

TECHNICAL DATA - nephrotron



Dimension	: 20" x 16" x 12" PolyPropylene (PP) body to avoid electrical hazards.
Weight	: 18 Kgs
Water	: Supply - 20 to 30 PSI (min) 55 PSI (max) R.O water Consumption - 10 Litre / cycle for two units of dialyzers Max drain height - 1 meter to ground level
Electrical Data	: Power Supply 110/230VAC, 50/60Hz, Current consumption - max.8A In-built Tablet USB charger included.
External Connection	: Water inlet, Chemical inlet, Drain outlet
Disinfectant	: Chemicals - Cold Sterilant, Citric acid, Bleach
Alarm	: High sound buzzer with error display for following. <ul style="list-style-type: none">- High and Low water pressure- No disinfectant- High and Low chemical concentration- TBV Fail- Blood Leak test Fail- Port check Failures



QR Code Reader



Blood Port Connector



Buzzer



Android UI



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An ISO 13485:2016 certified company

nephrotron™

DIALYZER REPROCESSING SYSTEM

diaflo



USER MANUAL

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accelerate healthcare research

PRODUCT OVERVIEW

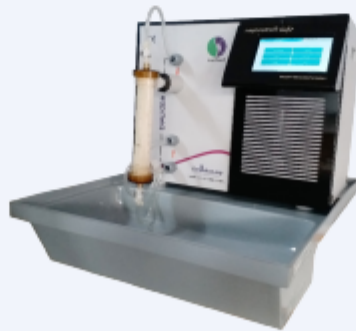
nephrotron 'diaflo' is an ultra low power, ultra compact, ultra hygienic, Android™ device based dialyzer reprocessing system. The system supports reprocessing of one dialyzer in less than nine minutes, both high flux and low flux dialyzers and hemodia-filters can be reprocessed. The device operates over microprocessor and Android technology, it rinses, cleans and tests membrane integrity and blood compartment volume before filling your dialyzer with sterilant. The dialyzer serial number can be captured with in-built QR code scanner and reprocessing status for each dialyzer is stored automatically in an .xls report and can print over WiFi or emailed to any registered mail ID of hospital staff.

Each nephrotron system is shipped with a dual unit drip tray, a pre-integrated high definition 7 inch Android™ tablet, a water pressure gauge to measure water pressure supplied to the system and other accessories like blood port caps, test strips, PVC medical graded tubes for water connections along with user guide for installation and operation.

KEY FEATURES

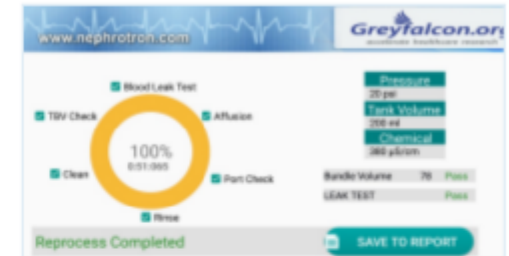
The key features of nephrotron™ dialyzer reprocessing system are :

- **High Speed Reprocessing** : Automated Reprocessing for single units of all standard dialyzers. Safe for cellulose based and synthetic membranes.
- **Quality Checks** : After cleaning each unit, the system performs an automated tests on dialyzer, a pressure test and blood volume test. The pressure test checks for any holes in the dialyzer. The blood volume test ensures that the dialyzer's capacity is above 80% of the dialyzer's stated size.
- **Sanitize machine** : The system supports automated disinfection using RO water, Citric acid, cold sterilant and bleach.
- **High Definition User Experience** : Operating device with Rich UI, Android™ powered Tablet for user input.
- **Ultra Hygienic** : The machine is enclosed using the FRP sheets for ultra hygienic experience also reduced exposure to chemicals.
- **Print and email reports over WiFi** : Reprocess status report of each dialyzer is maintained in a report in xls format, these reports can be print on standard printers connected over WiFi or emailed to registered email ID.
- **QR code scan** : Maintain dialyzer serial numbers in the reprocessing report manually or scan the QR code using in-built QR code scanner app in Android tablet.
- **Error status and alarm** : Progress and error states are displayed over high resolution OLED display on the system and Android UI. Also, electronic buzzer generates different alarm tones to notify the hospital staff about system status.
- **Easy calibration methods** : The device parameters for max/min water pressure, chemical concentration to use and bundle volume can be calibrated through user application.
- **Certificate** : Electronics are RoHS compliant, ISO 13485 and CE certified.



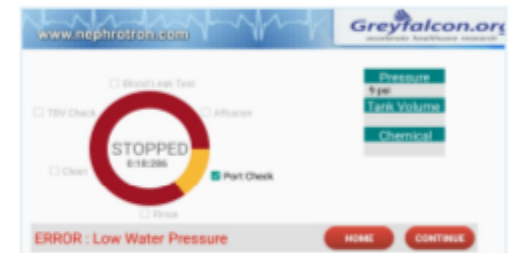
REPROCESSING DIALYZERS

nephrotron 'one S' is a single station dialyzer reprocessing system. The lab technician can provide the type of dialyzer used by specifying the TBV (total bundle volume) of the dialyzer. The fig shows the reprocessing screen, this screen shows the progress bar of the on going reprocessing, the active, pending and completed state with a check mark, displays the tank weight, chemical concentration, water and air pressure on each station. Upon completing the reprocessing the results for blood leak tests and bundle volume tests are displayed.



ERRORS AND ALERTS

The system will need RO water between 20 to 55 psi, chemical of particular concentration to reprocess the dialyzers effectively. During the process if water pressure drops low or exceeds the range then an error message is displayed on the screen with a buzzer sound to alert the technician. Similar error messages and buzzer alerts are generated for low and high concentration of chemical, technician also gets alert for port check failures.



INBUILT QR CODE SCANNER

Hospitals might have maintained the patient data with an ID which can be retrieved using QR codes or manual prints. nephrotron reprocessing system has in-built QR code scanner app that uses the front camera on the tablet to scan the QR codes and record the same in the status report. Technician also has an option to type the serial number or ID manually.



REPORTS WITH EMAIL AND PRINT OPTIONS

The status of the reprocessed dialyzer is maintained in an .xls sheet. The information - patient ID, date and time of reprocessing, technician ID, results from blood leak and bundle volume tests are captured in the report. Technicians or hospital staff can print this report to any standard printers or get this report emailed over WiFi to desired mail ID.

