

APPLICATION PROFILE

TURBINE TEST CELL

Lubricating Oil System

Challenge: **UNIVERSITY OF NOTRE DAME TURBINE TESTING LABORATORY**

Location: **INDIANA/NEW YORK**

Flodraulic's RHM Division was called upon by a partnership of industry and education to build a special lubrication system to support a test cell in the well-regarded turbo lab at the University of Notre Dame.

The lube skid was specially-engineered to lubricate a General Electric turbine in Notre Dame's lab for aero derivative turbines.

PLC control for automatic or manual operation was provided by RHM, as was the data acquisition system. The VFD controlled oil pumps were also operated by the PLC to accommodate variable speed operation.

The system included a redundant oil supply and oil scavenging system with dual filters for replacement while remaining online. Full stainless steel construction was used throughout to mitigate contamination ingress. A pressurized accumulator was added for emergency lube rundown support. An over-sized plate and frame heat exchanger was incorporated into the design for oil cooling assurance under abnormal conditions.



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