

Steel King Industries Inc.

SK2000® BOLTLESS Tubular Pallet Rack Upright Frame Capacity Chart



Upright Frame Post Type:	RTFAP	RTFAG	RTFBP	RTFBG	RTFBB	RTFBW	RTFCP	RTFCG	RTFCB	RTFCW
Nom. Post Size:	3" x 1-5/8"	3" x 1-5/8"	3" x 3"	3" x 3"	3" x 3"	3" x 3"	4" x 3"	4" x 3"	4" x 3"	4" x 3"
Maximim Upright Load based on standard baseplates (see note 12)	27,300	27,300	32,800	32,800	32,800	32,800	39,700	39,700	39,700	39,700
MAX vertical Beam Spacing:										
36"	22,780#	27,790#	31,340#	41,430#	50,330#	57,480#	39,680#	53,390#	66,150#	75,740#
42"	22,780#	27,790#	28,940#	38,220#	46,400#	52,950#	37,740#	50,760#	62,870#	71,960#
48"	20,480#	25,040#	26,390#	34,830#	42,240#	48,160#	35,630#	47,900#	59,290#	67,830#
54"	18,140#	22,150#	23,780#	31,350#	37,980#	43,250#	33,370#	44,840#	55,480#	63,430#
60"	15,830#	19,300#	21,160#	27,870#	33,720#	38,360#	31,020#	41,660#	51,510#	58,850#
66"	13,620#	16,590#	18,600#	24,470#	29,570#	33,590#	28,610#	38,400#	47,450#	54,180#
72"	11,540#	14,030#	16,150#	21,220#	25,600#	29,050#	26,190#	35,120#	43,370#	49,480#
78"	9,830#	11,950#	13,830#	18,150#	21,880#	24,800#	23,780#	31,880#	39,330#	44,840#
84"	8,470#	10,300#	11,920#	15,650#	18,870#	21,390#	21,440#	28,710#	35,390#	40,310#
90"	7,380#	8,980#	10,390#	13,630#	16,430#	18,630#	19,170#	25,660#	31,600#	35,950#
96"	6,490#	7,890#	9,130#	11,980#	14,440#	16,370#	16,980#	22,700#	27,930#	31,750#
102"	5,750#	6,990#	8,090#	10,610#	12,790#	14,500#	15,040#	20,110#	24,740#	28,120#
108"	5,120#	6,230#	7,210#	9,470#	11,410#	12,930#	13,420#	17,940#	22,070#	25,080#
114"	4,600#	5,590#	6,470#	8,500#	10,240#	11,610#	12,040#	16,100#	19,800#	22,510#
120"	4,150#	5,050#	5,840#	7,670#	9,240#	10,480#	10,870#	14,530#	17,870#	20,320#
126"			5,300#	6,950#	8,380#	9,500#	9,860#	13,180#	16,210#	18,430#
132"			4,830#	6,340#	7,640#	8,660#	8,980#	12,010#	14,770#	16,790#
138"			4,410#	5,800#	6,990#	7,920#	8,220#	10,980#	13,510#	15,360#
144"			4,050#	5,320#	6,420#	7,270#	7,540#	10,090#	12,410#	14,110#
over 144"	Consult Factory									

NOTE: All capacities assume a minimum of 2 beam levels per bay.

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The listed component capacities are based on 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) MAXIMUM LOAD PER SHELF LEVEL ON "RTFAP" & "RTFBP" = 7500#.
- 2) Capacities based upon interior usage. If rack needs to be located outside contact Steel King for assistance.
- 3) Capacities are for selective rack only.
- 4) The above capacities do not consider seismic loading. If rack is located in a seismic area, please consider the racking designed for Seismic Considerations or contact Steel King for assistance.
- 5) Each column/post of each frame MUST be anchored to an adequate concrete floor.
- 6) Capacities based upon installation in a plumb condition.
- 7) 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.

- 8) Upright Safety Factor = 1.80:1 per AISI 2016
- 9) Capacities are to be reduced to account for the weight of the rack system; deduct the weight of beams, frames, decking, and accessories.
- 10) Other frame capacities are available for applications with large quantities; consult the factory.
- 11) 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.
- 12) Standard baseplates 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.

NOTE: For 60" deep uprights, please contact Steel King.

NOTE: Any upright that exceeds 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) Calculate the maximum load per bay; number of levels X load per level (supported levels only).

2) Determine the MAXIMUM distance between levels, or the distance from the floor to the first beam level, whichever is greater. This dimension is the "vertical beam spacing" to use in the above chart.

3) Using the "vertical beam spacing" as determined in step 2 above, follow the appropriate row towards the right until you find a capacity equal to or greater than the capacity required, as determined in step 1.

4) You may wish to choose an even greater capacity upright, for additional abuse resistance.

5) Verify the adequacy of the end user's floor to support these loads.

