Qualification and Testing

Our expert metrology department handles both the raw materials testing and the checks and tests at the end of the manufacturing process, in accordance with the requirements linked to the order.

Our factory is equipped with special facilities for these tasks:

- COFRAC accredited laboratory (no. 2-1385) for calibration by comparison up to 1,550 °C.
- Test bench for measuring temperature-sensor response times according to the NF EN 60751 standard.
- Fully-equipped specialized workshop for weld penetrant testing according to the NF EN 571-1 standard.
- Bench equipped for hydrostatic testing.
- Radiography for X-ray weld testing and positioning of measuring instruments.

In-situ calibration without losing productivity, at intervals defined by you

Depending on the level of the requirements, to check and guarantee the necessary accuracy of your temperature measurements over time, Pyrocontrole proposes an in-situ verification methodology without dismantling the sensor or halting production.

Simple, reliable and quick to implement, our temperature-assembly technology with in-situ calibration offers significant advantages in terms of energy savings, productivity, quality and traceability.

Optimization of your precious metals costs

Some of our sensors are equipped with platinum / rhodium thermocouples. These thermocouples can be protected by platinum thermowells.

To optimize Your Precious Metals Costs, Pyrocontrole offers:

- your own specific weight account so that you are only billed for the work carried out,
- repurchase of your waste platinum at the market price.

Power Control Commissioning

To help you with your power control applications, we offer an installation assistance service and specific training for your teams. This service provided by our application engineers can be customized to fit your requirements.

PYRO® CONTROLE
CHAUVIN ARNOUX GROUP

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Ref : 906 211 317 - Ed.1 - 25/04/12 - Non-contractual document and photos - Lungne Communication 20005 - 10/13 - Photos: Pierrejon and Thinkstock

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With its seven brands (Chauvin Arnoux®, Metrix®, Multimetrix®, Enerdis®, Pyrocontrole®, AEMC® and AMRA®) and its Manumesure service subsidiary, Chauvin Arnoux is one of the European leaders in measurement, energy performance, industrial thermography and metrology.

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CHAUVIN ARNOUX GROUP

PYRO® CONTROLE
CHAUVIN ARNOUX GROUP

Temperature **Sensors**
Power **Controllers**

Reliability and Performance
of Your Temperature Processes

Measuring Your Requirements

Pyrocontrole
Your Partner for Temperature Measurement

Pyrocontrole, a French subsidiary of the Chauvin Arnoux Group, designs and manufactures industrial temperature measurement and control systems.
A major partner of demanding industries such as nuclear power, petrochemicals, the medical sector, metallurgy and **glassmaking**, Pyrocontrole has developed unique know-how backed by comprehensive expertise in qualification, production and test procedures.
To meet the specific needs of the glass sector, Pyrocontrole designs and sells a wide range of temperature sensors and power controllers to improve the quality of your products and processes.
Whether the application involves float glass, hollow ware or heat treatments, our measurement expertise helps to reduce your maintenance costs and cut your energy spending.

References

SAINT GOBAIN
VERALLIA
O-I
AGC GLAVERBEL
PILKINGTON
CORNING
MEDITERRANEAN FLOAT GLASS
ALVER
IRAN FLOAT
ZIGNAGO VETRO
CRISTALLERIE DE SAINT LOUIS
BOUTEILLERIE DE KINSHASA

Present Worldwide

As a member of the Chauvin Arnoux Group, Pyrocontrole is present worldwide via a network of ten subsidiaries and an Export Department.

Technical and sales teams in Europe, Asia and the USA, enable us to provide a quick response backed by a high-performance strategy all over the world.

A French Brand

Drawing on years of experience in the measurement sector, Pyrocontrole provides the "temperature measurement" expertise for the Chauvin Arnoux Group's industrial processes. Pyrocontrole's temperature probes and sensors are designed in the Engineering Department in Lyon. The equipment is machined, assembled and checked in France by experienced, qualified teams who guarantee quality and reliability.

Qualified **Temperature Sensors** and **Power Controllers** for the Glass Industry

Our Temperature Sensors

Vault thermocouple assemblies

Sensors used in melting furnaces, chambers and tanks.
Ref. NT 31-03 A

In severe environments, these sensors enable you to monitor the vault temperature and optimize management of the energy used. Their rugged protection gives them a long life span.

Bottom thermocouple assemblies

Sensors used in melting furnaces, chambers and tanks.
Ref. NT 31-03 A

These accurate, resistant temperature assemblies are inserted, protruding or otherwise, in the furnace refractory to monitor the temperature and guarantee the safety of the process.

Cadid thermocouple assemblies

Sensors used for floats, lehrs and heat treatments.
Ref. NT 30-01 A

Subject to less severe temperature constraints, the sensing element of these sensors is protected by a sheath made of a material suitable for the environment involved.

Multi-level feeder temperature assemblies

(2 to 5 measurements)
Sensors used in feeders, siphons and dishes.
Ref. NT 31-03 A

When immersed, these sensors measure the temperature particularly accurately, an essential feature for mapping the flow of the stream of glass. They ensure that the product has the required viscosity.

Melting furnace

1st step

2nd step

Hollow ware

Float glass

Platinum bushing-plate heating

3rd step

Float glass - Heat Treatments

Bending

Tempered glass

Laminated glass

Our Power Control Solutions

Thyritop 40

Applications: glass furnaces and processes.
Ref. DC 724

Thyritop 40 power controllers can be used to control any type of load for electrical heating in glassmaking processes.

Single-phase or three-phase, from 37 A to 2,900 A, they offer accuracy, flexibility and rugged design.

Tin Bath

Application

In float-glass installations, the tin bath contains multiple heating zones equipped with silicon carbide resistors. Thyritop 40s control these multiple zones in "full wave switch" mode to optimize the installation's overall electricity consumption.

Bushing Plate

Application

Glass fibre is obtained by extrusion through platinum-rhodium bushings.

Thyritop 40s control the heating power of the bushing plate to adjust the temperature as finely as possible.

Electrical Boosting

Application

When liquid, glass is an electrical conductor. Glassmaking furnaces, siphons and feeders use this property to heat the glass to the core by passing high currents through it.

Thyritop 40s are fitted on transformer primaries to control the power of the electrodes.

Thyritop 30

Applications: lehrs, treating furnaces, annealing tunnel-lehrs, etc.
Ref. DC 724

Thyritop 30s are ideal for the most frequent electrical power control needs: classic resistors or transformer primary, infrared, multi-zone installations, etc.

Single-phase and three-phase versions from 16 A to 350 A are available.

Simple to use and particularly rugged, the Thyritop 30 is a low-cost power control solution.