Tumbler Index Machine

General Information

1	***Name of Machine***	: Tumbler Index Test Apparatus / Machine
2	***Purpose***	: Determination of resistance of iron ore pellets to breakage or degradation by impact and abrasion.
3	***Test Material***	: Iron oxide lump cores, Sinters, and Pellets etc.
4	***Working Principle***	: This machine consists of a cylindrical drum rolled from mild steel plate. The two circular sides of the drum have two stub axles attached through two circular flanges. The axles are held in two double-row self-aligning ball bearings with the common axis of the axles located in a horizontal plane. The drum is rotated about its axis at the specified speed with the help of an electric motor, worm reduction gearbox, and V-belt pulley arrangement. A pre-set type digital counter is provided to record the number of rotations of the drum and to automatically stop the motor after a set number of rotations. The bearings on which the drum is pivoted are supported on a heavy-duty fabricated metal frame made from mild steel sections. The motor and worm reduction gearbox are also mounted on the same frame to give a single composite unit. A sheet metal tray is provided below the drum to collect the material coming out when the drum is rotated with the door removed.

Technical Specifications

1	***Internal Dimensions of Drum***	: W 500 mm x L 1000 mm
2	***Thickness of Drum Sheet***	: 5 to 6 mm
3	***Dimensions of Lifters***	: 50 x 50 x 5 mm (Angles)
4	***Speed of Rotation of Drum***	: 25 +/- 1 RPM
5	***Counter***	: 6 Digit Electronic counter
6	***Motor off System***	: Digital (8 Minutes / 200 Cycles)
7	***Motor***	: 3HP, 1440 rpm, 50Hz, 440 Volt, 3 Phase, standard make
8	***Gear Box***	: 1:60 Ratio
9	***Shaft Material***	: Alloy steel D2 Grade
10	***Ref. Design Standard***	: As per Bureau of Indian Standard No.: IS:6495 1994

Model: KTI-6495

Note: Supplied equipment may vary from the image(s) shown here.

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