



Prolam[®]
Engineered Laminated Timber

Building
better
together

Building a Pergola? Think Prolam.

Our **five-step** guide to designing and
building the perfect pergola

Step 1:

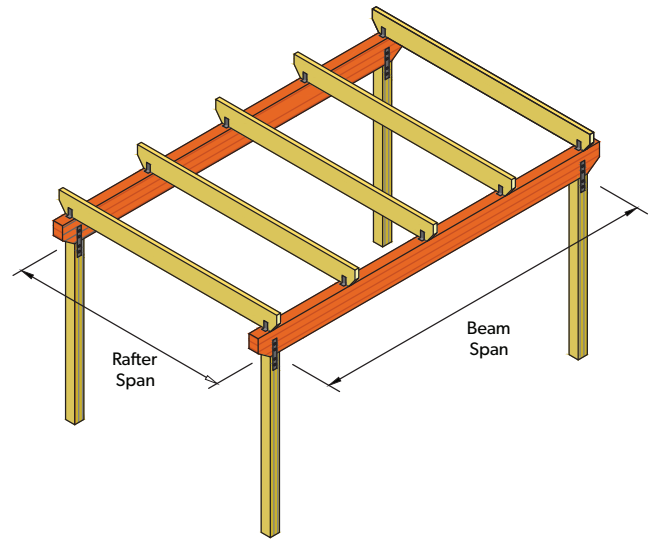
Determine the pergola size: length, width, and height.

Step 2:

Use the table below to select the correct size outer beams.

PL8 Prolam® Pergola Beams

Tables are for wind zones up to High. For Very High wind zone, multiply the maximum beam spans by 0.85. For Extra High wind zone, multiply the maximum beam spans by 0.75.



Rafter Span (m)		1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0
Beam Size		Maximum Beam Span (m)								
PL8	PLVL8H3-15050 140 x 42mm	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0
	PLVL8H3-20050 190 x 42mm	4.1	3.9	3.7	3.5	3.4	3.3	3.1	2.9	2.7
	PLVL8H3-25050 240 x 42mm	5.6	5.2	4.9	4.6	4.3	3.9	3.7	3.4	3.3
	PLVL8H3-30050 290 x 42mm	6.0*	6.0*	5.8	5.2	4.7	4.3	4.0	3.8	3.6
	PLVL8H3-150100 140 x 88mm	4.2	3.9	3.6	3.4	3.2	3.1	2.9	2.8	2.8
	PLVL8H3-200100 190 x 88mm	5.6	5.1	4.8	4.5	4.3	4.1	4.0	3.8	3.7
	PLVL8H3-250100 240 x 88mm	6.0*	6.0*	5.9	5.6	5.4	5.2	5.0	4.8	4.7
	PLVL8H3-300100 290 x 88mm	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	5.8	5.6
	PLVL8H3-150125 140 x 112mm	4.5	4.1	3.8	3.6	3.4	3.3	3.2	3.1	3.0
	PLVL8H3-200125 190 x 112mm	5.8	5.4	5.1	4.8	4.6	4.4	4.3	4.1	4.0
	PLVL8H3-300125 240 x 112mm	6.0*	6.0*	6.0*	6.0*	5.7	5.5	5.3	5.2	5.0
	PLVL8H3-350125 290 x 112mm	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*
	PLVL8H3-150150 140 x 135mm	4.6	4.3	4.0	3.8	3.6	3.5	3.3	3.2	3.1
	PLVL8H3-200150 190 x 135mm	6.0*	5.6	5.3	5.0	4.8	4.6	4.5	4.3	4.2
	PLVL8H3-250150 240 x 135mm	6.0*	6.0*	6.0*	6.0*	6.0*	5.8	5.6	5.4	5.3
	PLVL8H3-300150 290 x 135mm	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*	6.0*

*The beam lengths have been limited to a maximum of 6m.

Scan for PL12 beam options



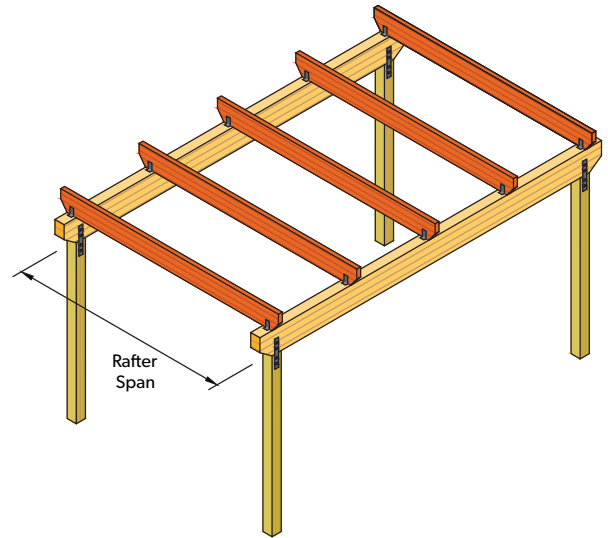
Step 3:

Use the table below for rafter size based on the rafter and spacing.

PL8 Prolam® Pergola Rafters

Tables are for wind zones up to High.

For Very High wind zone, multiply the maximum beam spans by 0.85. For Extra High wind zone, multiply the maximum beam spans by 0.75.



Rafter Spacing (mm)		600	750	900	1000	1200
Rafter Size		Maximum Rafter Span (m)				
PL8	PLVL8H3-10050 88 x 42mm	1.1	1.1	1.1	1.1	1.1
	PLVL8H3-15050 140 x 42mm	2.7	2.7	2.6	2.6	2.6
	PLVL8H3-20050 190 x 42mm	4.4	4.3	4.3	4.2	4.1
	PLVL8H3-25050 240 x 42mm	6.0*	5.9	5.8	5.5	5
	PLVL8H3-30050 290 x 42mm	6.0*	6.0*	6.0*	6.0*	5.8
	PLVL8H3-10075 88 x 63mm	1.7	1.6	1.6	1.6	1.6
	PLVL8H3-15075 140 x 63mm	4	3.9	3.9	3.8	3.7
	PLVL8H3-20075 190 x 63mm	5.9	5.7	5.5	5.4	5.2
	PLVL8H3-25075 240 x 63mm	6.0*	6.0*	6.0*	6.0*	6.0*
	PLVL8H3-100100 88 x 88mm	2.3	2.3	2.2	2.2	2.2
	PLVL8H3-150100 140 x 88mm	4.8	4.7	4.5	4.4	4.2
	PLVL8H3-200100 190 x 88mm	6.0*	6.0*	5.9	5.8	5.6
	PLVL8H3-240100 240 x 88mm	6.0*	6.0*	6.0*	6.0*	6.0*

*The beam lengths have been limited to a maximum of 6m.

Scan for PL12 rafter options



Step 4:

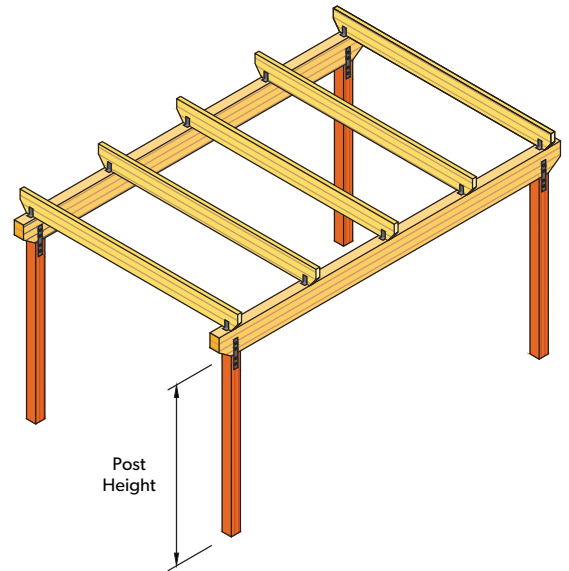
Use the table below to work out the number and size of posts required.

Prolam® Pergola Posts

Post to beam fixing is for lateral loads.

Vertical (bearing) loads may require additional capacity.

Footing depth is into Good Ground as defined by NZS3604



Size	Height (m)	Maximum Roof Area Per Post (m ²)	Footing Depth (m)	Footing Diameter (mm)	Post to beam Fixing (kN)
PLP8H5-100 88x88	1.8	3.3	0.7	300	1
	2.1	2.9	0.7	300	1
	2.4	2.6	0.7	300	1
PLP8H5-125 112x112	1.8	6.1	1	450	1.5
	2.1	5.5	1	450	1.5
	2.4	5.0	1	450	1
	2.7	4.5	1	450	1
	3	4.2	1	450	1
PLP8H5-150 135x135	1.8	10.7	1	450	2.5
	2.1	9.6	1	450	2
	2.4	8.7	1	450	2
	2.7	8.0	1	450	2
	3	7.3	1	450	1.5
PLP8H5-200 180x180	1.8	25.4	1.2	450	5.5
	2.1	22.8	1.2	450	5
	2.4	20.6	1.2	450	4.5
	2.7	18.9	1.2	450	4
	3	17.4	1.2	450	3.5
PLP8H5-250 220x220	1.8	42.6	1.5	600	9
	2.1	38.5	1.5	600	8
	2.4	35.1	1.5	600	7.5
	2.7	32.3	1.5	600	6.5
	3	29.9	1.5	600	6

Size	Height (m)	Maximum Roof Area Per Post (m ²)	Footing Depth (m)	Footing Diameter (mm)	Post to beam Fixing (kN)
PLP12H5-100 88x88	1.8	4.3	0.8	300	1
	2.1	3.8	0.8	300	1
	2.4	3.4	0.8	300	1
PLP12H5-125 112x112	1.8	8.1	1	450	2
	2.1	7.2	1	450	1.5
	2.4	6.5	1	450	1.5
	2.7	6.0	1	450	1.5
	3	5.5	1	450	1.5
PLP12H5-150 135x135	1.8	14.1	1.1	450	3
	2.1	12.7	1.1	450	3
	2.4	11.5	1.1	450	2.5
	2.7	10.5	1.1	450	2.5
	3	9.6	1.1	450	2
PLP12H5-200 180x180	1.8	33.4	1.3	450	7
	2.1	29.9	1.3	450	6
	2.4	27.1	1.3	450	5.5
	2.7	24.8	1.3	450	5
	3	22.8	1.3	450	5
PLP12H5-250 220x220	1.8	56.0	1.6	600	11.5
	2.1	50.6	1.6	600	10.5
	2.4	46.2	1.6	600	9.5
	2.7	42.5	1.6	600	8.5
	3	39.3	1.6	600	8

Step 5:

Prolam® Fixing Options

Scan to choose fixing options or enquire in store.





A cut above

A pergola brings style, dimension and shade to a home and outdoor space.

Designing and building pergolas using Prolam posts and beams is easy following our five-step process.

That's not all:

- PL8 & PL12 structural grades readily available
- Premium quality and dimensional stability (no twisting or warping)
- CCA H3.2 & H5 treatment for exterior use
- Available in a wide range of sizes and lengths
- Grades and finishes provide visual appeal.

**Building
better
together**



Planning or purchasing for a project?

Ask instore or contact your merchant today!

If any of the Prolam charts don't cover your desired design, please contact us for assistance.

Telephone: 03 526 7436

Email: info@prowoodnz.com

Web: prolamnz.com

At Prolam, we support engineers, architects and building professionals to design and build with strength, confidence and ease with premium engineered timber solutions.

NZ made quality | Strong & safe | Built-in ease | Confident compliance | Sustainable



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