ACS | TESTING FOR A BETTER PLANET

DISCOVERY MY CHAMBERS FOR T AND RH TESTS WITH CO2 COOLING SYSTEM

SAME TEST. BETTER PERFORMANCE. LESS ENERGY.

ACS CO2 cooling chambers ensure **significant energy savings**, achieving **up to 30%** in the most common test cycles such as **IEC 60068-2-30**.

A revolutionary product that combines innovation, efficiency, sustainability and safety.

Compared to the -40°C versions with F-GAS, ACS chambers with CO2 cooling offer further significant advantages:

- **Lower temperatures:** minimum temperatures down to -50°C, depending on the model, exceeding the performance of previous versions.
- **Improved cooling gradients:** faster below -20°C, ensuring higher efficiency in cooling processes.
- **Safety:** CO2 is non-flammable, eliminating the need for risk analysis or installation site adaptations required for flammable or slightly flammable refrigerants.
- **Quietness:** a considerable improvement has been achieved in terms of noise reduction and improved acoustic comfort in laboratories.
- **No need for chilled water:** like previous F-GAS versions with an air condenser, the DM CO2 TRC also features a local air condenser, enabling operation in ambient temperatures up to +35°.
- **Interchangeability:** the chambers are identical in size to the previous F-GAS versions and can be used under the same laboratory conditions.

M CO2 TCR CHAMBERS

CO2 Revolution

The response to the EU's challenge on refrigerants stems from a clear strategic vision: providing customers with a future-proof, sustainable solution with minimal environmental impact through CO2 technology (R744).

Angelantoni Test Technologies, a global leader in the environmental simulation market, is at the forefront of the Green Transition, by switching from traditional F-GAS to CO2, which has a Global Warming Potential (GWP) equal to 1.
This places ACS far ahead of the strict requirements of the new F-GAS Regulation (EU) 2024/573, which aims to reduce the environmental impact of high-GWP refrigerants.

Operational and Maintenance Advantages

The switch to CO2 (R744) in cooling systems has also represented a significant advance in ACS refrigeration technology.

Unlike conventional systems using R449A— which lose most of their cooling capacity below -25°C and can only reach a minimum of -40°C— the CO2 cooling unit configuration ensures effective cooling down to -50°C, maintaining superior cooling performance even at the lowest temperatures required for automotive testing.

Furthermore, these systems **operate more quietly** than conventional systems, improving comfort in noise-sensitive environments.

Finally, CO2 cooling systems eliminate the mandatory legal requirement for refrigerant leakage control, **making chamber management simpler and cost effective**.

ACS DM CO2 TRC chambers embody technological challenges and sustainability in a single product, representing a significant step forward in the field of environmental testing. **Angelantoni Test Technologies continues to demonstrate its commitment to innovation and sustainability, leading the industry towards a greener future**.

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Angelantoni
TECHNOLOGY FOR LIFE