

# TENSION & SHEAR LOAD VALUES For Simpson Strong-Tie® Fasteners

Code Reports: Reference ICC-ES ESR-2138, Florida FL 11506.3 and City of L.A. RR25469 for code-listed fasteners and applications.

## PDP Series Fasteners - Tension and Shear Loads in Normal-Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Allowable Tension Load <sup>2</sup> - lbs. (kN)			Allowable Shear Load <sup>2</sup> - lbs. (kN)		
					f'c ≥ 2000 psi (13.8 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 4000 psi (27.6 MPa) Concrete	f'c ≥ 2000 psi (13.8 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 4000 psi (27.6 MPa) Concrete
PDP	0.145 (3.7)	1 (25)	3 (75)	4 (100)	45 (0.2)	100 (0.44)	150 (0.67)	120 (0.53)	165 (0.73)	205 (0.91)
	0.145 (3.7)	1¼ (32)	3 (75)	4 (100)	140 (0.62)	255 (1.13)	370 (1.65)	265 (1.18)	265 (1.18)	265 (1.18)
PDP-SS	0.145 (3.7)	1 (25)	3 (75)	4 (100)	60 (0.27)	•	•	195 (0.87)	•	•

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension and shear values are for the fastener only. Wood or steel members connected must be investigated in accordance with accepted design criteria.

The table applies to the following Simpson Strong-Tie fasteners where minimum penetration exists:

\*See page 10 for an explanation of the load table icons

PDP*	PDPW*	PDPWL*
PDP-125	PDPW-125	PDPWL-125
PDP-150	PDPW-150	PDPWL-150
PDP-175	PDPW-175	PDPWL-175
PDP-200	PDPW-200	PDPWL-200
PDP-225	PDPW-225	PDPWL-225
PDP-250	PDPW-250	PDPWL-250
PDP-300	PDPW-300	PDPWL-300
		PDPWL-400

\*Including stainless steel models.



PDP & PDP-SS      PDPW      PDPWL & PDPWL-SS

For more information on these fasteners go to pages 199 and 200.

Powder-Actuated Fastening Systems

## PHN Series Fasteners - Tension and Shear Loads in Normal-Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Allowable Tension Load <sup>2</sup> - lbs. (kN)			Allowable Shear Load <sup>2</sup> - lbs. (kN)		
					f'c ≥ 2000 psi (13.8 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 4000 psi (27.6 MPa) Concrete	f'c ≥ 2000 psi (13.8 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 4000 psi (27.6 MPa) Concrete
PHN	0.145 (3.7)	1 (25)	3 (75)	4 (100)	45 (0.2)	100 (0.44)	150 (0.67)	120 (0.53)	165 (0.73)	205 (0.91)
	0.145 (3.7)	1¼ (32)	3 (75)	4 (100)	140 (0.62)	255 (1.13)	370 (1.65)	265 (1.18)	265 (1.18)	265 (1.18)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension and shear values are for the fastener only. Wood or steel members connected must be investigated in accordance with accepted design criteria.

The table applies to the following Simpson Strong-Tie® fasteners where minimum penetration exists:

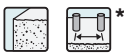
PHN	PHNW	PHSNA
PHN-27	PHNW-27	PHSNA-27
PHN-32	PHNW-32	PHSNA-32
PHN-37	PHNW-37	PHSNA-37
PHN-42	PHNW-42	PHSNA-42
PHN-47	PHNW-47	PHSNA-47
PHN-52	PHNW-52	PHSNA-52
PHN-57	PHNW-57	PHSNA-57
PHN-62	PHNW-62	PHSNA-62
PHN-72	PHNW-72	PHSNA-72



PHN      PHNW      PHSNA

For more information on these fasteners go to pages 202, 203 and 204.

## Spacing of PDP and PHN Fasteners for Attachment of Wood Sill Plates to Normal-Weight Concrete



Model No.	Overall Length inches (mm)	Head Diameter inches (mm)	Shank Diameter inches (mm)	Maximum Spacing inches (mm)		
				Interior Shear Walls <sup>3</sup>	Interior Nonshear Walls <sup>2</sup>	Exterior Shear Walls <sup>3</sup>
PDPW-300 PDPWL-300 PDPWL-300MG PDPWLS-300MG	3 (76)	5/16 (7.9)	0.145 (3.7)	12 (305)	24 (610)	12 (305)
PHN-72 or PHNW-72	2¾ (73)	5/16 (7.9)	0.145 (3.7)	18 (457)	36 (914)	18 (457)

- Spacings are based upon the attachment of 2-inch (nominal thickness) wood sill plates, with specific gravity of 0.50 or greater, to concrete floor slabs or footings. For species of wood with specific gravity of 0.42 to 0.49, multiply required spacing of fasteners for shear walls by 0.81. For species of wood with specific gravity of 0.31 to 0.41, multiply the required spacing of fasteners for shear walls by 0.65.
- All walls shall have fasteners placed at 6 inches from ends of sill plates, with maximum spacing as shown in the table.
- Fasteners indicated shall have two pins placed 6 inches and 10 inches, respectively, from each end of sill plates, with maximum spacing as shown in the table.
- All fasteners must be installed with a minimum ¼-inch-diameter, No. 16 gauge (0.0598 inch) steel washer.
- Fasteners shall not be driven until the concrete has reached a compressive strength of 2,000 psi. Minimum edge distance is 1¼ inches.
- The fasteners shall not be used for the attachment of shear walls having a unit shear in excess of 100 pounds per foot. Spacings shown are independent of the number of building stories.

# TENSION & SHEAR LOAD VALUES *For Simpson Strong-Tie® Fasteners*



## PDPH Series Fasteners - Tension and Shear Loads in Normal Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Allowable Tension Load - lbs. (kN)			Allowable Shear Load - lbs. (kN)		
					f'c ≥ 2000 psi (13.8 MPa) Concrete	f'c ≥ 4000 psi (27.6 MPa) Concrete	f'c ≥ 6000 psi (41.4 MPa) Concrete	f'c ≥ 2000 psi (13.8 MPa) Concrete	f'c ≥ 4000 psi (27.6 MPa) Concrete	f'c ≥ 6000 psi (41.4 MPa) Concrete
PDPH	0.177 (4.5)	3/4 (19)	3 1/2 (89)	5 1/2 (130)	30 (0.13)	30 (0.13)	110 (0.29)	50 (0.22)	110 (0.49)	190 (0.84)
		1 1/4 (32)	3 1/2 (89)	5 1/2 (130)	130 (0.58)	260 (1.15)	190 (0.84)	265 (1.18)	220 (0.98)	105 (0.47)



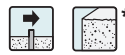
PDPH

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.

\*See page 10 for an explanation of the load table icons

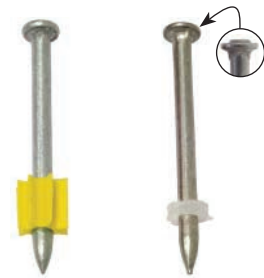
For more information on these fasteners go to page 199.

## PDP and PHN Fasteners Attaching Light Gauge Steel Channels - Shear Loads in Normal Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Light Gauge Steel Channel Thickness gauge	Allowable Shear Load lbs. (kN)
				f'c ≥ 2000 psi (13.8 MPa) Concrete
PDP	0.145 (3.7)	7/8 (22)	20	160 (0.71)
PHN	0.145 (3.7)	7/8 (22)	20	160 (0.71)
PDP	0.145 (3.7)	7/8 (22)	18	135 (0.60)
PHN	0.145 (3.7)	7/8 (22)	18	135 (0.60)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the faster embedment into the concrete.

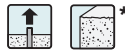


PDP

PHN

For more information on these fasteners go to pages 199 and 202.

## PSLV Series Threaded Studs - Tension Loads in Normal Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load lbs. (kN)
			f'c ≥ 2500 psi (17.2 MPa) Concrete
PSLV3	0.205 (5.2)	1 1/4 (32)	260 (1.16)

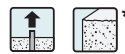
See notes below.



PSLV3

For more information on these fasteners go to page 202.

## PTRH Series Rod Hangers - Tension Loads in Normal Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load lbs. (kN)
			f'c ≥ 2500 psi (17.2 MPa) Concrete
PTRH3-HN32	0.145 (3.7)	1 (25)	150 (0.67)
PTRH4-HN32	0.145 (3.7)	1 (25)	150 (0.67)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.



PTRH3

For more information on these fasteners go to page 204.

## PCLDP Series Ceiling Clips - Tension Loads in Normal Weight Concrete



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load lbs. (kN)
			f'c ≥ 2000 psi (13.8 MPa) Concrete
PCLDP-125	0.145 (3.7)	1 1/2 (29)	25 (0.11)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the faster embedment into the concrete.

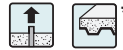


PCLDP

For more information on these fasteners go to page 201.

# TENSION & SHEAR LOAD VALUES For Simpson Strong-Tie® Fasteners

## PDPT Series Fasteners - Tension Loads in Lightweight Concrete over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load, lbs. (kN) (Installed in Concrete)	Allowable Tension Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete
PDPT	0.145 (3.7)	7/8 (22)	90 (0.40)	40 (0.18)

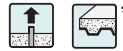
See notes 1-5 below.



PDPT

For more information on these fasteners go to page 201.

## PDPT Series Fasteners - Shear Loads in Lightweight Concrete over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Shear Load, lbs. (kN) (Installed in Concrete)	Allowable Shear Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete
PDPT	0.145 (3.7)	7/8 (22)	250 (1.11)	280 (1.24)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension and shear values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.
- Metal deck must be minimum 20 gauge.
- Shear values are for loads applied toward edge of flute.
- The fasteners shall be installed 1 1/2 inch from the edge of flute.

## Tension Loads for 1/4" - 20 Threaded Studs in Lightweight Concrete Over a Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete
PSLV4	0.150 (3.8)	1 (25)	80 (0.36)

\*See page 10 for an explanation of the load table icons

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.
- Metal deck must be minimum 20 gauge.
- The fasteners shall be installed 1 1/2 inch from the edge of flute.



PSLV4

For more information on these fasteners go to page 202.

## Tension Loads for 3/8" - 16 Threaded Studs in Lightweight Concrete over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete
PSLV3	0.205 (5.21)	1 1/4 (32)	225 (1.00)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.
- Metal deck must be minimum 20 gauge.
- The fasteners shall be installed 1 1/2 inch from the edge of flute.



PSLV3

For more information on these fasteners go to page 202.

# TENSION & SHEAR LOAD VALUES For Simpson Strong-Tie® Fasteners



## PCL & PECL Series Ceiling Clips - Tension and Oblique Loads in Sand-Lightweight Concrete over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load, lbs. (kN) (Installed through Metal Deck)	Allowable Oblique Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete
PCLDP-100	0.145 (3.7)	7/8 (22)	55 (0.24)	85 (0.38)
PECLDP-125	0.145 (3.7)	1 (25)	55 (0.24)	85 (0.38)
PCLDP-125	0.145 (3.7)	1 (25)	55 (0.24)	85 (0.38)
PECLHN-27	0.145 (3.7)	1 (25)	55 (0.24)	85 (0.38)
PCLHN-27	0.145 (3.7)	1 (25)	55 (0.24)	85 (0.38)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension and shear values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.
- Metal deck must be minimum 20 gauge.
- Oblique values are for loads applied toward edge of flute.
- The fasteners shall be installed 1½ inch from the edge of flute.



For more information on these fasteners go to page 201.

## PTRH Series Threaded Rod Hangers - Tension Loads in Sand-Lightweight Concrete over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete
PTRH3-HN32	0.145 (3.7)	1 (25)	140 (0.62)
PTRH4-HN32	0.145 (3.7)	1 (25)	140 (0.62)

\*See page 10 for an explanation of the load table icons

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.
- Metal deck must be minimum 20 gauge.
- The fasteners shall be installed 1½ inch from the edge of flute.



For more information on these fasteners go to page 204.

## PHNT Series Fasteners - Tension Loads in Sand-Lightweight Concrete Over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Tension Load, lbs. (kN) (Installed in Concrete)	Allowable Tension Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete
PHNT	0.145 (3.7)	7/8 (22)	185 (0.82)	165 (0.73)

See notes 1-5 below.

## PHNT Series Fasteners - Shear Loads in Sand-Lightweight Concrete Over Metal Deck



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Allowable Shear Load, lbs. (kN) (Installed in Concrete)	Allowable Shear Load, lbs. (kN) (Installed through Metal Deck)
			f'c ≥ 3000 psi (20.7 MPa) Concrete	f'c ≥ 3000 psi (20.7 MPa) Concrete
PHNT	0.145 (3.7)	7/8 (22)	275 (1.22)	400 (1.78)

- The fasteners shall not be driven until the concrete has reached the designated compressive strength. Minimum concrete thickness is three times the fastener embedment into the concrete.
- The allowable tension and shear values are for the fastener only. Connected members must be investigated separately in accordance with accepted design criteria.
- Metal deck must be minimum 20 gauge.
- Shear values are for loads applied toward edge of flute.
- The fasteners shall be installed 1½ inch from the edge of flute.



For more information on these fasteners go to page 203.

# TENSION & SHEAR LOAD VALUES For Simpson Strong-Tie® Fasteners

## PDP Tension and Shear Loads in 8-inch Lightweight, Medium-Weight and Normal-Weight Hollow CMU



Model No.	Shank Diameter inches (mm)	Minimum Penetration inches (mm)	Minimum Edge Distance inches (mm)	Minimum End Distance inches (mm)	Minimum Spacing inches (mm)	8-inch Hollow CMU Loads Based on CMU Strength	
						Tension Load	Shear Load
						Allowable lbs. (kN)	Allowable lbs. (kN)
PDP	0.145 (3.7)	1¾ (44)	4 (100)	4⅞ (116)	4 (100)	135 (0.60)	240 (1.07)

- Values for 8-inch wide CMU Grade N, Type II, lightweight, medium-weight and normal weight concrete masonry units conforming to UBC Standard 21-4 or ASTM C90.
- The embedment depth is measured from the outside face of the concrete masonry unit and is based on the anchor being embedded an additional ½ inch through 1¼" thick face shell.
- Allowable loads may not be increased for short-term loading due to wind or seismic forces. CMU wall design must satisfy applicable design standards and be capable of withstanding applied loads.
- Allowable loads are based on a safety factor of 5.0.



For more information on these fasteners go to page 199.

## PDP Series Fasteners - Tension and Shear Loads in Steel



Model No.	Shank Diameter inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Steel Thickness <sup>3</sup> inches (mm)	Allowable Tension Load <sup>2</sup> lbs. (kN)	Allowable Shear Load <sup>2</sup> lbs. (kN)
PDP	0.145 (3.7)	½ (12.7)	1 (25)	⅜ (9.5)	155 (0.69)	395 (1.76)
PDP Knurled	0.145 (3.7)	½ (12.7)	1 (25)	¼ (6.4)	210 (0.93)	-

See notes below.

## PDPH Series Fasteners - Tension and Shear Loads in Steel



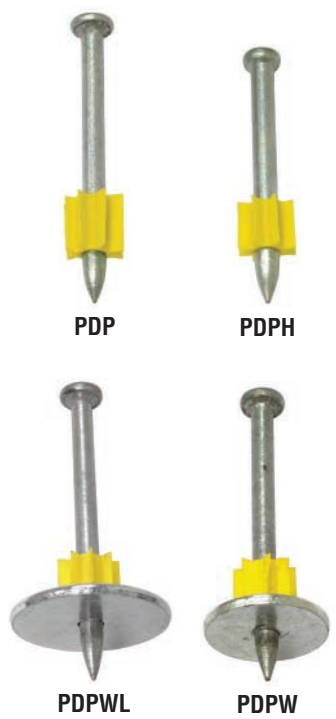
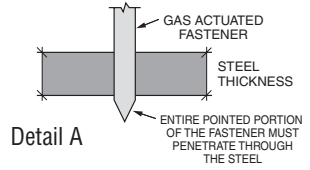
Model No.	Shank Diameter inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Steel Thickness <sup>3</sup> inches (mm)	Allowable Tension Load <sup>2</sup> lbs. (kN)	Allowable Shear Load <sup>2</sup> lbs. (kN)
PDPH	0.177 (4.5)	½ (13)	1 (25)	⅜ (9.5)	335 (1.49)	790 (3.51)
				¼ (6.4)	520 (2.31)	870 (3.87)

\*See page 10 for an explanation of the load table icons

- The entire pointed portion of the fastener must penetrate through the steel to obtain the tabulated values. See Detail A.
- The allowable tension and shear values are for the fastener to steel only. Connected members must be investigated separately in accordance with accepted design criteria.
- Steel must conform to ASTM A36 specifications, with Fy = 36,000 psi, minimum.

The table applies to the following Simpson Strong-Tie fasteners where minimum penetration exists:

PDP	PDPW	PDPWL
PDP-50K	-	-
PDP-62K	-	-
PDP-100	PDPW-100	PDPWL-100
PDP-125	PDPW-125	PDPWL-125
PDP-150	PDPW-150	PDPWL-150
PDP-175	PDPW-175	PDPWL-175
PDP-200	PDPW-200	PDPWL-200
PDP-225	-	-
PDP-250	PDPW-250	PDPWL-250
PDP-300	PDPW-300	PDPWL-300



For more information on these fasteners go to pages 199 and 200.

Powder-Actuated Fastening Systems

## PDPT Series Fasteners - Tension and Shear Loads in Steel



Model No.	Shank Diameter inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Steel Thickness <sup>3</sup> inches (mm)	Allowable Tension Load <sup>2</sup> lbs. (kN)	Allowable Shear Load <sup>2</sup> lbs. (kN)
PDPT	0.145 (3.7)	½ (13)	1 (25)	⅛ (3)	150 (0.67)	530 (2.36)
				⅜ (9.5)	290 (1.29)	660 (2.93)
				¼ (6.4)	340 (1.51)	700 (3.11)

- The entire pointed portion of the fastener must penetrate through the steel to obtain the tabulated value. See Detail A.
- The allowable tension and shear values are for the fastener to steel only. Connected member must be investigated separately in accordance with accepted design criteria.
- Steel must conform to ASTM A36 specifications, with Fy = 36,000 psi, minimum.



For more information on these fasteners go to page 201.

# TENSION & SHEAR LOAD VALUES For Simpson Strong-Tie® Fasteners



## PHN Series Fasteners - Tension and Shear Loads in Steel

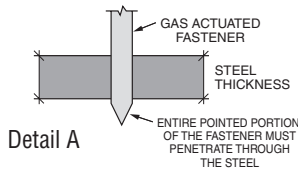


Model No.	Shank Diameter inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Steel Thickness <sup>3</sup> inches (mm)	Allowable Tension Load <sup>2</sup> lbs. (kN)	Allowable Shear Load <sup>2</sup> lbs. (kN)
PHN	0.145 (3.7)	1/2 (12.7)	1 (25)	3/16 (4.8)	155 (0.69)	395 (1.76)
PHN <sup>4</sup> Knurled	0.145 (3.7)	1/2 (12.7)	1 (25)	1/4 (6.4)	440 (2.0)	-

- The entire pointed portion of the fastener must penetrate through the steel to obtain the tabulated values. See Detail A.
- The allowable tension and shear values are for the fastener into steel only. Wood members connected must be investigated separately in accordance with accepted design criteria.
- Steel must conform to ASTM A 36 specifications, with  $F_y = 36,000$  psi, minimum.
- PHN-16K or longer.

The table applies to the following Simpson Strong-Tie fasteners where minimum penetration exists:

PHN	PHNW	PHSNA
PHN-16K	-	PHSNA-16K
PHN-19K	-	PHSNA-19K
PHN-27	PHNW-27	PHSNA-27
PHN-32	PHNW-32	PHSNA-32
PHN-37	PHNW-37	PHSNA-37
PHN-42	PHNW-42	PHSNA-42
PHN-47	PHNW-47	PHSNA-47
PHN-52	PHNW-52	PHSNA-52
PHN-57	PHNW-57	PHSNA-57
PHN-62	PHNW-62	PHSNA-62
PHN-72	PHNW-72	PHSNA-72



For more information on these fasteners go to pages 202, 203 and 204.

## PHNT Series Fasteners - Tension and Shear Loads in Steel



Model No.	Shank Diameter inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Steel Thickness <sup>3</sup> inches (mm)	Allowable Tension Load <sup>2</sup> lbs. (kN)	Allowable Shear Load <sup>2</sup> lbs. (kN)
PHNT	0.145 (3.7)	1/2 (13)	1 (25)	1/8 (3)	40 (0.18)	440 (1.96)
				3/16 (5)	50 (0.22)	620 (2.76)
				1/4 (6)	250 (1.11)	620 (2.76)

- The entire pointed portion of the fastener must penetrate through the steel to obtain the tabulated value. See Detail A.
- The allowable tension and shear values are for the fastener to steel only.
- Steel must conform to ASTM A36 specifications, with  $F_y = 36,000$  psi, minimum.

\*See page 10 for an explanation of the load table icons



For more information on these fasteners go to page 203.

## PSLV Series Threaded Studs - Tension and Shear Loads in Steel



Model No.	Shank Diameter inches (mm)	Minimum Edge Distance inches (mm)	Minimum Spacing inches (mm)	Steel Thickness <sup>3</sup> inches (mm)	Allowable Tension Load <sup>2</sup> lbs. (kN)	Allowable Shear Load <sup>2</sup> lbs. (kN)
PSLV3	0.205 (5.2)	1 (25)	1 1/2 (41)	3/16 (5)	270 (1.20)	770 (3.42)
				1/4 (6)	680 (3.02)	1,120 (4.98)
PSLV4	0.150 (3.8)	1/2 (13)	1 (25)	3/16 (5)	200 (0.89)	630 (2.80)
				1/4 (6)	420 (1.87)	690 (3.07)

- The entire pointed portion of the fastener must penetrate through the steel to obtain the tabulated value. See Detail A.
- The allowable tension and shear values are for the fastener to steel only. Connected member must be investigated separately in accordance with accepted design criteria.
- Steel must conform to ASTM A36 specifications, with  $F_y = 36,000$  psi, minimum.



For more information on these fasteners go to page 202.