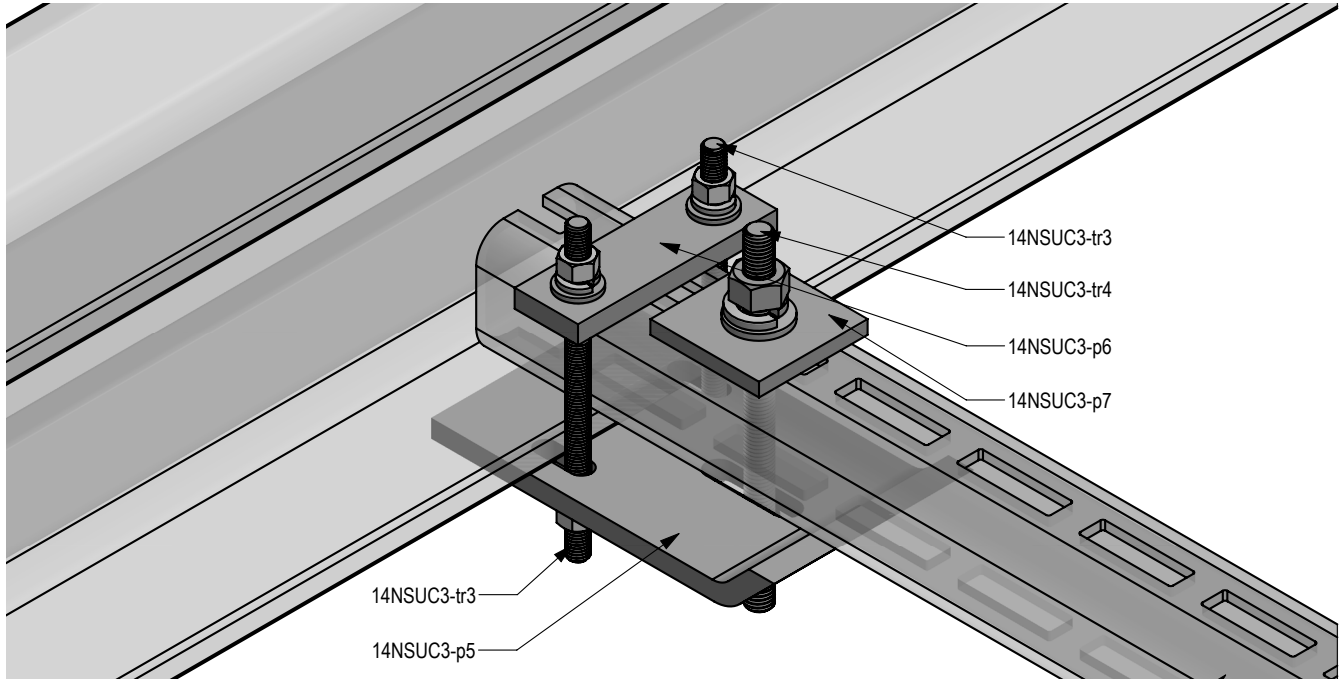




APPLICATION EXAMPLES

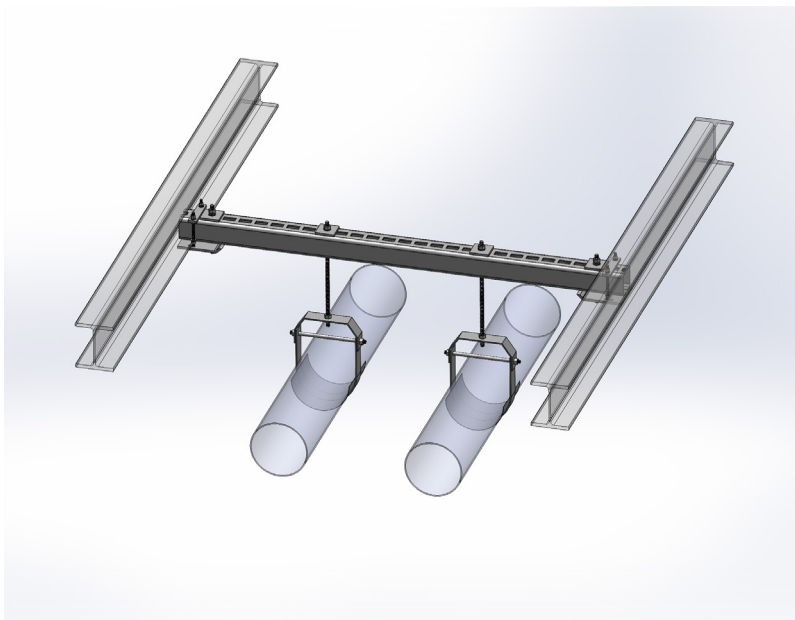
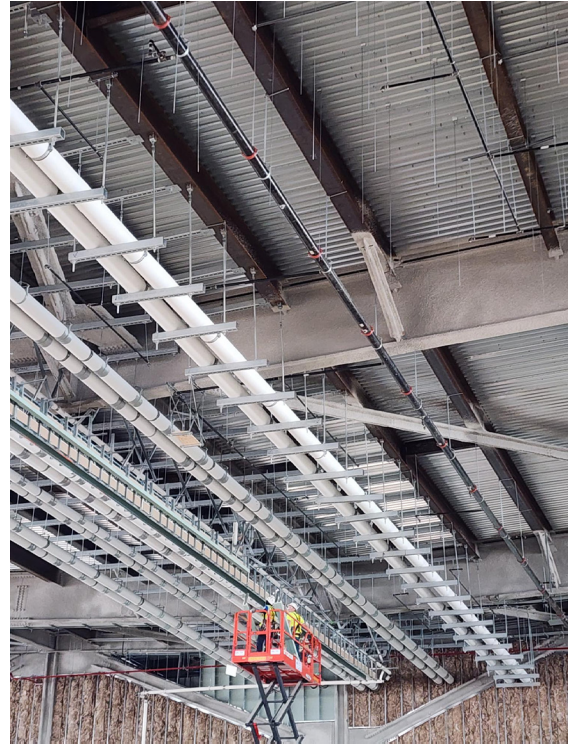
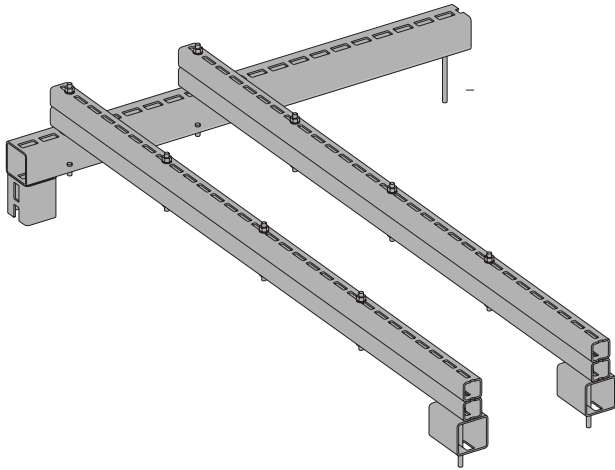


APPLICATION EXAMPLES





APPLICATION EXAMPLES

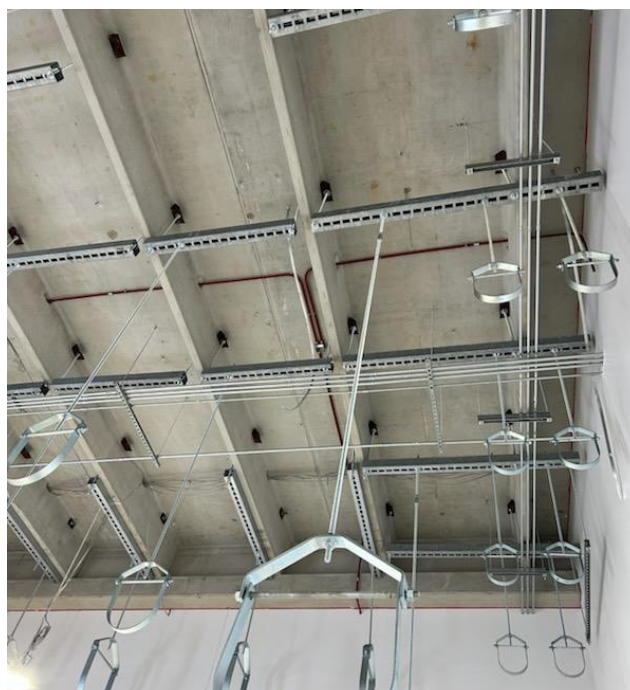
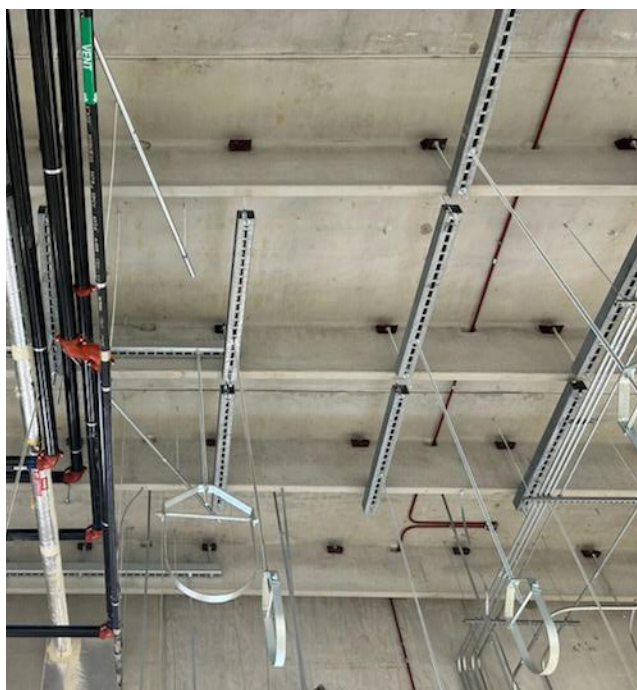
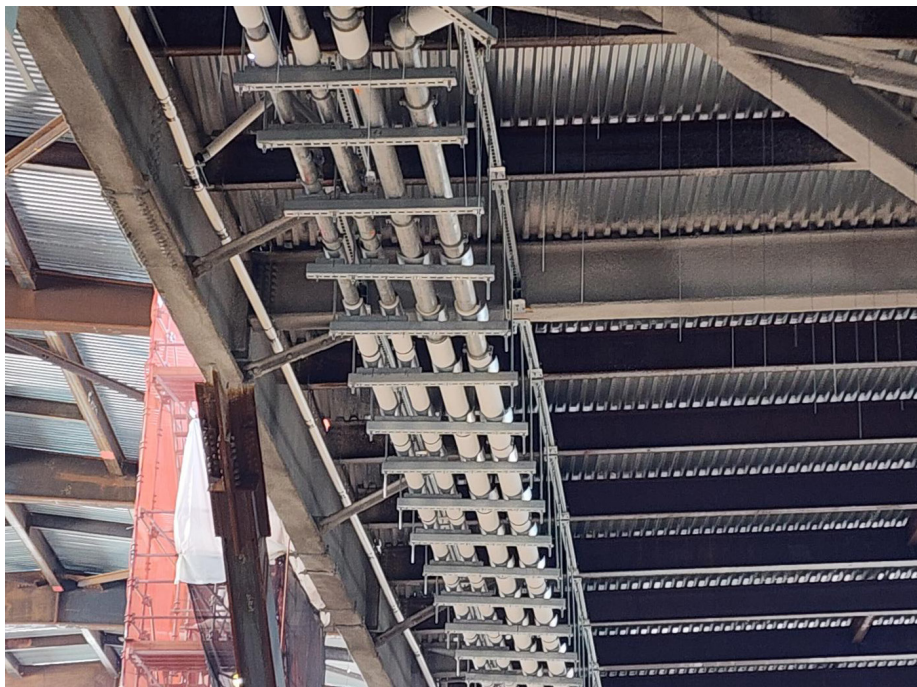


APPLICATION EXAMPLES





APPLICATION EXAMPLES



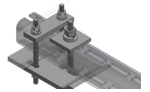
### ORDERING INFORMATION

**TABLE 1: 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

**TABLE 2: NEXSPAN2™ UNIVERSAL CLAMP ORDERING INFORMATION**



PART #	SIZE	FITS PART #
14NSHC3	3"	14NSH310 & 14NSH320
14NSHC4	4"	14NSH410 & 14NSH420
14NSHC5	5"	14NSH510 & 14NSH520

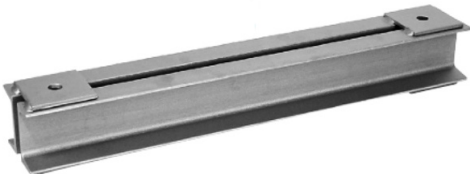
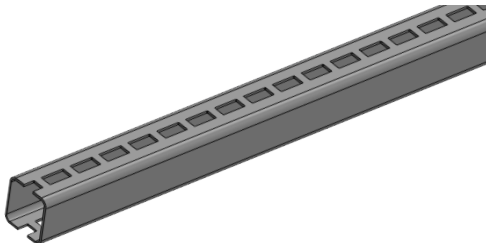
**TABLE 3: SQUARE WASHER INFORMATION**

ROD DIAMETER	HOLE SIZE	WIDTH	THICKNESS
1/2"	11/16"	3"	3/8"
5/8"	13/16"	3"	3/8"
3/4"	15/16"	4"	1/2"
7/8"	1-1/16"	4"	1/2"
1"	1-1/4"	4"	1/2"



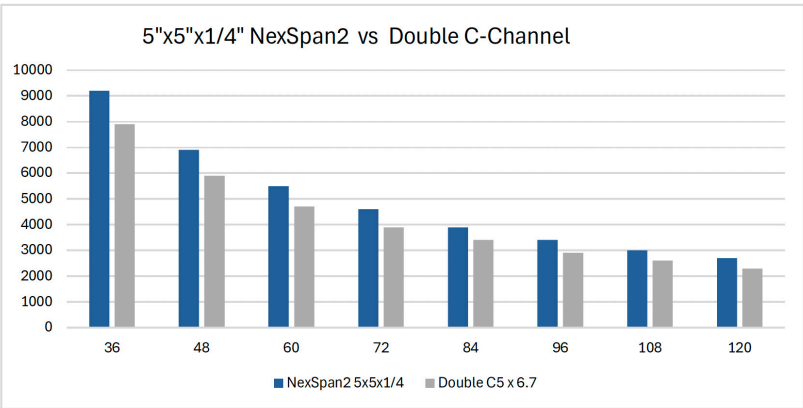
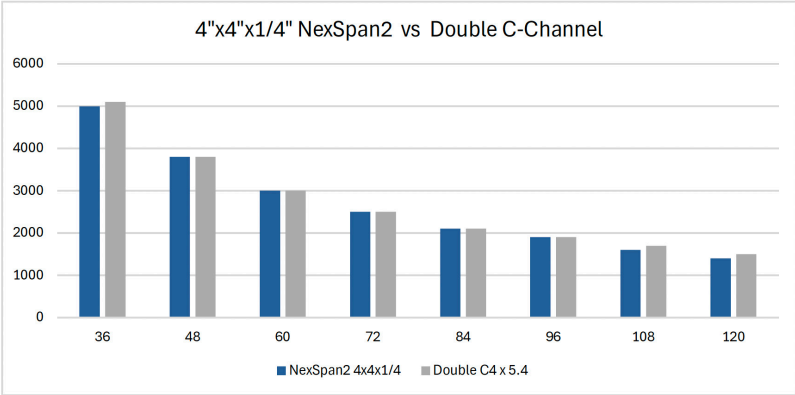
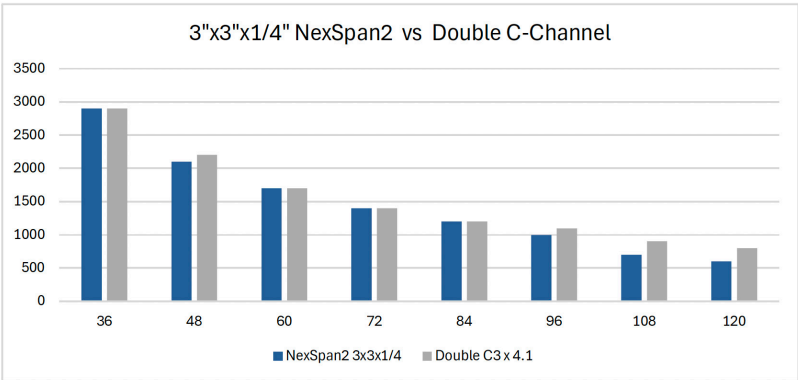


NEXSPAN2™ vs DOUBLE C-CHANNEL



NEXSPAN2™ H SERIES - **NEW METHOD**

DOUBLE C-CHANNEL - **TRADITIONAL METHOD**



### TECHNICAL SPECIFICATIONS

**TABLE 4: MAXIMUM ALLOWABLE LOADS**

NEXSPAN2™ vs DOUBLE C-CHANNEL						
MAXIMUM ALLOWABLE LOAD (lbs.)						
SPAN (in.)	NEXSPAN2™ 3" x 3" x 1/4"	DOUBLE C3 x 4.1	NEXSPAN2™ 4" x 4" x 1/4"	DOUBLE C4 x 5.4	NEXSPAN2™ 5" x 5" x 1/4"	DOUBLE C5 x 6.7
36	2900	2900	5000	5100	9200	7900
48	2100	2200	3800	3800	6900	5900
60	1700	1700	3000	3000	5500	4700
72	1400	1400	2500	2500	4600	3900
84	1200	1200	2100	2100	3900	3400
96	1000	1100	1900	1900	3400	2900
108	700	900	1600	1700	3000	2600
120	600	800	1400	1500	2700	2300

1. Load table is based on a simply supported beam with a concentrated load at the midspan and a minimum factor of safety of 3
2. Span is measured from the supports
3. Maximum rod size is Slot Width - 1/16"
4.  $\Delta < 360/L$  at mid-span
5. HSS 3x3x1/4 compatible with rods up to 5/8"
6. HSS 4x4x1/4 and HSS 5x5x1/4 compatible with rods up to 1"

**Case 2 - Concentrated Load at Center**



### TECHNICAL SPECIFICATIONS

**TABLE 5: NEXSPAN2™ H SERIES TECHNICAL DATA\***

TUBE SIZE (in.)	t (in.)	t <sub>des</sub> (in.)	SLOT WIDTH (in.)	A (in <sup>2</sup> )	I (in <sup>4</sup> )	S (in <sup>3</sup> )
3.00	0.250	0.233	0.6875	1.800	2.369	1.579
4.00	0.250	0.233	1.250	2.205	5.506	2.753
5.00	0.250	0.233	1.250	3.135	12.463	4.985

ASTM A500 Gr C. Hot Dip Galvanized per ASTM A123. Slot Lengths are 2-9/16".

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





# NEXSPAN2™ F SERIES SUBMITTAL PACKAGE

FOR MEP EQUIPMENT PLATFORMS

14	Introduction
15	T-Bolts & Slots
16-18	Application Examples
19-21	Ordering Information
22-23	Technical Specifications



## 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' pre-engineered, 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 slot in the shank end, indicating correct installation
- Hot Dip Galvanized
- Made in the USA





## 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.



## T-BOLT & SLOTS

The NexSpan2™ F Series implements a unique M12 T-bolt made from 10.9 high grade steel up to 2,200 lbs load resistance. Paired with the NexSpan2's slot design, the T-bolt makes leveling frames and structures simple and fast - where traditional screw systems require precise alignment of holes.



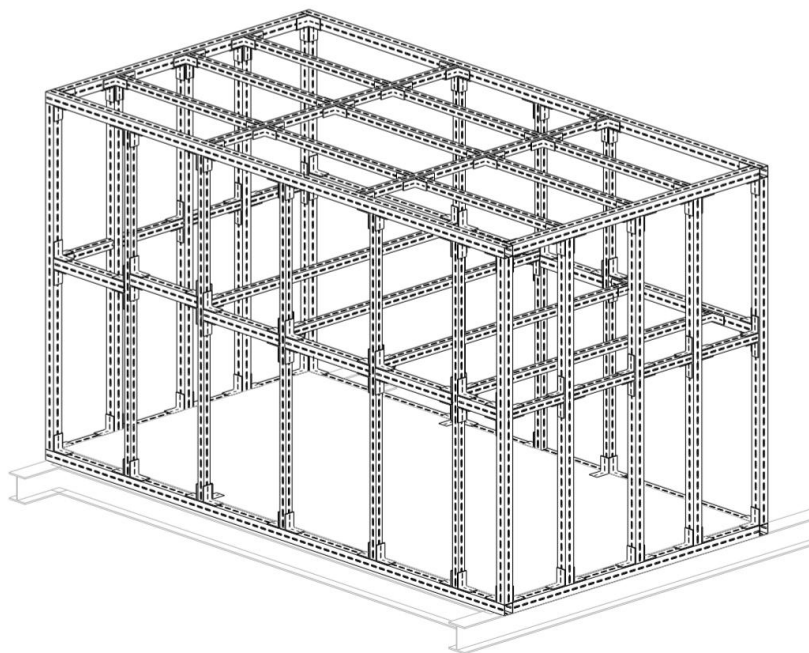


APPLICATION EXAMPLES

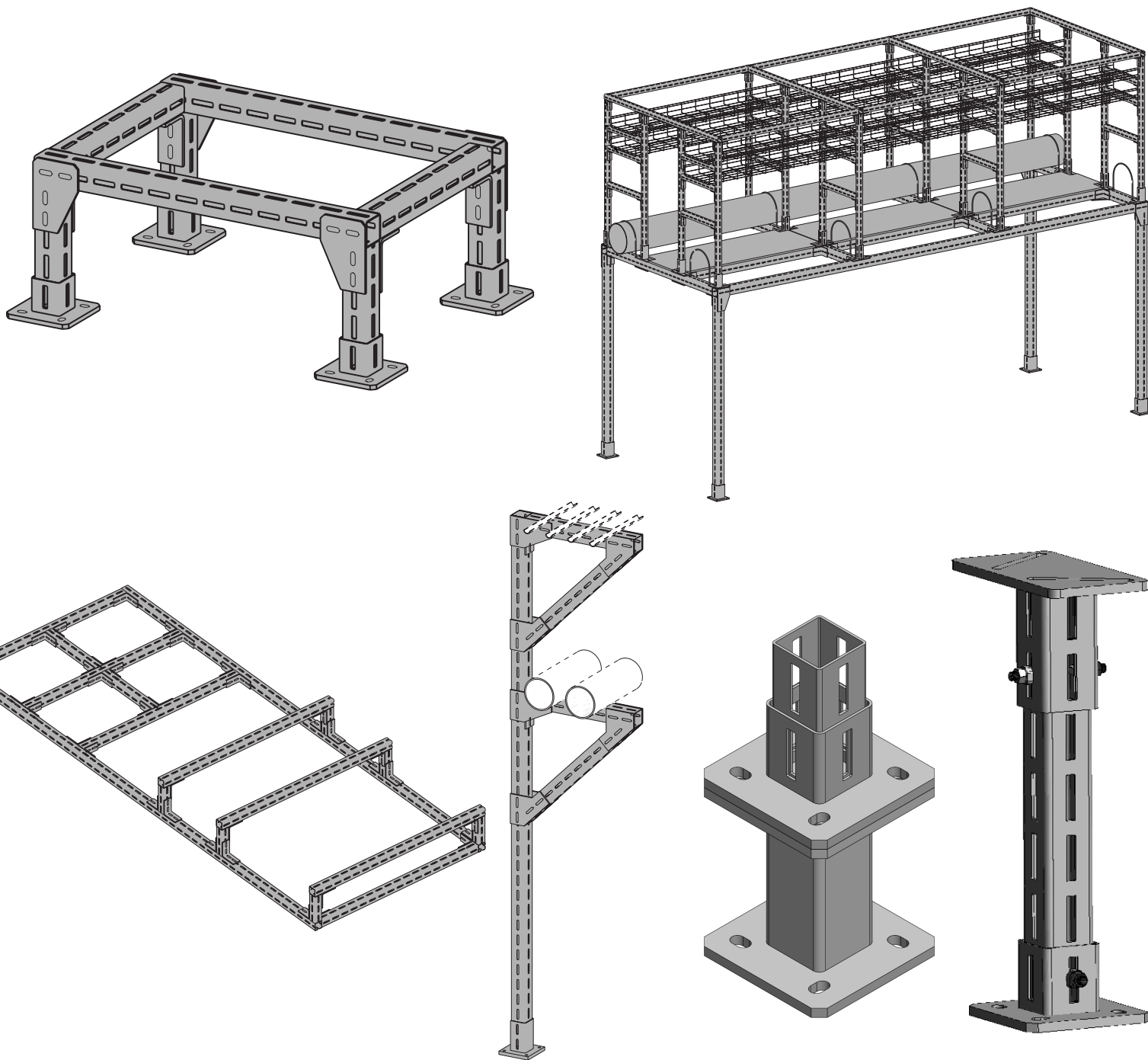




APPLICATION EXAMPLES




APPLICATION EXAMPLES



### ORDERING INFORMATION

**TABLE 6: 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"

**TABLE 7: NEXSPAN2™ END CAP ORDERING INFORMATION**

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

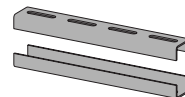
**TABLE 8: NEXSPAN2™ T-BOLT ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
2TLB1240	M12 x 40MM T-Lock Bolt	All F Series
2TLL1240	M12 x 40MM Flat Collar Washer T-Lock Bolt	All F Series



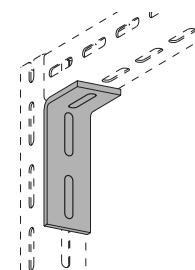
**TABLE 9: NEXSPAN2™ SPLICE CONNECTOR ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-S13	3"	14NSF310 & 14NSF320
14NSF-S14	4"	14NSF410 & 14NSF420



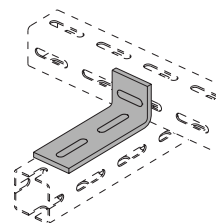
**TABLE 10: NEXSPAN2™ ANGLE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-A13	3"	14NSF310 & 14NSF320
14NSF-A14	4"	14NSF410 & 14NSF420
14NSF-A63 (Default Angle)	3"	14NSF310 & 14NSF320
14NSF-A64 (Default Angle)	4"	14NSF410 & 14NSF420



**TABLE 11: NEXSPAN2™ ANGLE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-A23	3"	14NSF310 & 14NSF320
14NSF-A24	4"	14NSF410 & 14NSF420
14NSF-A73 (Default Angle)	3"	14NSF310 & 14NSF320
14NSF-A74 (Default Angle)	4"	14NSF410 & 14NSF420

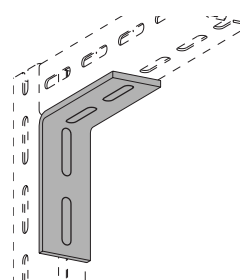




### ORDERING INFORMATION

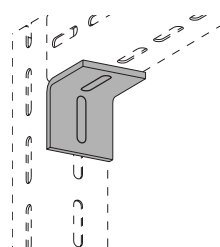
**TABLE 12: NEXSPAN2™ ANGLE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-A43	3"	14NSF310 & 14NSF320
14NSF-A44	4"	14NSF410 & 14NSF420
14NSF-A83 (Default Angle)	3"	14NSF310 & 14NSF320
14NSF-A84 (Default Angle)	4"	14NSF410 & 14NSF420



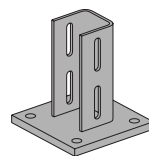
**TABLE 13: NEXSPAN2™ ANGLE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-A53	3"	14NSF310 & 14NSF320
14NSF-A54	4"	14NSF410 & 14NSF420
14NSF-A93 (Default Angle)	3"	14NSF310 & 14NSF320
14NSF-A94 (Default Angle)	4"	14NSF410 & 14NSF420



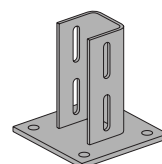
**TABLE 14: NEXSPAN2™ POST BASE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-B13	3"	14NSF310 & 14NSF320
14NSF-B14	4"	14NSF410 & 14NSF420



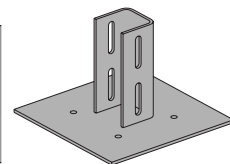
**TABLE 15: NEXSPAN2™ POST BASE ORDERING INFORMATION**

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



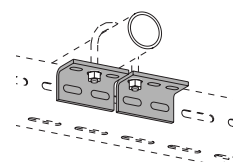
**TABLE 16: NEXSPAN2™ POST BASE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-B33	3"	14NSF310 & 14NSF320
14NSF-B34	4"	14NSF410 & 14NSF420



**TABLE 17: NEXSPAN2™ PIPE SUPPORT BRACKET ORDERING INFORMATION**

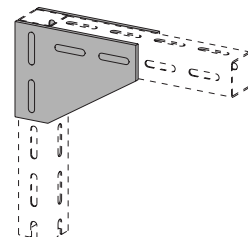
PART #	FITS PIPE SIZE	FITS PART #
14NSF-PS1	1/2" to 2-1/2" Pipe	All F Series
14NSF-PS2	3" to 8" Pipe	All F Series



### ORDERING INFORMATION

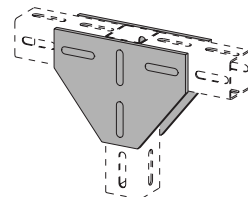
**TABLE 18: NEXSPAN2™ PLATE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-P13	3"	14NSF310 & 14NSF320
14NSF-P14	4"	14NSF410 & 14NSF420
14NSF-P63 (Default Plate)	3"	14NSF310 & 14NSF320
14NSF-P64 (Default Plate)	4"	14NSF410 & 14NSF420



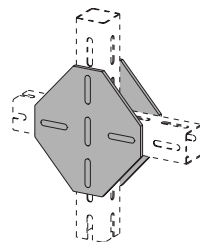
**TABLE 19: NEXSPAN2™ PLATE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-P23	3"	14NSF310 & 14NSF320
14NSF-P24	4"	14NSF410 & 14NSF420
14NSF-P73 (Default Plate)	3"	14NSF310 & 14NSF320
14NSF-P74 (Default Plate)	4"	14NSF410 & 14NSF420



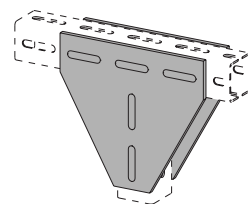
**TABLE 20: NEXSPAN2™ PLATE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-P33	3"	14NSF310 & 14NSF320
14NSF-P34	4"	14NSF410 & 14NSF420
14NSF-P83 (Default Plate)	3"	14NSF310 & 14NSF320
14NSF-P84 (Default Plate)	4"	14NSF410 & 14NSF420



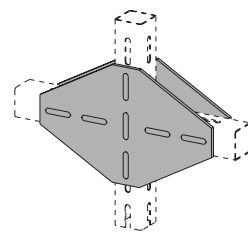
**TABLE 21: NEXSPAN2™ PLATE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-P43	3"	14NSF310 & 14NSF320
14NSF-P44	4"	14NSF410 & 14NSF420
14NSF-P93 (Default Plate)	3"	14NSF310 & 14NSF320
14NSF-P94 (Default Plate)	4"	14NSF410 & 14NSF420



**TABLE 22: NEXSPAN2™ PLATE ORDERING INFORMATION**

PART #	NEXSPAN2 SIZE	FITS PART #
14NSF-P53	3"	14NSF310 & 14NSF320
14NSF-P54	4"	14NSF410 & 14NSF420
14NSF-P03 (Default Plate)	3"	14NSF310 & 14NSF320
14NSF-P04 (Default Plate)	4"	14NSF410 & 14NSF420



## TECHNICAL SPECIFICATIONS

**TABLE 23: MEMBER PROPERTIES**

	UNITS	AF-NS2-3	AF-NS2-4
Depth	in	3.000	4.000
Width	in	3.000	4.000
Thickness	in	0.125	0.125
Wt/ft.	lb/ft	4.4	6.0

**TABLE 24: SLOT DIMENSIONS**

	UNITS	AF-NS2-3	AF-NS2-4
Height x Width	in.	9/16" x 2-3/4"	9/16" x 2-3/4"

**TABLE 25: MATERIAL INFORMATION**

	UNITS	AF-NS2-3	AF-NS2-4
ASTM Specification		A500 Gr B	A500 Gr B
Minimum Specified Yield Strength	ksi	46	46
Minimum Specified Tensile Strength	ksi	58	58
Modulus of Elasticity	ksi	29000	29000

**TABLE 26: GROSS SECTION PROPERTIES**

	UNITS	AF-NS2-3	AF-NS2-4
Design Thickness	in	0.116	0.116
Area	in <sup>2</sup>	1.300	1.770
Moment of Inertia	in <sup>4</sup>	1.780	4.400
Radius of Gyration	in	1.170	1.580

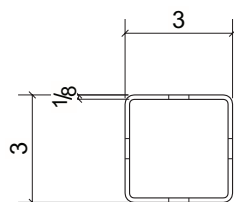
**TABLE 27: EFFECTIVE SECTION PROPERTIES**

	UNITS	AF-NS2-3	AF-NS2-4
Effective Area	in <sup>2</sup>	1.043	1.506
Effective Web Area	in <sup>2</sup>	0.458	0.689
Effective Moment of Inertia	in <sup>4</sup>	1.507	3.903
Effective Section Modulus	in <sup>3</sup>	1.005	1.952
Effective Radius of Gyration	in	1.203	1.610

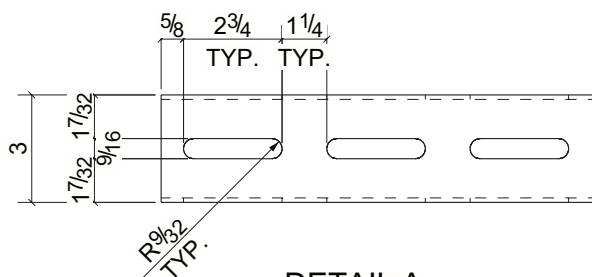




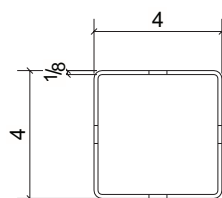
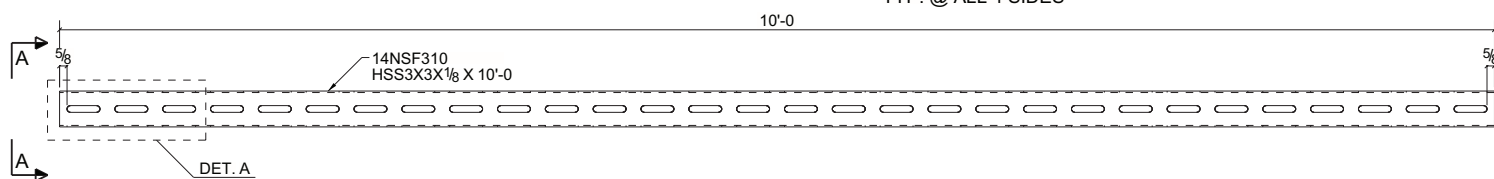
### TECHNICAL SPECIFICATIONS



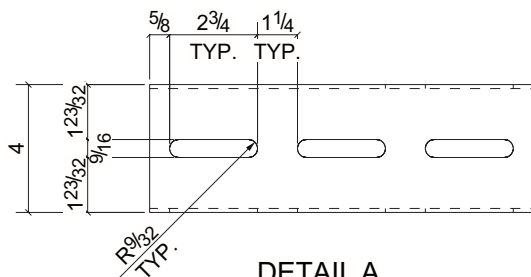
**A - A**



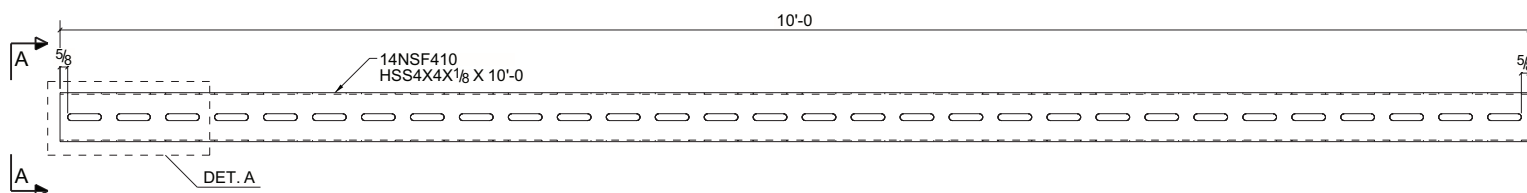
**DETAIL A**  
TYP. @ ALL 4 SIDES



**A - A**



**DETAIL A**  
TYP. @ ALL 4 SIDES



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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