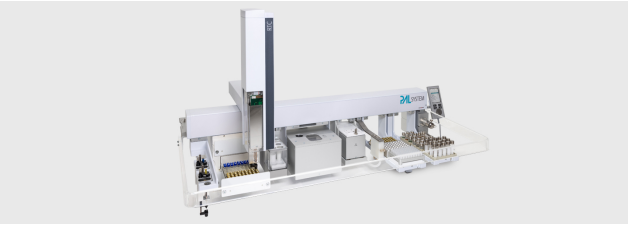
PAL RTC

Automated sample preparation

From the right tool to the finished injection.



Example Configuration · Image: CTC Analytics

CONCEPT

PAL RTC combines sample preparation and sample application for gas and liquid chromatography. RTC stands for Robotic Tool Change: The system automatically changes syringes and extraction tools.

Standard addition, dilution, extraction and injection can be combined to form a complete sequence. Derivatizations can also take place without manual intervention.

YOUR BENEFITS

Appropriate tool
Different syringe volumes for standard addition and dilution series.

Multi-step methods
Automatic switching between preparation, extraction and injection.

Less manual work
Recurring work steps are automated; several methods can be set up on one platform.

TYPICAL WORKFLOW

Admit standard → Dilute → Mix or extract → Inject

The selection of tools and order depend on the method. Modules for temperature control, centrifugation or opening and closing vessels complement the sequence depending on the equipment.

One platform, many tasks: from routine procedures to complex sample preparation.

Equipment and achievable throughput depend on the chosen configuration and method.

CHROMTECH GmbH
Carl-Zeiss-Strasse 20 · 65520 Bad Camberg
info@chromtech.de · www.chromtech.de

Tools and equipment

The configuration follows your application.

SELECTED TECHNICAL DATA

Tool change	Automatic; up to two parking stations with three tool stations each
Liquid syringes	0.5 to 1,000 µl as well as 5 and 10 ml; suitable tools required
Headspace syringes	1 / 2.5 / 5 ml for the gas phase over a sample
Extraction procedure	SPME Fiber, SPME Arrow, µSPE and Dynamic Headspace (ITEX)
Standard axis PALbase 850	Workspace: 735 × 255 × 420 mm (width × depth × height)
Instrument dimensions, standard feet	915 × 795 × 770 mm (width × depth × height), PALbase 850
Capacity, four tray holders	Up to 648 vessels of 2 ml or 180 vessels of 10 / 20 ml

Values for the mentioned embodiments; Capacity with corresponding racking. Tools, modules and larger axes are assembled as needed.

CONTROL AND INTEGRATION

Chronos also plans time-overlapping preparation steps. PAL Method Composer supports graphical method creation. The connection to GC, LC and data systems is matched to the existing device environment.

CHROMTECH OPTIONS

Single Magnet Mixer (SMM)

Magnetic stirring and tempering.

TDAS 2020

Automatic thermodesorption.

SPDE - The Magic Needle

Dynamic solid phase extraction.

Fachgrundlage: CTC Analytics, PAL RTC; PAL RSI and PAL RTC, Rev. 8, Februar 2026, S. 8-9, 14-15, 54-55. CHROMTECH-Optionen gemäß Product programme.

CHROMTECH GmbH
Carl-Zeiss-Strasse 20 · 65520 Bad Camberg
info@chromtech.de · www.chromtech.de