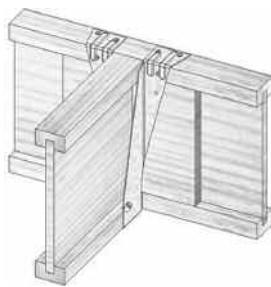
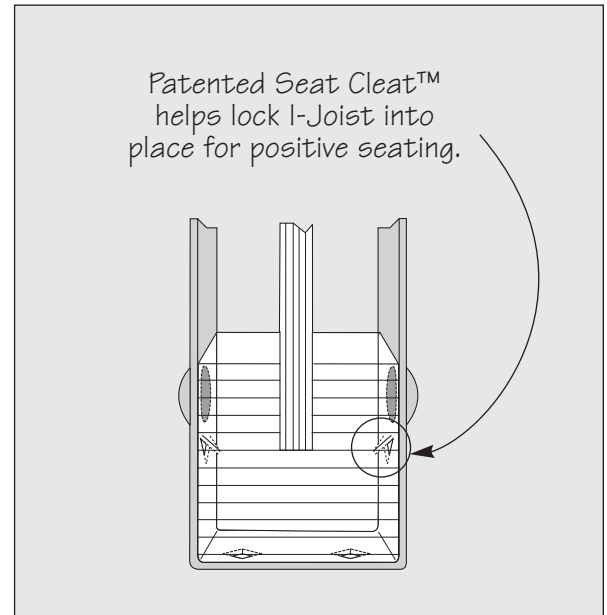


THO, TFL, & THF SINGLE PLY I-JOIST HANGERS UPLIFT VALUES WITH NO JOIST NAILS INSTALLED

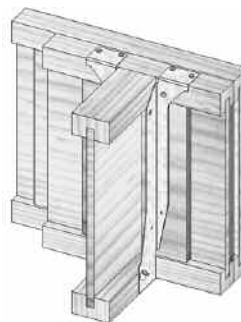
The following information is a summary of uplift testing performed by *USP Structural Connectors* related to the use of *THO*, *TFL*, and *THF* single ply engineered wood I-Joist hangers installed **without joist nails**. USP recognizes that in some applications it may not be desirable or necessary to install joist nails into the bottom flange of the I-Joist.

For example, there may be instances where minimal uplift resistance is needed to achieve design uplift requirements.

When joist nails are not installed the *Seat Cleat™* prongs will hold the I-Joist in place and provide uplift resistance with the *THO*, *TFL*, and *THF* single ply hangers. Reference the chart below for test result uplift values. Notice the uplift resistance is the same for all *THO*, *TFL*, and *THF* single ply hangers as the *Seat Cleat* design is identical.



Typical *THO* installation



Typical *TFL* installation



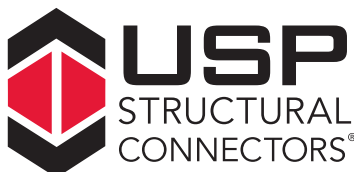
Typical *THF* installation

USP Series No.	Fasteners as Installed in Field		DF-L / SP Allowable Loads		
	Header	Joist ¹	Floor	Uplift	
			100% ²	133%	160%
THF Series - Single Ply	Per Catalog	-- --	See Catalog	85	85
THO/TFL Series - Single Ply	Per Catalog	-- --	See Catalog	85	85

1) Catalog lists (2) 10d x 1-1/2 nails for correct installation.

2) 100% floor loading varies by USP stock number, joist type, and wood species.

USP supplies quality products to build Stronger Safer Structures



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