Cement Manufacturing

Reliability, performance and long life span for your temperature processes

IN-SITU CALIBRATION WITHOUT LOSING PRODUCTIVITY, ACCORDING TO YOUR OWN SCHEDULE

Our equipment allows you to improve your temperature measurement and the entity (both for local and remote control) for cement manufacturing, according to the requirements linked to your company.

For this, we have integrated measurement in our testing:
- Laboratory with CTPAC accreditation no. 368-17 for collection by companies up to 1,400 °C.
- Temperature sensor response time in accordance with the NF EN 60751 standard.
- Calibrated sensor provided for calibration and verification according to the NF EN 60751-1 and 2 standard.
- Bench specially equipped for hydrostatic testing.
- Radiography for checking the welds and the positioning of the measuring elements.

TECHNICAL AND VALIDATION TESTS
- Calibration in accordance with CTPAC accreditation no. 368-17 for temperatures up to 1,400 °C.
- Equipment in compliance with the NF EN 60751 standard.
- Temperature sensor response time in accordance with the NF EN 60751 standard.

IN-SITU CALIBRATION WITHOUT LOSING PRODUCTIVITY

• In-situ calibration without losing productivity, according to your own schedule
• ACCORDING TO YOUR OWN SCHEDULE
• IN-SITU CALIBRATION WITHOUT LOSING PRODUCTIVITY , RELIABILITY, PERFORMANCE AND LONG LIFE SPAN

Our team of metrological experts performs the qualification and testing, as well as the checks at the end of the manufacturing process, according to the requirements linked to the standard.

Our equipment guarantees a long life span for our sensors by using high-quality materials and experienced teams to make them.

Our offering is part of a global approach helping to reduce your maintenance costs and cut your energy spending.

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Pyrocontrole

YOUR PARTNER FOR TEMPERATURE MEASUREMENT

Pyrocontrole, a company in the Chauvin Arnoux Group, the European leader in measurement, designs and manufactures industrial temperature measurement and control systems. Thanks to its extensive know-how, Pyrocontrole has become a key partner of the major industries. Keeping as close as possible to the constraints facing cement manufacturers, Pyrocontrole has developed a comprehensive, specific range of temperature sensors which are reliable, rugged, dust-resistant, shockproof and capable of withstanding extreme temperatures. We guarantee a long life span for our sensors by using high-quality materials and experienced teams to make them.

Our offering is part of a global approach helping to reduce your maintenance costs and cut your energy spending.

A FRENCH BRAND

Drawing on measurement know-how built up over a long period, Pyrocontrole contributes “temperature measurement expertise” to the Chauvin Arnoux Group’s industrial processes. The temperature probes and sensors are designed in the R&D department in Lyon. The equipment is also machined, assembled and checked in France by experienced, qualified teams who guarantee quality and reliability.

INTERNATIONAL PRESENCE

Thanks to its membership of the Chauvin Arnoux Group, Pyrocontrole is present worldwide, represented by a network of ten subsidiaries and an export department. Sales teams and technical sites in China enable us to cover the whole continent of Asia with quick response backed by a high-performance strategy.

QUALIFICATION AND TESTING

Our team of metrological experts performs the inspections and the entry tests for materials, as well as the checks at the end of the manufacturing process, according to the requirements linked to the order.

For this, we have integrated resources in our factory:

- Laboratory with COFRAC accreditation no. 2-1385 for calibration by comparison up to 1,550 °C.
- Temperature sensor response time measurement bench in accordance with the NF EN 60751 standard.
- Specialized room equipped for welding and penetrant testing according to the NF EN 571-1 standard.
- Bench specially equipped for hydrostatic testing.
- Radiography for checking the welds and the positioning of the measuring elements.

TESTS AND VALIDATIONS

- Calibration in our laboratory with Cofrac accreditation no. 2-1385, from -40 °C to +1,550 °C
- PED, provision of design calculation notes

NON-DESTRUCTIVE TESTS

- Penetrant testing of welds
- Helium test
- Hydrostatic test
- Radiography of welds

MATERIAL TRACEABILITY AND MANUFACTURING METHOD

- CCPU material certificate
- PMI tests on sensors, welds and finished flanges
- DMOS (description of welding operating method), QMOS (qualification of welding operating method), QS (welder qualification)

IN-SITU CALIBRATION WITHOUT LOSING PRODUCTIVITY, ACCORDING TO YOUR OWN SCHEDULE

Depending on how demanding your requirements are, Pyrocontrole proposes an in-situ verification method without dismantling and without halting production to ensure that your temperature measurements remain accurate over time. Simple, reliable and quick to set up, our temperature assembly technology with in-situ calibration offers significant advantages in terms of energy saving, productivity, quality and traceability.

References

CIMENTS CALCIA
CIMPOR
DANGOTE

HOLCIM
ITALCEMENTI GROUP
LAFARGE
VICAT…
Qualified temperature sensors for cement manufacturing

Qualified temperature sensors
- **Smoke-box sensor**
  - Used in discharge chimneys. The sensor measures and controls the temperature of the gases discharged into the atmosphere. It can be used to ensure correct operation of the installation and environmentally friendly production.
  - Sensing element: S thermocouple with high-temperature protection
  - Measurement withstand: up to 1,300 °C

- **Thermowell sensor**
  - Increases in hot liquid lines. The sensor is equipped with an interchangeable sensing element which avoids any loss of tightness on the installation and prevents shutdown and/or draining of the process. The sensor is qualified as ATEX / IECEx.
  - Sensing element: Pt100
  - Measurement range: ambient temperature

- **Multi-point sensor**
  - Fixed onto the process by a flange, the ATEX / IECEx-qualified multi-point sensor comprises several probes of different lengths. This multi-point assembly makes it possible to gather enough information on the thermalgradation to map any overheating of the tank sufficiently quickly.
  - Sensitive elements: Pt100
  - Measurement range: ambient temperature

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**Find all the technical specifications of these temperature sensors and accessories in our Cement Manufacturing Selection Guide which can be downloaded from our website at www.pyrocontrole.com.**
energy saving, productivity, quality and traceability.

To ensure that your temperature measurements remain accurate and long lasting, Pyrocontrole offers a range of services to meet your needs.

Pyrocontrole proposes an in-situ verification method, in-situ calibration without losing productivity, to guarantee that your temperature measurement equipment is accurate and long lasting.

Depending on how demanding your requirements are, we offer the following services:

- Telescoping of high-temperature probes
- Temperature sensor response time
- Temperature probes and sensors assembled and checked in France
- Temperature probes and sensors, standard and custom, designed in the R&D department
- Temperature probes and sensors, high-quality materials and experienced teams
- Traceability, AMRA® and its metrology and regulatory subsidiary, Manumesure, Chauvin Arnoux is represented by a network of sales teams and technical sites in China enable us to cover the entire continent and offer high-quality, experienced technicians digitally equipped by a high-performance strategy.

Pyrocontrole, a company of the Chauvin Arnoux Group, is the European leader in measurement, design, and manufacturing industrial temperature measurement and control systems.

Their key expertise is in the design of high-temperature equipment and systems, and their main competence is in the development of high-quality materials for their products, which are reliable, rugged, dust-resistant, shockproof and capable of withstanding extreme temperatures.

Since the 1980s, Pyrocontrole has become a key partner of the major industries.

With its seven brands (Chauvin Arnoux®, Metrix®, Multimetrix®, Enerdis®, Pyrocontrole®, AEMC® and AMRA®) and its metrology and regulatory subsidiary, Manumesure, Chauvin Arnoux is represented by a network of sales teams and technical sites in China enable us to cover the entire continent and offer high-quality, experienced technicians digitally equipped by a high-performance strategy.

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Cement manufacturing and control systems.

Great efforts have been made at the subsidiary, Manumesure, Chauvin Arnoux is represented by a network of sales teams and technical sites in China enable us to cover the entire continent and offer high-quality, experienced technicians digitally equipped by a high-performance strategy.

Cement-manufacturing and control systems.

Great efforts have been made to ensure that your temperature measurement equipment is accurate and long lasting.

In-situ calibration without losing productivity, according to your own schedule

IN-SITU CALIBRATION WITHOUT LOSING PRODUCTIVITY , QUALIFICATION AND TESTING

Temperature sensors

Reliability, performance and long life span for your temperature processes

Companies in the Chauvin Arnoux Group:

- VICAT...
- LAFARGE
- DANGOTE
- CIMPOR
- HOLCIM
- ITALCEMENTI GROUP
- AMRA SpA
- Chauvin Arnoux AG

A COMPANY IN THE CHAUVIN ARNOUX GROUP

INTERNATIONAL PRESENCE

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Sales teams and technical sites in China enable us to cover the entire continent and offer high-quality, experienced technicians digitally equipped by a high-performance strategy.

With the reference to gaining a long life span for your sensors by using high-quality materials and experienced teams to meet them.

Our offering is to guide you to reduce your maintenance costs and cut your energy spending.

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