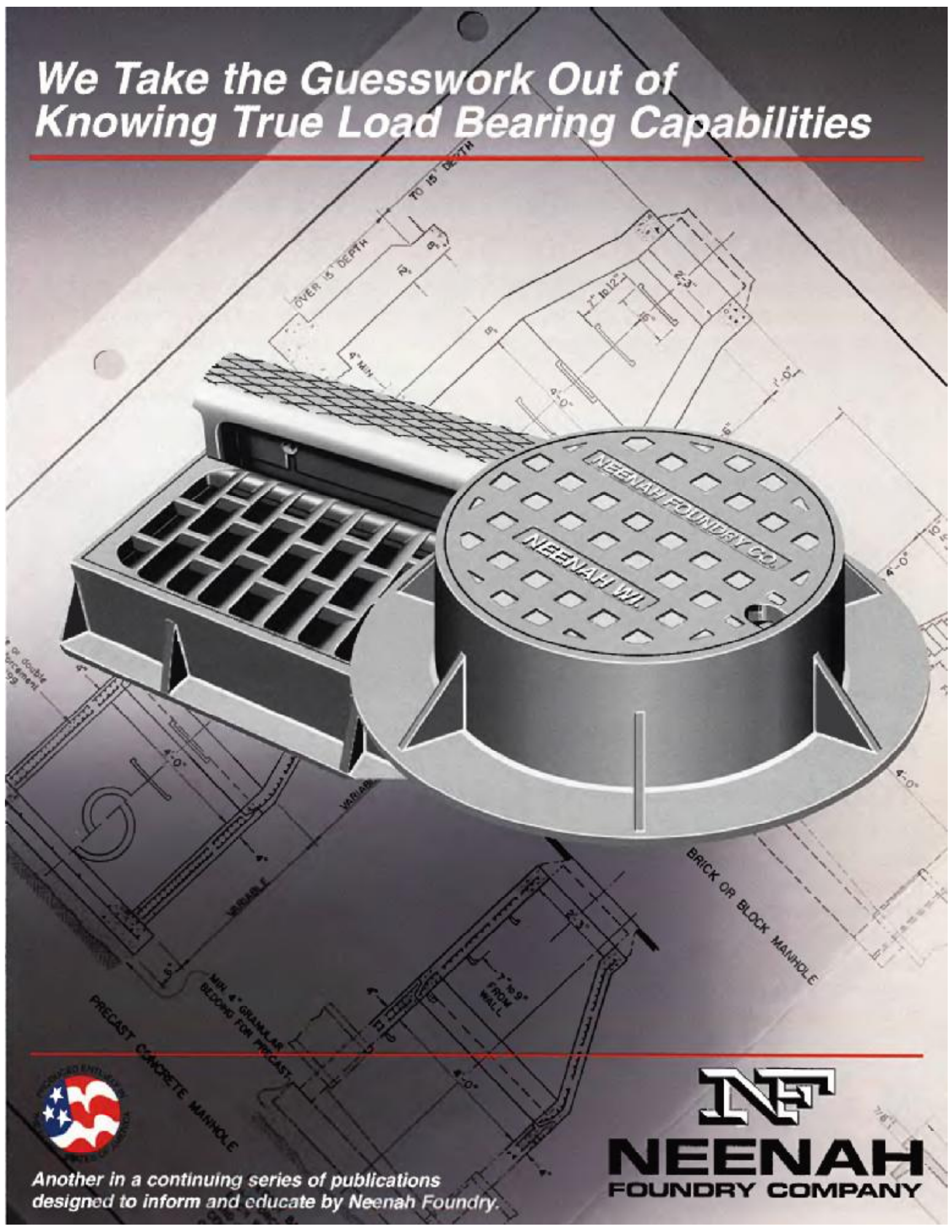


We Take the Guesswork Out of Knowing True Load Bearing Capabilities



Another in a continuing series of publications designed to inform and educate by Neenah Foundry.

NEF
NEENAH
FOUNDRY COMPANY

Knowing that a casting will perform in the field demands. . .

Consistent High Quality Iron.

At Neenah Foundry we take great care in producing castings. Our metal quality control program is run by competent metallurgists to insure that you get consistent Class 35B Gray Iron year after year.

When a foundry doesn't take this care, inconsistencies in iron may result in a casting being defective. A defective casting will result in structural fatigue from the demands of normal wear. You cannot **afford** to use poor quality castings.

Defects you can't always see. . .



Neenah Quality Class 35B Iron

Examples of hidden, gas related defects, caused by improper foundry practices.

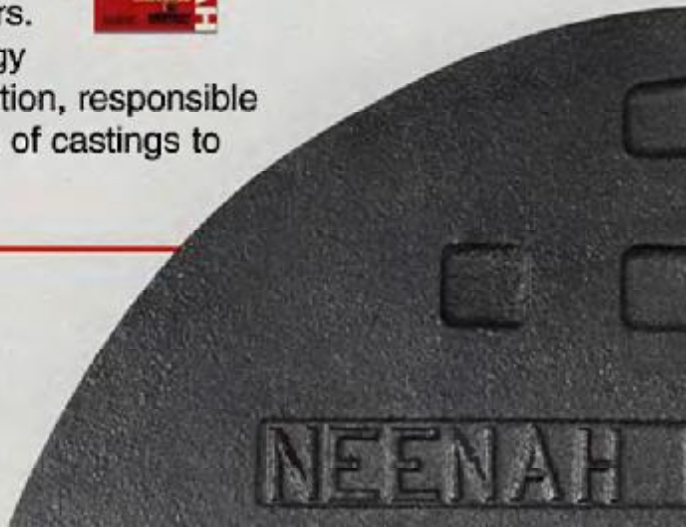
A Technical Manual that gives You Detailed and Concise Data.

The results of our laboratory tests on our calibrated compression testing machine are documented in this manual. This is the first time loading information of this type has been available to engineers and designers.

The data includes ultimate load, deflection, energy absorption and design efficiency. With this information, responsible engineers will be greatly assisted in their selection of castings to meet project requirements.



Neenah Foundry is making it easier to spec and design with confidence.



A Research Program Based on Full Scale Destructive Testing. To reach the True Limits of Casting Performance.



Taking a casting beyond AASHTO M 306 provides ultimate load, maximum deflection, energy absorption and design efficiency.

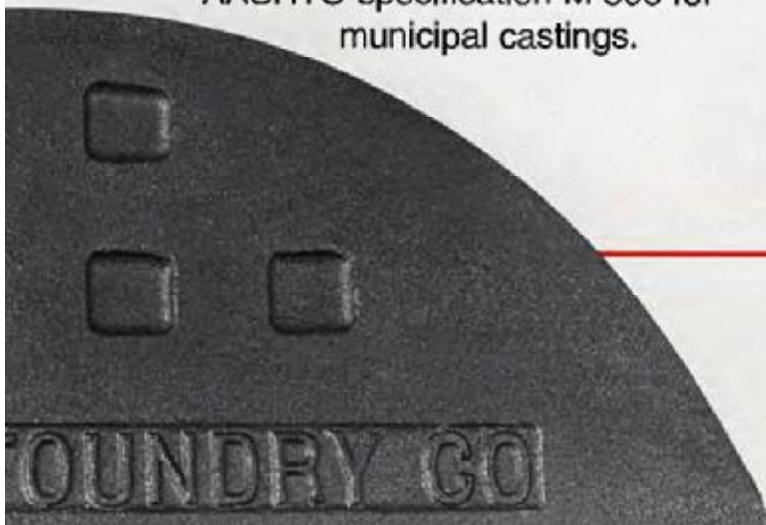
To know how a casting will perform in the field we proof load test our castings. This testing method provides performance characteristics in service.

The Proof Load Test is recommended by AASHTO specification M 306 for municipal castings.

Mathematical equations are erroneously used in determining load capacity but the Proof Load method tests the actual casting. This is the testing method prescribed:

1. A specified load is applied on a 9" x 9" area.
2. The cover, grating, or frame will be inspected for cracks or permanent deformation such as buckling.
3. Any crack or permanent deformation will cause the casting to be rejected.

Neenah is the only foundry with a formal load test program.



NE
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TECHNICAL REPORTS
**INLET GRATE
CAPACITIES
FOR GUTTER FLOW
AND
PONDED WATER**

Since 1974, Neenah has been testing gutter inlet grates for flow capacity. This research has been conducted on a full size 35 foot long flume located in a specially designed testing laboratory.

Coefficients for hundreds of grate styles are charted for varying longitudinal and transverse slopes and flow rates. The unique NEENAH equation allows you to translate chart results into grate capacities for specific project conditions.

Storm water management is becoming more important as a solution for preventing local flooding and pollution resulting from combined sewer overflow (CSO). This manual shows Neenah grate free opening areas and a nomograph for determining capacities under different head conditions. You can then select grates of different shapes, sizes and geometry to provide capacities to match your inlet and outlet control requirements.



Time Saving Calculator

Easy to use, you can solve for flow rates in triangular channel (Modified Manning equation); grate capacities with the Neenah Equation; and grate capacities for ponded water using the orifice flow equation.



**Put Thousands
of Construction
Castings Specs
Right on Your
Desk with
Neenah Foundry's
Construction
Castings
Catalog "R"**

Get the up-to-date illustrated gray and ductile iron castings "Bible" for the construction industry. Over 300 pages of comprehensive details and specifications.



TECHNICAL REPORTS
**Inflow Through
Manhole Covers**

A valuable study of how much surface water can flow through manhole cover bearing surfaces and pick/vent holes. Many have used it to support their construction grant requests. Over 2,000 separate tests were conducted using five different sized covers. To overcome variations, 136 different covers were randomly selected from Neenah stocks.



Technical Seminars

For larger groups, our Professional Engineers will travel to your location and present an informative and educational seminar. You will receive information on inlet grate design, hydraulic theory, hydraulic testing, instruction in the use of our technical manuals, sample problems and solutions, metal specifications, new products and much more.

For smaller groups, a video presentation by our Sales personnel covering "hydraulic characteristics", can be arranged.



These publications and services are available free of charge and are offered as a continuing service by Neenah to inform and educate. Write or call Neenah Foundry Company, Attention: Product Engineering Department, P.O. Box 729, Neenah, WI 54957-0729. Telephone: (920) 725-7000.

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