

# Dialysis Products



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**Analytical Technologies Limited**

An ISO 9001 Certified Company

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## ▶▶ Dialysis machine DM-3030



- Large 12.1 inch LCD color touch screen.
- Color multi-lingual operation interface.
- Main components imported from Europe and Japan to assure its stability and reliability.
- Open system with consumables universal used.
- Temperature and conductivity probe adopts redundant design, independent collect and analysis data, which output more precise data and make treatment more safe.
- UF control system (individual UF pump) adopts closed loop control, which make accumulated UF volume calculation more precisely.
- Dialysate supply loop and return loop is completely separate disinfected to avoid cross infection and contamination.
- Dialysate supply & return and concentrate A & B base with angle-fixable cover to avoid dirty entering into dialysate access.
- Overhead 360 degree visual alarm light
- One key START and one key STOP
- Heparin bolus
- Quick self-check when machine power on
- Large capacity system log storage
- 90 degree horizontal and 360 degree vertical rotatable heavy dialyzer holder
- Thick and heavy concentrate A.B tray
- 360 degree rotatable castors
- Rechargeable battery back up at least 30 mins.

## ▶▶ RO water treatment plant

- Unique water conservation technology can make the RO membrane and water pipeline filled with purified water when the system stops water production to avoid static waste water microbial breeding.
- Unique design of three-way downstream and large curved elbow make water flow more smooth and quiet.
- German SIEMENS PLC main control module, multi-lingual menu, interface and touch screen make operation more simple and stable.



- Temperature compensation technique effectively reduces the influence of winter water temperature on water production
- Heat disinfection designed as a module can be attached to chemical disinfection water treatment unit makes promotion of old unit more easily.
- A variety way of water saving, high rate of water utilization, rate of water recycling more than 70%
- Single & double stage system can be both running or freely switched in case of emergency use.

- Reverse osmosis membrane automatic rinse when system on
- RO Membrane double face backwashing technology peels off sediment on surface of membrane
- No dead chamber and shell structure keeps water rinse all the time between membrane and its housing, disinfection more thorough.
- One touch cleaning and disinfection without manual intervention
- Low water pressure, low fluid level, conductivity out of standard and other audible and visual alarm
- Key components from the world's top brands to ensure long-term stable operation
- Freely set up production time according to working number of HD machine.
- Circulated pipeline more than 120 degree high temperature disinfection makes disinfection more thorough.
- Online residual chlorine and hardness monitoring (optional)
- Internet remote monitoring is available.

No.	Subject	Model No. and their specifications					
		ME4-3500	ME4-3750	ME4-3100	ME4-3150	ME4-3200	ME4-3300
1	Equipment main techniques	Pre-treatment + Double stage RO(directly connected) + Circulated pipes to all wards					
2	Output water quality	Water quality meets the U.S. AAMI/ASAI0 standard and latest dialysis water standard of YY0572 2015					
3	Soluble salt removal rate	99.50%					
4	Water flow (25°C water temperature)	500 L/H	750 L/H	1000 L/H	1500 L/H	2000 L/H	3000 L/H
5	Total power	5KW	7KW	8KW	8KW	12KW	15KW
6	Installation site required	≥12m <sup>2</sup>	≥12m <sup>2</sup>	≥15m <sup>2</sup>	≥15m <sup>2</sup>	≥18m <sup>2</sup>	≥20m <sup>2</sup>
7	Host size ( W x L x H )	900*1400*1600	900*1450*1600	900*1850*1630	900*1850*1630	900*1850*1630	1000*2400*1630
8	Overall weight	0.9T	1.2T	1.7T	1.9T	2.3T	3.6T
9	Equipment operating pressure	0.8~1.2 Mpa					
10	Ratio of recycle	50~75%					
11	Disinfection	Peracetic acid as chemical disinfection and heat disinfection as option					
12	Control system	SIEMENS PLC programmable controller, software version 4.9084					
13	Interface	SIEMENS touch screen					
14	Power supply	AC 380V±10% three phase five wire system, frequency:50 60HZ					
15	Water inlet	City tap water meets standard of GB5749, temperature 5~40 degrees					
16	Drainage and ground	Floor with drainage site and waterproof treated floor					
17	Indoor environment of installation	Floor with drainage site and waterproof treated floor					

## ▶▶ Dialysis fluid filter

- Membrane material: Polyethersulphone (PES)
- Effective surface area: 2.1 m<sup>2</sup>
- UF coefficient: >1000mL/min
- Housing material: Polycarbonate
- Sealing stuff: Polyurethane
- O shape ring: Silicon
- Maximum TMP: 500 mmHg
- Connector type: Hansen
- Filter out ultra pure dialysate with endotoxin <0.03EU/mL and microorganism <0.1CFU/mL.
- Life span: 160 sessions dialysis treatment or continuous use 1000 hours.
- Strong tolerance to disinfectant, such as citric acid, peracetic acid, and sodium hypochlorite(one time in each week).
- Sterilization: EB (Electron Beam)
- Suitable hemodialysis machine: Dialogue, Dialogue+



## ▶▶ Blood line



- High quality with CE 0123 certification
- Class 100,000 clarification workshop
- High polymer Medical level raw material.
- Anti-fatigue pump tube keeps same blood flow in continuous 50 hours.
- Smooth tubing inwall avoid blood coagulation and bubble
- EtO gas sterilization
- Spike, pillow, drain bag and TP can be extra put in according to customer's request.
- Various drawing is available for different band of hemodialysis machine and model. Universal blood line is also available.
- Whole set and components OEM, ODM acceptable

## ▶▶ **Fistula Needle**

- High quality with CE 0123 certification
- Class 100,000 clarification workshop
- High polymer Medical level raw material.
- Sharp Japanese needle thin as film ease patient pain
- Wing type choosable, rotatable wing makes operation easier
- EtO gas sterilization
- 15G.16G.17G with back eye and without.



## ▶▶ **Dialysis powder (A+B)**



- Class 10,000 clarification workshop
- Refined raw material with high purification and easy dissolution
- Vacuum packing
- A.B powder separate mark and in different color
- Except Fresenius, B-Braun, Nipro and Nikkiso formulas, minor concentration change of those solutes also can be modified to meet different patients' clinical target.
- Powder A+ Powder B= one person's dosage, only for one time 4-6 hours' dialysis treatment.

## ▶▶ **Bi-cartridge and Bi-bag**

- Main content: NaHCO<sub>3</sub>
- Weight: 650G
- Cartridge housing material: PP. Connecting port in both ends is covered and plastic bag outer packing ensures transportation safety and product quality.
- Bi-Bag housing material: PE. Cover can be film pasted on or lid covered on connecting port.
- Bi-bag is used only on Fresenius hemodialysis machine, while bi-cartridge can be used on Gambro, B-Braun, Nipro, and Nikkiso, etc



## ▶▶ **Fistula Needle**

- High efficiency bacterial removal, enteric pathogenic bacteria, suppurative streptococcus, pathogenic yeast, bacterial spore, and especially bacillus subtilis var. niger.
- Powerful clean ability, organic and calcium deposit
- Suitable for all hemodialysis machine equipped with heat chemical disinfection by diluting to different ratio with RO water.
- Stable performance, keep in 60 days usage once open.
- 20% for Fresenius, Gambro, Nikkiso, Toray etc. dialysis machine with heat chemical disinfection, while 50% mainly for B-braun, Gambro, Toray etc. dialysis machine with heat chemical disinfection.



## ▶▶ **HMS-3100 Hemoperfusion Machine (Single Pump)**



- AC / DC smart switch
- LCD display real-time treatment parameters, entire treatment condition accurate and clear.
- Multiple acoustic-optic and text alarm prompts, clearly indicate alarm status.
- Unique design, exquisite outlook, compact and portable
- Constant temperature heating plate Heating function to maintain the blood temperature during extracorporeal circulation process.
- Double monitor by ultrasound and infrared, effectively prevent air from entering patient's body.
- Automatic electricity cut alarm, high-capacity backup power, maintain blood pump running for 30Min.

▶▶ **HMD-3100A Hemoperfusion Machine (Double Pump)**



- Preferred equipment for hemoperfusion, plasma separation, liver ascites back transfusion and ISO ultrafiltration.
- LCD screen, real-time, quick view of treatment parameters.
- Small space occupation, light weight, easy to move.
- Multiple acoustic-optic and text alarm prompts, clearly indicate alarm status.
- Double pump, run a single blood pump or two pumps combined to serve different treatments.
- Constant temperature heating plate Heating function to maintain the blood temperature during extracorporeal circulation process.
- Complete monitoring function
- Automatic heparin injection, effective blood anticoagulation during extracorporeal circulation.
- Automatic keep constant temperature, effective maintain body temperature during treatment.
- Dual ultrasound and infrared monitoring, effectively prevent air from entering patient's body.
- Automatic electricity cut alarm, high-capacity backup power, maintain blood pump running for 30Min.

## ▶▶ Hemoperfusion filter (Resin)



- Excellent biocompatibility
- hemoperfusion grade resin
- Highly efficient absorption
- Mainly for middle molecule uremic toxins adsorption
- More thorough high-pressure steam sterilization
- Advanced envelope technique, good compatibility, high clearance, safe and effective
- Improve condition of skin itching, hypertension, appetite and sleep.

Combined with dialyzer on HD to remove macromolecular toxins, which used in acute and chronic renal failure, long-term dialysis-induced complications and improvement of patient's micro-inflammatory condition.

Middle&large molecule endotoxin		Protein bound endotoxin	
β2 microglobulin	Amyloidosis and carpal tunnel syndrome	AGEs	Amyloidosis and coronary heart disease
Leptin, angiotensin	Refractory hypertension	Indolyl sulfate	Glomerular sclerosis
Parathyroid hormone	renal osteodystrophy, ectopic calcification	Homocysteine	Cardiovascular complications
Oxidized protein product	Atherosclerosis	Leptin	Malnutrition
Interleukin 1,6	Systemic micro-inflammatory state	Cresol, p-cresol	Liver cell toxicity
Tumor necrosis gene TNF-α	Systemic micro-inflammatory state	Hippuric acid	Insulin resistance, impaired glucose tolerance

▶▶ **Hemoperfusion filter (Carbonized resin)**



- Excellent biocompatibility
- New performance hemoperfusion grade resin carbon
- Strong specific surface area, reasonable pore size distribution
- With both advantages of powerful surface area of active carbon and pore structure advantages of resin
- Safe and effective
- Mature coating technology creates excellent biocompatibility.

Combined with dialyzer on HD to remove macromolecular toxins, which used in acute and chronic renal failure, long-term dialysis-induced complications and improvement of patient's micro-inflammatory condition.

▶▶ **Syringe Pump (Single Channel) SPS-3500**



- 2.4" color LCD display
- 4 kinds of injection mode, easy, flow rate, time-based, body weight.
- Built-in 20 kinds of syringe brand (5 international) and support two custom syringe.
- Applicable to various standard syringe 10, 20, 30, 50 /60 ml, and syringe size automatic identification.
- Anti-bolus function with three gradings(H,M,L).
- 12 kinds Audio-Visual alarm insure further safety.
- Automatically transfer to KVO speed operation upon preset goal is completed.
- Real time display total injection volume, easy for clinical observation.
- Extensive injection rate range, from 0.1ml to 1300 ml/h, in 0.1ml/h increments.
- Easy input by Keyboard or shuttle key.
- Rechargeable Ni-MH battery keep machine above 5 hours running under 5 m/L.
- Memory of last running parameters even under power off
- Stackable for multiple channels.
- Key locker
- Drug Library is available, 45 kinds of Medicines selectable
- IPX3, Class II, Type CF

## ▶▶ Infusion Pump IP-3600



- Double infusion mode option and display(drip rate and volumetric).
- Real-time self check during startup and infusion process.
- Bolus and quick drainage function cut infusion and drainage time, speed adjustable.
- Anti-bolus function with three gradings(H,M,L).
- Ultrasonic air-in-line detection
- 9 kinds Audio-visual alarm insure further safety
- Audio prompt function for unconventional infusion speed guarantee error free operation.
- Real time display total infused volume, easy for clinical observation.
- Automatically switch to KVO rate operation upon preset volume is completed.
- Memory of last running parameters even under power off.
- Automatically switch among ml/h, drop/min and time-based.
- Change flow rate without pause or stop the pump.
- Built-in thermostat: 30-45°C, temperature adjustable
- Key locker
- Extensive flow rate range, 0.1-1500 ml/h, in 0.1 ml/h increments.
- Rechargeable Ni-MH battery keep machine above 5 hours running under 30 m/L
- Life span up to above 5 years
- IPX3, Class II, Type CF

▶▶ **Syringe Pump (Double Channel) SPD-3550**



- 3.2 inch large LCD display, individually show for corresponding channel
- Press Night Key at any time to enter night mode to save power and protect eye from strong light especially at night.
- Built-in 29 kinds of syringe brand (5 international) and support two custom syringe
- Rechargeable Ni-MH battery 5ml/h single channel at 10 hours and double channel at 7 hours
- Extensive injection rate range, from 0.1 to 1600ml/h, 0.1 ml increments

## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



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1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

## Reach us @



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