



**PALLET RACK K-1000** 



Speedrack® K-1000

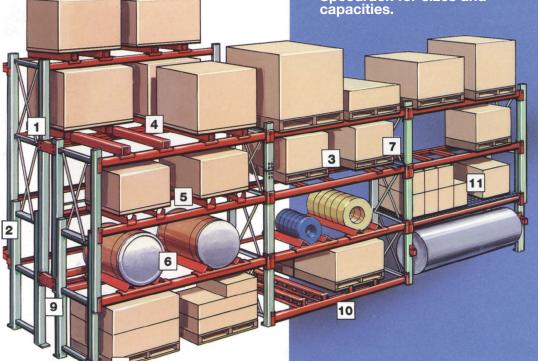
DIFFERENCE . . . by design

...the strength and torsion resistance of closed column construction with the compatibility of teardrop design.



# Speedrack K-1000 VERSATILITY

K-1000 offers a wide range of accessories that solve the problems of storing products not suitable for standard pallets. K-1000 beams adjust up and down easily in 2" increments to accommodate load heights. Contact Speedrack for sizes and capacities.



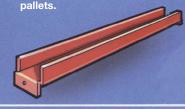
## 1. ROW SPACERS

Row spacers are used to structurally tie and space two rows of rack back to back. A minimum of two ties per frame are recommended.



### 5. SKID CHANNELS

Provide a base for pallets with metal skid runners or undersized pallets.



#### 9. SUPER TRUSS®

For heavy rack usage and end of aisle rack protection. Massive three inch Super Truss® steel tubes protect rack against destructive fork truck impacts.



# **STRENGTH**



CLOSED COLUMNS

OPEN COLUMN

Any engineer will confirm that a closed tube column is much stronger than an open box channel. A closed column also increases torsional resistance more than 200 times over any relative open shape. All Speedrack columns, beams, horizontals and diagonals are tubular. That's superior!

#### COMPATIBILITY



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Many rack users have realized the benefits of Speedrack's traditional tubular rack lines. With K-1000 we also provide the ultimate in teardrop design.

### **GREATER IMPACT RESISTANCE AND SAFETY**



For added safety of people and products, the K-1000 closed tube column provides much greater resistance to damage by impact than any open box channel configuration. Reduced damage from accidental fork truck/rack collisions means lower indirect warehousing costs.

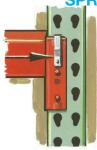
### THREE POINT CONNECTION

Speedrack utilizes minimum 3 pin connectors as a standard, not 2 like many other



manufacturers. That provides additional strength, safety and resistance to accidental dislodging. A 2 pin connector is available for special light weight applications.

### SPRING CLIP



K-1000 pallet rack has a replaceable spring steel safety lock attached to the connector plate. It engages automatically when the beam drops in place. There's nothing to "forget," no bolts to slide, no loose parts. Positive protection from fork truck collision beam disengagement!

#### **COLOR SELECTION**

Speedrack K-1000 is available in 6 standard colors: light green, international orange. cerulean blue, dark blue, dark yellow and shelf grey. Custom colors can be quoted upon request.

#### SPEEDSHIP

Common sizes are stocked for immediate shipment. For a list of available sizes visit www.speedrack.net.

## 2. WALL SPACERS

Wall spacers structurally connect the rack to a wall providing additional stability, support and equal spacing.



3 CROSSBARS

Provide a base for undersize pallets and prevents them from falling through the rack.



4 FORK ENTRY BARS

Fork entry bars are used with single sheet pallets or products not having fork clearance.



### 6. DRUM/COIL CRADLES

Support drums and coils from front to rear of rack to prevent rolling.



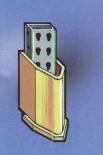
7. FLANGED CROSSBARS

Used to prevent undersize pallets



COLUMN PROTECTORS

Recommended at aisle intersections for protection of column base from truck impact.

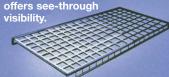


# 10. LOCK-IN CROSSBARS

Used with slotted beams to support odd sized loads. Installs with built-in locking tabs-no fasteners, styles available.

11. WIRE MESH DECKS

Wire mesh fits on beams for the storage of products. Open mesh does not accumulate debris and offers see-through





### Selecting K-1000 beams and capacities

Assuming the use of very common flush type pallets, calculations can be made as follows: Multiply the maximum load width (in inches) times the number of loads between uprights. Add to this 3" to 4" for spacing between each load and uprights. This total is the beam span. For capacity required, multiply the maximum load weight (include pallet) times number of loads per pair of beams. This total is your capacity requirement per pair of beams. Use the chart to find the beams that meet or exceed your span and capacity requirements.



## BEAM CAPACITY CHART (Pounds per pair, uniformly distributed load)

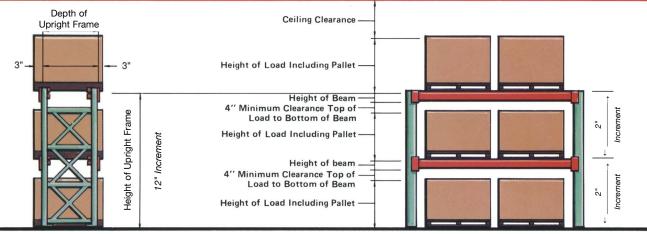
	DEFINITION TOTAL CONTROL (1 cande per pan							<u> </u>	dimorning distributed roddy									
	2-3/4"		3-1/4"		3-3/4"		4-1/8"		4-1/2"		4-7/8"		5-1/4"		6"		<u>▼</u> 6°	
	26D		32D		36D		41D		44D		47D		52D		60D		60C	
LENGTH	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL	CAP'Y	DEFL
48	5,430	0.19	6,960	0.16	8,620	0.14	9,970	0.13	11,390	0.12	13,190	0.11	14,000	0.10	14,000	0.07	14,000	0.06
54	4,860	0.24	6,230	0.21	7,720	0.18	8,920	0.16	10,190	0.15	11,800	0.15	12,950	0.13	14,000	0.10	14,000	0.09
60	4,400	0.29	5,640	0.25	6,990	0.22	8,070	0.20	9,230	0.19	10,690	0.18	11,730	0.16	14,000	0.14	14,000	0.12
66	4,030	0.35	5,160	0.31	6,390	0.27	7,390	0.25	8,440	0.23	9,780	0.22	10,730	0.20	13,260	0.17	14,000	0.16
72	3,530	0.40	4,760	0.36	5,900	0.32	6,810	0.29	7,790	0.27	9,020	0.26	9,900	0.23	12,230	0.21	14,000	0.20
78	3,030	0.43	4,420	0.43	5,470	0.37	6,330	0.34	7,230	0.31	8,380	0.30	9,190	0.27	11,350	0.24	13,400	0.24
84	2,630	0.47	3,910	0.47	5,110	0.43	5,910	0.40	6,760	0.37	8,000	0.36	8,590	0.32	10,610	0.28	12,510	0.28
90	2,310	0.50	3,430	0.50	4,800	0.50	5,550	0.45	6,340	0.42	7,500	0.41	8,060	0.36	9,960	0.32	11,750	0.32
92	2,210	0.51	3,290	0.51	4,650	0.51	5,440	0.47	6,220	0.44	7,200	0.42	7,900	0.38	9,760	0.33	11,520	0.34
94	2,130	0.52	3,160	0.52	4,460	0.52	5,330	0.49	6,100	0.46	7,060	0.44	7,750	0.39	9,570	0.35	11,290	0.35
96	2,040	0.53	3,040	0.53	4,290	0.53	5,230	0.52	6,000	0.48	6,930	0.45	7,600	0.41	9,390	0.36	11,080	0.37
98	1,970	0.54	2,920	0.54	4,130	0.54	5,140	0.54	5,870	0.50	6,800	0.47	7,460	0.43	9,220	0.38	10,870	0.38
100	1,890	0.56	2,810	0.56	3,970	0.56	5,010	0.56	5,760	0.51	6,680	0.49	7,330	0.45	9,050	0.39	10,680	0.40
102	1,820	0.57	2,710	0.57	3,830	0.57	4,830	0.57	5,660	0.54	6,560	0.51	7,200	0.46	8,890	0.41	10,490	0.41
104	1,760	0.58	2,610	0.58	3,690	0.58	4,660	0.58	5,560	0.56	6,440	0.53	7,070	0.48	8,740	0.43	10,310	0.43
106	1,700	0.59	2,520	0.59	3,560	0.59	4,490	0.59	5,470	0.58	6,330	0.55	6,950	0.50	8,590	0.44	10,130	0.45
108	1,640	0.60	2,430	0.60	3,440	0.60	4,340	0.60	5,380	0.60	6,230	0.57	6,840	0.52	8,440	0.46	9,960	0.46
114	1,480	0.63	2,200	0.63	3,110	0.63	3,920	0.63	4,860	0.63	5.880	0.63	6,510	0.58	8,040	0.51	9,490	0.51
120	1,340	0.66	2,000	0.67	2,820	0.67	3,560	0.67	4,420	0.67	5,350	0.67	6,220	0.64	7,680	0.56	9,070	0.57
126	1,230	0.70	1,820	0.70	2,580	0.70	3,250	0.70	4,030	0.70	4,880	0.70	5,920	0.70	7,360	0.62	8,680	0.63
132	1,130	0.74	1,670	0.73	2,360	0.73	3,000	0.73	3,700	0.73	4,480	0.73	5,430	0.73	7,060	0.68	8,330	0.69
138	1,040	0.77	1,540	0.77	2,180	0.77	2,750	0.77	3,410	0.77	4,000	0.74	5,000	0.77	6,790	0.74	8,010	0.75
144	960	0.80	1,430	0.80	2,010	0.80	2,540	0.80	3,150	0.80	3,810	0.80	4,620	0.80	6,480	0.80	7,580	0.80
150	890	0.83	1,320	0.83	1,870	0.83	2,360	0.83	2,920	0.83	3,540	0.83	4,290	0.83	6,010	0.83	7,030	0.83
156	830	0.87	1,230	0.87	1,740	0.87	2,190	0.87	2,720	0.87	3,290	0.87	4,000	0.87	5,590	0.87	6,540	0.87
162	770	0.90	1,150	0.90	1,620	0.90	2,050	0.90	2,540	0.90	3,070	0.90	3,720	0.90	5,220	0.90	6,100	0.90
168	720	0.93	1,070	0.93	1,520	0.93	1,920	0.94	2,370	0.93	2,870	0.93	3,490	0.93	4,880	0.93	5,710	0.93
174	680	0.97	1,010	0.97	1,420	0.96	1,800	0.97	2,230	0.97	2,700	0.97	3,270	0.97	4,580	0.97	5,360	0.97
180	640	1.00	950	1.00	1,340	1.00	1,690	1.00	2,090	1.00	2,530	1.00	3,070	1.00	4,310	1.00	5,040	1.00

#### Notes:

- 1) Capacities are based on the 2012 AISI / RMI MH16.1 Specification. Values below the heavy line are limited by a deflection of L/180.
- 2) Capacities include partial end fixity.
- 3) <u>Capacities are not valid for all seismic conditions -</u> contact Engineering for design requirements.
- 4) Capacities include dead load and impact provisions, and are based on a uniform load of two pallets on a pair of beams. Contact Engineering for other loading conditions.
- 5) Deflection shown is approximate and may vary under actual loading conditions.

### Special Order Only

# **Upright Frame Selection Guide**



#### **NOTES:**

- 1) Capacities are based on the 2012 ANSI / RMI MH16.1 Specification. Capacities are not valid for seismic applications. Capacities are based on standard bracing configurations.
- 2) Spacing is based on the distance from the floor to the first beam level. Capacities are also valid for the distance between beams by adding 3" to the actual spacing. Upper level spacing may control design. (See note below.)
- 3) Capacities are based on the use of racks on a concrete floor slab, with all rack columns anchored per RMI requirements.
- 4) For frame depths less than 32", contact Engineering for bracing, anchorage, and base plate check.
- 5) For Seismic loads, other special applications or loading conditions, or double column capacities, contact Engineering.

# K-1000 Selective Upright Capacity (pounds)

Load capacity of any upright frame will vary with the conditions of loading, bracing configuration and beam positioning. You should consider: floor condition, truck exposure, location, etc.

To determine upright frame load capacity requirement:

 Add the weight of all pallet loads between upright frames (one rack bay).\* Do not include pallets on the floor.

To Determine Upright Frame Type:

 Determine the distance from the floor to the top of the first beam or maximum beam spacing if greater.

 Using the beam position and load capacity requirement, determine the proper upright frame type from the upright truss capacity chart.

	SPACING	DC	DB	EC	EB	EA	НС	НВ	HA
	36	22,600	28,700	33,700	41,900	49,400	34,900	41,600	49,100
	42	22,600	28,700	32,000	38,100	44,900	34,500	41,100	48,500
TTS	48	20,900	26,400	27,800	34,200	40,200	31,800	37,800	44,500
UPRIGHTS	54	18,900	23,700	24,700	30,200	35,400	29,000	34,300	40,400
	60	16,800	21,000	21,600	26,200	30,700	26,100	30,800	36,200
M	66	14,800	17,400	18,500	22,400	26,200	23,300	27,300	32,000
3" COLUMN	72	12,800	15,700	15,700	18,800	22,000	20,500	23,900	28,000
	78	11,500	14,100	13,300	16,000	18,600	17,800	20,700	24,200
	84	9,400	11,500	11,400	13,700	15,900	15,300	17,700	20,700
	90	8,200	10,000	9,900	11,900	13,800	13,300	15,400	18,000
	96	7,200	8,700	8,700	10,400	12,100	11,600	13,400	15,700

NOTE: If the distance from the top of any beam to the top of the next beam above it is greater than the distance from the floor to the top of the first beam, the greater distance may determine upright frame capacity. Check both the column length from the floor to the first beam level with the full upright load, and the column length between the first and second beam levels with the upright load above the first beam level only. If loads and or beam positioning varies from bay to bay, the upright frame capacity and upright frame type must be checked for each condition.

	SPACING	GC	GB	GA	JC	JB	JA
	36	29,800	38,800	45,600	38,400	47,600	60,700
	42	29,800	38,800	45,600	38,400	47,600	60,700
TLS	48	29,800	38,800	45,600	38,400	47,600	60,700
UPRIGHTS	54	29,400	38,300	45,200	37,200	46,000	58,500
	60	27,400	35,500	41,900	35,200	43,300	54,800
OMN	66	25,400	32,600	38,400	33,000	40,500	50,900
COLI	72	23,300	29,800	35,000	30,800	37,500	47,000
4" (	78	21,200	26,900	31,600	28,500	34,600	43,100
	84	19,200	24,100	28,300	28,100	33,900	42,000
	90	17,200	21,400	25,100	24,700	29,600	36,400
	96	15,200	18,800	22,100	21,800	26,100	31,900