

Ross Cantilever Racks comprise single- or double-sided columns that support vertically adjustable arms. These arms are bolted or welded) securely to the columns and can be angled to retain loads. A horizontal base helps stabilize the structure and supports the bottom load. This type of storage system offers many advantages:

- Flexibility: The lack of front columns means no restrictions on the length of items stored. Different-length objects or oddly-sized items can be placed within the same rack system.
- Easy Access: Because there are no vertical obstructions at the face of the rack, loading and unloading product is quick and easy.
- Easy Adjustability: Bolted connections allow for easy adjustment of arms to accommodate a wide variety of load heights.
- Modularity: Easy to add on to when needed.

Rack capacity ranges from 10-foot-high racks for 2,000 pounds to four-tier, 40-foot-high racks for 40,000 pounds. Tell us the size and weight of materials and how much space is available. Ross engineers will design a system to meet your unique requirements.

## SECTION 105629.01

### CANTILEVER STORAGE RACKS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Structural cantilever rack systems.

##### 1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data.
- B. Shop Drawings: Submit shop drawings including the following:
1. Standard and custom rack designs.
  2. Proposed layout, details of construction, anchorage and relationship to other parts of the work.
- C. Warranty: Submit executed copy of manufacturer's standard limited warranty.

##### 1.3 QUALITY ASSURANCE

- A. Installer: Minimum 2 year documented history of installing similar rack systems acceptable to the manufacturer. Installer shall accept responsibility for all field verifications.
- B. Manufacturing Facility: Certified to ISO 9001: 2015.
- C. Applicable Standards, Testing and Certifications:
1. ANSI/AISC 360, Specification for Structural Steel Buildings.
  2. AWS D1.1/D1.1M, Structural Welding Code – Steel.

3. ASTM A572, Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
4. ASTM A36, Standard Specification for Carbon Structural Steel.
5. ASTM A325, Standard Specification for Structural Bolts, Steel.
6. ASTM A992, Standard Specification for Structural Steel Shapes.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials in a location protected from the weather, humidity, temperature variation, dirt and dust, or other contaminants.

#### 1.5 WARRANTY

- A. Warranty: Provide manufacturer's standard limited one-year warranty.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURER

- A. Basis-of-Design Manufacturer: Ross Technology Corporation, 104 North Maple Avenue, Leola, PA 17540. Toll-free 800-345-8170. www.rosstechnology.com. No substitutions.

#### 2.2 CANTILEVER RACK SYSTEMS

- A. Cantilever Rack Systems: As manufactured by Ross Technology Corporation complying with the following:

##### 1. Standard Features:

- a. Rack system engineered to AISC standards, typically exceeding Rack Manufacturer's Institute (RMI).
- b. Arms and columns hot rolled structural steel manufactured from 50 KSI material.
- c. Structural I-beam construction.
- d. Adjustable bolted shelf beam construction accommodates changing storage needs.
- e. Arms and bases attach to columns using 3/4 inch diameter A325 structural bolts or GR 5 plated structural hardware.
- f. Arms adjust in 4-inch increments, and slope at a 2-degree standard or 4-degree heavy up-tilt as applicable.
- g. Structural bolt-together brace systems.
- h. Modular design for ease of adding more bays.

##### 2. Optional Features:

- a. Welded construction.
- b. Arm adjustment in 3-inch increments.
- c. Single- and double-sided systems.
- d. Low-boy / high-boy style arms.
- e. Bolt-on stop bar sockets for arms.
- f. Stop bar socket for base.
- g. Stop bars with and without chains.
- h. Bolt arm stops – 2-inch and 4-inch available.
- i. Vinyl arm caps.

3. Finish (Standard): Factory-applied powder-coated finish, color selected from manufacturer's standard colors.
4. Finish (Optional): Hot-dip galvanized coating, ASTM A123.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates and site conditions for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION

- A. Install products in strict accordance with manufacturer's instructions and approved submittals. Locate rack systems level, plumb, and in proper alignment with adjacent work. Provide installation method suitable for substrate and project conditions.
- B. Protect adjacent areas against damage; repair or patch damaged areas. Restore damaged finishes so no evidence remains of corrective work.

#### 3.3 FIELD QUALITY CONTROL

- A. Inspect installed racks for proper installation as recommended by manufacturer.
- B. Establish a semi-annual maintenance program to inspect structural components and welds for damage caused by overloading or forklift equipment, to tighten or replace missing bolts and anchors, and to confirm racks are plumb.

#### 3.4 ADJUSTING AND CLEANING

- A. Clean exposed surfaces using methods acceptable to the manufacturer which will not damage finish.

END OF SECTION

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