$$V_{sc} = \left(V_f - V_a\right)\frac{T_{std}}{P_{std}}\left[\frac{P_f}{T_f} - \frac{P_i}{T_i}\right] \qquad \text{Eq. 7-2}$$

$$= K_1\left(V_f - 25\right)\left[\frac{P_f}{T_f} - \frac{P_i}{T_i}\right]$$