

78. The diameter of the brass disk in the dry ice is

$$\begin{aligned} D' &= D(1 + \alpha\Delta T) \\ &= (80.00 \text{ mm}) [1 + (19 \times 10^{-6}/\text{C}^\circ) (-57.00^\circ\text{C} - 43.00^\circ\text{C})] \\ &= 79.85 \text{ mm} . \end{aligned}$$