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# DIAC OPTICAL BOX WATER SYSTEM STORED ENERGY

MAXIMUM DEAD HEAD PRESSURE OF CIRCULATION PUMP IS ~~35~~ 40 PSI.

UPPER & LOWER TANKS HAVE 1 PSI RELIEFS WITH Valves closed to the tanks, the remaining Volume of the system  $\approx 10$  Gallons =  $1283205 \text{ in}^3$

STORED ENERGY

$$E = \frac{V \gamma P^2}{2}$$

compressibility  
 $\gamma_{H_2O} = 2.7 \times 10^{-6} \frac{1}{\text{PSI}}$

$$E = 69 \text{ in-lbs} = 6 \text{ ft-lbs}$$

IF WE USE THE ENTIRE 80 GALLON VOLUME

$$E = 46 \text{ ft-lbs} - \text{LLL } 1000 \text{ ft-lbs.}$$

*A. Wood*