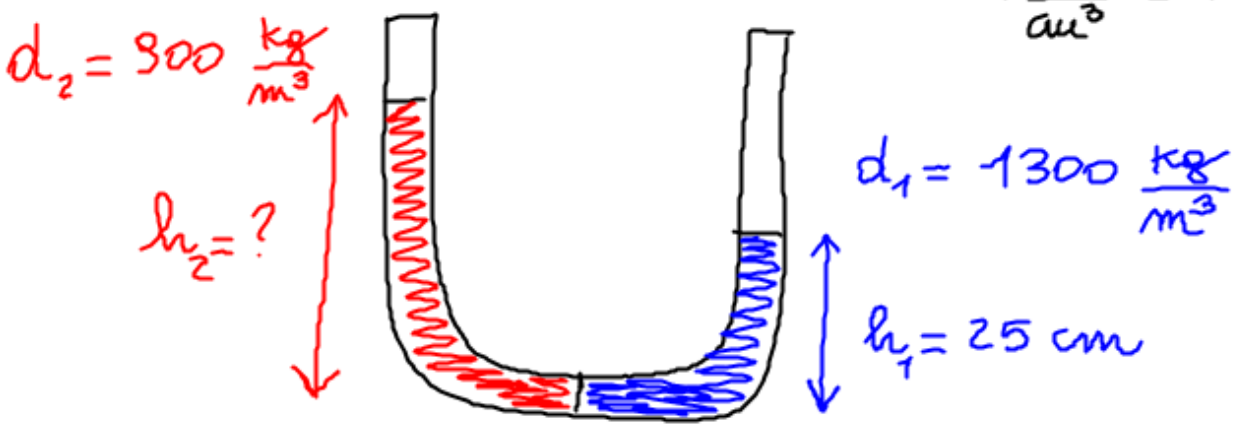
PAG. 128 N 23

$1\ \frac{kg}{m^3} = \frac{1000}{1000000}\ \frac{g}{cm^3} = 10^{-3}\ \frac{g}{cm^3}$

$1\ \frac{g}{cm^3} = 10^{3}\ \frac{kg}{m^3}$



LEGGE DI STEVINO $\Longrightarrow$ $d_2 h_2 = d_1 h_1$

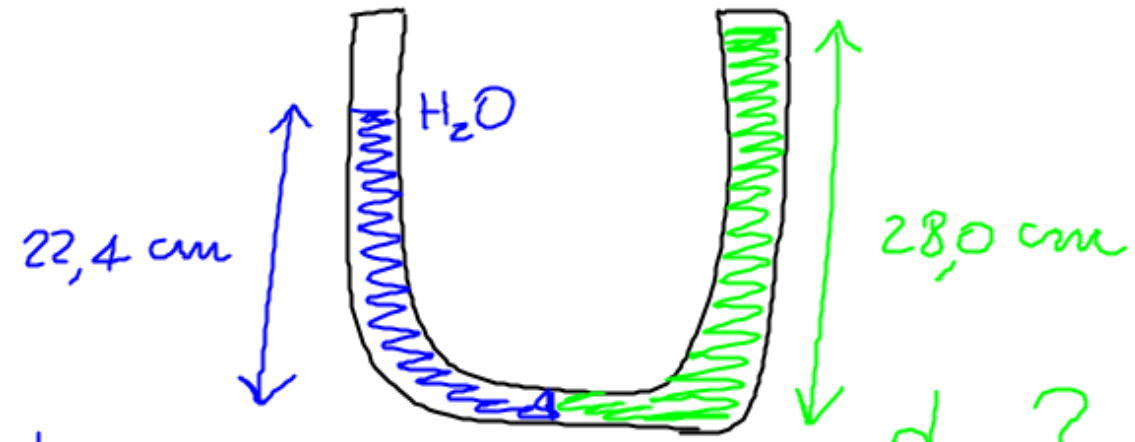
$p = d h g$

$d_1 h_1 g = d_2 h_2 g$

$h_2 = \frac{d_1 h_1}{d_2} = \frac{\left(1300\ \frac{kg}{m^3}\right)(25\ cm)}{900\ \frac{kg}{m^3}}$

$\cong 36\ cm$

N 24



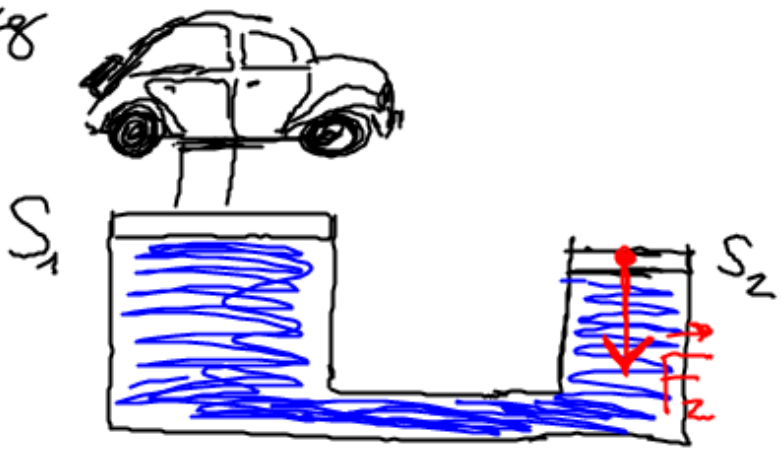
$d_{H_2O} = 10^3 \frac{kg}{m^3}$

$$d = \frac{d_{H_2O} \cdot (22{,}4\ cm)}{28{,}0\ cm} = 800 \frac{kg}{m^3}$$

OLIO DI PARAFFINA

N 31

$m_1 = 3400\,kg$



$\frac{S_1}{S_2} = 250$

$F_2 = ?$

PER PASCAL

$$p = \frac{F_1}{S_1} = \frac{F_2}{S_2} \Longrightarrow F_2 = F_1 \cdot \frac{S_2}{S_1} =$$

$$= m_1 g \frac{1}{\frac{S_1}{S_2}} =$$

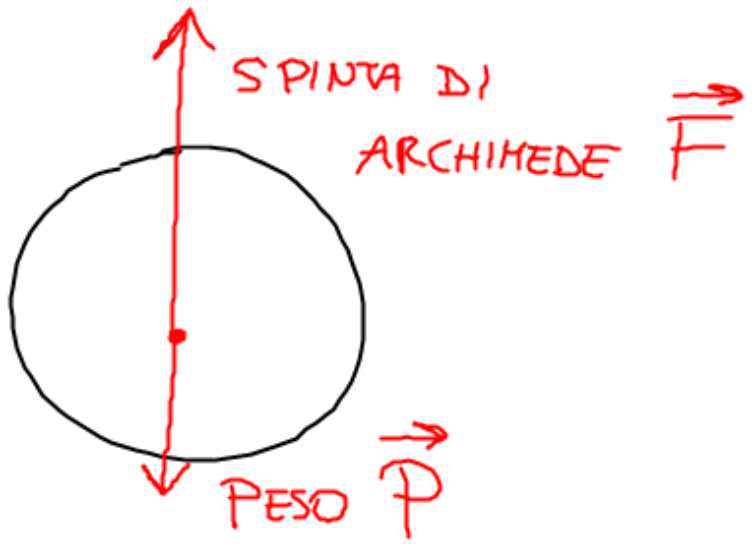
$$= (3400\,kg)\left(9{,}8\,\frac{N}{kg}\right)\frac{1}{250} = 133\,N$$

41

$V = 500\ m^3$

$d_{ARIA} = 1{,}29\ \frac{kg}{m^3}$

$d_{He} = 0{,}18\ \frac{kg}{m^3}$



$F = d_{ARIA}\, g\, V$

$P = d_{He}\, g\, V$

RISULTANTE $= F - P =$

$= (d_{ARIA} - d_{He})\, g\, V =$

$= \left(1{,}29\ \frac{kg}{m^3} - 0{,}18\ \frac{kg}{m^3}\right)\left(9{,}8\ \frac{N}{kg}\right)(500\ m^3) =$

$= 5439\ N \cong \boxed{5{,}4 \times 10^3\ N}$