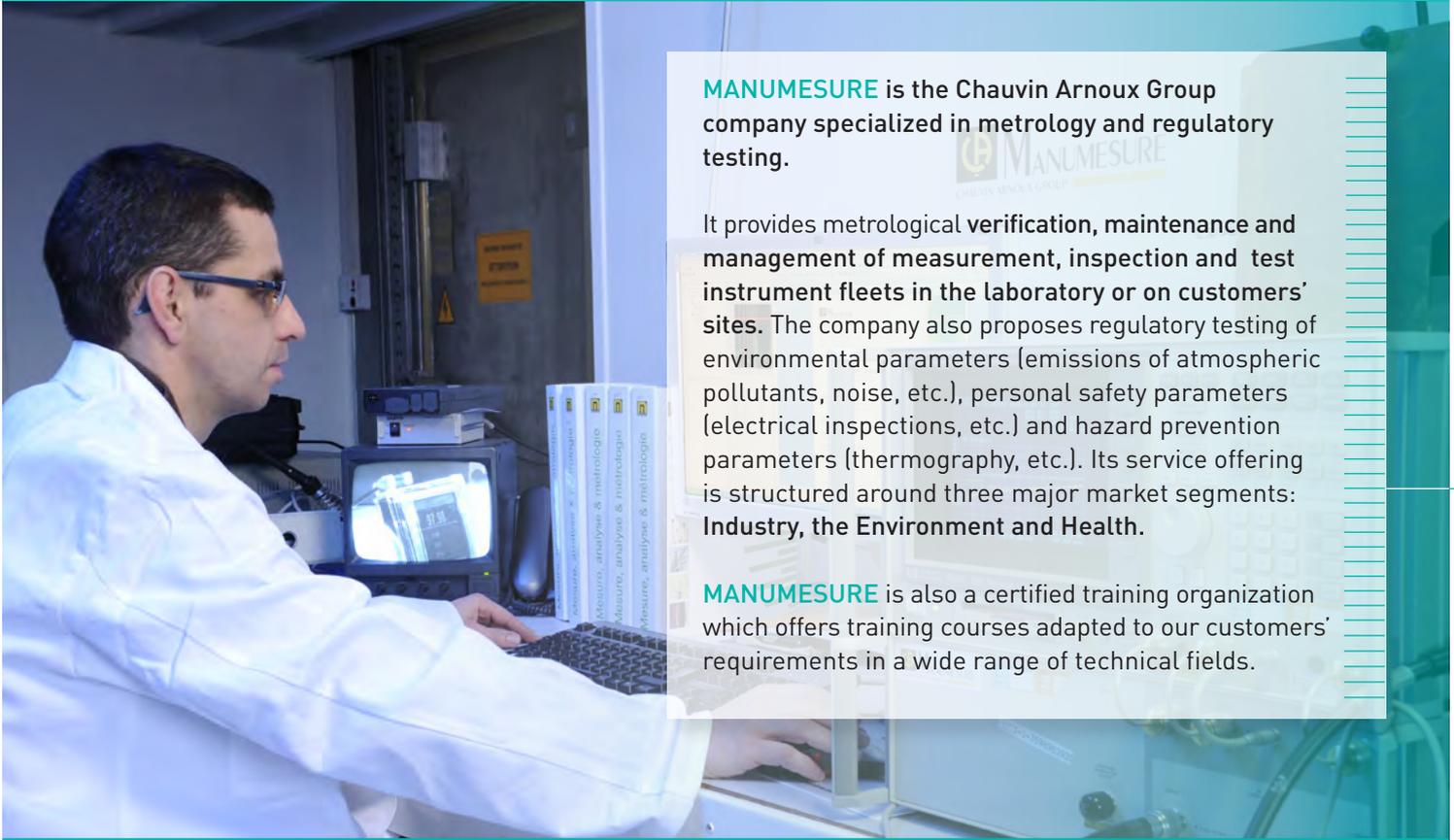


METROLOGY & REGULATORY TESTING



MANUMESURE

The metrology specialist



MANUMESURE is the Chauvin Arnoux Group company specialized in metrology and regulatory testing.

It provides metrological verification, maintenance and management of measurement, inspection and test instrument fleets in the laboratory or on customers' sites. The company also proposes regulatory testing of environmental parameters (emissions of atmospheric pollutants, noise, etc.), personal safety parameters (electrical inspections, etc.) and hazard prevention parameters (thermography, etc.). Its service offering is structured around three major market segments: **Industry, the Environment and Health.**

MANUMESURE is also a certified training organization which offers training courses adapted to our customers' requirements in a wide range of technical fields.

MANUMESURE's advantages



PROXIMITY

MANUMESURE possesses a network of experts ready to listen to your concerns. Twelve technical centres with ISO 9001 (quality management) and ISO14001 (environmental management) certification offer various services throughout France and internationally.

► Find all the addresses on the back of this brochure.



MOBILITY

MANUMESURE works on all types of sites (nuclear, environmental, medical, etc.) thanks to its fleet of mobile laboratories and its teams of specially-trained technicians.



FLEET MANAGEMENT

With its computerized management system with automatic reminders according to the periodicities defined, **MANUMESURE** manages instrument fleets for its customers.



COFRAC ACCREDITATION

COFRAC (Comité Français d'Accréditation - French Accreditation Committee) is an internationally-recognized body which certifies the **competence and impartiality of the laboratories** to which it grants accreditation.

► A table at the end of this brochure lists all the COFRAC accreditations.



Calibration:
N° 2-1035, N° 2-1405, N° 2-1406,
N° 2-1310, N° 2-1615, N° 2-1913
Test:
N° 1-1623, N° 1-1318, N° 1-2000
Inspection:
N° 3-145
Reference materials:
N° 1-5650
Scope available at: www.cofrac.fr

Our Key sectors

HEALTH

MANUMESURE checks and calibrates laboratory equipment and biomedical testers on site.

These services are intended for analytical laboratories, hospital centres and the pharmaceutical and cosmetic industries.

INDUSTRY

The verification and calibration of fleets of measuring instruments (electricity, climate, weight, pressure, force, etc.) are performed on site or in our technical centres or COFRAC-accredited laboratories.

Periodic checking of electrical installations and equipment is carried out in the context of the applicable regulations.

ENVIRONMENT

The sampling, analysis and on-site regulatory testing services are designed for industry and local authorities.

Our professions



Industrial metrology

- Calibration
- Verification
- Testing



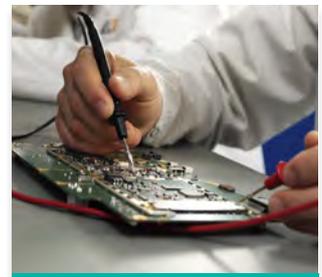
Regulatory testing

- Safety inspections on electrical installations
- Infrared thermography



Environmental measurements

- Air analysis
- Water analysis
- Measurement of noise levels

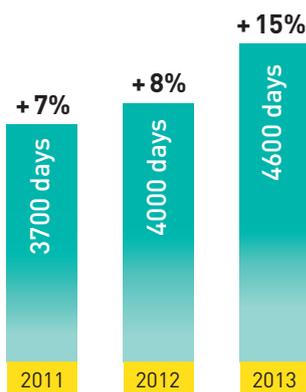


Industrial maintenance

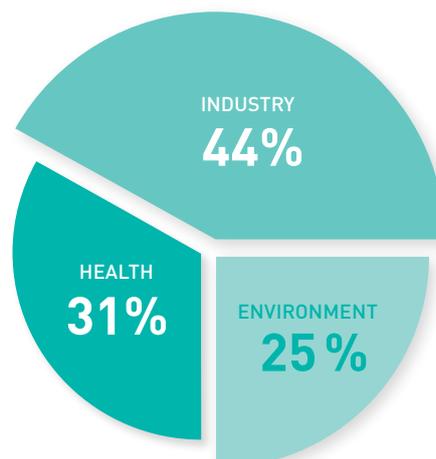
- Operations on site or in a technical centre
- For all instrument brands

A few figures

Evolution of the number of operations on customer sites



Distribution of MANUMESURE's business per market



Founded in 1893 by Raphaël Chauvin and René Arnoux, CHAUVIN ARNOUX is an expert in the measurement of electrical and physical quantities in the industrial and tertiary sectors.

Total control of product design and manufacturing in-house enables the Group to innovate constantly and to propose a very broad product and service offering meeting all its customers' needs.

The Group's quality policy enables it to deliver products which comply with the specifications, as well as the international and national standards, in the metrological, environmental and user-safety sectors.

A few figures



CHAUVIN ARNOUX is a major force on the measurement market in France and internationally.

Locations

7 production sites

- 3 in Normandy (France)
- 1 in Lyon (France)
- 1 in Milan (Italy)
- 1 in Dover (USA)
- 1 in Shanghai (China)

10 subsidiaries

- Germany
- Austria
- China
- Spain
- Italy
- Lebanon
- Sweden
- Switzerland
- United Kingdom
- United States





MANUMESURE

a CHAUVIN ARNOUX Group company

CHAUVIN ARNOUX draws on its Chauvin Arnoux® and Metrix® brands to offer a broad range of measuring instruments. The offering covers electrical measurement (testers, multimeters and current clamps), electrical safety testing, wattmeters and electrical network quality analysers. Its expertise also extends to oscilloscopes, instruments for testing electronic devices and measurement of physical quantities.

Portable test and measurement instrumentation



Metrology and regulatory testing



Metering, measurement and energy performance



Temperatures in industrial processes

ENERDIS designs measuring instruments for electrical switchboards and develops smart systems for electricity metering and control of energy flows in order to keep consumption under control.

PYROCONTROLE proposes tailored solutions for the temperature measurement and control requirements of all process industries. A wide range of sensors and total mastery of the industrial process chain make **PYROCONTROLE** an essential partner for industries such as the nuclear sector, petrochemicals, glass-making, metallurgy, etc.



1 Industrial Metrology

Whatever a company's sector of activity, a large number of parameters involved in the production processes may influence the results. To comply with the quality standards, metrological verification, calibration and testing of instruments are therefore essential.

MANUMESURE provides these services in accordance with the applicable standards and guarantees traceability in relation to the national reference standards.

Our main areas of work

Electrical / time-frequency / force and torque / dimensions / temperature / hygrometry / radiometry micropipettes / pressure photometry / luxmetry / luminancemetry / flowmetry, etc.

CALIBRATION AND VERIFICATION

We issue two documents:

- Calibration certificate
- Verification report

Two levels of services are proposed:

COFRAC: COFRAC accreditation as per NF EN ISO 17020 and 17025 guarantees the competence and impartiality of the laboratories to which it grants accreditation.

COFRAC-linked (with links to the national reference standards): we use working reference standards verified metrologically in our COFRAC-accredited laboratories (or external laboratories)

TEMPERATURE MAPPING

With their COFRAC "Tests" accreditation for the characterization of climatic chambers, furnaces and ovens from -80°C to +400°C, Manumasure's technical centres work in the health and industry sectors.

E.M.C testing

Equipped with an electromagnetic compatibility (EMC) test laboratory at its Pont-L'Évêque site in Normandy, Manumasure qualifies the electromagnetic compatibility of its customers' industrial equipment.

2 Regulatory testing

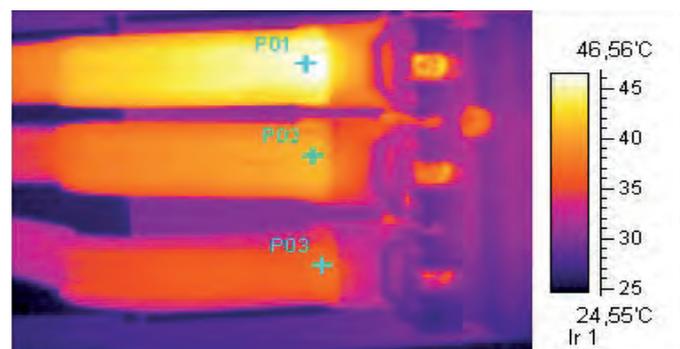
The regulatory tests performed by MANUMESURE fulfil the legislative requirements and help us to support our customers in meeting their obligations in terms of electrical inspections and prevention of industrial hazards.

SAFETY INSPECTION ON ELECTRICAL INSTALLATIONS

COFRAC-accredited for the Inspection of electrical installations, MANUMESURE performs periodic checks in the context of the applicable regulations (French Labour Code 3-1.2, Accreditation).

INFRARED THERMOGRAPHY: PREVENTION, SAFETY AND ECONOMY

Infrared thermography helps to prevent hot spots and malfunctions involving the electrical network or mechanical parts and can be used to locate energy losses. The possible applications are wide-ranging: electricity, mechanics, metallurgy, construction, etc.





3 Environmental measurements

MANUMESURE is approved by the French Ministry of the Environment and is authorized to perform all the sampling and analyses needed to control the industrial impacts.

Our services cover all types of measurements: air, water, gas, noise, dust, whether pollutant or still harmful. The measurements are performed outdoors or indoors by qualified staff.

AIR ANALYSIS

- Measurement of the harmlessness of atmospheric waste emitted by industrial chimneys.
- Verification of the automatic gas analysers installed on the chimneys as per NF EN 14181 and GAX 43-132 (QAL2 and AST procedures). COFRAC Tests accreditation n°.1-1318 and n°. 1-2000)
- Measurement of air quality near or inside industrial premises.



WATER ANALYSIS

- Analysis and monitoring of underground water in accordance with AFNOR technical brochure FDX31-615.
- Measurement and testing of waste-water pollution on industrial sites as per the ISO 5667 standards.

NOISE MEASUREMENT

In the context of installations classified for protection of the environment (ICPE), MANUMESURE provides regulatory noise testing services (NFS 31-010 standard).

4 Industrial maintenance

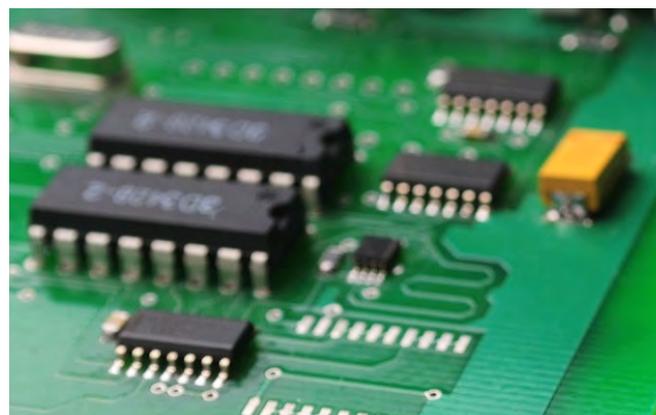
MANUMESURE provides after-sales service for instruments from the Chauvin Arnoux Group's brands.

The company is also specialized in repairing instruments of all makes and proposes industrial maintenance of measuring systems.

REPAIR AND MAINTENANCE OF ALL BRANDS

Drawing on its experience, **MANUMESURE** makes dedicated human and technical resources available to its customers. Its engineers and technicians are specially trained and are capable of working on customer sites in the context of industrial maintenance or repairing electrical and electronic instruments in the **12 technical centres in France**.

The company's expertise is backed by substantial technical resources, computerization and traceability of drawings, centralized management of spare parts and test and metrology reference standards linked to the national standards.





MANUMESURE

Certifications and standards

MANUMESURE has invested in the necessary resources to meet the requirements of decision-makers.



ISO 9001 and ISO 14001 standards



MANUMESURE's 12 technical centres are certified **ISO 9001** (quality management) and **ISO 14001** (environmental management) by the international organization **INTERTEK**. These regularly-renewed certifications demonstrate the long-term validity of our quality organization.

MASE certification



Officializing the teams' know-how in safety management on hazardous sites, the **MANUMESURE** sites at Reux and Lyon are **MASE-certified**. **MANUMESURE's expert technicians are capable of working in hazardous environments and, in particular, in the oil sector.**

UTO ASR qualification by EDF



MANUMESURE is qualified as **UTO** by **Électricité de France** for work in the nuclear sector, providing evidence of our services' level of expertise and strict operating methods (on site or in **MANUMESURE** technical centres).



MANUMESURE is approved by the French Ministry of the Environment and Ecology.

CALIBRATION

Services performed in the laboratory and on site.

Electricity and Magnetism	Time and Frequency	Dimensions	Temperature	Pressure	Micropipettes
In the laboratory	In the laboratory and on site (centrifuge)	In the laboratory	In the laboratory and on site	In the laboratory	In the laboratory
 Accreditation N° 2-1035 Scope available at www.cofrac.fr	 Accreditation N° 2-1405 Scope available at www.cofrac.fr	 Accreditation N° 2-1406 Scope available at www.cofrac.fr	 Accreditation N° 2-1310 Scope available at www.cofrac.fr	 Accreditation N° 2-1336 Scope available at www.cofrac.fr	 Accreditation N° 2-1615 Scope available at www.cofrac.fr
 Accreditation N° 2-1913 Scope available at www.cofrac.fr					

TESTS

Services performed on site.

Temperature mapping	Air quality analyses
 Accreditation N° 1-1623 Scope available at www.cofrac.fr	 Accreditation N° 1-1318 Scope available at www.cofrac.fr
<p>Furnaces, temperature-controlled baths and chambers, refrigerators.</p> <p>According to the French NF X 15-140 reference standard. According to the European NF EN 60068 reference standard.</p>	<p>Analyses of atmospheric pollutant emissions. Automatic measurement procedures, QAL 2 and AST procedures.</p>
 Accreditation N° 1-2000 Scope available at www.cofrac.fr	

REGULATORY TESTING

Services performed on site.

COFRAC Inspection accreditation	"Insurance" certification n° 146/18 - CNPP (French national centre for prevention and protection) reference document D18	APSAD (French plenary assembly of damage insurance companies) certification CNPP reference document D19
 Accreditation N° 3-145 Scope available at www.cofrac.fr	<p>Verification of electrical installations in terms of fire hazards. Provision of technical document Q18.</p>	<p>Inspection of electrical installations by infrared thermography. Provision of technical document Q19.</p>
<p>Periodic checking of electrical installations in workplaces.</p>		

PRODUCTION OF REFERENCE MATERIALS

Services performed in the laboratory.

COFRAC "Reference Materials" accreditation
 Accreditation N° 1-5650 Scope available at www.cofrac.fr
<p>Production of pH-certified reference materials used to trace and ensure the quality of the measurement results.</p>

SAFETY

Safety management on hazardous industrial sites.

MASE certification n°: N 2012-40	MASE certification n°: RA 2012-249
 MANUMESURE technical centre at Pont-l'Évêque	 MANUMESURE technical centre in Lyon
<p>Certification from MASE Normandie and Rhône-Alpes for the management of safety, health and the environment on hazardous industrial sites.</p>	

The 12 MANUMESURE technical centres

NORTH-EAST

Lille
Résidence la Magdelaine
20, rue du Parc
59110 LA MADELEINE
Tél. : 03 20 06 87 39
Fax : 03 20 06 33 61
ct.lille@manumasure.fr

Paris
248, avenue des Grésillons
Bât B- 1er étage
92600 ASNIERES SUR SEINE
Tél. : 01 75 61 01 80
Fax : 01 47 33 28 02
ct.parisidf@manumasure.fr

Strasbourg
7, rue Jean Monnet
67201 ECKBOLSHEIM
Tél. : 03 88 30 38 86
Fax : 03 88 30 15 01
ct.strasbourg@manumasure.fr

SOUTH

Bordeaux
CA Topaze-Domaine de la Hé
Route de Léognan Chambéry
33140 VILLENAVE D'ORNON
Tél. : 05 56 75 81 05
Fax : 05 56 87 50 38
ct.bordeaux@manumasure.fr

Toulouse
Z.I de Thibaud
31, avenue J-F. Champollion
31100 TOULOUSE
Tél. : 05 61 09 77 47
Fax : 05 61 74 85 73
ct.toulouse@manumasure.fr

Marseille
Z.A Verdière 1
3, rue André-Marie Ampère
13880 VELAUX
Tél. : 04 42 75 36 66
Fax : 04 42 07 54 06
ct.marseille@manumasure.fr

SOUTH-EAST

Annecey
6, avenue du Pré de Challes
Parc des Glaisins
74940 ANNECY LE VIEUX
CEDEX
Tél. : 04 50 64 22 45
Fax : 04 50 64 22 90
ct.annecey@manumasure.fr

Grenoble
Les Jardins d'Entreprise
de l'Alliance
80, rue des Alliés
38100 GRENOBLE
Tél. : 04 76 22 50 17
Fax : 04 76 33 09 11
ct.grenoble@manumasure.fr

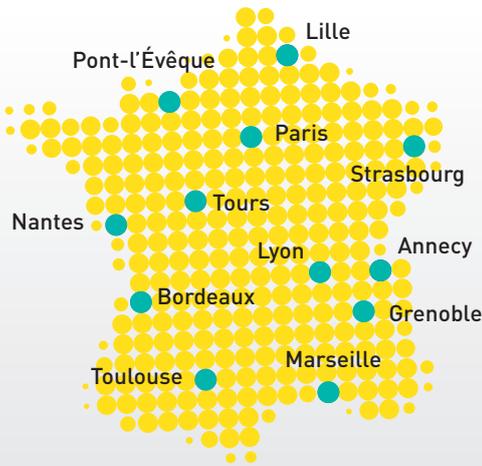
Lyon
8, avenue du Dr. Schweitzer
Z.I. de Meyzieu
69330 MEYZIEU
Tél. : 04 37 45 05 68
Fax : 04 72 04 05 85
ct.lyon@manumasure.fr

WEST

Nantes
49, rue Leinster
44240 LA CHAPELLE SUR ERDRE
Tél. : 02 40 75 45 22
Fax : 02 40 75 46 57
ct.nantes@manumasure.fr

Tours
6, rue du Pont de l'Arche
Z.A. les Granges Galand
37550 SAINT AVERTIN
Tél. : 02 47 27 20 15
Fax : 02 47 27 83 99
ct.tours@manumasure.fr

Pont-l'Évêque
Reux
14130 PONT L'EVEQUE
Tél. : 02 31 64 51 55
Fax : 02 31 64 51 72
ct.reux@manumasure.fr



INDUSTRY MARKET
industrie@manumasure.fr

ENVIRONMENT MARKET
environnement@manumasure.fr

HEALTH MARKET
sante@manumasure.fr

Contact us:
info@manumasure.com

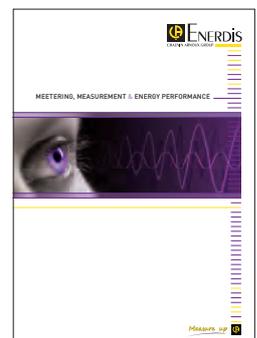
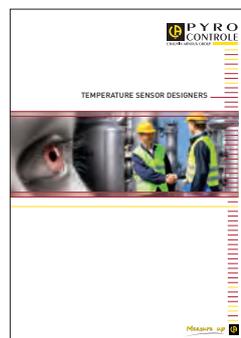
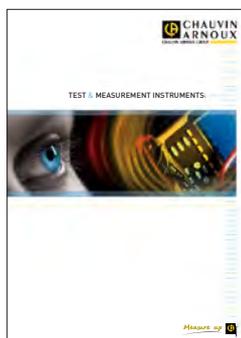
Find out more about MANUMESURE at www.manumasure.com



All Manumasure's sites are certified ISO 9001 for quality management, and ISO 14001 for environmental impact control.

Intertek

All our measurements have guaranteed traceability through reference standards linked to the SI international system.



Check out the other companies expertise

