

# VANE GRATES

*The solution to  
increased capacity*



# Capacity

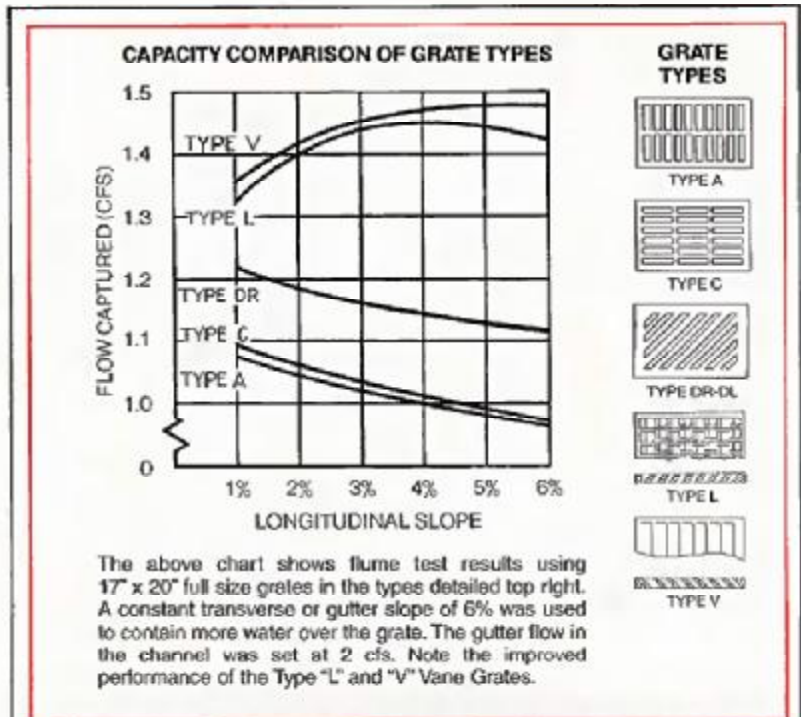
The primary function of an inlet grate is capacity — the ability to intercept the storm water from the gutter. Hydraulic tests prove the new Vane Grate will accept more water than any of the conventional grate styles under virtually all flow conditions. Even with extremely high volume and velocity conditions in the gutter, there will be very little if any water that the grate will not capture, providing the water passes over it. The efficiency of the Vane Grate can be as much as 20% greater than conventional designs. For this reason, many States, Counties, and Municipalities have adopted this new Vane style as a standard.

# Grate Replacement

The new Vane Grate is being used in grate replacement programs in many cities throughout the country, because of its storm water capacity. A replacement high capacity grate can be designed to fit most catch basin inlets, providing the quantity is large enough. Our Product Engineering Department will be happy to assist you in developing your grate replacement program.



Cross Section of Vane Grate in Testing Flume Showing Hydraulic Performance at 2 cfs.

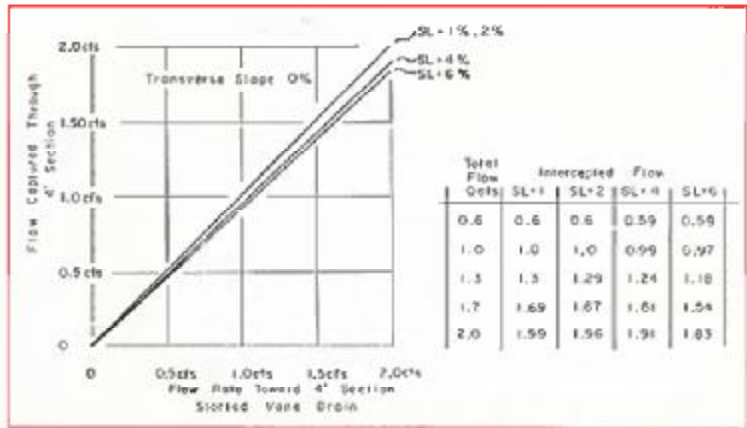


# R-3599 Slotted Vane Drain

## ... Unmatched Performance



NEENAH's Cast Iron Slotted Vane Drain offers ease of installation along with the superior vaned configuration to capture previously unexpected quantities of water when placed perpendicular to the flow. Installation is accomplished by sawing a slot in the top of conventional PVC pipe, placing the pipe on grade, installing the Cast Iron Slotted Vane Drain in place and pouring the concrete. When used in conjunction with a vane grate inlet, virtually all of the water in the street which would normally bypass the catch basin can be captured, thus increasing the space between inlets. An additional benefit is the added safety factor obtained should the catch basin be plugged or covered with snow. The unit may also be installed at entrances and exits of parking areas to capture sheet flow before it enters a commercial street.



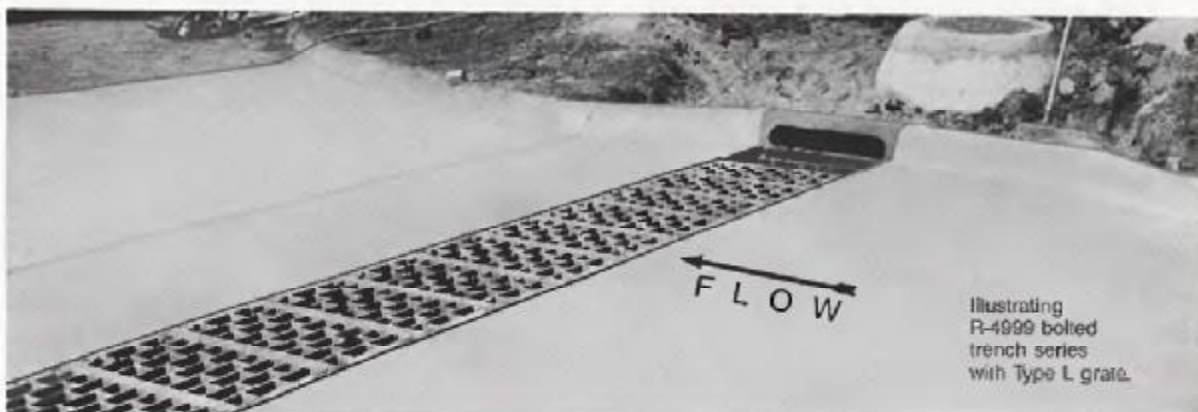
## Vane Grate Trenches for Large Volume Directional Flow

Catalog No.	Dimensions in inches			
	A	B	C	
R-4999-L2	12	1 1/2	10	Furnished in 1 1/2 or 3-foot increments.
R-4999-L3	14	1 1/2	12	Furnished in 2-foot increments only.
R-4999-L6	23 7/8	2	21 7/8	Furnished in 1 or 2-foot increments.
R-4999-L9	29 3/4	2 1/2	26 3/4	Furnished in 1 1/2 or 3-foot increments.

This series furnished with Type L grate shown at right.



TYPE X FRAME  
TYPE L GRATE



Illustrating  
R-4999 bolted  
trench series  
with Type L grate.

## Debris

A properly functioning inlet grate such as the Vane type must screen out the larger, harmful debris and prevent it from entering and clogging the sewer pipes. Small debris, however, which can be easily handled by the underground portions of the storm sewer, are allowed to pass through the grate openings to prevent blockage on the surface of the grate.



## Traffic Loading

The Vane Grate as manufactured by Neenah Foundry Company is designed for highway traffic loading. This is accomplished not only by the geometry in the design of the grate, but also in the grade of iron which is used in the manufacturing process. All Neenah grates are manufactured according to the A.S.T.M. Specification A48 with a minimum class 35B gray iron. Grates can be manufactured from ductile iron for added strength when specified.



- Also available – a video presentation in your office, on Inlet Hydraulics.  
– a free copy of NEENAH's "Inlet Grate Capacities" manual for gutter flow and ponded water containing published test results for capacities of most NEENAH grates.

For more information, call or write:

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