Rack - Cantilever Storage Guidelines

1. Determine the Load Characteristics
What type of load is being stored? What is the length (left to right), depth (front to back) and height (bottom to top) of the unit load? What is the maximum weight for each load and how many unit loads will be stored on each shelf (set of arms)?

2. Determine the Number and Spacing of the Arms
Deflection of the load may cause damage to the load and create difficulty loading and unloading the rack.
There must be enough arms to prevent deflection of the load. To test deflection, place wooden blocks on the floor to simulate the support arms. Start with 2 blocks spaced apart by one half (1/2) the length of the typical load. Place the load on the blocks. If there is NO deflection, it is acceptable to use two arms with the appropriate capacity. If the load shows deflection, use three blocks spaced apart by one third of the load length. If this shows deflection, use four arms spaced apart by one fourth of the load length. Continue this way until the load is supported without deflection.
Following these guidelines ensures that each arm supports an equal portion of the load's weight.

3. Determine the Length of the Arms
The length of the arms should be greater than or equal to the total depth of the load. So, a 48" wide bundle of plywood requires a 48" long arm and two 18" bundles of channel placed together would require a 36" arm. Note: that arm capacities are based on evenly distributed loads. Tip: loading can reduce arm capacity by up to 50%.

4. Determine the Height of the Upright
The minimum height of the upright is determined by adding the base height plus the height of the first load to (6" clearance for unloading + the thickness of the arm + the height of the load) x (the number of loads to be stored). Consult your dealer for standard upright heights that fit your application.

5. Determine the Arm & Upright Capacities
In Step 2, you determined the number of arms required to support your load without deflection. Divide the maximum load weight by the number of support arms to get the required capacity per Arm. To determine the required upright capacity, multiply the number of arms per side of the upright (uprights can be single or double sided) by the capacity of each arm. Consult your dealer for standard upright and arm capacities that fit your application.

6. Determine the Brace Length
Brace length is the horizontal distance from the centerline of one upright to the centerline of the next upright or, similarly, from the centerline of one arm to the centerline of the next arm. Consult your dealer for standard brace set lengths that fit your application.