

Problem 13.53 Giles

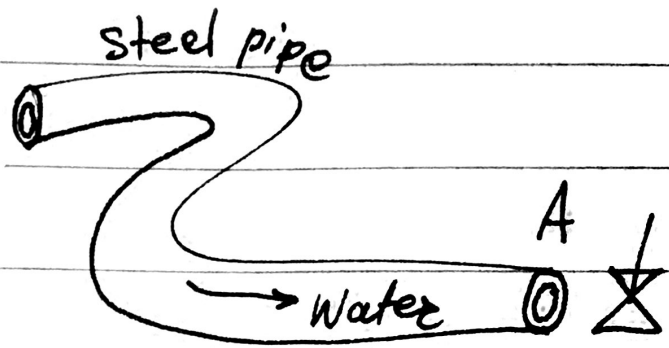
Pipe Dia 48"  $\phi$

Thickness 3/8"

temp. 60°F

Velocity 6 ft/sec

Length 10 000 ft



If a valve at A is shut in 2.5 sec,  
what increase in stress in the  
walls of the pipe can be expected?

$$\text{Tensile stress } \sigma = \frac{\text{pressure} \times \text{radius}}{\text{thickness}}$$

Ans. 16300 psi