

# TECHINCAL DETAILS

## OF

### *dyeMASTER I*™ (HTHP) (Beaker Dyeing Machine)

#### 1. INTRODUCTION

Dyeing is one of the most important processes to which the woven fabrics are subjected to during processing. During dyeing operation a very specific condition should be maintained in order to ensure the fixation of dye molecules to the fabric. Particularly for man made fabric like polyester, which is dyed by disperse dye (insoluble in water). Infra Red Dyeing is the most appropriate & suitable method used world - wide as it is environment friendly.

#### 2. EQUIPMENT

Paramount's *dyeMASTER*™ (Infrared) is designed in order to facilitate effective dyeing for sample dyeing. *dyeMASTER*™ (Infrared) machine is fabricated out of 304 quality Stainless steel with beaker body and lid made out of 316-quality stainless steel. The beaker carriage rotates in the heating chamber at adjustable variable speed from 0 to 60 RPM, through suitable geared motor. The temperature obtained in heating chamber is up to 140<sup>0</sup>C through Infrared Heating Source. For rapid cooling the machine is equipped with a powerful blower through which air is made to pass continuously when required. In order to control Time v/s Temperature profile a microprocessor Programmer & Controller TBB 100 is used. The electrical Auto / Manual controls all have fused protection.

#### 3. SALIENT FEATURES

- A sturdy equipment specially designed to dye samples at high-temperature & high-pressure condition, Specially used for polyester fabrics
- Many sizes of beakers can be accommodated.
- 200ml twelve beakers supplied to dye 24 samples together.
- Temperature can be raised up to 140<sup>0</sup>C using glycerin.
- Special cooling system for instant cooling of the bath.
- Latest microprocessor based control panel for temperature & time.
- Stainless steel body & beakers gives rust-less long life.
- Smooth, precision-engineered components for exceptional performance.
- Supplied with all accessories along with tong for removing beakers.
- Supplied with calibration & inspection certificates.



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#### 4. DETAILS OF THE MAIN UNIT OF *dyeMASTER I*<sup>™</sup> (HTHP) (Beaker Dyeing Machine)



1. Main Body.
2. Beaker stand unit of 200ml Beaker (To open & tighten the cover of the beaker).
3. Control Panel Box.
4. Door Handle.
5. Top Door Cover.
6. Spring Loaded Hinge for the Door.
7. Splash Tray to collect vaporized glycerin.
8. Foot Wheel.



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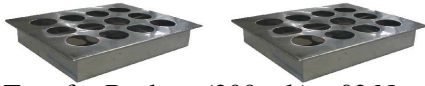
## 5. DETAILS OF THE ACCESSORIES SUPPLIED WITH *dyeMASTER I™ (HTHP) (Beaker Dyeing Machine)*



Main Unit



Beakers (200 ml.) with Gasket fitted – 24 Nos.



Tray for Beakers (200 ml.) – 02 Nos.



Beaker Removing Tong



This User's Manual



Calibration & Inspection Conformance Certificate

***dyeMASTER I™ (HTHP) (Beaker Dyeing Machine)* is Supplied Complete with below Accessories:**

1. Main Unit	:	01 No.
2. Beaker (200 ml.) with Gasket	:	24 Nos.
3. Tray for Beaker (200 ml.)	:	02 Nos.
4. Beaker Removing Tong	:	01 No.
5. User's Manual	:	01 No.
6. Calibration Certificates (Traceable to NPL)	:	01 Nos.
7. Inspection & Conformance Certificate	:	01 Nos.



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## 6. TECHNICAL DETAILS OF *dyeMASTER I*<sup>™</sup> (HTHP) (*Beaker Dyeing Machine*)

Capacity	:	Max. 24 Beakers
Capacity of Beaker	:	200 ml.
Carriage rotation	:	At 30 RPM. (±2 RPM.)
Temperature	:	Maximum operating temperature : 140°C. Maximum rate of heating 1.5°C/Min. Maximum rate of cooling 1.5°C/minutes. (with cooling water at a temperature of 25°C) Control through Microprocessor based programmer having auto/manual operation.
Heater Rating	:	10 KW
Medium used for Heating	:	Glycerin (Please change the glycerin after 3 months)
Electrical Supply	:	415 Volts AC, 3 Phases with Neutral.
Power Consumption	:	10.5 KW
Contractor	:	Contractor with current suspensor to control current fluctuation
Motor	:	½ H.P , 1390 RPM (Crompton & Greaves )
Gear Box	:	1 : 50
V – Belt	:	A 27 (02 Nos.)
Overall Dimensions of the Unit	:	1060 mm (L) x 680 mm (W) x 1180 mm (H)
Net Weight of the Unit (with 24 Beakers)	:	161.5 Kgs.

**NOTE : With our constant endeavour to improve & excel, we reserve the right to alter the specification or modify the appearance without notice.**



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