

# Systemec® ZHCR®

## SYSTEMEC AF TECHNOLOGY UPGRADE KIT FOR YOUR 1100 DEGASSER

The Biotech Systemec AF® upgrade kit is a drop in assembly that can be installed in less than 20 minutes, requires only the use of a #1 Phillips Screwdriver, and provides the following benefits over the original

configuration. This kit retains the original control board, and vacuum sensor, so all communication functions with the HPLC stack and computer software are maintained.



BEFORE



AFTER

### Lower internal volume

480uL\* vs. 12mL, which results in easier priming, lower flow restriction, reduced solvent changeover quantity requirements, and faster equilibration times (<5minutes vs. 30 minutes).

### Zero Hysterises Constant Run (ZHCR®) vacuum control

Vacuum is maintained at a constant 50mm/Hg level, other chamber vacuum levels available on request, which eliminates detector baseline noise due to varying vacuum levels in the chamber that occur the with original On/Off vacuum pump control.

\*480uL kit has equivalent degassing capacity (1mL/Min 60/40% Methanol/Water, <30% residual gas remaining) of original configuration. The original Degassing Channel has more overall degassing capacity than the 480uL replacement channel but due to the much reduced flow restriction (One order of magnitude) of the AF replacement channel, the effect at the mixing valve is the same. 670uL and 925uL versions, for higher solvent flow rates, are also available as well as Low Flow, (internal volume of 100uL and 195uL) versions where per-vaporation of pre-mixed mobile phases may be a concern.

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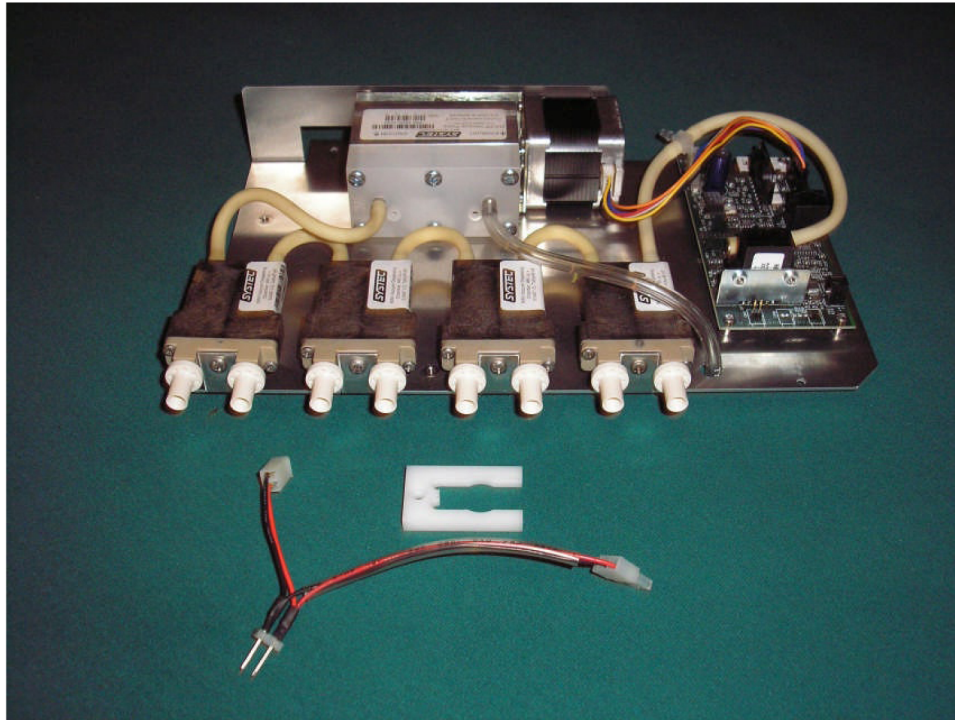


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## THE KIT



The Vacuum Chambers (4), Vacuum Pump and Control Board are pre-mounted, pre-plumbed (and fully tested) on a bracket. Once the original chamber (some later models have two separate chamber assemblies), vacuum pump and valve have been removed the replacement bracket slides into position and is secured using three screws, that originally were securing the removed vacuum pump, chamber and valve. The original pressure sensor slides into the provided retainer clip which is secured to a stud on the drip tray, again using original hardware, and the tube is connected to a Tee on the new tray. After the new assembly is mounted and plumbed, disconnect the cable from the power supply from the original control board and connect the new wiring harness to the power supply harness and connect to the original control board and the new control board.

### Wetted Components

- PPS
- PEEK
- Glass Filled PTFE (25% Glass)
- Systemec AF 2400
- GPC Hardened Chambers also available. GPC versions also have 316 S.S. as a wetted component, do not have PEEK as a wetted component, and the PPS is 40% glass filled.



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