

# Balmoral FireFlow™

## LPCB approved vortex inhibitor

Fire fighting water tanks require a large, fast flowing volume of water with a vortex inhibitor playing a key role in preventing air being drawn into the system and reducing the flow. Vortex inhibitors are fitted to the outlet pipe of the pumped water system.

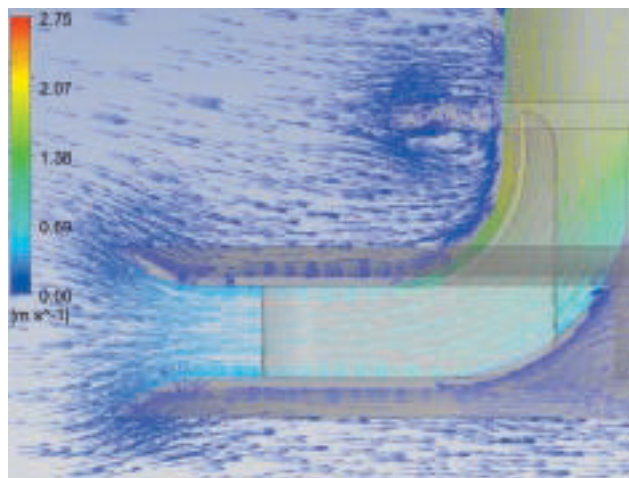
As LPCB standards require the usable water level to be no less than 100mm above the lowest suction point, the height of the vortex inhibitor also affects the effective capacity within a sprinkler tank.

Simple vortex inhibitors are available commercially; however the Balmoral FireFlow vortex inhibitor provides a significantly improved design which optimises both the capacity of the tank and the flow rate.

Balmoral's LPCB-approved vortex inhibitor was designed using computation fluid dynamics to remove turbulent areas that would otherwise reduce the flow rate.

Balmoral's unique design fully meets the requirements of LPCB's LPS 2070 and BS EN 12845 standards, including pipe dimensions, flow rate and mechanical strength, but with the advantage of increasing the effective capacity of the tank and decreasing the suction loss through the vortex inhibitor by an industry-leading 30%.

The injection moulded vortex inhibitors are made from structural thermosetting polyurethane, are fully corrosion resistant and range from 80-450mm in diameter. These PU materials are used by Balmoral's offshore division at water depths of 2000m and beyond.



This image is taken from a computational fluid dynamics analysis of the Balmoral FireFlow vortex inhibitor which clearly shows a smooth and uniform flow leading to drag reduction and a decrease in suction requirements

