



PowerLite®

CAP##W4-H

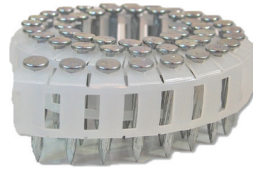
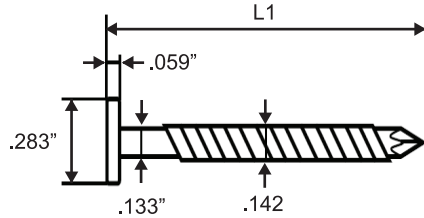
.133" Pins for Cold Formed Steel

MAX



Product data

Dimensions



Item name	L1	Shank	Pins/Coil	Case Qty.
CAP32W4-H	1-1/4"	Knurl	50	2,000 Pins
CAP38W4-H	1-1/2"	Knurl	50	2,000 Pins
CAP50W4-H	2"	Knurl	50	2,000 Pins
CAP65W4-H	2-1/2"	Knurl	50	2,000 Pins

General Inf

Material : Carbon Steel

Hardness : $\geq$ HRC55

Electrogalvanized with a zinc cromate : $\geq 2\mu\text{m}$

Tool

PowerLite® HN120

Concrete/ Steel Pinner



Applications

■ Plywood to Cold Formed Steel



■ Wood to Cold Formed Steel



Pin Selector

Top Member	Item name
Plywood $\leq 1/2"$	CAP32W4-H
Plywood $\leq 1"$	CAP38W4-H
Wood $\leq 1-1/2"$	CAP50W4-H
	CAP65W4-H



Fastening to Cold Formed Steel

Maximum Loads

- 1/2" OSB to Cold Formed Steel -

- CAP32W4-H is used for the test.

- Operating pressure: 333 psi (Pullout)

217 psi (Shear)

- See Appendix.1 for testing equipment

- Fastener Minimum Embedment to Steel is 0.39"

SPECIMEN #	Maximum Loads (lbf)									
	20Ga.		18Ga.		16Ga.		14Ga.		12Ga.	
	Pullout lbf	Shear lbf	Pullout lbf	Shear lbf	Pullout lbf	Shear lbf	Pullout lbf	Shear lbf	Pullout lbf	Shear lbf
1	186	302	164	411	340	331	727	317	943	441
2	121	274	154	437	343	368	558	420	775	393
3	104	321	220	439	351	262	528	433	1010	593
4	106	255	158	438	146	381	600	462	1261	481
5	198	320	122	334	384	319	722	288	944	492
6	116	275	151	419	442	479	525	326	1210	423
7	140	275	141	442	286	435	457	484	1228	473
8	189	263	263	429	129	287	703	308	1056	593
9	148	311	162	426	370	451	514	448	1151	612
10	131	236	216	344	335	381	727	401	979	447
AVG.	144	283	175	412	313	369	606	389	1056	495
MAX.	198	321	263	442	442	479	727	484	1261	612
MIN.	104	236	122	334	129	262	457	288	775	393



- 3/4" OSB to Cold Formed Steel -

SPECIMEN #	Maximum Loads (lbf)		
	Shear		
	18 Ga.	16 Ga.	14 Ga.
1	397	572	651
2	383	534	599
3	411	558	646
4	389	531	622
5	404	621	646
AVG.	397	563	633
MAX.	411	621	651
MIN.	383	531	599

- CAP32W4-H is used for the test.

- Operating pressure: 246 psi (Shear)

- See Appendix.1 for testing equipment

- Fastener Minimum Embedment to Steel is 0.39"

- 2x Wood (1-1/2") to Cold Formed Steel -

SPECIMEN #	Maximum Loads (lbf)		
	Shear		
	18 Ga.	16 Ga.	14 Ga.
1	429	455	797
2	457	619	834
3	431	528	578
4	455	596	662
5	404	587	606
AVG.	435	557	695
MAX.	457	619	834
MIN.	404	455	578

- CAP50W4-H is used for the test.

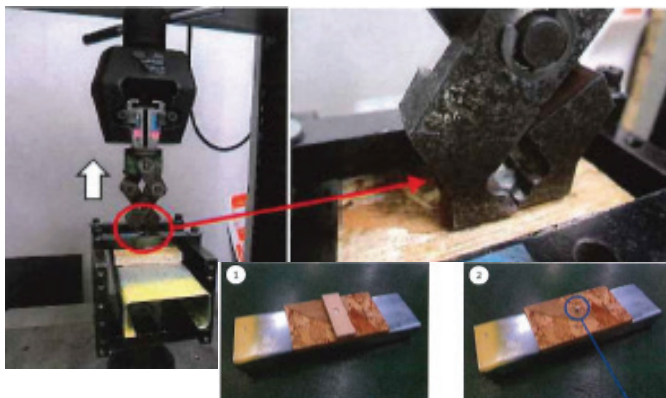
- Operating pressure: 333 psi (Shear)

- See Appendix.1 for testing equipment



Appendix.1 Testing Equipment

Tension Test



Pullout test method

1) Shoot CAP pins into 18Ga./ 16Ga./ 14Ga. CFS through t3/16" MDF and wood material. (Picture1)

2) Take out t3/16" MDF (Picture2)

3) Grab the head of the pin with Universal Tester AG-50kNG (Shimadzu) and pullout the pin to measure the strength.

Shear test method

1) Shoot CAP pins into 18Ga./ 16Ga./ 14Ga. CFS through wood material.

2) Grab the edge of CFS plate with Universal Tester AG-50kNG (Shimadzu) and pullout the plate to measure the strength.

Shear Test

