



PowerLite®

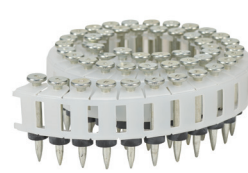
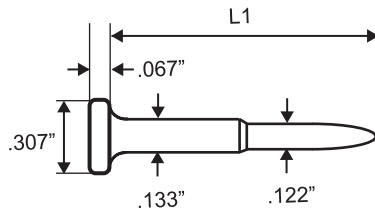
CP-W8##W4SP .133" Pins for Steel I-Beam & Concrete

MAX



Product data

Dimensions



Plastic guide



Aluminum guide
(Top Hat)

General Information

Material : Carbon Steel "SP"

Hardness : $\geq$ HRC52

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

Tool

PowerLite® HN120

Concrete/ Steel Pinner



Item name	L1	Guide	Pins/Coil	Case Qty.
CP-W814W4SP-AL	9/16"	Aluminum	50	1,000 Pins
CP-W816W4SP-AL	5/8"	Aluminum	50	1,000 Pins
CP-W820W4SP-AL	13/16"	Aluminum	50	1,000 Pins
CP-W823W4SP-AL	7/8"	Aluminum	50	1,000 Pins
CP-W823W4SP	7/8"	Plastic	50	1,000 Pins
CP-W833W4SP	1-1/4"	Plastic	50	1,000 Pins
CP-W838W4SP	1-1/2"	Plastic	50	1,000 Pins
CP-W850W4SP	2"	Plastic	50	1,000 Pins

Approvals

ICC-ES

ESR-4320

ESR-4320 LABC / LARC Supplement



Pin Selector

Top Member	Bottom Member	Item name
Light gauge Steel	Concrete	CP-W820W4SP AL CP-W823W4SP AL CP-W823W4SP
Light gauge Steel $\leq$ 12Ga	Steel up to 1/2"	CP-W814W4SP AL CP-W816W4SP AL CP-W820W4SP AL
Plywood $\leq$ 1/2"	Steel up to 1/2"	CP-W823W4SP AL CP-W823W4SP
Plywood $\leq$ 3/4"	Steel up to 1/2"	CP-W833W4SP
Plywood $\leq$ 1"	Steel up to 1/2"	CP-W838W4SP
2X Wood	Steel up to 1/2"	CP-W850W4SP



Applications

2X wood to Steel I-beam



2X wood

Plywood to Steel I-beam



Plywood

Steel to Steel I-beam



Metal Track

Steel to Concrete



Metal Track



Fastening to Concrete

Allowable Loads

- Normal weight concrete -

Allowable Loads (lbf)							
Minimum embedment depth	Concrete Compressive Strength	4,000psi		6,000psi		8,000psi	
	Load Direction	Tension	Shear	Tension	Shear	Tension	Shear
3/4"	CP-W820W4SP AL	210	240	245	320	250	270
7/8"	CP-W823W4SP AL CP-W823W4SP	150	365	360	495	220	210

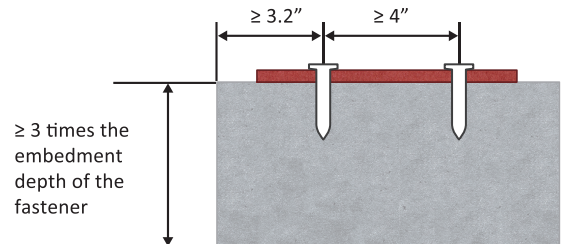
- Fasteners must not be driven until the concrete has reached the designated minimum compressive strength.

- Concrete thickness must be a minimum of 3 times the embedment depth of the fastener. Fastener spacing must be a minimum of 4 inches and edge distance must be a minimum of 3.2 inches.



Application requirements

Thickness of Concrete :	≥ 3 times the embedment depth of the fastener
Edge distance :	≥ 3.2 inches
Spacing :	≥ 4.0 inches



Fastening Steel to Steel

Allowable Loads

Steel Base Material	Allowable Loads (lbf)							
	ASTM A36 ⁽¹⁾							
Steel Thickness	3/16"		1/4"		3/8"		1/2"	
Load Direction	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
CP-W814W4SP AL	135	515	240	470	345	495	370	510
CP-W816W4SP AL	185	575	280	535	475	610	440	635
CP-W820W4SP AL	225	395	315	380	400	495	360	430
Steel Base Material	ASTM A572 Grade 50 or A992 ⁽²⁾							
Steel Thickness	3/16"		1/4"		3/8"		1/2"	
Load Direction	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
CP-W814W4SP AL	135	480	270	450	360	520	415	570
CP-W816W4SP AL	180	495	310	510	500	645	495	710
CP-W820W4SP AL	255	380	335	430	420	525	405	480

- Fasteners must be driven so that the fastener tip penetrates through the entire steel base material thickness.

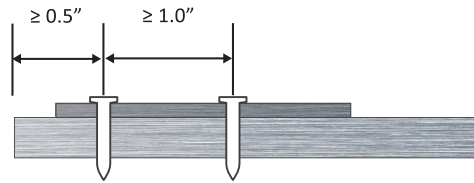
- Fastener spacing must be a minimum of 1.0 inch and edge distance must be a minimum of 0.50 inch.

(1)- Steel base material must have minimum yield and tensile strengths (Fy and Fu) equal to 36 ksi and 58 ksi, respectively.

(2) Steel base material must have minimum yield and tensile strengths (Fy and Fu) equal to 50 ksi and 65 ksi, respectively.

Application requirements

Thickness of Steel: $\leq 1/2$ inch
Spacing : ≥ 1 inch
Edge distance : ≥ 0.5 inch



Fastening Wood to Steel

Allowable Loads

Steel Base Material	Allowable Loads (lbf)							
	ASTM A36 ⁽¹⁾							
Steel Thickness	3/16"		1/4"		3/8"		1/2"	
Load Direction	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
CP-W820W4SP AL CP-W823W4SP AL CP-W823W4SP CP-W833W4SP CP-W838W4SP CP-W850W4SP	225	395	315	380	400	495	360	430
Steel Base Material	ASTM A572 Grade 50 or A992 ⁽²⁾							
	3/16"		1/4"		3/8"		1/2"	
Load Direction	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
CP-W820W4SP AL CP-W823W4SP AL CP-W823W4SP CP-W833W4SP CP-W838W4SP CP-W850W4SP	255	380	335	430	420	525	405	480

- Fasteners must be driven so that the fastener tip penetrates through the entire steel base material thickness.

- Fastener spacing must be a minimum of 1.0 inch and edge distance must be a minimum of 0.50 inch.

(1)- Steel base material must have minimum yield and tensile strengths (F_y and F_u) equal to 36 ksi and 58 ksi, respectively.

(2) Steel base material must have minimum yield and tensile strengths (F_y and F_u) equal to 50 ksi and 65 ksi, respectively.

Application requirements

Thickness of Steel : $\leq 1/2$ inch
Edge distance : ≥ 0.5 inch
Spacing : ≥ 1.0 inch

