

## TUBING SELECTION GUIDELINES

To maximize the pumping efficiency of viscous fluid, follow these steps.

1. Slow down the speed of your pump. Increasing the speed beyond a certain point will not have any effect on flow rate. The maximum efficient speed of the pump decreases as viscosity increases and tubing size decreases.
2. Choose a larger size tubing than required to pump water. The table below will help you choose the best size.
3. Choose a firm tubing such as Norprene®, PharMed®, Viton®, or Tygon® LFL. Performance will be better because the tubing returns to its original shape quickly after pump head occlusion. For L/S® and I/P® sizes, choose High-performance precision tubing—the thicker wall also returns more quickly to its original shape than Precision tubing. The quicker return allows liquid to be pulled into the tubing with greater force.
4. Select a tubing with a smooth bore. A smooth bore will decrease frictional forces. Tygon®, Tygon® LFL, silicone, or Tygon® silicone formulation are good choices.
5. Decrease the viscosity of your fluid. Heat your fluid if possible; viscosity usually decreases with temperature.