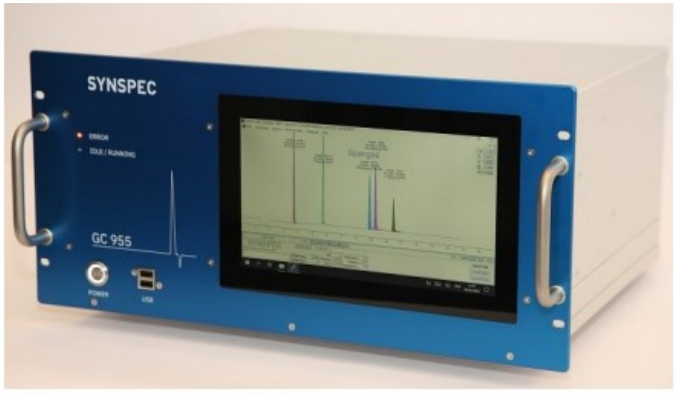
SYNSPEC COOLED SAMPLE CONDITIONING UNIT (COOLED-SCU)

SYNSPEC
Shaping a cleaner, safer future. With you.

Improve the performance of your Synspec GC955 gas chromatograph

Dependent on local weather and climate conditions, the relative humidity values of the sampling gas may fluctuate strongly. Upon introduction of the crude sampling gas into your gas chromatograph, first a dust and particulate filter will remove all solid contaminants from the sampling air, but the water vapour will pass through to the analytical system. Dependent on the configuration of your Synspec GC955 gas chromatograph, this moisture may affect your elution times and sometimes even the elution order of your chemical components. In the worst case, the moisture will even decompose your chemical components thus ruining your analytical results. The latter may occur for example with the sulphur-containing components like mercaptans and (di-) sulphides.



Synspec GC955 gas chromatograph

Synspec Cooled-SCU, front view.

Synspec Cooled-SCU, rear view.

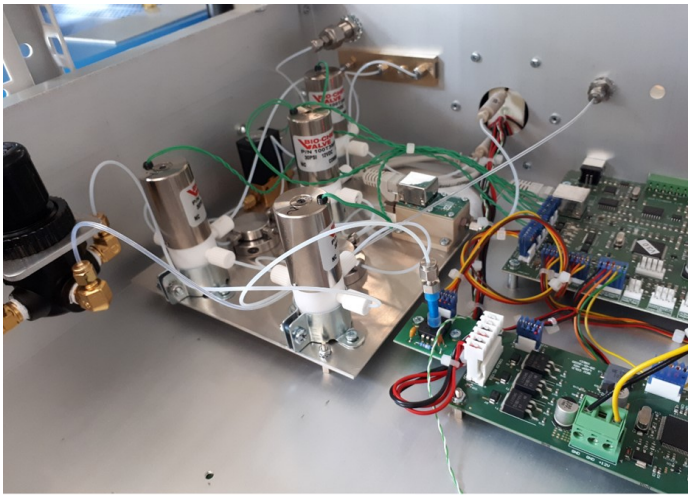
Synspec Cooled-SCU

Synspec Cooled-SCU has been developed for use in demanding gas-chromatography applications.

Heart of the instrument is a thermoelectrically cooled loop that accumulates the humid from the sample gas by first freezing and later de-icing in each GC-run. In this way a continuous and effective removal is achieved every cycle. For this purpose, the software of the Cooled-SCU communicates with the software of the GC955 in order to secure the synchronisation of their cycles.

All internal tubing and valves of the Cooled-SCU are factory-made of inert stainless-steel and inert materials. Making this SCU in particular suitable for the analysis of sulphur containing components and all other demanding applications with small, polar and reactive components that can give problems when a Nafion ™ dryer is used to remove the water.

Synspec cooled loop, at rear plate.



Synspec Cooled-SCU, interior.

SYNSPEC COOLED SAMPLE CONDITIONING UNIT	
ROOM CONDITIONS	Temperature 5 to 45 ˚C, relative humidity 5%– 90% (non-condensing)
GAS PRESSURES AND FLOWS	Inlet pressure zero air: 2,5 bar, flow for zero at calibration 150 ml/min, Inlet pressure span gas: either at ambient pressure, then overflow outlet, flow at 150 ml/min. Or at 1 bar, without overflow, maximum flow 50 ml/min. Optionally a Tedlar bag can be connected to the span inlet
GAS CONNECTIONS	Swagelock SS 1/8 “connectors, connect with PTFE or inert SS tubing
HUMIDITY SENSOR	Range 5% to 95%
ELECTRICAL CONNECTIONS	100 up to 240 Vac, 50/60Hz, <100 W
COMMUNICATION	USB connection, alarm signals for pressure of zero air, relative humidity at outlet of dryer
DIMENSIONS	19” rack, 3 standard Height Units, (width 48,3 cm, height 13,9 cm, depth 37 cm) Weight 6 kg

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Zernike Campus | De Deimten 1 | 9747 AV Groningen
| The Netherlands | info@synspec.nl | www.synspec.nl | +31505266454