Product Name :	**Product Code :**
Slip & Creep Measurement Apparatus - Engineering	Theory Lab0002

Description :

Slip & Creep Measurement Apparatus - Engineering

Technical Specification :

Slip & Creep Measurement Apparatus - Engineering Teaching Equipm This apparatus is useful for measurement of power transmitted for various input power conditions with varied belt tension. Belt slip or creep also can be measured. The apparatus consists of a variable speed D.C. Motor, driving pulley and driven pulley of equal diameters. The pulleys are mounted on input shaft (motor shaft) and output shaft. The driven pulley can slide on the base only with bearing block to change the initial tension in belt. Brake drum is mounted on the output shaft, which helps to measure power output. The motor speed is varied by Thyristor Control D.C. Drive. A double channel digital speed indicator indicates driving and driven pulley speeds. With the help of Stroboscope (not in the scope of supply) it is possible to demonstrate the slip of belt on driving and driven pulley.

SCOPE OF EXPERIMENTATIONS:

· To measure co-efficient of friction between pulley material and different belt materials.

· To measure power transmitted with varied belt tension.

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To measure percentage slip at fixed belt tension by varying load on the
Brake drum and plot the graph of (T1-T2) v/s percentage slip i.e.
“Slip Characteristics” Finding a Creep Zone from graph.

· To measure belt slip speed and observe the limiting value of load at constant speed when the slip just starts.

· To study creep of belt.

UTILITIES REQUIRED:

· Electricity o 0.5 kW, 220 V, Single Phase

· Stroboscope.

TECHNICAL DETAILS:

· Motor o Variable speed DC Motor 1HP, 1500 RPM.

· Pulleys o Driving and driven pulleys of equal diameters (flat pulleys)

· Loading Arrangement o Brake drum along with spring balance and rope arrangement is provided to load the system.

· Belts o Flat belts of fixed length of following belt material

§ Fabric Belt

§ Canvas Belt

§ Leather Belt

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Belt tightening arrangement o Bearing block is sliding and dead
weight can be applied to set the initial tension in belt.

· Speed Indicator

2 Channel digital speed indicator with switch to change the channel

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