12.12.3.5—Factored and Service Loads

The factored thrust shall be taken as:

$$T_u = \left[\eta_{EV} \left(\gamma_{EV} K_{\gamma E} K_2 VAF P_{sp} + \gamma_W P_w \right) + \eta_{LL} \gamma_{LL} P_L C_L F_1 F_2 \right] \frac{D_o}{2}$$

(12.12.3.5-1)

The service thrust shall be taken as:

$$T_s = \left[K_2 VAF P_{sp} + P_L C_L F_1 F_2 + P_w \right] \frac{D_o}{2}$$ (12.12.3.5-2)

in which:

$$VAF = 0.76 - 0.71 \left(\frac{S_H - 1.17}{S_H + 2.92} \right)$$ (12.12.3.5-3)

$$S_H = \frac{\phi_s M_s R}{E_p A_g}$$ (12.12.3.5-4)

$$C_L = \frac{\ell_w}{D_o} \leq 1.0$$ (12.12.3.5-5)

WITHOUT GROUNDWATER THIS VALUE IS 0.

WITH GROUNDWATER, THIS IS A HYDROSTATIC PRESSURE LOAD THAT GETS ADDED TO THE THRUST DEMAND ON THE PLASTIC PIPE.

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