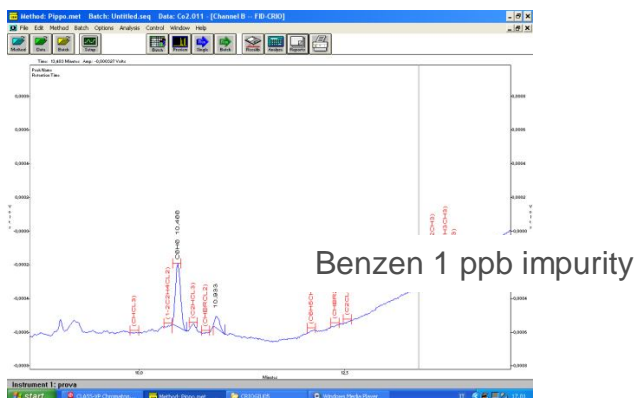


# CRIOCONCENTRATOR

## Improve sensibility to ppb level

The system provides to analyse:

- Sulphur compounds, 1-5 ppb level
- BTX, 1-5 ppb level
- Chlorinated compounds, 1-5 ppb level
- Bromurated compounds, 1-5 ppb level

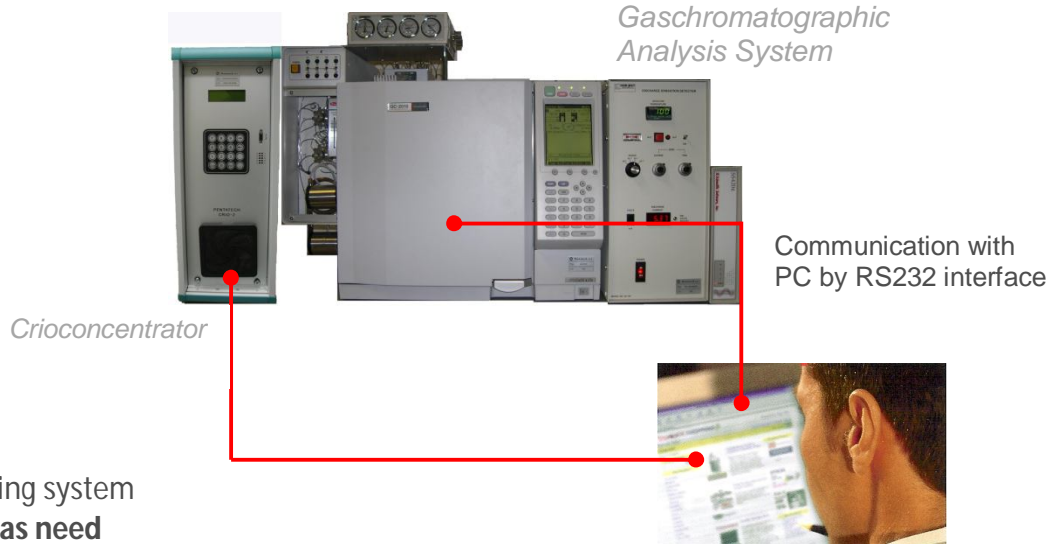


*Crioconcentrator*

The system provides to :

1. block impurities into a Peltier-cooled trap
2. purge the sample matrix
3. inject the concentrated sample into a capillary column connected to an FID detector

*GC2010  
Gaschromatographic  
Analysis System*



- Peltier cooling system
- **No Liquid gas need**
- Monolithic or splitted box
- Power supply 230 VAC
- Approx weight 10 Kg

# CRIOCONCENTRATOR – CRIO 2™



Based on "Purge and Trap" analytical technique , the system provides to analyse:

Sulphur compounds, 1-5 ppb level; BTX, 1-5 ppb level ; Chlorinated compounds, 1-5 ppb level; Bromurated compounds, 1-5 ppb level

The system provides to :

block impurities into a Peltier-cooled trap

purge the sample matrix

inject the concentrated sample into a capillary column

Peltier cooling system

No Liquid gas need

Monolithic or splitted box

Power supply 230 VAC

Approx weight 25 Kg

Communication with PC by RS232 interface

Benefits:

- Improve sensibility to ppb level
- Peltier cooling system
- No Liquid gas need
- Monolithic or splitted box

## TECHNICAL DATA

weight	25 Kg
Power supply	230VAC
Absorbet power (MAX)	1500 W
Heating	2 armored electrical resistance 400W
Cooling	8 Peltier 40W 24VDC
cryoconcentration system	Pneumatic Valves 10 ports dual column
	Pneumatic Valves 6 ports single column
	Pneumatic Valves 8 ports dual column
	Pneumatic Valves 4 ports single column
Sampling and Injection system	2 separate files
N° analysis Cycles	+150°C
Max temperature heating	-5°C
Min temperature cooling	+100°C per minute
Medium heating ratio	10°C per minute
Medium cooling ratio	1 to 99 minutes , 1 minute step
Analysis programmable cycles	1 to 99 , 1 step
Max number of Injection	1 to 99 seconds , 1 second step
Injection and Purging time	1 to 99 minutes , 1 minute step
Start cooling after heating.	1 to 99 seconds , 1 second step
Heating time	1 to 99 seconds , 1 second step
Column purging	1 to 99 seconds , 1 second step
Cycle analysis time	1 to 99 minutes , 1 minute step
Input digital	Start Cycle 1 – 2 , GC ready
Output digital	Ready, Start out , analysis running

# CRIOCONCENTRATOR – CRIO 2™

## GAS STANDARD MIXTURES REQUIRED

### Sulfur compounds

Hydrogen sulfide	H <sub>2</sub> S	0,2 ppm
Carbonyl sulfide	COS	0,2 ppm
Methyl mercaptan	CH <sub>3</sub> SH	0,2 ppm
Carbon disulfide	CS <sub>2</sub>	0,2 ppm
Sulfur dioxide	SO <sub>2</sub>	0,2 ppm

### Aromatic hydrocarbons e chloroderivatives

Benzene	C <sub>6</sub> H <sub>6</sub>	0,2 ppm
Toluene	C <sub>7</sub> H <sub>8</sub>	0,2 ppm
Metaxilene	C <sub>8</sub> H <sub>10</sub>	0,2 ppm
Ethylbenzene	C <sub>8</sub> H <sub>10</sub>	0,2 ppm
Chloroform	CHCl <sub>3</sub>	0,5 ppm
1-2 Dichloroethane	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	0,5 ppm
Tetrachlorethylene	C <sub>2</sub> Cl <sub>4</sub>	0,5 ppm

### Bromine compounds

Dichlorobromomethane	CHCl <sub>2</sub> Br	0,5 ppm
Dibromochloromethane	CHBr <sub>2</sub> Cl	0,5 ppm
Bromoform	CHBr <sub>3</sub>	0,5 ppm

The gas mixtures are indispensable for the calibration of the system of analysis, in order to identify the impurities and to calculate the response factor of the system



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