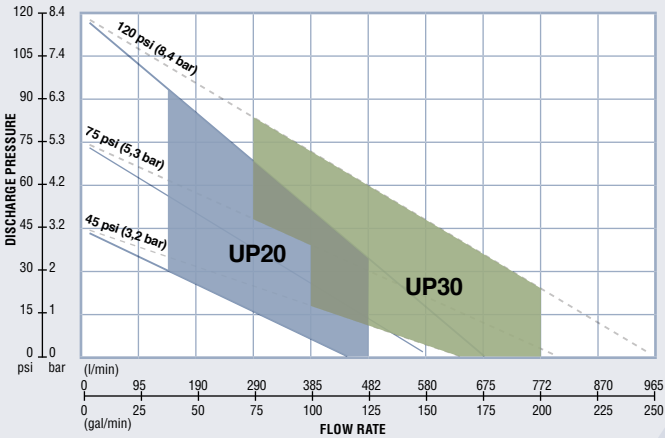


# UP PUMP SIZE SELECTION

## PUMP SIZE - PERFORMANCE CHARTS



The desired flow rate and discharge pressure required can be met, for most applications, by multiple pump sizes. The optimal size is achieved when the expected pump working conditions are in the middle part of its Performance Chart. Selecting the larger size pump will result in less repair downtimes and parts, labor and energy cost reductions, thus bringing down the apparent initial investment.



## HOW TO READ A PUMP PERFORMANCE CHART

Pump performance chart provides data how a particular pump performs at certain conditions. The left scale of the chart shows discharge outlet pressure and the bottom scale on the chart shows the flow rate. Performance chart can also show the pump air consumption (dotted line on the chart).

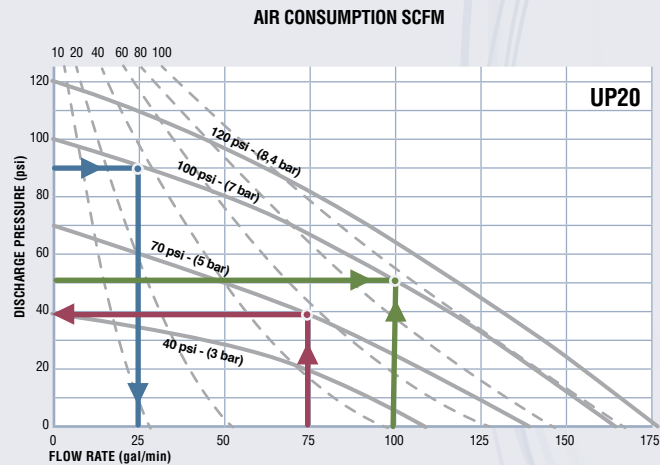


Chart obtained with water at room temperature (70 °F - 20 °C).

--- AIR CONSUMPTION  
— PUMP FLOW



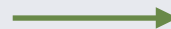
### TO FIND THE PUMP DISCHARGE PRESSURE

1. Locate the desired flow rate along the bottom of the chart (75 gal/min).
2. Follow the vertical line up to the intersection with the pump capacity curve at the fixed air inlet pressure (70 psi).
3. Follow this point left and read the pump discharge pressure (Close to 40 psi).



### TO FIND THE PUMP FLOW RATE

1. Locate the known discharge pressure drop on the left of the chart (90 psi).
2. Follow a horizontal line to the intersection with the pump capacity curve at the fixed air inlet pressure (100 psi) feeding the pump.
3. Follow this point down and read the pump flow rate (25 gal/min).
4. Air consumption in this case is 47 scfm.



### TO FIND THE AIR INLET PRESSURE AND AIR CONSUMPTION

1. Locate the desired flow rate along the bottom of the chart (100 gal/min) and follow a vertical line.
2. Locate the known discharge pressure on the left of the chart (50 psi) and follow a horizontal line.
3. The intersection of these two lines determine the pump operating point. Air inlet pressure should be set at 100 psi and the air consumption would be 115 scfm.