



AK 200 S

AK 200 ULTRA S

Dialysis machines

Part of Gambro's complete HD system

Reliability, safety and therapeutic flexibility

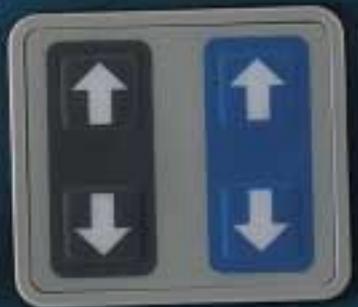
The Gambro AK 200 S and AK 200 ULTRA S dialysis machines are designed to work intelligently with health care professionals to provide the best dialysis care possible — including the most advanced forms of dialysis

treatment. Thanks to a variety of innovative features, both machines deliver treatment safely, reliably and comfortably.

Automated functions on the AK 200 S and AK 200 ULTRA S

reduce preparation and set-up time, leaving more time free to spend with the patient. This also increases the cost-effectiveness of care — an important benefit given the realities of modern health care.

AK 200 ULTRA S



AK 200 S

A safe, accurate, easy-to-use system that can perform a wide range of dialysis and hemodiafiltration treatments.

With the AK 200 S, dialysis fluid composition is set directly in mmol/l. Fluid preparation is conductivity-controlled and performed by two separate, high-precision pumps. An additional three-pump system ensures a stable flow through the dialyzer at all times, ensuring effective diffusion and ultrafiltration. Dialysis fluid flow rate is measured before and after the dialyzer for added safety. If air enters the fluid path, it is detected by ultrasound and eliminated in two separate bubble-trap chambers.

Standard features include Gambro's dry concentrate solution, BiCart Select, which saves storage space and allows for more individualized treatment. Single-needle treatment is possible with one or two pumps.

An active arterial clamp and accurate control of mean blood flow and stroke volume allow single-needle treatment with low recirculation. An integrated blood pressure meter makes blood pressure monitoring more convenient and enables BP information to be sent directly to a clinical automation system.

The Blood Volume Sensor is also a standard feature, providing a convenient tool to help individualize treatments, optimize fluid removal and enhance patient comfort. Blood levels in the venous and system pressure expansion chambers are adjusted electronically using a special keypad on the front of the machine. The blood flow rate is always displayed and can be

adjusted to compensate for the effect of arterial pressure—ensuring a more accurate estimate of treatment efficiency.

Preparing and monitoring treatments is easy too. An automatic two-point pressure transducer test is part of the machine's functional check at start-up, saving time by eliminating the need for a manual test during priming. All treatment parameters are displayed on the bright TFT screen, which is clear and easy to read from almost any angle, even at a distance.

The AK 200 S has a compact design that takes up less space beside a patient's bed. It also operates very quietly for maximum comfort and minimum disruption in hectic clinical environments.



AK 200 ULTRA S

All the performance and reliability enhancements of the AK 200 S, plus the option to perform safe and cost-effective convective treatments.

Thanks to its online fluid preparation system, the AK 200 ULTRA S can produce almost unlimited quantities of bacteria- and pyrogen-free substitution fluid for hemofiltration and hemodiafiltration. It also ensures ultra-pure dialysis fluid at all times for hemodialysis.

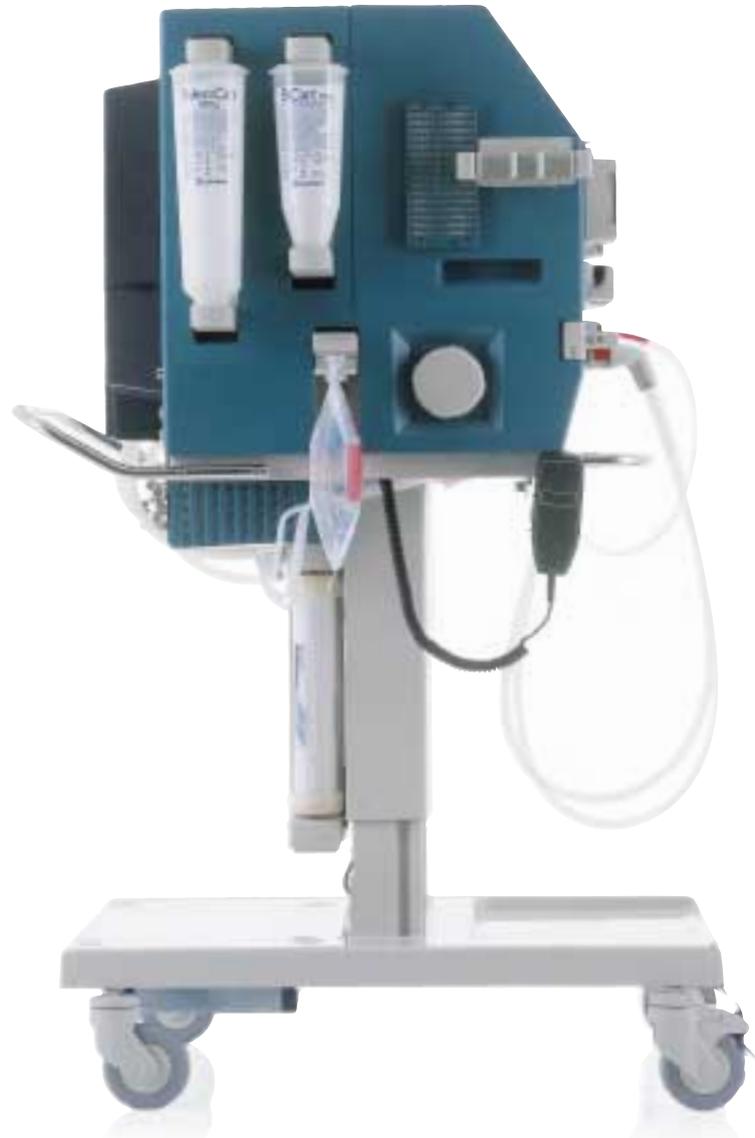
The AK 200 ULTRA S also makes it easier to optimize fluid exchange in convective treatments, since TMP can be used to control the dialyzer's ultrafiltration rate in

pressure control mode. To run hemodiafiltration or hemofiltration in pressure control mode, the TMP is set at a fixed value and the total ultrafiltration rate is optimized throughout the treatment — independent of changes in blood composition. This means easier operation and fewer alarms triggered by changes in blood composition.

For safety, a three-step system of ultra-filters prevents bacteria from

entering the machine via the water supply and eliminates possible contamination from concentrates or the machine itself. The final, disposable filter is mounted in the infusion lines set.

Most AK 200 ULTRA S functions are automated, making the machine easy to use and monitor. You simply press a button to select a treatment mode. Recurrent treatment modes and standard parameters can be pre-set to simplify handling and minimize preparation time.



Hygiene and maintenance

The AK 200 S and AK 200 ULTRA S are designed to uphold the strictest hygiene standards. Both machines feature a single-pass fluid system and a short, low-volume flow path without dead ends to inhibit the development of biofilm.

Components are designed for both hot water and chemical disinfection, and can be integrated

into Gambro's system-wide heat disinfection process. A range of pre-settable disinfection options makes it easy and convenient to tailor disinfection to suit your clinic's specific needs. In addition, the Gambro CleanCart Cartridge concept is used for fast and efficient cleaning, decalcification and disinfection—just press the button and attach the column.

Routine service on either machine can be performed without opening the machine—calibration, customization, function tests and troubleshooting are performed from the operator's panel or on a PC. When the machine does need to be opened, the interior is designed to make components easily accessible.





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Quality and expertise

Gambro specializes in the design and production of complete HD systems — from dialysis machines and water purification units to dry concentrates, blood lines and dialyzers.

Gambro dialysis machines, including the AK 200 S and AK 200 ULTRA S, are built at our production facility in Lund, Sweden. The site also fea-

tures an extensive research department, which focuses on developing improvements for everything from basic materials to treatments systems.

Machines are assembled by qualified technicians and tested extensively before they leave the assembly area. Each machine has been designed, manufactured, tested

and released in accordance with EN-ISO 9001/EN 46001. Continued compliance with the required standards is monitored by various regulatory bodies.

AK 200 ULTRA S

Control panel features include:

- Buttons: ON/Off, Clean Wash, Flow, Rise, Add, Sub, Control UP, SL, Pressure Control, Access, Volume Control, Resp-Timer, Priming, H₂O, Flow Stop, Flow Start, Air Control, RPM, Flow Stop, Flow Start, Flow Stop, Flow Start, Blood flow, Flow UP, Flow STOP.
- Display: F66, 5.000
- Flowmeters: Four flowmeters on each side, showing flow rates in L/min.
- Flowmeters (Left): 0-300, 0-300, 0-100, 0-100
- Flowmeters (Right): 0-300, 0-300, 0-100, 0-100
- Flowmeters (Bottom): 0-1.0, 0-1.0, 0-1.0, 0-1.0
- Flowmeters (Top): 0-100, 0-100, 0-100, 0-100

Front panel components include:

- Left dialysis chamber (Blue dialyzer)
- Central BVS (Bicarbonate Venting System) component
- Right dialysis chamber (Red dialyzer)
- Flow direction arrows