



# HSC-101 Heating Sample Conditioner

Specifically designed for use with Total Hydrocarbon (THC) analyzers and Fourier Transform Infrared Spectroscopy (FTIR) analyzers.



## Uniform Sample Temperature Control:

Consistent temperature is ensured for all components –  
No Cold Spots!

## Rugged and Durable:

A design made to last. With only two moving parts – a motor and a fan – the HSC-101 was developed to maximize longevity.

## Enables Optimal Temperature for your Application

### Serviceability & Maintainability:

- Accessible modular design is dramatically easier to work on than other sample heaters
- 19" rack mount
- Slide rails for easy access

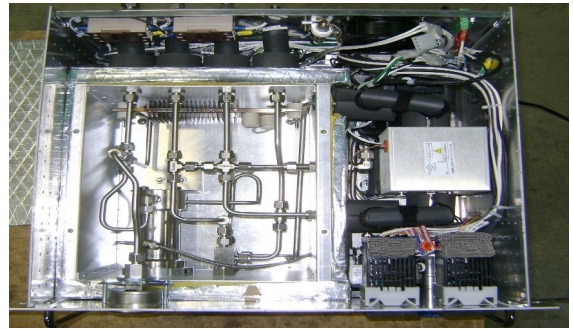
The HSC-101 from Trace Environmental Systems, Inc. is an innovative, self-contained, compact sample oven delivering a filtered sample with a consistent temperature of up to 400° F (204° C) coupled with a history of reliable performance. While improving sample quality, the HSC-101 provides sample flow to up to three devices at once. Devices include analyzers as well as sample chillers for those CEMS that also monitor on a dry basis. The sample maintains a constant temperature, eliminating cold spots and condensate.

The HSC-101 was specifically designed for use with Total Hydrocarbon (THC) analyzers and Fourier Transform Infrared Spectroscopy (FTIR) analyzers where managing the quality of the “hot, wet” sample is critical to the measurement.

### Applications Include:

- New CEMS Systems
- Stack Test Trailers
- Field Retrofits
- Hot, wet sampling
- THC
- FTIR
- Others

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## Features & Benefits

- Filtration: Heated Filter Assembly with a Disposable Filter Element
- Three Output Ports:
  - 1 Port with flow control/verification using control valve and a diff pressure indicator
  - 2 Ports provide pressure regulated output (no flow control)
- Inlet Vacuum Gauge, Calibration Gas Inlet, Pressure Gauge
- A Throttling Valve between the filter and the pump controls the amount of “excess flow” reducing the amount of calibration gases needed to flood the probe. The Throttling Valve provides the ability to limit excess flow.
- Two Independent Heat Zones: Oven temperature and the pump head temperature are independently controlled. The controller outputs are solid state eliminating the problem of mechanical relay fatigue.
- Heat Zone Control SSR's: 24 vdc input control, 240 vac, 40 Amp output capable devices. High Temperatures Operates up to 375°. Most materials in contact with heated sections are spec'd more than 425° F. The normal operating set point is: 191° C (375° F). Heat controlled by Dual PID controllers.
- Pump Control: The sample pump can be inhibited using the front panel switch or rear connector input.
- Modular Power: The unit has three front panel power switches. Oven Power, Pump Head Heater Power, Pump Inhibit switch.
- Main Power: The main power switch on the rear panel is also a circuit breaker.

## Specifications

Power Requirement:	110-120 vac 60 cycle
Power Switch Circuit Breaker:	10 Amps
Power Consumption:	8 Amps Nominal
Pump Motor:	1.2 Amps, 5.2 Start
Surge Pump Head Heaters:	1.4 Amps, 2 x 75
Watts Oven Heaters:	4.2 Amps, 500 Watts
Sample Temperature Range:	225° F to 400° F 107° C to 204° C
Ambient Temperature:	40° F to 90° F
Maximum Operational Vacuum:	-10 Inch Hg
Maximum Flow:	8 lpm @ < 3 psi
Maximum Pressure:	9 psi @ < 3 lpm
Typical Pressure Setting:	3 - 6 psi
Typical Flows:	8 lpm @ 3 psi 5 lpm @ 3-6 psi
Independent Outputs:	3 Total
Flow Controlled Outputs	1
Pressure Regulated Outputs	2

**For proposal and availability  
information contact:  
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