



Da Vinci
LABORATORY SOLUTIONS

DVLS Pressure Station:

Dedicated to inject a representative amount of liquids and gases

To allow a representative sample injection of a liquid or gaseous hydrocarbon stream Da Vinci Laboratory Solutions developed the DVLS Pressure Station. The pressure station injects a hydrocarbon sample into a GC system and keeps the pressure at a constant level.

Introduction

For a representative analysis, the sample must remain in the liquid phase during the injection process, this is especially required for LPG or other chemicals that are gaseous at ambient pressures. The DVLS Pressure Station keeps the sample under pressure by adding high pressure Nitrogen to the sample cylinder and controlling the outlet pressure and flow.

Flexible Design

The design of the DVLS Pressure Station offers you a high flexibility. Select from the following configuration options to fully meet your requirements.

- A configuration including a needle valve dedicated to the injection of liquid hydrocarbon samples
- A model configured with a vaporizer to enable the injection of pressurized gases
- A configuration including a back pressure regulator to control the pressure
- Various brands of quick connectors such as Swagelok, Walther and other suppliers to enable the use of different cylinder sizes

High Safety

The sample container is installed on the front side of the pressure station using the quick connectors. The station keeps the pressure at a constant level. The waste sample is vented to a central waste system or to a waste line that leads the vapor directly outside the building to ensure the lab safety.

Boosting Laboratory Efficiency



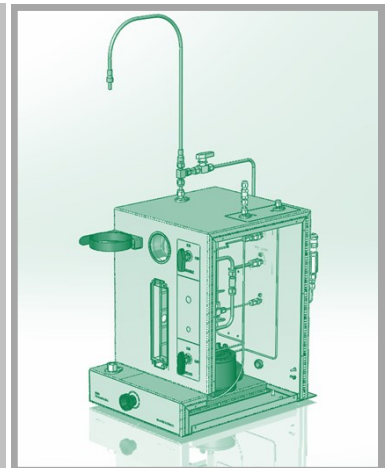
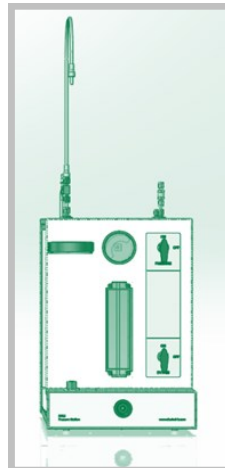
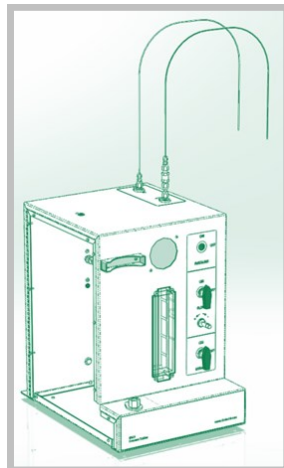
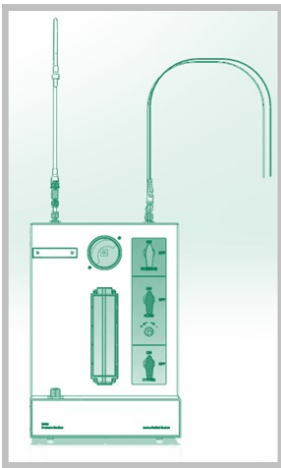
DVLS Pressure Station configured with Vaporizer

Proven Technology

The Pressure Station adds high pressure Nitrogen to the sample cylinder and controls the outlet pressure & flow. This technology has been proven in several applications that require a representative sample injection, such as

- Propane
- LPG
- Butadiene
- Pentane

DVLS Pressure Station



Flexible Design

- Representative injection of liquid and/or gaseous hydrocarbon streams
- Flexible design allows various configuration options
- Safe and easy connection of sample container
- Proven technology used in various applications
- No need for sample preparation



| Part | Functionalities |
|--------------------------------------|---|
| Sample Input Quick Connector (1) | <ul style="list-style-type: none"> • Connection for sample cylinder. |
| Flexible hose (2) | <ul style="list-style-type: none"> • Supplies high pressure Nitrogen to the sample cylinder. Connection to the Sample cylinder with quick connector. • Can be directly connected to the Sample Input Quick Connect for rinsing Pressure Station and injection needle with Nitrogen. |
| Pressure Valve (3) | <ul style="list-style-type: none"> • Opens the high pressure Nitrogen supply to the Flexible hose |
| Vaporizer (4) or Needle valve Switch | <ul style="list-style-type: none"> • Sample flow control • Heats and vaporizes the sample. |
| Flow meter (5) | <ul style="list-style-type: none"> • Rotameter type flow meter for flow control. • Allows visual inspection of the sample flow. |
| Depressurize valve (6) | <ul style="list-style-type: none"> • Releases the Nitrogen pressure from the flexible hose. |
| Bypass valve (7) | <ul style="list-style-type: none"> • The needle valve / vaporizer can be bypassed by opening the Bypass Switch, to quickly release leftover sample. |
| Waste exit | <ul style="list-style-type: none"> • Waste sample leaves the system via the Waste exit on the back of the Pressure Station, connected to a suitable waste system. |
| Micron filter (8) | <ul style="list-style-type: none"> • Functions as a particle trap |

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