LYON®

8000 SERIES SHELF LOADING CAPACITIES

The published load carrying capacities of various shelving manufacturers can vary greatly depending on the configuration of the shelf and the testing method used to determine the capacity.

Lyon is a Charter Member of the Shelving Manufacturers Association (SMA). Our testing capacities and procedures are based on the ANSI MH28.1-1982 “Specification for the Design, Testing, Utilization and Application of Industrial Grade Steel Shelving” which was sponsored by the SMA

Size W x D	24 Gauge Standard-Duty		22 Gauge Medium-Duty		20 Gauge Heavy-Duty		18 Gauge Extra Heavy-Duty	
Inches	Cat. No.	Capacity	Cat. No.	Capacity	Cat. No.	Capacity	Cat. No.	Capacity
30 x 30					8593H	800		
36 x 12	8560S	350	8560M	500	8560H	800	8560X	1100
36 x 15	8584S	350	85484M	500	8584H	825	8584X	1100
36 x 18	8561S	350	8561M	500	8561H	850	8561X	1200
36 x 24	8562S	350	8562M	500	8562H	800	8562X	1250
36 x 30					8585H	600	8585X	900
36 x 36					8586H	550	8586X	900
42 x 12					8565H	600	8565X	900
42 x 15					8587H	600	8587X	900
42 x 18					8566H	650	8566X	950
42 x 24					8567H	650	8567X	1000
42 x 30					8588H	625	8588X	1000
42 x 36					8589H	550	8589X	900
48 x 12					8300H	500	8300X	750
48 x 15					8590H	525	8590X	850
48 x 18					8301H	550	8301X	900
48 x 24					8302H	550	8302X	900
48 x 30					8591H	525	8591X	750
48 x 36					8592H	500	8592X	500

Capacities are based on evenly distributed loads. All shelves maintain a 1.65 safety factor and posts a 1.92 factor. Lyon generally does not recommend 22 gauge shelving on industrial requirements larger than 36” x 24”

Caution! Concentrated (point) loads or impact (dropped) loads could fail shelves even though impact load may be considerable less than the allowable evenly distributed load shown.

Post Capacity Calculations

To determine post loading capabilities, you must know: (1) the number of loaded shelves, (2) the load on each shelf and (3) the shelf spacing.

Single Level

1. Determine the total loaded capacity of the shelving section. For example, if there are 8 shelves with each shelf carrying 700 lbs., the total load is 5,600 lbs.
2. For basic 8000 series t-post shelving use the rule of thumb capacity of 8,000 pounds per section maximum.

Hi-Rise

1. Determine the total loaded capacity of shelving section. (The section is defined as the entire, full height, elevation) For example, if there are 25 shelves with each shelf carrying 600 lbs., the total load is 15,000 lbs.
2. Contact engineering for post capacity information to determine which post will be required for your application.

Multi-Level

1. Determine the total loaded capacity of the shelving section. (The section is defined as the entire, full height, elevation) For example, if there are 15 shelves with each shelf carrying 750 lbs., the total load is 11,250 lbs.
2. Determine the additional load carried in the aisle:
    a. Multiply the width of the shelving by the width of the aisle. For example if the width of the shelving is 3' and the width of the aisle is 3', there are a total of 9 square feet.
    b. Multiply the total square feet by the rated capacity of the aisle (the standard capacity used by Lyon is 150 p.s.f.). In the example above, the calculation would be 3 x 3 x 150 = 1,350 lbs.
3. Add the results of step 1 and step 2b to determine the total load on the post.
4. Contact engineering for post capacity information to determine which post will be required for your application.

This information is provided to allow you to make basic calculations as to which post is suitable for your particular application. If the High Strength post is required, you must submit an SPI to determine proper pricing. ***If any seismic requirements (zones 1 through 4) are to be met, you MUST contact Aurora Engineering.***

If you have any questions or are unsure about a particular requirement, contact Aurora Engineering.