All information provided on this sheet is provided for information purposes only.
Information about the R-Mark Process

The following information will address the R-Mark process both for RMI Members and non-RMI member rack manufacturers.

A good overview of the R-Mark process can be found at http://www.mhi.org/rmi/rmark. To date the R-Mark for rack applies to product produced for the USA market in compliance with the Specification for the Design Testing and Utilization of Industrial Steel Storage Racks—ANSI MH16.1-2012.


Please note there are two avenues that an applicant might follow:

1. As a Member of MHI and RMI, or
2. As a non-member manufacturer

In both cases, once a license is awarded, the process of applying and using the R-Mark are identical. The process is as follows:

Two sealed submittals to RMI from a USA licensed professional engineer containing:

- Evidence of tests
- Calculation of load table(s)

Submittals then sent to a review panel of two independent professional engineers chosen at random by RMI.

Upon successful completion of the reviews by the independent reviewers, a license to apply the R-Mark is issued along with an electronic seal.

The USA licensed professional engineer may then apply the R-Mark under the terms of the license.

Members of RMI must first be admitted into the membership of MHI. Details on that process can be found at http://www.mhi.org/about/join. Once the company becomes a member of MHI, the company may apply to join product groups such as RMI. If admitted into RMI Membership, the company agrees to pay dues/assessments, attend meetings and participate in the RMI statistical program.

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RMI membership meeting. For cost planning purposes, below are current dues and fees (subject to change by MHI and RMI Membership):

- MHI Membership = $2,625/year
- Industry Group Participation Fee = $2,450/year
- RMI Membership = $6,450/year
- RMI Membership Application Fee = $6,000
- RMI One-Time Initiation Fee = $12,000
- RMI Assessments = As approved by the RMI Membership
- R-Mark Submittal Package = Approximately $12,000 (can vary)
- R-Mark Application/Review Fees = Approximately $3,000-$6,000 per application
  (based on complexity and completeness of submittal)
- R-Mark License Fees (each R-Mark License) = No additional fee for RMI Members in good standing of MHI and RMI. License fee is $24,000 per year for non-member awardees

Costs to prepare submittals (testing/professional engineer fees/costs at applicant’s end, etc.) are borne by the applicant.

Questions should be directed to:

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November 5, 2017
The purpose of this checklist is to provide a reference to engineers who will be submitting tables to the RMI for certification. This checklist is intended to show what information should be supplied with the tables to facilitate the review process. Further, it is the intent that the components, when assembled into a rack system, will result in a system that meets the requirements of the Rack Manufacturers Institute. Careful attention to table notes must identify the limitations that may affect the RMI Specification compliance. Each table should be submitted with as many notes as are applicable.

If these guidelines are followed the process should be less difficult for the engineers, the reviewing panel and the company that is applying for certification.

This list is to outline the minimum information required to evaluate the capacity charts submitted for approval of the RMI. Responsibility for review and approval of test procedures, equipment calibration and results shall be by the Engineer of Record for the tables.

Neither the RMI nor any member of the reviewing panel is liable for the structural performance of any rack member, component or system that result from the use of these requirements or tables. The material submitted must be reviewed and approved by a registered professional engineer on behalf of the submitting company. The component information, the calculations, and the table must have the seal of the approving engineer.

The reviewing panel reserves the right to request additional information including, but not limited to, component and/or member information, test data, clarification of calculations, and/or capacity chart information.

1) Component Designation

A component is generally an assembly of members usually (but not necessarily) welded together in a shop to form a principal element of the storage rack system. For the purpose of this checklist the two types of components considered for certification are the upright frame and the shelf beam.

a) Type of Component

b) Configuration Drawing
This is intended to be a schematic drawing showing the relation of the members that make up the component. If there are variable dimensions (such as the length of a shelf beam, or the height and depth of an upright frame) those dimensions shall be shown with corresponding limitations, if any.

Checklist for Component Capacity Certification

c) Range of Sizes for a

d) Shelf Beam

i) beam load test report if capacity is based on testing.

ii) Connector test report if capacity is affected by end connections

(Use the smallest F value for the range of applicable column sections). Perform a series of tests using only the smallest column. Test with the standard placement of the beam on the connector and the standard weld placement and size.

e) Upright

i) Frame load test report if capacity is based on testing

ii) Frame bracing pattern

2) Member Designation

For the purpose of the certification, the members are the major elements that are assembled to make up a component.

a) Cross-Section Drawing

b) Section Properties

c) Material ASTM designation or minimum and ultimate yield and minimum percent elongation of the material to be used for the part.

For a:

d) Column Section

i) Hole pattern

ii) Stub column test report

3) Calculation Assumptions

a) Shelf Beams
i) Type of loading, including impact

ii) Attachment to column

iii) Bracing requirements

Checklist for Component Capacity Certification

b) Uprights

i) Type of loading

ii) Column bracing pattern

iii) Column axial capacity computation method

4) Sample Calculation

a) Shelf Beams

i) Strength, including impact

ii) Deflection

iii) Connection

iv) Beam to connector weld

b) Uprights

i) Column

ii) Bracing

iii) Bracing connection

iv) Base-Plate

5) Capacity Chart

Include:

a) Component Designation

A specific chart is developed to pertain to a specific type of component. For instance, if the chart pertains to the capacity of individual shelf beams, the chart shall be labeled as such.

b) Member Designation
Each chart may include several different sized or shaped components. If applicable, each part of the chart shall be clearly labeled as to which member it applies to.

Checklist for Component Capacity Certification

c) Range of sizes

If the chart encompasses a range of component sizes the sized shall be clearly indicated on the chart. A chart for shelf beams may include several different length beams. These lengths must be shown on the chart.

d) Notes

If there are qualifications and/or clarifying information that is an important part of the capacity shown in the chart that information must be shown on the chart.

e) Units of Measure

Any measurements shown on the chart shall clearly show the units that are applicable. The capacities shown on the chart shall indicate the units that are applicable.

f) Component Capacity