

Automatic Tissue Processor

1 Description of Function

1.1 Tissues from the body taken for diagnosis of disease processes are processed by the tissue processor in the histology laboratory to process tissues prior to microtomy to produce microscopic slides that are viewed under the microscope by pathologists.

2 Operational Requirements

2.1 Latest Model Fully automatic system carousel type with minimum 12 stations (10 reagents and 2 wax baths).

2.2 Computer controlled flow through tissue processor to automatically perform fixation, dehydration, clearing, and paraffin impregnation of tissue. Specimens should remain stationary during processing in a fully enclosed retort while processing reagents and molten paraffin are moved to and from the chamber in a programmed sequence.

3 Technical Specifications

3.1 Metal / Polypropylene tissue baskets each with a capacity of 160-200 cassettes to be met by either single or double baskets.

3.2 The tissue baskets should be such that they have a firm bottom and do not get stuck to the sides of the reagent stations.

3.3 Reagent stations – Number of vessels: 10 (0.5- 1 litres each)

3.4 Paraffin stations– Number: 2 (0.5- 1 litres each)

– Temperature setting range: 45 – 70°C with temperature cut out facility (Temperature should be mentioned)

3.5 Computerized freely selectable and freely programmable Facility should be available. Easy editing and changing of programmes should be possible even during a processing run Infiltration time for each station should be separately programmable. Program start delay should be selectable without time limit.

3.6 In-built Vacuum function with fume control device.

3.7 Safety device for protection for drying of specimen in case of power failure The buckets should go back inside the respective solution when power fails and not hang in mid air.

3.8 LCD display panel with ergonomic control, fully protected control with full protection key board, audible alarm warning/ error message.

3.9 Machine should be able to cater to short time / quick process

3.10 Interrupting an automatic processing for reloading or removing cassettes before the end of a run should be possible

3.11 Should be an open system capable of using standard cassettes from open markets.

4 System Configuration Accessories, spares and consumables

4.1 Quote pricing to up gradation to another basket with similar cassettes capacity.

4.2 Basket Rotor – 01 Nos.

4.3 Metal tissue basket- 04 Nos.

4.4 Aluminium reagent vessels of 0.5-1 litre capacity each-10 nos.

4.5 Beaker covers- 11 Nos.

4.6 Wax baths complete with thermostat – 02 nos.

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

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5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Suitable voltage corrector/stabilizer

6.3 Reset table over current breaker shall be fitted for protection

6.4 Suitable UPS with maintenance free batteries for minimum two-hour back-up should be supplied with the system.

7 Standards and Safety

7.1 Should be compliant to ISO 13485: Quality systems – Medical devices –Particular Requirements for the application of ISO 9001 applicable to manufacturers and service Providers that perform their own design activities.

7.2 Should be compliant with IEC 61010-1: covering safety requirements for electrical equipment for measurement control and laboratory use.

7.3 Should be FDA or CE or ISI approved product

7.4 Comprehensive training for lab staff and support services till familiarity with the system.

8 Documentation

8.1 Certificate of calibration and inspection from factory.

8.2 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue.

8.3 User/Technical/Maintenance manuals to be supplied

8.4 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.

The job description of the hospital technician and company service engineer should be clearly Spelt out

8.5 List of Equipment available for providing calibration and routine maintenance support as per Manufacturer documentation in service / technical manual.

8.6 List of important spare parts and accessories with their part number and costing.