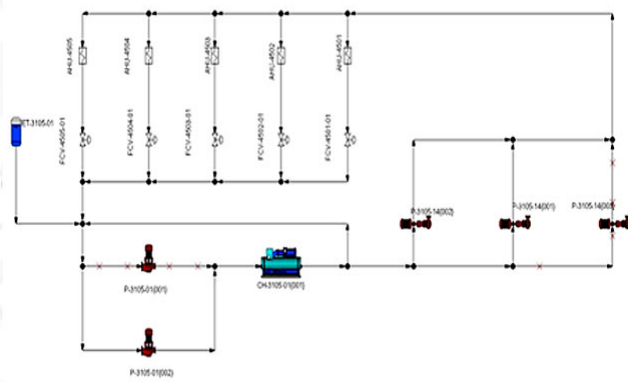


# Affordable Innovation

## Static and Dynamic Hydraulic System Analysis



- Streamline system start-up to simulate system operation and assist with system balancing.
- Determine and ensure the capacity of existing systems is sufficient to support expansion.
- Reduce wasted energy by testing various operating set points to determine actual system requirements.
- Test or troubleshoot control logic in a simulated environment to accurately determine actual system operation.

Contact us for further details regarding our Comprehensive Hydraulic System Analysis.

1.888.366.7660  
www.ipsdb.com

Affordable Innovation for Manufacturing Technology  
Engineering • Procurement • Construction Management • Validation

Today, in a competitive marketplace, the cost of facility downtime is becoming much greater. Hydraulic systems are the backbone of many processes and proper operation of these systems is critical to facility operation.

Hydraulic System Models offer a simulated detailed view of systems operation. A comprehensive analysis and model can help streamline system start-up and plant expansion, reduce wasteful energy consumption and overall energy costs, and reduce facility downtime.

At IPS, our experienced professionals analyze the operating characteristics of hydraulic components and systems to design, optimize or troubleshoot new and existing designs. Using software, we develop static and dynamic analyses and provide indicators of system operation and performance over time, reducing downtime and operational costs. Our comprehensive hydraulic modeling capabilities include:

- 1. Streamline System Startup.** The hydraulic model provides an accurate representation of system operation and may be used to streamline balancing and reduce troubleshooting typically required in the field.
- 2. Test Control Logic.** Simulate control systems and control system changes without risking system operation with a dynamic hydraulic model.
- 3. Accurately Determine System Expandability.** With a hydraulic model, the guessing can be removed by determining if a chilled water system has enough pumping capacity to deliver required flow to a new air handler without impacting water delivery to existing equipment.
- 4. Reduce Energy Consumption.** Safety factors are necessary to ensure equipment has ample capacity to serve system needs. A hydraulic model makes it possible to fine tune system operation and reduce wasted pumping energy.
- 5. Troubleshoot Current System Operation.** If a certain area of a system is not receiving required flow, a hydraulic model is an invaluable tool to see what is actually happening within the system.
- 6. Provide a Dynamic Picture of How System will Operate.** Using dynamic capabilities of hydraulic modeling software, analyze system operations over a period of time to ensure control logic will work properly.

