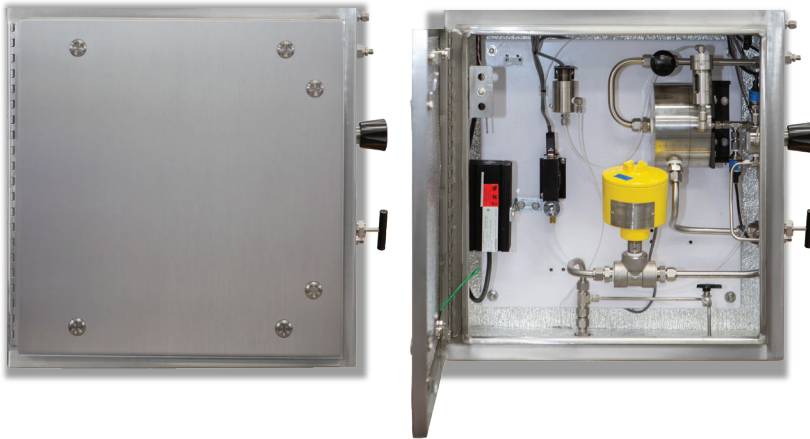


# PermaStream™ VOC in Water Stripper

PermaStream-VOC | Real-time stripping of VOCs from water for delivery to Gas Chromatographs



## Ultra-low Maintenance VOC Stripper

Separates VOCs from water samples or steam/condensate for analysis in the gas phase by user provided GC

## Ultra-low Maintenance

The solid state design has no moving parts, providing low upkeep requirements compared to El Paso stripper

## Dependable Operation

KECO PermaStream™ membrane technology creates an ultra-clean gas phase sample for GC, reducing Maintenance requirements for the GC itself

## Accurate

Maintains a representative VOC sample from the water

## Applications

- Cooling tower / heat exchanger water • Produced water • Waste water • Storm runoff water • Boiler condensate
- Monitoring at desalination plants • Effluent water • Bilge water discharge • Municipal water treatment plants

## Product Description

The PermaStream™, utilizing exclusive KECO Membrane Technology, continuously strips VOCs/hydrocarbons from a water sample stream for analysis by detector/GC of choice (user provided). The water sample containing VOCs/hydrocarbons flows into the heated PermaStream™ and based on Henry's Law, the VOCs/hydrocarbons in the water sample continuously permeate through membrane and separates from the water to a gas phase and maintains representation of the original water sample. A precision flow meter provides clean & dry carrier air/gas which sweeps the gaseous VOCs/hydrocarbons on the other side of the membrane and out the vent where a detector of choice is utilized, such as a Gas Chromatograph for speciation of hydrocarbon components. The PermaStream™ provides an ultra-pure, clean and dry sample to the GC for analysis. The system radically reduces maintenance requirements of the user provided GC while enhancing analytical reliability. The PermaStream™ includes a robust KECO membrane, high precision flow meter, flow switch, and temperature controlled heated enclosure. The unit is tubed, wired, mounted in NEMA 4X (IP 65) cabinet and ready to be installed and connected to the user provided GC. provided by the user.

# Typical Specifications

## DISPLAY

- Not applicable

## AMBIENT TEMPERATURE RANGES

- 1°C to 55°C (operating) without ext. cooling/heating
- 0°C to 70°C (storage)
- Low ppm & ppb ranges require temp. controlled housing

## WEIGHT

- ~100 lbs

## DIMENSIONS

- 2 ft X 2 ft X 1 ft (subject to change)

## UTILITIES/SETTINGS

- 110VAC or 220VAC
- 200 Watts max.
- Carrier Air: 200 ml/min (15 psig max.) [user adjustable rate]
- Sample flow: 0.5 L/min minimum
- Sample pressure: 150 psig max.

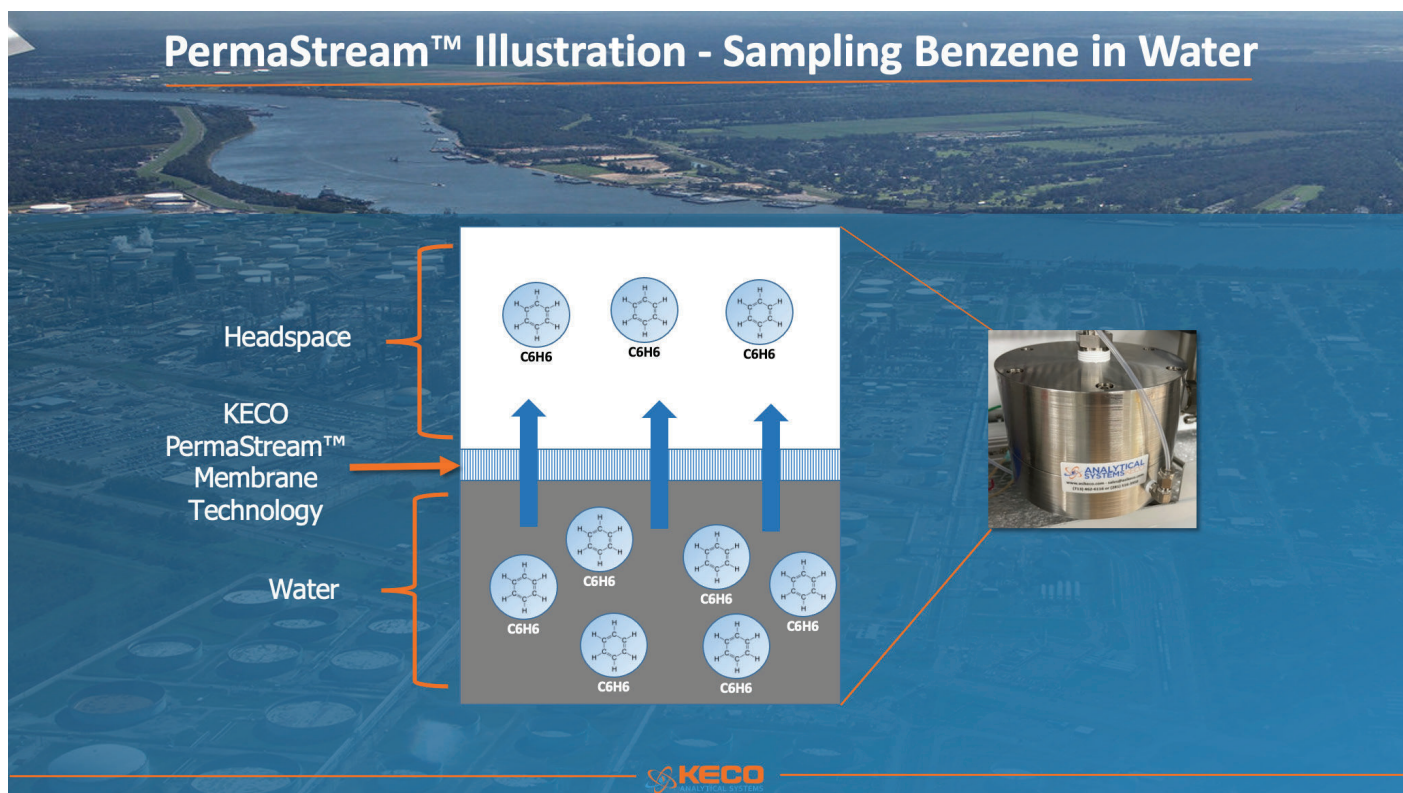
## AREA CLASSIFICATIONS OPTIONS

- Class 1 Division 2
- Zone 2

## TECHNOLOGIES

- PermaStream™ (KECO Membrane Technology)

## PermaStream™ Illustration - Sampling Benzene in Water



KECO provides design and application engineering assistance for the User's analyzer requirements.