

ENERGY IS OUR JOB



# Transmission Networks

## Engineering and protecting your O/H line networks



***Dervaux Sa***

SICAME GROUP

HV - UHV



## DERVAUX SA, your Expert in HV & UHV line hardware



### *Founded in 1828,*

DERVAUX SA is based in Le Chambon Feugerolles near St Etienne (France), in premises of 15.000 sqm where it designs, develops and manufactures a complete range of accessories for HV & UHV TRANSMISSION networks :

- Hardware and tools for HV & UHV lines.
- Damping devices.
- Day and night aircraft warning devices.
- Hardware for optical groundwires (OPGW).
- Hardware for HV & UHV substations.
- Hardware for MV O/H lines.
- Specific HV & UHV hardware for live line maintenance.

*DERVAUX SA has forged a strong position in the transmission line sector in both domestic and export markets by focusing on quality and service.*

Transmission products are complemented by ranges of compression tools designed and manufactured by group subsidiaries.



### *DERVAUX SA participates,*

around the world, in major construction and refurbishment projects of HV O/H lines and substations, offering specific solutions to the new needs of the grid operators. DERSAUX SA line hardware is specifically designed to perform hot line maintenance (hot sticks or bare hand).



## Comprehensive quality system

**DERVAUX SA's quality system fully complies with ISO 9001 and ISO 14001 standards.**

Customer satisfaction is key at DERVAUX SA, our quality system is rigorously and continuously monitored. It takes great care of ensuring the correct application throughout the complete supply chain.

Each product is thoroughly tested and controlled in our laboratory using test resources adapted to the specific nature of each test.

Alongside this, DERVAUX SA has achieved the ISO 14001 certification for environmental management of its processes.



## Our main way for the future

**DERVAUX SA's research and development team focus on designing innovative solutions with the aim to always satisfy customer needs.**

These include:

- Vibration studies on specific networks.
- Corona effects on line and substation hardware.
- High temperature low sag cable hardware (HTLS).
- Fiber optical telecom hardware on HV and UHV lines.

DERVAUX SA provides customized studies, also on fields, worldwide, and designs qualified hardware for all types of voltage, lines and environments.



**DERVAUX SA is a subsidiary of the SICAME GROUP.**

The SICAME GROUP develops, produces and sells line hardware, connectors, compression tools, safety and live line tools for Distribution and Transmission markets.

The SICAME GROUP's offer for Transmission also includes compression tools by CEGERS TOOLS, safety and live line tools by CATU and LIAT, substation connectors by SBI CONNECTORS and line hardware by SALVI.

Established in more than 24 countries, and with its 45 subsidiaries, it is the biggest independent entity of its sector over the five continents.

The SICAME GROUP has a portfolio of over 20,000 products approved at electrical energy and telecommunications utilities, in addition supplying automotive, aerospace and railway companies.



Learn more about the group :  
[www.sicame.com](http://www.sicame.com)

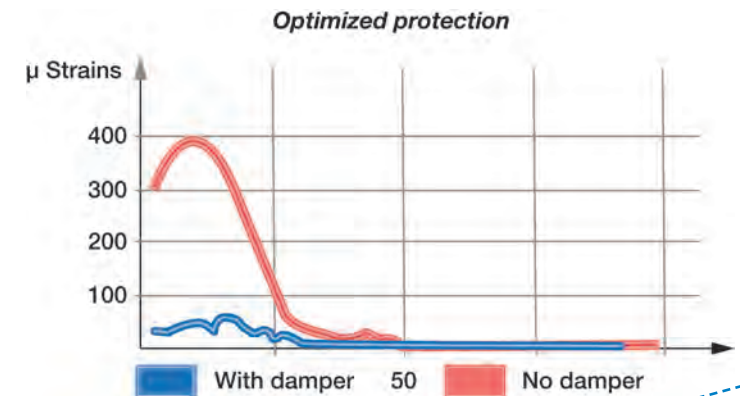
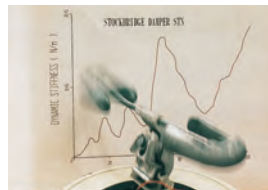


*“DERVAUX SA’s engineering team has an internationally renowned expertise in customized studies offering solutions for all clients’ technical constraints : mechanical, electrical, vibrations ...”*

## Protection from vibrations

Effective control of wind-induced motions (aeolian vibrations, sub-span oscillations, and galloping) of single and bundled conductors, earthwires and OPGW cables for HV & EHV OHTL enabled by state of the art fittings : Stockbridge dampers, spacers and spacer dampers.

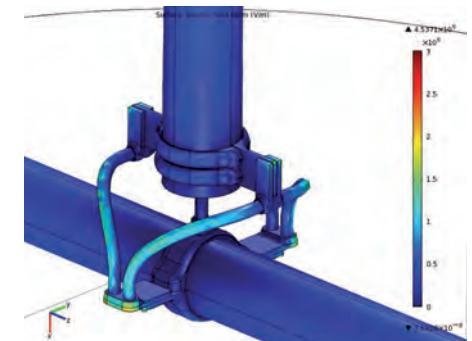
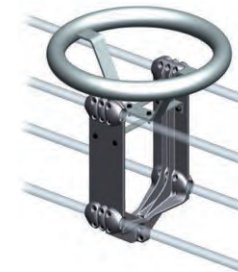
- R&D capabilities include product design, analytical damping studies, laboratory testing and field testing per industry standards and customer specifications.
- Collaboration with a network of expertise (Universities, external laboratories), active participation in international technical and standardization committees (CIGRE, IEC).



## Electrical phenomena control

DERVAUX SA designs cost effective, efficient and easy to install insulator sets, fittings and connectors for HV & EHV OHTL and substations providing :

- Effective protection from corona / radio interference (RIV) phenomena.
- Effective compliance with insulation coordination requirements (switching & lightning impulses, power frequency withstand).
- Effective protection from short circuit currents and power arcs DERVAUX SA R&D capabilities include product design and testing in collaboration with external laboratories, and introducing new technologies such as numerical simulation of electric and electromagnetic fields.



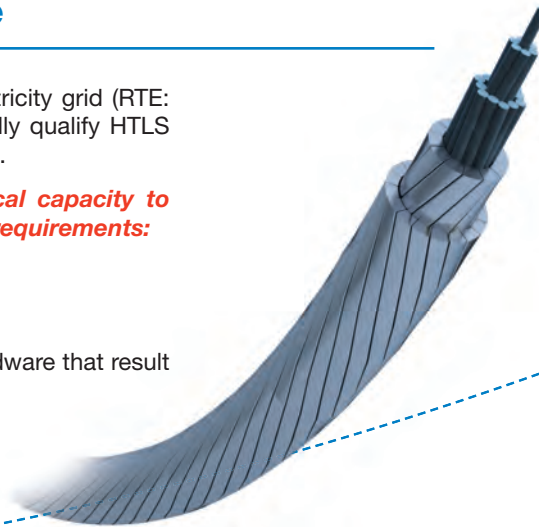
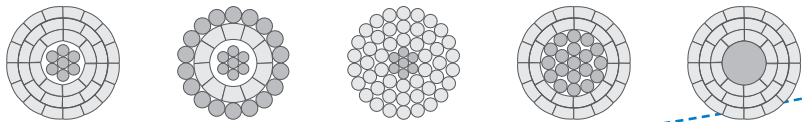
## High temperature low sag cable line hardware

Since 2001, DERVAUX SA has been working closely with the French electricity grid (RTE: Réseaux de Transport d'Electricité) and other major Utilities, to successfully qualify HTLS conductor sets and accessories from 237mm<sup>2</sup> to 1317mm<sup>2</sup> size conductors.

**DERVAUX SA has confirmed for many years now, its strong technical capacity to design line hardware suitable to the HTLS conductors characteristics requirements:**

- Maximum operating temperature (up to 250°C).
- Fully annealed aluminium for conductor strands.
- Gauges according to the required outputs.

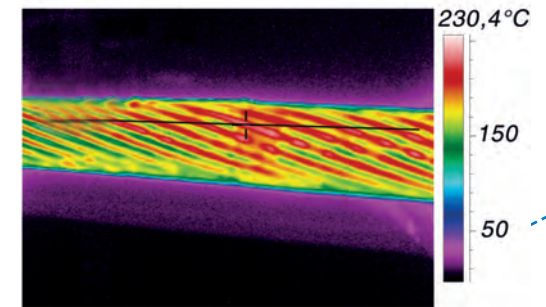
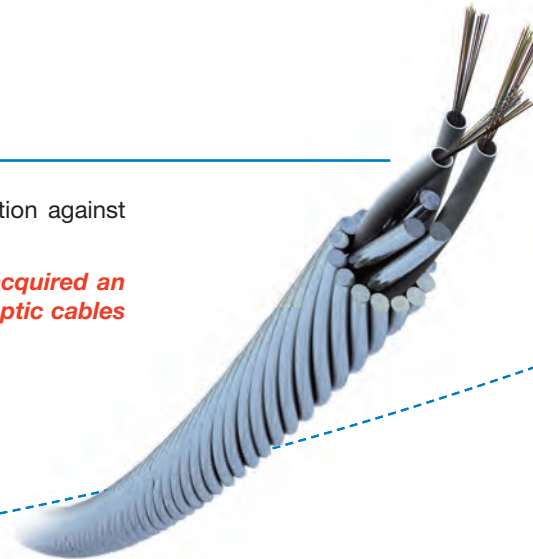
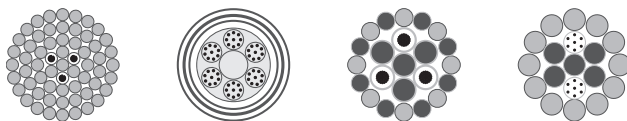
These specific characteristics require the study and qualification of line hardware that result in safe, durable installations, whether new or existing lines.



## Fiber optic cable line hardware

OPGW, OPPC, ADSS and WRAP fiber optic cables need an optimum protection against mechanical strains, abrasion and aeolian vibrations.

Since 1993, thanks to a fully equipped testing laboratory **DERVAUX SA has acquired an expertise to develop specific accessories enabling a safe service of fiber optic cables installed on overhead transmission lines.**

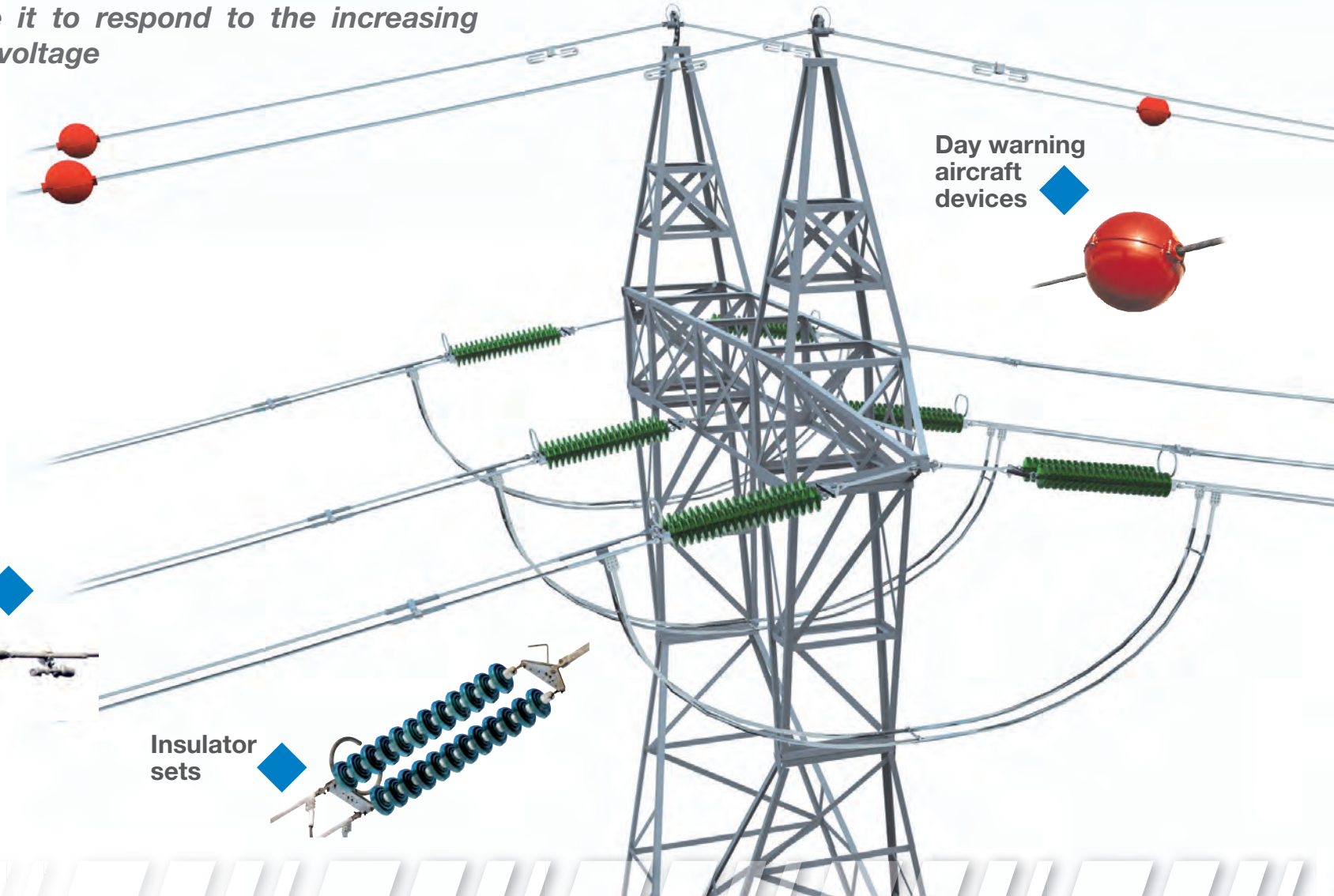




## Complete range of conductor fittings and aeolian vibration protection

*DERVAUX SA's comprehensive product offering and great technical expertise enable it to respond to the increasing demand of extremely high voltage transport infrastructures.*

Hot lines tools manufactured by DERVAUX SA, CATU and LIAT.



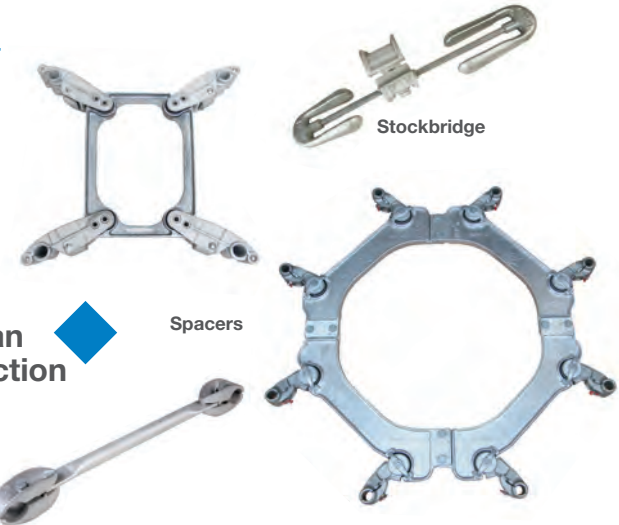
Day warning aircraft devices

Fiber optic fittings

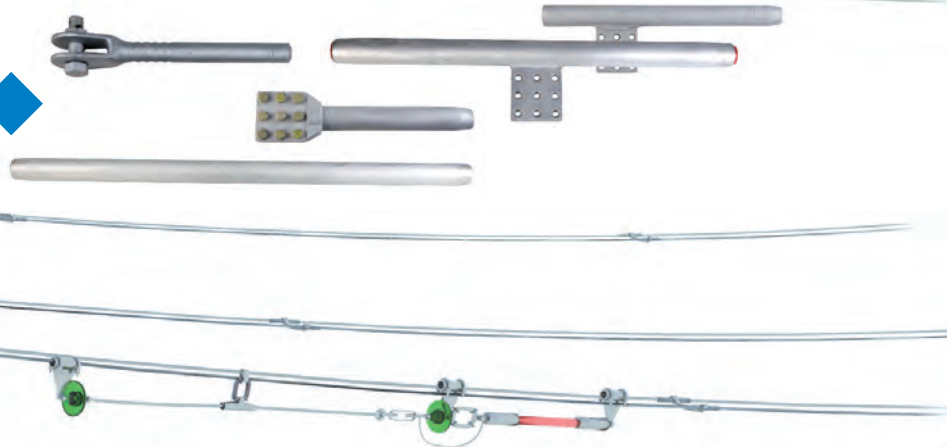
Insulator sets

## Complete range of conductor fittings and aeolian vibration protection

*With its well known product brand SAAE, DERVAUX SA offers a complete range for all types of voltage, lines and environments.*



Dead ends,  
mid span joints



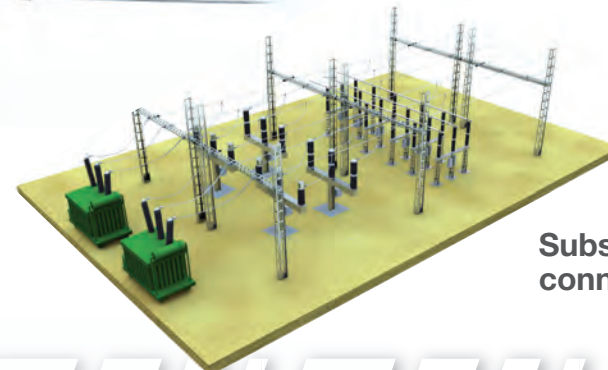
Galvanized/stainless  
steel line hardware



Suspension  
clamps



Hydraulic crimping  
and cable preparation  
tools specifically  
designed for all types  
of lines, by CEGERS  
TOOLS.

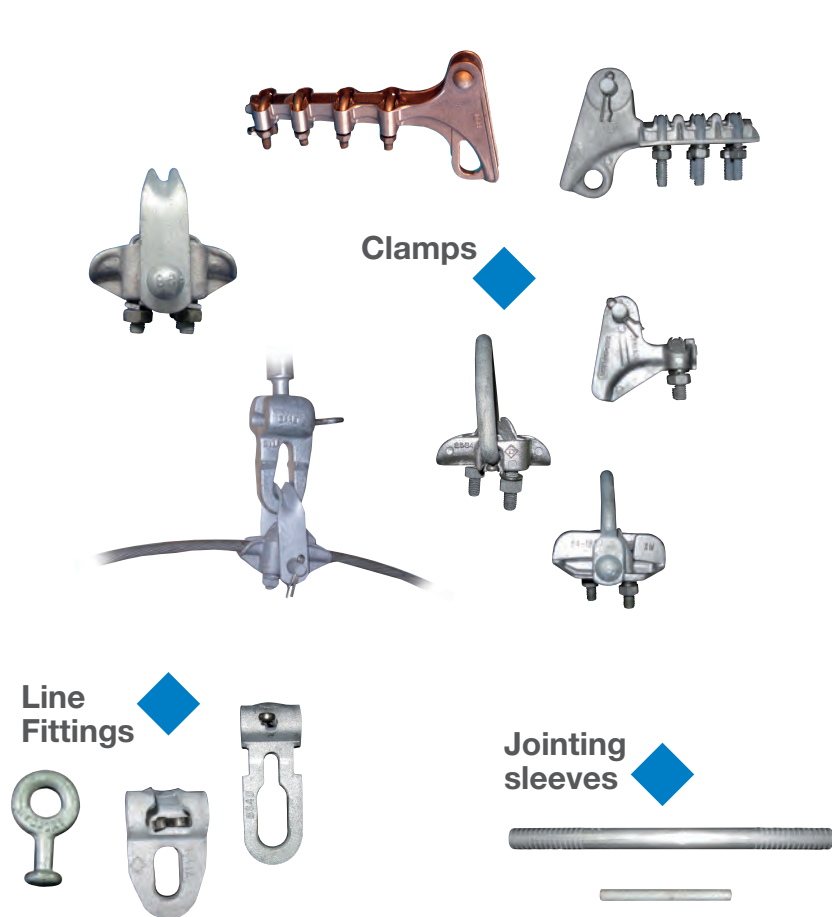


Substation  
connectors



## Line hardware for MV Bare and Telecom Overhead Lines

*DERVAUX SA also designs and manufactures hardware for the MV and Telecom O/H bare line networks: all types of arms, insulators, suspension and anchoring assemblies, jointing sleeves, helical fittings ...*

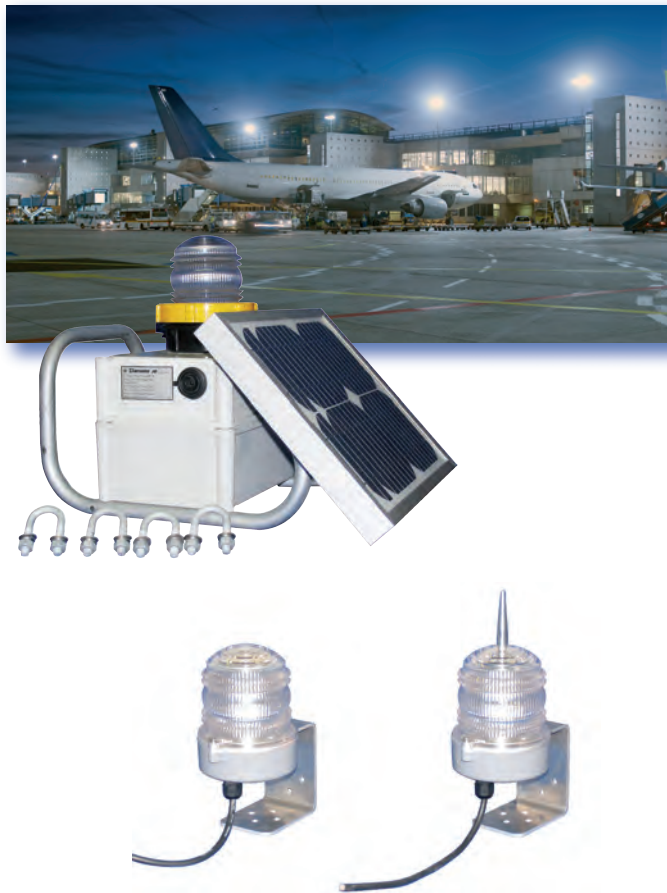




## Applications for warning devices

### Low intensity

All beacons certified corresponding to the ICAO regulations by the STAC. Equipment for airports, cranes, mast of measurements, telecoms pylons, ...



### Medium and High intensity

All lights certified corresponding to the ICAO regulations by the STAC, xenon and LED's type. Equipment well suited for wind turbines, poles, and high mast of measurements.



### Lines warning devices

Day markers (spheres) and night markers (warning lights) certified in accordance with ICAO regulations. Equipment for high voltage lines in the neighbourhood of airports.



**DERVAUX SA also designs and manufactures bird protection diverters.**



## Industrial excellence relying on two complementary performing French and Tunisian sites

*DERVAUX SA is fully integrated with recognized know-how in forging, helical products, aluminium die-casting, machining solutions, robotized spinning type hot dip galvanization facilities.*

CNC Machines



Spining type hot dip galvanization



Forging



Foundry





# SICAME GROUP Companies through out the world

## Transmission of energy is our job

*Long experience recognized by multiple customers, worldwide*



Customer reference list available upon request, more than 50 countries.





***Dervaux sa*** SICAME GROUP

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