Z101
ROOF DRAIN PERFORMANCE
FLOW DATA

ZURN®

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INTRODUCTION

Introduction

In an effort to provide the industry with the most accurate performance flow data of a roof drain, Zurn Industries has endeavored upon an initiative to provide complete and reliable performance results of its main roof drain products.

About the Test Method and Data Collection

The data contained within this document is compiled from flow tests that were conducted within a laboratory setting. Outside variables, such as wind, atmospheric temperature, intermittent change in rainfall intensity, and physical obstacles that alter the deliverance of water to the drain, have been excluded from the test procedure to provide reliably consistent data. Each roof drain is tested upon a test stand that is constructed and operated within compliance of ASME A112.6.4-2022/CSA B79.4:22 Standard. Three outlet piping configurations have been selected and utilized to deliver flow performance graphs and charts that provide the plumbing engineer with a selection of data that best fits the application. Those pipe configurations consist of the following:

1. One-foot vertical drop by five-foot horizontal length with ¼ bend elbow
2. Two-foot vertical drop by five-foot horizontal length with ¼ bend elbow
3. Four-foot vertical drop

Disclaimer of the data contained within this document

Results obtained from the application of flow measurement procedures specified in A112.6.4-2022/CSA B79.4 indicate a flow rate achieved under laboratory conditions using 1219mm (48 in) vertical discharge pipe; all added elements of drainage design may increase or decrease the flow rates reported. Variables such as wind, vortices, debris, roof design, roof obstructions and slope can significantly change the roof drain flow rate. Designers are advised to consider these and other possible variables in roof drainage design.

ROOF DRAIN FLOW DATA

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20” [508mm] Diameter roof drain. Dura-Coated cast iron body with combination membrane flashing clamp/gravel guard and low silhouette dome.

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Rev. -
Date: 10/31/2023
C.N. No. 145646
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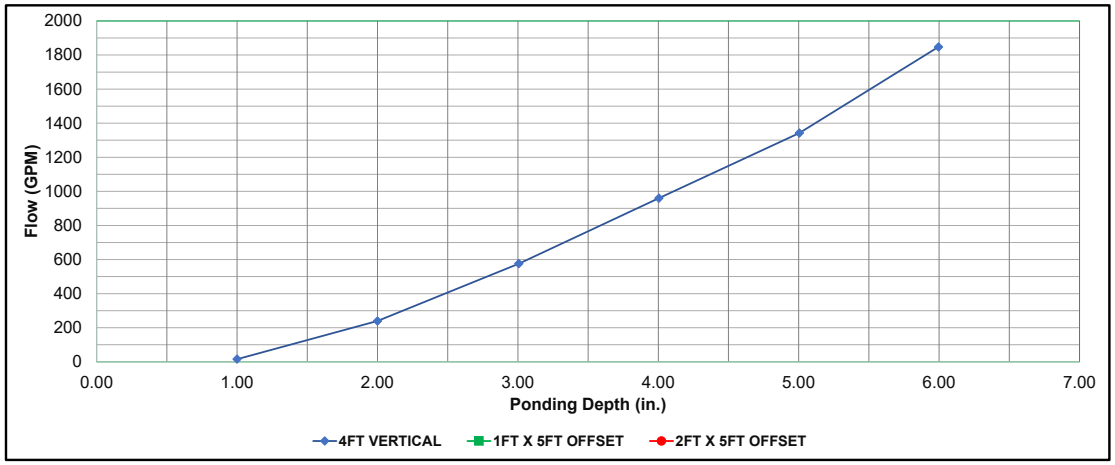
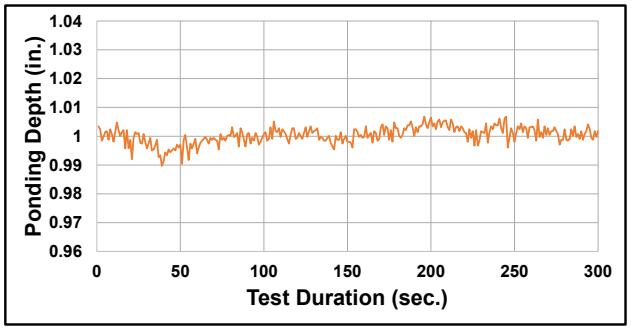
ROOF DRAIN FLOW DATA

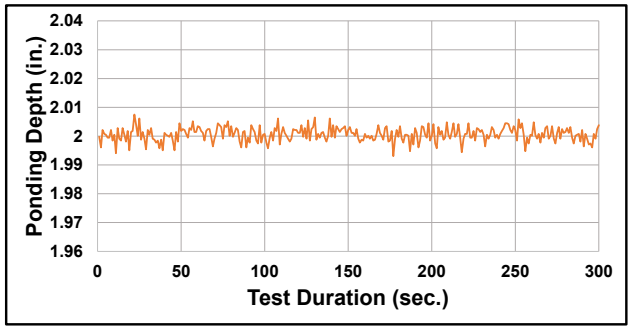
Z101-10NH

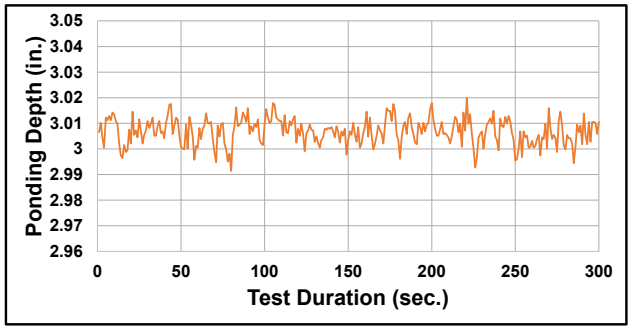
4ft Vertical Pipe Outlet		1x5 Offset Pipe Outlet		2x5 Offset Pipe Outlet	
Roof Ponding Depth (in.)	Flow Rate (GPM)	Roof Ponding Depth (in.)	Flow Rate (GPM)	Roof Ponding Depth (in.)	Flow Rate (GPM)
1.00	15.65				
2.00	239.50				
3.01	575.96				
4.01	960.40				
5.00	1342.60				
6.00	1847.49				

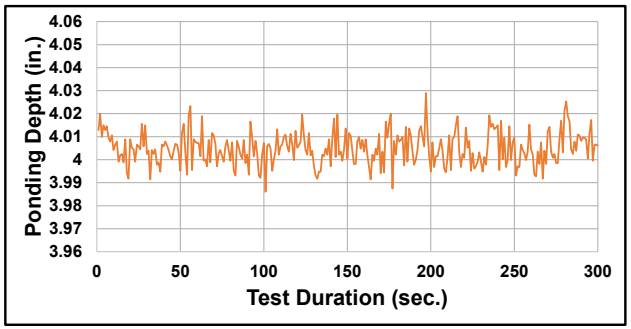


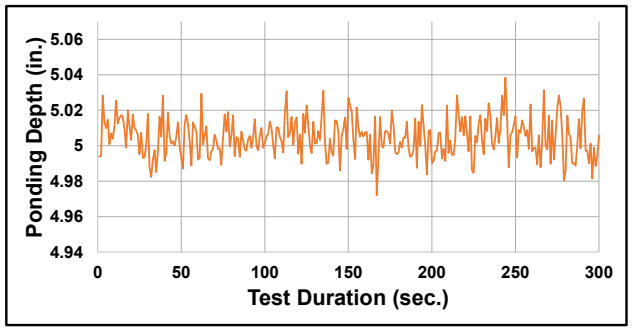
The graphs below show the magnitude and frequency of the fluctuations of ponding depths when tested with 4ft vertical pipe outlet.

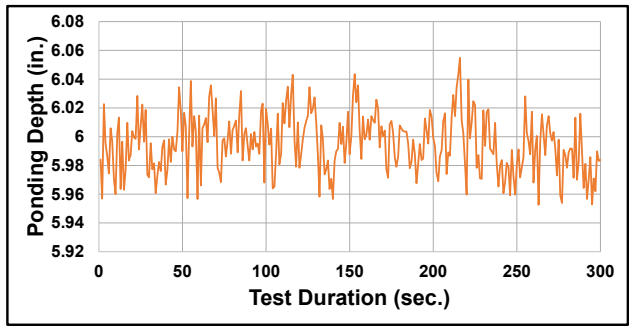












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Rev. -
Date: 10/31/2023
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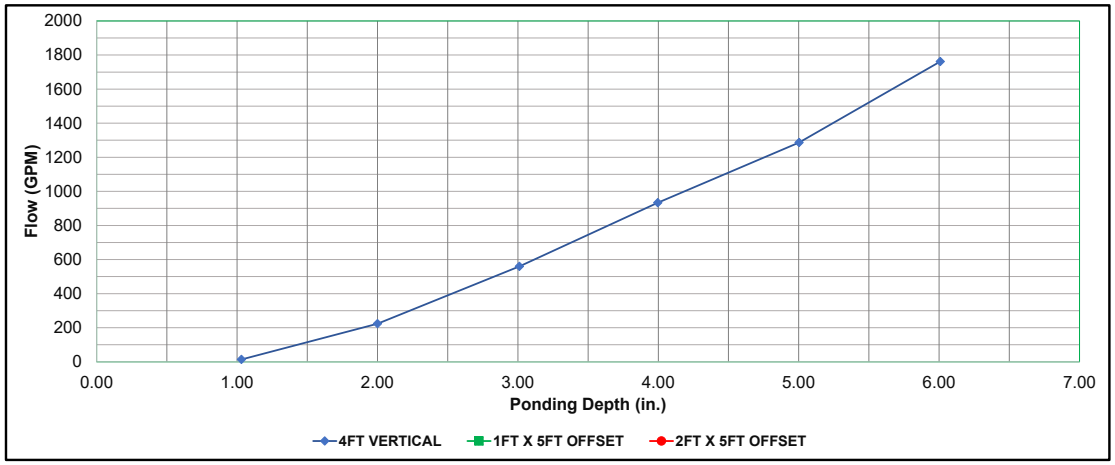
Z101-12NH

4ft Vertical Pipe Outlet		1x5 Offset Pipe Outlet		2x5 Offset Pipe Outlet	
Roof Ponding Depth (in.)	Flow Rate (GPM)	Roof Ponding Depth (in.)	Flow Rate (GPM)	Roof Ponding Depth (in.)	Flow Rate (GPM)
1.03	13.96				
2.00	223.95				
3.01	560.01				
4.00	933.66				
5.00	1286.73				
6.01	1761.75				



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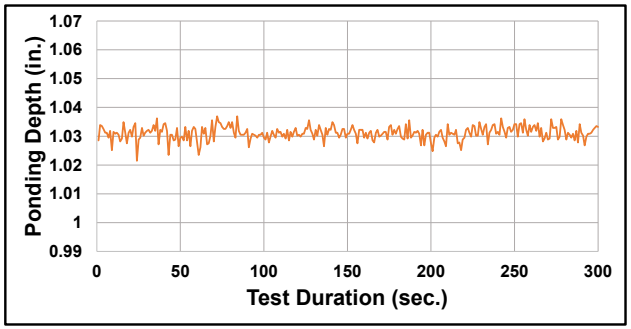

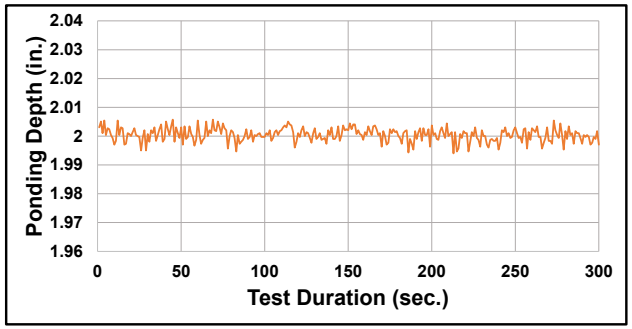

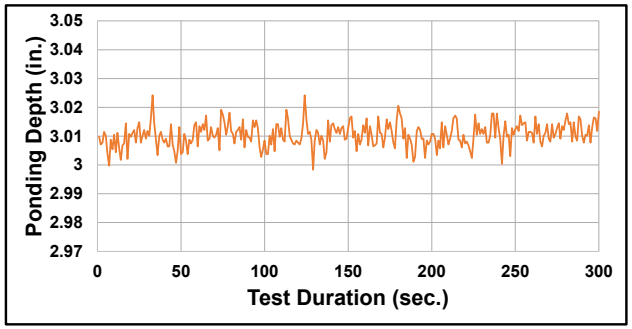

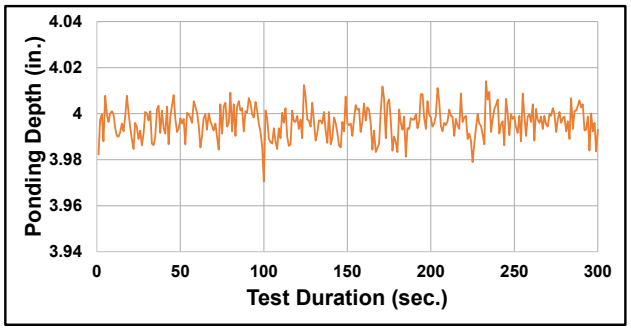

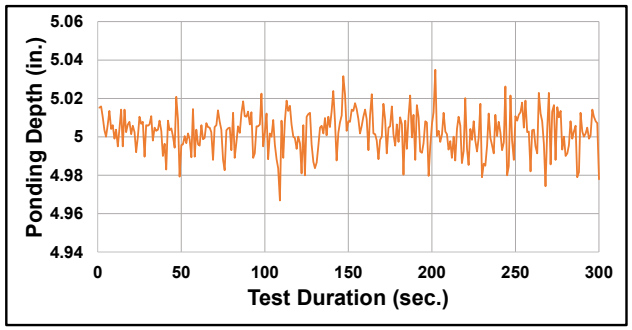

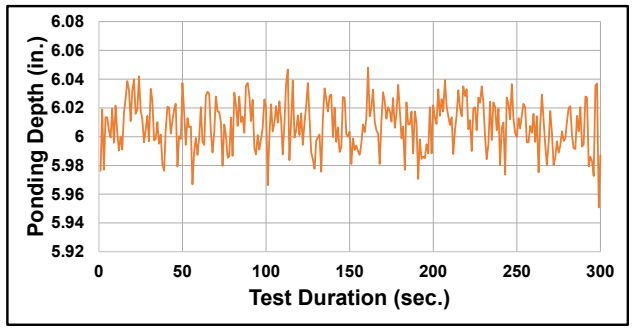

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