

Total Dynamic Head (TDH) Estimator

General Guidelines for Estimating TDH in Grit Removal Applications

Wastewater Application Sheet - Grit Washing & Dewatering Product Comparison

Proper grit system pump selection requires calculating TDH of the overall grit system and is based on the specific system layout. TDH is the total equivalent height that a fluid is to be pumped, taking into account friction and minor losses in the system piping. TDH includes total static head, which is the change in water elevation between the water level in the grit collection device and grit washing device, combined with headloss through the grit washing device and friction and minor losses in system piping. TDH is determined at a specific pump flow rate using this equation: **TDH = Total Static Head + Friction Loss + Head at Washing Unit**



The results of this calculation are to be used for estimation purposes only. There are numerous factors which need to be considered in selecting a pump for a specific project. Proper pump selection is the responsibility of the system Design Engineer. Hydro International assumes no responsibility for pump selection based on results from this estimate.

types of all valves, couplings, elbows, and fittings must be

Total Dynamic Head (TDH) (G) - Total equivalent height that

head difference between the pump's inlet and outlet when measured at the same elevation and with an equal diameter inlet and outlet. TDH is also the work done by the pump per

a fluid needs to be pumped at a flow rate, taking friction losses in the pipe into consideration. For water, TDH is the pressure

included to determine total friction loss.

unit weight, per unit volume of fluid.