

$$\left(\frac{W_{new}}{W_{old}}\right) = \left(\frac{D_{new}}{D_{old}}\right)^{-4} \left(\frac{Q_{new}}{Q_{old}}\right)^3$$

$$\left(\frac{W_{new}}{809.8 \text{ watts}}\right) = \left(\frac{18.5 \text{ inches}}{24 \text{ inches}}\right)^{-4} \left(\frac{4816 \text{ cfm}}{5064.9 \text{ cfm}}\right)^3$$

$$\frac{W_{new}}{809.8 \text{ watts}} = (.77)^{-4} (.95)^3$$

$$\frac{W_{new}}{809.8 \text{ watts}} = \frac{.95^3}{.77^4}$$

$$\frac{W_{new}}{809.8 \text{ watts}} = \frac{.86}{.35}$$

$$\frac{W_{new}}{809.8 \text{ watts}} = 2.46$$

$$W_{new} = 2.46 \times 809.8 \text{ watts}$$

$$W_{new} = 1992.11 \text{ watts}$$