

Requirements for the Installation of a PINNACLE PCX

You went for our professional postcolumn derivatization system Pinnacle PCX! Thank you very much! You made a great choice! To do the installation without problems in your laboratory, please keep in mind the following requirements! Please do not hesitate to contact LCTech or your local distributor if you have any further questions!

Gas

- Pure gas (Nitrogen or Helium) regulated to 75 psi, min. to 45 psi (31 bar).
- Outlet of regulator must connect to 1/8" OD tubing.

HPLC Pump

For each method, there are different demands on your HPLC pump:

Isocratic pump: e.g. for Aflatoxins, Ochratoxin A, Trichothecenes, Formaldehyde, Streptomycin, Polyetherantibiotics, Sulfonamides, Chrom III / IV....

Binary pump: e.g. for Glyphosate, Carbamates, PKU, Fumonisin, PSP

Ternary pump: e.g. AminoAcidAnalysis in Hydrolysates, Biogenic Amines, Aminoglycosidantibiotics

Quarternary pump: e.g. AminoAcidAnalysis in physiological fluids, Paraquat/Diquat

Additional requirements:

- Low flush volume
- Accurate flow rates between 0.3ml/min – 1.5ml/min
- Mixing Tee and plug for dead-heading the pump (recommended for aminoacid analysis; see manual for details)

If you plan to run an application other than those listed above, please contact LCTech GmbH for assistance!



IMPORTANT!!!

If you use cation-exchange columns (e.g. for Glyphosate-analysis) it is very important, that the HPLC-instrument is free of Fe³⁺ -ions. If you are not sure, please inert your instrument! Your HPLC-service will assist you!

Autosampler

- Minimum injection volume 10 μ L, preferably by full-loop injection
- For drinking water, minimum injection volume 200 μ L (e.g. for Carbamates and Glyphosate-Analysis)
- A Tefzel or PEEK rotor seal and needle seat are obligatory required for all applications using eluants with pH>10, like aminoacids, biogenic amines, glyphosate, polyamines or paraquat/diquat

Detector

- Pressure rating of flow cell must be > 110 psi (7.6 bar) and must not exceed a backpressure of 400 psi (25 bar) at a flow rate of 1.5 mL /min.
- Tolerates Li- or Na- buffers, and strong bases
- Must be insensitive to RI noise

Power

- One grounded outlet must be provided for the Pinnacle PCX (230V or 110V/ 50Hz)

Computer

- Windows PC with 2000, XP
- Working CD-ROM drive
- 1 free working Serial (RS-232) port
- Pentium III processor
- 2MB free memory
- 256MB RAM
- Chemstation – 9 or higher (if using Agilent)
- For proper software installation, you need administrative rights

Relay: Very important!

- For synchronization, the HPLC system must be capable of sending a relay signal to an external instrument.
- Most systems will have this option either on the Pump or Autosampler. Some systems will have this signal capability through an A-D box.
- Note: If you have an Agilent 1100, the Pinnacle software will synchronize with Chemstation, so this relay signal is not needed!

Bench space

- 33H x 17W x 21D inches (84 x 56 x 59 cm).
- Minimum 3 inches clearance on the back of the instrument to guarantee sufficient ventilation!
- The total space requirement depends on the brand and model of your HPLC.

Chemicals and supplies

- It is necessary to provide the required chemicals (reagents, eluents, regenerants, standards and so on) and a suitable HPLC-column before the installation; for some applications, Pickering offers partly complete kits:
 - Amino Acids (complete kit)
 - Carbamates (complete kit)
 - Glyphosate (additionally needed: sodium hypochlorite solution (5%))
 - Biogenic amines (additionally needed: standard)
 - Aminoglycoside-Antibiotics (additionally needed: standard)
 - Paraquat/Diquat (additionally needed: reagents and standard)
- Application notes with details to the required chemicals can be found on our web site at www.lctech.de! Please contact LCTech for details, and to discuss your particular chemistry requirements.
- In general, DI Water, Methanol and Isopropanol, should be available
- Glassware and paper towels should be readily available

Best regards

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