



TORISHIMAGUNA PUMP TESTING FACILITY

To capture the development of the market as well as to meet customer's demand, TorishimaGuna continuously improve its capabilities in the area of pump production. One of our activities is trying to increase our capability in the production of new generation of hi-tech pumps, in particular pumps for power generations.

TorishimaGuna Testing Facility will be able to test new generation of pumps, which have high capacity and pressure.

The Testing Facility comprises two piping systems :

- **Low Pressure Facility Test (LPFT)**
- **High Pressure Facility Test (HPFT)**

The selection of the testing system shall be based on the pressure and the flow capacity of the tested pumps.

The facility is equipped with PLC system and control panel, connected to instrument and control valve installed on the testing facility. Pump testing process can be done automatically and all measurement data can be directly entered into pump data sheet required by customers. It will create a quick and efficient performance test process.

This facility also equipped with Variable Speed Drive (VSD) as to make it possible to test pump powered up to 8 MW.



SPECIFICATION OF PUMP TESTING FACILITY

- Pump Type : End Suction, Horizontal Split Case, Multistage, Vertical Suspended, Submersible, Positive Displacement
- Pump Size : High Pressure, Big Capacity, up to 200 bars, 15000 m³/hr and 1 MW
- Pumped Media : Water with ambient temperature and elevated temperature ; for oil or process fluid, the testing with water is converted
- Power Supply : Low Voltage and Medium Voltage up to 6600 Volt, power source from PLN
- Pump Speed : At rated speed and reduced speed ; rated speed up to 1 MW input power and reduced speed for bigger pump driver more than 1 MW
- NPSH Test : With closed loop type piping system for the end suction, small to medium size split case and multistage pumps.

EQUIPMENT OF PUMP TESTING

- Piping : 1 inch (DN25mm) up to 32 inch (DN800mm), pressure up to 200 bars (3000 psi) for high pressure piping up to 8 inch (DN200mm)
- Valve : Butterfly and globe valve 1 inch up to 32 inch; manual and motorized control
- Flow Meter : Ultramagnetic flow meter & ultrasonic type
- Control Panel System : Centralized operation from control desk : Variable frequency drive, low voltage (up to 500 kW) and Medium Voltage (up to 1 MW)
- Instrument : Temperature, Suction & Discharge Pressure, Water level
- Water Reservoir : 200 m³ water pond separated by water gate for suction water level control
- Water Tank : Stainless steel pressure tank for close loop system test & NPSH test
- Pump Priming : Vacuum pump
- Bottom Base : Fine machined cast iron
- Test Motor : Up to 500 kW ; for bigger pump use job motor
- Measurement Tools : Vibration probe & analyser, temperature gun & sensor, sound test, digital tachometer
- Over Head Crane : Up to 10 tons

PUMP TEST LINES

We have 6 lines testing facility (4 closed loop and 2 open loop system)

PUMP TEST WITH ENGINES

Diesel Engine : Customized piping system for diesel engine pump testing, available up on request

