

INTRODUCTION

A Thruster Brake is a device designed to slow down moving machinery and bring it to a precise stop at the required position. The braking force is exerted on the brake shoes by a preloaded compression spring. These shoes press against the rotating drum, reducing its speed and ultimately bringing it to a halt.

Application:

Material Handling Cranes used in Steel Plants, Foundries, Forging Plants, Heavy Fabrication, etc.

Brake Selection Procedure

Brake Torque Calculation:

For most applications the brake torque must be equal to or greater than motor full load torque as referred to the drum / wheel shaft.

$$\text{Thus, torque in Kg m} = \frac{974 \times \text{KW}}{\text{rpm}}$$

Where

$$\begin{aligned} \text{KW} &= \text{Motor Output} \\ \text{rpm} &= \text{Revolution per minute} \end{aligned}$$

When torque requirements known and the type and the duty cycle established, the brake is selected accordingly from the selection table. For certain special application e.g. crane hoist and their overhauling loads, the brake should be capable of providing atleast 150% of motor torque.

TECHNICAL DATA:

Model	: ST 300-34
Thruster	: ST-34
Drum Dia	: 300 mm
Braking Torque	: 62 Kg-m
Thrust	: 34 Kg
Stroke	: 51 mm
Recommended Oil	: Transformer Oil - Grade BS:148
Oil Capacity	: 2.5 Ltrs.
Operating Voltage	: 415V±10%, 3 Phase AC, 50Hz
Power Consumption	: 0.45 Amps
Input Watts	: 150 Watts
Insulation of Thruster	: F Class
Insulation Voltage	: 600V
Protection	: IP 54
Shoe Liner	: Asbestos Free
Shoe Width	: 140 mm

Optional:

- Manual release mechanism with lever
- Limit Switch

