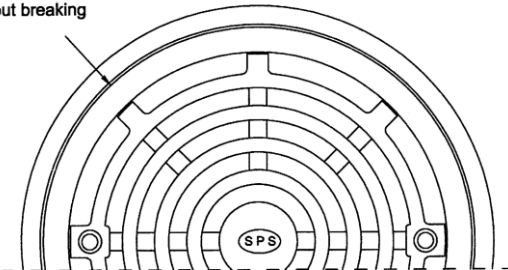
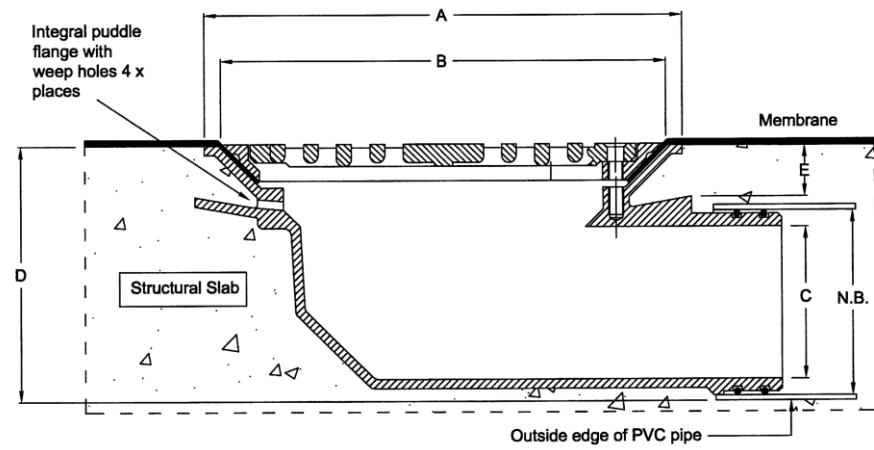
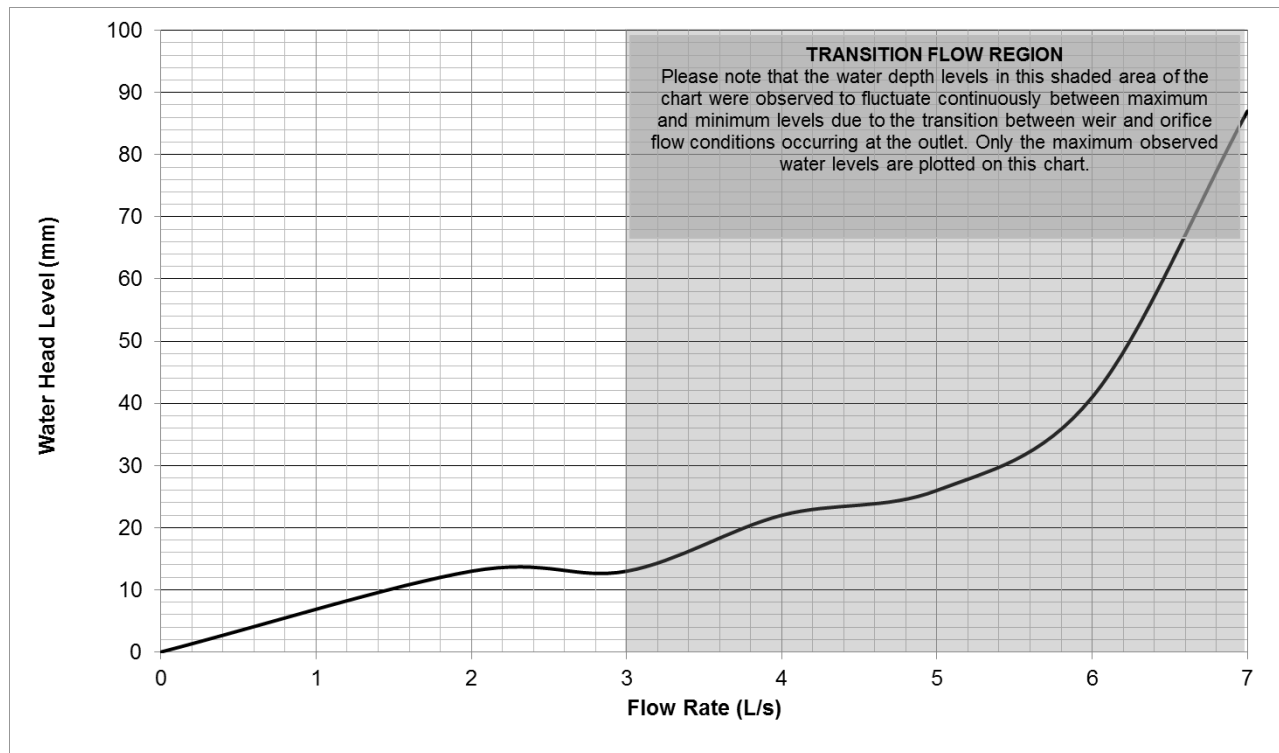


OUTLET PERFORMANCE CERTIFICATE ID: SPS030 - TIA100/90F2

| Test Results | | ID: SPS030 |
|---------------------------------|--|------------|
| Description | SPS Truflo 90 ⁰ RWO | |
| Drain Type | Flat Grate and Membrane Clamp | |
| Model | TIA100/90F2 | |
| Outlet Size | 100NB | |
| Test Date | 21/09/2016 | |
| Grate Drawing | <p>Membrane ring fastens to body independently of grate to allow access to sump without breaking membrane seal.</p>  <p>SPS Catalogue Ref: 1.07</p> | |
| Housing Drawing |  | |
| Drain Pipe Configuration | <p>O-ring connection was not possible due to 90 Degree housing outlet close proximity to tank frame. An alternative configuration of open outlet and flexible lay flat hose was utilised.</p> | |

Flow Characteristic Curve – TIA100/90F2



Weir Flow – 3 L/s (13mm)



Vortex/surcharged flow 4 L/s (20mm)

Observation Comments:

- Flow rates from 2.0-3.0 L/s (13mm Head) produced a flat characteristic curve with stable water head levels.
- At 4.0 L/s the weir flow transitioned to vortex flow, cycling between vortex and surcharged flow.
- At 5.0 – 7.0 L/s the flow surcharged with the water head rising rapidly to 90mm.
- The maximum flow limit to maintain weir flow conditions is 3.0 L/s.

I hereby certify that the test results presented on this outlet performance certificate are true and correct and were obtained using recognised AHSCA Gutter Outlet Testing procedures.

Dr Terry Lucke,
Chief Researcher:



Mark Alexander,
AHSCA Foundation Chairman:



Date: 16th November 2016

Date: 16th November 2016