

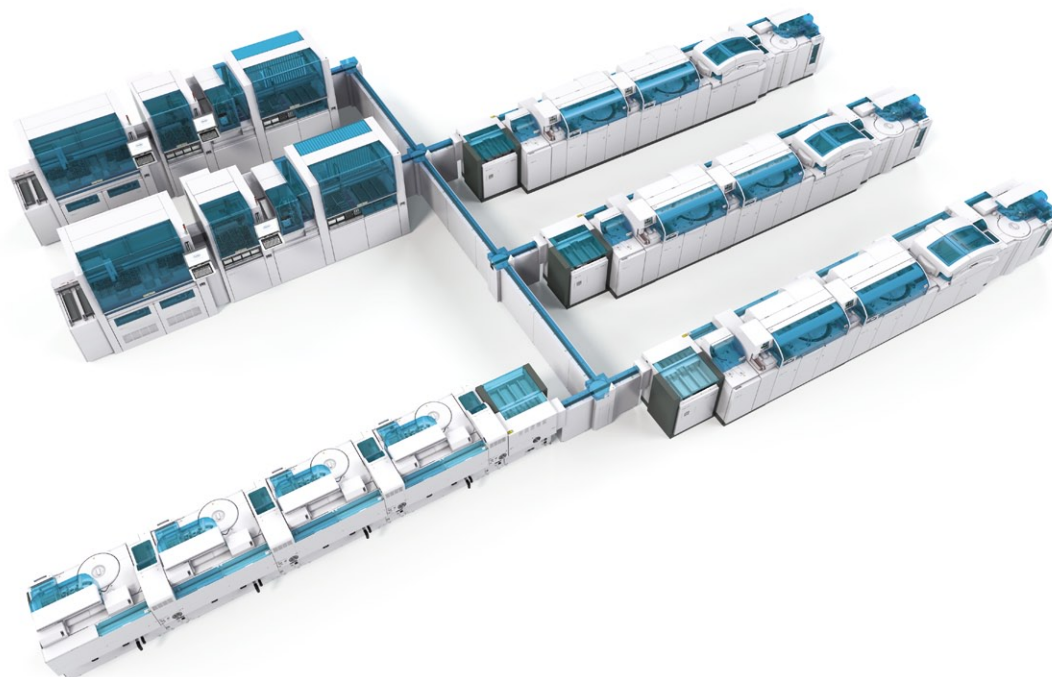


cobas[®] connection modules (CCM)
*Sample flow solutions for high-throughput
laboratories*



Expert workflow management

The fast track to sample flow efficiency



Professional management of laboratory processes in terms of workflow optimization is recognized as a major contributor for further improvement of laboratory cost and quality. Roche provides innovative pre- and post-analytical systems to support workflow management, which results in more testing efficiency, better service to clinicians and improved patient care.

The **cobas** pre- and post-analytical family, which provides up to now stand-alone task targeted automation (TTA) and now offers connected automation, allows modern laboratories to achieve their individual goals concerning workflow efficiency, reduced complexity, flexibility, control and security. By introduction of the unique concept of the **cobas** connection modules the **cobas** family is reaching a new dimension in sample flow management.

For high-throughput laboratories managing over 1,000 samples per hour and over 4,000 samples per day, with **cobas** connection modules it is possible to have two TTA pre-analytical systems on-line connected to the final sample destinations. After processing on two Roche PVT pre-analytical systems the samples are directly sent to the analytical systems by a unidirectional rack conveyor. Connected targets could be **cobas** 8000 modular analyzer series, **cobas** 6000 analyzer series, **MODULAR ANALYTICS EVO**, Sysmex HST and **cobas** post-analytical systems.

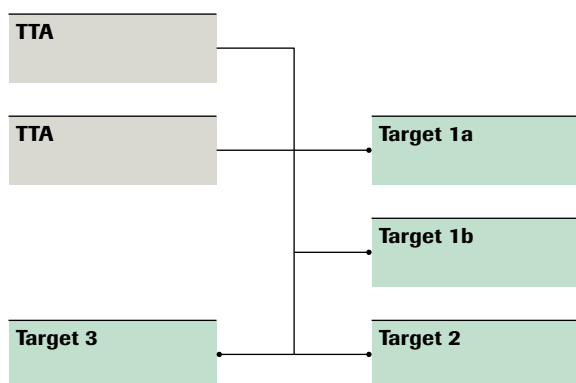
Working with Hitachi 5 position racks or Sysmex racks **cobas** connection modules offer a throughput of up to 400 racks per hour serving connected targets and keeping the possibility of off-line sorting, archiving and aliquoting.

cobas connection modules

One point of entry, many destinations

cobas connection modules add sample transport to the existing functionalities of **cobas p 512** and **cobas p 612** pre-analytical systems. The modification on the proven pre-analytical systems together with the option of connected single or double centrifuges and the variety of connection units guarantees the maximum flexibility.

Therefore, total automation in its purest form manages the greatest part of daily workload in the laboratory to ensure predictable turnaround times without introducing additional complexity.



TTA

*Two pre-analytical systems as **cobas p 612** or **cobas p 512** (available 4-2013) with optional functions (e.g. connected single or double centrifuges, liquid level detection and sample quality assessment)*

Targets

Analyzers and post-analytical units



cobas connection modules

Just get connected

Workflow
efficiency

Reduced
complexity

Control
and security

Flexibility

Workflow efficiency

cobas connection modules serve the major targets as clinical chemistry, immunochemistry, SWA and hematology via conveyor connection, guaranteeing predictable turnaround times for 80 – 90 % of results.

Four manual unloadable outsort drawers are still available to serve targets for different disciplines.

The combination of connected analyzers and Roche PVT systems offers all the features **cobas p 512** and **cobas p 612** systems are well-known for, as

- Registration of primary samples
- Connection of single or double centrifuge
- High-speed sorting (up to 1,100 samples per hour)
- Selective decapping and recapping of sample tubes
- Barcode alignment
- On-line and off-line aliquoting (**cobas p 612** only)
- Sorting directly into analyzer's target racks
- Sample integrity check, sample quality assessment
- Connection to bulk loader (coming soon)



Reduced complexity

From the single point of entry samples follow their destination, always being tracked by the laboratory information system (LIS) or work area manager (WAM).

The connection of the major targets provides streamline processing, predictable turnaround times and helps to reduce time spent in sample manual handling. In fact, tubes can be optionally decapped, recapped and sorted to off-line targets. Moreover, **cobas** connection modules are easy to install and to expand.

Flexibility

With four freely definable outsort drawers remaining and three rack lanes for connected analyzers, the **cobas** connection modules provide a unique and tailor-made rack layout and conveyor connection management. The connection modules are easy to install and could be upgraded according to workflow requirements and customer's needs. From the basic linear connections to complex lab layouts many different configurations allow a maximum of flexibility to connect analyzers and post-analytical systems to **cobas** pre-analytical systems.

Control and security

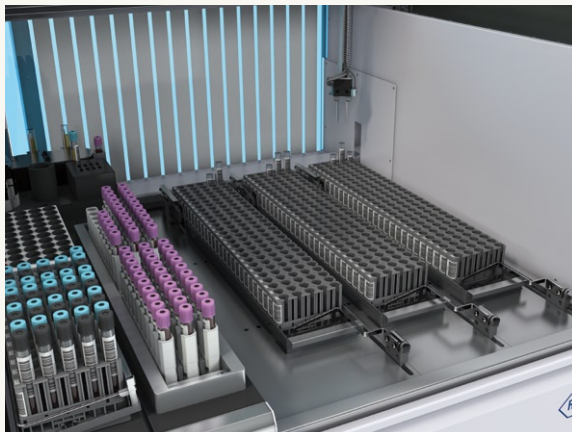
The sample specific automated processing is controlled by LIS/WAM. Communication to the information system follows ASTM protocol via LAN (TCP/IP) and enables sample management via batch download, host query or dynamic interface. The full range of **cobas p 512** and **cobas p 612** options is available, as for example IR-LLD for liquid level detection by infrared technology or QSI for additional sample quality assessment.

Sorting of tubes with unreadable barcode or without test requests will lead to default rack guaranteeing early detection of erroneous samples as well as faster initialization of corrective actions without interfering with the entire workflow. Less manual tube and rack handling leads to decrease of human risk factor as well as to radical reduction of bio hazardous exposition of laboratory staff.

*cobas connection modules
automate where it matters.
No frills. Just the essence.*

cobas connection modules

The new perspective on sample flow solutions



Modification of a cobas p 612 outsort buffer: three Hitachi rack lanes

cobas connection modules

Technical specifications

System description

- **cobas** connection modules enable the on-line connection of analyzers and post-analytics to two TTA pre-analytical systems of the **cobas** family, **cobas p 512** and **cobas p 612** pre-analytical systems, using a unidirectional rack conveyor
- Possible connections to **cobas 8000**, **cobas 6000**, **MODULAR ANALYTICS EVO** (A-gate connection on all Roche analyzers)
- **cobas** connection modules will be connected to Sysmex HST, **cobas p 501** and **cobas p 701** post-analytical units

Technical specifications of conveyor and connection modules

Carriers

- Roche 5 position rack/Sysmex 10 position rack

Tube types

- Diameter 13 – 16 mm
- Length 75 – 110 mm (including caps)

Common specifications

- Conveyor height 791 mm +/-10 mm (Above the floor to conveyor surface)
- Connection: AC 100V to 250V (-10%), 70 VA maximum
- Process speed: up to 400 racks/hour
- Maximum unit connection: 32 units per single track system (up to 4 power supply units)

Conveyor and connection modules

Name	Dimensions	Roche ID
CCM conveyor unit 0.5 meter	500x185x390 mm (WxDxH) (including plexiglas cover) Weight: approx. 30 kg (not including power supply unit)	06770568001
CCM conveyor unit 1 meter	1,000x185x390 mm (WxDxH) (including plexiglas cover) Weight: approx. 40 kg (not including power supply unit)	06770576001
CCM turn unit	310x310x390 mm (WxDxH) (including plexiglas cover) Weight: approx. 20 kg	06770592001
CCM power supply unit	150x100x500 mm (WxDxH) (including plexiglas cover) Weight: approx. 10 kg	06770584001
CCM cobas [®] 6000 connection unit	600x210x930 mm (WxDxH) (including plexiglas cover) Weight: approx. 30 kg	06770517001 05085055001 (CCM cobas [®] 6000 modification kit)
CCM cobas [®] 8000 connection unit	500x185x930 mm (WxDxH) (including plexiglas cover) Weight: approx. 23 kg	06924484001 05968054001 (CCM cobas [®] 8000 modification kit)
CCM Modular connection unit	600x210x930 mm (WxDxH) (including plexiglas cover) Weight: approx. 30 kg	06770550001 05968097001 (CCM Modular modification kit)
CCM Sysmex HST connection unit	600x210x930 mm (WxDxH) (including plexiglas cover) Weight: approx. 30 kg	06924514001

Technical specifications of system modifications

On **cobas p 512** platform

- WxDxH: 2.40x1.86x2.00 m
- Connections: 230 V AC / 115 V AC
- Pressure air supply: min. 6 bar, max. 8 bar
- Weight: approx. 860 kg

On **cobas p 612** platform

- WxDxH: 3.18x1.86x2.00 m
- Connections: 230 V AC / 115 V AC
- Pressure air supply: min. 6 bar, max. 8 bar
- Weight: approx. 1,396 kg

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