

## DESIGN SPECIFICATIONS:

1. Steel components designed to meet CSA-S136
2. Rack structures have been designed for structural adequacy in accordance with the general requirements of Part 4 of the National Building Code (2005) as applicable.
3. Allowance has been made for seismic loading.
4. Cantilever Rack System has been designed for indoor use. No allowance has been made for wind and snow loads.
5. Maximum beam deflection not to exceed  $2L/180$ , where 'L' represents the length of arm in inches.

## MATERIAL SPECIFICATIONS AND SAFETY FACTORS:

1. Cold formed tapered column, base and arm connector sections: G40.20-04 50W min. yield.
2. Cold formed tapered arm sections: G40.20-04 44W min. yield.
3. Miscellaneous structural sections, plates, etc.: G40.20-04 44W min yield.
4. Columns have been designed with a safety factor of at least 1.92 against buckling.
5. Arms have been designed with a safety factor of 1.65 against yielding.

**Note: The safety factors given are required by code and are not, under any circumstances, to be eroded or diminished in any way.**

## WELDING:

1. Welding to be according to CSA W59 latest edition.

## SLAB-ON-GRADE (S.O.G):

1. The owner is responsible to ensure the concrete S.O.G and Subgrade Soil Conditions are adequate to sustain rack loads. The owner is required to take any action necessary to ensure adequacy, including geotechnical investigations and analysis by a structural engineer, if required.

## PERMITS:

1. All permits required shall be the responsibility of the owner.

## OWNER MAINTENANCE:

1. The owner shall maintain the structural integrity of the installed rack system by assuring proper operational, housekeeping, and maintenance procedures including, but not limited to, the following:
  - a) Prohibit overloading of any arm level and of the overall rack system.
  - b) Regularly inspect for damage. If damage is found, immediately unload the affected area and replace or repair any damaged posts, beams or other structural components.
  - c) Ensure product is properly placed onto arms in a properly stacked and stable position.
  - d) All material handling equipment operators should be trained in accordance with CSA B355.
  - e) Material handling practices should be designed to minimize impact loads on the arms.

## ALTERATIONS:

1. Column allowable load capacity is based on arm locations and product loading as shown. Reconfiguration or rearrangement of rack structure is not allowed without prior approval from Space Aid Manufacturing.

## PLAQUES:

1. The owner is recommended to display appropriate signage indicating maximum permissible loads in a prominent viewing position.