

Product Data Sheet «My Purification Factory»

Your Supplier

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My Purification Factory, a compact prep HPLC System

My Purification Factory is a highly compact preparative Liquid Chromatography system. It empowers Chromatographers to convert multi molecular mixtures into highly valuable pure compounds on a gram scale level. Such compounds are predictable and have a high level of value.

My Purification Factory Compact is a price competitive opportunity for Chromatographer to change their path of life. My Purification Factory Compact empowers you to move up the latter and to become a value, producer. In every

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country, there are plants with bioactive phytochemicals that can be used as drugs. Unfortunately, many also carry toxins and have to be dosed very precisely. The Purification Factory enables you to separate the toxic chemicals from the good and valuable components. Many governments are keen promoters and exporters of natural resources. They support such entrepreneurial activities.

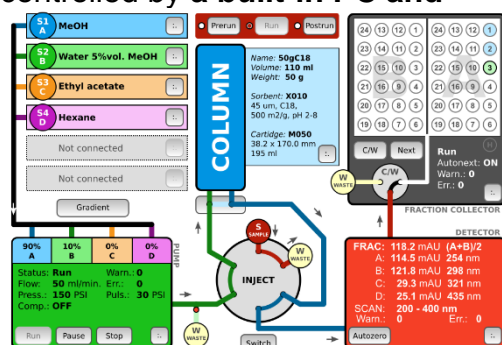
Components and Specifications of My Purification Factory

System Specification

- Interface: 3xUSB, 2xLAN, RS232
- Power supply: 100 - 240 V AC
- Power input: 400 W
- Dimensions W x H x D: 500 x 678 x 482 mm (19.69 x 26.69 x 18.98")
- Weight: 55 kg (121.30 lb)

The **Modular Compact Prep System** is controlled by a **built-in PC and touchscreen**.

You can configure the according to customer needs. Installed industrial PC with Intel Atom 4 core processor. OS Linux, Touch screen 12,1" 1024 x 786, SW QUEEN controls gradient, flow rate, wavelengths, fractions collection, etc. Remote administration is also available.



unit



On the right-hand side of the Compact, you find an automatic sample injection valve that is driven by a stepper motor. It is automatically switched by software. The System also allows manual sample injection by opened column

Pump specification

- Flow rate: 0.5 – 250 ml/min
- Maximum operating pressure: 30 MPa (4351 PSI) up to 100 ml/min than linearly down up to 15 MPa (1450.5 PSI) at 250 ml/min
- Flow rate setting: 0.1 ml/min steps
- Repeatability of flow rate adjusting: $\pm 1\%$



- Accuracy of flow rate setting: $\pm 2\%$
- Wetted materials : stainless steel, PEEK, Tefzel™, PE, ceramic, seals *
- Output capillary outer diameter: 1/8"
- Input tubing outer diameter: 1/8"

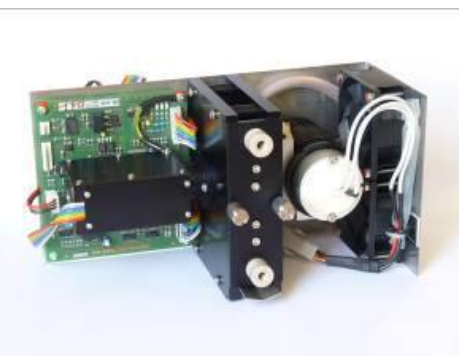
The sample and solvent are pushed through the column by a **Preparative Quaternary Gradient Pump**. The pump offers a

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flow rate of up to **250 ml/min**. At a flow rate of 100 ml/min, the max Pressure is 30 MPa and then linearly down up to 15 MPa at 250 ml/min. Unit software includes a new learning algorithm for pulsation suppression including many testing and diagnostic functions.

Detector Specification

- Wavelength range: 200 - 800 nm (256 elements on CCD)
- Number of channels (Signals): 4
- Scan: 200 - 800 nm, up to 20 Hz, step 1 nm
- Typical spectral half-width: 10 nm
- Accuracy of adjustment / Reproducibility: ± 1 nm / ± 0.5 nm
- Noise level at test cell (254 nm, TC 0.75s): $\pm 5 \times 10^{-5}$ AU
- Drift at test cell (254 nm after 1 h): 1×10^{-3} AU/hr
- Materials in contact with mobile phase: FEP; fused silica, stainless steel, PEEK
- Time constant (T63): 0.5 s, 0.75 s, 1.0 s, 2.0 s, 4.0 s, 8.0 s, 16.0 s, 0.2 s, 0.1 s



After the pump, the purified compound flows through a cell in the UV-VIS diode array detector, which allows measuring the absorbance of **four wavelengths in the range of 200–800 nm simultaneously in one cell just as scanning of whole spectra**. Standardly is assembled with preparative cell PLCC07L, but other cells are available.

Fraction Collector Specification

- Supplied racks: two racks per unit
- Available racks with test tube sizes: No. EC08, 48 tubes of 8 ml, No. EC21, 36 tubes of 21 ml, EC40, 24 tubes of 40 ml
- Maximum flow rate for tubes 8 ml: max. 50 ml/min
- Maximum flow rate for tubes 21, 40 ml: max. 300 ml/min
- Wetted materials: FEP, Tefzel®, PPS, KEL-F, PTFE, PEEK, SS 316, glass SIMAX
- Input tubing: OD 1/8" x ID 1/16" FEP



finally, the separated molecules reach the **Fraction Collector**. Fractions are collected according to the chosen method, which is simply created using a touch screen. It directs each Fraction into tubes of either 8, 21, 40 ml content locates in a Rack.

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