

CompuDrain - Hydraulic Component Sizing Calculator - V02 - Fixed Displacement Pump

Operating Conditions:

- Pump Speed [rpm] = 1500
- System Pressure [psi] = 1460

Design Parameters:

- Pump Displacement [in<sup>3</sup>/rev] = 6.1
- Hydro-Mechanical Efficiency [%] = 95
- Volumetric Efficiency [%] = 90
- At Pump Speed [rpm] = 1500
- At System Pressure [psi] = 1300

Output Data:

- Vol. Eff. at new Operating Conditions [%] = 88
- Pump Theoretical Flow Rate [gpm] = 9.43
- Pump Actual Flow Rate [gpm] = 8.33
- Pump Leakage Flow Rate [gpm] = 1.10
- Pump Total Efficiency [%] = 83.1
- Pump Output Power [HP] = 13.32
- Pump Power Losses [HP] = 1.47
- Drive Motor Power [HP] = 14.79
- Torque on the Pump Shaft [lb ft] = 223.63

