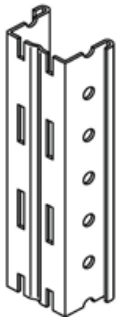
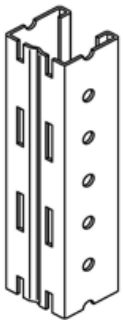
RIDG-U-RAK®
STORAGE SYSTEMS

Slotted
PALLET RACK

REV 4 - February, 2024

UPRIGHT FRAME CAPACITIES


Style 32C


Style 33C


Style 43C

Static Load Frame Capacities

Unsupported Length (Vertical Beam Spacing)	32C (3X2-1/4)			33C (3X3)					43C (4X3)	
	UF-S32C	UF-M32C	UF-H32C	UF-S33C	UF-R33C	UF-M33C	UF-Y33C	UF-H33C	UF-M43C	UF-H43C
36"	24,700	29,800	36,400	29,800	35,500	40,500	44,000	49,100	51,700	63,200
42"	23,500	27,900	34,100	28,100	33,500	37,100	41,300	45,000	49,400	61,100
48"	22,100	26,900	32,800	26,200	31,100	35,300	38,300	42,700	48,000	58,700
54"	20,700	25,700	31,300	24,200	28,700	33,300	35,100	40,400	46,600	55,900
60"	19,000	23,200	28,200	22,000	26,000	29,300	31,800	35,400	43,400	53,000
72"	15,700	19,100	23,200	17,700	20,800	23,300	25,200	28,100	38,100	46,500
84"	12,400	15,200	18,500	13,800	16,100	17,900	19,400	21,600	32,600	39,700
96"	9,900	12,300	14,800	10,900	12,700	14,100	15,300	17,000	27,200	33,100
108"	8,000	10,000	12,100	8,900	10,300	11,400	12,300	13,700	22,200	26,900

- The capacities shown in this table are for static load conditions only.
- The Frame Capacity Chart gives static load capacities based on the specified "Unsupported Length" of the columns (Vertical Beam Spacing).

WARNING: Due to the system-based design approach of the current RMI Specification, the use of static load capacities are no longer appropriate. Load ratings can only be provided through a system analysis which accounts for configuration of the system, static loading, seismic parameters, stability requirements and the interaction characteristics of the various system components. These capacity tables should only be used as a "starting point."

Beam Capacities

Beam Profile	Beam Lengths										
	48"	60"	72"	84"	92"	96"	102"	108"	120"	144"	156"
250 S	5,700	4,530	3,130	2,300	1,910	1,750	1,550	1,380	1,120	770	660
300 S	7,500	5,980	4,820	3,530	2,940	2,690	2,380	2,120	1,720	1,190	1,010
355 S	9,760*	7,770	6,460	5,330	4,440	4,070	3,600	3,210	2,590	1,790	1,520
410 L	10,810*	8,620	7,150	6,110	5,570	5,200	4,600	4,100	3,310	2,290	1,940
410 S	12,270*	9,780*	8,120	6,930	6,320	5,830	5,160	4,600	3,710	2,570	2,180
465 S	15,020*	11,970*	9,940*	8,490	7,740	7,410	6,960	6,320	5,110	3,530	3,000
500 S	16,890*	13,460*	11,170*	9,540*	8,700	8,330	7,830	7,380	6,140	4,250	3,610
550 S	19,720*	15,710*	13,050*	11,150*	10,160*	9,720*	9,140*	8,620	7,740	5,420	4,610
600 S	22,500*	18,120*	15,050*	12,850*	11,710*	11,210*	10,540*	9,940*	8,920	6,790	5,770
650 S	22,500*	20,670*	17,160*	14,660*	13,360*	12,790*	12,020*	11,340*	10,180*	8,360	7,110
650 R	22,500*	22,500*	19,480*	16,640*	15,160*	14,520*	13,640*	12,870*	11,550*	9,370*	7,970

- Capacities marked with * indicate that the column connection capacity may be limited based on the hook option and/or frame model (see table below).
- Capacities listed are for non-seismic conditions. For seismic conditions consult with Ridg-U-Rak sales or engineering.
- Capacities are based on uniformly distributed loads per pair of beams.
- Capacities listed are for a 2-pallet wide condition.
- All beams over 114" in length should utilize at least one flanged, tek-screwed or lock-in cross bar located at mid length.

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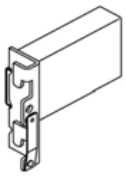
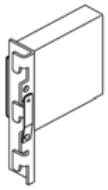
*****In no case should any load per level exceed the following limitations*****

Upright Frame Model	Maximum Beam Capacities (per pair)	
	2-Lug Hook #02	3-Lug Hook #03
UF-S	9,000 lbs	13,500 lbs
UF-R	10,000 lbs	15,000 lbs
UF-M	12,000 lbs	18,000 lbs
UF-Y	13,000 lbs	19,500 lbs
UF-H	15,000 lbs	22,500 lbs
Hook # 02 is standard for beams 2.50", 3.00", 3.55", 4.10", 5.00", 5.50", 6.00" tall Hook # 03 is standard for beams 6.50" tall		

Hook #02	Hook #03
	

New RMI Frame Capacity Guidelines

Understanding Frame Capacity Tables & The RMI Specification (ANSI MH16.1-2021)

The RMI specification criteria for selective rack structures has changed how frames are designed. The use of traditional frame capacity tables are no longer valid.

The capacity of frames are dependent on a variety of factors.
Here are some points that may help better understand the factors that influence frame capacity.

- The beam-to-column connections used are very important
- The ratio of average to maximum loads is very important
- Column Base Plates
- Anchors used
- Number of Storage Levels
- Beam Level spacing
- Beam Sizes
- Column Profile and its section properties
- Seismic design criteria for geographic location
- Height-to-depth ratio of the frame
- System Importance Factor – based on the environment of storage (Retail or Industrial)

Hence, the use of traditional frame tables are no longer valid, and they should only be used as a “starting point”.

Existing frame systems designed to older specifications are “grandfathered” and do not need to be recalculated to the current specification requirements, unless the rack is reconfigured or relocated. In those cases, however, the use of average-to-maximum load ratios and stronger beam connections (particularly in lower beam levels of the system) can many times help to achieve the desired load ratings of existing frames. An experienced rack engineer, familiar with the current RMI design criteria, can assist in determining what changes are needed to achieve the desired load ratings for a rack system designed to older specifications.

Storage Rack: Cold-Formed Steel ANSI MH16.1-2023 — Rack Manufacturers Institute 5150

CERTIFIED MANUFACTURER | CERTIFIED SYSTEM | CERTIFIED INSTALLATION

RMI R-Mark Certifications

RIDG-U-RAK has been awarded R-Mark Manufacturer, Systems and Installation certifications. RMI, the Rack Manufacturer's Institute, updated its requirements adding critical design and manufacture responsibilities.

RIDG-U-RAK is a founding and executive level member of the RMI, Rack Manufacturer's Institute.