

ERRATA for
FE Environmental Practice Exam
ISBN: 978-1-932613-98-8
Copyright ©2020 (1st printing January 2020)
Errata posted 07/01/2020

Solution 25, p. 64:

The solution should read as follows:

- 25.** Refer to the Cylindrical Pressure Vessel section in the Mechanics of Materials chapter of the *FE Reference Handbook*.

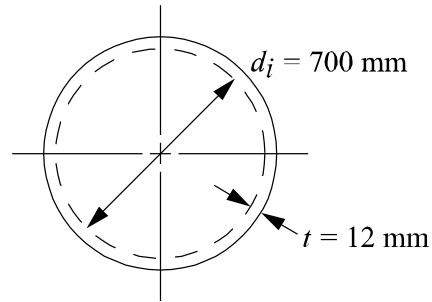
The cylinder can be considered thin-walled if $\frac{t}{\frac{d_i}{2}} \leq 0.10$. In this case, $t = 12$ mm and $d_i = 700$ mm.

Since $\frac{t}{\frac{d_i}{2}} = \frac{12}{350} = 0.034$ which is ≤ 0.10 , the pipe is thin-walled.

$$\text{Thus } \sigma_t = \frac{P_i r}{t}$$

$$\text{where } r = \frac{r_i + r_o}{2} = \frac{350 + 362}{2} = 356 \text{ mm}$$

$$\sigma_t = \frac{(1.680 \text{ MPa})(356 \text{ mm})}{12 \text{ mm}} = 49.8 \text{ MPa}$$



THE CORRECT ANSWER IS: B