

$$V=1.5 \text{ m/s}$$

$$\rho(\text{air})=1.25 \text{ kg/m}^3$$

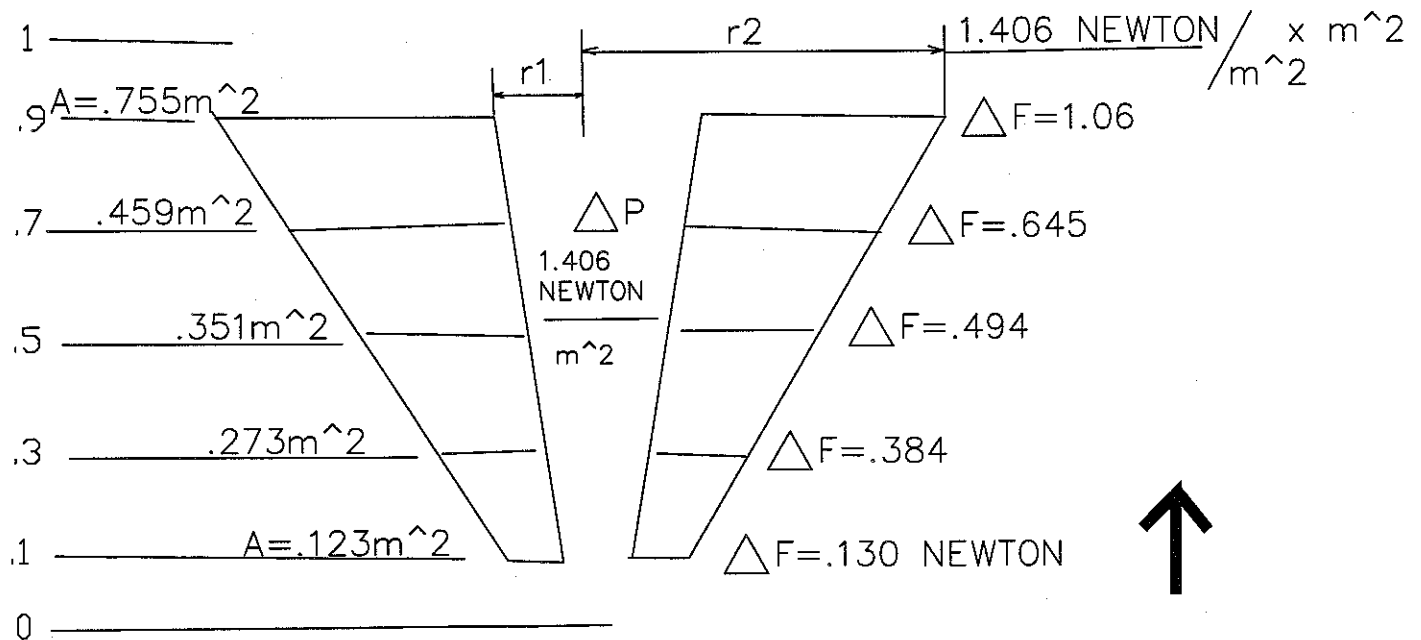
@ .1	r1=.05	r2=.2
@ .3	r1=.10	r2=.3
@ .5	r1=.14	r2=.35
@ .7	r1=.16	r2=.4
@ .9	r1=.17	r2=.5

$$\Delta P = \frac{1}{2} \rho V^2$$

$$\Delta P = \frac{1}{2} \times 1.25 \times (1.5)^2$$

$$\Delta P = .625 \times 2.25 = 1.406 \text{ NEWTON/m}^2$$

$$\Delta F = \Delta P \times A$$



VELOCITY & (THEREFORE)  $\Delta P$  IS CONSTANT FROM BOTTOM TO TOP. INCREASE IN AREA FROM BOTTOM TO TOP DETERMINES MAGNITUDE AND DIRECTION OF FORCE. TO BE A FUNNEL, THE "WALLS" HAVE TO GET THICKER FROM BOTTOM TO TOP.