P #9 Ch 23 - pg 742

$R = 2.50\,m$
$d_o = 2.00\,m$

Find f:

$$f = \frac{R}{2} = \frac{2.50\,m}{2}$$

$$f = 1.25\,m$$

Find d_i:

$$\frac{1}{d_o} + \frac{1}{d_i} = \frac{1}{f}$$

$$\frac{1}{2.0\,m} + \frac{1}{d_i} = \frac{1}{1.25\,m}$$

$$d_i^{-1} = 1.25\,m^{-1} - 2.0\,m^{-1}$$

$$\boxed{d_i = 3.33\,m}$$