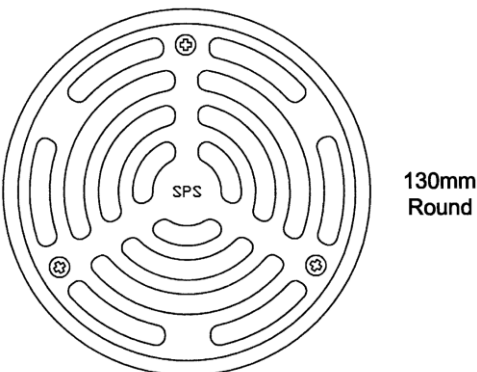
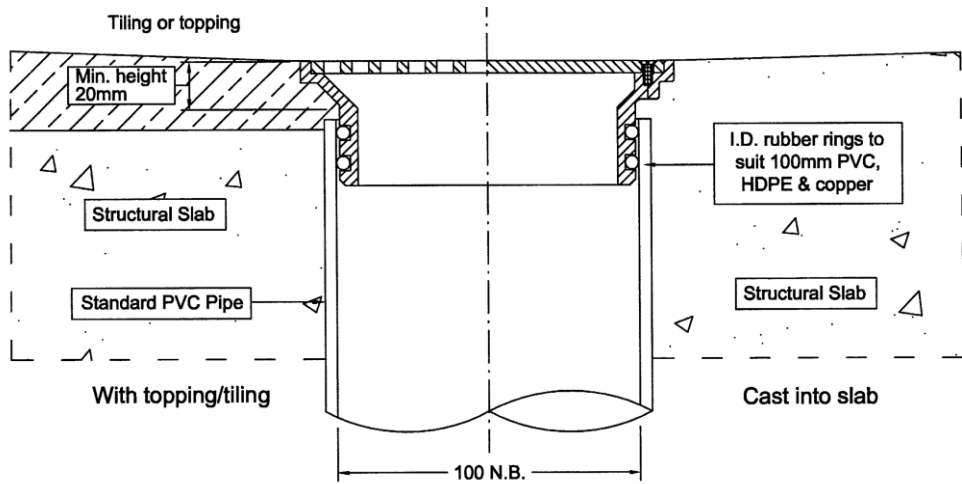
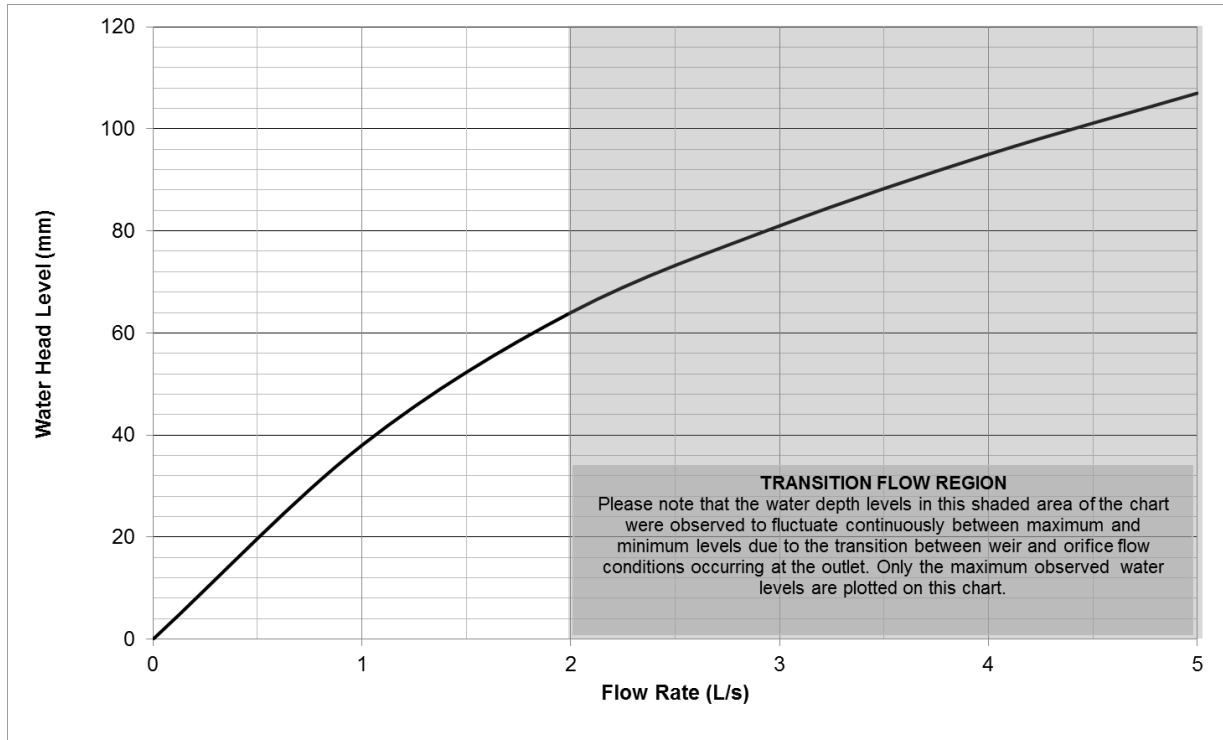


**OUTLET PERFORMANCE CERTIFICATE ID: SPS002 - R130SR4**

Test Results		ID: SPS002
<b>Description</b>	SPS Push In Floor Drain	
<b>Drain Type</b>	130mm Round	
<b>Model</b>	R130SR4	
<b>Outlet Size</b>	100 NB	
<b>Test Date</b>	30/08/2016	
<b>Grate Drawing</b>	 <p style="text-align: center;">SPS Catalogue Ref: 2.10</p>	
<b>Housing Drawing</b>		
<b>Drain Pipe Configuration</b>	Standard pipe configuration as shown in AHSCA test procedure. 5mm O-ring seal at pipe connection.	

### Flow Characteristic Curve - R130SR4



Weir flow - 1 L/s (40mm)



Orifice Flow - 3.0 L/s (80mm)

#### Observation Comments:

- A concentric swirl pattern and air core was observed which indicated weir flow conditions, with the water head level stabilising at each flow rate setpoint from 0-2.0 L/s producing a linear characteristic curve for all outlet pipe connections.
- At 3.0 L/s a transition from swirl motion to vortex flow was observed, as the air core decreased and moved to the side of the grate. At 3.0 L/s the vortex surcharged and transitioned to orifice conditions were characterised by the water level surging down 10 -20mm.
- The maximum flow limit to maintain weir flow conditions is 2.0 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: 16<sup>th</sup> November 2016

Date: 16<sup>th</sup> November 2016