

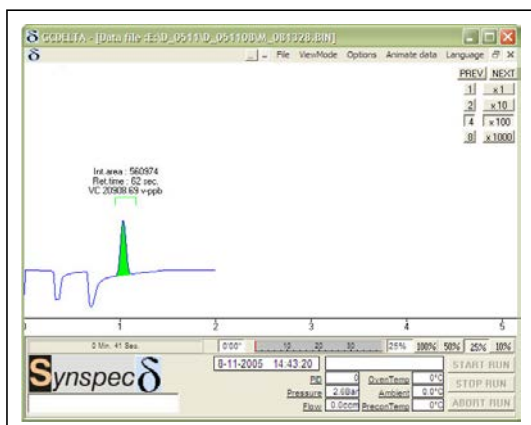


**S**ynspec

**DELTA 105**

## VINYL CHLORIDE ANALYZER

THE DELTA IS THE NEW SINGLE COMPONENT ANALYZER LINE OF SYN-  
SPEC FOR THE MEASUREMENT OF TOXIC HYDROCARBONS. IN THE  
DELTA WE HAVE COMBINED THE KNOWLEDGE OF 10 YEARS OF MAK-  
ING GAS CHROMATOGRAPHS FOR AMBIENT AIR MONITORING. SYN-  
SPEC DESIGNED THIS NEW MONITOR FOR ENVIRONMENTAL AND  
SAFETY MONITORING IN INDUSTRIAL AREAS



Synspec has developed since years monitors for measuring hydrocarbons for industrial safety. The Delta VC analyzer is designed for VCM and PVC plants and research institutes.

Environmental and industrial safety authorities require increasingly very strict monitoring of the carcinogenic and highly toxic hydrocarbons: this means that low ppm to ppb measurements for indoor industrial applications down to low ppb for outdoor use are obligatory.

We offer for this a multipoint sampler, automatic measurements, simple software, automatic TWA calculations, flexible data-communication

### Examples of applications:

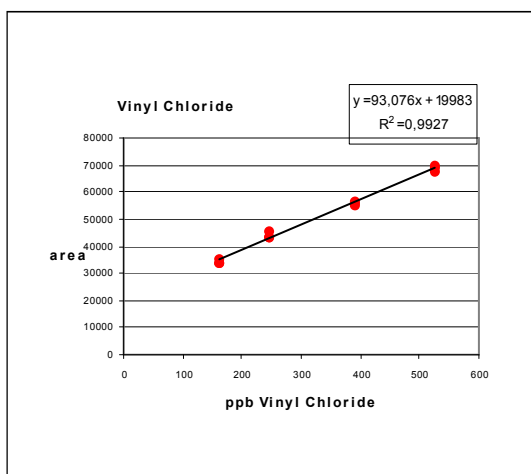
Benzene, Epichlorhydrine

Ethylene oxide, Propylene oxide

Acrylonitrile, 1,3-Butadiene, Styrene

Vinyl chloride, Dichloroethane

THT( tetra hydro thiophene) in natural gas

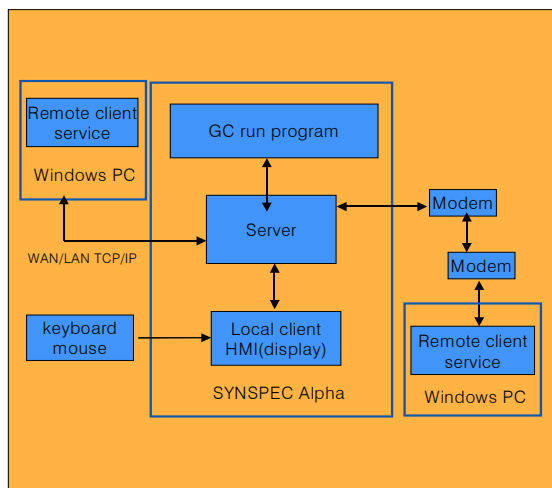


**MEASURING PRINCIPLE:** The analyzer is a compact GC. It contains all the essential elements: sampling unit, backflush valve, separation column in special small oven unit and detector. The detector is an FID or a PID, depending on the application.

The gas sample is pumped in a **LOOP**. The sample is then injected over the valve into a column and the single hydrocarbons pass on to the detector. The loop size is adapted to the concentration range specified by the customer.

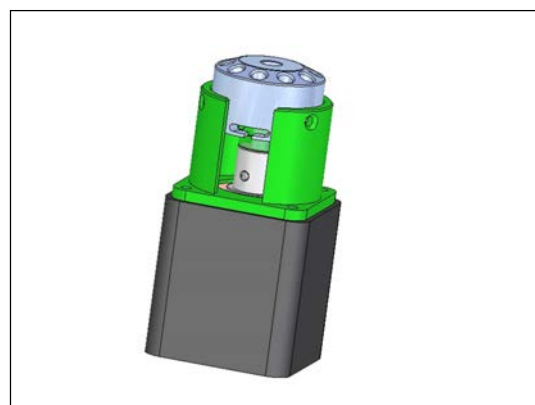
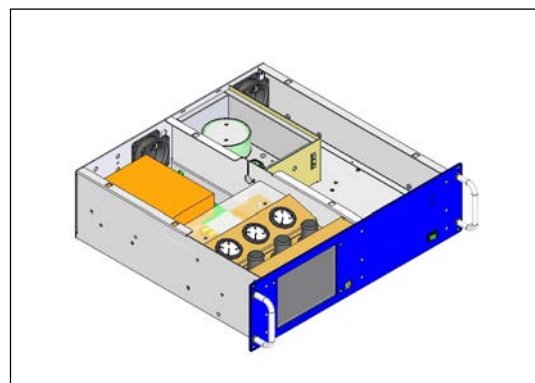
All higher boiling hydrocarbons will be **BACKFLUSHED**. This means that the system will auto clean and that a short cycle time is possible. The system is adapted to the specific hydrocarbon that must be monitored with regards to the essential parameters column, flow, temperature and backflush setting.

The instrument works with a **TRUE GAS CHROMATOGRAPHIC SEPARATION**: we use this to avoid problems with misidentification.



## SYNSPEC DELTA SOFTWARE

THE SOFTWARE OF THE SYNSPEC DELTA SERIES WORKS ACCORDING TO A NEW PRINCIPLE. AUTOSTART OF THE GC RUN PROGRAM ENSURES CORRECT FUNCTIONING. THIS SOFTWARE COMMUNICATES TO A SERVER PROGRAM. THIS SERVER CAN BE ACCESSED LOCALLY OR ON DISTANCE BY DEDICATED SOFTWARE FOR CLIENT AND FOR TECHNICANS FOR ALL NECESSARY FUNCTIONS: DATA TRANSFER INCLUDING ALARMS, CALIBRATION



### GAS CHROMATOGRAPH

DELTA MODEL 300	Detector: PID, Detection limit 0.05 ppm, cycle time 2 min, column Porapak Q 30 x 90 cm, temp 90 °C
CONSUMPTION OF GAS	PID: nitrogen, quality 5.0, 2.0 bar, 15 ml/min
RANGE	0-100 ppm for PID
REPRODUCIBILITY	1% of FS

### HARDWARE AND COMMUNICATION OPTIONS

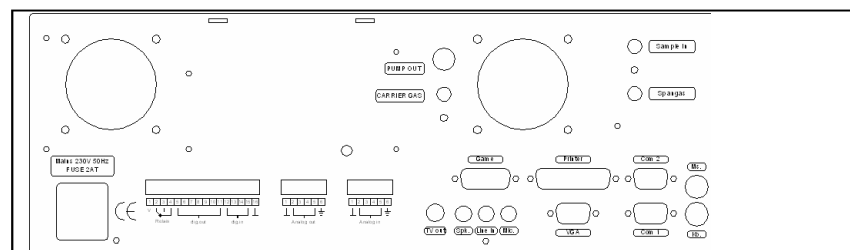
INCLUDED HARDWARE	Computer: Pentium class, harddisk >20 Gb, 6" full colour LCD display, I/O 2 x RS232, 4 x USB, Ethernet, PS2 keyboard/mouse, touchscreen
INCLUDED SOFTWARE	Windows XP, GC software, TWA calculation modules, alarm setting modules
COMMUNICATION	direct control via keyboard or mouse, or via remote host (RS232/Ethernet/modem), or via TCP/IP
GC SPECIFICATION	data exchange protocols available on demand
CALIBRATION	Loop 0.075 to 2 ml, 10 port valve Synspec, analytical column 2-13 m, backflush column 0.5 to 2 m
	Internal calibration switch for calibration with zero and span gas, gas stream required 25 ml at ambient pressure

### PHYSICAL DATA

DIMENSIONS	19" rack, 3 standard Height Units, depth 37.2 cm net
POWER DEMAND	220 V AC, 200 VA (110 V AC available)
TEMPERATURE RANGE	5 TO 40 °C
HUMIDITY	20 TO 95%
WEIGHT	12 KGS

### GENERAL

APPROVALS	CE approval for EMC conformity: EN 61010-1, EN 61000-6-2 and EN 60111-6-3
EXTRA FUNCTION	Combination with stream selector possible stream selector type Vici dead end or flow through, 6 to 16 stream, pump 50/min (internal) or on demand external Combination with RS232 alarm outputs 4-20 mA up to 15 stream



**PRODUCER:**  
**SYNSPEC BV**  
**DE DEIMTEN 1**  
**9747AV GRONINGEN**  
**NEDERLAND**  
**FOR DISTRIBUTORS LOOK AT:**  
**WWW.SYNSPEC.NL**