

TECHINCAL DETAILS

OF

dyeMASTER™ (Infrared) 12x200ml (Infrared 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 140⁰C 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.



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3. Details of the Main Unit of *dyeMASTER™* (Infrared)



1. Foot Rests.
2. Door Handle with lock.
3. Microprocessor Based Control Panel.
4. Top Cover.
5. Door.
6. Toughened Glass .



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4. Details of the Accessories Supplied with *dyeMASTER™* (Infrared)



Main Unit



Beakers (200 ml.) with Gasket fitted – 12 Nos.



Tray for Beakers (200 ml.) – 01 Nos.



Allen Key Set



Hand Gloves



This User's Manual



Calibration & Inspection Conformance Certificate

Unpack your *dyeMASTER™* (Infrared) and ensure that you have the Following units :

1. Main Unit	:	01 No.
2. Beaker (200 ml.) with Gasket	:	12 Nos.
3. Tray for Beaker (200 ml.)	:	01 Nos.
4. Hand Gloves	:	01 Pair.
5. Allen Key Set	:	01 No.
6. User's Manual	:	01 No.
7. Calibration Certificates (Traceable to NPL)	:	01 Nos.
8. Inspection & Conformance Certificate	:	01 Nos.



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5. SALIENT FEATURES

- Latest technology sample dyeing machine used to dye samples at high-temperature & high-pressure with infrared heaters.
- Ergonomic latest design with stylish appearance.
- 200ml four beakers supplied to dye 12 samples together.
- Eco-friendly equipment, which does not give any residue.
- Temperature can be raised up to 140°C using glycerin.
- Latest microprocessor based control panel for temperature & time.
- Stainless steel body & beakers gives rust-less long life.
- Smooth, precision-engineered components for exceptional performance.
- Infrared heating tube heats the chamber, which saves time of dyeing.
- Internal chamber has a variable speed option controlled by a digital out put & frequency drive.
- Special air-cooling system for instant cooling of the bath.
- Supplied with calibration & inspection certificates.

6. TECHNICAL DETAILS OF *dyeMASTER™* (Infrared)

Capacity	: Max. 12 Beakers
Capacity of Beaker	: 200 ml.
Carriage rotation	: 0 to 60 RPM (± 2 RPM.) (Controlled through Speed Controller)
Temperature	: Maximum operating temperature : 140°C. Maximum rate of heating 1.5°C/Min. Maximum rate of cooling 1.5°C/minutes. Control through Microprocessor based programmer having auto/manual operation.
Sensor	: PT 100
Infrared Lamp Rating	: 4 KW
Medium used for Heating	: Air
Medium Used for cooling	: Air

Electrical Supply	: 230 Volts AC, Single Phases with Earth.
Power Consumption	: 5 KW
Contractor	: Contractor with current suspensor to control current luctuation
Motor	: 1/4 H.P , 1400 RPM
Frequency Drive	: ½ HP
Gear Box	: Sturdy
Overall Dimensions of the Unit	: 610 mm (L) x 800 mm (W) x 900 mm (H)
Net Weight of the Unit	: 140 Kgs. (308 lbs)

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