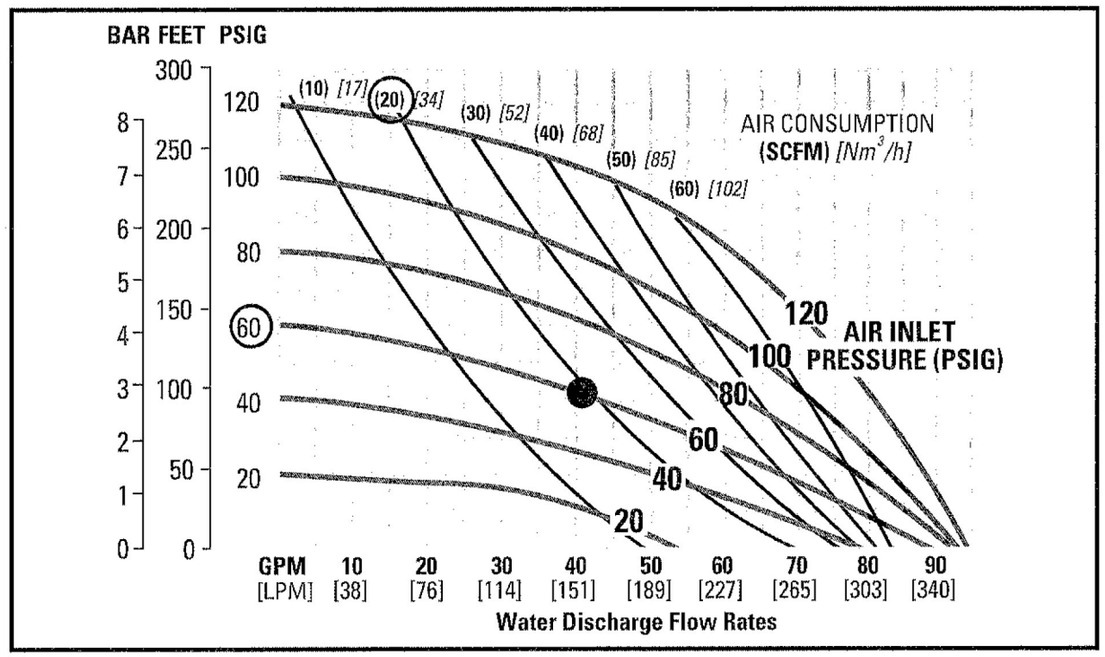
A pump should be selected which will operate between the 25 and 75 percentile range of capacity.

For optimum life and performance, pumps should be specified so that daily operation parameters will fall in the middle of the pump performance curve. Wilden publishes 4 different performance curves for most metal and plastic pump models. These performance curves are unique due to the different stroke lengths of the diaphragm assemblies. The four classifications are: 1) Rubber-fitted pumps; 2) Ultra-Flex™-fitted pumps; 3) Thermoplastic (TPE)-fitted pumps; and 4) PTFE-fitted pumps. When applicable, all four of these curves are included in the Engineering, Operation, and Maintenance manuals (EOM's).



How to read a Wilden performance curve: Determine the flow rate your application requires and calculate the Total Discharge Head (page 15). Plot the intersection of the discharge head on the vertical axis to the flow rate on the horizontal axis. Now the air supply pressure and air supply volume can be extracted from the curve. Simply locate the solid black line closest to this intersection and follow it to the vertical axis to the left. This is the air supply pressure needed to provide the flow rate you require at the given discharge head. Next locate the closest

gray line to the intersection and follow it up to where the numbers are provided. These numbers indicate the air supply volume needed to provide the flow rate you require at the given discharge head.

To pump 151 lpm (40 gpm) against a discharge pressure head of 2.7 Bar (40 psig) requires 4.1 bar (60 psig) and 30.6 Nm3/h (18 scfm) air consumption. Dot on chart represents the plotted intersection and the circled numbers are the air pressure and volume figures.

Total Dynamic Head Calculation

Please refer to the example on page 71 for calculating your TDH (Total Dynamic Head). Wilden publishes a Pump Viscosity and Cavitation Chart (E6) that needs to be used in accordance with the boxed worksheet to obtain the Total Dynamic Head. Process fluid viscosity plays an integral part in calculating TDH. The more viscous a product, the more head a pump has to overcome to move that product. Please contact your authorized Wilden distributor for more information.

Chemical Compatibility

Wilden's Chemical Resistance Guide (E4) should be used in conjunction with personal experience to select wetted pump construction and elastomers for chemical compatibility with the process fluid.