

VORTEX INHIBITOR

Model No. VI-R-200

Product Introduction

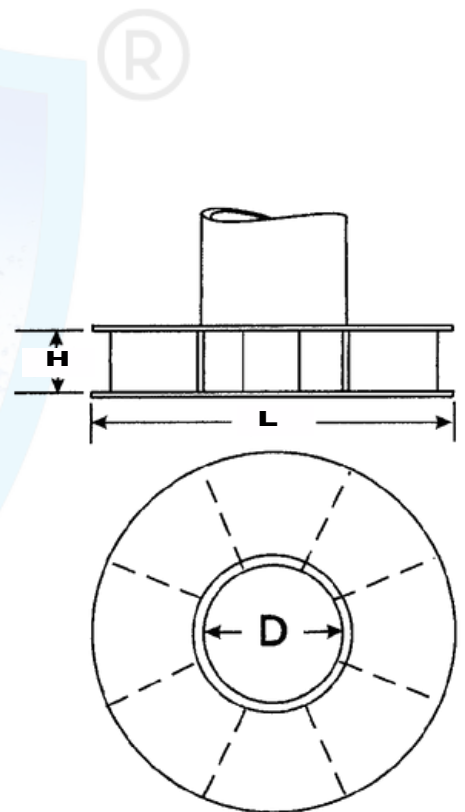
As the name suggests this specialised pipefitting prevents initiation of vortices within a tank when the contained liquid is being extracted and assists in maximizing, effective tank capacity.

Function:

Vortex Inhibitor is fitted internally to a tank's cold feed outlet pipe. This fitting ensures with no requirement for great inherent strength, moving or maintainable parts. The liquid is drawn from a wide area within the vessel, dramatically reducing the entrance flow velocity and hence the initiation of surface vortices. This allows the maximum possible drawdown of the liquid's surface level.

Benefits of installing Vortex Inhibitor:

- Once installed inside the tank, it converts linear flow to radial flow which prevents a straight stub pipe from drawing liquid from a localised area within the tank, thus minimising the risk of vortex formation.
- Air entrainment and its resultant choking effect on full flow discharge is eliminated whilst potential damage to pumps, through over speeding, is safeguarded.
- Generally, discharge rates from water tanks under gravity conditions are lower but if the flow velocity exceeds, say 1 m/s, or where the pumps are employed, it is highly desirable to protect the downstream system by fitting of a Vortex Inhibitor.
- The design parameters of the Vortex Inhibitor ensure the flow velocity at its entrance is **6 x less** than the pipe flow velocity, which it feeds.



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Product Introduction

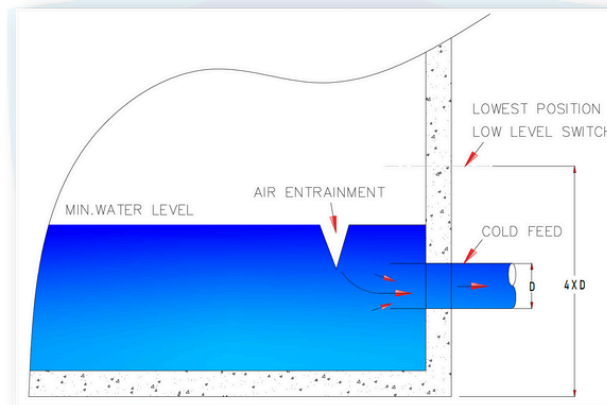
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Working Principle:

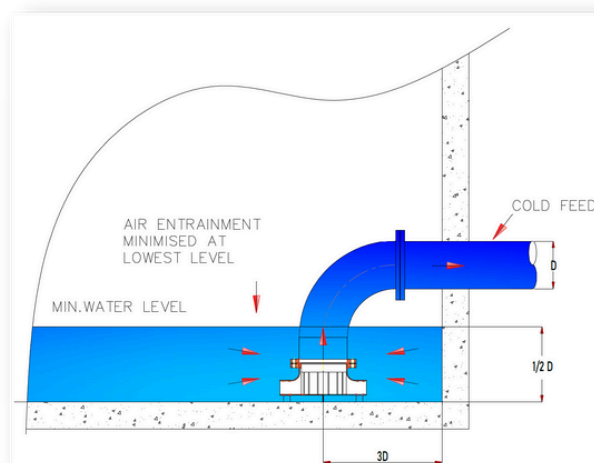
With a conventional side entry cold feed stub pipe the minimum draw down level should be at least 1 pipe diameter above the soffit of the pipe and for 2 pipe diameter the positioning of a low level pump cut off switch.

In other words, the lowest practical draw down level for a side entry connection to a pump set ensure no air entrainment is 4 pipe diameters above the tank base.



With the installation of a Vortex Inhibitor to this outlet pipe, it will increase the tanks actual effective water depth by 3.5 x Outlet Pipe diameters. This might not seem a vast improvement but for conventional water storage use, a tank could be sized 12% to 17% smaller for any given capacity and would provide considerable cost and space savings.

Where additional actual capacity is desired or a necessity, (Sprinkler Tanks require to have a mandatory fitting) an effective 15% to 20% greater capacity is obtained.



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Technical Data Sheet

VORTEX INHIBITOR

Model No. VI-R-200

Features:

- Compact Design
- Light Weight & Robust Construction
- Corrosion Resistance
- Reliable Performance with Zero Maintenance Required

Technical Specification:

- Name of the item: Vortex Inhibitor
- Model Number: VI-R-200
- MOC: Stainless Steel / MS (Galvanized)
- Media: Water
- Temperature: Ambient
- Warranty: The product is guaranteed against defect in the material and workmanship within 12 months from date of delivery
- Schematic: As per client requirement

Ref. Figure:



Size D	L	H
DN 150	468	79
DN 200	502	100
DN 250	587	100
DN 300	637	100

Note:

Any Specifications and information indicated in this catalogue are subjected to change without prior notice.

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