

ME EN 2450  
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System Modeling:

Results Summary(Energy and average driving force):

d(in)	h(in)	P1(psi)	Energy(J)	Average Force(N)
2.	10.	10.	1.161	0.116
2.	10.	100.	420.654	42.065
2.	10.	150.	824.182	82.418
8.	20.	10.	37.142	3.714
8.	20.	100.	13460.94	1346.094
8.	20.	150.	26373.813	2637.381
8.	24.	150.	31648.575	3164.858

Implications: From applying different diameters(d), heights(h), and starting pressures(P1) the theoretical energy output and average force were recorded above. We notice with a higher starting pressure and a larger volume(related to d and h) we get a higher energy output and average driving force. We notice that we get a lower energy output and lower average driving force with a lower starting pressure and lower volume. We can modify these parameters in order to get the correct amount of energy output to go the correct distance and not over or undershoot.