

Annexure - A

Test facilities in R&D BEML Limited, KGF

I. Powerline Laboratory

For testing of following Powerline aggregates:

1. Axles (one input and two outputs) with T configuration

Capacity: 100 kW to 1200 kW of input power with output speeds up to 300 rpm at maximum input speed.

Types of tests that can be conducted

- a) Load testing
- b) Endurance testing
- c) Brake performance with inertial simulation
- d) Dynamic / Cyclic load testing with inertial simulation

Possible to record / monitor data like Speeds, Torque, Oil temperature, Pressures – 36 channels

2. Transmission (Mechanical gear box, hydro shift, Power shift, Automatic gear shifting) with one input and one output inline or with drop can be tested.

Capacity: 100 kW to 900 kW with transmission output speeds ranging from 50 rpm to 3000rpm.

Types of tests that can be conducted

- a) Load testing
- b) Endurance testing
- c) Modulation performance
- d) Dynamic / Cyclic load testing with inertial simulation

Possible to record / monitor data like Speeds, Torque, Oil temperature, Pressures – 36 channels

3. Torque Converter up to 900 kW capacity.

II. Structural Engineering Laboratory

For testing of following Fatigue / Performance Testing of Structures / Components:

We are equipped with 8 nos various sizes of linear actuators ranging from 100 kN to 1500 kN and one no. rotary actuator with PC based 8 channel actuator controller.

1. Fatigue testing of structures with static strain measurement
2. Endurance testing of structural components like Mounting cushions, Springs, universal joints up to 16 kNm, etc.
3. ROPS and FOPS testing as per ISO standards
4. Draw bar pull performance testing of equipments
5. Endurance testing Hydro Pneumatic Suspension up to 30 ton at a max. of 5 Hz

III. **Fluid Power Laboratory**

For testing of the following Hydraulic Aggregates:

1. Gear pumps up to 210 bar, 600 lpm and 2200 rpm
2. Control valves up to 450 bar and 600 lpm
3. Hydraulic cylinders up to 100 tons capacity
4. Impulse testing of Hydraulic hoses up to 550 bar

NODAL OFFICER for the use of Test Facility and technical Interaction:

Nodal Officer	Contact Details
Shri K RAMESH BABU Deputy General Manager,	Research & Development BEML Limited BEML Nagar – 563115 KOLAR (Dist) Karnataka (State) INDIA Ph: +91 8153 263264 Fax: +91 8153 263129 Email: gv1@beml.co.in