



BLACKJACK 3.0 ADJUSTABLE SUPPORT COLUMNS

MiTek BLACKJACK 3.0 Adjustable Support Columns (BJ30) are designed and tested to meet or exceed the CAN/CGSB-7.2-94 Adjustable Steel Columns standard. BJ30 columns are assembled with a top plate or column cap, a bottom plate, a steel tube, and an adjustment assembly which is composed of a threaded pipe and a threaded collar.

This document addresses the BJ30 columns using plates on the column top to support steel and wood beams.

Materials: Tube - 3" x 3", 10 Gauge;
Plates – see Plate Specification Table
Finish: Tube - Powder-coated Black Paint;
Plates – Grey primer Paint

Installation:

- Ensure column is installed in a vertical and plumb position.
- Column base shall be aligned and secured to a proper supporting slab.
- Top plate shall cover the full width of the supported beam. Beam shall be centered on the top plate and continuous across the entire length of the plate. Contact MiTek for Split-Beam applications.
- For multiple ply beams, ensure to laminate plies together to act as a single member.
- Square tube may be cut down, ensure cut is smooth, square and level.
- Turn threaded collar or threaded pipe to extend the column to the desired height. 4" maximum adjustment. Secure the top plate to beam with four (4) 1/4" x 2" screws for wood beam, self tapping screws or tack weld for steel beam.

Column Height Specification Table

MiTek Stock No.	Adjustable Height		Extended Length	
	in	mm	in	mm
BJ30x96	92 - 96	2337 - 2438	96	2438
BJ30x102	98 - 102	2489 - 2591	102	2591
BJ30x108	104 - 108	2642 - 2743	108	2743
BJ30x120	116 - 120	2946 - 3048	120	3048

Overall column height consists of: thickness of top plate and bottom plate, tube length, adjustment assembly (screw pipe + threaded collar).



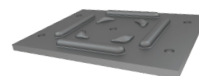
BLACKJACK 3.0



Square tube design



Adjustment Assembly



**PL (4.5 x 6)
Bottom Plate**



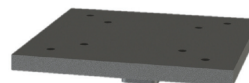
**A (3.5 x 5.25)
Top Plate**



**B (3.5 x 7)
Top Plate**



**C (5.25 x 7)
Top Plate**



**D (7 x 7)
Top Plate**

Plate Specification Table

Plate	Dimensions (in)		Gauge / Thickness
	W	L	
PL (4.5 x 6) Bottom Plate	4.5	6	3 GA
A (3.5 x 5.25) Top Plate	3.5	5.25	3 GA
B (3.5 x 7) Top Plate	3.5	7	1/2"
C (5.25 x 7) Top Plate	5.25	7	1/2"
D (7 x 7) Top Plate	7	7	1/2"

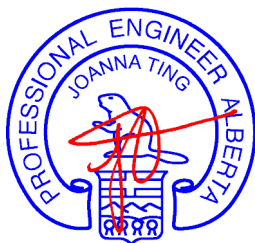
1) Each plate kit includes: one PL plate + one A or B or C or D plate.

**PERMIT TO PRACTICE
MITEK CANADA INC.**

Signature
Date May 6, 2026
PERMIT NUMBER: P 3837
The Association of Professional
Engineers and Geoscientists of Alberta

RM APEGA ID: 164823

APEGA
Permit No. P3837



APEGA ID: 164823
May 6, 2026

Expiry: Apr. 30, 2028

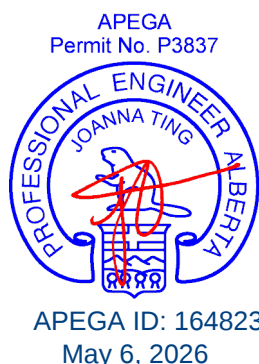
Refer to MiTek's current Canadian Structural Products Catalogue for general design notes and installation information.

BLACKJACK 3.0 ADJUSTABLE SUPPORT COLUMNS



Unit: lb (Imperial)

BLACKJACK 3.0, TOP PLATE: A (3.5 x 5.25)												
MiTek Stock No.	Maximum Overall Column Length (in)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (lb) ^{3,6}								
				SCL ($f_{cp} = 1,365$ psi) ⁴			D Fir-L			S-P-F		
		Allowable Load (lb) ¹	Factored Resistance (lb) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	1-Ply	2-Ply	3-Ply	1-Ply	2-Ply	3-Ply
BJ30x96	84	30400	41500	10030	20060	20060	6390	12790	12790	4840	9680	9680
	90	26400	38600									
	96	24000	36100									
BJ30x102	102	22900	33650	10030	20060	20060	6390	12790	12790	4840	9680	9680
BJ30x108	108	22300	31400									
BJ30x120	114	22000	29200	10030	20060	20060	6390	12790	12790	4840	9680	9680
	120	21900	27200									
BLACKJACK 3.0, TOP PLATE: B (3.5 x 7)												
MiTek Stock No.	Maximum Overall Column Length (in)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (lb) ^{3,6}								
				SCL ($f_{cp} = 1,365$ psi) ⁴			D Fir-L			S-P-F		
		Allowable Load (lb) ¹	Factored Resistance (lb) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	84	30400	41500	26750	20060	26750	17050	12790	17050	12910	9680	12910
	90	26400	38600									
	96	24000	36100									
BJ30x102	102	22900	33650	26750	20060	26750	17050	12790	17050	12910	9680	12910
BJ30x108	108	22300	31400									
BJ30x120	114	22000	29200	26750	20060	26750	17050	12790	17050	12910	9680	12910
	120	21900	27200									
BLACKJACK 3.0, TOP PLATE: C (5.25 x 7)												
MiTek Stock No.	Maximum Overall Column Length (in)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (lb) ^{3,6}								
				SCL ($f_{cp} = 1,365$ psi) ⁴			D Fir-L			S-P-F		
		Allowable Load (lb) ¹	Factored Resistance (lb) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	84	30400	41500	26750	40130	40130	17050	25580	25580	12910	19370	19370
	90	26400	38600		38600	38600						
	96	24000	36100		36100	36100						
BJ30x102	102	22900	33650	26750	33650	33650	17050	25580	25580	12910	19370	19370
BJ30x108	108	22300	31400		31400	31400						
BJ30x120	114	22000	29200	26750	29200	29200	17050	25580	25580	12910	19370	19370
	120	21900	27200		27200	27200						
BLACKJACK 3.0, TOP PLATE: D (7 x 7)												
MiTek Stock No.	Maximum Overall Column Length (in)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (lb) ^{3,6}								
				SCL ($f_{cp} = 1,365$ psi) ⁴			D Fir-L			S-P-F		
		Allowable Load (lb) ¹	Factored Resistance (lb) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	84	30400	41500	26750	40130	41500	17050	25580	34110	12910	19370	25820
	90	26400	38600		38600	38600						
	96	24000	36100		36100	36100						
BJ30x102	102	22900	33650	26750	33650	33650	17050	25580	33650	12910	19370	25820
BJ30x108	108	22300	31400		31400	31400						
BJ30x120	114	22000	29200	26750	29200	29200	17050	25580	29200	12910	19370	25820
	120	21900	27200		27200	27200						



- 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 specified compression perpendicular to grain $f_{cp} = 1,365$ 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) D Fir-L and S-P-F beams assume 1.5" ply width.
- 6) Grey shades: Rotate plate to fit, beam width parallel with the longer side of the plate.
- 7) Column is not capable of resisting lateral or uplift load.
- 8) Table values not applicable to split beam installation. For beams not continuous across the entire length of the supporting top plate, please contact MiTek.

For Overall Column Length not listed in the table, use the capacity of the next longer Column Length in line.

Example: For a BlackJack 3.0 having an overall length of 100" (2540 mm), use the values of the 102" (2591 mm) Column Length.

Expiry: Apr. 30, 2028

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BLACKJACK 3.0 ADJUSTABLE SUPPORT COLUMNS



Unit: kN (Metric)

BLACKJACK 3.0, TOP PLATE: A (3.5 x 5.25)												
MiTek Stock No.	Maximum Overall Column Length (mm)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (kN) ^{3,6}								
				SCL ($f_{cp} = 1,365 \text{ psi}$) ⁴			D Fir-L			S-P-F		
		Allowable Load (kN) ¹	Factored Resistance (kN) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	1-Ply	2-Ply	3-Ply	1-Ply	2-Ply	3-Ply
BJ30x96	2134	135.2	184.6	44.6	89.2	89.2	28.4	56.9	56.9	21.5	43.1	43.1
	2286	117.4	171.7									
	2438	106.8	160.6									
BJ30x102	2591	101.9	149.7	44.6	89.2	89.2	28.4	56.9	56.9	21.5	43.1	43.1
BJ30x108	2743	99.2	139.7									
BJ30x120	2896	97.9	129.9									
	3048	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.	Maximum Overall Column Length (mm)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (kN) ^{3,6}								
				SCL ($f_{cp} = 1,365 \text{ psi}$) ⁴			D Fir-L			S-P-F		
		Allowable Load (kN) ¹	Factored Resistance (kN) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	2134	135.2	184.6	119.0	89.2	119.0	75.8	56.9	75.8	57.4	43.1	57.4
	2286	117.4	171.7									
	2438	106.8	160.6									
BJ30x102	2591	101.9	149.7	119.0	89.2	119.0	75.8	56.9	75.8	57.4	43.1	57.4
BJ30x108	2743	99.2	139.7									
BJ30x120	2896	97.9	129.9									
	3048	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.	Maximum Overall Column Length (mm)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (kN) ^{3,6}								
				SCL ($f_{cp} = 1,365 \text{ psi}$) ⁴			D Fir-L			S-P-F		
		Allowable Load (kN) ¹	Factored Resistance (kN) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	2134	135.2	184.6	119.0	178.5	178.5	75.8	113.8	113.8	57.4	86.2	86.2
	2286	117.4	171.7									
	2438	106.8	160.6									
BJ30x102	2591	101.9	149.7	119.0	149.7	149.7	75.8	113.8	113.8	57.4	86.2	86.2
BJ30x108	2743	99.2	139.7									
BJ30x120	2896	97.9	129.9									
	3048	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.	Maximum Overall Column Length (mm)	Column Capacity (supporting steel beam)		Factored Resistance (supporting wood beam), 100% (kN) ^{3,6}								
				SCL ($f_{cp} = 1,365 \text{ psi}$) ⁴			D Fir-L			S-P-F		
		Allowable Load (kN) ¹	Factored Resistance (kN) ²	1-3/4" beam width	3-1/2" beam width	5-1/4" beam width	2-Ply	3-Ply	4-Ply	2-Ply	3-Ply	4-Ply
BJ30x96	2134	135.2	184.6	119.0	178.5	184.6	75.8	113.8	151.7	57.4	86.2	114.9
	2286	117.4	171.7									
	2438	106.8	160.6									
BJ30x102	2591	101.9	149.7	119.0	149.7	149.7	75.8	113.8	149.7	57.4	86.2	114.9
BJ30x108	2743	99.2	139.7									
BJ30x120	2896	97.9	129.9									
	3048	97.4	121.0	119.0	121.0	121.0	75.8	113.8	129.9	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.
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- 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 specified compression perpendicular to grain $f_{cp} = 1,365$ 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.
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- 8) Table values not applicable to split beam installation. For beams not continuous across the entire length of the supporting top plate, please contact MiTek.

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