1)

h = ρ \* g / Ph = 998 \* 9,81 / 1013,25 = 10 m

2)

F = P \* S = 100000 \* 0,01 = 1000 N = 1 kN

3)

F = P \* S = 101325 \* (π \* 0,022) = 101325 \* 0,001256 = 130 N

m = F / g = 130 / 10 = 13 kg