

Unit: kN (Metric)

BLACKJACK 3.0, TOP PLATE: A (3.5 x 5.25)											
MiTek Stock No.	Column Capacity (supporting steel beam)		Factored Bearing Resistance, 100% (kN) <sup>3,5</sup>								
			1-3/4" SCL ( $f_{cp} = 1,365 \text{ psi}$ ) <sup>4</sup>			D Fir-L			S-P-F		
	Allowable Load (kN) <sup>1</sup>	Factored Resistance (kN) <sup>2</sup>	1-Ply	2-Ply	3-Ply	1-Ply	2-Ply	3-Ply	1-Ply	2-Ply	3-Ply
BJ30x96	106.8	160.6	44.6	89.2	89.2	28.4	56.9	56.9	21.5	43.1	43.1
BJ30x102	101.9	149.7	44.6	89.2	89.2	28.4	56.9	56.9	21.5	43.1	43.1
BJ30x108	99.2	139.7	44.6	89.2	89.2	28.4	56.9	56.9	21.5	43.1	43.1
BJ30x120	97.4	121.0	44.6	89.2	89.2	28.4	56.9	56.9	21.5	43.1	43.1

  

BLACKJACK 3.0, TOP PLATE: B (3.5 x 7)											
MiTek Stock No.	Column Capacity (supporting steel beam)		Factored Bearing Resistance, 100% (kN) <sup>3,5</sup>								
			1-3/4" SCL ( $f_{cp} = 1,365 \text{ psi}$ ) <sup>4</sup>			D Fir-L			S-P-F		
	Allowable Load (kN) <sup>1</sup>	Factored Resistance (kN) <sup>2</sup>	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	106.8	160.6	119.0	89.2	119.0	75.8	56.9	75.8	57.4	43.1	57.4
BJ30x102	101.9	149.7	119.0	89.2	119.0	75.8	56.9	75.8	57.4	43.1	57.4
BJ30x108	99.2	139.7	119.0	89.2	119.0	75.8	56.9	75.8	57.4	43.1	57.4
BJ30x120	97.4	121.0	119.0	89.2	119.0	75.8	56.9	75.8	57.4	43.1	57.4

  

BLACKJACK 3.0, TOP PLATE: C (5.25 x 7)											
MiTek Stock No.	Column Capacity (supporting steel beam)		Factored Bearing Resistance, 100% (kN) <sup>3,5</sup>								
			1-3/4" SCL ( $f_{cp} = 1,365 \text{ psi}$ ) <sup>4</sup>			D Fir-L			S-P-F		
	Allowable Load (kN) <sup>1</sup>	Factored Resistance (kN) <sup>2</sup>	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	106.8	160.6	119.0	160.6	160.6	75.8	113.8	113.8	57.4	86.2	86.2
BJ30x102	101.9	149.7	119.0	149.7	149.7	75.8	113.8	113.8	57.4	86.2	86.2
BJ30x108	99.2	139.7	119.0	139.7	139.7	75.8	113.8	113.8	57.4	86.2	86.2
BJ30x120	97.4	121.0	119.0	121.0	121.0	75.8	113.8	113.8	57.4	86.2	86.2

  

BLACKJACK 3.0, TOP PLATE: D (7 x 7)											
MiTek Stock No.	Column Capacity (supporting steel beam)		Factored Bearing Resistance, 100% (kN) <sup>3,5</sup>								
			1-3/4" SCL ( $f_{cp} = 1,365 \text{ psi}$ ) <sup>4</sup>			D Fir-L			S-P-F		
	Allowable Load (kN) <sup>1</sup>	Factored Resistance (kN) <sup>2</sup>	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	106.8	160.6	119.0	160.6	160.6	75.8	113.8	151.7	57.4	86.2	114.9
BJ30x102	101.9	149.7	119.0	149.7	149.7	75.8	113.8	149.7	57.4	86.2	114.9
BJ30x108	99.2	139.7	119.0	139.7	139.7	75.8	113.8	139.7	57.4	86.2	114.9
BJ30x120	97.4	121.0	119.0	121.0	121.0	75.8	113.8	121.0	57.4	86.2	114.9

- 1) Column Allowable Loads have been determined through testing standards prescribed in the National Research Council Evaluation Directive for Adjustable Steel Columns using a safety factor of 2.25.
- 2) Column Factored Resistance is limited by the tube's axial compressive strength. The depicted values are established in accordance with CSA S16.
- 3) Factored Bearing Resistances are for standard term loading; reduce for other load durations in accordance to the code.
- 4) SCL Factored Bearing Resistance assumes 1-3/4" ply width and specified compression perpendicular to grain  $f_{cp} = 1,365 \text{ psi}$  (9.4 MPa). For beams of **weaker specified  $f_{cp}$  or smaller width**, calculate the Factored Beam Bearing Resistance as follows: overall beam width x plate length x  $f_{cp}$  x 0.8.  
Use the minimum of the calculated "Factored Beam Bearing Resistance" and the "Factored Resistance of the Column Capacity supporting steel beam" as the Factored Resistance of the column supporting the respective beam.
- 5) Grey shades: Rotate plate to fit, beam width parallel with the longer side of the plate.
- 6) Column is not capable of resisting lateral or uplift load.