



Qmax-XS Mid-Ship Pump

3000 GPM Performance Test

The Qmax-XS mid-ship pump delivers superior performance as advertised in August 2014. The advertisement touts the pump's ability to achieve flows in excess of 3000 gallons per minute (GPM). The purpose of this white paper is to define the tested pump performance.

With regards to pump performance, there are several limiting factors, among these: available engine horsepower and water supply. As diesel technology has evolved so has pumping capacities. Having available horsepower and a pump with built in reserve capacity can move water far in excess of the NFPA rated flow. The reserve of the Qmax-XS pump is due to the oversized and streamlined waterways that were used in its robust design.

For rated flows, pump manufactures must use 6 feet of lift for a 2250 GPM pump. Real world flows can be much different depending on the environmental factors such as having to pull a draft from a large elevation difference which will affect your performance negatively or having an adequate water source that is pressurized will support higher than rated flows.

At over 3,000 GPM,
this pump performs like
a beast.

(Kind of looks like one too.)



Since 1914, Hale has been building the pumps that the world performs. And the Qmax-XS isn't designed to look good in a photo - it was designed to knock the rest with single pumps. That's why it has oversized discharge passages and other parts to encourage large flows over 3000 gallons per minute. And that's why the compact, durable lightweight reserves makes the pump lighter out of your fleet. For help in the other hand, call us at the end of the line.

Call us at 1-800-533-3569 to find out more, or visit haleproducts.com.



Test criteria

Pump: Qmax-XS with G Gearbox. In its standard configuration the Qmax-XS has twelve 4" 8-bolt ports that can support these large flows. The test pump also had Master Intake Valves (MIV's) installed on the left and right steamers. The butterfly disk of the MIV helps in creating a more laminar flow as the water passes. In addition to maximizing performance the MIV allows the intake relief valve to be placed behind the pump panel for safety.

Engine Horsepower: The electric dyno used to test all mid-ship pumps prior to shipment from the Hale manufacturing facility in Ocala, FL was limited to 450 hp for this test.

Test meters: Electromagnetic flowmeters which were connected to the 4 inch monitor port (port H) on top of the pump.

Water source: Hale's test house supplied water to the left and right steamers. The static water pressure was 50 psi (a common pressure range found at most hydrants).

Results: The Qmax-XS was able to flow 3,100 US GPM at 150 psi through a 4" port with a 40 psi residual inlet pressure.

Conclusion: Whenever exceeding the rated performance of a system, all the elements need to be considered. Engine, transmission, cooling, as well as the flow rating of the discharge appliance need to be considered to maximize the 'Big Water' delivery performance. The Qmax-XS with its built in reserve capacity in a smaller package provides the extra performance when needed and assures many years of reliable performance at typical levels.

For more information about Hale's Qmax-XS and its superior performance, please feel free to contact Hale's customer service center at 1-800-533-3569.