



COGAS[®] AI

CORE-GAS TEST UNIT FOR
DETERMINING CORE-GAS AND
CONDENSATION OF SAND CORES
IN THE ALUMINIUM FOUNDRY

- EXACT
- RECORDABLE
- MOBIL



Core-gas Test Unit

Application

Poor-quality binder, inadequate mixing of the raw materials used in making sand cores or even incorrect storage may affect the quality of the cores and therefore, indirectly, that of the castings. By means of the COGAS®AI Test Unit, it is possible to detect inferior-quality sand cores, thus making it possible to reject them before they are used in the production process. The number of reject castings caused by heavy condensation or sand cores with high gas contents can therefore be substantially reduced.

The mobile **COGAS®AI** Test Unit is for determining the amount of core-gas and condensation emitted by sand cores under production conditions. The readings obtained for gas volume and condensation quantity provide information on the quality of the sand core and the sand mixture. The COGAS®AI Test Unit is suitable for all core systems and binders used in the aluminium foundry.

The Test Unit is designed to optimise the efficiency and convenience of the operator. Added safety is provided by the „two-hand requirement“ for triggering each measurement. The 12,1" touch panel provides excellent graphic and visual representation of various temperature patterns as well as the development of gas during the decomposition of the sand core. Binder parameters can be stored in the system and can be selected directly. The working surface offers sufficient space for an efficient work-flow. Spare and wear parts can be stored in two large compartments, one of which is provided with a locking door.

For more information have a look at our website www.mk-gmbh.de

PC Software

- Saving of measurements
- Comparison of core sizes and weights
- Analysis of different test curves:
 - zooming to specific curve sections
 - graphic superimposition of curves for comparison purposes
- Use of various filters for finding curves
- Printable reports, export of results to MS Excel

Special features

- **Operator safety** through „two-hand“ triggering
- **User-friendly** handling
- **Storage compartments** and shelf space provided
- Good graphic representation through **12,1" Touch panel**
- Evaluation and specification of production parameters: quantity and type of binder, mixture quality, production stability, storage conditions, shot parameters
- Testing of sand cores under actual conditions for process control
- Adjustable lowering speed for sand core
- Comparison of different binder systems possible
- Total condensation quantity can be weighed and **analysed**
- Transfer of test data (serial, company-internal network or mk USB stick) to **PC Software** provided



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COGAS® AI



Preparing new measurement



View current measurement



Technical data

Design: Mobile Test Unit of powder-coated hot-galvanised steel sheet with two storage compartments, two fixed and two guiding wheels with brake

Dimensions: L 1230 x B 600 x H 1400 mm

Weight: approx. 170 kg

Power supply:
Power cable with plug, 230 V, 1400 W, 50-60 Hz, (115 V available on request)

Power consumption: 2400 W

Muffle furnace ambient conditions:
Temperature 20-50°C

Compressed air: Max. input pressure 16 bar, oil and water-free air

Measurable gas quantity:
max. 120 ml, reproducibility < 1 %

Condensation weight:
in 1/100 g, reproducibility < 3 %

Melt temperature: max. 1.100 °C

OS: Windows CE 7.0

Display:
12,1" touch display, resolution 1280 x 800

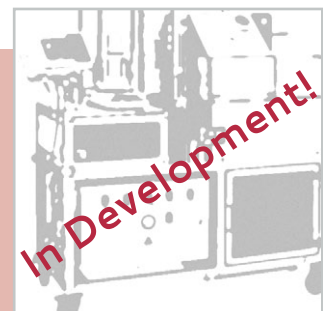
Interfaces: 2x USB 2.0, 1 x Ethernet

Services

- Commissioning and training of staff
- Maintenance and calibration service
- Spare and wear parts
- IT-Support



Product line



COGAS®Fe for determining the amount of core-gas and condensation of sand cores in the iron foundry.

About us

We are a medium-sized privately owned company established in 1984. We are located in the Westerwald region of Germany, about 100 km from Frankfurt and design and build a range of high quality aluminium melt test equipment for the foundry industry. Our products are the result of expertise and experience acquired over many years of close association with the aluminium industry. Besides manufacturing our equipment, we also provide customer services such as commissioning, maintenance, calibration of our test equipment supported by our comprehensive spare parts inventory.

Our customers all over the world are served by us personally as well as by a team of representatives operating worldwide.



Certified according to
DIN EN ISO 9001
DIN EN ISO 14001



Managing Director Nicolas Knoche:

„Our vision is to become worldwide leader in the design and manufacture of aluminium melt testing technology and in service to our customers.“

Are you interested in a technical consultancy and a demonstration?
We look forward to hearing from you.

Contact data

mk Industrievertretungen GmbH
Melt Measuring Technology

Rödernhahn 1b
56459 Stahlhofen a.W., Germany

+49 2663 82 10

+49 2663 34 31

information@mk-gmbh.de
www.mk-gmbh.de

