

## **cobas t 511 and cobas t 711 coagulation analysers**

*Making innovation your routine*



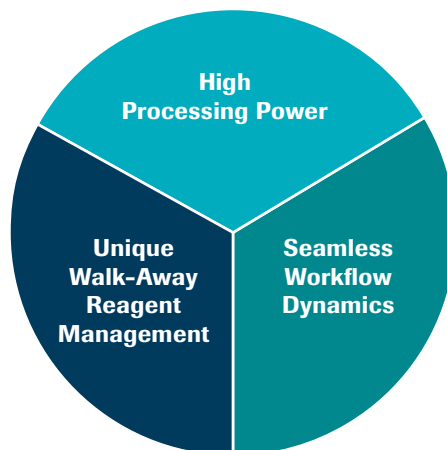
# Introduction

Growing world population, increasing prevalence of chronic diseases and a higher incidence of coagulation disorders are all driving a greater demand for coagulation testing<sup>1-3</sup>. This puts more pressure on healthcare systems and laboratories to cope with a growing number of tests that need to be analysed and interpreted.

Today's coagulation laboratories need to meet clinicians' increasing demand for fast and accurate results, whilst remaining cost effective. The new **cobas t 511** and **cobas t 711** coagulation analysers address this need for greater efficiency, improved workflow, and reliable results by delivering innovative features that will revolutionise the way lab coagulation testing is done today.



**cobas t 511** coagulation analyser



**cobas t 711** coagulation analyser

The high-throughput **cobas t 711** coagulation analyser and the mid-throughput **cobas t 511** coagulation analyser are both fully automated, continuous random-access, software-controlled systems for clotting, chromogenic and immuno-turbidimetric analysis, intended for qualitative and quantitative in-vitro coagulation determinations using a wide variety of coagulation tests. The results of these tests aid in the diagnosis of coagulation abnormalities and in monitoring anticoagulant therapy.

Designed for coagulation laboratories to achieve more by doing less, the **cobas t 511** and the **cobas t 711** coagulation analysers fully automate three of the most crucial steps in the daily workflow besides the actual execution of the tests:

1. Daily maintenance (pre-configured and executed automatically)
2. Reagent management (on-board storage of reagents, acclimatisation, electronic import of reagent data)
3. Reagent reconstitution (fully automated)

# High processing power

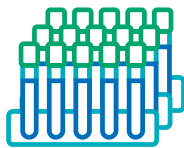
With their *High Processing Power* and extensive menu, the **cobas t 511** and **cobas t 711** coagulation analysers are the ideal solution for mid-to-high-volume and reference laboratories performing routine coagulation parameters and specialty assays.

The **cobas t 511** and **cobas t 711** coagulation analysers enable laboratories to complete their daily testing workload faster, supported by the following features:



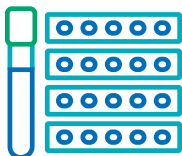
#### High throughput:

- 195 tests/hour (PT/APTT) on the **cobas t 511** coagulation analyser
- 390 tests/hour (PT/APTT) on the **cobas t 711** coagulation analyser



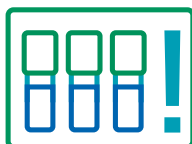
#### High on-board sample capacity:

- 75 samples on the **cobas t 511** coagulation analyser
- 225 samples on the **cobas t 711** coagulation analyser



#### Flexible sample loading/unloading:

- On the **cobas t 511** coagulation analyser, sample loading and unloading is automated via the front loading port.
- On the **cobas t 711** coagulation analyser, sample loading and unloading is automated via the front loading port and via the side balcony. The **cobas t 711** coagulation analyser can also be connected with the **cobas**<sup>®</sup> 8100 and the **cobas**<sup>®</sup> connection modules.
- Both analysers can be used in random-access or batch modes, and offer true STAT capabilities, with dedicated slots for urgent samples.



#### High on-board reagent capacity:

- 57 reagent cassette positions for up to 34,200 tests on board
- Up to 2 weeks of on-board stability

# Seamless workflow dynamics

The **cobas t 511** and **cobas t 711** coagulation analysers offer ease of use, continuous operation and maximised productivity, all whilst ensuring enhanced safety for the operator and reliable results for better patient care.

The benefits of *Seamless Workflow Dynamics* are enabled through the following features:



### **Continuous loading and unloading of supplies:**

- Reagents, samples and cuvettes can be loaded and unloaded at any time.
- Liquid and solid waste can be removed at any time.



### **Flexible sample tube handling:**

- The **cobas t 511** and the **cobas t 711** coagulation analysers support open and closed sample tubes, which can be placed on the same rack.
- Tubes from multiple vendors are supported.
- Automatic rotation for correct identification and processing.



### **Quality of results:**

- HIL index.
- Clog detection.
- Automatic cuvette checks.
- Full traceability of results.



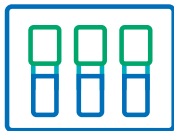
### **e-Services:**

- Access to e-library for automatic download of necessary information.
- Connectivity to Laboratory Information Systems.
- Remote service support functionalities.

# Unique walk-away reagent management

The **cobas t** 511 and **cobas t** 711 coagulation analysers offer *Unique Walk-Away Reagent Management* by fully automating the reconstitution of reagents in a standardised and accurate way. This innovative concept greatly increases the ease of use, and eliminates the risk of user error during reagent preparation, which ensures the highest reagent quality and helps to optimise reagent utilisation.

The intelligent scheduling of automated reconstitution is the ultimate enabler of continuous operation and true walk-away time: based on the user's preferred setting, the **cobas t** coagulation analysers are capable of starting automated reconstitution when needed, without operator intervention.



## Reagent cassette concept:

- 3 separate reagent vials in one **cobas t** pack, stored onboard the analyser in a cooled reagent compartment (5 – 12 °C)
- The design eliminates the risk of contamination or evaporation, and allows for easy loading and unloading during operation



## Automated reagent reconstitution:

- Automated transportation of **cobas t** pack from cooled reagent compartment to upper chamber
- Automated import of electronic data via barcode technology
- Automated pipetting, swirling and equilibrating to room temperature

# Technical specifications

	cobas t 511	cobas t 711
<b>General specifications</b>		
<b>Maximum throughput</b>	195 tests/hour (PT/APTT)	390 tests/hour (PT/APTT)
<b>Measuring principle</b>	optical	optical
<b>Assay types</b>	clotting, chromogenic and immunoturbidimetric tests	clotting, chromogenic and immunoturbidimetric tests
<b>Wavelengths</b>	408 nm, 588 nm, 625 nm, 800 nm	408 nm, 588 nm, 625 nm, 800 nm
<b>Incubation channels</b>	20	40
<b>Measurement channels</b>	13	26
<b>Sample management</b>		
<b>On-board sample capacity</b>	75 samples	225 samples
<b>Sample carrier</b>	5-position rack	5-position rack
<b>Closed tube sampling/ Cap-piercing</b>	yes (multiple tube types supported)	yes (multiple tube types supported)
<b>Automated tube rotation</b>	yes	yes
<b>Sample identification</b>	automatic via internal barcode reader	automatic via internal barcode reader
<b>Clog detection</b>	yes	yes
<b>Pre-analytical sample check</b>	yes (HIL index)	yes (HIL index)
<b>Handling of STAT</b>	through dedicated STAT port and via LIS request	through dedicated STAT port and via LIS request
<b>Automatic rerun testing</b>	yes	yes
<b>Reflex testing</b>	yes	yes
<b>Continuous sample loading/ unloading</b>	yes, via front loading	yes, via front loading and side balcony

	<b>cobas t 511</b>	<b>cobas t 711</b>
<b>Reagent management</b>		
<b>Reagent carrier</b>	cassettes ( <b>cobas t</b> pack)	cassettes ( <b>cobas t</b> pack)
<b>Reagent positions on board</b>	57 cassette positions (with up to 3 vials per cassette)	57 cassette positions (with up to 3 vials per cassette)
<b>Reagent vial identification</b>	automatic via built-in reading station	automatic via built-in reading station
<b>Reagent cooling</b>	yes (on-board temperature between 5 °C and 12 °C)	yes (on-board temperature between 5 °C and 12 °C)
<b>Automated reagent reconstitution</b>	yes	yes
<b>Continuous reagent loading/unloading</b>	yes	yes
<b>Cuvettes</b>		
<b>Type of cuvette</b>	single cuvettes	single cuvettes
<b>Cuvette capacity on board</b>	1,000 cuvettes	1,000 cuvettes
<b>Continuous loading/unloading</b>	yes	yes
<b>Software components and user interfaces</b>		
<b>Touch screen</b>	yes (LCD 23 inch)	yes (LCD 23 inch)
<b>Operating system</b>	Windows 7	Windows 7
<b>Data storage</b>	Up to 50,000 test results	Up to 50,000 test results
<b>Online user assistance</b>	yes	yes
<b>Remote Solutions</b>	yes	yes
<b>Connectivity to LIS</b>	yes (using HL7 communication protocol)	yes (using HL7 communication protocol)
<b>Technical specifications</b>		
<b>Height</b>	1,444 mm (56.8 in)	1,444 mm (56.8 in)
<b>Width</b>	1,284 mm (50.6 in)	1,735 mm (68.3 in)
<b>Depth</b>	933 mm (37 in)	933 mm (37 in)
<b>Weight</b>	307 kg (677 lb)	370 kg (816 lb)
<b>Power consumption</b>	700 VA	800 VA
<b>Water consumption</b>	2.6 L/hour (maximum)	4 L/hour (maximum)
<b>Noise emission</b>	<60 dB	<60 dB
<b>Heat dissipation</b>	700 W (maximum)	800 W (maximum)

#### References

- 1 VA Consultora y Asociados. (2016). *Lab Coag Segment in Latam, Quantitative & Qualitative Assesment*.
- 2 Wendelboe, A.M., McCumber, M., Hylek, E.M., Buller, H., Weitz, J.L., Raskob, G. (2015). *Global public awareness of venous thromboembolism. J Thromb Haemost 13*, 1365-71.
- 3 ISTH Steering Committee for World Thrombosis Day. (2014). *Thrombosis: a major contributor to the global disease burden. J Thromb Haemost 12*, 1580-90.

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