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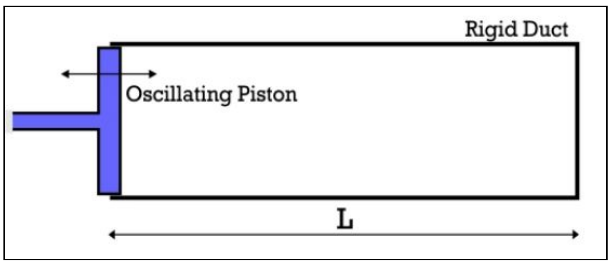
Due on 2017-09-10, 23:59 IST

Consider a rigid acoustic duct of length L. At one end on the duct there is a harmonically oscillating piston ($u=U_0 e^{i w t}$). Investigate the nature of acoustic response in this duct.
(a) Separately animate the two travelling wave component of the solution.
(b) Animate the superposition of the traveling wave(VIZ. standing wave) components of the solution.

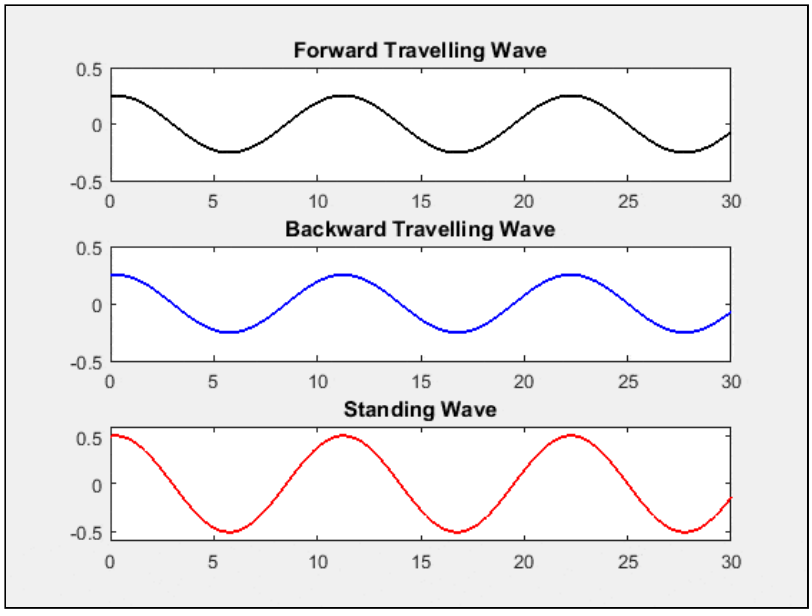


Use subplot command in MATLAB to animate in single figure window. Animation time = 10 s.

Use the following parameters

1. Speed of sound= 330m/s
2. Length of duct=30m
3. Width of duct=0.5m
4. U_0 = 0.1 m/s
5. omega(w)= 60 pi rad/s
6. Density of the medium=1.2kg/m^3

Following is the expected animation file



File name should be in "Firstname_Lastname.m" format.

Your Submission:

Due Date Exceeded.
As per our records you have not submitted this assignment.