

Section 10 56 29.16 - Pallet Storage Rack Specification

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - a. Pallet Rack
- B. Related Work, Not Furnished:
 - a. Finish floor covering materials and installation.
- C. Related Sections:
 - a. [Sections in Division 9 – Finishes, relation to finish floor and base materials.]
- D. Allowances:
- E. Alternates:

1.3 REFERENCES

- A. Rack Manufacturers Institute:
 - a. R-Mark Reg. #5070
- B. American National Standards Institute (ANSI) Standards:
 - a. MH 16.1-2004

1.4 DESCRIPTION

- A. General: Pallet Rack
- B. Finishes:
 - a. Fabricated metal components and assemblies: all components to be painted with an electrostatically applied powder coat paint. MSDS available upon request.
- C. Sizes:
 - a. Available in custom sizes as required on drawings. Posts will vary in height per drawing. All depths to be 42". Width utilizes 108" beam on 3" wide by 3" deep posts.

1.5 PERFORMANCE REQUIREMENTS

- A. Design Requirements:
 - a. Limit overall width to 114" per bay to include beam and posts, but not including nominal increase of footplate.
 - b. Limit overall useable depth to 42" per bay.

- c. Limit overall height to 276" for item S4, 144" for S5, and 180" for S6. Height does not include footplate.

1.6 SUBMITTALS

- A. Product Data: Submit manufacturer's product literature and installation instructions for each type of pallet rack section (bay) required. Include data substantiating that products to be furnished comply with requirements of the contract documents.
- B. Shop Drawings: Show fabrication, assembly, and installation details including descriptions of procedures and diagrams. Show complete extent of pallet rack installation layout including quantities, locations, and types of accessory units if applicable. Include notations and descriptions of all installation items and components. Show installation details at non-standard conditions, if any. Provide layout, dimensions, and identification of each unit corresponding to sequence of installation and erection procedures. Provide installation schedule and complete erection procedures to ensure proper installation.
- C. Selection Samples: For initial selection of colors, submit manufacturer's color chart consisting of standard color offering.
- D. Warranty: Submit draft copy of proposed warranty for review by customer or customer's representative.
- E. Maintenance Data: Provide in form suitable for inclusion in maintenance manuals for pallet rack shelving as applicable. Submit manufacturer's printed instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions against using materials and methods, which may be detrimental to finishes and performance.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualification: see section 1.3 REFERENCES.
- B. Installer Qualifications: Engage an experienced installer who has a minimum 1-year experience installing similar pallet rack systems.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Follow manufacturer's instructions and recommendations for delivery, storage, and handling requirements.

1.9 PROJECT CONDITIONS

- A. Field Measurements: Verify quantities of pallet rack units before fabrication. Indicate verified measurements on Shop Drawings. Coordinate fabrication and delivery to ensure no delay in progress of the Work.
- B. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating pallet rack units without field measurements. Coordinate construction to ensure actual dimensions correspond to established dimensions.

1.10 WARRANTY

- A. Provide a written warranty, executed by Contractor, Installer, and Manufacturer, agreeing to repair or replace units, which fail in materials or workmanship within the established warranty period. This warranty shall be in addition to, and not a limitation of, other rights the Owner may have under General Conditions provisions of the Contract Documents.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Wire Mesh Partitions provided by Southwest Solutions Group. www.southwestsolutions.com
Phone: 1-(800) 803-1083. POC: Craig Crock ccrock@southwestsolutions.com
- B. The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution
- C. No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.
- D. Requests for substitutions will be considered in accordance with provisions of Section 01600. If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.
- E. Substitutions: See Section 01 6000 - Product Requirements.2.2

2.2 BASIC MATERIALS

- A. General: Provide materials and quality of workmanship, which meets or exceeds established industry standards for product specified. Material thicknesses/gauges are manufacturer's option unless indicated otherwise.

2.3 MANUFACTURED COMPONENTS

- A. Design:
 - a. Gravity Lock type consisting of upright frames, beams, and wire deck designed to be assembled without fasteners or clips. Design shall permit individual beam level adjustment and/or removal anywhere along the entire height of uprights. All Welded construction.

- B. Materials and Workmanship:
 - a. Fabricate units from rolled steel sheet with all bends sharp and true.
 - i. All units shall be free from burrs, sharp edges, and projecting hardware with smooth, non-abrasive surfaces and edges.
 - b. After fabrication, units shall exhibit no dents, buckling, or other surface irregularities.
- C. Upright Frames:
 - a. Formed steel to produce a closed tube, 3” on square, with “teardrop” shaped keyholes located on 2” centers. Holes punched to allow “interchangeable” beams from multiple manufacturers. Tubes or Columns are 10 gauge steel. Closed tube cross-bracing between two posts to form an upright frame. Cross-braces intermittently placed in a combination of horizontal and diagonal structured.
- D. Beams:
 - a. Roll formed steel to produce a one piece support beam robotically welded the entire length. Beams should have a Gravity Locking device. Pin locks and T-Bolts are not acceptable. Beams are all 108” between posts. Beams made of 16 gauge steel. Beam face at 4”. Beam depth 2 ¾” at the bottom, 1 ¾” at the top with a notch to accept wire decking, steel decking, or wood decking. Notch is 1 5/8” high by 1” deep. Capacity per set of beams at 5,009 lbs.
- E. Wire Deck:
 - a. Wire deck to sit flush with top of beam and inset into beam notch.

2.4 FABRICATION

- A. General: Coordinate Fabrication and delivery ensure no delay in progress of work.

2.5 FINISHES

- A. Colors: Select for manufacturer’s standard available colors.
- B. Paint Finish: Provide factory applied powder coat paint.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine pallet rack sections to receive accessories (if applicable) for compliance with requirements for installation tolerances and other conditions affecting performance of specified accessory items.
- B. Verify that installation locations of units will not interfere with or block established required exit paths or similar means of egress once units are installed.
- C. Proceed with accessory installation, if applicable, only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Follow manufacturer’s written instructions for installation of each type of accessory item specified, if applicable.

3.3 FIELD QUALITY CONTROL

- A. Verify alignment and plumb after installation. Correct if required following manufacturer’s instructions.
- B. Remove components that are chipped, scratched, or otherwise damaged and which do not match adjoining work. Replace with new matching units, installed as specified and in a manner to eliminate evidence of replacement.

3.4 ADJUSTING

- A. Adjust to provide smoothly operating, visually acceptable installation.

3.5 CLEANING

- A. Immediately upon completion of installation, clean components, and surfaces. Remove surplus materials, rubbish, and debris, resulting from installation upon completion of work and leave areas of installation in a neat, clean condition.

3.6 DEMONSTRATION/TRAINING

- A. Schedule and conduct demonstration of installed systems as needed with Owner's personnel.
- B. Schedule and conduct maintenance training with Owner's maintenance personnel, as needed.

3.7 PROTECTION

- A. Protect units against damage during remainder of construction period. Advise Owner of additional protections needed to ensure that system will be without damage or deterioration at time of substantial completion.