

sTEm-at-Work

Puzzle #61

Pump Part selection for thick fluid applications

A new technician at a pump repair company is asked to rebuild positive displacement pumps for a customer that uses their pumps to transport viscous fluids. The technician knows that for constant viscosity (constant thickness) fluids; a higher pump pressure applies a higher stress on the fluid; the Shear Rate of the fluid always increases linearly with Applied Stress; the fluid's Shear Rate value multiplied by the fluid's viscosity value always equals the Applied Stress value. The tech knows this customer always uses their pumps to move a fluid that gets thinner when the pump applies more pressure on that moving fluid. The tech also reviews the graphic at the red and green data points and, even though there are no values provided on the ordinate (y-axis) or the abscissa (x-axis), is absolutely positive which Repair Kit to use.

The Technician selects Repair Kit #450.

yes or no

