

FACE MOUNT HANGER "GAP" TESTING

For proper installation and to achieve the published load, *USP Structural Connectors®* recommends a maximum 1/8" gap between supporting and supported members when using our face mount hanger products.

However, in some instances this tolerance is exceeded and the connection requires further evaluation. USP recently conducted extensive testing with our face mount hangers to determine reduction factors for gaps from 3/16" thru 1". The tables below indicate what allowable load multiplier should be applied to the published hanger capacity to achieve the necessary reduced load capacity.

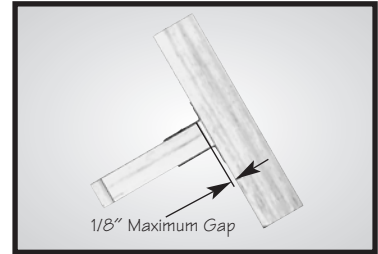


Table 1- Gravity Loads

USP Series ¹	Allowable Load Multiplier														
	Direct Loads														
	≤ 1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"
JL	1.00	1.00	1.00	0.90	0.80	0.70	0.65	0.60	0.55	0.50	0.45	--	--	--	--
JUS2x	1.00	0.95	0.90	0.80	0.65	0.55	0.45	0.45	0.40	0.40	0.40	--	--	--	--
JUS W > 1-1/2"	1.00	0.95	0.90	0.80	0.70	0.60	0.50	0.50	0.45	0.45	0.45	--	--	--	--
SUH	1.00	0.95	0.90	0.85	0.80	0.75	0.70	0.65	0.60	0.55	0.50	--	--	--	--
HD 2x	1.00	1.00	1.00	0.90	0.90	0.85	0.85	0.80	0.80	0.75	0.75	--	--	--	--
HD W > 1-1/2"	1.00	1.00	1.00	0.90	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.70	0.70	0.65	0.65
HUS2X	1.00	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
HUS W > 1-3/4"	1.00	0.95	0.90	0.85	0.80	0.75	0.70	0.65	0.60	0.55	0.50	--	--	--	--
THD2x	1.00	0.95	0.90	0.85	0.80	0.70	0.65	0.65	0.60	0.60	0.60	0.55	0.55	0.50	0.50
THD W > 1-1/2"	1.00	0.95	0.95	0.90	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.70	0.70	0.65	0.65
THDH	1.00	1.00	1.00	0.90	0.85	0.80	0.75	0.65	0.60	0.55	0.50	0.30	0.30	0.30	0.30

1) The connector is assumed to be installed in accordance to applicable codes and current USP literature.

Table 2- Uplift Loads

USP Series ¹	Allowable Load Multiplier														
	Uplift Loads														
	≤ 1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"
JL	1.00	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	--	--	--	--	--
JUS2x	1.00	0.80	0.60	0.50	0.45	0.40	0.35	--	--	--	--	--	--	--	--
JUS W > 1-1/2"	1.00	0.80	0.60	0.50	0.45	0.40	0.35	--	--	--	--	--	--	--	--
SUH	1.00	0.95	0.90	0.85	0.80	0.75	0.70	0.65	0.65	0.60	0.60	--	--	--	--
HD 2x	1.00	0.90	0.80	0.75	0.70	0.65	0.60	0.55	0.50	0.45	0.40	--	--	--	--
HD W > 1-1/2"	1.00	0.95	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.70	0.70	0.65	0.65	0.60	0.60
HUS2X	1.00	0.80	0.60	0.50	0.45	0.40	0.35	--	--	--	--	--	--	--	--
HUS W > 1-3/4"	1.00	0.80	0.60	0.50	0.45	0.40	0.35	--	--	--	--	--	--	--	--
THD2x	1.00	0.95	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.70	0.70	0.65	0.65	0.60	0.60
THD W > 1-1/2"	1.00	0.95	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.70	0.70	0.65	0.65	0.60	0.60
THDH	1.00	0.80	0.60	0.50	0.45	0.40	0.35	--	--	--	--	--	--	--	--

1) The connector is assumed to be installed in accordance to applicable codes and current USP literature.

Example Calculation:

A roof truss with a double 2x6 bottom chord supported by a THD26-2 hanger has a gap between the end of the truss and the supporting member of 9/16".

Gravity Loads:

Published capacity of THD26-2:
 = 2,900 lbs. @ 115%
 = 3,055 lbs. @ 125%
 (from 2006 Full Line Catalog)

Allowable Load Multiplier: 0.80
 (from Table 1- Gravity Loads)

Reduced THD26-2 capacity:
 2,900 lbs. x 0.80 = 2,320 lbs. @ 115%
 3,055 lbs. x 0.80 = 2,445 lbs. @ 125%

Uplift Loads:

Published uplift capacity of THD26-2:
 = 1,890 lbs. @ 133%
 = 2,265 lbs. @ 160%
 (from 2006 Full Line Catalog)

Allowable Load Multiplier: 0.75
 (from Table 2- Uplift Loads)

Reduced THD26-2 capacity:
 1,890 lbs x 0.75 = 1,420 lbs. @ 133%
 2,265 lbs. x 0.75 = 1,700 lbs. @ 160%



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