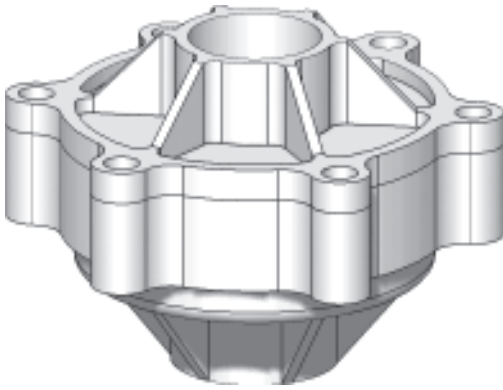


NEW!
from Flow-Rite

VORTEX™

FLOW AND PRESSURE LIMITER

*AUTOMATICALLY PROTECTS CENTRIFUGAL PUMPS AND BAITWELLS FROM DAMAGING
HIGH PRESSURES AND FLOW RATES GENERATED BY HIGH SPEED PICKUPS*
Patent Pending

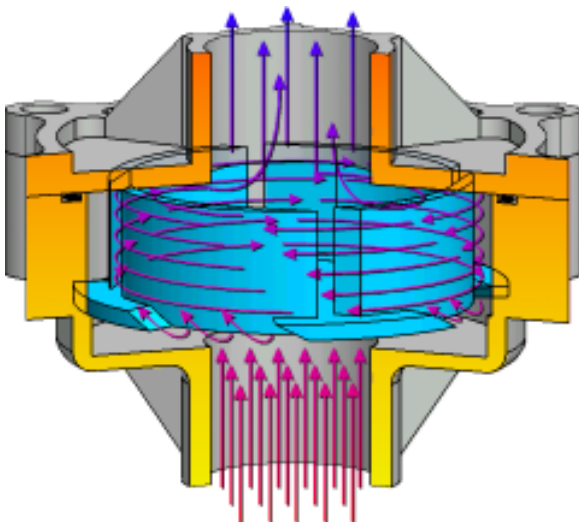
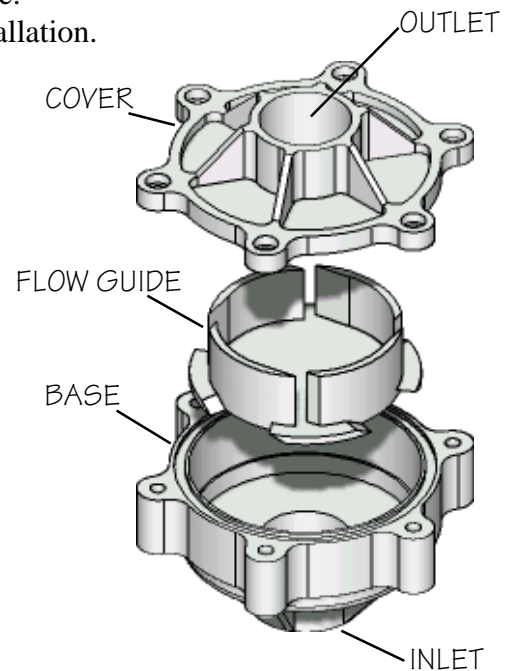


- No moving parts.
- Automatically controls pressure at pump inlet at any boat speed.
- Automatically controls flow rate to livewell or baitwell.
- Unrestricted flow path.
- For fresh and saltwater applications.
- Requires no operator assistance.
- Compatible with centrifugal aerator pumps.
- Prevents damage to delicate baits from excessive pressure.
- Promotes maximum pump life.
- Compact size for ease of installation.

By installing Flow-Rite's new Vortex flow and pressure limiter in line between the seacock at the pickup and the pump inlet, the most common problems associated with the use of high speed pickups are virtually eliminated.

Without any moving parts, without any flow path restriction, and without any operator assistance, water pressure and flow rate are automatically controlled in direct proportion to boat speed. Excessive pump inlet pressure at high boat speed is eliminated, yet allows full pump performance at rest. Livewell and baitwell overflows can be sized to meet a nominal pump flow rate without worry of over filling at high boat speeds.

The pump inlet pressure protection provided by the Vortex limiter allows the use of economical centrifugal pumps without fear of excessive pump seal and motor brush wear.



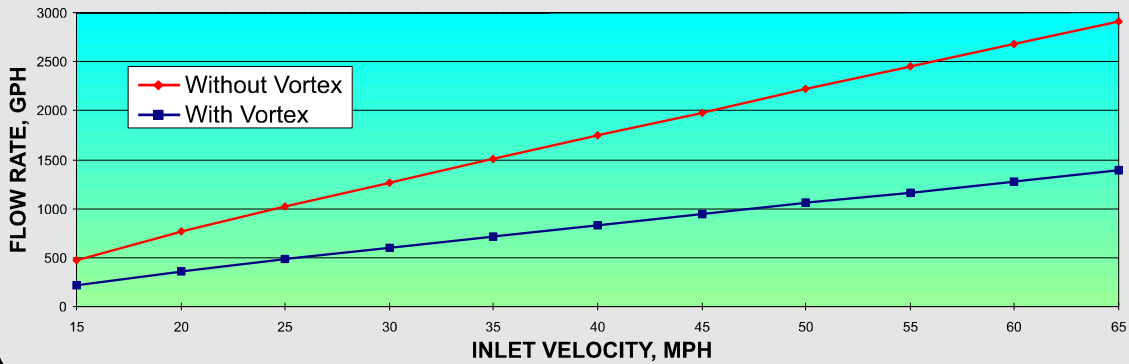
As boat speed increases, the pressure at the Vortex inlet increases. Water is directed past specially designed entry ramps of the flow guide to create a circular flow pattern. As boat speed increases, so does the centrifugal force or pressure of this flow making it increasingly difficult for the flow to move radially inward, toward the center outlet, thus eliminating excessive pressure and flow. As boat speed is reduced, the centrifugal force and pressure are reduced accordingly. The result is a more uniform controlled flow to the pump inlet at all speeds. At zero boat speed, the pump is allowed to function at normal operating parameters.



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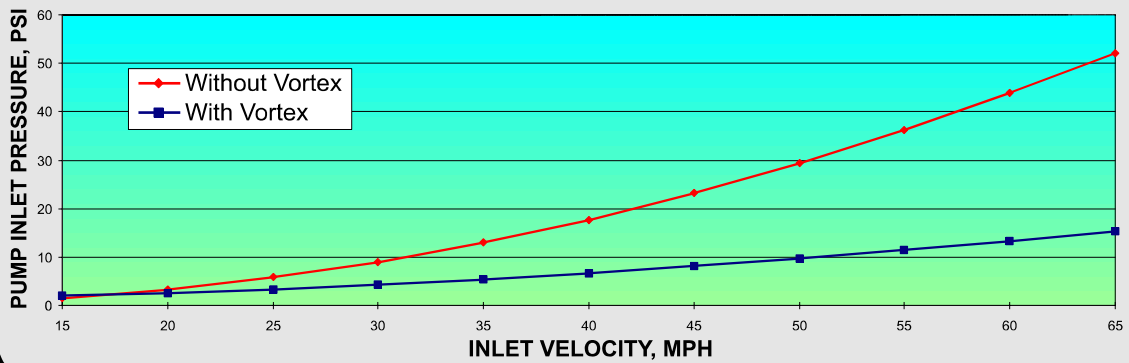
FLOW RATE vs. INLET VELOCITY



Tremendous flow rates can be generated by high speed pickups. The addition of the Vortex limiter will keep these flow rates well within a tolerable range as shown in the above graph.



PUMP PRESSURE vs. INLET VELOCITY



This graph shows how high boat speeds can create extremely high and damaging pressures at the pump inlet and the dramatic pressure reduction provided by the simple addition of the Vortex limiter.

