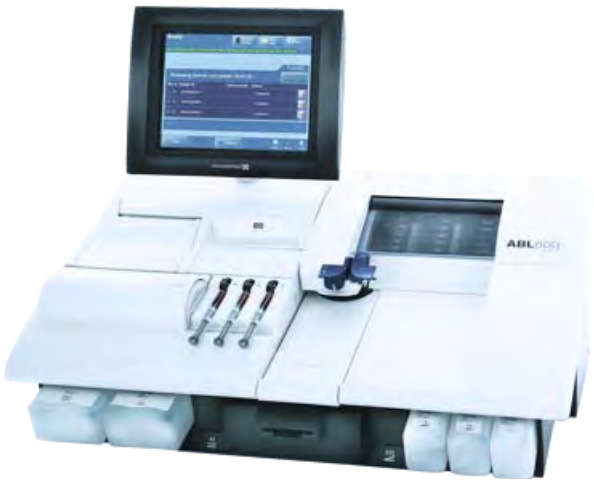
ABL800 FLEX analyzer

- 18 STAT parameters from a single test
- 1st Automatic
- Automated sample handling
- Connectivity
- Ease of use
- High throughput
- Lab quality
- Creatinine
- pH in pleural fluid
- Test menu



Automated benchtop blood gas analyzer

This highly accurate analyzer offers many automated features to help you streamline your work process and reduce errors.

Contact our experts today!

Complete your integration

- ***safe*PICO sampler**
- **IT systems**
- **1st Automatic**

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The importance of preserving patient blood is becoming increasingly important: not only for neonates, but for adult patients as well. Several studies have convincingly shown that iatrogenic blood loss due to lab testing, including arterial blood gas sampling, can result in increased morbidity due to stress on the cardiovascular and respiratory system and the need for allogeneic blood transfusion[1].

With the ABL800 FLEX analyzer, you can measure up to 18 STAT parameters on the same blood sample. This supports physicians and caregivers in providing fast diagnosis of critically ill patients and reduces the risks and patient discomfort associated with repeated sampling.

See test menu.

... also from capillary samples

Neonate blood is particularly precious. The FLEXMODE on the ABL800 FLEX analyzer allows you to reliably get the most critical parameters from these particularly small sample volumes.

[1] Woodhouse, S., Complications of critical care: Lab testing and iatrogenic anemia, Medical Laboratory Observer, Oct, 2001

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What if your staff could spend even less time on testing and more on patient care?

With 1st Automatic and the ABL800 FLEX you can!

ABL800 FLEX analyzers are 1st Automatic ready, meaning you can link your analyzer to Radiometer's *safe*PICO syringes and data management system to simplify your process from test order to reported results.

1st Automatic ensures the right result for the right patient at the right time, while further improving staff and patient safety and sample integrity.

Find out how.

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FLEXQ on the ABL800 FLEX analyzer is the only queue functionality in the world for blood gas samplers. The FLEXQ module automatically identifies, mixes and measures up to three samples in succession. Samples are automatically conveyed to the inlet and aspirated into the analyzer, leaving you free to return to your patients.
Automated identification and mixing of blood samples saves you precious time and help reduce the risk of manual errors:

- With FLEXQ, you eliminate the risk that operators may not mix the blood sample sufficiently, or even forget to mix
- Studies show that blood gas results can vary significantly due to inconsistent mixing by different operators – this risk is also removed by using FLEXQ
- With FLEXQ, there is no waiting by the analyzer. The ability to measure three samples in succession is particularly handy during peak periods
- Automated sample identification removes the risk of patient-sample mix-ups

FLEXQ is a part of Radiometer's 1st Automatic solution. Get the most out of your blood gas sample with 1st Automatic – find out.

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The ABL800 FLEX analyzer delivers complete data capture with continuous synchronization of analyzers and the LIS/HIS.

By connecting the ABL800 FLEX analyzer to Radiometer's IT systems, you are able to control remotely placed analyzers throughout a hospital or even throughout a hospital network. Hospital network integration is also possible through ASTM, HL7 and POCT1A standard communication protocols.

Automatic data archiving on Radiometer's QA Portal enables you to be inspection ready at a moment's notice.

The ABL800 FLEX analyzer is also part of Radiometer's 1st Automatic solution.

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In a busy environment, testing devices must be intuitive and simple to use, ensuring correct test results while also freeing up precious operator time.

Recently, we have asked ABL800 FLEX analyzer users around the world to rate how easy it is to use the analyzer [1]. A total of 97% of users rated themselves as either completely satisfied or satisfied with the ease of use of the instrument.

Considering that there are close to 10,000 ABL800 FLEX analyzers installed around the world today, we are very proud of this level of satisfaction.

A wide range of ABL800 FLEX analyzer features contribute to this ease of use:

- FLEXQ: one-step testing process when using 1st Automatic
- FLEXMODE: micro mode provides highest number of parameters available from capillary samples
- Barcoded consumables: Fast and easy replacement of reagent with minimum downtime
- AutoQC: 24 traditional QC ampoules loaded on the instrument for automatic quality control
- Intuitive manual inlet: hands-free inlet enables users to perform other tasks while the analyzer aspirates the sample

[1] Radiometer customer survey 2010

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In a high-volume testing environment, the value of a robust analyzer is high: even the slightest malfunction in a blood gas analyzer can disrupt your testing workflow and become a major stress factor.

With the ABL800 FLEX analyzer, you do not have to run that risk. Superior sensor technology provides you not only with results you can rely on when diagnosing patients, but also a robust solution designed to withstand daily usage and perform consistently even in the busiest environments.

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Today, there are close to 10,000 ABL800 FLEX analyzers installed around the world, providing measuring performance healthcare providers rely on every day.

The ABL800 FLEX analyzer sets the standard for accuracy, reliability and performance in blood gas testing, measuring any combination of pH, blood gas, electrolyte, oximetry and metabolite parameters. Ideal for high-volume departments, the ABL800 FLEX analyzer provides high throughput and accuracy compared to lab methods.

With the ABL800 FLEX analyzer, you get:

- Accredited measurement of pH in pleural fluid and dedicated sample mode securing accurate information on pleural effusion
- Extensive protection against interfering substances:
  - Creatinine measurements protected from a total of 62 interfering substances
  - Automatic measurement and suppression of interferences from fetal hemoglobin, bilirubin, intralipids and sulfhemoglobin
  - No interference from Evans Blue and Cadio Green on oximetry results
- 128 wavelengths for full CO-oximetry
- Fully automated micromodes ensure accuracy of very small samples
- FLEXMODE ensuring high sample success rate of precious capillary samples by providing the highest number of parameters as reliably as possible

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  - Performance studies
  - Performance against 62 interfering substances
  - Value for the caregiver
  - Value in the lab
- pH in pleural fluid
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Superior sensor technology

Radiometer's superior sensor technology protects creatinine measurements against 62 interfering substances, providing you with an accuracy of results that you can rely on when making important clinical decisions.

A recent study compared the ABL800 FLEX analyzer's creatinine with that of I-STAT and Nova StatSensor and concluded: “The ABL800 FLEX analyzer demonstrated the best correlation to plasma creatinine and the best clinical concordance when creatinine values were used to calculate eGFR.” [1]

Precise GFR reporting

Glomerular Filtration Rate (GFR) has a great importance in the early detection and management of chronic kidney disease. An accurate creatinine result is a prerequisite for precise and comparable GFR measurements, which is exactly what you get with the ABL800 FLEX analyzer.

Measurements follow renowned NKDEP recommendations

The enzymatic method used for measuring creatinine on the ABL800 FLEX analyzer follows the standards recommended by the National Kidney Disease Education Program (NKDEP) laboratory. This method is IDMS traceable and has less interference than the Jaffe method. The purpose of NKDEP is to reduce the morbidity and mortality caused by kidney disease and its complications. It has defined boundaries for combinations of systematic bias and imprecision in serum creatinine measurements.

For more information on the GFR and NKDEP, please visit: www.nkdep.nih.gov

[1] Korpi-Steineer, et al. Comparison of Three Whole Blood Creatinine Methods for Estimation of Glomerular Filtration Rate Before Radiographic Contrast Administration, Am J Clin Pathol 2009;132:920-926

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The use of pH meters or test strips can overestimate pleural fluid pH. This may lead to a diagnostic misclassification of the effusion, a potential underestimation of the problem and under-treatment of the condition.[1]

Compared to pH meters or test strips, blood gas analyzers deliver the most reliable results for pleual fluid pH. In fact, the American College of Chest Physicians (ACCP) consensus panel on the medical and surgical management of parapneumonic effusions recommends pleural fluid chemistry to be measured by a blood gas analyzer [2].

However, if the application is off-label, measuring pleural fluid pH on a blood gas analyzer can cost time and effort in extra validation steps.

Save time, ensure accuracy with FDA-validated pH-pleura mode

Measurement of pH in pleural fluid on the ABL800 FLEX has been validated per FDA guidelines. This means that, unlike an off-label application (as performed on many blood gas analyzers), labs with ABL800 FLEX will require only limited validation, saving valuable resources. Also, because pleural fluid responds differently than whole blood, the ABL800 FLEX has a unique pH-pleura mode to ensure accuracy.

[1] Perceptions vs. Reality: Measuring of Pleural Fluid pH in North Carolina, (Bowling et al.)

[2] CLSI C49-A; American College of Clinical Pharmacy

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Type	Para-meters	Units	Measuring range	Test range
pH	pH	pH scale nmol/L	6.300-8.000 10.0-501	6.85-7.55 28-141
Blood gas	pCO_2	mmHg kPa torr	5.0-250 0.67-33.3 5.0-250	17-160 2.27-21.3 17-160
-	pO_2	mmHg kPa torr	0.0-800 0.00-107 0.0-800	20-580 2.67-77.3 20-580
Electrolytes	cCl^-	mmol/L meq/L	7-350 7-350	95-150 95-150
-	cCa^{2+}	mmol/L meq/L mg/dL	0.20-9.99 0.40-19.98 0.80-40.04	0.51-2.2 1.0-4.4 2.0-8.8
-	cK^+	mmol/L meq/L	0.5-25.0 0.5-25.0	2-8 2-8
-	cNa^+	mmol/L meq/L	7-350 7-350	120-180 120-180
Metabolites	cGlu	mmol/L mg/dL	0.0-60 0-1081	0.5-15 9.0-270
-	cLac	mmol/L mg/dL meq/L	0.0-30 0-270 0.0-30	0.5-15 4.5-135 0.5-15
-	cCrea	µmol/L mg/dL	10-1800 0.1-20.3	50-1500 0.57-17.0
-	ctBil	µmol/L mg/dL mg/L	0-1000 0.0-58.5 0-585	0-400 0.0-23.4 0-234
Oximetry	ctHb	g/dL mmol/L g/L	0.00-27.7 0.00-17.2 0.0-277	2.5-23 25-230 1.55-14.2
-	sO_2	% Fraction	0.0-100.0 0.000-1.000	0-100 0-1
-	FO_2Hb	% Fraction	0.0-100.0 0.000-1.000	0-100 0-1
-	FCOHb	% Fraction	0.0-100.0 0.000-1.000	0-20 0.0-0.2
-	FMetHb	% Fraction	0.0-100.0 0.000-1.000	0-20 0.0-0.2
-	FHHb	% Fraction	0.0-100.0 0.000-1.000	0-100 0-1
-	FHbF	% Fraction	0.0-100 0.00-1.00	0-80 0.0-0.8

The **Measuring range** for a parameter is the range within which

the analyzer is physically capable of measuring. The measuring range corresponds to the “range of indication” as defined in the “International vocabulary of basic and general terms in the metrology” (VIM).

The **Test range** for a parameter is the range within which accuracy and precision of a measured parameter has been specified and intended to lie within specified limits. The test range corresponds to the “measuring range” as defined in the “International vocabulary of basic and general terms in the metrology” (VIM).