

## CANTILEVER RACKS OPERATION AND MAINTENANCE

### OPERATION

- Do not add arms to uprights or modify racks in any way without contacting our engineering department.
- Never climb or stand on racks. Always use appropriate safety equipment to service racks.
- Place loads onto rack vertically. Do not push or slide loads into position. Train operators to set loads gently onto racks, and not drop them
- Do not overload rack arms, uprights, or decking (if applicable). Each rack system is custom designed to meet the load specifications that were established at time of purchase. Do not exceed these loads without contacting our engineering department.
- Train equipment operators to avoid rack contact. A rack system's useable lifespan is directly related to operator care.
- Be sure to keep all aisles clear of debris. Do not store materials in aisles. Workers and/or customers should stay clear of aisles while equipment is present.
- If racks become damaged, remove loads immediately and do not use that section of rack until the damaged components can be repaired or replaced.



### MAINTENANCE

- Maintenance should be performed on a regular basis, preferably semi-annually, but at least annually.
- Check all connections for missing or loose bolts. Replace any bolt or nut that is missing or has been damaged. Tighten any bolts that may have come loose. Typical torque values for hot dipped galvanized A325 bolts are:  
1/2" diameter = 75 - 100 ft-lbs      3/4" diameter = 250 - 350 ft-lbs
- Check all arms for damage. Replace any arm that has been bent by fork contact or being overloaded. Any arm that falls below horizontal when loaded must be replaced. Also, any arm that has been bent horizontally more than 3 degrees should be replaced. Do not attempt to straighten a bent arm.
- Inspect welds on arms and bases for cracks or damage.
- Inspect horizontal and diagonal bracing for damage. Replace any angles or flat bar straps that have been bent or broken.
- Inspect anchors and tighten as necessary.
- Inspect rack for plumb. Rack uprights should be vertical to within 1 inch per 20 feet of height when unloaded. Shim under the bases or columns as necessary.

