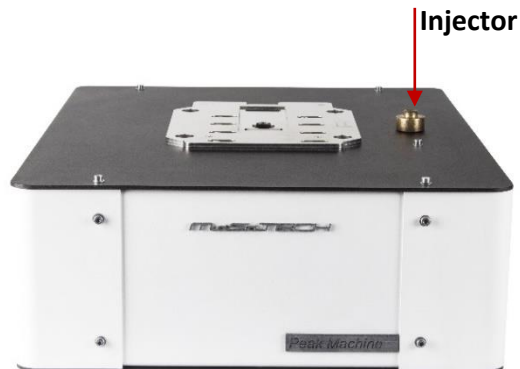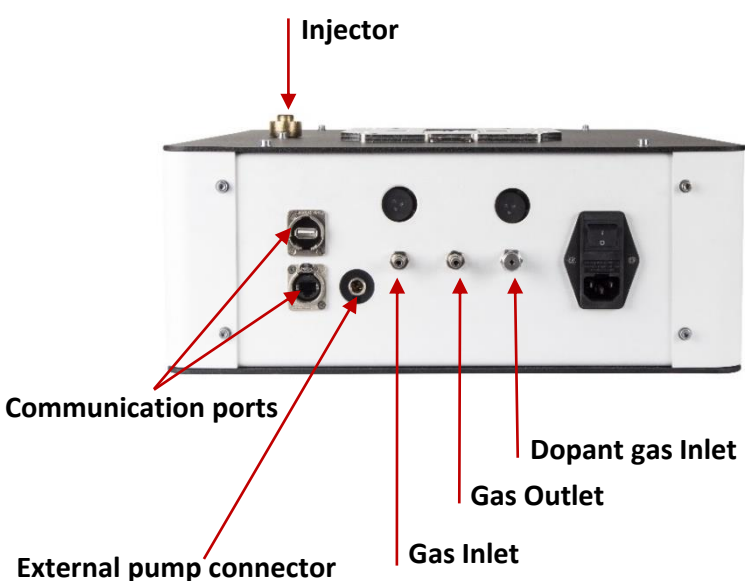# MCCGC-IMS Peak Machine

The PeakMachine allows two dimensional separation of volatiles compounds presented in complex matrix. The combination of Multi Capillary Column GC (MCCGC) with ion mobility spectrometer makes this instrument excellent for analysis of liquid and solids samples via the headspace technique. The PeakMachine operates in atmospheric as well like in subatmospheric pressure. The AIMS working temperature 30-140 °C and resolving power up to 100 FWHM makes this instrument appropriate for analysis of flavors and odors presented in complex matrixes. The Peak Machine also allows plugin of dopant gas (Reactant ions modifier) to IMS what increase the selectivity of instrument for targeted compounds. In combination with machine learning classification techniques integrated to our _software_ is **Peak**Machine excellent for quality control in food, beverage and pharmaceutical industry.

Working pressure	600-1200 mbar
Working temperature	30-140 °C
Resolving power N_2/Air	90/100 FWHM
Sensitivity	Low ppb
Drift gas flow	500-1200 ml/min
Sample gas flow	2-500 ml/min
Drift field intensity	200-560 V/cm
Polarity	Positive/Negative
Ionization source	Corona Discharge
Pre-separation	MCC-GC
Power supply	250V / 24V
Connectivity	TCP/IP, USB 2.0
Dimensions (mm)	490x390x150

MCCGC-IMS Peak Machine

Injector

Injector

Communication ports

Dopant gas Inlet

Gas Outlet

External pump connector

Gas Inlet

Main advantages of PeakMachine are:
Non-radioactive plasma ionization source
High sensitivity
High resolving power
Operation at atmospheric and sub-atmospheric pressures
Highest working temperature in the field
Compatibility with any auto sampler
Machine learning classification

PeakMachine is designed for:
2D analysis of complex matrix
Classification of analyzed compounds
Food, beverages, chemical industry………
VOC/TOC analysis
Chemical analysis
Research laboratories

Control Software

For comfortable work with PeakMachine we developed a control software that offers full and intuitive control of our instruments. The complete MaSaTECH software is a part of each spectrometer. In addition we offer also the customization of our software.

Some of our software features are :

- Control all AIMS working parameters

- Online analysis and data collection

- Machine learning classification

- Post process data analysis

- Synchronization with library

- Quantification