



Linear Trench Grate Trench Cover and Trench Rail Specification

General

This specification is applicable for gray iron and ductile iron trench grate, trench cover, and trench rails. Castings shall be Made in USA and shall be EJ Model number(s) XXXXX or approved equal.

Material

Manufacturer shall certify that all gray iron castings conform to ASTM A48 Class 35B and/or AASHTO M105 Class 35B. Ductile iron casting shall conform to ASTM A536. Castings must contain a minimum of 85% recycled content.

Markings

All trench grates, trench covers and trench rails shall have text permanently cast onto the product. Frames and covers shall have the approved foundry's name, part number, country of origin preceded by "Made in" (example: MADE IN USA) in compliance with the country of origin law of 1984, and production date (example: mm/dd/yy) for tracking purposes. Each casting must be marked with such that the material used in the product is readily identifiable. Castings shall be badged in accordance with the casting specifications. Castings without proper markings shall be rejected.

Each casting shall be identifiable and show at a minimum the following: Name of producing foundry, country of manufacture (such as Made in USA), ASTM material designation, individual part number, cast date and include all lettering as shown on the specification drawings.

Manufacture

Castings shall be of uniform quality, free from sand holes, gas holes, shrinkage, cracks, and other surface defects. Castings shall be ground smooth and well cleaned by shot blasting. As-cast dimensions may vary within accepted foundry tolerances as outlined in the Iron Casting Handbook published by the American Foundry Society, Inc. Nominally, casting dimensional tolerances shall be $\pm 1/16$ " per foot. All published castings weights may vary $\pm 5\%$. Castings shall be provided without coatings, unless otherwise specified.

Proof Load Testing

Castings intended for traffic service shall have a first article proof load test conducted and the results of that proof load shall be made available to the purchaser upon request. The proof load test shall be conducted in accordance with the method and procedure that is outlined in AASHTO M306. The castings shall be tested with a 9" x 9" footprint in the center of the casting, unless the trench design is such that it has a clear opening smaller than 9". In that event the castings shall be tested in accordance with the procedure outlined in AASHTO M306. It shall be tested on a suitable and calibrated load testing machine. The castings shall hold a load of 40,000 lbs. for 1 minute in order to qualify for traffic rating (Or alternate loading as specified in AASHTO M306).

If alternate load ratings are desired the load held shall be in the following duty ratings: Extra Heavy Duty (100,000-200,000 lbs.), Extra Heavy Duty Airport (200,000 lbs. and higher).

Sampling and Records

Random checks on the castings may be conducted by the purchaser and test results for each cast date shall be maintained by the producing foundry for a minimum of seven years and shall be made available to the purchaser upon request.

Casting Features and Options

Where specified, the trench products shall be provided with the following features. The features shall be specified and ordered at the time of purchase to verify that the feature is available on the product selected. (Note to purchaser: Not all features are available on all sizes. To determine which options available on a specific products use the EJ Americas website located at americas.ejco.com. This resource will have the up to date features and options available for the various trench products). Examples of the types of features and options that can be specified include:

- Trench Width: Specify width of Trench (clear opening of trench)
- Trench Rail Style: Top Flange, Angle
- Grate Options: ADA, Herringbone, Bar
- Lock Type: Unbolted, Hex Bolted, Penthead Bolted, Tamperproof Bolted

Certifications / Standards Compliance

A producing foundry certification shall be furnished to the purchaser that states compliance with the specification.