

Steel King Industries Inc. Structural Channel Bolted Pallet Rack Upright Frame Capacity Chart



Upright Frame Post Type	BCF3L	BCF3H	BCF4L	BCF4H	Upright Frame Post Type	BCF3L	BCF3H	BCF4L	BCF4H
Post width	3"	3"	4"	4"	Post width	3"	3"	4"	4"
Bracing Panel Height	24"	24"	24"	24"	Bracing Panel Height	48"	48"	48"	48"
Maximum Upright Load based on standard base plates (see Note 2)	39,700	39,700	39,700	39,700	Maximum Upright Load based on standard base plates (see Note 2)	39,700	39,700	39,700	39,700
Vertial Beam Spacing					Vertical Beam Spacing Above 80" Above the Ground Floor				
24" (See Note 3)	40,930	44,090	55,290	63,230	24"	18,160	19,850	29,210	33,310
30" (See Note 3)	40,930	44,090	55,290	63,230	30"	18,160	19,850	29,210	33,310
36" (See Note 3)	40,930	44,090	55,290	63,230	36"	18,160	19,850	29,210	33,310
42" (See Note 3)	40,930	44,010	55,290	63,230	42"	18,160	19,850	29,210	33,310
48" (See Note 3)	38,280	40,550	55,290	63,230	48"	18,160	19,850	29,210	33,310
54" (See Note 3)	35,000	36,950	54,080	60,780	54"	18,160	19,850	29,210	33,310
60" (see Note 3)	31,650	33,310	51,180	57,280	60"	18,160	19,850	29,210	33,310
66" (See Note 3)	28,330	29,700	48,160	53,640	66"	18,160	19,850	29,210	33,310
72" (See Note 3)	25,090	26,190	45,050	49,920	72"	18,160	19,850	29,210	33,310
78" (See Note 3)	21,980	22,850	41,900	46,160	78"	18,160	19,850	29,210	33,310
					84" (See note 4)	18,160	19,720	29,210	33,310
					90" (See note 4)	16,580	17,170	29,210	33,310
					96" (See note 4)	14,570	15,090	29,210	33,310
					102" (See note 4)	12,900	13,370	29,210	31,720
					108" (See note 4)	11,510	11,920	26,740	28,370
					114" (See note 4)	10,330	10,700	23,990	25,470
					120" (See note 4)	9,320	9,660	21,650	22,980



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OTHER IMPORTANT NOTES

The above listed component capacities are based upon RMI 2012 Design Specifications. System compliance includes consideration of connections. The great array of potential beam and column combinations cannot be represented in a chart format. For verification of system compliance to RMI 2012, or conformance to other local or regional codes, please consult our corporate office.
1) Capacities based upon interior usage. If rack needs to be located outside, contact Steel King for assistance.
2) Capacities are for selective rack only.
3) The above capacities do not consider seismic loading. If rack is located in a seismic area, contact Steel King for assistance.
4) Each column/post of each frame MUST be anchored to an adequate concrete floor.
5) Capacities based upon installation in a plumb condition.
6) Capacities are total per upright, assuming equal loading on both posts. *If any of these conditions do not apply to your application, or if you are unsure if they apply, DO NOT USE THIS CHART; in those cases, consult Steel King Engineering dept. for design information.*

7) Upright Safety Factor varies between 1.67:1 per AISC 15th Edition

8) Other frame capacities are available for applications with large quantities; consult the factory.

9) RMI 2012 recommends the use of optional accessories to reduce damage to frames. Items including column

protectors, double columns, and guard rail are available from Steel King.

NOTE: Any upright that excees the 6 to 1 ratio that does not have row spacers or cross-aisle ties, needs special attention. Please contact Steel King for assistance.

HOW TO USE THIS CHART:

1) Units are in pounds

2) Standard base plates are limited in their capacity to transfer the load to the concrete slab. If your upright load exceeds this capacity, it is necessary to use an oversized baseplate. Contact Steel King. Capacities highlighted in green exceed the capacity of standard baseplates.

3) For any shelf levels that are greater than 80 inches from the ground floor, for these beam spacings the upright capacity at that point must be based on the capacity for 48' bracing panel heights.

4) If the first beam level is equal to or greater than 84", then oversized baseplates are required. Contact Steel King.

5) If the upright exceeds the 6 to 1 ratio that does not have row spacers or cross aisle ties, then contact Steel King.