

Purely Better Agilent SD-2 Purification System

Capable and Efficient



Agilent SD-2 Purification System

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Agilent 325 UV/VIS
Dual WL Detector

Agilent SD-2 Solvent
Delivery Modules
1 – 1200 ml/min
Exchangeable
Pump Heads



Agilent 530 OPTO
Control Module

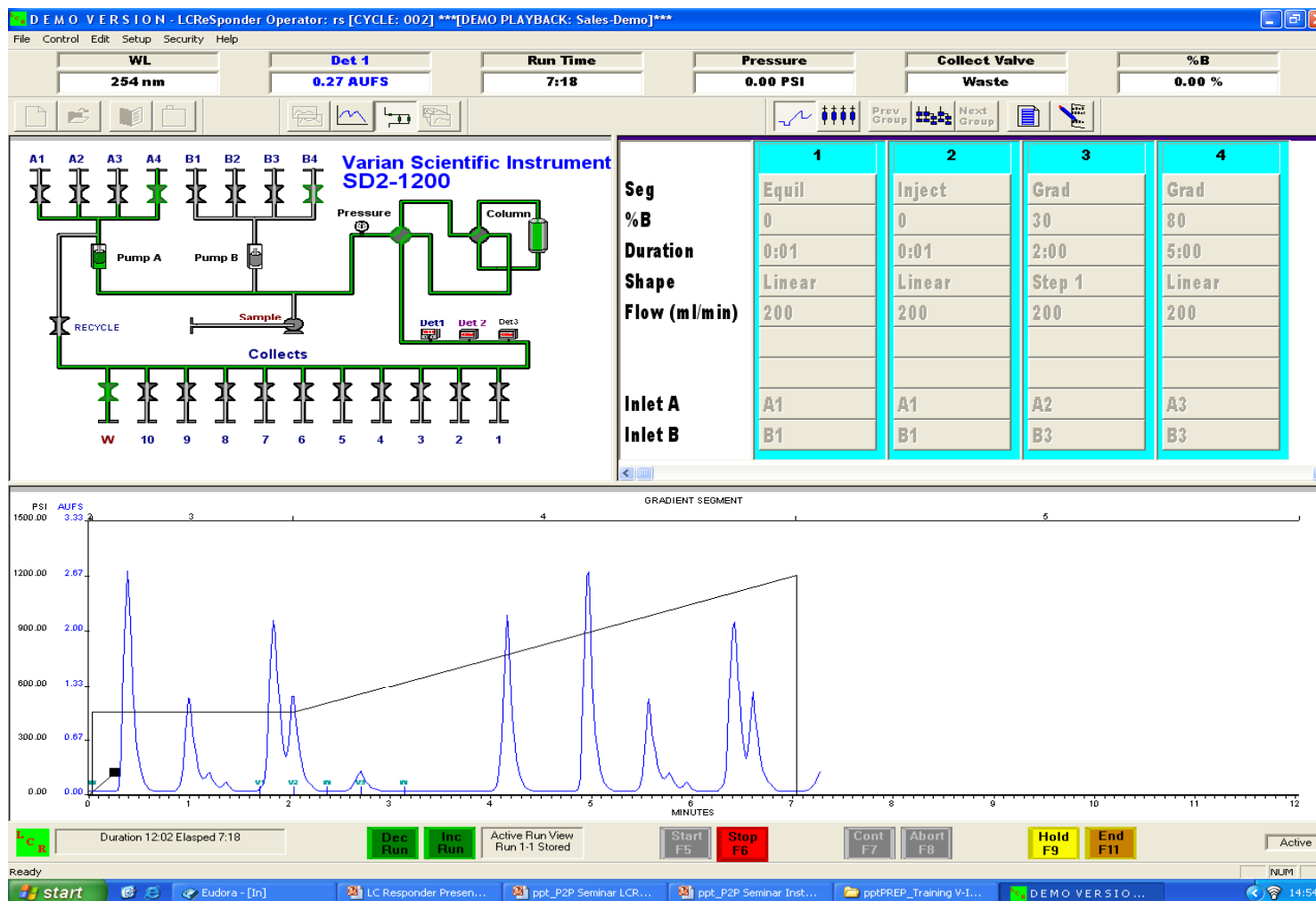
Easy LC ReSponder
Software

Agilent 530 Fluidics
Module



Agilent LC ReSponder User Interface

Easy process control software

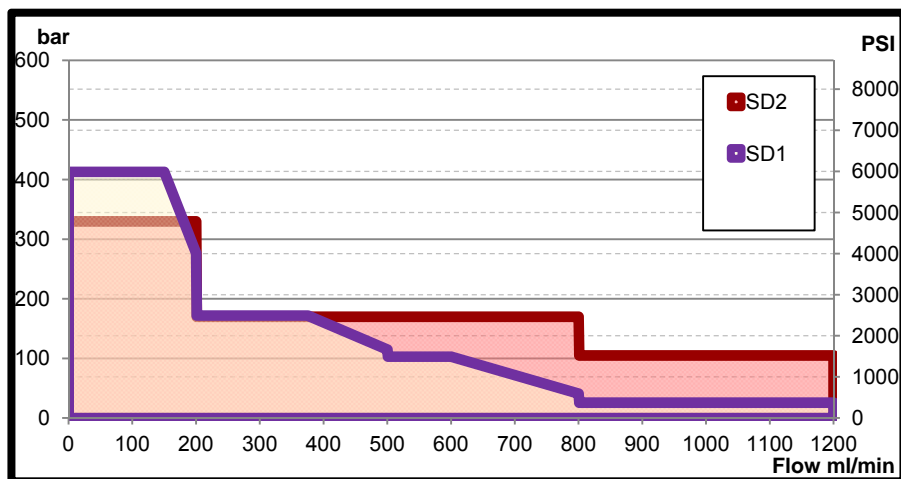


Agilent SD-2 Solvent Delivery Modules

Maximum capacity for large scale throughput



- **High flow consistency, reliability and low pulsation for high-flow applications** – interactive key-board control or fully automated PC control
- **Low or high pressure mixing setup for binary gradient work**
- **Exchangeable pump heads** for flow rates of **200, 800 and 1,200 mL/min** for 1 to 8 inch ID columns



Extended power range
above 500 mL/min



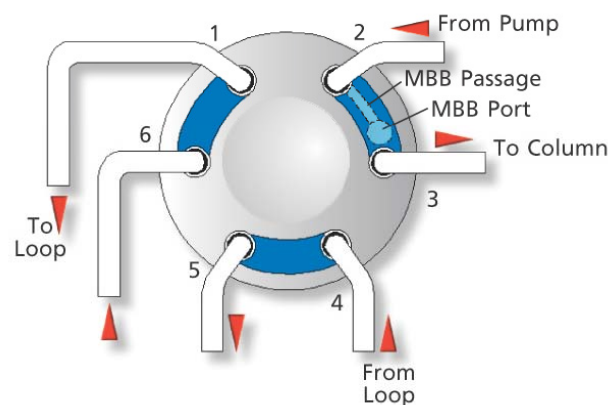
Agilent 7725i Manual Injector

Robust make before break design

- Mounted in Organiser or Mast Assembly
- Available with Prep LC loops of 50 mL or 100 mL volume
- ≤ 5 samples and large volume up to 100 mL
- With internal switch for stand-alone use



Figure A. A Model 7725 Injector Reduces Wear and Tear on Your Columns



A conventional HPLC valve momentarily interrupts flow during sample injection, subjecting your column to repetitive pressure shocks. Rheodyne's patented MBB (make-before-break) design makes the new connection before breaking the old one, providing uninterrupted flow.

Agilent 218 or SD-1/SD-2 Injection Pump

Convenient large scale sampling



- **Extremely flexible solution** – when the sample volume is too high to inject through an autosampler or manual injector
- **Variable injection volume range** – by choice of pump and pump head



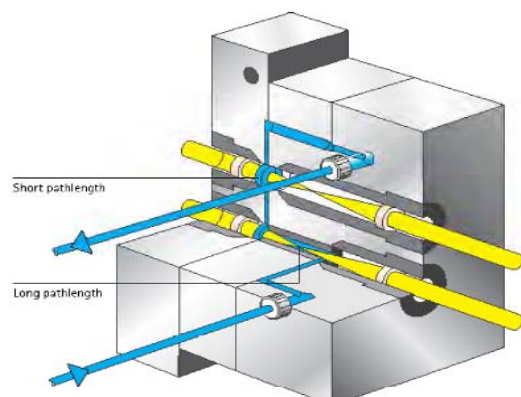
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Agilent 325 UV-Vis Detector

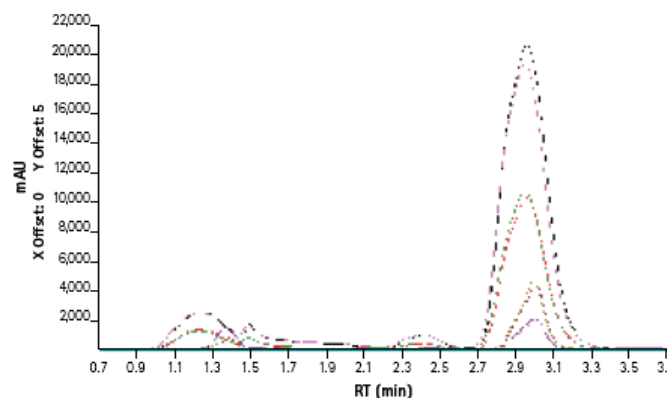
Unique dynamic range



- **Ideal to cover extremely high and low concentrations without flow cell change** – dual path length flow cells
 - 9 x 1 mm flow cell has useable absorbance up to 13 AU
 - 4 x 0.15 mm flow cell has useable absorbance up to 80 AU
- **Maximum sensitivity** over the wavelength range from 190 to 900 nm



The dual path length cell maximizes sensitivity for analytical applications whilst preventing “flat top peaks” for preparative runs. The dual path cell is as described – its two cells merged into one!



Achieve up to 80 AU when moving from analytical to preparative operation, without changing the dual pathlength flow cell. Above shows dynamic range from 2 to 21 AU of 5-hydroxytryptophan sample.

Column: Varian Pursuit XR C18; Mobile phase: 85% water, 15% methanol; Detection: UV at 230 and 280 nm; Flow: 21 mL/min



Agilent 530 OPTO Control Module

Single point fluid control



- **Independent control module** - serving as computer interface to PC
- **Safe valve control** - separated electronics from solvent management
- **Fully automated operation** - under LC ReSponder Software control
- **Enables full documentation** of all process steps and interactions
 - Sample injection
 - Solvent selection
 - Gradient formation – high pressure and low pressure
 - Fractionation and collection of peaks



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Agilent 530 Fluidics Module

Fully integrated valve-based fractionation



- **Safe pneumatic valves** diverting flow to appropriate solvent or collection vessel
- **Full electronic control** of air-driven valves (90 psi air supply) by 530 OPTO control module
- **Minimized carryover** - air purges residual solvent out of the fraction lines after each collection and into the collection vessel
- **Flexible solvent supply** - up to 8 solvent inlets: 4A + 4B channels
- **Automatic large sample injection** – full control of additional injection pump
- **Valve based fractionation** - up to 10 fraction outlets + 1 waste valve
- **Recycle valve and/or low pressure gradient valve** - available with SD-2 pump



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LC ReSponder Control Software

For Chemists and Process or Chemical Engineers



- **Process control focused** Data Acquisition and Control Package
- **Automated** solvent selection, gradient control, + fraction collection
- **Automated system control**, data collection and reporting.
- **Programmable** sample loading, gradient formation, fraction collection and column switching.
- **Flexible signal display** - 3 detector traces, while monitoring nine separate analog inputs.



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LC ReSponder Control Software

For Chemists and Process or Chemical Engineers



- **Two levels of 21 CFR Part 11 LC security capabilities**
 - **Basic 21 CFR Part 11** features - automated internal documentation (methods, data, and run files) and password protection
 - **Enhanced 21 CFR Part 11** features - all the basic features, plus: Release Methods Signatures, Networking functions – local and corporate, and E-mail notification of potential system violators entry
- **Configurable multi-level password protection**
- **21 CFR Part 11 Electronic Signatures and Security Package**
- **Validation support documentation**



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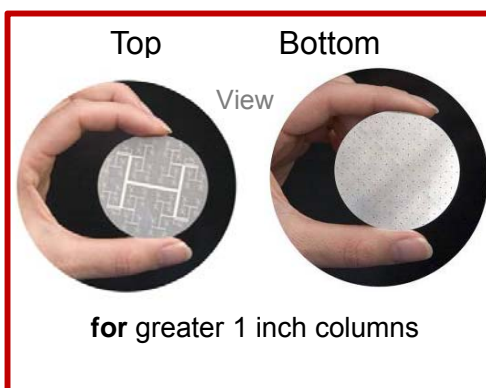
Agilent Load & Lock Columns & Self-Packer

Leading innovative DAC column & self-packer technology

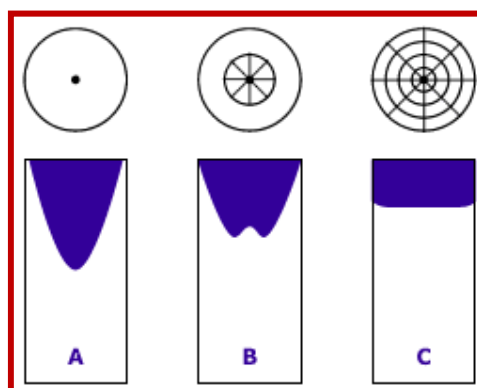
- **Highest Performance** – achieve superior results with the unique flow distribution system.
- **Maximum Flexibility** – perform both Dynamic or Static “locked” axial compression (DAC/SAC) at 1 inch up to 3 inch ID.
- **Greater Convenience** – pack your own column in a few minutes.
- **Maximum Mobility** – column and packing station are combined in one easy-to-move skid, wherever it’s needed.



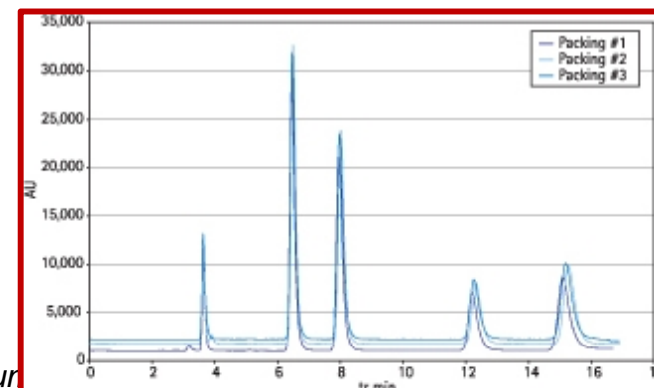
Agilent column
distribution plate



Impact on profile
C: with Agilent plate



Unmatched reproducibility of
self-packed columns



Agilent SD-2 Purification System

Capable and efficient



- **Bench-top system design offering pilot scale capacity** – limited bench space requirements
- **Pilot scale high throughput capability** – up to 1,200 mL/min flow rate which is compatible with 8 inch ID columns **without sacrificing the needed pressure capacity at 1,500 psi**
- **Production oriented for chemists and chemical or process engineers** – interactive LCR ReSponder software and solvent handling
- **Freeing up hands-on operator time** – full automated computer-based operation and documentation for 21 CFR Part 11 compliance support

