

Equipment Expertise eBook

# Inspecting a Used HPLC

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## Introduction

For this installment of EquipNet's Equipment Expertise, we are focusing on a piece of lab equipment found in chemical, biopharmaceutical, and consumer goods facilities alike, known as the HPLC or High Performance Liquid Chromatography.

This highly versatile piece of lab equipment is used to identify, quantify, and purify the individual components of a mixture. This eBook includes insight from one of our lab and analytical equipment experts on how to perform a thorough and effective inspection of a used HPLC, prior to committing to a purchase.

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## Who We Are

EquipNet is a global leader of surplus asset management solutions. We're recognized for our proprietary asset management platform, our revolutionary industrial equipment marketplace, and our results-driven project management services. Our diverse roster of clients include Fortune 500 multi-national corporations, leading regional manufacturers, financial institutions, and corporate renewal professionals.

EquipNet solutions deliver maximized financial return while improving our client's corporate image, adhering to their safety standards, and contributing to their sustainability initiatives.

## Time to Purchase

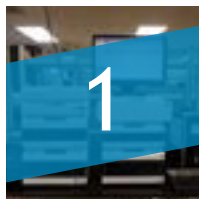
So it's time to purchase an HPLC for your lab. However, this time around you are ready to consider sourcing from the secondhand market, but like any other educated, analytical person, you know that when you are able to save money, there is usually a risk of receiving a lower quality product. So how do you ensure that you do not end up spending company money on the secondhand market, and end up having a faulty HPLC shipped to your lab?

The first thing you will want to do is gather all available background information about the HPLC system.

### Ask the Seller for the Following:

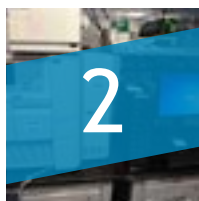
- All maintenance records
- What the HPLC was last running
- A rough estimate of how many samples or injections have been run through the system

## Complete a Visual Scan of the HPLC System



### Make sure the HPLC system is complete:

Every HPLC system should have a pump, an auto sampler, a fraction collector, and a detector. A complete system should also include the necessary software to analyze the data and produce your analysis report.



### Any cosmetic damage or discoloration on the system's exterior:

Signs of physical damage to the HPLC's casing could indicate future headaches and needed repairs, so check carefully. As for any noted discoloration, this could be from a leak in the system (usually in the pump) that is causing the liquid being run to escape and leave its corrosive mark on the system's plastic casing. In extreme cases, you will note more than just discoloration, and will see that the plastic is corroded or melted due to the acidic nature of some liquids run through the HPLC.

After performing the visual scan, you will next want to delve into inspecting the individual components.

## Inspection of Components

### a Autosampler:

You will want to ensure you know what has been run through the auto sampler in the past; this will provide you with an idea of the condition of the auto sampler.

### b Pump:

For the pump you will want to obtain the maintenance records to ensure that the pump has been properly taken care of throughout the duration of its use.

### c Detector:

The major component of the detector that you need to pay attention to is the lamp. You will need to find out if it has ever been replaced, and if so, when. The more recent the better, as this indicates that the detector will live a much longer life in your lab, without the need for immediate replacement. Some of the newer model HPLCs come with an hour's meter built into the lamp's cord, allowing you to view how long the lamp has been burning. Still, other newer model HPLCs force you to power up the detector and enter the service menus to get a reading on the bulb's life, or a look at the actual emissions of the lamp to determine if it is still functioning at peak efficiency.

### d Fraction Collector:

An in-depth visual scan is necessary for this component, as any physical damage could indicate problems in the near future.

To learn more about buying, selling, or inspecting pre-owned HPLCs, contact your local EquipNet Representative:

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