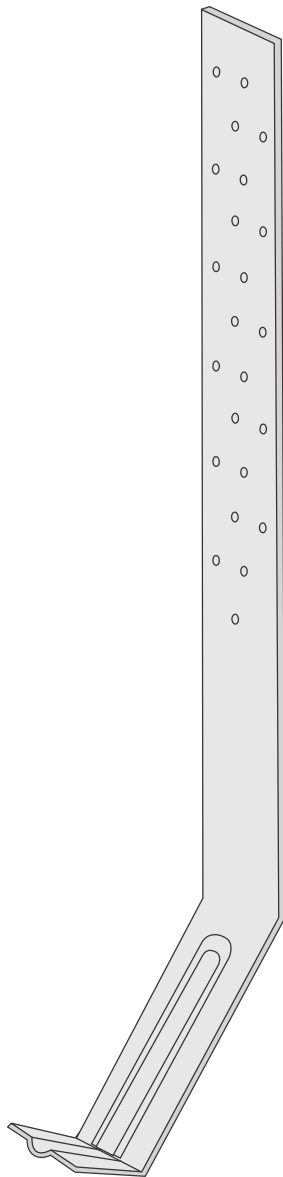


ASTHD



DESIGN FEATURES

The ASTHD holdowns embed into concrete foundations and nail to shear panel perimeter members to resist uplift load caused by earthquake and hurricane forces on a structure. They are an economical, high load connector preferred by contractors. The nail pattern facilitates nailing to the edges of double 2x members.

MATERIAL

12 ga. galvanized steel Available in G-185 Triple Zinc or Hot-Dip Galvanized. Call for availability.

LOADS

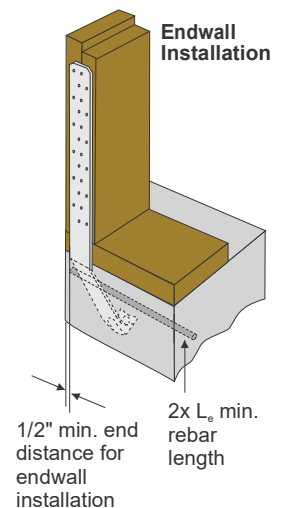
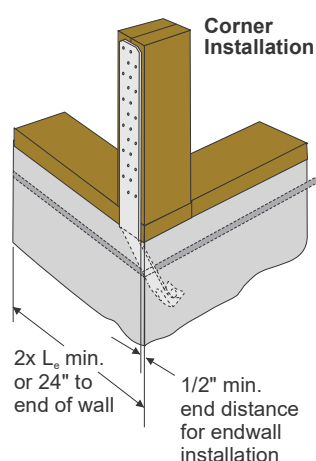
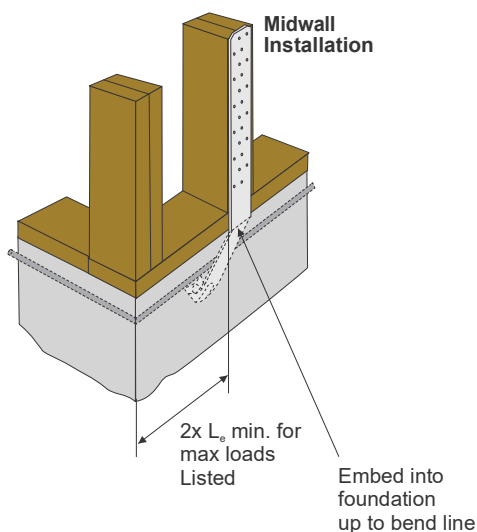
Larger seat-bearing and designed direct nailing provide proper installation of all nails into joist hangers.

CODES

ICC ESR-3635

NOTES

1. See drawing for L and S dimension, and installation requirements.
2. 10d common (3-inch long x 0.148-inch diameter) may be used with no load reduction.
3. Deflection at highest allowable loads (ASD) are as follows: ASTHD10 = 0.067-inch, ASTHD14 = 0.084-inch.
4. Multiply seismic and wind ASD loads by 1.4 and 1.6, respectively, to obtain LRFD capacities. LRFD for ASTHD10 and ASTHD14 must not exceed 7700 pounds and 8250 pounds, respectively, with time effect factor of 1.0.
5. In accordance with IBC Section 1613.1, detached one- and two- family dwellings in Seismic Design Category ((SDC) C (and under) may use design loads for SDCs A, B.
6. Minimum center-to-center spacing is 3 times the required embedment ($S_{min} = 3 \times L_e$) for the hold-downs acting in tension simultaneously. Mid-wall location is based on $1.5 \times L_e$ end distance.



SDC A & B – Allowable Tension Leads For Doug Fir & Southern Pine (160) ^{4,5}														
Min. Stem Wall Width (in)	ITEM ID		Dimensions					Req'd Nails ^{2,7}	Allowable Tension Loads					
	Standard	Rim Joist	Standard		Rim Joist		le		Non-Cracked			Cracked		
			Length (L)	S	Length (L)	S			Midwall	Corner	Endwall	Midwall	Corner	Endwall
6	ASTHD10	ASTHD10RJ	24-3/8"	4-1/8"	39-3/8"	19-1/8"	10"	24-16d Sinkers	4640	3940	2300	4640	3940	2300
	ASTHD14	ASTHD14RJ	27-1/2"	5-1/4"	41-3/8"	18-1/8"	14"	32-16d Sinkers	7010	5780	3940	7010	5780	3940
8	ASTHD10	ASTHD10RJ	24-3/8"	4-1/8"	39-3/8"	19-1/8"	10"	28-16d Sinkers	5850	3885	2995	5850	3885	2995
	ASTHD14	ASTHD14RJ	27-1/2"	5-1/4"	41-3/8"	18-1/8"	14"	32-16d Sinkers	7010	5780	4100	7010	5780	4100
SDC C through F – Allowable Tension Leads For Doug Fir & Southern Pine (160) ^{4,5}														
Min. Stem Wall Width (in)	ITEM ID		Dimensions					Req'd Nails ^{2,7}	Allowable Tension Loads					
	Standard	Rim Joist	Standard		Rim Joist		le		Non-Cracked			Cracked		
			Length (L)	S	Length (L)	S			Midwall	Corner	Endwall	Midwall	Corner	Endwall
6	ASTHD10	ASTHD10RJ	24-3/8"	4-1/8"	39-3/8"	19-1/8"	10"	18-16d Sinkers	3480	2815	1640	3480	2815	1640
	ASTHD14	ASTHD14RJ	27-1/2"	5-1/4"	41-3/8"	18-1/8"	14"	28-16d Sinkers	5010	4130	2815	5010	4130	2815
8	ASTHD10	ASTHD10RJ	24-3/8"	4-1/8"	39-3/8"	19-1/8"	10"	20-16d Sinkers	4180	2775	2140	4180	2775	2140
	ASTHD14	ASTHD14RJ	27-1/2"	5-1/4"	41-3/8"	18-1/8"	14"	28-16d Sinkers	5010	4130	2925	5010	4130	2925
WIND – Allowable Tension Leads For Doug Fir & Southern Pine (160) ^{4,5}														
Min. Stem Wall Width	ITEM ID		Dimensions					Req'd Nails ^{2,7}	Allowable Tension Loads					
	Standard	Rim Joist	Standard		Rim Joist		le		Non-Cracked			Cracked		
			Length (L)	S	Length (L)	S			Midwall	Corner	Endwall	Midwall	Corner	Endwall
6"	ASTHD10	ASTHD10RJ	24-3/8"	4-1/8"	39-3/8"	19-1/8"	10"	24-16d Sinkers	3970	3561	2110	3970	3560	2110
	ASTHD14	ASTHD14RJ	27-1/2"	5-1/4"	41-3/8"	18-1/8"	14"	32-16d Sinkers	7010	5590	3510	7010	5590	3510
8"	ASTHD10	ASTHD10RJ	24-3/8"	4-1/8"	39-3/8"	19-1/8"	10"	28-16d Sinkers	5850	3665	2925	5850	3665	2925
	ASTHD14	ASTHD14RJ	27-1/2"	5-1/4"	41-3/8"	18-1/8"	14"	32-16d Sinkers	7010	5590	3870	7010	5590	3870