

Tooling, dies and other manufacturing equipment can pose a storage challenge because of their size, weight, shape, or inability to be stacked. As a result, these indispensable tools are often stored on the manufacturing floor, where they take up space, are susceptible to damage and endanger workers. Ross Tool and Die Racks get these items off the floor and onto secure, engineered fixtures designed to accommodate their unique characteristics. As a result, they offer:

- Organized Storage: Items can be stored either on removable deck plates, open beams or fork entry bars for easy location and access.
- Maximized Floor Space: Tool and die racks free up valuable floor space for manufacturing.
- Reduced Damage to Critical Fabrication Equipment: Items are protected from material handling equipment.
- Greater Safety: Engineered racks store tooling in a safe manner and reduce risk of worker injuries.

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 105629.05

### TOOL AND DIE 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. Tool and die 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 TOOL AND DIE RACK SYSTEMS

- A. Tool and Die 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. Shelving configurations include removable deck plate, open beam, and fork entry bar to accommodate your specific storage needs.
- e. Adjustable bolted shelf beam construction.
- f. Shelf beams attach to the columns using 3/4 inch diameter A325 structural bolts.
- g. Predrilled holes are provided in upright baseplates for anchor bolt connection to the floor.
- h. Shelf beams adjust in 4-inch increments.
- i. Structural bolt-together brace systems.
- j. Modular design for ease of expansion.

##### 2. Optional Features:

- a. Shelf beam adjustment in 3-inch increments.
  - b. Back stop beams to prevent stored items from being pushed off the back of the shelf.
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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