

2.7 Pump Test Stand Design

Since HyPneu has the capability of incorporating almost any component in a hydraulic system, it is a natural choice for analyzing test stand design. The schematic shown uses a pump pressure cycle test stand as an example. In this case, it is desired to subject the pump to three pressure levels. Therefore, two bang-bang (SH6210) and two adjustable orifices (SH5110) are used. The curve shows that this arrangement with the appropriate setting is capable of producing stable and accurate loading at all three loading states. It should be noted that if the pump design shown in application note 1.1 were incorporated in this test stand design, the various orifice sizes and other design parameters could be optimized.

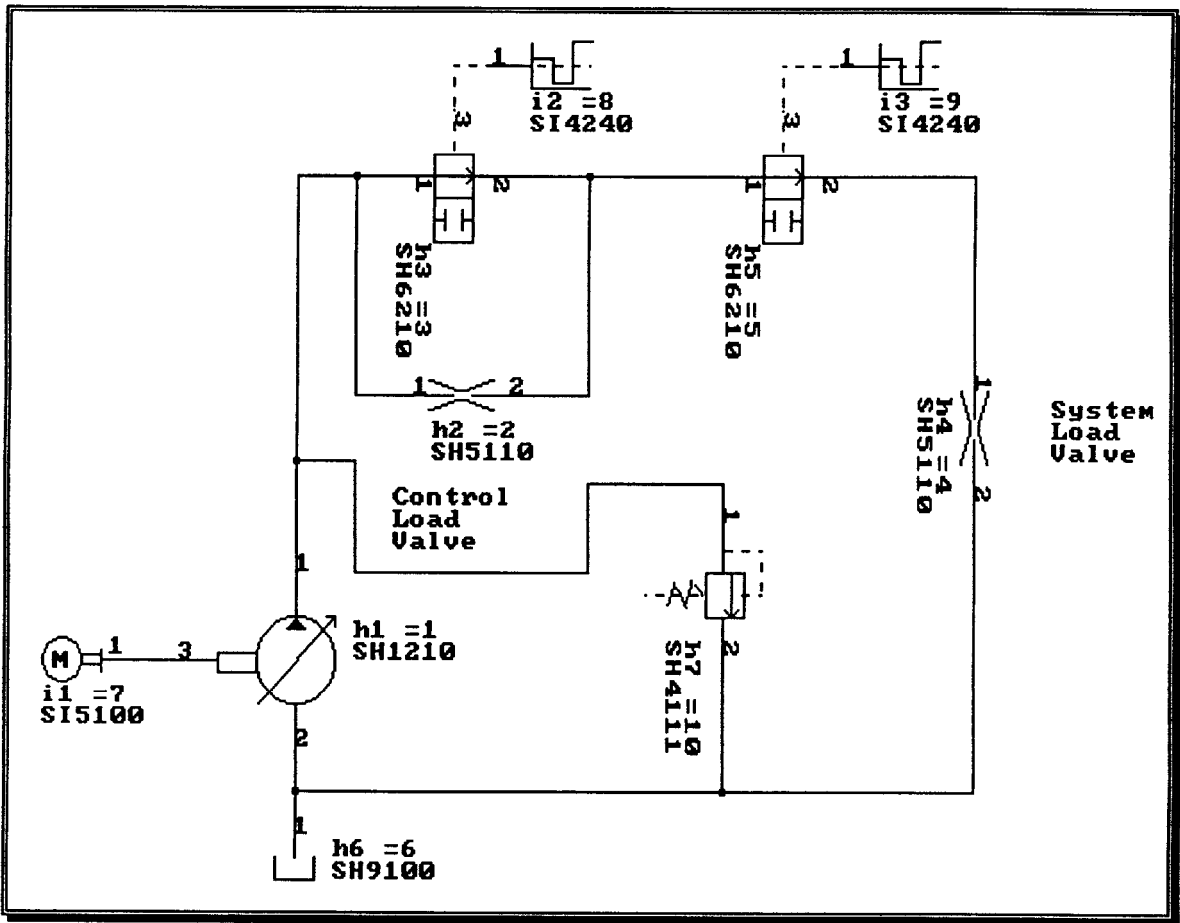


Figure 2.7a. Pump Test Stand Design Schematic.

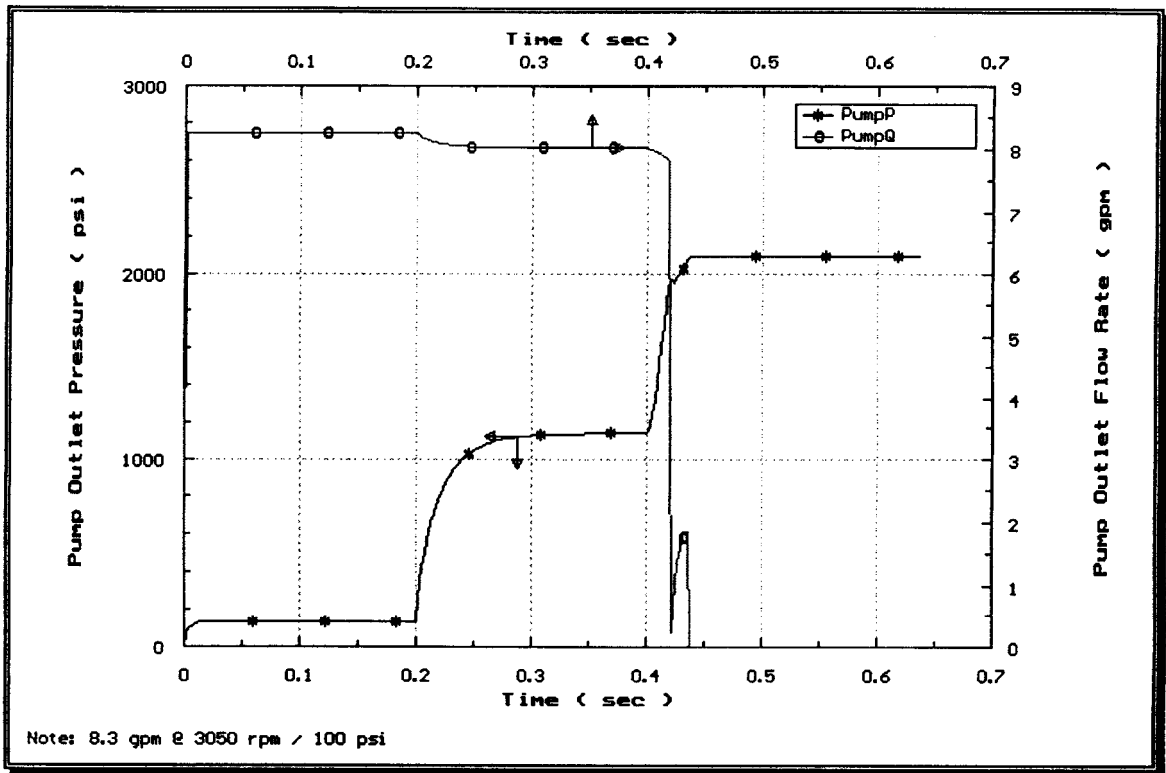


Figure 2.7b. Pump Test Stand Design Evaluation.