

1.90 Estimate the minimum absolute pressure (in pascals) that can be developed at the inlet of a pump to avoid cavitation if the fluid is carbon tetrachloride at 20 °C.

Cavitation may occur when the suction pressure at the pump inlet equals the vapor pressure.

For carbon tetrachloride at 20°C $p_v = 13 \text{ kPa (abs)}$.

Thus, minimum pressure = 13 kPa (abs)