

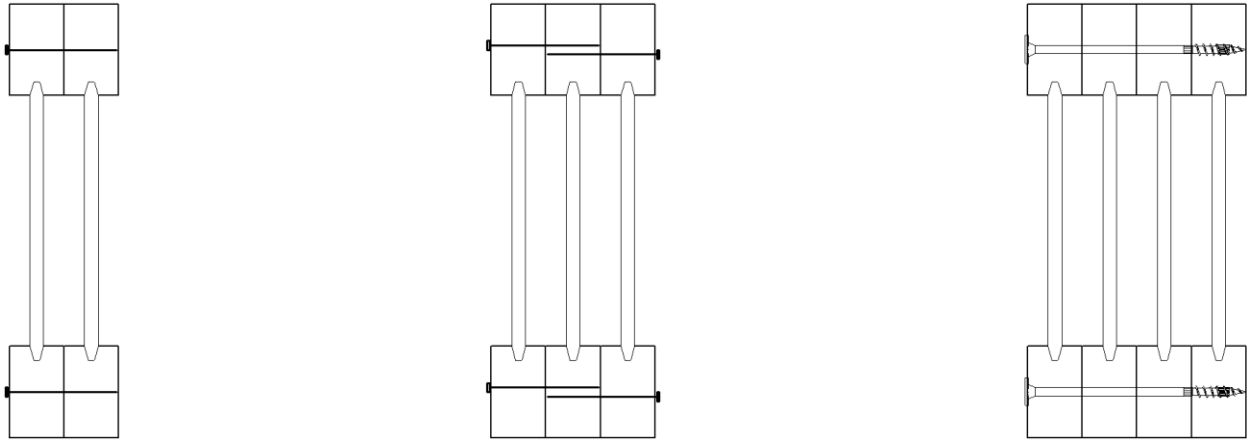
PK-USA PKI Series I-joists

Multi-Ply I-Joists – PKI15 Series

This technical bulletin outlines connection requirements to multi-ply PKI-15 Series I-joist. To multi-ply other series of PKI Series I-joists, consult PK-USA's installation guide for details. I-joist plies beyond 2 is not recommended for standard 2x3 and 2x4 flange I-joists. When attaching multi-ply PKI-15 series joists, the following loading conditions and attachment methods are required. For connection methods not listed below, consult a licensed design professional for details.

Uniform Top Loaded Joists

When multiple joists are needed to support uniform PLF loads such as from a full-length bearing wall above or when multiple joists are needed to accommodate a longer joist span, the following connection methods and fasteners are required.



Multi-Ply Joist Assembly - Uniform Top Load						
PKI-15 Series Multi-Ply	Flange Connection					
	9-1/2"			11-7/8"		
	Fastener	Spacing	Rows (Side)	Fastener	Spacing	Rows (Side)
2 - Ply	10d common	16" o.c.	1 (1)	10d common	16" o.c.	1 (1)
3 - Ply	10d common	16" o.c.	1 (2) stagger	10d common	16" o.c.	1 (2) stagger
4 - Ply	SDW x 6"	16" o.c.	1 (1)	SDW x 6"	16" o.c.	1 (1)
PKI-15 Series Multi-Ply	Filler Block Connection					
	9-1/2"			11-7/8"		
	Fastener	Spacing	Rows (Side)	Fastener	Spacing	Rows (Side)
2 - Ply	N/A	N/A	N/A	N/A	N/A	N/A
3 - Ply	N/A	N/A	N/A	N/A	N/A	N/A
4 - Ply	N/A	N/A	N/A	N/A	N/A	N/A

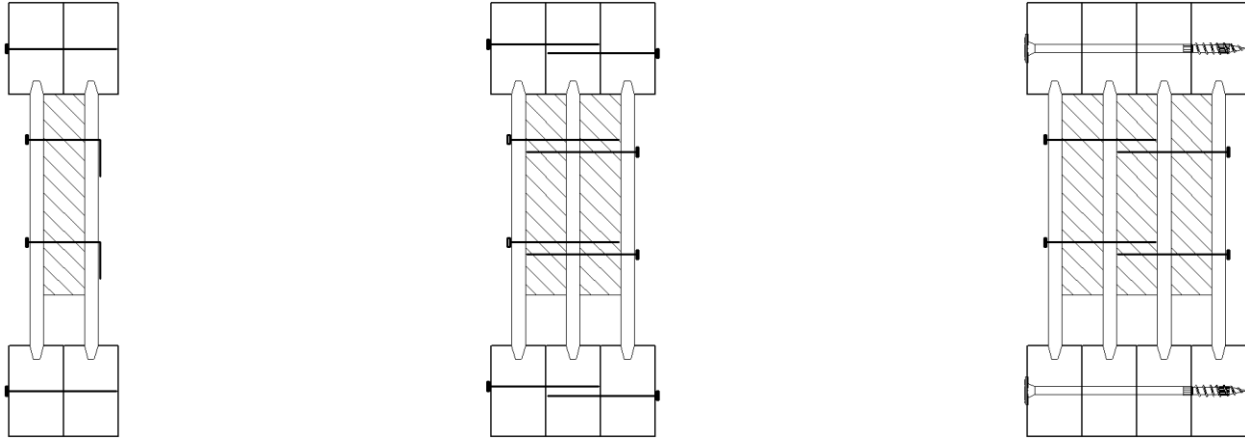


PK-USA PKI Series I-joists

Multi-Ply I-Joists – PKI15 Series

Concentrated Top Loaded Joists

When multiple joists are needed to support concentrated top loads such as from a post above or when a shear wall above ends within the span of the joist below, the following connection methods and fasteners are required.



Multi-Ply Joist Assembly - Concentrated Top Load						
PKI-15 Series Multi-Ply	Flange Connection					
	9-1/2"			11-7/8"		
	Fastener	Spacing	Rows (Side)	Fastener	Spacing	Rows (Side)
2 - Ply	10d common	16" o.c.	1 (1)	10d common	16" o.c.	1 (1)
3 - Ply	10d common	16" o.c.	1 (2) stagger	10d common	16" o.c.	1 (2) stagger
4 - Ply	SDW x 6"	16" o.c.	1 (1)	SDW x 6"	16" o.c.	1 (1)
PKI-15 Series Multi-Ply	Filler Block Connection					
	9-1/2"			11-7/8"		
	Fastener	Spacing	Rows (Side)	Fastener	Spacing	Rows (Side)
2 - Ply	10d common	12" o.c.	2 (1) clinch	10d common	12" o.c.	2 (1) clinch
3 - Ply	10d common	12" o.c.	2 (2) offset	10d common	12" o.c.	2 (2) offset
4 - Ply	10d common	12" o.c.	2 (2) offset	10d common	12" o.c.	2 (2) offset

Filler Block Notes

- Use 1-1/8" OSB or Rim Board material
- Filler Block Height:
 - 9-1/2" Joist = 4-3/8" Net
 - 11-7/8" Joist = 6-3/4" Net
- Hold filler block tight to the underside of top flange
- Net filler height ensures 1/8" gap is present at bottom flange

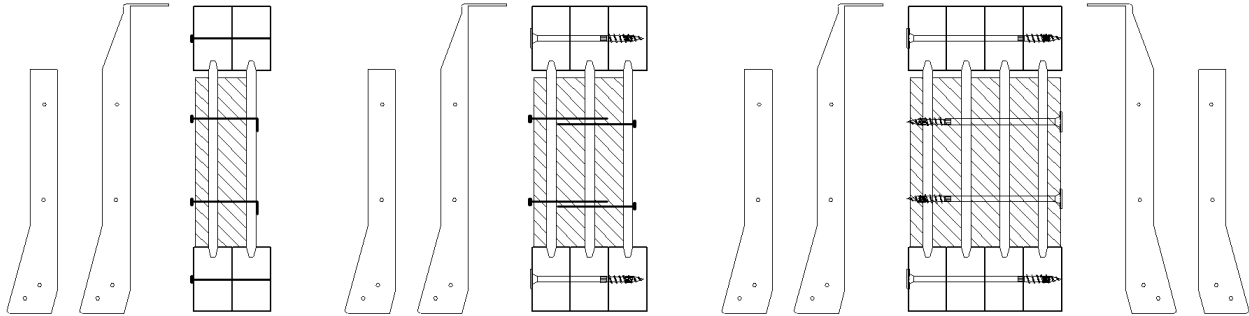


PK-USA PKI Series I-joists

Multi-Ply I-Joists – PKI15 Series

Side Loaded Joists

When multiple joists are used as a beam and are needed to support uniform or concentrated side loads such as from intersecting perpendicular floor joists or to support an intersecting beam, the following connection methods and fasteners are required.



Multi-Ply Joist Assembly - Side Loaded						
PKI-15 Series Multi-Ply	Flange Connection					
	9-1/2"			11-7/8"		
	Fastener	Spacing	Rows (Side)	Fastener	Spacing	Rows (Side)
2 - Ply	10d common	12" o.c.	1 (1)	10d common	12" o.c.	1 (1)
3 - Ply	SDW x 4-3/8"	12" o.c.	1 (1)	SDW x 4-3/8"	12" o.c.	1 (1)
4 - Ply	SDW x 6"	12" o.c.	1 (1)	SDW x 6"	12" o.c.	1 (1)
PKI-15 Series Multi-Ply	Filler and Backer Block Connection					
	9-1/2"			11-7/8"		
	Fastener	Spacing	Rows (Side)	Fastener	Spacing	Rows (Side)
2 - Ply	10d common	6" o.c.	2 (1) clinch	10d common	6" o.c.	2 (1) clinch
3 - Ply	10d common	6" o.c.	2 (2) offset	10d common	6" o.c.	2 (2) offset
4 - Ply	SDW x 6"	12" o.c.	2 (1) Opp side	SDW x 6"	12" o.c.	2 (1) Opp side

Filler and Backer Block Notes

- Use 1-1/8" OSB or Rim Board material for Filler Block and 23/32" OSB for Backer Block
- Filler and Backer Block Height:
 - 9-1/2" Joist = 4-3/8" Net
 - 11-7/8" Joist = 6-3/4" Net
- Hold filler and backer block tight to the bottom flange

Rotational Resistance: When 3-Ply and 4-Ply joists are used, it is recommended that adjacent joist bay blocking be used to restrain rotational forces. Consult a licensed design professional for details.

Restrictions: 4-Ply side loaded joists must be loaded from both sides of the joist assembly.

If you have any questions, please contact PK-USA for details.

