

# ROTOTRANS INDIA PVT. LTD.

(Formerly known as Captive Trade Pvt. Ltd.)

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## ROTO-TRANS

*Positive drive*

ISO 9001-2015 Certified Company

Rototrans (RTIPL) is a company certified with ISO 9001-2015 known for manufacture of several types of Gearboxes catering to various Industrial segments.

We design and manufacture:

- Servo Planetary Gearbox
- Industrial Planetary Gearbox
- Inline Helical Gearbox
- Parallel Helical Gearbox
- Bevel Helical Gearbox
- Spiral Bevel Gearbox
- Straight Bevel Gearbox
- Single Screw Extruder Gearbox



To enhance product liability, performance, energy consumption level checking, RTIPL is proud to announce the installation of powder Dynamometer in our shop floor.

### **The brief description of powder Dynamometer is as follows:**

Powder Dynamometer, as the name suggests, contain magnetic powder in Dynamometer. The electrical current passing through the coil generates a magnetic field, which changes the property of the powder from free flowing condition at no excitation, to solid rock condition at full excitation. Thus providing a smooth braking torque through friction between rotor & stator proportional to excitation.

The powder Dynamometer produces their rated torque at zero speed. Powder Dynamometer with controls have system accuracy ratings of typically  $\pm 0.25\%$  full scale.

The element to be tested can be loaded at standstill to determine the starting torque. Powder dynamometers are ideal for applications operating in the low to speed range and mid to high torque range.

### **Advantage & application**

Powder dynamometer is that it controls Torque right from zero rpm. These are used to test motors, BLDC motors, Turbines, Gears & Geared motor, Low speed transmission, small engine.

## **Specification**

Model

- APPSYS PDWC 1500

Max. Braking Torque N-m- 1500 N-m

Min. Braking Torque N-m- 50 N-m

Max. Speed- 1000 rpm

Speed measurement precision (F.S)

-  $\pm 0.25$  FS%, 1 RPM resolution

Torque measurement precision (F.S)

-  $\pm 0.5$  FS%, 0.1 N-m resolution

Coil excitation Volts DC

- 90 VDV

Coil current Amps

- 8 Amps

The direction of rotation  
anticlockwise

- Bidirectional, clockwise &

- Torque Speed curve is enclosed.
- For torque measurement, reaction type Torque sensor, calibrated for NABL accredited calibration cum traceability certificate in accordance with National standards.
- Reaction torque sensor would be fitted to Dynamometer with rod end bearing on either side of reaction torque sensor, to improve measuring accuracy.

## **Reports Generation:**

- Motor Input (kW/HP)
- Output mechanical power (kW/HP)
- Gearbox output speed
- Gearbox torque (N-m)
- Efficiency (%)
- Graphs of Torque/speed
- Graphs of Torque/current & voltage
- Input/output – efficiency
- Temperature/Torque



All these parameters displayed on Monitor & stored in MS Excel format in Table & Graphs.

Contact:

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