

PAL DLW Option

- PAL DLW-2-HTC-xt** Dynamic Load and Wash Option for fast and clean LC Cycles
1pc DLW-2 Injection Adapter with sample holding loop and syringe
100µl
1pc Wash Station
1pc Wash Solvent Pump Station with 2 active micro pumps
2 pc 1 Liter Wash Solvent bottles
2 pc Solvent bottle transfer line including solvent filter
1 pc System CD ROM DLW including Cycles
requires but does not include xt-Upgrade for PAL and Firmware 4.X
or higher
Choose this kit if your PAL HTC/HTS is already equipped with the
XT-Upgrade
Dynamic Load and Wash Option including HTC-xt Upgrade Kit
1pc DLW-2 Injection Adapter with sample holding loop and syringe
100µl
1pc Wash Station
1pc Wash Solvent Pump Station with 2 active micro pumps
2 pc 1 Liter Wash Solvent bottles
2 pc Solvent bottle transfer line including solvent filter
1 pc System CD ROM DLW including Cycles
1 pc Kit HTC-xt (Control Board-xt for PAL System - Firmware 4.X or
higher)
Choose this kit if you want to upgrade an existing HTC PAL to the
DLW Option
- PAL DLW-2-HTS-xt** Dynamic Load and Wash Option including HTS-xt Upgrade Kit
1pc DLW-2 Injection Adapter with sample holding loop and syringe
100µl
1pc Wash Station
1pc Wash Solvent Pump Station with 2 active micro pumps
2 pc 1 Liter Wash Solvent bottles
2 pc Solvent bottle transfer line including solvent filter
1 pc System CD ROM DLW including Cycles
1 pc Kit HTS-xt (Control Board-xt for PAL System - Firmware 4.X or
higher)
Choose this kit if you want to upgrade an existing HTS PAL to the
DLW Option
- PAL TubeDLW** DLW Tubing Kit HTS/HTC
- SYRC DLW100-R** CTC Syringe gastight DLW 100µl, removable needle, not included
- PLG DLW100** Replacement Plunger for SYRC DLW100-R, pk of 10 pcs

PAL DLW-2Loop	PAL DLW-2 Loop incl. PEEK hex-head nut and lock nut for needle adapter
PAL TubeWaste	Tube Waste for Wash Station, length 2m
PAL DLW-2 UpgrdKit	PAL DLW-2 Upgrade Kit, includes : DLW-2 Syringe Holder Plate DLW-2 Actuator Control PCB DLW Needle Holder

H HTC PAL and LC PAL Syringe Kits

PAL SyrLC10ul	Kit LC Syringe 10µl for HTX/HTS/HTC/LC PAL consisting of: 1pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G10-22S-3
PAL SyrLC25ul	Kit LC Syringe 25µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G25-22S-3
PAL SyrLCX25ul	Kit LC X-Syringe 25µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRX G25-22S-3
PAL SyrLCX50ul	Kit LC X-Syringe 50µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRX G50-22S-3
PAL SyrLC100ul	Kit LC Syringe 100µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G100-22S-3
PAL SyrLCX100ul	Kit LC X-Syringe 100µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRX G100-22S-3
PAL SyrLCX100ul-22	Kit LC X-Syringe 100µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRX G100-22-3
PAL SyrLC250ul	Kit LC Syringe 250µl for HTX/HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G250-22-3
PAL SyrLC500ul	Kit LC Syringe 500µl for HTX/HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G500-22-3
PAL SyrLC1000ul	Kit LC Syringe 1000µl for HTX/HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G1000-22-3
PAL SyrLC2500ul	Kit LC Syringe 2500µl for HTX/HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder

2 pc syringe SYRC G2500-22-3
 PAL SyrLC5000ul Kit LC Syringe 5000µl for HTX/HTS/HTC PAL consisting of:
 1 pc syringe adapter and 1pc plunger holder
 2 pc syringe SYRC G5000-22-3

HTX, HTS PAL, HTC PAL and LC PAL Standard Syringes

SYRC G10-22S-3	Liquid Syringe gastight 10µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3
SYRC G25-22S-3	Liquid Syringe gastight 25µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3
SYRX G25-22S-3	Liquid Syringe X-type gastight 25µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3
SYRX G50-22S-3	Liquid Syringe X-type gastight 50µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3
SYRX G100-22-3	Liquid Syringe X-type gastight 100µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22, Pointstyle 3
SYRX G100-22S-3	Liquid Syringe X-type gastight 100µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3
SYRC G100-22-3	Liquid Syringe gastight 100µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22, Pointstyle 3
SYRC G100-22S-3	Liquid Syringe gastight 100µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3
SYRC G250-22-3	Liquid Syringe gastight 250µl for HTX/HTS/HTC/LC PAL Fixed needle, gauge 22, Pointstyle 3
SYRC G500-22-3	Liquid Syringe gastight 500µl for HTX/HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3
SYRC G1000-22-3	Liquid Syringe gastight 1000µl for HTX/HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3
SYRC G2500-22-3	Liquid Syringe gastight 2500µl for HTX/HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3
SYRC G5000-22-3	Liquid Syringe gastight 5000µl for HTX/HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3
PLG G10	10 pcs. Replacement syringe plunger for syringe SYRC G10-22S-3
PLG G25	10 pcs. Replacement syringe plunger for 25µl syringe
PLG X25	3 pcs. Replacement syringe plunger for SYRX G25 syringe
PLG X50	3 pcs. Replacement syringe plunger for SYRX G50 syringe
PLG X100	3 pcs. Replacement syringe plunger for SYRX G100 syringe
PLG G100	10 pcs. Replacement syringe plunger for 100µl syringe
PLG G250	10 pcs. Replacement syringe plunger for 250µl syringe
PLG G500	10 pcs. Replacement syringe plunger for 500µl syringe
PLG G1000-L	1 pcs. Replacement syringe plunger for 1000µl syringe

PLG G2500 1 pcs. Replacement syringe plunger for 2500µl syringe
 PLG G5000 1 pcs. Replacement syringe plunger for 5000µl syringe

HTX, HTS PAL, HTC PAL and LC PAL Trays, Traysets, Tray Holders, Thermostatted Tray Holders and Stacks

PAL Tray1ml Sample tray for 200 vials 0.7/1ml
 PAL Tray2ml Sample tray for 98 vials 2ml or 78 vials 0.7/1ml
 PAL Tray20ml Sample tray for 32 vials 10/20ml or 21 vials 2ml
 PAL3-VT54 Sample tray MT footprint, for 54x2ml vials
 for PAL Stacks all types or PAL MTHolders all types - new part (gray)
 PAL3-KIT-VT54 Sample tray MT footprint, for 54x2ml vials for PAL Stacks all types or PAL MTHolders all types - new part (gray) - Set of 3 pcs.

PAL TrayMT10ml/6 Sample tray with Microtiter footprint for 15 vials 10ml, Pack of 6 pcs

PAL Stack8MT PAL System stack for 8 Microtiter plates
 PAL Stack12MT PAL System stack for 12 Microtiter plates
 PAL Stack4DW PAL System stack for 4 micro- or deepwell plates
 PAL Stack6DW PAL System stack for 6 Deepwell plates or 6 PAL TrayMT2ml
 PAL MTHolder Tray Holder 76mm for 2 Microtiter/Deepwell plates or 2 PAL TrayMT2ml
 PAL MT4Holder Tray Holder 76mm for 4 Microtiter/Deepwell plates or 4 PAL TrayMT2ml

MR 21-00 Tray holder 76mm for standard vial trays 1ml, 2ml, 10ml vials
 MR 22-00 Tray holder 114mm for standard vial trays 10/20ml vials
 PAL TraySet1ml Sample tray for 200 vials 0.7/1ml, including Tray Holder 76mm
 PAL TraySet2ml Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, including Tray Holder 76mm

PAL TrayCooler-xt Peltier Cooler 4°C to 70°C for one PAL Tray2ml (without sample tray)
 consisting of:
 1pc TrayCooler with 84mm legs
 1pc Tray cover for PAL Tray2ml
 including 1 pc. Power Supply 100V-240V
 LED Display, temperature regulation ± 1°C

PAL LiqCooler Liquid Tray Cooler 4°C to 70°C* for 1 PAL Tray2ml (without sample tray) consisting of:
 1pc LiqCooler with 84mm legs
 1pc plastic tray cover for PAL Tray2ml (circulator connection tube OD 8mm)
 *excluding external heating/cooling circulator

PAL LiqCooler2 Liquid Tray Cooler 4°C to 70°C* consisting of:

	1 pc TrayCooler with 136mm legs 1 pc Cooling plate for 20ml vials 1 pc plastic tray cover for PAL Tray2ml (* excluding PAL Tray2ml and external circulator)
MC 30-10	Plastic Tray Cover to use 1 PAL Tray1ml in PAL TrayCooler or PAL LiqCooler
MC 30-11	Plastic Tray Cover to use 1 PAL Tray2ml in PAL TrayCooler / PAL LiqCooler
MC 30-14	Plastic Tray Cover to use 1 96well MT/DW in PAL TrayCooler/PAL LiqCooler
MC 50-01	Adapter plate to use 1 96 well MT/DW in PAL TrayCooler / LiqCooler
MP 50-031	Cooling plate 32x20 for PAL LiqCooler2 and PAL TrayCooler2
PAL StkCooler-xt	Peltier cooled 6 DW Stack 4°C to 40°C for 6 standard microplates or 6 deepwell plates or 6 x 54 2ml vials including LCD display, temperature regulation $\pm 1^\circ\text{C}$ and power supply 100V-240V
PAL StkCooler12MT-xt	Peltier cooled 12MT Stack 4°C to 40°C for 12 standard microplates including LCD display, temperature regulation $\pm 1^\circ\text{C}$ and power supply 100V-240V
PAL StkCooler2DW-xt	Peltier cooled 2DW Stack 4°C to 40°C for 2 pcs Standard Microplates or 2 pcs Deepwell plates or 2 pcs PAL TrayMT2ml including 1 pc Power Supply 100V-240V LED Display, temperature regulation $\pm 1^\circ\text{C}$

HTX, HTS PAL and HTC PAL Valve Drives

PAL 4VlvDrv-C2V6	PAL 4-Valve Module, type 2 consisting of: 4 pcs. Valve Drives 4 pcs. VICI Cheminert 6-port Injection valves, type C2V-1006D-CTC 4 pcs. Sample loops 20 μl 1 pc PEEK Solvent manifold 1 set PEEK tubing kit including PEEK fittings 1 set Electrical connection cables
PAL 4VlvDrv	PAL 4-Valve Module, type 2 consisting of: 4 pcs. Valve Drives 1 pc PEEK Solvent manifold

	1 set PEEK tubing kit including PEEK fittings
	1 set Electrical connection cables (requires VICI Valco LC Valves, type DCxWK, type C or Rheodyne PD)
PAL ColSel6	Column Switching Valve Module for up to 6 columns 2pc C5-1006 type 6-port Column Selector Valve 0.25mm bore (requires Cycle Composer or PAL ICC-CE Software and PAL 1VlvDrv)
PAL 1VlvDrv-D	PAL 1Valve Drive Module High Torque consisting of: 1 pc Multiposition Valve Drive with bracket 1 set Electrical connection cable (requires LC Injection Valve, VICI type)
PAL 1VlvDrv	PAL 1-Valve Drive Module consisting of: 1 pc Multiposition Valve Drive with bracket 1 set Electrical connection cable (requires LC Injection Valve, VICI type)
PAL 2VlvDrv	PAL 2-Valve Drive Module consisting of: 2 pcs Multiposition Valve Drives with bracket 1 set Electrical connection cable (requires LC Injection Valve, VICI type)
PAL 3VlvDrv	PAL 3-Valve Drive Module consisting of: 3 pcs Multiposition Valve Drives with bracket 1 set Electrical connection cable (requires LC Injection Valve, all types)
PAL VlvDrv	PAL Valve Drive for VICI LC valve type WK or C (without Valve) 1 pc 2 Position Valve Drives with bracket 1 set Electrical connection cable (requires LC Injection Valve, VICI type)
PAL VlvDrvR	Valve drive for PAL System for Rheodyne valve PD7921 and PD7991 (without valve), consisting of: 1 pc Valve drive module 1 pc Connection cable 1300mm (requires LC Injection Valve, Rheodyne type PD7921 / PD7991)
PAL VlvDrvR-32	Valve drive for PAL System for Rheodyne valve PD718 series (without valve), consisting of: 1pc Valve drive 1pc Connection cable 1300mm (requires LC Injection Valve, Rheodyne type PD 718 series)

HTX, HTS PAL and HTC PAL Injection Valves, Valve Adaptors

DC10WK-CTC-K	10-Port VICI type WK Injection Valve 0.4mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
DC6WK-CTC-K	6-Port VICI type WK Injection Valve 0.4mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
DCI4WK.5/1-CTC-K	4-Port VICI type WK Injection Valve 0.4mm bore, internal loop 0.5/1.0µl incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-0006D-CTC-K	6-port VICI Cheminert Injection Valve 0.15mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-0346D-CTC-K	6-port VICI Cheminert Injection Valve PAEK 0.15mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-1006D-CTC-K	6-port VICI Cheminert Injection Valve 0.25mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-1346D-CTC-K	6-port VICI Cheminert Injection Valve PAEK 0.25mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-3006D-CTC-K	6-Port Cheminert Injection Valve 0.75mm bore (prep version) incl. Needle Guide gauge 19, Needle Seal gauge 19, Kit LCVlv
C2VH-1000D-CTC-K	10-port VICI Cheminert Injection Valve 0.25mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
CN2-4340D-CTC	10-port VICI Cheminert Switching Valve PAEK version 0.1mm bore 1/32" Connections, no vertical port, can not be used as injection valve
C5F-1004D-CTC	8-port VICI Selector Valve 0.25mm bore (requires Valve Drive MV 03-01)
C72VU-6676D-CTC-K	6 port VICI injection valve Cheminert Pressure up to 18'500 psi / 1275 bar 50°C liq. / ID 0.15 mm incl. 2µl and 20µl loop. 20µl loop already mounted.
C72VX-1676D-CTC-K	6-port VICI Cheminert Injection Valve, 0.25mm bore Pressure up to 15'000 psi / 1000 bar incl. Needle Guide, Needle Seal, Kit LCVlv
C72VX-1670D-CTC-K	10-port VICI Cheminert Injection Valve, 0.25mm bore Pressure up to 15'000 psi / 1000 bar incl. Needle Guide, Needle Seal, Kit LCVlv (requires PAL 1VlvDrv-D high torque version)
C72X-6670D-CTC	10-port VICI Cheminert Valve 15'000 psi 75°C ID 0.15 mm (requires PAL 1VlvDrv-D High Torque Version)
C2-Adptr	Adaptor to mount C2V valve on PAL VlvDrv old style (MV 10-00)
MV 36-01 Kit LCVlv	Universal Vlv-Adapter Kit Waste-Tubing for Valve

PD7991-K	6-port Rheodyne Injection Valve 0.20mm bore SPC4 (Special plating on Titanium, biocompatible) Pressure up to 15'000 psi / 1000 bar incl. Needle Guide, Needle Seal, Kit LCVlv
SS-100 Set-10	SWAGELOK ferrule 1/16" SST, pack of 10 Front and Back Ferrule (required for PD 7991-K fluid connections)
PD718-313-K	6 port Rheodyne Injection Valve 0.20mm bore Coated, stainless steel rotor seal (RPC-13) Pressure up to 17'500 psi / 1200 bar, incl. Needle Guide, Needle Seal, Kit LCVlvR, mounted 2ul loop and VHP-200 fittings (requires PAL VlvDrvR-32)
PD718-315-K	6 port Rheodyne Injection Valve 0.20mm bore and MBB Coated, stainless steel rotor seal (RPC-13) Pressure up to 17'500 psi / 1200 bar, incl. Needle Guide, Needle Seal, Kit LCVlvR, (requires PAL VlvDrvR-32)

HTX, HTS PAL, HTC PAL and LC PAL Stators, Rotors, Sample Loops

SL1KCW	Sample loop 1000µl for VICI, type WK
SL500CW	Sample loop 500µl for VICI, type WK
SL250CW	Sample loop 250µl for VICI, type WK
SL200CW	Sample loop 200µl for VICI, type WK
SL100CW	Sample loop 100µl for VICI, type WK
SL50CW	Sample loop 50µl for VICI, type WK
SL20CW	Sample loop 20µl for VICI, type WK
CSL5K	Sample loop 5000µl for Cheminert Injection valve
CSL2K	Sample loop 2000µl for Cheminert Injection valve
CSL1K	Sample loop 1000µl for Cheminert Injection valve
CSL500	Sample loop 500µl for Cheminert Injection valve
CSL250	Sample loop 250µl for Cheminert Injection valve
CSL100	Sample loop 100µl for Cheminert Injection valve
CSL50	Sample loop 50µl for Cheminert Injection valve
CSL20-CTC	Sample loop 20µl for Cheminert Injection valve
CSL10-CTC	Sample loop 10µl for Cheminert Injection valve
CSL5-CTC	Sample loop 5µl for Cheminert Injection valve
CSL2-CTC	Sample loop 2µl for Cheminert Injection valve
CZSL20PK	Sample loop PEEK 20µl for Cheminert Injection valve
CZSL10PK	Sample loop PEEK 10µl for Cheminert Injection valve
CZSL5PK	Sample loop PEEK 5µl for Cheminert Injection valve
CZSL2PK	Sample loop PEEK 2µl for Cheminert Injection valve

TR050306B	Sample Loop 5ul Stainless Steel for Rheodyne type PD 7991
TR050306C	Sample Loop 10ul Stainless Steel for Rheodyne type PD 7991
TR050306D	Sample Loop 20ul Stainless Steel for Rheodyne type PD 7991
TR050306E	Sample Loop 50ul Stainless Steel for Rheodyne type PD 7991
TR050306F	Sample Loop 100ul Stainless Steel for Rheodyne type PD 7991
PD718SL2	Rheodyne Sample loop 2ul for PD 718-313 and PD718-315 type valves
PD718SL10	Rheodyne Sample loop 10ul for PD 718-313 and PD718-315 type valves
PD718SL20	Rheodyne Sample loop 20ul for PD 718-313 and PD718-315 type valves
PAL NdlSealP	10pcs. PEEK Needle seal, gauge 22 for Valco PEAK valve
PAL NdlSealP-19	10pcs PEEK Needle seal , gauge 19 for Valco PEAK valve
PAL NdlSeal	10pcs. Needle seal, gauge 22 for Valco valve
PAL NdlSeal-19	10pcs. Needle seal, gauge 19 for Valco valve
PAL NdlSealR	10pcs. Needle seal, gauge 22 for Rheodyne valves
C2-00R6	Rotor for C2V-0006D-CTC and C2-0006D-CTC
C2V-0C06	Stator for C2V-0006D-CTC
C2-13R0H	Rotor for C2VH-1340D-CTC
C2V-1C40H	Stator for C2VH-1340D-CTC
C2-10R0H	Rotor for C2VH-1000D-CTC
C2V-1C00H	Stator for C2VH-1000D-CTC
C2-03R6	Rotor for C2V-0346D-CTC
C2V-0C46	Stator for C2V-0346D-CTC
C72-16R6	Rotor for C72VX-1676D-CTC and C72VX-1696D-CTC
C72V-1C76	Stator for C72VX-1676D-CTC
C72V-1C96	Stator for C72VX-1696D-CTC (discontinued)
C72-16R0	Rotor for C72VX-1670D-CTC and C72VX-1690D-CTC
C72V-1C70	Stator for C72VX-1670D-CTC
C72V-1C90	Stator for C72VX-1690D-CTC
C2-13R6	Rotor for C2V-1346D-CTC
C2V-1C46	Stator for C2V-1346D-CTC
C2-30R6	Rotor Valcon-H for C2V-3006D-CTC
C2V-3C06	Stator C2V-3006D-CTC
C2-03R6	Rotor for C2-0346D-CTC
C-0C46	Stator for C2-0346D-CTC
C2-10R6	Rotor for C2V-1006D-CTC
C2V-1C06	Stator for C2V-1006D-CTC
C2-20R6	Rotor for C2V-2006D-CTC
C2V-2C06	Stator for C2V-2006D-CTC
C2-23R6	Rotor for C2V-2346D-CTC

C2V-2C46	Stator for C2V-2346D-CTC
C72-66R6	Rotor for C72VX-6696D-CTC, C72VU-6696D-CTC and for C72VU-6676D-CTC
C72V-6C76	Stator for C72VU-6676D-CTC
C5F-10R4	Rotor for PAL SelVlv C5 Selector Valve
C5-1C28	Stator for PAL SelVlv C5 Selector Valve
SSACI4W.5/1	Rotor for DCI4WK.5/1-CTC, internal loop 0.5/1 μ l
SSAC6W	Rotor for DC6WK-CTC
SSAC10W	Rotor for DC10WK-CTC
7991-999	RheBuild Kit Rotor for PD 7991
7990-005	Stator for PD 7991
PD718-RPC13-6	Rotor for PD718-313 Rheodyne 1200 Bar Valve
PD718-SPC3	Stator for PD718-313 Rheodyne 1200 Bar Valve
PD718-315-RPC	Rotor for PD718-315 Rheodyne 1200 Bar MBB Valve
PD718-315-SPC	Stator for PD718-315 Rheodyne 1200 Bar MBB Valve

3

HTX, HTS PAL, HTC PAL Dilutor Option

PAL Dilutor	PAL Dilutor Option for HTS PAL or COMBI PAL, consisting of: 1 pc Dilutor module 1 pc Connection cable 1 pc Dilutor syringe 2.5ml 1 pc Transfer tube 1/16" 1 pc Solvent bottle 1000ml 1 pc Aspirating tube 1/8" (requires PAL SyrLCSP80 μ l, PAL SyrLCSP20 μ l)
PALDilutor-HTX	PAL Dilutor Option for HTX PAL, consisting of: 1 pc Dilutor module 1 pc Connection cable 1 pc Dilutor syringe 2.5ml 1 pc Transfer tube 1/16" 1 pc Solvent bottle 1000ml 1 pc Aspirating tube 1/8" (requires PAL SyrLCSP80 μ l, PAL SyrLCSP20 μ l)
PAL SyrLCSP80ul Kit Dilutor Syringe 80 μ l for HTS PAL consisting of:	1pc Sideport Syringe Plunger Sealing Screw 1pc Sideport Syringe Adapter and Plunger Holder 1pc Sideport Syringe 80 μ l SYRC SP80-R 3pcs Ndl S-22-3 Needles gauge 22 pointstyle 3 for Sideport Syringe
PAL SyrLCSP20ul Kit Dilutor Syringe 20 μ l for HTS PAL consisting of:	1pc Sideport Syringe Plunger Sealing Screw

	1pc Sideport Syringe Adapter and Plunger Holder
	1pc Sideport Syringe 20µl SYRC SP80-R
	3pcs Ndl S-22S-3 Needles gauge 22S pst 3 for Sideport Syringe
SYRC DIL1.0	PAL Dilutor Syringe 1ml
SYRC DIL2.5	PAL Dilutor Syringe 2.5ml
SYRC DIL5.0	PAL Dilutor Syringe 5ml
SYRC DIL10	PAL Dilutor Syringe 10ml
SYRC SP80-R	Sideport Syringe 80µl gastight without needle
SYRC SP20-R	Sideport Syringe 20µl gastight without needle
PLG DIL1.0	Replacement Dilutor Syringe Plunger 1ml
PLG DIL2.5	Replacement Dilutor Syringe Plunger 2.5ml
PLG DIL5	Replacement Dilutor Syringe Plunger 5.0ml
PLG DIL10	Replacement Dilutor Syringe Plunger 10ml
PLG SP80	10pcs Replacement syringe plunger for 80µl Sideport Syringe
PLG SP20	10pcs Replacement syringe plunger for 20µl Sideport Syringe
Ndl S-22-3	3pcs Replacement needle gauge 22 pst 3 for Sideport Syringe 80µl
Ndl S-22S-3	3pcs Replacement needle gauge 22S pst 3 for Sideport Syringe 20µl
PAL SyrOringSP20	1pc Perfluor O-Ring for SYRC SP20-R
PAL SyrOringSP80	1pc Perfluor O-Ring for SYRC SP80-R
PAL TubeDilHTX	1pc PAL Dilutor Transfer Tubing Kit for 120cm X-axis
PAL TubeDilHTX	1pc PAL Dilutor Transfer Tubing Kit for 50cm or 80cm X-axis
PAL DilAspKit 1000-SV	Aspiration tube kit, PFA tube and glass filter 40µl pore size 1pc Dilutor Solvent bottle 1000ml
MM 30-36	1pc Dilutor Syringe Screw
PAL DilWasher	10pcs PTFE Dilutor Syringe Washer
MM 90-02	3-way Dilutor Valve, PCTFE
MM 90-03	3-way Dilutor Valve, PTFE

HTS PAL, HTC PAL MALDI Option

PAL MALDIOpt	PAL MALDI Option - Fraction Collection system consisting of:
	1pc Tool parking bracket
	1pc MALDI spotting tool
	3pcs. Spotting tips
	1pc Tool holder
	1pc Waste tube
	1pc Microfluidic fitting and tubing accessories
	1pc CD-ROM PAL firmware 3.0 and CycleComposer cycles (requires PAL firmware 3.0 or higher and Cycle Composer or preferably PAL-xt System)

	and Firmware 4.1.X or higher)
MSPoTip3	3 pcs. Coated Fused Silica Spotting Tips, 360µm OD, 20µm ID
MP 52-01	MALDI Target Adapter for 2pcs. Waters 96/384 Targets
MP 52-02	MALDI Target Adapter for 2pcs. ABI Opti-TOF or ABI 4700 / Voyager
MP 52-04	MALDI Target Adapter for 1pc Bruker AnChor Chip
MP 52-05	MALDI Target Adapter for 1pc ABI 4800 Target

HTX, HTS PAL, HTC PAL and LC PAL Software

PAL CycCompCD	Cycle Composer Remote Control Software for PAL System CD ROM consisting of: Cycle Composer standalone version (Requires PAL Firmware 2.2 or higher and Windows XP/ VISTA)
PAL CycCompCD5	Cycle Composer Remote Control Software for PAL System CD ROM, site license for 5 instruments consisting of: Cycle Composer standalone version including 5 serial numbers (Requires PAL Firmware 2.2 or higher and Windows XP/ VISTA)
PAL CCUpgrd	Cycle Composer Remote Control Software for PAL System CD Upgrade Version 1.6 (requires Cycle Composer license number)
PAL CycEdit	PAL Cycle Editor License
PAL ICC-CE	CTC Instrument Control Components incl. Cycle Editor
PAL DrvEmp	PAL Driver License for Waters Empower2 Software
PAL DrvEmp3	PAL Driver License for Waters Empower3 Software

HTX, HTS PAL, HTC PAL and LC PAL Accessories

PAL LC-QDoc	Instrument Qualification for HTS/HTC and LC PAL consisting of: 1pc LogBook 1pc Documentation IQ procedure 1pc Documentation OQ procedure
PAL LC-ReQ	Instrument Requalification for HTS/HTC and LC PAL consisting of: 1pc Documentation OQ procedure
PAL WashFast-22	Wash station HTS PAL for two solvents consisting of: 1 pc Double wash station incl. Holder for 2 x 500ml bottles 1 pc Electrical Connection cable 1 pc Tubing Kit 2 pc Solvent bottles 500ml
PAL WashFast3-22	Wash station HTC PAL for two solvents consisting of: 1 pc Double wash station incl. Holder for 2 x 500ml bottles

	1 pc Electrical Connection cable
	1 pc Tubing Kit
	2 pc Solvent bottles 500ml
Kit FWash1000	1000ml Solvent Kit consisting of:
	1 pc Bottle Holder bracket incl. screws
	2 pcs. 1000ml Solvent Bottles
PAL WashLarge	LC PAL Wash station for two solvents, consisting of:
	1 pc Vial holder for 2 x 100ml vials
	2 pcs Vial 100ml, including Caps and Seals
	1 pcs Waste port including septa, cap waste tubing
PAL 3xSolv100	Solvent Reservoir consisting of:
	1 pc Holder for 3pc 100ml vials
	3 pcs Solvent vials 100ml including caps and seals
PAL FlowCell	Flow-Through Cell for PAL System, new design to accommodate up to 6 flow cells, consisting of* :
	1 pc Holder 88mm
	1 pc Flow-Cell Stainless Steel 316 with connectors Swagelok 1/4"
	(*required external pump and transfer tubing not included)
MM 06-00	Single Flow-Cell for PAL System, consisting of:
	1 pc Flow-Cell Stainless Steel 316 with connectors Swagelok 1/4"
	1 pc Septa
	(requires PAL FlowCell)
PAL OutExpBox	Output Expansion Box for HTS PAL or COMBI PAL System
	8 x Relay Contact / 8 x 24V (P tot = 12W) consisting of:
	1 pc Output Expansion Box
	1 pc Cable DSub25M/F
	1 pc Cable Power 36V
	(requires PAL Firmware 2.4 or higher)
PAL BCReader	Barcode Reader
	Laser scanner for barcode labels on 2ml/10ml/20ml vials with magnetic caps
	including adapter and connection cables (PAL and PAL-xt Systems)
PAL BCAdapter	Barcode Adapter for PAL-xt System including cable - only required when upgrading existing PAL to PAL-xt System
	(Requires PAL firmware version 4.1.2 or higher)
USB-Ser2	USB to 2 RS232 Converter (connects PAL SER ports to USB port)

MSZ 02-01	Microtiter Plate Foil Cutter for needles Gauge 22 max.
PAL TwinKit1-xt	Mounting kit for two PAL-xt cross rails
PAL TwinSafetyGuard	Safety Guard for PAL Twin Kit with 126 mm displacement
PAL XExtL-xt	PAL-xt X-Axis Extension Left hand side, 126mm
PAL XExtR-xt	PAL-xt X-Axis Extension Right hand side, 126mm
PAL Toolkit	Tool Kit for PAL System
PAL Knife	Swiss Army Knife, 32 functions incl. PAL Torx Driver and CTC Logo

HTX, HTS PAL, HTC PAL and LC PAL Brochures

PAL Broch-HPLC-xt	Brochure HPLC-xt systems
PAL BrochCat	Accessories catalog
PAL HintsLC	Poster Application Hints LC

HTX, HTS PAL, HTC PAL and LC PAL Spare Parts

MZ 20-45	Lower Needle Guide with chemical resistant coating. Without transport magnets installed, hole size for needles Gauge 19
MZ 20-46	Upper Needle Guide with chemical resistant coating Hole size for Gauge 19 needles
MV 30-16	PEEK Needle guide for valve type C PAEK versions
MV 30-12	Needle guide gauge 22, stainless steel for VICI type C or type WK
MV 30-52	Needle guide gauge 19, stainless steel for VICI type C or type WK
MZ 32-00	Safety Shield for PAL Injection Unit
MX 32-00	Plexiglas Safety Guard for PAL80
MX 33-00	Plexiglas Safety Guard for PAL50
MX 36-00	Plexiglas Safety Guard for PAL120
MX 37-00	Screw Kit for Safety Guard all types
PAL TCord280	Tension Cord 280mm (set of 5 pcs)
PAL TCord90	Tension Cord 90-95mm (set of 5 pcs)
MZ 30-21	Tension Cord 280mm
MZ 30-23	Tension Cord 90-95mm
MZ 06-00	Injection unit for GC1 PAL or LC PAL
MZ 01-00	Injection unit for HTX, HTS PAL or HTC PAL with needle guide Gauge 19
MZ 017-00	Injection unit for HTX, HTS or HTC PAL-xt with needle guide Gauge 19
PAL FlexBandKit	PAL Flexband for standard PAL50/80 Models, 1pc
PAL FlexBandKit2	PAL Flexband for PAL Models 120cm length, single Z-Axis installed, 1pc
MX 20-15	Metal Angle Bracket for Ribbon Cable

PAL XYSens	X-Y-Axis Position Sensor PCB's, Kit
PAL XYSensDual	X-Y-Axis Position Sensor PCB's, Dual Kit for Dual Injection Unit PAL Models
MX 52-00	Grounding Conductor for X/Y Carriage
PAL MZCovTop	Top Cover for Z-Axis, Kit
PAL SlidStopKit	Slider Stopper Assembly (Z-Axis)
PAL RCbl50	Ribbon Cable Kit for X-Axis 50cm
PAL RCbl80	Ribbon Cable Kit for X-Axis 80cm
PAL RCbl120	Ribbon Cable Kit for PAL X-Axis 120cm, for Single Injection Unit PAL Models
PAL RCblDual	Ribbon Cable Kit for PAL X-Axis 120cm, for Dual Injection Unit PAL Models
MZ 50-00	Ribbon Cable Z-Axis, 500mm
MZ 51-00	Ribbon Cable Z-Axis, 450mm
PAL MZCovCtrl	Cover for Control Module Z-Axis, Kit
PAL MZCovCbl	Cover for Motors and Ribbon Cable Z-Axis, Kit, (Rev. B or higher)
MZ 20-11	Lower Needle Guide Gauge22, transport magnets installed
MZ 20-14	Mechanical Stop for Needle Guide
MZ 20-15	Adapter for Short Tension Cord (Z-Axis)
PAL MZCtrl	PCB Assembly for PAL Injection Unit, Kit, (Rev. D or higher)
PAL NdIBlkMag	Solenoid for Needle Guide Blocking Assembly, Kit
PAL MotPlg	PAL Stepper Motor Plunger, Kit, (For Injection Rev.B or higher only)
PAL MotZ	PAL Stepper Motor Z-Axis, Kit
PAL	Toothed Rack, 350mm, Kit
MZTRack350	
PAL	Toothed Rack, 300mm, Kit
MZTRack300	
PAL MZZMag	Switching Magnet for Z-Sensor, Kit
BN4851 M4x25	Screws for X-Axis Side Covers, 10pcs
BN4851 M3x20	Screws for Y-Axis Side Covers, 10pcs
PAL SyrGC1.2ul	Kit GC Syringe 1.2µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L1.2-26P-AS (plunger in needle design)
PAL SyrGC5ul	Kit GC Syringe 5µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L5-26S-AS
PAL SyrGC10ul	Kit GC Syringe 10µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L10-26S-AS
PAL	Kit GC Syringe 10µl gastight for COMBI PAL and GC1 PAL
SyrGC10ul-G	consisting of:

	1 pc syringe adapter and 1 pc plunger holder
	2 pc Syringe SYRC G10-26S-AS
PAL SyrGC25ul	Kit GC Syringe 25µl for COMBI PAL and GC1 PAL consisting of:
	1 pc syringe adapter and 1 pc plunger holder
	2 pc Syringe SYRC G25-26S-AS
PAL SyrGC100ul	Kit GC Syringe 100µl for COMBI PAL and GC1 PAL consisting of:
	1 pc syringe adapter and 1 pc plunger holder
	2 pc Syringe SYRC G100-26S-AS
PAL SyrGC250ul	Kit GC Syringe 250µl for COMBI PAL and GC1 PAL consisting of:
	1 pc syringe adapter and 1 pc plunger holder
	2 pc Syringe SYRC G250-26-AS
PAL SyrGC500ul	Kit GC Syringe 500µl for COMBI PAL and GC1 PAL consisting of:
	1 pc syringe adapter and 1 pc plunger holder
	2 pc Syringe SYRC G500-26-AS
PAL SyrHS1.0ml	Kit HS Syringe 1.0ml for COMBI PAL consisting of:
	1 pc syringe heater and 1 pc plunger holder
	2 pc Syringe SYRC HS1.0-23-5
PAL SyrHS2.5ml	Kit HS Syringe 2.5ml for COMBI PAL consisting of:
	1 pc syringe heater and 1 pc plunger holder
	2 pc Syringe SYRC HS2.5-23-5
PAL SyrHS5.0ml	Kit HS Syringe 5.0ml for COMBI PAL consisting of:
	1 pc syringe heater and 1 pc plunger holder
	2 pc Syringe SYRC HS5.0-23-5

HTX, HTS PAL, HTC PAL and LC PAL Spare Parts

PAL PMKit1	Preventative Maintenance (PM) Kit for PAL HPLC Technique
PAL PMKitDLW	Preventative Maintenance (PM) Kit for PAL HPLC Technique with DLW Option
PAL MR-Std-xt	Standard Support Leg PAL-xt, 215mm, 2pcs
PAL LubKit	PAL Lubrication Kit
PAL PaintCTC	Paint for PAL System 20ml including brush (white)
MSB6.3AT/10	Fuse 6.3AT for PAL CPU and Control Boards, pkg of 10pcs
SFC 4/10	SupraFuse 4A for PAL CPU and Control Boards, pkg of 10pcs
BAT VL2330	Backup Battery for PAL CPU/Control Board (1pc)
Kit HTS-xt	Upgrade Kit for HTS PAL to PAL HTX-xt, incl. 1 pc Control Board-xtfor PAL System - Firmware 4.X.X, back cover, cables, CD
Kit HTC-xt	Upgrade Kit for HTC PAL to PAL HTC-xt, incl. 1 pc Control Board-xtfor PAL System - Firmware 4.X.X, back cover, cables, CD
APR Control-xt	Control Board for all PAL Models
APR Control-HTC	Control Board for HTC PAL (non-xt)

APR Control-LC	Control Board for LC PAL (non-xt)
APR CPU	CPU Board for PAL System (non-xt)
APR MOTIO	Motor Driver and Input/Output Processing Board for PAL System (non-xt)
PAL-POWERSUPPL	Power supply for PAL-xtSystem
Y	Power 150 Watt, Input Voltage 100V-240V
MN 03-02	Power supply for PAL StkCooler-xt and PAL TrayCooler-xt, all types Input Voltage 100V-240V (specify Cooler type)
PAL-POWER-STACK	Power supply Peltier-Cooler incl. controller, PALxt
PAL-POWER-TRAY	Power supply Tray Cooler incl. controller, PALxt
Cbl RS20R-760	Cable 20p shielded, MiniRibbon connectors, 760mm long (Connection cable of COMBI PAL incubation heater , dilutor or valve drive)
Cbl RS20R-1300	Cable 20p shielded, MiniRibbon connectors, 1300mm long (Connection cable of COMBI PAL incubation heater , dilutor or valve drive)
Cbl RS2MR-2500	Power Cable for MultiposVlvDrv MV 03-01
Cbl RS3JR-850	Signal Cable for MultiposVlvDrv MV 03-01, 850mm
Cbl RS3JR-1200	Signal Cable for MultiposVlvDrv MV 03-01, 1200mm
Cbl RS14R-250	Daisy chain Cable 14p shielded, MiniRibbon connectors, 250mm long (connection of MultiposVlvDrv MV 03-01)
Cbl RS14R-850	Cable 14p shielded, MiniRibbon connectors, 850mm long (Connection of MultiposVlvDrv Type 2)
Cbl RS3M-2000	Power cable 2m for PAL all types (Connection between PAL power supply and PAL)
Cbl RS4EX-1300	Cable for dual Fast Wash Station HTX PAL
Cbl RS4EX-800	Cable for dual Fast Wash Station HTS PAL
Cbl R4LX-700	Cable for dual Fast Wash Station HTC PAL and LC PAL
Cbl R4LX-1300	Cable for PAL-xt Wash Station, Round Connector (Length: 1300 mm)
Cbl RS4C0-3000	PAL Interface cable 3m long 15 pin connector - open wires
Cbl RS9B-3000	Cable RS-232 with connector DB9 3m long (Connection PAL - PC)
Cbl RS9B-6000	Cable RS-232 with connector DB9 6m long (Connection PAL - PC)
Cbl SS8J-700	Cable 8p shielded, RJ45 connectors, 700mm long, LCD Terminal
PAL CblSerPrtr	Cable and adapter to connect a PAL System to a serial printer with DB 25 connector (requires Printer with serial interface)

HTX, HTS PAL, HTC PAL and LC PAL Spare Parts

PAL 3Ferrule	1pc Flangeless Trio Ferrule PTFE 3 x 1/16" for ActiveWashStation
PAL AWoring	Perfluor O-Ring for ActiveWashStation (set of 2 pcs)
PAL TubeWasteAct	Waste Tube for Active Wash, 2m
CV-3315	1pc 174-28 Waste Check Valve 0.2bar, for ActiveWashStation
PAL TubeWashAct	Tubing Kit for Active WashStation with 1 Injection Valve
MM 012-01	PTFE solvent overflow collector incl. ActiveWash Station needle guide
MM 91-01	1pc PTFE Solenoid Micropump, for ActiveWashStation
MB 20-00	Holder Assembly for PAL Control Terminal
PAL TermCTC	Control terminal for PAL system all types
PAL TermCTC-xt	Control terminal for PAL-xtsystem all types
Kit LCD Repl	Replacement Kit for PAL Control Terminal, incl. LCD-Module, flat cable, screws
MM 01-01	Fast wash module for two solvents, without holder and cable
MM 11-00	Fast wash module valve assembly
MM 30-21	Glas tube for fast wash station, gauge 22, ID 0.8mm, length 57mm
MM 30-19	Viewing glass OD 20mm for Fast wash module
PAL ORingFWS	O-ring Perfluor white, kit of 4pcs. Fast wash module
PAL TubeWaste	Waste Tube for Fast Wash Station, 2m
PAL TubeFWash	1 pc Connection tube incl. fittings and shutoff valve between Wash solvent bottle and Fast wash station module HTS/HTC/LC PAL
PAL TubeFWash1	1 pc PFA tube including fittings between Solvent bottle shutoff valve and Fast wash valve assembly
1000-WV	1000ml Wash solvent bottle for PAL Fast Wash Station
500-WV	500ml Wash solvent bottle for PAL Fast Wash Station
100-WV	100ml Solvent bottle for LC PAL Wash Station PAL WashLarge or
Kit SealCap	PAL 3xSolv100 Solvent Reservoir, including cap and seal 10 caps and 10 seals for 100-WV Solvent bottle
CV-3345	1pc Check valve for MUX Kit
PAL StkDrwMag	Stack Drawer Magnet Assembly, Kit
Kit StkRollsSSt	12pcs rolls stainless steel incl. screws for stack drawer
Kit DrawFront12MT	Kit, Drawer Fronts 31mm for Stack Cooler 12MT, consisting of: 6 pcs Drawer Front Covers with connecting plate mounted 1 pc Kit CStkScrews
Kit DrawFront2DW	Kit, Drawer Fronts 63mm for Stack Cooler 2DW, consisting of: 1 pc Drawer Front Cover with connecting plate mounted

	1 pc Kit CStkScrews
Kit DrawFront6DW	Kit, Drawer Fronts 63mm for Stack Cooler 6DW, consisting of: 3 pcs. Drawer Front Covers with connecting plate mounted 1 pc. Kit CStkScrews
Kit CStkScrews	Kit of replacement Nylon screws for PAL StkCooler front cover all types
PAL UprNdlGde	Upper Needle Guide Assembly (Gauge 19)
PAL	Upper Needle Guide Assembly 108mm (Gauge 19)
UprNdlGde108	
MZ 23-01	Needle Guide Replacement Kit for HTS/HTC/LC PAL

LHX, COMBI PAL and GC PAL Standard Syringes

SYRC HS1.0-23-5	Headspace Syringe HD-type 1.0ml for COMBI PAL Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5
SYRC HS2.5-23-5	Headspace Syringe HD-type 2.5ml for COMBI PAL Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5
SYRC HS5.0-23-5	Headspace Syringe HD-type 5.0ml for COMBI PAL Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5
SYRC L1.2-26P-AS	Liquid syringe 1.2µl for COMBI PAL and GC1 PAL Fixed needle gauge 26P, Pointstyle AS
SYRC L5-26S-AS	Liquid syringe 5µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC L10-26S-AS	Liquid syringe 10µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC G10-26S-AS	Liquid syringe gastight 10µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC L10-26S-2	Liquid syringe 10µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle 2
SYRC L10-23S-AS	Liquid syringe 10µl for COMBI PAL and GC1 PAL Fixed needle gauge 23S, Pointstyle AS
SYRC G25-26S-AS	Liquid syringe gastight 25µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC G100-26S-AS	Liquid syringe gastight 100µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC G250-26-AS	Liquid syringe gastight 250µl for COMBI PAL and GC1 PAL Fixed needle gauge 26, Pointstyle AS
SYRC G500-26-AS	Liquid syringe gastight 500µl for COMBI PAL and GC1 PAL Fixed needle gauge 26, Pointstyle AS
SYRSGE	Liquid syringe SGE 10µl for COMBI PAL and GC1 PAL (002700)
L10-26S-AS	Fixed needle gauge 26, Cone Tip

PLG HD1000	1 pcs. HD-type replacement syringe plunger for 1ml Headspace syringe
PLG HD2500	1 pcs. HD-type replacement syringe plunger for 2.5ml Headspace syringe
PLG HD5000	1 pcs. HD-type replacement syringe plunger for 5ml Headspace syringe
PLG G25	10 pcs. Replacement syringe plunger for 25µl syringe
PLG G100	10 pcs. Replacement syringe plunger for 100µl syringe
PLG G250	10 pcs. Replacement syringe plunger for 250µl syringe
PLG G500	10 pcs. Replacement syringe plunger for 500µl syringe

LHX, COMBI PAL and GC PAL Trays, Traysets, Tray Holders, Thermostatted Tray Holders and Stack

PAL TrayCooler-xt	Peltier tray cooler 4°C to 70°C for one PAL Tray2ml (without tray) consisting of: 1 pc Tray Cooler with 84mm legs 1 pc Tray cover for PAL Tray2ml 1 pc Power supply 100-240V incl. Temperature Regulator
PAL TrayCooler2-xt	Peltier Tray Cooler 4°C to 70°C for one PAL Tray2ml or one Cooling plate 20ml MP 50-031 consisting of: 1pc TrayCooler with 136mm legs 1pc Cooling plate for 20ml vials 1pc Tray cover for PAL Tray2ml 1pc Power Supply 100-240V incl. Temperature Regulation ± 1°C
PAL LiqCooler	Liquid Tray Cooler 4°C to 70°C* for 1 PAL Tray2ml consisting of: 1pc LiqCooler with 84mm legs 1pc plastic tray cover for PAL Tray2ml (circulator connection tube OD 8mm) (*excluding PAL Tray2ml and external heating/cooling circulator)
PAL LiqCooler2	Liquid Tray Cooler 4°C to 70°C* consisting of: 1 pc TrayCooler with 136mm legs 1 pc Cooling plate for 20ml vials 1 pc plastic tray cover for PAL Tray2ml (* excluding PAL Tray2ml and external circulator)
MC 30-10	Plastic Tray Cover to use 1 PAL Tray1ml in PAL Tray Coolers
MC 30-11	Plastic Tray Cover to use 1 PAL Tray2ml in PAL Tray Coolers
MC 30-14	Plastic Tray Cover to use 1 96 well MT/DW in PAL Tray Coolers
MC 50-01	Adapter plate to use 1 96 well MT/DW in PAL TrayCooler or LiqCooler
MP 50-031	Cooling plate 32x20 for PAL LiqCooler2 and PAL TrayCooler2
PAL Tray1ml	Sample tray for 200 vials 0.7/1ml

PAL Tray2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml
PAL Tray20ml	Sample tray for 32 vials 10/20ml or 21 vials 2ml
PAL3-VT54	Sample tray MT footprint, for 54x2ml vials for PAL Stacks all types or PAL MTHolders all types - new part (gray)
PAL3-KIT-VT54	Sample tray MT footprint, for 54x2ml vials for PAL Stacks all types or PAL MTHolders all types - new part (gray) - Set of 3 pcs.
PAL TrayMT10ml/6	Sample tray with Microtiter footprint for 15 vials 10ml, Pack of 6 pcs
PAL TraySet1ml	Sample tray for 200 vials 0.7/1ml, including Tray Holder 76mm
PAL TraySet2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, including Tray Holder 76mm
PAL TraySet10ml	Sample tray for 32 vials 10ml or 21 vials 2ml, incl.Tray Holder 76mm (can not be used for 20ml vials)
PAL TraySet20ml	Sample tray for 32 vials 10/20ml or 21 vials 2ml, incl.Holder 114mm (positioned 38mm lower than standard holder)
PAL TraySet2ml-2	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, incl.Holder 114mm (Holder may be alternatively used for 20ml vial trays)
PAL MTHolder	Tray Holder 76mm for 2 Microtiter/Deepwell plates or 2 PAL TrayMT2ml
PAL MT4Holder	Tray Holder 76mm for 4 Microtiter/Deepwell plates or 4 PAL TrayMT2ml
MR 21-00	Tray holder 76mm for standard vial trays 1ml, 2ml, 10ml vials
MR 22-00	Tray holder 114mm for standard vial trays 10/20ml vials
PAL Stack4DW	PAL System stack for 4 micro- or deepwell plates for deepwell plate GC operation (1 stack per GC may be used)
PAL StkCooler2DW-xt	Peltier cooled 2DW Stack 4°C to 40°C for 2 pcs Standard Microplates or 2 pcs Deepwell plates or 2 pcs PAL TrayMT2ml including 1 pc Power Supply 110-240V LED Display, temperature regulation ±1°C

LHX, COMBI PAL Dilutor Option

PAL Dilutor	PAL Dilutor Option for HTS PAL or COMBI PAL consisting of: 1 pc Dilutor module 1 pc Connection cable 1 pc Dilutor syringe 2.5ml 1 pc Transfer tube 1/16"
-------------	--

1 pc Solvent bottle 1000ml
 1 pc Aspirating tube 1/8"
 (requires PAL PAL SyrGCSP80µl, PAL SyrGCSP20µl)
 PAL SyrGCSP80ul Kit Dilutor Syringe 80µl for COMBI PAL consisting of:
 1pc Sideport Syringe Plunger Sealing Screw
 1pc Sideport Syringe Adapter incl. Plunger Holder
 1pc Sideport Syringe 80µl SYRC SP80-R
 3pcs Ndl S-26-AS Needles gauge 26, pst AS for Sideport Syringe

PAL SyrGCSP20ul Kit Dilutor Syringe 20µl for COMBI PAL consisting of:
 1pc Sideport Syringe Plunger Sealing Screw
 1pc Sideport Syringe Adapter incl. Plunger Holder
 1pc Sideport Syringe 20µl SYRC SP80-R
 3pcs Ndl S-26S-AS Needles gauge 26S pst AS for Sideport Syringe

SYRC DIL1.0 PAL Dilutor Syringe 1ml
 SYRC DIL2.5 PAL Dilutor Syringe 2.5ml
 SYRC DIL5.0 PAL Dilutor Syringe 5ml
 SYRC DIL10 PAL Dilutor Syringe 10ml
 SYRC SP80-R Sideport Syringe 80µl gastight without needle
 SYRC SP20-R Sideport Syringe 20µl gastight without needle
 PLG DIL1.0 Replacement Dilutor Syringe Plunger 1ml
 PLG DIL2.5 Replacement Dilutor Syringe Plunger 2.5ml
 PLG DIL5 Replacement Dilutor Syringe Plunger 5.0ml
 PLG DIL10 Replacement Dilutor Syringe Plunger 10ml
 PLG SP80 10pcs Replacement syringe plunger for 80µl Sideport Syringe
 PLG SP20 10pcs Replacement syringe plunger for 20µl Sideport Syringe
 Ndl S-26-AS 3pcs Replacement needle gauge 26 pst AS Sideport Syringe 80µl

Ndl S-26S-AS 3pcs Replacement needle gauge 26S pst AS Sideport Syringe 20µl

PAL SyrOringSP80 1pc Perfluor O-Ring for SYRC SP80-R

PAL SyrOringSP20 1pc Perfluor O-Ring for SYRC SP20-R

PAL TubeDilHTX 1pc PAL Dilutor Transfer Tubing Kit for 120cm X-axis
 PAL TubeDilutor(B) 1pc PAL Dilutor Transfer Tubing Kit for 50cm or 80cm X-axis

PAL DilAspKit Aspiration tube kit, PFA tube and glass filter 40µl pore size
 1000-SV 1pc Dilutor Solvent bottle 1000ml
 MM 30-36 1pc Dilutor Syringe Screw
 PAL DilWasher 10pc PTFE Dilutor Syringe Washer
 MM 90-02 3-way Dilutor Valve, PCTFE

MM 90-03

3-way Dilutor Valve, PTFE

LHX and COMBI PAL SPME Option

- PAL SPME-Kit PAL SPME option, consisting of:
1 pc SPME Holder Adapter
1 pc Plunger Holder
1 pc SPME Fiber Holder
1 pc Fiber Assortment Kit containing 4 different Fibers
1 pc SPME Performance Evaluation Mix
1 pc SPME CD
1 pc SPME Application Documentation
(not to be sold in the USA)
- PAL SPME-Kit-USA PAL SPME option, consisting of:
1 pc SPME Holder Adapter
1 pc Plunger Holder
1 pc SPME Fiber Holder
1 pc Fiber Assortment Kit containing 4 different Fibers
1 pc SPME Performance Evaluation Mix
1 pc SPME CD
1 pc SPME Application Documentation
- PAL FibCond SPME Fiber Conditioning Station consistig of:
1 pc heater up to 350°C with connection cable and bracket 40mm

1 pc flush gas connection
1 pc fitting for COMBI PAL flush gas regulator incl. tubing
1 pc alternate bracket 14mm
- PAL FibCondTube Gas tube Fiber Conditioning Station - Pressure Regulator,
incl.SwageLok fittings and flow reduction

LHX and COMBI PAL ITEX Option

- PAL ITEX-2Option 1pc 1.3 ml ITEX Syringe with M7 x 0.5 Fitting
1pc Replacement plunger 1.3 ml
2pc ITEX-2 trap TENAX TA 80/100mesh incl. O-Ring
1pc Trap heater incl. electrical connections
1pc Syringe Heater incl. Plunger holder
1pc Syringe Heater side bracket
1pc CD-ROM with ITEX Cycle
(requires PAL LHS2 and Cycle Composer)
- PAL ITEX-2Opt-LHX ITEX-2 Option for PAL LHX, consisting of:
1 pc 1.3 ml ITEX Syringe with M7 x 0.5 Fitting
1 pc Replacement plunger 1.3 ml

	2 pcs ITEX-2 trap TENAX TA 80/100 mesh incl. O - Ring
	1 pc Trap Heater LHX incl. electrical connections
	1 pc Syringe Heater incl. Plunger holder
	1 pc Syringe Heater side bracket
	1 pc Mounting kit LHX
	1 pc CD Rom with ITEX software (requires PAL LHX and Cycle Composer)
ITEX-2 TrapTXTA	1pc ITEX-2 Trap Tenax TA 80/100 mesh
ITEX-2 TrapTXTA3	Set of 3pcs. ITEX-2 Trap Tenax TA 80/100 mesh
SYRC ITEX-2.-1.3	1pc replacement ITEX-2 Syringe 1.3ml with Adapter M7x0.5
PLG ITEX-2.-1.3	Replacement Plunger for ITEX-2 Syringe
ITEX-2 HT	ITEX-2 Trap Heating Unit
ITEX TrapTXTA	1pc ITEX Trap Tenax TA 80/100 mesh
ITEX TrapTXTA3	Set of 3pcs. ITEX Trap Tenax TA 80/100 mesh
SYRC ITEX2.5	1pc replacement ITEX Syringe 2.5ml
PLG G2500	1pc Replacement syringe plunger for 2.5ml syringe
PAL MHETool	MHE Tool for COMBI PAL 1pc MHE Tool 1pc MHE Parkstation 1pc Needle MHE Gauge 22/5 1pc MHE Tool CD (requires PAL LHS2, COMBI PAL Firmware 3.0.5 or preferably PAL COMBI-xt and Firmware 4.1.X or higher)

PAL COMBI and COMBI-xt Mounting Kits

PAL MR-5890-xt	Mounting hardware and interconnection cable to install a PAL / PAL-xt on an Agilent 5890 GC
PAL MR-7890-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Agilent 6890 / 7890 GC - list prices: genuine \$785, ASG version \$695
PAL MR-7890-MQM-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Agilent 6890 / 7890 Micromass Quattro GC
PAL MR-Trace1310GC-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo Trace 1310 GC
PAL MR-TRACE-OC-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo GC Trace 2000 (Thermo On-column Injector only, requires Kit Trace-OC)

PAL MR-TRACE-SSL-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo GC Trace 2000 (215mm legs, for Thermo Split/Splitless and PTV Injector)
PAL MR-V3800/V450-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Varian GC 3800 or 450
PAL MR-V3900/V43x-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Varian GC 3900 or 43x
PAL MR-S2014-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC S2014
PAL MR-S2010-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC S2010
PAL MR-S2025-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC S2025
PAL MR-Focus-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo GC Focus
PAL MR-PEC600-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a PE Clarus600
PAL MR-DANI-Master-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a DANI Master GC
PAL MR-Bruker-436-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker GC 436
PAL MR-Bruker-451-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker GC 451
PAL MR-Bruker-456-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker GC 456
PAL MR-B3800/B450-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker 3800 GC or 450-GC
PAL MR-Std-xt	Standard Support Leg PAL-xt, 215mm, 2pcs
PAL MR-260mm-xt	Standalone support 260.4 mm, 1 pcs

PAL TwinKit1-xt Mounting kit for two PAL-xt cross rails
PAL TwinSafetyGuard Safety Guard for PAL Twin Kit with 126 mm displacement

PAL XExtL-xt PAL-xt X-Axis Extension Left hand side, 126mm
PAL XExtR-xt PAL-xt X-Axis Extension Right hand side, 126mm

LHX and COMBI PAL and GC PAL GC Mounting Kits

PAL MR-6850 Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a Agilent 6850 GC

PAL MR-6850-Dual MR-6850 add-on mounting hardware to align 2 Agilent 6850 GC's
(requires 1 PAL MR-6850)

PAL MR-S17A Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a Shimadzu GC 17A

PAL MR-S14B Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a Shimadzu GC 14B

PAL MR-PEXL Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and on PE Autosystem XL or Clarus500

LHX and COMBI PAL and GC PAL Software

PAL CycCompCD Cycle Composer Remote Control Software for PAL System CD ROM consisting of:
Cycle Composer standalone version
(Requires PAL Firmware 2.2 or higher and Windows XP/ VISTA)

PAL CycCompCD5 Cycle Composer Remote Control Software for PAL System CD ROM, site license for 5 instruments consisting of:
Cycle Composer standalone version including 5 serial numbers
(Requires PAL Firmware 2.2 or higher and Windows XP/ VISTA)

PAL CCUpgrd Cycle Composer Remote Control Software for PAL System CD Upgrade Version 1.6 (requires Cycle Composer license number)

PAL CycEdit PAL Cycle Editor License

PAL ICC-CE CTC Instrument Control Components incl. Cycle Editor

PAL DrvEmp PAL Driver License for Waters Empower2 Software

PAL DrvEmp3 PAL Driver License for Waters Empower3 Software

LHX and COMBI PAL and GC PAL Accessories

PAL GC-QDoc Instrument Qualification for COMBI PAL and GC PAL consisting of:
1pc LogBook
1pc Documentation IQ procedure
1pc Documentation OQ procedure

PAL GC-ReQ Instrument Requalification for COMBI PAL and GC PAL consisting of:
1pc Documentation OQ procedure

PAL Toolkit Tool Kit for PAL System

PAL Knife Swiss Army Knife, 32 functions incl. PAL Torx Driver and CTC Logo

PAL LHSUpgrd Headspace Upgrade for LHS0 COMBI PAL Liquid only version consisting of:
1 pc Incubator for 10ml/20ml vials, shaker, temperature up to 200°C

1 pc Syringe heater 2.5ml
2 pc Headspace Syringes 2.5ml SYRC HS 2.5-23-5
1 pc PAL TraySet20ml Tray for 32 vials 10/20ml incl. holder 114mm
1 pc Pressure regulator and 1 pc Magnetic transport ring
1 pc Vial transport teaching kit and 6 pcs Adapter to use 10ml vials
1 pc PAL System CD
(requires model PAL LHS0)

PAL FlowCell Flow-Through Cell for PAL System, new design to accommodate up to 6 flow cells,
consisting of* :
1 pc Holder 88mm
1 pc Flow-Cell Stainless Steel 316 with connectors Swagelok 1/4"
(*required external pump and transfer tubing not included)

MM 06-00 Single Flow-Cell for PAL System, consisting of:
1 pc Flow-Cell Stainless Steel 316 with connectors Swagelok 1/4"
1 pc Septa
(requires PAL FlowCell)

PAL BCReader Barcode Reader
Laser scanner for barcode labels on 2ml/10ml/20ml vials with magnetic caps
including adapter and connection cables (PAL and PAL-xt Systems)

PAL BCAdapter Barcode Adapter for PAL-xt System including cable - only required when upgrading existing PAL to PAL-xt System
(Requires PAL firmware version 4.1.2 or higher)

USB-Ser2 USB to 2 RS232 Converter (connects PAL SER ports to USB port)

PAL 3xSolv100 Solvent Reservoir and LVI Wash Station consisting of:
1pc Holder for 3pc 100ml vials
3pcs Solvent vials 100ml including caps and seals

PAL WashStd1 Wash station for 2 solvents and 1standard liquid, consisting of:

1 pc Vial holder 5 x ø23mm incl. 5 pcs Vials 10ml, 5pcs Caps and Seals - ASG version

PAL WashFast-22 COMBI PAL Washstation for two solvents for high sample throughput, consisting of:

- 1 pc Double wash station incl. Holder for 2 x 500ml bottles
- 1 pc Electrical Connection cable
- 2 pc Solvent bottles 500ml incl. 1 pc Tubing Kit

Kit FWash1000 1000ml Solvent Kit consisting of:

- 1pc Bottle Holder bracket incl. screws
- 1pcs. 1000ml Solvent Bottles

LHX and COMBI PAL and GC PAL Brochures

PAL Broch-COMBI -xt Brochure COMBI-xt

PAL Broch-GC-xt systems Brochure GC-xt

PAL BrochCat Accessories catalog

LHX and COMBI PAL and GC PAL Spare Parts

PAL PMKit2 Preventative Maintenance (PM) Kit for PAL GC Technique

PAL LubKit PAL Lubrication Kit

PAL PaintCTC Paint for PAL System 20ml including brush (white)

PAL Incub6x20 Incubator for 10ml/20ml vials, with shaker, temperature up to 200°C (Alternative US made version available too - call)

PAL Ins20/2ml 6 pcs 2ml inserts to use 2ml vials in PAL Incub6x20

PAL Ins20/10ml 6 pcs 10ml inserts for PAL Incub6x20

PAL AgiORing 6 pcs. Drive belt for Incubator COMBI PAL

MSH 01-00 Syringe heater 1.0ml for PAL

MSH 02-00 Syringe heater 2.5ml for PAL

MSH 03-00 Syringe heater 5.0ml for PAL

PAL SyrOring1ml 10 pcs O-Ring for PAL SyrHS1.0ml

PAL SyrOring2.5ml 10 pcs O-Ring for PAL SyrHS2.5ml

PAL SyrOring5ml 10 pcs O-Ring for PAL SyrHS5.0ml

MSH 30-23 Safety Clamp for COMBI PAL syringe heater

100-WV 100ml Solvent bottle for LC PAL Wash Station PAL WashLarge or PAL 3xSolv 100 Solvent Reservoir including cap and seal

Kit Wash 10-CV Kit wash vial 10-CV for standard wash station
10 vials, 10 caps, 10 seals

Kit SealCap 10 caps and 10 seals for 100-WV Solvent bottle or PAL WashStd1

PAL TubeFlushX	Replacement Kit for Flush Tube-X in PAL80 crossrail
PAL TubeFlushXY	Replacement Kit for Gas Flush Tube for X-Y-Axis, complete Tube
PAL TubeFlush LHX	Replacement Kit for Gas Flush Tube LHX PAL
Kit Flush LHX	Gas Flush Kit for LHX PAL, field upgrade kit
PAL KitFlush-Ext800	Gas Flush Kit external for Combi PAL 800mm, field installation kit
MM 03-01	Pressure regulator 0 - 2.5 Bar (0-35psi), including pressure gauge and fittings
MM 09-01	Fitting assembly PAL Adapter / Tube Connector for Pressure Regulator
MM 015-01	Tube Connector from Pressure Regulator to Tubing, 1/8"
Kit SealFlush	Kit Sealing Gaskets for Pressure Regulator, 10 pcs
Kit FlushVlv	Kit Gas Flush Valve for all PAL GC models
Kit FlushVlv-xt	Kit Gas Flush Valve for PAL COMBI-xt and PAL LHX-xt models
KJL23-M3	Elbow Adapter for Gas Flush Tube
MX 30-48-3	PALxt X-Axis Side Cover Right hand side
M-3ALU-3	Gas Tube Adapter, 90°
MX 30-27	PAL X-Axis Side Cover Right hand side
PAL FlexBandKit	PAL Flexband for standard PAL50/80 Models, 1pc
MX 20-15	Metal Angle Bracket for Ribbon Cable
MX 52-00	Grounding Conductor for X/Y Carriage
MX 30-34	Blind Cover for GC PAL
MX 30-42	Blind Cover for LHX PAL
MB 20-00	Holder Assembly for PAL Control Terminal
PAL TermCTC	Control terminal for PAL system all types
PAL TermCTC-xt	Control terminal for PAL-xt system all types
Kit LCD Repl	Replacement Kit for PAL Control Terminal, incl. LCD-Module, flat cable, screws
BN4851 M4x25	Screws for X-Axis Side Covers, 10pcs
BN4851 M3x20	Screws for Y-Axis Side Covers, 10pcs
MSZ 01-00	Magnetic Adapter Ring for 20ml vials
MZ 23-02	Needle Guide Replacement Kit for COMBI PAL
PAL UprNdlGde	Upper Needle Guide Assembly (Gauge 19)
PAL UprNdlGde108	Upper Needle Guide Assembly 108mm (Gauge 19) e.g. for DLW-2
MZ 32-00	Safety Shield for PAL Injection Unit
MX 32-00	Plexiglas Safety Guard for PAL80
MX 37-00	Screw Kit for Safety Guard all types
PAL TCord280	Tension Cord 280mm (set of 5 pcs)
PAL TCord90	Tension Cord 90-95mm (set of 5 pcs)
MZ 30-21	Tension Cord 280mm
MZ 30-23	Tension Cord 90-95mm

MZ 02-00	Injection unit for LHX and COMBI PAL
MZ 06-00	Injection unit for GC1 PAL or LC PAL
MZ 019-00	Injection unit for COMBI PAL-xt
MZ 018-00	Injection unit for GC PAL-xt
PAL MZCovTop	Top Cover for Z-Axis, Kit
PAL SlidStopKit	Slider Stopper Assembly (Z-Axis)
PAL StkDrwMag	Stack Drawer Magnet Assembly, Kit
MZ 50-00	Ribbon Cable Z-Axis, 500mm
MZ 50-01	Ribbon Cable for ITEX Z-Axis, 560mm
PAL MZCovCtrl	Cover for Control Module Z-Axis, Kit
PAL MZCovCbl	Cover for Motors and Ribbon Cable Z-Axis, Kit, (Rev. B or higher)
MZ 20-11	Lower Needle Guide Gauge22, transport magnets installed
MZ 20-14	Mechanical Stop for Needle Guide
MZ 20-15	Adapter for Short Tension Cord (Z-Axis)
PAL MZCtrl	PCB Assembly for PAL Injection Unit, Kit, (Rev. D or higher)

LHX and COMBI PAL and GC PAL Spare Parts

PAL NdIBlkMag	Solenoid for Needle Guide Blocking Assembly, Kit
PAL TubeFlushZ	Gas Flush Tube for Z-Axis, Replacement Kit
PAL MotZ	PAL Stepper Motor Z-Axis, Kit
PAL MotPlg	PAL Stepper Motor Plunger, Kit, (For Injection Rev.B or higher only)
PAL MZTRack350	Toothed Rack, 350mm, Kit
PAL MZTRack300	Toothed Rack, 300mm, Kit
PAL MZZMag	Switching Magnet for Z-Sensor, Kit
PAL MZAgiOpen	Bumper for PAL Injection Unit, Kit
PAL RCbl80	Ribbon Cable Kit for X-Axis 80cm
PAL RCbl120	Ribbon Cable Kit for PAL X-Axis 120cm, for Single Injection Unit PAL Models
PAL RCblDual	Ribbon Cable Kit for PAL X-Axis 120cm, for Dual Injection Unit PAL Models
PAL XYsens	X-Y-Axis Position Sensor PCB's, Kit
MSB6.3AT/10	Fuse 6.3AT for PAL CPU and Control Boards, pkg of 10pcs
SFC 4/10	SupraFuse 4A for PAL CPU and Control Boards, pkg of 10pcs
BAT VL2330	Backup Battery for PAL CPU/Control Board (1pc)
Kit COMBI-xt	Upgrade Kit for COMBI PAL to PAL COMBI-xt, incl. 1 pc Control Board-xt for PAL System - Firmware 4.1.X or higher 1 pc side cover with gas flush valve for PAL Combi-xt

	1 pc back cover (for 80cm standard rail version) including screws cables, CD Rom
Kit GC-xt	Upgrade Kit for GC PAL to PAL GC-xt, incl. 1 pc Control Board-xt for PAL System - Firmware 4.1.X, back cover, cables, CD
APR Control-xt	Control Board for all PAL Models
APR Control-GC	Control Board for GC PAL (non-xt)
APR CPU	CPU Board for PAL System (non-xt)
APR MOTIO	Motor Driver and Input/Output Processing Board for PAL System (non-xt)
Cbl RS20R-760	Cable 20p shielded, MiniRibbon connectors, 760mm long (Connection cable of COMBI PAL incubation heater , dilutor or valve drive)
Cbl RS20R-1300	Cable 20p shielded, MiniRibbon connectors, 1300mm long (Connection cable of COMBI PAL incubation heater , dilutor or valve drive)
Cbl RS3M-2000	Power cable 2m for PAL all types (Connection between PAL power supply and PAL)
Cbl RS4C0-3000	PAL Interface cable 3m long 15 pin connector - open wires
Cbl RS9B-3000	Cable RS-232 with connector DB9 3m long (Connection PAL - PC)
Cbl RS9B-6000	Cable RS-232 with connector DB9 6m long (Connection PAL - PC)
Cbl SS8J-700	Cable 8p shielded, RJ45 connectors, 700mm long, LCD Terminal
PAL CblSerPrtr	Cable and adapter to connect a PAL System to a serial printer with DB 25 connector (requires Printer with serial interface)
Cbl RS4C0-SCIEX	PAL Interface cable 3m for Sciex
PAL-POWERSUPPLY	Power supply for PAL-xt System Power 150 Watt, Input Voltage 100-240V
PAL-POWER-STACK	Power supply Peltier-Cooler incl. controller, PALxt
PAL-POWER-TRAY	Power supply Tray Cooler incl. controller, PALxt
PAL DLWPump	DLW Pump Kit for CTC PAL DLW Option on HTS- and HTC-xt PAL Autosamplers
PAL DilAspKit	Aspiration tube kit, PFA tube and glass filter 40µl pore size

PAL DLWPCB		PAL DLW Pump Control Module PCB Kit
PAL TubeDLW		DLW Tubing Kit HTS/HTC
PAL DLWWash		PAL DLW Wash Station Block
PLG DLW100		Replacement Plunger for SYRC DLW100-R, pk.10
PAL DLW-2Holder		PAL DLW-2 Syringe Holder Assembly
PAL DLWNdl	3pk	Needle Kit for PAL DLW Option, Gauge 22
SYRC DLW100-R		CTC Syringe gastight DLW 100µl, removable needle, not included
PAL DLW-2Loop		PAL DLW-2 Loop incl. PEEK hex-head nut and lock nut for needle adapter
PAL DLWAct		PAL DLW Actuator/Solenoid Kit
PAL DLW-2ActPCB		PAL DLW-2 Actuator PCB Kit
PAL DLWFlwDiv		PAL DLW Flow Diverter
PAL DLWManifold		PAL DLW Manifold Kit
PAL DLWLoop		DLW Loop Assembly (original style "DLW-1")

PAL RSI GC

PAL3-RSI-LG-C-PAL RSI 534 system, without liquid or headspace option

- 9 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 534 system, without liquid or headspace option

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 534 system, without liquid or headspace option

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 534 system, without liquid or headspace option

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL3-RSI-LG-S-PAL RSI 850 system, without liquid or headspace option

9

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc Gas Purge Line for Headspace Technique built-in

1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 850 system, without liquid or headspace option

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc Gas Purge Line for Headspace Technique built-in

1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 850 system, without liquid or headspace option

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc Gas Purge Line for Headspace Technique built-in

1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 850 system, without liquid or headspace option

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc Gas Purge Line for Headspace Technique built-in

1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes,
Tray Holders or Stack and Racks)

PAL3-RSI-LG-S PAL RSI 850 system, with liquid and without headspace option

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc PAL Standard Wash Module
- 1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)PAL RSI 850 system, with liquid and without headspace option

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc PAL Standard Wash Module
- 1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)PAL RSI 850 system, with liquid and without headspace option

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc PAL Standard Wash Module

1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)PAL RSI 850 system, with liquid and without headspace option

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc Gas Purge Line for Headspace Technique built-in

1 pc PAL Liquid Syringe Tool D7/ 57

2 pc Liquid syringes (PAL3-SYH-207807)

1 pc PAL Trayholder

3 pc Sample Racks for 54 vials of 2mL

1 pc PAL Standard Wash Module

1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)

PAL3-RSI-LGH- "PAL RSI 850 system, with liquid and headspace option
S

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Headspace Syringe Tool for 2.5 mL syringe
- 2 pc Headspace syringes 2.5mL (PAL3-SYH-207290)
- 2 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc Sample Rack for 60 vials of 10/20 mL, Aluminium
- 1 pc PAL Standard Wash Module
- 1 pc PAL Agitator Module
- 1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)""PAL RSI 850 system, with liquid and headspace option

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Headspace Syringe Tool for 2.5 mL syringe
- 2 pc Headspace syringes 2.5mL (PAL3-SYH-207290)
- 2 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc Sample Rack for 60 vials of 10/20 mL, Aluminium
- 1 pc PAL Standard Wash Module
- 1 pc PAL Agitator Module
- 1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)""PAL RSI 850 system, with liquid and headspace option

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal

- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Headspace Syringe Tool for 2.5 mL syringe
- 2 pc Headspace syringes 2.5mL (PAL3-SYH-207290)
- 2 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc Sample Rack for 60 vials of 10/20 mL, Aluminium
- 1 pc PAL Standard Wash Module
- 1 pc PAL Agitator Module
- 1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)""PAL RSI 850 system, with liquid and headspace option

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Liquid Syringe Tool D7/ 57
- 2 pc Liquid syringes (PAL3-SYH-207807)
- 1 pc PAL Headspace Syringe Tool for 2.5 mL syringe
- 2 pc Headspace syringes 2.5mL (PAL3-SYH-207290)
- 2 pc PAL Trayholder
- 3 pc Sample Racks for 54 vials of 2mL
- 1 pc Sample Rack for 60 vials of 10/20 mL, Aluminium
- 1 pc PAL Standard Wash Module
- 1 pc PAL Agitator Module
- 1 pc PAL Sample Control software

(requires Mounting Kit for GC Model)""

PAL3-RSI-LG-X-PAL RSI 1205 system, without liquid or headspace option

- 9 1 pc PALbase 1205 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 1205 system, without liquid or headspace option

- 1 pc PALbase 1205 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 1205 system, without liquid or headspace option

- 1 pc PALbase 1205 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RSI 1205 system, without liquid or headspace option

- 1 pc PALbase 1205 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model, additionally Tools, Syringes, Tray Holders or Stack and Racks)

Please note: The configuration of the initial bundle systems cannot be changed and no items can be removed. Additional modules and accessories can be ordered separately, according to your requirements.

PAL3-RSI-LG-to-RTC "Upgrade for PAL RSI to PAL RTC without flush gas equipment used for upgrading a PAL RSI Headspace version

(if Gas Purge Line for Headspace Technique is already built-in)

consisting of:

1 pc PALhead

1 pc Park Station

Instructions"

"Upgrade for PAL RSI to PAL RTC without flush gas equipment used for upgrading a PAL RSI Headspace version

(if Gas Purge Line for Headspace Technique is already built-in)

consisting of:

1 pc PALhead

1 pc Park Station

Instructions"

"Upgrade for PAL RSI to PAL RTC without flush gas equipment used for upgrading a PAL RSI Headspace version

(if Gas Purge Line for Headspace Technique is already built-in)

consisting of:

1 pc PALhead

1 pc Park Station

Instructions"

"Upgrade for PAL RSI to PAL RTC without flush gas equipment used for upgrading a PAL RSI Headspace version

(if Gas Purge Line for Headspace Technique is already built-in)

consisting of:

1 pc PALhead

1 pc Park Station

Instructions"

PAL RSI LC

PAL3-RSI-L-C-9 PAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc PAL Mounting Kit Standalone for HPLC
- 1 pc PAL Sample Control software

(Requires Tool(s), Modules, Tray Holders or Stack and Racks)PAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc PAL Mounting Kit Standalone for HPLC
- 1 pc PAL Sample Control software

(Requires Tool(s), Modules, Tray Holders or Stack and Racks)PAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc PAL Mounting Kit Standalone for HPLC
- 1 pc PAL Sample Control software

(Requires Tool(s), Modules, Tray Holders or Stack and Racks)PAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc PAL Mounting Kit Standalone for HPLC
- 1 pc PAL Sample Control software

(Requires Tool(s), Modules, Tray Holders or Stack and Racks)

PAL3-RSI-L-S-9 PAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc PAL Mounting Kit Standalone for HPLC

1 pc PAL Sample Control softwarePAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc PAL Mounting Kit Standalone for HPLC

1 pc PAL Sample Control softwarePAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc PAL Mounting Kit Standalone for HPLC

1 pc PAL Sample Control softwarePAL RSI system for liquid injection, without PALmodules and accessories, consisting of:

1 pc PALbase 850 X/Y unit with PAL Control Board

1 pc PALhead

1 pc PALterminal

1 pc Safety guard

1 pc PALpower and cables

1 pc PAL Mounting Kit Standalone for HPLC

1 pc PAL Sample Control software

(Requires Tool(s), Modules, Tray Holders or Stack and Racks)

PAL3-RSI-LMS- PAL RSI 534 system for liquid injection LC
C consisting of:
1 pc PALbase 534 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module
1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)PAL RSI 534 system for
liquid injection LC

consisting of:
1 pc PALbase 534 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module
1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)PAL RSI 534 system for
liquid injection LC

consisting of:
1 pc PALbase 534 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module

1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)PAL RSI 534 system for
liquid injection LC

consisting of:

1 pc PALbase 534 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module
1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)

PAL3-RSI-LMS- PAL RSI 850 system for liquid injection LC
S consisting of:
1 pc PALbase 850 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module
1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)PAL RSI 850 system for
liquid injection LC

consisting of:
1 pc PALbase 850 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module
1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)PAL RSI 850 system for
liquid injection LC

consisting of:
1 pc PALbase 850 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module

1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)PAL RSI 850 system for
liquid injection LC

consisting of:

1 pc PALbase 850 X/Y unit with PAL Control Board
1 pc PALhead
1 pc PALterminal
1 pc Safety guard
1 pc PALpower and cables
1 pc PAL Mounting Kit Standalone for HPLC
1 pc PAL LCMS-P Tool
1 pc PAL LCMS Wash Module
1 pc PAL Valve Drive Module
1 pc Injection Valve (C72VX-1676D-CTC-K) incl. PAL Needle Seals
and Injection Port (Gauge 22)
1 pc PAL Sample Control software

(Requires Tray Holders or Stack and Racks)

PAL3-RSI-to-RT C-G "Upgrade for PAL RSI to PAL RTC with flush gas equipment used for upgrading a PAL RSI Liquid version (not yet equipped with Gas Purge Line for Headspace Technique) consisting of:
1 pc PALhead
1 pc Park Station
1 pc Pressure regulator
1 pc Gas tube equipment including Tubing Guide
1 pc X-Axis cover left side including flush gas valve
Instructions"
"Upgrade for PAL RSI to PAL RTC with flush gas equipment used for upgrading a PAL RSI Liquid version (not yet equipped with Gas Purge Line for Headspace Technique) consisting of:
1 pc PALhead
1 pc Park Station
1 pc Pressure regulator
1 pc Gas tube equipment including Tubing Guide
1 pc X-Axis cover left side including flush gas valve
Instructions"
"Upgrade for PAL RSI to PAL RTC with flush gas equipment used for upgrading a PAL RSI Liquid version (not yet equipped with Gas Purge Line for Headspace Technique) consisting of:
1 pc PALhead
1 pc Park Station
1 pc Pressure regulator
1 pc Gas tube equipment including Tubing Guide
1 pc X-Axis cover left side including flush gas valve
Instructions"
"Upgrade for PAL RSI to PAL RTC with flush gas equipment used for upgrading a PAL RSI Liquid version (not yet equipped with Gas Purge Line for Headspace Technique) consisting of:
1 pc PALhead
1 pc Park Station
1 pc Pressure regulator
1 pc Gas tube equipment including Tubing Guide
1 pc X-Axis cover left side including flush gas valve
Instructions"

PAL RTC

PAL3-RTC-LG-CPAL RTC system, Basic Unit without PALtools or PALmodules

-P9

consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL RTC system, Basic Unit without PALtools or PALmodules

consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL RTC system, Basic Unit without PALtools or PALmodules

consisting of:

- 1 pc PALbase 534 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL3-RTC-LG-SPAL RTC system, Basic Unit without PALtools or PALmodules

-P9

consisting of:

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL RTC system, Basic Unit without PALtools or PALmodules

consisting of:

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL RTC system, Basic Unit without PALtools or PALmodules

consisting of:

- 1 pc PALbase 850 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL3-RTC-LG-XPAL RTC system, Basic Unit without PALtools or PALmodules

-P9

consisting of:

- 1 pc PALbase 1200 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RTC system, Basic Unit without PALtools or PALmodules
consisting of:

- 1 pc PALbase 1200 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)PAL RTC system, Basic Unit without PALtools or PALmodules
consisting of:

- 1 pc PALbase 1200 X/Y unit with PAL Control Board
- 1 pc PALhead
- 1 pc Park Station
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PAL Sample Control software

(Requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders or Stack and Racks)

PAL DHR

PAL3-DHR-X-D1

PAL Dual Head 120 system (RTC/ RTC)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 2 pc PALhead RTC
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)PAL Dual Head 120 system (RTC/ RTC)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 2 pc PALhead RTC
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)PAL Dual Head 120 system (RTC/ RTC)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 2 pc PALhead RTC
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)

PAL3-DHR-X-D2

PAL Dual Head 120 system (RTC/ RSI)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 1 pc PALhead RTC
- 1 pc PALhead RSI for liquid Injection
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)PAL Dual Head 120 system (RTC/ RSI)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 1 pc PALhead RTC
- 1 pc PALhead RSI for liquid Injection
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)PAL Dual Head 120 system (RTC/ RSI)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 1 pc PALhead RTC
- 1 pc PALhead RSI for liquid Injection
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone

for HPLC, additionally Tools, Syringes, Tray Holders and Stack
and
Racks, (Chronos 4.4 or PAL Sample Control 2.4)

PAL3-DHR-X-D4

PAL Dual Head 120 system (RTC/ RTI)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 2 pc PALhead RSI
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)PAL Dual Head 120 system (RTC/ RTI)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 2 pc PALhead RSI
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)PAL Dual Head 120 system (RTC/ RTI)

consisting of:

- 1 pc PALbase 1205 X/Y until with PAL Control Board
- 2 pc PALhead RSI
- 1 pc Park Station
- 1 pc Gas Purge Line for Headspace Technique built-in
- 1 pc PALterminal
- 1 pc Safety guard
- 1 pc PALpower and cables

(requires Mounting Kit for GC Model or Mounting Kit Standalone for HPLC, additionally Tools, Syringes, Tray Holders and Stack and

Racks, (Chronos 4.4 or PAL Sample Control 2.4)

Modules

PAL3-Agitator	Agitator for the incubation and agitation of up to 6x 20mL vials
PAL3-BarcodeReader	Barcode Reader with 2 active laser scanners for all standard vials containing 1 dimension (1-D) barcode in a horizontal orientation
PAL3-Decapper	<p>PAL Decapper Module for opening and closing of initially closed 2mL, 10mL or 20mL vials</p> <p>To use with proved PAL Vials (20mL: Vial-20CV-C-100 and Vial-20CV-A-100 / 10mL: Vial-10CV-C-100 and Vial-10CV-A-100 in combination with ReCaps: Cap-10o20CV-ReM-100, 2mL: Vial-2CV-C-100 and Vial-2CV-A-100 in combination with Cap-2CV-M-Norm-100 or Cap-2CV-M-Slit-100) for multiple opening and closing procedures within a workflow</p> <p>Requires FW Version 2.4 or higher</p> <p>PAL Decapper Module for opening and closing of initially closed 2mL, 10mL or 20mL vials</p> <p>To use with proved PAL Vials (20mL: Vial-20CV-C-100 and Vial-20CV-A-100 / 10mL: Vial-10CV-C-100 and Vial-10CV-A-100 in combination with ReCaps: Cap-10o20CV-ReM-100, 2mL: Vial-2CV-C-100 and Vial-2CV-A-100 in combination with Cap-2CV-M-Norm-100 or Cap-2CV-M-Slit-100) for multiple opening and closing procedures within a workflow</p> <p>Requires FW Version 2.4 or higher</p> <p>PAL Decapper Module for opening and closing of initially closed 2mL, 10mL or 20mL vials</p> <p>To use with proved PAL Vials (20mL: Vial-20CV-C-100 and Vial-20CV-A-100 / 10mL: Vial-10CV-C-100 and Vial-10CV-A-100 in combination with ReCaps: Cap-10o20CV-ReM-100, 2mL: Vial-2CV-C-100 and Vial-2CV-A-100 in combination with Cap-2CV-M-Norm-100 or Cap-2CV-M-Slit-100) for multiple opening and closing procedures within a workflow</p> <p>Requires FW Version 2.4 or higher</p>

PAL3-DilutorSingl PAL Dilutor Option, consisting of:

e

- 1 pc Dilutor module
- 1 pc Connection cable
- 1 pc Dilutor Tool
- 1 pc Dilutor syringe 1mL
- 1 pc PFA Transfer tube 1/16"
- 1 pc Solvent bottle 1000ml
- 1 pc Aspirating tube 1/8" PAL Dilutor Option, consisting of:
 - 1 pc Dilutor module
 - 1 pc Connection cable
 - 1 pc Dilutor Tool
 - 1 pc Dilutor syringe 1mL
 - 1 pc PFA Transfer tube 1/16"
 - 1 pc Solvent bottle 1000ml
 - 1 pc Aspirating tube 1/8" PAL Dilutor Option, consisting of:
 - 1 pc Dilutor module
 - 1 pc Connection cable
 - 1 pc Dilutor Tool
 - 1 pc Dilutor syringe 1mL
 - 1 pc PFA Transfer tube 1/16"
 - 1 pc Solvent bottle 1000ml
 - 1 pc Aspirating tube 1/8"

PAL3-DilutorMulti PAL Dilutor Option, consisting of:

- 1 pc Dilutor module
- 1 pc Connection cable
- 1 pc Dilutor Tool
- 1 pc Dilutor syringe 1mL
- 1 pc PFA Transfer tube 1/16"
- 5 pc Solvent bottle 1000ml
- 5 pc Aspirating tube 1/8" PAL Dilutor Option, consisting of:
 - 1 pc Dilutor module
 - 1 pc Connection cable
 - 1 pc Dilutor Tool
 - 1 pc Dilutor syringe 1mL
 - 1 pc PFA Transfer tube 1/16"
 - 5 pc Solvent bottle 1000ml
 - 5 pc Aspirating tube 1/8" PAL Dilutor Option, consisting of:
 - 1 pc Dilutor module
 - 1 pc Connection cable
 - 1 pc Dilutor Tool
 - 1 pc Dilutor syringe 1mL
 - 1 pc PFA Transfer tube 1/16"

5 pc Solvent bottle 1000ml

5 pc Aspirating tube 1/8"

PAL3-DirectInjecti Holder for two standalone LC Injection Ports

on

PAL3-DirectInjecti Upgrade Kit for Direct Injection Port Holder, consisting of

on-Upgr

2 pc Bulkhead Union 1/16" 0.25mm bore, SS

2 pc Needle Guide for direct Injection Ports, PEEK

1 pc PAL3-FoilCutter-PE

2 pc Needle Seal Peek, Gauge 22Upgrade Kit for Direct Injection
Port Holder, consisting of

2 pc Bulkhead Union 1/16" 0.25mm bore, SS

2 pc Needle Guide for direct Injection Ports, PEEK

1 pc PAL3-FoilCutter-PE

2 pc Needle Seal Peek, Gauge 22

Modules

PAL3-Extension I/O Extension Module consisting of

1 pc I/O Expansion Module

1 pc PALbus Cable

Requires FW 2.2.x or higherI/O Extension Module consisting of

1 pc I/O Expansion Module

1 pc PALbus Cable

Requires FW 2.2.x or higher

PAL3-FlowCell Flow-Cell for PALSystem to accommodate up to 6 flow cells,
consisting of:

1 pc Holder 88mm

1 pc Flow-Cell Stainless Steel 316
with connectors Swagelok 1/4"

5 pcs Inlet SeptaFlow-Cell for PALSystem to accommodate up to 6
flow cells, consisting of:

1 pc Holder 88mm

1 pc Flow-Cell Stainless Steel 316
with connectors Swagelok 1/4"

5 pcs Inlet Septa

PAL3-HeatexStirrer Heatex Stirrer for heating and stirring of 1x 2/10/20mL vials

PAL3-ITEX-Kit PAL3 ITEX Tool, including:

1 pc ITEX Syringe 1.3mL (PAL3-SYH-209295)

2 pc ITEX Trap TENAX TA 80/100 mesh

(PAL3-ITEX-Trap-TXTA100)PAL3 ITEX Tool, including:

1 pc ITEX Syringe 1.3mL (PAL3-SYH-209295)

2 pc ITEX Trap TENAX TA 80/100 mesh
(PAL3-ITEX-Trap-TXTA100)

PAL3-LiqCooler Trayholder and sample tray for housing up to 32 vials of 10/20ml in the temperature range between 4°C- 70°C
External circulator bath for heating/cooling not included
Trayholder and sample tray for housing up to 32 vials of 10/20ml in the temperature range between 4°C- 70°C
External circulator bath for heating/cooling not included

PAL3-MHE-Module Multiple Headspace Module, consisting of
MHE module, MHE tool and MHE needle Gauge 22/5
Multiple Headspace Module, consisting of
MHE module, MHE tool and MHE needle Gauge 22/5

PAL3-ParkStation-RTC Park Station for the storage and robotic tool change of up to three
PALtools like Liquid, HS, SPME ... consisting of:
1 pc Park Station
1 pc Electrical connection cable
Park Station for the storage and robotic tool change of up to three
PALtools like Liquid, HS, SPME ... consisting of:
1 pc Park Station
1 pc Electrical connection cable

PAL3-PeltierStack2DW Peltier Stack 2 DW 4°C- 40°C for 2pcs Standard Microtiter-,
Deepwell Plates, VT15, VT54 or VT70 racks
Including Power Supply and cables
Peltier Stack 2 DW 4°C- 40°C for 2pcs Standard Microtiter-, Deepwell Plates, VT15, VT54 or VT70 racks
Including Power Supply and cables

PAL3-PeltierStack6DW Peltier Stack 6DW 4°C- 40°C for 6pcs Standard Microtiter-,
Deepwell Plates, VT15, VT54 or VT70 racks
Including Power Supply and cables
Peltier Stack 6DW 4°C- 40°C for 6pcs Standard Microtiter-, Deepwell Plates, VT15, VT54 or VT70 racks
Including Power Supply and cables

PAL3-PeltierStack12MT Peltier Stack 12MT 4°C- 40°C for 12pcs Standard Microtiter Plates
2MT Including Power Supply and cables
requires firmware version 1.5.0 or higher
Peltier Stack 12MT 4°C- 40°C for 12pcs Standard Microtiter Plates
Including Power Supply and cables
requires firmware version 1.5.0 or higher

PAL3-SolventModule Solvent Module for 3x 100mL solvent bottles
e

PAL3-SPME-Cond N/A - please refer to PAL3-SPME-ArrowCond

PAL3-Stack12MT Stack 12MT for 6pcs Standard Microtiter plates

PAL3-Stack6DW	Stack 6DW for 6pcs Standard Microtiter-, Deepwell Plates, VT15, VT54 or VT70 racks
PAL3-SPME-Cond	SPME Fiber Conditioning Module for the conditioning of SPME fibers Second fiber position for a replacement fibre SPME Fiber Conditioning Module for the conditioning of SPME fibers Second fiber position for a replacement fibre
PAL3-System-SPM E-Kit	SPME Kit, consisting of: 1 pc SPME Tool 1 pc SPME Fiber Holder 1 pc SPME Fiber Assortment Kit 1 pc SPME Performance Evaluation Mix (not to be sold in the USA)
PAL3-SPME-Kit-US A	SPME Kit USA, consisting of: 1 pc SPME Tool 1 pc SPME Fiber Holder 1 pc SPME Fiber Assortment Kit 1 pc SPME Performance Evaluation Mix 1 pc SPME CD 1 pc SPME Application Documentation (including patent royalty for USA)
PAL3-Terminal	Terminal for PAL 3 Tools Liquid tool
PAL3-TH-D757	Universal Liquid Syringe Tool for syringes of 1.2µL, 5µL, 10µL, 25µL, 50µL or 100µL with a needle length of 57mm Syringes not included
PAL3-TH-D785	Universal Liquid Syringe Tool for syringes of 1.2µL, 5µL, 10µL, 25µL, 50µL or 100µL with a needle length of 85mm Syringes not included
PAL3-TH-D857	Universal Liquid Syringe Tool for syringes of 250µL, 500µL or 1000µL with a needle length of 57mm Syringes not included
PAL3-TH-D885	Universal Liquid Syringe Tool for syringes of 250µL, 500µL or 1000µL with a needle length of 85mm Syringes not included
PAL3-TH-D1857	Liquid Syringe Tool for a syringe of 10000µL with a needle length of 57mm Syringe not included
PAL3-TH-Dilutor	Tool Holder for Dilutor Option. Attention: Does not include needles and tubing. Generic tool

- PAL3-TH-GT-D785 Generic tool based on Universal Liquid Syringe Tool for syringes of 1.2µL, 5µL, 10µL, 25µL, 50µL or 100µL with a needle length of 85mm
(FW 2.2 and higher)
Syringes not included. netto Price 350,00 CHF
- PAL3-TH-GT-D885 Generic tool based on Universal Liquid Syringe Tool for syringes of 200, 500 and 1000 µL with a needle length of 85mm
(FW 2.2 and higher)
Syringes not included netto Price 350,00 CHF
- PAL3-TH-GT-Dilutor Generic tool based on Tool Holder for Dilutor Option.
(FW 2.2 and higher)
Attention: Does not include needles and tubing. netto Price 350,00 CHF

HS tool

- PAL3-TH-HS1000 Headspace Syringe Tool for a 1000µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 1000µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 1000µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 1000µL syringe with a needle length of 65mm
Syringe not included
- PAL3-TH-HS2500 Headspace Syringe Tool for a 2500µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 2500µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 2500µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 2500µL syringe with a needle length of 65mm
Syringe not included
- PAL3-TH-HS5000 Headspace Syringe Tool for a 5000µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 5000µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 5000µL syringe with a needle length of 65mm
Syringe not included
Headspace Syringe Tool for a 5000µL syringe with a needle length of 65mm
Syringe not included

PAL3-TH-LCMS-P

LCMS-P Tool consisting of:

- 1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
- 1 pc Pump Module and Connection Cable
- 1 pc PFA Transfer tube 1/16"
- 2 pc Solvent bottle 1000ml
- 2 pc Aspirating tube 1/8"

Attention: LCMS Wash Module not included.LCMS-P Tool consisting of:

- 1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
- 1 pc Pump Module and Connection Cable
- 1 pc PFA Transfer tube 1/16"
- 2 pc Solvent bottle 1000ml
- 2 pc Aspirating tube 1/8"

Attention: LCMS Wash Module not included.LCMS-P Tool consisting of:

- 1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
- 1 pc Pump Module and Connection Cable
- 1 pc PFA Transfer tube 1/16"
- 2 pc Solvent bottle 1000ml
- 2 pc Aspirating tube 1/8"

Attention: LCMS Wash Module not included.LCMS-P Tool consisting of:

- 1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
- 1 pc Pump Module and Connection Cable
- 1 pc PFA Transfer tube 1/16"
- 2 pc Solvent bottle 1000ml
- 2 pc Aspirating tube 1/8"

Attention: LCMS Wash Module not included.

PAL3-TH-Pip1000

Pipette tool for 1000uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-1000 and PAL3-PipTip-1000F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL

RTCPipette tool for 1000uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-1000 and PAL3-PipTip-1000F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL

RTCPipette tool for 1000uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-1000 and PAL3-PipTip-1000F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL

RTCPipette tool for 1000uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-1000 and PAL3-PipTip-1000F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL RTC

PAL3-TH-Pip200

Pipette tool for 200uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-200 and PAL3-PipTip-200F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL

RTCPipette tool for 200uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-200 and PAL3-PipTip-200F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL

RTCPipette tool for 200uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-200 and PAL3-PipTip-200F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL

RTCPipette tool for 200uL Tips

To use with PAL Disposable Tips: PAL3-PipTip-200 and PAL3-PipTip-200F

Tips and Racks for tips are not included

requires firmware version 2.4.x or higher and PAL RTC

Tray Holder

PAL3-Trayplate

Tray Holder for MTP and DW Plates, VT54, VT15 (CTC)

PAL3-Trayholder	Tray Holder for up to 3 different MTP, DW plates or sample racks VT12, VT15, VT54, VT70 or 1 sample rack R60
PAL3-ValveDrive-R	Valve Drive Module for Rheodyne valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable Valve Drive Module for Rheodyne valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable Valve Drive Module for Rheodyne valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable Valve Drive Module for Rheodyne valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable
PAL3-ValveDrive-V	Valve Drive Module for Valco valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable Valve Drive Module for Valco valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable Valve Drive Module for Valco valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable Valve Drive Module for Valco valve (without valve) consisting of: 1 pc Valve Drive Module 1 pc PAL Bus connection cable
PAL3-VortexMixer	Vortex Mixer for the intensive mixing of 1x 2mL, 10 or 20mL vials with an agitation speed between 0-2000 rpm

Wash Module

PAL3-WashFast	<p>Fast Wash Module for two solvents (Needle Gauge 19 to 26), consisting of:</p> <ul style="list-style-type: none"> 1 pc Wash Module with two wash positions and one Waste position 1 pc Pump Module with two solvent pumps 2 pc 1 liter solvent bottles with tubings and frits 1 pc PALbus connection cable <p>Fast Wash Module for two solvents (Needle Gauge 19 to 26), consisting of:</p> <ul style="list-style-type: none"> 1 pc Wash Module with two wash positions and one Waste position 1 pc Pump Module with two solvent pumps 2 pc 1 liter solvent bottles with tubings and frits 1 pc PALbus connection cable <p>Fast Wash Module for two solvents (Needle Gauge 19 to 26), consisting of:</p> <ul style="list-style-type: none"> 1 pc Wash Module with two wash positions and one Waste position 1 pc Pump Module with two solvent pumps 2 pc 1 liter solvent bottles with tubings and frits 1 pc PALbus connection cable <p>Fast Wash Module for two solvents (Needle Gauge 19 to 26), consisting of:</p> <ul style="list-style-type: none"> 1 pc Wash Module with two wash positions and one Waste position 1 pc Pump Module with two solvent pumps 2 pc 1 liter solvent bottles with tubings and frits 1 pc PALbus connection cable
PAL3-WashLCMS	<p>Wash Module for LCMS Tool. with two wash positions and one waste position</p>
PAL3-WashLarge	<p>Large Wash Module for 2x 100mL solvent vials and one waste position</p>
PAL3-WashStd	<p>Standard Wash Module for up to 4x 10mL solvent vials and 1x 10mL waste vial</p>

PAL3-WashPip

Wash Module for pipette tool, consisting of:

1 pc Valve Wash Module Pipette Tool

1 pc Pump Module

1 pc Cheminert Injection Valve PAL3-C2V-2006-CTC

2 pc PAL3 DilAsp Kits

2 pc 1000mL Solvent Bottles

requires firmware version 24 or higher

requires injection loop and PAL3-ValveDrive-VWash Module

for pipette tool, consisting of:

1 pc Valve Wash Module Pipette Tool

1 pc Pump Module

1 pc Cheminert Injection Valve PAL3-C2V-2006-CTC

2 pc PAL3 DilAsp Kits

2 pc 1000mL Solvent Bottles

requires firmware version 24 or higher

requires injection loop and PAL3-ValveDrive-VWash Module

for pipette tool, consisting of:

1 pc Valve Wash Module Pipette Tool

1 pc Pump Module

1 pc Cheminert Injection Valve PAL3-C2V-2006-CTC

2 pc PAL3 DilAsp Kits

2 pc 1000mL Solvent Bottles

requires firmware version 24 or higher

requires injection loop and PAL3-ValveDrive-V

ITSP KIT

PAL3-Kit-ITSP ITSP Kit for PAL RTC consisting of:: NET PRICE!
 1pc Needle Guide for ITSP (HWP3-NG)
 1pc Trayholder
 1pc Waste Receptacle (HW-WR)
 1pc Prep Tray, 96 Position Aluminum (HW-96P)
 1pc Single Cartridge Holder, 5/Pack (HW-SCH)
 1pc Jump Drive for Applications Notes, Programming & Manuals (HW-JD)
 (requires PAL RTC System)ITSP Kit for PAL RTC consisting of:: NET PRICE!
 1pc Needle Guide for ITSP (HWP3-NG)
 1pc Trayholder
 1pc Waste Receptacle (HW-WR)
 1pc Prep Tray, 96 Position Aluminum (HW-96P)
 1pc Single Cartridge Holder, 5/Pack (HW-SCH)
 1pc Jump Drive for Applications Notes, Programming & Manuals (HW-JD)
 (requires PAL RTC System)ITSP Kit for PAL RTC consisting of:: NET PRICE!
 1pc Needle Guide for ITSP (HWP3-NG)
 1pc Trayholder
 1pc Waste Receptacle (HW-WR)
 1pc Prep Tray, 96 Position Aluminum (HW-96P)
 1pc Single Cartridge Holder, 5/Pack (HW-SCH)
 1pc Jump Drive for Applications Notes, Programming & Manuals (HW-JD)
 (requires PAL RTC System)

Accessories

PAL3-Adap-7890/6890 Adapter for Agilent GC 7890/6890
 PAL3-Adap-GC2010 Adapter for Shimadzu GC2010 Plus
 PAL3-Adap-Trace1300-G Adapter for Thermo Trace 1300 GC injectors, suitable for C
 SSL or PTV injector
 PAL3-Adap-TraceUltra Adapter for Thermo Trace 1300 Ultra injector
 PAL3-AdapStdWash-2ml Adapter for Standard Wash Module to place 2mL vial instead of the 10mL wash vial
 PAL3-AdapStdWash-Waste Adapter for Standard Wash Module
 te
 PAL3-Adapters-FocusGC Adapter kit for Thermo Focus GC injectors: consists of one adapter for SSL/packed/purge packed injector

PAL3-Adapters-TraceGC Kit of adapters for Thermo Trace GC Ultra injectors: consists of one adapter for SSL/packed/purge packed injector and one adapter for PTV

PAL3-Agi-InsSet-10ml Set of 6x inserts for the Agitator to place 10mL vials instead of the 20mL vials

PAL3-Agi-InsSet-2ml Set of 6x inserts for the Agitator to place 2mL vials instead of the 20mL vials

PAL3-C2V-2006D-CTC-K 6-port Cheminert Injection Valve 0.40mm bore size
incl. Needle Guide, Needle Seal G22, PAL3-Kit LCVlv6-port
Cheminert Injection Valve 0.40mm bore size
incl. Needle Guide, Needle Seal G22, PAL3-Kit LCVlv6-port
Cheminert Injection Valve 0.40mm bore size
incl. Needle Guide, Needle Seal G22, PAL3-Kit LCVlv

PAL3-C2V-3606D-CTC-K 6-port Cheminert Injection Valve, 0.75mm bore size
incl. Needle Seal (Gauge 22) and PAL3-KitLCVlv
Prep Application, Flow Rate 5 to 100mL/min
6-port Cheminert Injection Valve, 0.75mm bore size
incl. Needle Seal (Gauge 22) and PAL3-KitLCVlv
Prep Application, Flow Rate 5 to 100mL/min

PAL3-C72VU-6676D-CTC 6-port Cheminert Injection Valve
-K 18'500 psi 50C liq,
0.15 mm bore size,
incl. 2µL and 20µL loop. 20uL loop already mounted.
incl. Needle Guide, Needle Seal, PAL3-Kit LCVlv6-port
Cheminert Injection Valve
18'500 psi 50C liq,
0.15 mm bore size,
incl. 2µL and 20µL loop. 20uL loop already mounted.
incl. Needle Guide, Needle Seal, PAL3-Kit LCVlv

PAL3-C72VX-1670D-CTC 10 port Cheminert injection valve
-K 15'000 psi 75°C
0.25 mm bore size
10 port Cheminert injection valve
15'000 psi 75°C
0.25 mm bore size

PAL3-C72VX-1676D-CTC 6-port Cheminert Injection Valve
-K 15'000 psi 75°C
0.25 mm bore size
6-port Cheminert Injection Valve
15'000 psi 75°C
0.25 mm bore size

PAL3-C5F-1004D-CTC Selector Valve 8-port 0.25mm, 1000psi

PAL3-ColSel6	Column Selector Valve for up to 6 columns, consists of 2 pc 6-port Cheminert valves, bore size 0.25mm
PAL3-ColumnHolder	Column Holder for Valve Drive with clamps for columns OD 4.6mm
PAL3-DCI4WK.5/1-CTC-K	Valco W-Type LC-Valve 4-Port Internal sample loop 0.5/1.0 µL 5000 psi 50°C, 0.40 mm bore size incl. Needle Guide, Needle Seal and Kit LCVlv Valco W-Type LC-Valve 4-Port Internal sample loop 0.5/1.0 µL 5000 psi 50°C, 0.40 mm bore size incl. Needle Guide, Needle Seal and Kit LCVlv
PAL3-DilAspKit	Aspiration Tubing Kit, consisting of: 1 pc Tube PFA 1 pc 28mm VitraPOR Glass Frit 40um pore size 1 pc Plug with Feed-through Holes Aspiration Tubing Kit, consisting of: 1 pc Tube PFA 1 pc 28mm VitraPOR Glass Frit 40um pore size 1 pc Plug with Feed-through Holes
PAL3-FoilCutter	Foil cutter to pierce either aluminum or plastic foils prior to the needle penetration into Microtiter or Deep Well plates (Requires PAL3-LCInj20mL-G19 or PAL3-LCInj20mL-G22)
PAL3-GC-QDoc	Instrument Qualification for GC Applications PAL3 RSI, RTC Documentation for IQ/ OQ procedures Instrument Qualification for GC Applications PAL3 RSI, RTC Documentation for IQ/ OQ procedures
PAL3-GC-ReQ	Instrument Requalification for GC Applications PAL3 RSI, RTC Documentation for OQ procedures Instrument Requalification for GC Applications PAL3 RSI, RTC Documentation for OQ procedures
PAL3-ITEX-Trap-Carb1000	PAL3 ITEX Trap Carboxen 1000 -60/ 80 mesh
PAL3-ITEX-Trap-CarbC	PAL3 ITEX Trap Carbopack - C 80/100 mesh
PAL3-ITEX-Trap-Carb-S3	PAL3 ITEX Trap Carbosieve SIII -60/ 80 mesh
PAL3-ITEX-Trap-Mix-1	PAL3 ITEX Trap Mix1 Tenax TA : Carboxen1000 (Bottom: Top - 1: 1)

PAL3-ITEX-Trap-Mix-2	PAL3 ITEX Trap Mix2 Carbopack C : Carbosieve SIII (Bottom: Top - 2: 1)
PAL3-ITEX-Trap-Mix-3	PAL3 ITEX Trap Mix3 Tenax GR : Carbosieve SIII (Bottom: Top - 1: 1)
PAL3-ITEX-Trap-TxGR	PAL3 ITEX Trap Tenax GR - 80/100 mesh
PAL3-ITEX-Trap-TXTA100	PAL3 ITEX Trap Tenax TA 80/100 mesh

Mounting Kits

PAL3-Kit-5890	Mounting Kit for Agilent GC model 5890
PAL3-Kit-5975T	Mounting Kit for Agilent GC model 5975T
PAL3-Kit-6850	Mounting Kit for Agilent GC model 6850
PAL3-Kit-7820-D	Mounting Kit for Agilent GC model 7820
PAL3-Kit-7890-D	Mounting Kit for Agilent GC models 6890 / 7890
PAL3-Kit-7890-S	Mounting Kit for Agilent GC models 6890 / 7890 (side mounting)
PAL3-Kit-Bruker-436	Mounting Kit for Bruker GC model 436
PAL3-Kit-Bruker-451	Mounting Kit for Bruker GC model 451
PAL3-Kit-Bruker-456	Mounting Kit for Bruker GC model 456
PAL3-Kit-DW-96Grabber	Standard Support PAL3, 320mm, 2pcs (for use with Grabber* DW-96 configuration) * Item separately available from www.brechbuehler.ch
PAL3-Kit-Focus	Mounting kit for Thermo Focus GC
PAL3-Kit-MasterGC	Mounting kit for DANI Master GC
PAL3-Kit-MasterSHS	Mounting Kit for DANI Master SHS/DHS in combination with DANI Master GC
PAL3-Kit-PEC500	Mounting Kit for PERKIN ELMER Clarus 500
PAL3-Kit-PEC600	Mounting Kit for PERKIN ELMER Clarus 600
PAL3-Kit-S17A	Mounting Kit for Shimadzu GC-S17A model
PAL3-Kit-S2014	Mounting Kit for Shimadzu GC model 2014
PAL3-Kit-S2010	Mounting Kit for Shimadzu GC model 2010
PAL3-Kit-S2010-SHS	Mounting Kit for DANI Master SHS/DHS in combination with Shimadzu S2010 GC
PAL3-Kit-S2025	Mounting Kit for Shimadzu GC model 2025
PAL3-Kit-Standalone	2 pcs Standard Support PAL RTC, 215mm, incl. PAL Interface Cable
PAL3-Kit-Trace	Mounting Kit for Thermo Trace GC Ultra
PAL3-Kit-Trace1300	Mounting Kit for Thermo Trace 1300/1310 GC
PAL3-Kit-Varian-3800	Mounting Kit for Varian GC model 3800
PAL3-Leg667	Single support leg 667 mm for Thermo GC (left or right side)
PAL3-Leg710	Single support leg 707 - 720 mm (left or right side)

PAL3-Leg780	Single support leg 774 - 787 mm (left or right side)
PAL3-Kit-WashVial-10ml	10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10) 10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10) 10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10) 10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10) 10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10) 10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10) 10mL solvent vial for Standard Wash Module completed with snap caps and seals (set of 10)
PAL3-Kit-WashVial-Caps	Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10) Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10) Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10) Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10) Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10) Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10) Snap cap (PE) and septum (Silicon/PTFE) for 10mL/100mL vials for Standard Wash Module (set of 10)
PAL3-LCInj-G22	Standard Needle Guide for Rheodyne/ Vici valves, Gauge 22
PAL3-LCInj-V-G19	Standard Needle Guide for Vici valves, Gauge 19

PAL3-LCMS-Ndl

Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm
for syringes 5µl - 100µl
(3 pcs per pack, incl. Needle Retaining Nut)Needle for PAL
LCMS Tool, gauge 22 PST 3, length 51 mm
for syringes 5µl - 100µl
(3 pcs per pack, incl. Needle Retaining Nut)Needle for PAL
LCMS Tool, gauge 22 PST 3, length 51 mm
for syringes 5µl - 100µl
(3 pcs per pack, incl. Needle Retaining Nut)Needle for PAL
LCMS Tool, gauge 22 PST 3, length 51 mm
for syringes 5µl - 100µl
(3 pcs per pack, incl. Needle Retaining Nut)Needle for PAL
LCMS Tool, gauge 22 PST 3, length 51 mm
for syringes 5µl - 100µl
(3 pcs per pack, incl. Needle Retaining Nut)Needle for PAL
LCMS Tool, gauge 22 PST 3, length 51 mm
for syringes 5µl - 100µl
(3 pcs per pack, incl. Needle Retaining Nut)

Mounting Kits

PAL3-LCMS-Ndl-T

Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE
Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE
Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE
Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE
Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE
Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE
Titanium Needle for PAL LCMS Tool, gauge 22 PST 3, length 51 mm

(3 pcs per pack, incl. Needle Retaining Nut)

CAUTION: FOR LABORATORY USE ONLY - NOT FOR

HUMAN IN VIVO USE

PAL3-LC-QDoc

Instrument Qualification for LC Applications PAL3 RSI, RTC

Documentation for IQ/ OQ proceduresInstrument

Qualification for LC Applications PAL3 RSI, RTC

Documentation for IQ/ OQ proceduresInstrument

Qualification for LC Applications PAL3 RSI, RTC

Documentation for IQ/ OQ proceduresInstrument

Qualification for LC Applications PAL3 RSI, RTC

Documentation for IQ/ OQ proceduresInstrument

Qualification for LC Applications PAL3 RSI, RTC

Documentation for IQ/ OQ proceduresInstrument

Qualification for LC Applications PAL3 RSI, RTC

Documentation for IQ/ OQ proceduresInstrument

Qualification for LC Applications PAL3 RSI, RTC

PAL3-PipTip-200
Pipette Tips 200uL without Filter
10 pcs with 96 tips each
Pipette Tips 200uL without Filter
10 pcs with 96 tips each
Pipette Tips 200uL without Filter
10 pcs with 96 tips each
Pipette Tips 200uL without Filter
10 pcs with 96 tips each
Pipette Tips 200uL without Filter
10 pcs with 96 tips each

PAL3-PipTip-200F
Pipette Tips 200uL with Filter
10 pcs with 96 tips each
Pipette Tips 200uL with Filter
10 pcs with 96 tips each
Pipette Tips 200uL with Filter
10 pcs with 96 tips each
Pipette Tips 200uL with Filter
10 pcs with 96 tips each
Pipette Tips 200uL with Filter
10 pcs with 96 tips each

PAL3-Rack-Pip-Tip
Tip rack for 96 PAL pipette tips
Tips not included
Tip rack for 96 PAL pipette tips
Tips not included
Tip rack for 96 PAL pipette tips
Tips not included
Tip rack for 96 PAL pipette tips
Tips not included
Tip rack for 96 PAL pipette tips
Tips not included

Racks

PAL3-Rack-R60
Sample Rack for 60 vials of 10/20mL, Aluminum
Vials not included
Sample Rack for 60 vials of 10/20mL,
Aluminum
Vials not included
Sample Rack for 60 vials of 10/20mL,
Aluminum
Vials not included
Sample Rack for 60 vials of 10/20mL,
Aluminum
Vials not included
Sample Rack for 60 vials of 10/20mL,
Aluminum
Vials not included
Sample Rack for 60 vials of 10/20mL,
Aluminum
Vials not included

PAL3-Rack-VT12
Sample Rack for 12 vials of 40mL. Vials are not included

PAL3-Rack-VT15
Sample Rack for 15 vials of 10/20mL. Vials are not included

PAL3-Kit-VT15	<p>Sample Rack for 15 vials of 10/20mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 15 vials of 10/20mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 15 vials of 10/20mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 15 vials of 10/20mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 15 vials of 10/20mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 15 vials of 10/20mL, pack of 3 pcs Vials are not included</p>
PAL3-Rack-VT54 PAL3-Kit-VT54	<p>Sample Rack for 54 vials of 2mL. Vials are not included</p> <p>Sample Rack for 54 vials of 2mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 54 vials of 2mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 54 vials of 2mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 54 vials of 2mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 54 vials of 2mL, pack of 3 pcs Vials are not included</p> <p>Sample Rack for 54 vials of 2mL, pack of 3 pcs Vials are not included</p>
PAL3-Rack-VT70 Vials	<p>Sample Rack for 70 vials of 1mL. Vials are not included</p>
Vial-0.3-ND9-PP-100	<p>PAL System Micro-Vial 2CV, 0.3mL Clear PP, designed for the PAL Autosampler. 12x32mm, with conical insert, fits ND9 Screw Caps, Pk of 100 Pcs</p>
Vial-1.5-ND9-PP-100	<p>PAL System Vial 2CV, 1.5mL Clear PP, designed for the PAL Autosampler. 12x32mm, with filling lines, fits ND9 Screw Caps, Pk of 100 Pcs</p>
Vial-1.5-ND9-CG-100	<p>PAL System Vial 2CV, 1.5ml Clear Glass with Label, designed for the PAL Autosampler. 12x32mm, 1st Class Hydrolytic Glass, fits ND9 Screw Caps, Pk of 100 Pcs</p>
Vial-1.5-ND9-AG-100	<p>PAL System Vial 2CV, 1.5ml Amber Glass with Label, designed for the PAL Autosampler. 12x32mm, 1st Class Hydrolytic Glass, fits ND9 Screw Caps, Pk of 100 Pcs</p>
Vial-20-ND18-CG-100	<p>PAL System Vial 20CV, 20ml Clear Glass with Label, designed for the PAL Autosampler. 75.5x22.5mm, 1st Class</p>

	Hydrolytic Glass with flat finish for better sealing, fits ND18 Screw Caps, Pk of 100 Pcs
Vial-20-ND18-AG-100	PAL System Vial 20CV, 20ml Amber Glass with Label, designed for the PAL Autosampler. 75.5x22.5mm, 1st Class Hydrolytic Glass with flat finish for better sealing, fits ND18 Screw Caps, Pk of 100 Pcs
Vial-10-DC20-CG-100	PAL System Vial 10CV, 10ml Clear Glass with Label, for PAL Wash Modules. 46x22.5mm, 1st Class Hydrolytic Glass, DIN-Crimp Neck, Pk of 100pcs
Vial-10-ND18-CG-100	PAL System Vial 10CV, 10ml Clear Glass with Label, designed for the PAL Autosampler. 46x22.5mm, 1st Class Hydrolytic Glass, with flat finish for better sealing, fits ND18 Screw Caps, Pk of 100 Pcs
Vial-10-ND18-AG-100	PAL System Vial 10CV, 10ml Amber Glass with Label, designed for the PAL Autosampler. 46x22.5mm, 1st Class Hydrolytic Glass, with flat finish for better sealing, fits ND18 Screw Caps, Pk of 100 Pcs
Cap-DC20-PE-SP13Y-100	PAL System Clip Cap for PAL Wash Modules. 22mm PE, Silicone/PTFE/Y-Slitted Septa 1.3mm, Pk of 100 pcs
Cap-ND9-St-SP10S-100	PAL System Screw Cap 2CV, designed for the PAL Autosampler. ND9, Magnetic, Gold, Silicone/PTFE/I-Slitted Septa 1.0mm, Pk of 100 pcs
Cap-ND9-St-SP10-100	PAL System Screw Cap 2CV, designed for the PAL Autosampler. ND9, Magnetic, Gold, Silicone/PTFE Septa 1.0mm, Pk of 100 pcs
Cap-ND18-StC-SP20-100	PAL System Screw Re-Cap 10CV and 20CV, designed for the PAL Autosampler. ND18 Magnetic, PTFE Metal Coating for optimized screw and sealing performance, Silicone/PTFE Septa 2.0mm, Pk of 100 pcs
Cap-ND18-St-SP15-100	PAL System Screw Cap 10CV and 20CV, designed for the PAL Autosampler. ND18 Magnetic, Silver, Silicone white/PTFE blue Septa 1.5mm, Pk of 100 pcs

1,2 µl / 5,0µl Liquid Syringes for GC Injection

PAL3-SYH-207887

1,2uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23P, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY
1,2uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23P, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY
1,2uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23P, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY
1,2uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23P, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY
1,2uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23P, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207800

5µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY, Hamilton
5µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY, Hamilton
5µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY, Hamilton
5µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY, Hamilton
5µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm

CAUTION: FOR LABORATORY USE ONLY, Hamilton

10 µl Liquid Syringes for GC Injection

PAL3-SYH-207803

10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY
10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY
10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY
10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207807

10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY
10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY
10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY
10uL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
Hamilton, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYS-002865

10µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
SGE, CAUTION: FOR LABORATORY USE ONLY
10µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
SGE, CAUTION: FOR LABORATORY USE ONLY
10µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
SGE, CAUTION: FOR LABORATORY USE ONLY
10µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 54mm
SGE, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207189	<p>10μL Syringe for Tool D7/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 54mm SGE, CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 54mm SGE, CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 54mm SGE, CAUTION: FOR LABORATORY USE ONLY</p>
PAL3-SYH-207837	<p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p>
PAL3-SYH-207839	<p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p> <p>10μL Syringe for Tool D7/57: Needle length 57mm, Gauge 23S, Point Style AS, Scale 60mm Hamilton, Gastight. CAUTION: FOR LABORATORY USE ONLY</p>

25 μ l Liquid Syringes for GC Injection

PAL3-SYH-207817 25µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
25µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
25µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
25µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY

100 µl Liquid Syringes for GC Injection

PAL3-SYH-207840 100µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
100µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
100µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
100µL Syringe for Tool D7/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207827 100µL Syringe for Tool D7/85: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
100µL Syringe for Tool D7/85: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
100µL Syringe for Tool D7/85: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY
100µL Syringe for Tool D7/85: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm
Gastight. CAUTION: FOR LABORATORY USE ONLY

250 µl Liquid Syringes for GC Injection

PAL3-SYH-207829

250µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
250µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
250µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
250µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207831

250µL Syringe for Tool D8/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
250µL Syringe for Tool D8/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
250µL Syringe for Tool D8/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
250µL Syringe for Tool D8/85: Needle length 85mm, Gauge 26S, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY

500 µl Liquid Syringes for GC Injection

PAL3-SYH-207833

500µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
500µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
500µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY
500µL Syringe for Tool D8/57: Needle length 57mm, Gauge 26, Point Style AS, Scale 60mm

CAUTION: FOR LABORATORY USE ONLY

Headspace Syringes for GC Injection

PAL3-SYH-207853 Headspace Syringe 1000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 1000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 1000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 1000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207290 Headspace Syringe 2500uL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 2500uL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 2500uL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207854 Headspace Syringe 5000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 5000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 5000µL: Needle length 65mm, Gauge 23, Point Style 5
Hamilton, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYS-008155 Headspace Syringe 1000uL for HS Tool D8/85th 65mm, Gauge 23, Point Style 5
SGE, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 1000uL for HS Tool D8/85th 65mm, Gauge 23, Point Style 5
SGE, CAUTION: FOR LABORATORY USE ONLY
Headspace Syringe 1000uL for HS Tool D8/85th 65mm, Gauge 23, Point Style 5
SGE, CAUTION: FOR LABORATORY USE ONLY

PAL3-SYS-008655 Headspace Syringe 2500µL for Tool D8/85: Needle length 65mm, Gauge 23, Point Style 5
SGE, CAUTION: FOR LABORATORY USE
ONLY
Headspace Syringe 2500µL for Tool D8/85: Needle length 65mm, Gauge 23, Point Style 5
SGE, CAUTION: FOR LABORATORY USE
ONLY
Headspace Syringe 2500µL for Tool D8/85: Needle length 65mm, Gauge 23, Point Style 5
SGE, CAUTION: FOR LABORATORY USE ONLY

Dilutor Syringes from Norgren

PAL3-SYDIL-21834 Dilutor Syringe 100µL
PAL3-SYDIL-21835 Dilutor Syringe 1000uL
PAL3-SYDIL-21836 Dilutor Syringe 5.000µL
PAL3-SYDIL-21837 Dilutor Syringe 10.000uL

Syringes for ITEX Tool

PAL3-SYH-209295 Hamilton 1,3mL
LCMS Tool

PAL3-TH-LCMS-P LCMS-P Tool consisting of:
1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
1 pc Pump Module and Connection Cable
1 pc PFA Transfer tube 1/16"
2 pc Solvent bottle 1000ml
2 pc Aspirating tube 1/8"
Attention: LCMS Wash Module not included.LCMS-P Tool consisting of:
1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
1 pc Pump Module and Connection Cable
1 pc PFA Transfer tube 1/16"
2 pc Solvent bottle 1000ml
2 pc Aspirating tube 1/8"
Attention: LCMS Wash Module not included.LCMS-P Tool consisting of:
1 pc LCMS-P Tool incl. Syringe, Needle and FEP Loop
1 pc Pump Module and Connection Cable
1 pc PFA Transfer tube 1/16"
2 pc Solvent bottle 1000ml
2 pc Aspirating tube 1/8"
Attention: LCMS Wash Module not included.

PAL3-SYH-207128 100µl Syringe for LCMS
X-Line Syringes for HPLC Injection

PAL3-SYH-208304

CTC X-Line Syringe Gastight 25 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22s
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY
CTC X-Line Syringe Gastight 25 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22s
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY
CTC X-Line Syringe Gastight 25 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22s
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-208312

CTC X-Line Syringe Gastight 100 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22s
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY
CTC X-Line Syringe Gastight 100 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22s
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-208311

CTC X-Line Syringe Gastight 100 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY
CTC X-Line
Syringe Gastight 100 μ L
For High-Throughput Application and Minimized Carry Over
OD 6.6mm, Scale 60mm
Fixed Needle Gauge 22
Point Style 3
(LC Applications)
CAUTION: FOR LABORATORY USE ONLY

C-Line Syringes for HPLC Injection

PAL3-SYH-207813

CTC C-Line Syringe gastight 10 μ L
OD 6.6 mm, Scale 60mm
Fixed needle Gauge 22s
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY
CTC C-Line
Syringe gastight 10 μ L
OD 6.6 mm, Scale 60mm
Fixed needle Gauge 22s
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207828

CTC C-Line Syringe gastight 250 μ L
OD 7.7mm, Scale 60mm
Fixed needle Gauge 22
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY
CTC C-Line
Syringe gastight 250 μ L
OD 7.7mm, Scale 60mm
Fixed needle Gauge 22
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207832 CTC C-Line Syringe gastight 500µL
OD 7.7mm, Scale 60mm
Fixed needle Gauge 22
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY
CTC C-Line Syringe gastight 500µL
OD 7.7mm, Scale 60mm
Fixed needle Gauge 22
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY

PAL3-SYH-207836 CTC C-Line Syringe gastight 1000µL
OD 7.7mm, Scale 60mm
Fixed needle Gauge 22
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY
CTC C-Line Syringe gastight 1000µL
OD 7.7mm, Scale 60mm
Fixed needle Gauge 22
Pointstyle 3
(LC applications)
CAUTION: FOR LABORATORY USE ONLY

GC 1000 µl Liquid Syringe for Sample Prep / Dilution

PAL3-SYH-207849 1000µL Syringe for Tool D8/57: Needle length 57mm, Gauge 23, Point Style AS, Scale 60mm
CAUTION: FOR LABORATORY USE ONLY
1000µL Syringe for Tool D8/57: Needle length 57mm, Gauge 23, Point Style AS, Scale 60mm
CAUTION: FOR LABORATORY USE ONLY

GC/LC 10'000 µl Liquid Syringe for Sample Prep / Dilution

PAL3-SYH-207292 10.000µL Syringe for Tool D18/57: Needle length 57mm, Gauge 19, Point Style 3, Scale 60mm
CAUTION: FOR LABORATORY USE ONLY
10.000µL Syringe for Tool D18/57: Needle length 57mm, Gauge 19, Point Style 3, Scale 60mm
CAUTION: FOR LABORATORY USE ONLY

SPME Arrow Tools and Modules

PAL3-ARR-Start-GC2010 Starter Kit SPME Arrow for Shimadzu GC 2010 consisting of:
1x Adaptation for the split/splitless injector of SHIMADZU GC 2010 (ARR-SSL-Inj-GC2010)

1 pc Liner Nut

1 pc Screw Cap

2 pcs SPME Arrow Liner

1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)

1 pc SPME Arrow Tool

1 pc SPME Arrow Holder

1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)

1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017

(Regular List Price: CHF 6500) Starter Kit SPME Arrow for Shimadzu GC 2010 consisting of:

1x Adaptation for the split/splitless injector of SHIMADZU GC 2010 (ARR-SSL-Inj-GC2010)

1 pc Liner Nut

1 pc Screw Cap

2 pcs SPME Arrow Liner

1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)

1 pc SPME Arrow Tool

1 pc SPME Arrow Holder

1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)

1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017

(Regular List Price: CHF 6500)

PAL3-ARR-Start-GC6890 Starter Kit SPME Arrow for Agilent GC 6890 consisting of:

1 Adaptation for the split/splitless injector of AGILENT GC 6890 (ARR-SSL-Inj-GC6890)

2 SPME Arrow Liner for SSL Injector of Agilent GC 6890

1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)

1 pc SPME Arrow Tool

1 pc SPME Arrow Holder

1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)

1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017

(Regular List Price: CHF 6500) Starter Kit SPME Arrow for Agilent GC 6890 consisting of:

1 Adaptation for the split/splitless injector of AGILENT GC 6890 (ARR-SSL-Inj-GC6890)

2 SPME Arrow Liner for SSL Injector of Agilent GC 6890

1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)

1 pc SPME Arrow Tool

1 pc SPME Arrow Holder

1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)

1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017

(Regular List Price: CHF 6500)

PAL3-ARR-Start-GC7890 Starter Kit SPME Arrow for Agilent GC 7890 consisting of:

1 Adaptation for the split/splitless injector of AGILENT GC 7890 (ARR-SSL-Inj-GC7890)

2 SPME Arrow Liner for SSL Injector of Agilent GC 7890

1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)

1 pc SPME Arrow Tool

1 pc SPME Arrow Holder

1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)

1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017

(Regular List Price: CHF 6500) Starter Kit SPME Arrow for Agilent GC 7890 consisting of:

1 Adaptation for the split/splitless injector of AGILENT GC 7890 (ARR-SSL-Inj-GC7890)

2 SPME Arrow Liner for SSL Injector of Agilent GC 7890

1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)

1 pc SPME Arrow Tool

1 pc SPME Arrow Holder

1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)

1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017
(Regular List Price: CHF 6500)

PAL3-ARR-Start-Tr1300 Starter Kit SPME Arrow for Thermo GC Trace1300/1310
consisting of:
1 Adaptation for the split/splitless injector of Thermo GC
Trace1300/1310 (ARR-SSL-Inj-Trace1300)
1 SPME Arrow Liner for SSL Injector of Thermo GC
Trace1300/1310 Pk of 2 pcs
1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)
1 pc SPME Arrow Tool
1 pc SPME Arrow Holder
1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)
1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017
(Regular List Price: CHF 6500)Starter Kit SPME Arrow for
Thermo GC Trace1300/1310
consisting of:
1 Adaptation for the split/splitless injector of Thermo GC
Trace1300/1310 (ARR-SSL-Inj-Trace1300)
1 SPME Arrow Liner for SSL Injector of Thermo GC
Trace1300/1310 Pk of 2 pcs
1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)
1 pc SPME Arrow Tool
1 pc SPME Arrow Holder
1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)
1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017
(Regular List Price: CHF 6500)

PAL3-ARR-Start-TrUltra Starter Kit SPME Arrow for Thermo GC TraceUltra
consisting of:
1 Adaptation for the split/splitless injector of Thermo GC
TraceUltra (ARR-SSL-Inj-TraceUltra)
2 SPME Arrow Liner for SSL Injector of Thermo GC
TraceUltra
1x PAL SPME Arrow Kit (PAL3-SPME-Arrow-Kit)
1 pc SPME Arrow Tool
1 pc SPME Arrow Holder
1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1)
1 pc SPME Performance Evaluation Mix

Promotion Package Price - valid until Dec 31, 2017
(Regular List Price: CHF 6500)

ARR-Man-Inj-Kit	Manual Injection Kit for SPME Arrow, consisting of: 1x Manual SPME Holder 1x Manual SPME Extraction Guide 1x Manual SPME Injection Guide
PAL3-AgiHeatex-Kit	Agitator and Heatex Stirrer Kit consisting of: 1 pc Agitator for the incubation and agitation of up to 6x 20mL vials 1 pc Heatex Stirrer for intensive heating and stirring of 1x 20mL vial without stir bar Specific Heatex Stirrer insert for 10mL vial available (not included) Specific Agitator insert for 10 mL vials available (not included) requires firmware version 2.3 or higher and adapters for 10mL vials Special Kit Price (Regular List Price: CHF 7'400)
PAL3-HeatexStirrer	Heatex Stirrer for intensive heating and stirring of 1x 20mL vial without stir bar Specific Heatex Stirrer insert for 10mL vial available (not included) requires firmware version 2.3 or higher (use in combination with existing PAL3-Agitator)
PAL3-Heatex-Ins-10mL	Specific insert for the Heatex Stirrer to stir one 10mL vial
PAL3-SPME-ArrowCond	SPME Arrow Conditioning Module for the conditioning of SPME arrows and SPME fibers Includes a second position for conditioning a replacement SPME arrow or SPME fiber requires firmware version 2.3 or higher
PAL3-SPME-Arrow-Kit	SPME Arrow Kit consisting of: 1 pc SPME Arrow Tool 1 pc SPME Arrow Holder 1 pc SPME Arrow Assortment Kit (ARR-SEL5-S1) 1 pc SPME Performance Evaluation Mix
ARR-SSL-Inj-GC2010	Adaptation for the split/splitless injector of SHIMADZU GC-2010 Plus Mandatory for the injection with a SPME Arrow (only for SHIMADZU GC-2010 Plus, not suitable for use with GC-2010)

ARR-SSL-Inj-GC6890	Adaptation for the split/splitless injector of AGILENT GC 6890 Mandatory for the injection with a SPME Arrow
ARR-SSL-Inj-GC7890	Adaptation for the split/splitless injector of AGILENT GC 7890 Mandatory for the injection with a SPME Arrow
ARR-SSL-Inj-Trace1300	Adaptation for the split/splitless injector of Thermo GC Trace1300/1310 Mandatory for the injection with a SPME Arrow
ARR-SSL-Inj-TraceUltra	Adaptation for the split/splitless injector of Thermo GC TraceUltra Mandatory for the injection with a SPME Arrow SPME Arrows/ SPME Arrow Liners
ARR11-A-100/20-P1	SPME Arrow 1.10mm: Acrylate (Polyacrylate) Phase thickness 100µm, Phase length 20mm, color code: grey, pack of 1 pc
ARR11-A-100/20-P3	SPME Arrow 1.10mm: Acrylate (Polyacrylate) Phase thickness 100µm, Phase length 20mm, color code: grey, pack of 3 pcs
ARR11-A-100/20-P5	SPME Arrow 1.10mm: Acrylate (Polyacrylate) Phase thickness 100µm, Phase length 20mm, color code: grey, pack of 5 pcs
ARR11-C-WR-120/20-P1	SPME Arrow 1.10mm: Carbon WR/PDMS (Carbon Wide Range) Phase thickness 120µm, Phase length 20mm, color code: light blue, pack of 1 pc
ARR11-C-WR-120/20-P3	SPME Arrow 1.10mm: Carbon WR/PDMS (Carbon Wide Range) Phase thickness 120µm, Phase length 20mm, color code: light blue, pack of 3 pcs
ARR11-C-WR-120/20-P5	SPME Arrow 1.10mm: Carbon WR/PDMS (Carbon Wide Range) Phase thickness 120µm, Phase length 20mm, color code: light blue, pack of 5 pcs
ARR11-DVB-120/20-P1	SPME Arrow 1.10mm: DVB/PDMS (Divinylbenzene) Phase thickness 120µm, Phase length 20mm, color code: violett, pack of 1 pc
ARR11-DVB-120/20-P3	SPME Arrow 1.10mm: DVB/PDMS (Divinylbenzene) Phase thickness 120µm, Phase length 20mm, color code: violett, pack of 3 pcs

ARR11-DVB-120/20-P5	SPME Arrow 1.10mm: DVB/PDMS (Divinylbenzene) Phase thickness 120µm, Phase length 20mm, color code: violett, pack of 5 pcs
ARR11-P-100/20-P1	SPME Arrow 1.10mm: PDMS (Polydimethylsiloxane) Phase thickness 100µm, Phase length 20mm, color code: red, pack of 1 pc
ARR11-P-100/20-P3	SPME Arrow 1.10mm: PDMS (Polydimethylsiloxane) Phase thickness 100µm, Phase length 20mm, color code: red, pack of 3 pcs
ARR11-P-100/20-P5	SPME Arrow 1.10mm: PDMS (Polydimethylsiloxane) Phase thickness 100µm, Phase length 20mm, color code: red, pack of 5 pcs
ARR15-P-250/20-P1	SPME Arrow 1.5mm: PDMS (Polydimethylsiloxane) Phase thickness 250µm, Phase length 20mm, color code: black, pack of 1 pc
ARR15-P-250/20-P3	SPME Arrow 1.5mm: PDMS (Polydimethylsiloxane) Phase thickness 250µm, Phase length 20mm, color code: black, pack of 3 pc
ARR15-P-250/20-P5	SPME Arrow 1.5mm: PDMS (Polydimethylsiloxane) Phase thickness 250µm, Phase length 20mm, color code: black, pack of 5 pc
ARR1115-SEL5-S1	Collection of five different SPME Arrows with phase length of 20mm: 1 pc SPME Arrow 1.10mm Acrylate (Polyacrylate), Phase thickness 100µm 1 pc SPME Arrow 1.10mm Carbon WR/PDMS (Carbon Wide Range), Phase thickness 120µm 1 pc SPME Arrow 1.10mm DVB/PDMS (Divinylbenzene) , Phase thickness 120µm 1 pc SPME Arrow 1.10mm PDMS (Polydimethylsiloxan) , Phase thickness 100µm 1 pc SPME Arrow 1.5mm PDMS (Polydimethylsiloxan) , Phase thickness 250µm
ARR-Liner-CondModule	Liner for SPME Arrow Conditioning Module, Pk of 3 pcs
ARRLIN13-GC2010-3	SPME Arrow Liner ID 1.3mm, for SSL Injector of SHIMADZU GC 2010, Pk of 3 pcs Only for SMPE Arrow OD 1.1mm
ARRLIN13-GC6890-3	SPME Arrow Liner ID 1.3mm, for SSL Injector of AGILENT GC 6890, Pk of 3 pcs

ARRLIN13-GC7890-3
Only for SPME Arrow with OD 1.1mm
SPME Arrow Liner ID 1.3mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
Only for SMPE Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
Only for SMPE Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
Only for SMPE Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
Only for SMPE Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
ARRLIN13-Trace1300-3
Only for SMPE Arrow with OD 1.1mm
SPME Arrow Liner ID 1.3mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
Only for SPME Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
Only for SPME Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
Only for SPME Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
Only for SPME Arrow with OD 1.1mmSPME Arrow Liner ID 1.3mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
Only for SPME Arrow with OD 1.1mm

ARRLIN17-GC2010-3 SPME Arrow Liner ID 1.7mm, for SSL Injector of SHIMADZU GC 2010,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of SHIMADZU GC 2010,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of SHIMADZU GC 2010,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of SHIMADZU GC 2010,
Pk of 3 pcs
For any SPME Arrow

ARRLIN17-GC6890-3 SPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 6890,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 6890,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 6890,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 6890,
Pk of 3 pcs
For any SPME Arrow

ARRLIN17-GC7890-3 SPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of AGILENT GC 7890,
Pk of 3 pcs
For any SPME Arrow

ARRLIN17-Trace1300-3 SPME Arrow Liner ID 1.7mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 1.7mm, for SSL Injector of Thermo GC Trace1300,
Pk of 3 pcs
For any SPME Arrow

ARRLIN20-TraceUltra-3 SPME Arrow Liner ID 2.0mm, for SSL Injector of Thermo GC TraceUltra,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 2.0mm, for SSL Injector of Thermo GC TraceUltra,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 2.0mm, for SSL Injector of Thermo GC TraceUltra,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 2.0mm, for SSL Injector of Thermo GC TraceUltra,
Pk of 3 pcs
For any SPME ArrowSPME Arrow Liner ID 2.0mm, for SSL Injector of Thermo GC TraceUltra,
Pk of 3 pcs
For any SPME Arrow

SPME Fibers

FIB-A-85/10-P1

Acrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 1pcAcrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 1pcAcrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 1pcAcrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 1pcAcrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 1pc

FIB-A-85/10-P3

Acrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 3pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 3pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 3pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 3pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 3pcs

FIB-A-85/10-P5

Acrylate SPME fiber (Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 5pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 5pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 5pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 5pcsAcrylate SPME fiber
(Polyacrylate)
Fiber thickness 85µm, Fiber length 10mm,
color code: gray, pack of 5pcs

FIB-C-WR-95/10-P1

Carbon WR SPME fiber (Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 1pcCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 1pcCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 1pcCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 1pcCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 1pc

FIB-C-WR-95/10-P3

Carbon WR SPME fiber (Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 3pcsCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 3pcsCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 3pcsCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 3pcsCarbon WR SPME fiber
(Carbon Wide Range)
Fiber thickness 95µm, Fiber length 10mm,
color code: dark blue, pack of 3pcs

FIB-C-WR-95/10-P5

Carbon WR SPME fiber (Carbon Wide Range)

Fiber thickness 95 μ m, Fiber length 10mm,

color code: dark blue, pack of 5pcsCarbon WR SPME fiber
(Carbon Wide Range)

Fiber thickness 95 μ m, Fiber length 10mm,

color code: dark blue, pack of 5pcsCarbon WR SPME fiber
(Carbon Wide Range)

Fiber thickness 95 μ m, Fiber length 10mm,

color code: dark blue, pack of 5pcsCarbon WR SPME fiber
(Carbon Wide Range)

Fiber thickness 95 μ m, Fiber length 10mm,

color code: dark blue, pack of 5pcsCarbon WR SPME fiber
(Carbon Wide Range)

Fiber thickness 95 μ m, Fiber length 10mm,

color code: dark blue, pack of 5pcs

FIB-P-100/10-P1

PDMS SPME fiber (Polydimethylsiloxane)

Fiber thickness 100 μ m, Fiber length 10mm,

color code: red, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)

Fiber thickness 100 μ m, Fiber length 10mm,

color code: red, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)

Fiber thickness 100 μ m, Fiber length 10mm,

color code: red, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)

Fiber thickness 100 μ m, Fiber length 10mm,

color code: red, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)

Fiber thickness 100 μ m, Fiber length 10mm,

color code: red, pack of 1pc

FIB-P-100/10-P3

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 3pcs

FIB-P-100/10-P5

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 100 μ m, Fiber length 10mm,
color code: red, pack of 5pcs

FIB-P-30/10-P1

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 1pc

FIB-P-30/10-P3

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 3pcs

FIB-P-30/10-P5

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 30 μ m, Fiber length 10mm,
color code: golden, pack of 5pcs

FIB-P-7/10-P1

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 1pcPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 1pc

FIB-P-7/10-P3

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 3pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 3pcs

FIB-P-7/10-P5

PDMS SPME fiber (Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 5pcsPDMS SPME fiber
(Polydimethylsiloxane)
Fiber thickness 7 μ m, Fiber length 10mm,
color code: green, pack of 5pcs

FIB-SEL5-S1

Collection of five different SPME fibers with fiber length of
10mm and fiber thickness of:
PDMS: 7 μ m, 30 μ m & 100 μ m
Acrylate: 85 μ m
Carbon WR: 95 μ mCollection of five different SPME fibers
with fiber length of 10mm and fiber thickness of:
PDMS: 7 μ m, 30 μ m & 100 μ m
Acrylate: 85 μ m
Carbon WR: 95 μ mCollection of five different SPME fibers
with fiber length of 10mm and fiber thickness of:
PDMS: 7 μ m, 30 μ m & 100 μ m
Acrylate: 85 μ m
Carbon WR: 95 μ m

Spare Parts

PAL3-AgiORing	Driving belt for PAL3 Agitator 6 x 20ml (Set of 3 pcs)Driving belt for PAL3 Agitator 6 x 20ml (Set of 3 pcs)Driving belt for PAL3 Agitator 6 x 20ml (Set of 3 pcs)Driving belt for PAL3 Agitator 6 x 20ml (Set of 3 pcs)
PAL3-Agi-TeachAdap	Agitator Teaching Tool, 2pcs
PAL3-AgiTopCover	Agitator Top Cover
PAL3-AgiTopSPME	Agitator Top Cover SPME
PAL3-BusCable-250mm	Spare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 250mmSpare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 250mmSpare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 250mmSpare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 250mm
PAL3-BusCable-1500mm	Standard PALbus cable (14 pin), length 1500mm
PAL3-BusCable-850mm	Spare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 850mmSpare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 850mmSpare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 850mmSpare for all autosampler configurations, consisting of: 1pc Standard PALbus cable (14 pin), length 850mm
PAL3-DC-Cable-2m	PAL DC-cable for PAL System 1pc Power cable (3 pin, shielded) for connection between PAL Power Supply and PAL System. Cable length 2m.PAL DC-cable for PAL System 1pc Power cable (3 pin, shielded) for connection between PAL Power Supply and PAL System. Cable length 2m.PAL DC-cable for PAL System 1pc Power cable (3 pin, shielded) for connection between PAL Power Supply and PAL System. Cable length 2m.
PAL3-DilValve3P	3 / 2 Position PTFE Valve for Dilutor Module 1/4 28 Version
PAL3-DilValve6P	6 / 2 Position ceramic Valve for Dilutor Module 1/4 28 Version

PAL3-HS1000-Oring-kit	<p>Spare for Headspace Tool,consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 7x1.5 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool <p>Spare for Headspace Tool,consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 7x1.5 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool <p>Spare for Headspace Tool,consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 7x1.5 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool
PAL3-HS2500-Oring-kit	<p>Spare for Headspace Tool, consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 9.25x1.78 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool <p>Spare for Headspace Tool, consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 9.25x1.78 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool <p>Spare for Headspace Tool, consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 9.25x1.78 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool
PAL3-HS5000-Oring-kit	<p>Spare for Headspace Tool, consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 13x1.5 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool <p>Spare for Headspace Tool, consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 13x1.5 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection 1pc syringe removing tool 1pc syringe O-ring removing tool <p>Spare for Headspace Tool, consisting of:</p> <ul style="list-style-type: none"> 4pc O-ring 13x1.5 MVQ for syringe fixation 2pc O-ring 3x1.0 MVQ for gas connection

	1pc syringe removing tool
	1pc syringe O-ring removing tool
PAL3-ITEX-Fan	PAL3 ITEX - replacement fan
PAL3-ITEX-Trap-Heater	PAL3 ITEX Replacement Trap Heater
PAL3-KIT LCVlv	Kit Waste-Tubing for VICI and Rheodyne Valves
PAL3-LCMSLoop	Kit PAL3 LCMS Holding Loop with Fittings
PAL3-LCMSPLG	Replacement plunger for LCMS syringe PAL3-SYH-207128
	Package of 10 pcsReplacement plunger for LCMS syringe PAL3-SYH-207128
	Package of 10 pcsReplacement plunger for LCMS syringe PAL3-SYH-207128
	Package of 10 pcs
PAL3-LCMS-PumpMod	PAL3 LCMS Pump Module consisting of:
	2x Pumps
	1x Electronic board
	1x Aluminum housing with PALbus connectors (without cable, bracket and tubing)
	PAL3 LCMS Pump Module consisting of:
	2x Pumps
	1x Electronic board
	1x Aluminum housing with PALbus connectors (without cable, bracket and tubing)
	PAL3 LCMS Pump Module consisting of:
	2x Pumps
	1x Electronic board
	1x Aluminum housing with PALbus connectors (without cable, bracket and tubing)
	PAL3 LCMS Pump Module consisting of:
	2x Pumps
	1x Electronic board
	1x Aluminum housing with PALbus connectors (without cable, bracket and tubing)
	PAL3 LCMS Pump Module consisting of:
	2x Pumps
	1x Electronic board
	1x Aluminum housing with PALbus connectors (without cable, bracket and tubing)

PAL3-LowNdIGdeRepl	<p>Needle Guide Replacement Kit (round rod type needle guide) without needle transport magnet for PAL3 Tools D7, D8 Without nut for SPME-Fibcond valve Needle Guide Replacement Kit (round rod type needle guide) without needle transport magnet for PAL3 Tools D7, D8 Without nut for SPME-Fibcond valve Needle Guide Replacement Kit (round rod type needle guide) without needle transport magnet for PAL3 Tools D7, D8 Without nut for SPME-Fibcond valve</p>
PAL3-LowNdIGdeRepIMG	<p>Needle Guide Replacement Kit (round rod type needle guide) with magnet for PAL3 Tools D7, D8 Without nut for SPME-Fibcond valve Needle Guide Replacement Kit (round rod type needle guide) with magnet for PAL3 Tools D7, D8 Without nut for SPME-Fibcond valve Needle Guide Replacement Kit (round rod type needle guide) with magnet for PAL3 Tools D7, D8 Without nut for SPME-Fibcond valve</p>
PAL3-LubKit	PAL Lubrication Kit including brush
PAL3-MM-015-01	Tube connector from Pressure regulator to tubing 1/8"
PAL3-MM-09-01	Connector PAL3 x-rail to pressure regulator
PAL3-MountClaw29	Mounting claw standard 29 mm for PAL3 legs
PAL3-MountClaw63	Mounting claw extended 63 mm for PAL3 legs
PAL3-NdlSeal	<p>Peek Needle seal gauge 22 for Valco and Rheodyne valves (use together with needle guide MV 30-12) Pack of 5 pcs Peek Needle seal gauge 22 for Valco and Rheodyne valves (use together with needle guide MV 30-12) Pack of 5 pcs</p>
PAL3-PALcontrol	<p>Replacement Control PCB for PAL3 CTC edition, consisting of: 1pc Control Board 1pc PAL SDcard 1pc Security key Replacement Control PCB for PAL3 CTC edition, consisting of: 1pc Control Board 1pc PAL SDcard 1pc Security key</p>

PAL3-PM-GC-KIT

Preventive Maintenance Kit for PALSystem GC configuration,
consisting of:

1pc Vial Teaching Kit

2pc Driving Belt Agitator

1pc Test Label Barcode

1pc Lubricant

1pc Brush

1pc Spare Screw for fixation of PALhead cover

1pc Spare Screw for fixation of PALhead with O-Ring

1pc Kit Wash Vials

Soft Tissue for outer surface cleaning

Rough Tissue for degreasing X-,Y-,Z-Axes or Guide

Rollers
Preventive Maintenance Kit for PALSystem GC
configuration, consisting of:

1pc Vial Teaching Kit

2pc Driving Belt Agitator

1pc Test Label Barcode

1pc Lubricant

1pc Brush

1pc Spare Screw for fixation of PALhead cover

1pc Spare Screw for fixation of PALhead with O-Ring

1pc Kit Wash Vials

Soft Tissue for outer surface cleaning

Rough Tissue for degreasing X-,Y-,Z-Axes or Guide Rollers

PAL3-PM-LC-KIT	<p>Preventive Maintenance Kit for PALSystem LC configuration, consisting of:</p> <ul style="list-style-type: none"> 1pc Vial Teaching Kit 1pc Test Label Barcode 1pc Lubricant 1pc Brush 5pc PALseal 1pc Spare Screw for fixation of PALhead cover 1pc Spare Screw for fixation of PALhead with O-Ring 1pc Kit Waste-Tubing for VICI and Rheodyne Valves Soft Tissue for outer surface cleaning Rough Tissue for degreasing X-,Y-,Z-Axes or Guide Rollers <p>Preventive Maintenance Kit for PALSystem LC configuration, consisting of:</p> <ul style="list-style-type: none"> 1pc Vial Teaching Kit 1pc Test Label Barcode 1pc Lubricant 1pc Brush 5pc PALseal 1pc Spare Screw for fixation of PALhead cover 1pc Spare Screw for fixation of PALhead with O-Ring 1pc Kit Waste-Tubing for VICI and Rheodyne Valves Soft Tissue for outer surface cleaning Rough Tissue for degreasing X-,Y-,Z-Axes or Guide Rollers
PAL3-POWERSUPPLY	Main Power supply for PALSystem. Input Voltage 90-254 VAC. Power 200W
PAL3-PressureRegulator	Pressure Regulator
PAL3-TubeDilutor	Transfer tubing kit for Dilutor
PAL3-TubeFastWash	Tubing Kit for Fast Wash Module
PAL3-WashVial-100ml	<p>100mL solvent vial for Large Wash Module or Solvent Module completed</p> <p>with snap cap (PE) and septum (Silicon/PTFE, one piece)</p> <p>100mL solvent vial for Large Wash Module or Solvent Module completed</p> <p>with snap cap (PE) and septum (Silicon/PTFE, one piece)</p>
PAL3-RTC-Verp-S	PAL RTC Shipping box with inserts (850mm)
PAL3-RTC-Verp-X	PAL RTC Shipping box with inserts (1205mm)
PAL3-RTC-Verp-Z	Replacement box for PAL RTC Z-Head
PAL3-RSI-Verp-S	PAL RSI/PAL LSI Shipping box with inserts (850mm/534mm)
PAL3-RSI-Verp-X	PAL RSI/PAL LSI Shipping box with inserts (1205mm)

PAL3-RSI-Verp-Z Replacement box for PAL RSI/PAL LSI Z-Head
 ITSP (Net price)
 PAL3-Kit-ITSP uSPE basic hardware kit for PAL RTC,
 consisting of:
 1pc Needle Guide for ITSP (HW3-NG)
 1pc Trayholder
 1pc Waste Receptacle (HW-WR)
 1pc Prep Tray, 96 Position polypropylene
 1pc Single Cartridge Holder, 1 (HW-SCH)
 4 pc sample cartridges for initial installation
 1pc Torx T8 Screwdriver
 1pc Jump Drive for Applications Notes, Programming &
 Manuals (HW-JD)
 (requires PAL RTC System)
 requires Firmware 2.1.0

PAL3-Kit-QuEChERS-GC PAL3 Kit for uSPE QuEChERS, PAL RTC
 1pc VT-54 Rack
 1pc Vial Lock (HW-54P)
 1pc 45-UMPCX-T GC QuEChERS Cartridges (96/Tray)
 1pc. 2.0ml Crimp-Top Vial (clear), 100 pcs
 1pc. Crimp (blue) with Starburst Septa, 100 pcs

 (requires PAL3-Kit-ITSP)

PAL3-uSPE-30-UC18HX- ITSP LC QuEChERS Cartridges, 30mg
 T 1 pc 30-UMPCG-T GC QuEChERS Cartridges (96/Tray)
 PAL3-uSPE-45-UMPCX-TITSP GC QuEChERS Cartridges, 45mg
 1 pc 45-UMPCX-T GC QuEChERS Cartridges (96/Tray)

Chronos Software (Net price)

Chronos4-A Chronos4 Software
 Online Activation license - Computer bound registration
 - upgrading PAL Sample Control to a full version of Chronos4
 Software
 - additional function to PAL Sample Control: integration of 3rd
 party devices, possibility of extended error handling, execute
 program, Smart Auto Sampling, and more
 - for the control of PAL RTC, PAL RSI und PAL LSI
 Autosampler

Chronos4-D	<p>Chronos4 Software USB Dongle License - Single place license, independent from Computer</p> <ul style="list-style-type: none"> - upgrading PAL Sample Control to a full version of Chronos4 Software - additional function to PAL Sample Control: integration of 3rd party devices, possibility of extended error handling, execute program, Smart Auto Sampling, and more - for the control of PAL RTC, PAL RSI und PAL LSI Autosampler
Chronos4-upgrd-A	<p>Upgrade of PAL Sample Control to Chronos4 Software Online Activation license - Computer bound registration</p> <ul style="list-style-type: none"> - upgrading PAL Sample Control to a full version of Chronos4 Software - additional function to PAL Sample Control: integration of 3rd party devices, possibility of extended error handling, execute program, Smart Auto Sampling, and more - for the control of PAL RTC, PAL RSI und PAL LSI Autosampler
Chronos4-upgrd-D	<p>Download: http://software.axel-semrau.de/chronos/ Upgrade of PAL Sample Control to Chronos4 Software USB Dongle license - Single place license, independent from Computer</p> <ul style="list-style-type: none"> - upgrading PAL Sample Control to a full version of Chronos4 Software - additional function to PAL Sample Control: integration of 3rd party devices, possibility of extended error handling, execute program, Smart Auto Sampling, and more - for the control of PAL RTC, PAL RSI und PAL LSI Autosampler

PAL3 Service Parts - Motors

PAL3-LSI-Mot-Z-AXIS	<p>LSI Motor for Z-Axis replacement kit consisting of:</p> <ul style="list-style-type: none"> - 1 pc PAL3 zDrive (LSI) - 3 pc Screws for fixation - 2 pc Spring Washer for mechanical brake - Instructions
---------------------	--

Chronos4-DPAL3-LSI-MotKit to replace motor for LSI plunger
-Z-AXIS

PAL3-RSI-Mot-Z-AXIS RSI Motor for Z-Axis replacement kit consisting of:
 - 1 pc PAL3 zDrive (RSI)
 - 3 pc Screws for fixation
 - 2 pc Spring Washer for mechanical brake
 - Instructions

PAL3-RSI-Mot-Plg Kit to replace motor for RSI plunger

PAL3-RTC-Mot-Z-AXIS Kit to replace motor assembly of RTC z-axis consisting of:
 - 1 pc PAL3 zDrive (RTC)
 - 2 pc Screws for fixation
 - 1 pc zDrive cable

PAL3-RTC-Mot-PLG Kit to replace motor assembly of plunger

PAL3-RTC-Mot-N-GUIDE Kit to replace motor assembly of needle guide

PAL3-MOTOR-X-AXIS Kit to replace motor assembly of x-axis

PAL3-MOTOR-Y-AXIS Kit to replace motor assembly of y-axis

PAL3 Service Parts - Boards, Tooth Rack & Gas Tubes

PAL3-NZTRackRSI-LSI Tooth Rack for Z-Axis RSI and LSI PAL, replacement kit

PAL3-PCB-Agi-Ki Kit to replace electronic board of the Agitator

PAL3 PALcontrol Board

PAL3-PALcontrol Replacement Control PCB for PAL3 CTC edition (Series 1) FW v2.X.X

PAL3-PALcontrol-V2 Replacement Control PCB iMX6 for PAL3 CTC edition (Series 1.5) FW x2.X.XX

PAL3-PALcontrol-S2 Replacement Control PCB Series II for PAL3 CTC edition (Series 2) FW 3.X.X

Ribbon Cables

PAL3-LSI-Z-RibCbl Spare Z-Axis Ribbon cable for PAL LSI

PAL3-RSI-Z-RibCbl Spare Z-Axis Ribbon cable for PAL RSI

PAL3-RTC-Z-RibCbl Spare Z-Axis Ribbon cable for PAL RTC

PAL3-XY-RibCbl-S X-Y-Ribbon Cable Repl. Kit for PAL3 System 850mm

PAL3-XY-RibCbl-X X-Y-Ribbon Cable Repl. Kit for PAL3 System 1200mm

PAL3-XY-RibCbl-XL X-Y-Ribbon Cable Repl. Kit for PAL3 System 1600mm

Gas Tube

PAL3-Gastube-XY Gas Tube replacement kit for standard X-length (850mm/33.5")

PAL3-RSI-Gastube-Z Gas Tube Replacement Kit for PAL RSI Z-Axis

PAL3-RTC-Gastube-Z Gas Tube Replacement Kit for PAL RTC Z-Axis

PAL3-Gas-XY-ExtRet Gas Tube replacement kit outside for extended X-length (≥1200mm/ 47.5")

PAL3-Gas-XY-ExtRpl Gas Tube replacement retrofit kit for extended X-length (1200mm/ 47.5")