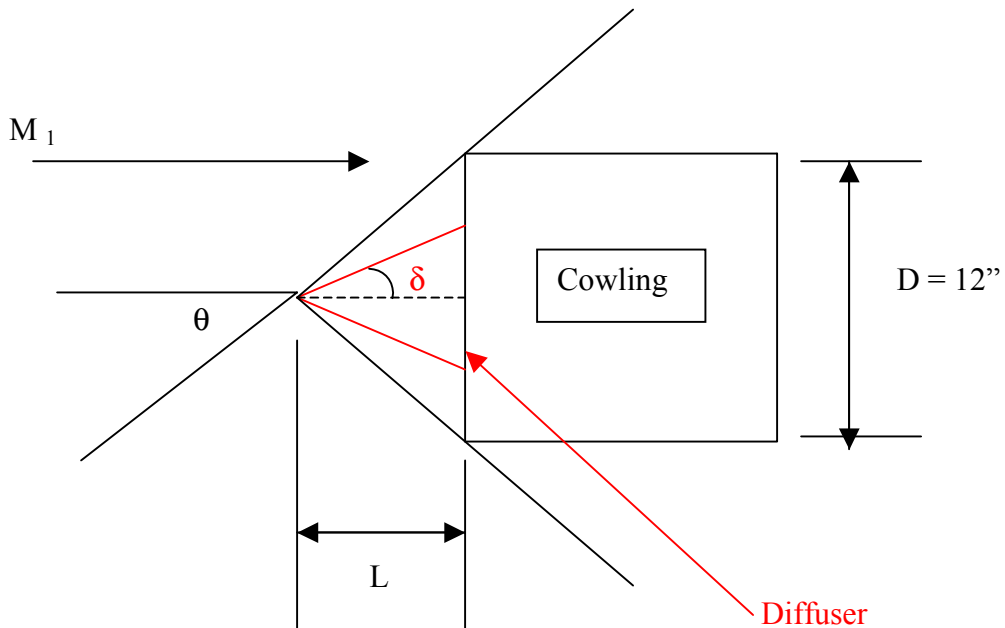


Homework Assignment (Ramjet)
Assigned: 11/28/01
Due: 12/5/01

Given the following Ramjet inlet:

$$M_1 = 3, \delta = 15^\circ$$



Find:

- A) The exposed length of the diffuser (L), which allows optimum shock angle. Note: optimum performance occurs when the shock wave meets the cowling.
- B) With the diffuser cone angle (δ), vary (M_{1n}) and plot pressure ratio (p_{02}/p_{01}) vs. (M_{1n}) for a range of (M_{1n}) 1 to 4.