

Air change rate chamber

UFACR-D



**Defined air conditions.
Measured. Documented. Traceable.**

Designed for the defined air conditions required by ISO 188:2023 Method D and DIN 53508:2024-03 Method D – with device-specific measurement of the air change rate and documented evidence of the airflow conditions.

PRECISE AND VERIFIABLE AGEING TESTS

The Memmert UFACR-D is designed for demanding thermal ageing tests in which defined air conditions are just as critical as temperature and test duration. ISO 188:2023 Method D and DIN 53508:2024-03 Method D define specific requirements for air change rate and air speed.

A purpose-engineered interior configuration guides the airflow through the chamber in a controlled manner and creates the defined air conditions required for reproducible testing.

A key advantage for testing laboratories and quality assurance is the device-specific verification of the air change rate. Before delivery, every UFACR-D is measured in the Memmert test field and the result is documented in a device-specific test certificate for the air change rate. This provides clear, traceable documentation for quality management, audits and technical traceability.

KEY PERFORMANCE FEATURES

- 01 Developed for Method D:** ISO 188:2023 Method D and DIN 53508:2024-03 Method D as clear application references.
- 02 Purpose-engineered interior:** Guides the airflow through the chamber to create the defined air conditions required for Method D.
- 03 Defined air change rate:** ISO 188:2023 Method D requires more than 30 air changes per hour; DIN 53508:2024-03 Method D requires at least 30 air changes per hour. The chamber design is engineered accordingly.
- 04 Defined air speed:** Method D specifies an air speed of 0.25 to 3.0 m/s at the test pieces.
- 05 Documented evidence:** Standard documentation includes a device-specific test certificate for the air change rate and a separate air flow certificate.

Cleverly designed: A retaining rail on the stainless steel grid helps keep test pieces securely in place.

Defined Airflow System: The purpose-engineered interior guides the airflow to create the defined air change rate and air speed conditions required by Method D, supporting reproducible testing.



APPLICATIONS



TYPICAL APPLICATION AREAS

The Memmert UFACR-D is designed for thermal ageing applications in materials testing, quality assurance, and R&D. It creates the defined air conditions specified by ISO 188:2023 Method D and DIN 53508:2024-03 Method D.

Whether used for quality control, product approval or ageing-resistance testing of rubber and elastomer materials, the UFACR-D supports reproducible results across materials and product development.

- 01 Independent testing laboratories
- 02 Manufacturers of technical elastomer products
- 03 Automotive suppliers and component manufacturers
- 04 Tyre and rubber industry
- 05 Compound and materials development
- 06 Industrial quality assurance and release testing
- 07 Research institutes and universities

FROM THE FIELD

„Temperature distribution, air change rate and reproducibility are crucial. Even the smallest deviations can make a test result unusable.“

Annabelle Minz-Schütt, Managing Director, Minz Prüf+Test GmbH

The accredited testing laboratory uses the UFACR-D for aging tests, where reproducible conditions and reliable documentation are key requirements.

VERIFIABLE TEST CONDITIONS

Traceable documentation is an important part of reliable testing. Before delivery, the air change rate of every UFACR-D is measured and documented in a device-specific test certificate. A separate air flow certificate provides evidence of the defined airflow conditions, complemented by a calibration certificate.



MODEL OVERVIEW

UF55ACR-D



UF55ACR-Dplus



UF110ACR-D



UF110ACR-Dplus



Model size

55

55

110

110

Version

Single

Plus

Single

Plus

Programmable

No

Yes

No

Yes

Temperature setting range

+20 to +300 °C

+20 to +300 °C

+20 to +300 °C

+20 to +300 °C

Interior volume

29 L

29 L

69 L

69 L

Test Certificate air change rat

Standard

Standard

Standard

Standard

Certificate air flow

Standard

Standard

Standard

Standard

CONTACT

Learn more about the Memmert UFACR-D and access detailed technical specifications, test documentation and application examples.

Visit us: www.memmert.com/en/ufacr

For personal advice, quotations or technical questions, please contact your local Memmert representative or our international sales team.

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