

Environmental Hydraulics 2021/2022

Example 3

Water flows steadily from reservoir (1) to reservoir (2) (**Ideal fluid**). Determine the discharge and the mean velocities. Draw energy grade line (**EGL**) and pressure grade line (**PGL**)

Known parameters:

$dh = 2 \text{ m}$; $h = (5 + 0.2 \cdot X) \text{ m}$; $H = 3 \text{ m}$; $v_0 = 0.1 \text{ m}\cdot\text{s}^{-1}$; $D_1 = 0.225 \text{ m}$; $D_2 = 0,2 \text{ m}$;
 $D_3 = 0.25 \text{ m}$; $p_{AT} = 1.013 \cdot 10^5 \text{ Pa}$; $\rho = 1000 \text{ kg}\cdot\text{m}^{-3}$;

