

Performance Vent System

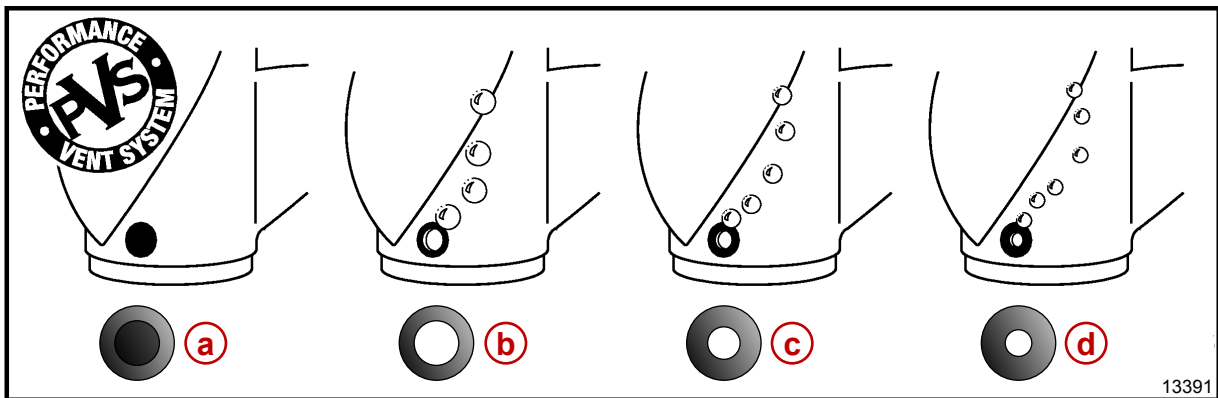
The performance vent system (PVS) was created to help our customers optimize Mercury Propellers on their personal boat and unique boating conditions. PVS allows the boater to custom tune the venting of the propeller blades to dial in the perfect acceleration and cruising performance.

On acceleration, exhaust is drawn out of the vent hole located behind each propeller blade. When the next propeller blade strikes this aerated water, less force is required to push through the aerated water versus solid water. This allows the engine RPM to rise more rapidly. Once on plane speed is reached, water flowing over the vent holes seal the exhaust gas in the hub, allowing the propeller to again operate in solid nonaerated water. By varying the size of the exhaust vent hole, the rate at which the engine RPM rises can now be controlled.

Laser II, Trophy Plus, and Tempest Plus propellers are shipped with medium PVS vent plugs; and Mirage Plus, Offshore, Revolution 4, and HighFive propellers are shipped with solid PVS vent plugs offering all-around performance for most boating situations.

Acceleration Problem/Solution

1. Slow/sluggish acceleration to plane (engine unable to push solid water away quickly).
 - **Solution:** Increase ventilation by using a plug with larger holes.
2. Over ventilation - the load on the propeller is significantly reduced by the mixing of exhaust into the water stream causing an engine overrevving condition before the vessel is on plane.
 - **Solution:** Decrease ventilation by using a plug with a smaller hole or use a solid plug.



- a - Solid plug
- b - Large - 12 mm (0.470 in.)
- c - Medium - 9 mm (0.350 in.)
- d - Small - 7 mm (0.280 in.)