The increasing demand for production control has also increased the use of gas chromatography. This popularity has effected that gas chromatography is brought into the education at several levels. Many routine analyses done today can easily be run on an economy gas chromatograph so that the more expensive equipment will be available for other and more demanding work. These circumstances are the basis for the development of ML GC 82, which is an economic easy-to-use gas chromatograph made with quality and design in mind.

The design is compact (approx. 300 mm wide) so min. space is needed. The oven is spacious and easy accessable, so change of columns is easy. Both metal and glass columns can be used. The control panel is well arranged as well as logic, which makes the GC ideal for education and easy to use for non-skilled personnel. The high position makes it easy to read and use.

DESCRIPTION:

CARRIER GAS
Helium, nitrogen or argon is used as carrier gas. The carrier gas flow through the two columns is controlled by needle valves. As option other types of flow control can be supplied. A main valve allows quick carrier gas ON/OFF for change of septa and columns.

SAMPLE INJECTION
The injection is heated on-column. As option a gas sampling valve can be installed. A capillary injection system for wide bore columns is available.

COLUMNS
The gas chromatographs with thermal conductivity detector have 2 columns, which both can act as sample and reference columns. The FID model is a single column version. Columns are mounted vertically (both legs facing upwards). Column change is easy - even glass columns. An adaptor for wide bore is available.

OVEN
The oven has a fan to give a good heat distribution and to shorten the cool-down time. The oven door can be lifted off to give unhindered access to the oven.

TEMPERATURE CONTROL
The temperature is an important parameter in gas chromatography. Therefore we use the ML precision proportional control thermostat with digital setting of the temperature. The sensor is a Pt-100 sensor. In the basic version (ML GC 82-12) the injector and detector heaters are run in parallel with the oven heater. The other models have separate controllers.

DETECTOR
The detector in ML GC 82-12 is a thermal conductivity detector. The geometry is flow-through, which gives a short response time and good sensitivity. GC 82-22 has a 4 filament semi-diffusion thermal conductivity detector. The design of the GC allows installation of varous types of detectors. To make trace analysis possible ML GC 82 is also available with a flame ionisation detector.

MODELS AVAILABLE:

GC 82-12
Economy gas chromatograph
Double column
Thermal conductivity detector

GC 82-22
Double column
4-filament thermal conductivity detector
Separate digital detector thermostat

GC 82-11
Single column
Flame ionisation detector

GC82COL.PM5