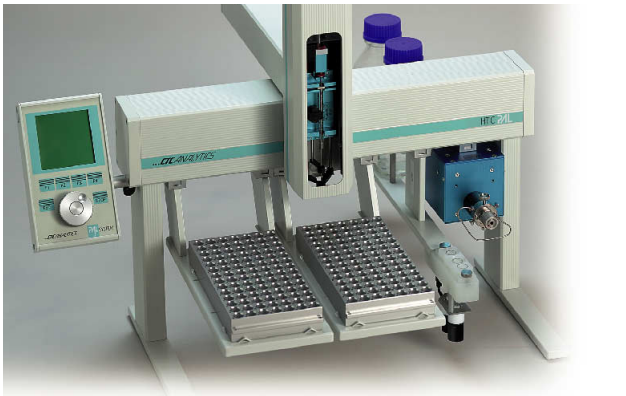
The HTC PAL automatically opens a drawer and aspirates the sample from the microplate…

…and injects it into the fast switching LC valve



The HTC PAL equipped with 2ml Sample Trays

Temperature controlled sample storage (4°C-40°C) for up to 6 micro- or deepwell plates

Reliability is standard
Automated injection of sample sequences is certainly a key factor in increased laboratory productivity. Today, requirements in a sample injection system include high precision and accuracy, random access to individual samples and task-oriented programming along with options and accessories for additional sample handling routines. CTC Analytics' experience in design and manufacture of automated GC and LC injection systems is reflected in their range of the PAL series of Prep and Load Systems. In all PAL instruments the latest electronic and mechanical developments are combined with a unique, stepper motor driven XYZ design. This combination ensures precise sample handling for dependable analysis results.

Syringe only technology
The syringe only concept of the HTC PAL combines the manual sample injection procedure with the precision and throughput of a robotic liquid handling system. Samples are aspirated with a conventional syringe and are transferred directly into the sample loop. No error prone teflon tubing or transfer lines are involved during the sample loading process.

Advanced performance
The HTC PAL provides outstanding performance and maximum flexibility for your LC sample processing system. Sample capacity of > 600 2ml standard vials or up to 24 microplates within 50cm of benchspace are unmatched in the industry. Temperature controlled sample storage makes it easy to cool down samples to prevent degradation or heat samples for kinetic studies. Using the optional 4 port or 10 port injection valve enables complex column switching procedures or internal loop configurations.

Intelligent system control
Choose from 3 options to control your HTC PAL instrument. The local handheld controller provides easy-to-learn, easy-to-use operation. For individual application requirements the PC based Windows 9x/NT4 control software Cycle Composer is available. For single keyboard operation of a whole LCMS system, various third party HTC PAL drivers are available.

Specifications HTC PAL

System Type
XYZ robot with syringe only concept, no tubing in sample path

Syringe size:
100µl

LC Injector
1 electrically actuated fast switching 6 port valve

Sample capacity
up to 400 1ml micro vials / 648 2ml vials / 64 10ml or 20ml vials
12 deepwell microplates / 24 standard microplates (96 or 384 well)

Needle, Syringe Valve cleaning
Fast Wash Station for 2 different solvents

Local control
Handheld control panel with 4 function keys, Graphical LCD Display

Remote control
Cycle Composer Windows 9x/NT4® based PC software

Electrical control
2 RS 232C ports / 3 TTL Input / 1 Opto Coupler Input / 2 Relay Output

Dimensions
L: 534mm D:385mm H: 648mm

Weight
8kg (without accessories)

Power Requirements
97.5 – 264 VAC, 45-66 Hz

Specifications are subject to change without notice

HTC PAL Options
Thermostatted Trayholders (4°C – 70°C)
Thermostatted Microplate Stacks (4°C – 40°C)
4 port and 10 port electrically actuated fast switching injection valves
Syringe sizes 10, 25, 250, 1000, 2500, 5000µl

...CTC ANALYTICS
Where design meets performance

CTC Analytics AG
CH-4222 Zwingen
Switzerland
E-mail: info@ctc.ch
Web: www.ctc.ch