



Ankersmid Sampling



Electric Gas Coolers Series ACC / APC

The Ankersmid gas coolers series ACC (compressor system) and APC (Peltier system) are offering precision, safety and long-term stability for extractive analytical systems.

The unique cooling and separating technology of the innovative designed and patented heat exchangers attains an extremely stable and low gas dew point of $+4^{\circ}\text{C}$ ($\pm 0,1^{\circ}\text{C}$) to avoid water vapor cross-sensitivity and volumetric errors and compensates process fluctuations.

Applications:

Sample gas drying according to CAL regulations

Analyzer protection

Gas analyzer systems

Environmental protection

Continuous emission monitoring (CEM)

Dew-point lowering to prevent condensation

Providing stable dew-point to compensate H₂O interferences

“High-performance cooling systems for all conditions”

Reference customers:

 **BASF**

The Chemical Company









Compressor Gas Coolers Series ACC

The Ankersmid Compressor Cooler is prepared for up to 2 heat exchanger (Series ACC 1xx) respectively 4 heat exchangers (Series ACC 4xx). All cooler versions are maintenance-free and self-controlling.

The thermo-electric controlled compressor cooling system and the unique design of the patented heat exchanger system guarantees an optimum dew-point reduction to a low and stable value. An extra pre-separation or pre-cooling device is not needed.

Each gas path can handle a flow rate up to 250NI/h at an inlet dew-point of up to +65°C and an ambient temperature of up to +50°C.

For each heat exchanger a peristaltic pump for continuous condensate removal is incorporated as standard.



**Outlet gas dew-point of +4°C
for an accurate gas analysis**



**Demountable chemical and
pressure resistant heat exchanger**



**Digital PID-controller with
high/low-temperature alarm**



**Incorporated peristaltic pumps
for continuous condensate removal**



**Explosion-proofed versions
according to ATEX (Zone 1 & 2)**



**Universal housing for 19"-racks
and wall-mounting**

Peltier Gas Coolers Series APC

The Peltier Cooler is available in two versions for 250NI/h (Type APC 1403) and 350NI/h (Type APC 1603). The cooler versions are maintenance-free and self-controlling.

This unique microprocessor controlled Peltier Cooler has been designed with two powerful Peltier elements and a self-developed and patented unique heat-pipe system to guarantee a stable outlet dew-point of +4°C even at high ambient temperatures of up to +45°C.

The heat exchanger system is fully demountable and highly chemical resistant due to gas-wetted materials like PFA® and PVDF.



Outlet gas dew-point of +4°C
for an accurate gas analysis



Demountable chemical and
pressure resistant heat exchanger



Digital PID-controller with
high/low-temperature alarm



Electrical connections via plugs;
no need to open the cooler housing



flow rate 250NI/h or 350NI/h



2 powerful Peltier elements and
an unique heat-pipe system



Condensate removal

When cooling down a process sample gas to 4°C with our gas coolers, condensate will be created. This condensate has to be removed reliable to ensure that no moisture will enter the sensitive gas analyzers.

For applications with over-pressure, liquid drainers based on the swimmer principle can be used. The liquid drainer ALD are made of stainless steel and can be connected directly to the condensate outlet port of our heat exchangers.

For a most reliable condensate removal the peristaltic pumps series ACP are designed. These electric pumps remove continuously up to 0,25nl/h of any liquid by a highly chemical resistant Novoprene® tube.

Peristaltic pump ACP

For wall-mounting
or in a housing

Self-suction pumps,
driven by a synchronous motor

100% Gas tightness



Liquid drainer ALD

For high pressure and
temperature applications

Completely made
out of stainless steel

High drain capacity



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