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Roseburg
A Forest Products Company

Roseburg RigidLam® LVL Engineered Wood

Riddle OR

RigidLam® LVL Floor Span Tables

Roseburg supports the installation of ½" gypsum wall board to the bottom of light-weight framing systems as required by Section R501.3 of the 2012 International Residential Code (IRC) and thus providing an economical layer of fire protection. However, when a gypsum wall board ceiling is not a viable option, Roseburg RigidLam Laminated Veneer Lumber (LVL) with a minimum cross-section of 1-1/2" x 9-1/2" may be used in lieu of 2x10 dimension lumber to meet exception 4 of Section R501.3 of the 2012 IRC. The adhesive used in RigidLam LVL has been rigorously tested in accordance with the heat durability requirements of ASTM D7247 and D5456, which ensures that the adhesive will not negatively affect the performance of the LVL in a fire.

The following tables are meant to assist in the appropriate selection of RigidLam LVL used as floor joists. Alternatively, appropriate software such as Simpson Strong Tie® Component Solutions™ may be used to size RigidLam LVL floor joists.

1-1/2" 1.3E RigidLam LVL Floor Spans - 40 psf Live Load, 12 psf Dead Load

	Simple Span				Multiple Span			
L/480	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**
1-1/2" x 9-1/2" 1.3E	15' - 6"	14' - 1"	13' - 3"	12' - 3"	17' - 0"	15' - 5"	14' - 6"	13' - 6"
1-1/2" x 11-7/8" 1.3E	19' - 5"	17' - 8"	16' - 7"	15' - 5"	21' - 4"	19' - 4"	18' - 2"	16' - 11"
L/360	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**
1-1/2" x 9-1/2" 1.3E	17' - 1"	15' - 6"	14' - 7"	13' - 6"	18' - 9"	17' - 0"	16' - 0"	14' - 10"
1-1/2" x 11-7/8" 1.3E	21' - 5"	19' - 5"	18' - 3"	16' - 11"	23' - 6"	21' - 4"	20' - 1"	***17' - 0"***

1-1/2" 2.0E RigidLam LVL Floor Spans - 40 psf Live Load, 12 psf Dead Load

	Simple Span				Multiple Span			
L/480	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**
1-1/2" x 9-1/2" 2.0E	17' - 11"	16' - 3"	15' - 4"	14' - 2"	19' - 8"	17' - 10"	16' - 9"	15' - 7"
1-1/2" x 11-7/8" 2.0E	22' - 6"	20' - 5"	19' - 2"	17' - 10"	24' - 8"	22' - 4"	21' - 0"	***17' - 0"***
L/360	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**
1-1/2" x 9-1/2" 2.0E	19' - 9"	17' - 11"	16' - 10"	15' - 8"	21' - 8"	19' - 8"	18' - 6"	***17' - 0"***
1-1/2" x 11-7/8" 2.0E	24' - 9"	22' - 6"	21' - 2"	19' - 7"	27' - 2"	24' - 8"	***21' - 3"***	***17' - 0"***

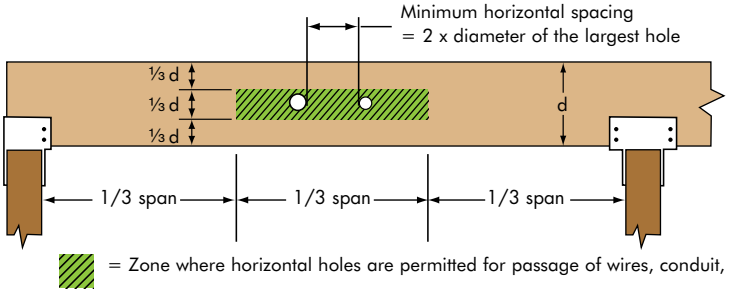
1-3/4" 2.0E RigidLam LVL Floor Spans - 40 psf Live Load, 12 psf Dead Load

	Simple Span				Multiple Span			
L/480	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**
1-3/4" x 9-1/2" 2.0E	18' - 11"	17' - 2"	16' - 2"	14' - 11"	20' - 9"	18' - 10"	17' - 8"	16' - 5"
1-3/4" x 11-7/8" 2.0E	23' - 8"	21' - 6"	20' - 2"	18' - 9"	25' - 11"	23' - 7"	22' - 2"	***19' - 10"***
1-3/4" x 14" 2.0E	27' - 11"	25' - 4"	23' - 10"	22' - 2"	30' - 7"	27' - 10"	***24' - 10"***	***19' - 10"***
L/360	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**	**12" o.c.**	**16" o.c.**	**19.2" o.c.**	**24" o.c.**
1-3/4" x 9-1/2" 2.0E	20' - 10"	18' - 11"	17' - 9"	16' - 6"	22' - 10"	20' - 9"	19' - 6"	18' - 1"
1-3/4" x 11-7/8" 2.0E	26' - 1"	23' - 8"	22' - 3"	20' - 8"	28' - 7"	25' - 11"	24' - 5"	***19' - 10"***
1-3/4" x 14" 2.0E	30' - 9"	27' - 11"	26' - 3"	24' - 5"	33' - 9"	***29' - 10"***	***24' - 10"***	***19' - 10"***

NOTES:

1. Spans are maximum clear distances between supports and are based on uniform loads.
2. Multiple span lengths shown require adequate lateral bracing of bottom edge of LVL.
3. Multiple spans are based on the longest span. The shortest span shall not be less than 40% of the longest span.
4. Live Load deflection is limited to L/480 or L/360 as indicated in the tables above. Total Load deflection is limited to L/240.
5. Spans do not reflect any additional stiffness provided by floor sheathing.
6. Spans are based on a minimum end bearing length of 1-3/4" and a minimum intermediate bearing length of 3-1/2" and the bearing capacity of SPF wall plate (425 psi)
7. Spans in ***bold italics*** are limited by intermediate bearing length of 3-1/2". Use appropriate software to determine allowable span with longer intermediate bearing length.

Permissible Horizontal Round Hole Location For RigidLam® LVL



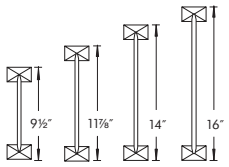
- For beam depths (d) of 4-3/8, 5-1/2, and 7-1/4 inches, the maximum hole diameter is 1, 1-1/8, and 1-1/2 inches, respectively.
- For deeper beams, the maximum hole diameter is 2 inches.
- Diagram applies for simple and multi-span applications with uniform loading.
- No more than 3 holes per span are permitted.
- Holes should not be cut in cantilevers.
- Note: Larger holes, more holes and/or holes that are located outside of the shaded area shown may be permissible as verified by appropriate software (e.g. Simpson Strong-Tie® Component Solutions™) or engineering analysis.

The Roseburg Framing System®

The Roseburg Framing System® consists of: RFPI® Joists used in floor and roof construction; RigidLam® LVL which is used for headers, beams, columns, studs and stair stringers; and RigidRim® Rim Board. All of the components are engineered to the industry's highest standards to help contractors build solid, durable, and better performing framing systems compared to ordinary dimension lumber.

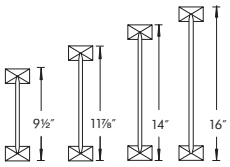
SOLID SAWN FLANGE RFPI® JOISTS

RFPI® 40S



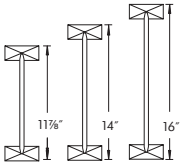
2-1/2" wide x 1-1/2" Flange
3/8" OSB Web

RFPI® 60S



2-1/2" wide x 1-1/2" Flange
3/8" OSB Web

RFPI® 80S



3-1/2" wide x 1-1/2" Flange
3/8" OSB Web

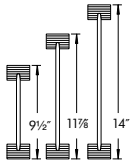
RIGIDRIM® RIM BOARD DESIGN PROPERTIES

	Thickness	Horizontal Load (PLF)	Vertical Load (PLF)	Lag Screw (1/2") (lbs)	Post Load (lbs)
RigidRim® OSB	1-1/8"	180 (8d box or common)	4400[1]/3000[2]	350	3500
RigidRim® Plus OSB	1-1/8" or 1-1/4"	200 (8d box or common)	4850[1]/3200[2]	350	3500
RigidRim® Seismic OSB	1-1/4"	240 (8d common)	5700[1]/3500[2]	400	5900
1.3E RigidRim® LVL	1-1/2"	215 (8d box or common)	4900[1]/NA[2]	400	3500

1 - Depth ≤ 16"
2 - 16" < Depth ≤ 24"

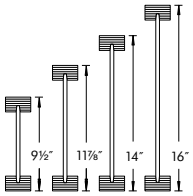
LVL FLANGE RFPI® JOISTS

RFPI® 20



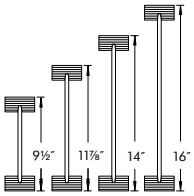
1-3/4" wide x 1-3/8"
LVL Flange
3/8" OSB Web

RFPI® 400



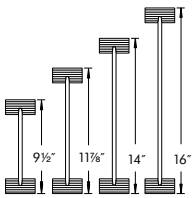
2-1/16" wide x 1-3/8"
LVL Flange
3/8" OSB Web

RFPI® 40



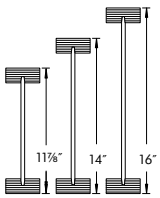
2-5/16" wide x 1-3/8"
LVL Flange
3/8" OSB Web

RFPI® 70



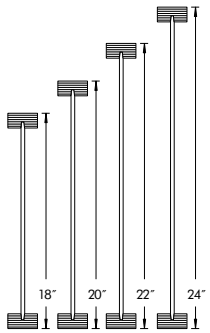
2-5/16" wide x 1-1/2"
LVL Flange
3/8" OSB Web

RFPI® 90



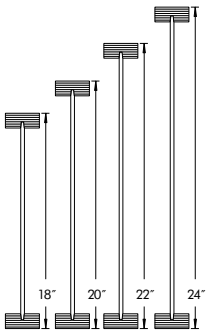
3-1/2" wide x 1-1/2"
LVL Flange
7/16" OSB Web

RFPI® 700



2-5/16" wide x 1-1/2"
LVL Flange
7/16" OSB Web

RFPI® 900



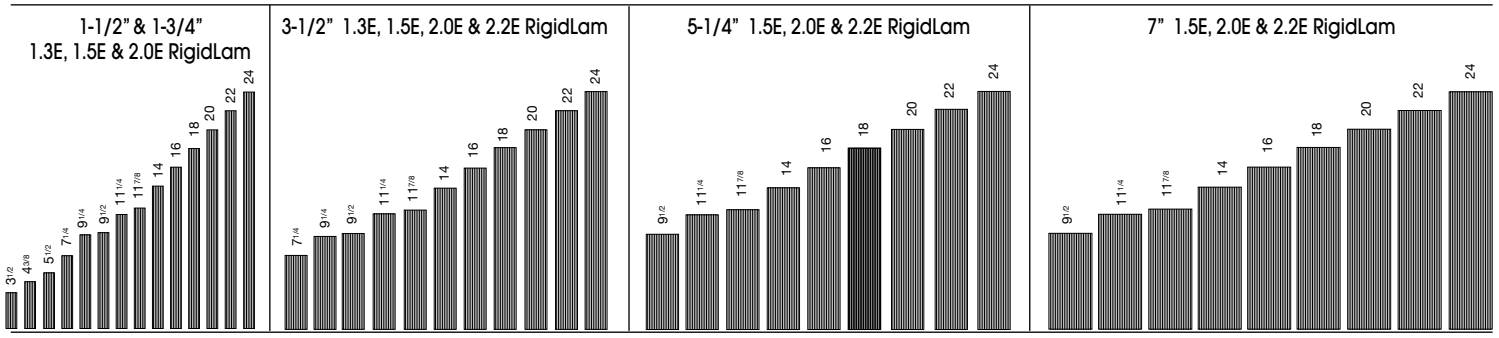
3-1/2" wide x 1-1/2"
LVL Flange
7/16" OSB Web

RFPI® JOIST ALLOWABLE SPANS - 40 PSF LIVE LOAD AND 10 PSF DEAD LOAD

Joist Depth	Joist Series	40/10 SIMPLE SPAN				40/10 MULTIPLE SPAN			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9-1/2"	RFPI® 20	17' - 2"	15' - 9"	14' - 10"	13' - 10"	18' - 9"	17' - 1"	16' - 2"	14' - 0"
	RFPI® 40S	18' - 0"	16' - 5"	15' - 6"	14' - 6"	19' - 7"	17' - 11"	16' - 4"	14' - 7"
	RFPI® 400	18' - 0"	16' - 5"	15' - 6"	14' - 6"	19' - 7"	17' - 10"	16' - 10"	15' - 9"
	RFPI® 40	18' - 7"	16' - 11"	16' - 0"	14' - 11"	20' - 2"	18' - 5"	17' - 5"	16' - 2"
	RFPI® 60S	18' - 11"	17' - 4"	16' - 4"	15' - 3"	20' - 8"	18' - 10"	17' - 9"	16' - 6"
	RFPI® 70	19' - 9"	18' - 0"	17' - 0"	15' - 10"	21' - 6"	19' - 7"	18' - 5"	17' - 2"
11-7/8"	RFPI® 20	20' - 6"	18' - 9"	17' - 9"	16' - 6"	22' - 4"	20' - 5"	18' - 10"	15' - 3"
	RFPI® 40S	21' - 5"	19' - 7"	18' - 6"	16' - 8"	23' - 5"	20' - 5"	18' - 7"	16' - 7"
	RFPI® 400	21' - 5"	19' - 7"	18' - 6"	17' - 3"	23' - 4"	21' - 4"	20' - 1"	17' - 9"
	RFPI® 40	22' - 1"	20' - 2"	19' - 0"	17' - 9"	24' - 1"	22' - 0"	20' - 8"	19' - 3"
	RFPI® 60S	22' - 7"	20' - 8"	19' - 6"	18' - 2"	24' - 8"	22' - 6"	21' - 2"	19' - 7"
	RFPI® 70	23' - 7"	21' - 6"	20' - 3"	18' - 10"	25' - 8"	23' - 5"	22' - 0"	19' - 9"
	RFPI® 90	26' - 6"	24' - 1"	22' - 8"	21' - 1"	28' - 10"	26' - 3"	24' - 8"	22' - 11"

Joist Depth	Joist Series	40/10 SIMPLE SPAN				40/10 MULTIPLE SPAN			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
14"	RFPI® 20	23' - 4"	21' - 4"	20' - 2"	18' - 6"	25' - 5"	22' - 7"	19' - 2"	15' - 3"
	RFPI® 40S	24' - 4"	22' - 3"	20' - 6"	18' - 4"	25' - 11"	22' - 5"	20' - 5"	18' - 3"
	RFPI® 400	24' - 4"	22' - 3"	21' - 0"	19' - 7"	26' - 7"	24' - 3"	22' - 3"	17' - 9"
	RFPI® 40	25' - 2"	22' - 11"	21' - 8"	20' - 2"	27' - 5"	25' - 0"	23' - 7"	19' - 9"
	RFPI® 60S	25' - 9"	23' - 6"	22' - 2"	20' - 8"	28' - 0"	25' - 7"	24' - 1"	19' - 9"
	RFPI® 70	26' - 10"	24' - 5"	23' - 0"	21' - 5"	29' - 3"	26' - 7"	24' - 9"	19' - 9"
	RFPI® 90	30' - 1"	27' - 5"	25' - 9"	23' - 11"	32' - 10"	29' - 10"	28' - 1"	26' - 0"
16"	RFPI® 40S	26' - 11"	24' - 3"	22' - 1"	19' - 9"	27' - 11"	24' - 2"	22' - 0"	19' - 8"
	RFPI® 400	27' - 0"	24' - 8"	23' - 4"	20' - 10"	29' - 6"	26' - 4"	22' - 3"	17' - 9"
	RFPI® 40	27' - 10"	25' - 5"	24' - 0"	22' - 4"	30' - 4"	27' - 8"	24' - 9"	19' - 9"
	RFPI® 60S	28' - 6"	26' - 0"	24' - 7"	22' - 11"	31' - 1"	28' - 4"	24' - 9"	19' - 9"
	RFPI® 70	29' - 9"	27' - 1"	25' - 6"	23' - 9"	32' - 5"	29' - 6"	24' - 9"	19' - 9"
	RFPI® 90	33' - 4"	30' - 4"	28' - 7"	26' - 7"	36' - 5"	33' - 1"	31' - 1"	26' - 7"

AVAILABLE RIGIDLAM® LVL GRADES & SIZES



Not all grades and sizes are available in all markets. Contact your Roseburg representative for availability. The location and contact information for your regional EWP representative can be found on our company website www.roseburg.com or by calling (800) 347-7260.

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A Forest Products Company

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