



[www.dehondt-lin.com](http://www.dehondt-lin.com)  
[www.flaxtechnic.com](http://www.flaxtechnic.com)

With a wealth of expertise in natural fibres and especially in flax fibre, Groupe DEHONDT® launches an innovative range of composite reinforcements: FLAX TECHNIC®. FLAX TECHNIC® exploits the intrinsic mechanical properties of long flax fibres and fills a slot in the market next to glass and carbon reinforcements, opening prospects along the path toward eco-composites.

Groupe DEHONDT® is present at all stages of the technological transformation of raw materials for the flax industry:

- Design, manufacture and marketing of materials and industrial equipment
- Marketing of flax fibre reinforcements and semi-products

FLAX TECHNIC® includes 3 types of reinforcements: NATTEX®, TWINFLAX®, LINTEX®, which are processed according to their application: automobile, aeronautics, rail, marine, sport & leisure, construction, etc.

- Winner of the "Sports & Leisure" JEC Innovation Award 2013.
- Winner of Agrobiobase Award 2013.

**Groupe DEHONDT - 95 rue Denis Papin – 76330 ND GRAVENCHON - FRANCE**

contact : [developpement@dehondt-lin.com](mailto:developpement@dehondt-lin.com) tel +33 (0)2 35 315 780



[www.arkema.com](http://www.arkema.com)

First French Chemical Company, world class chemical group, ARKEMA combines 3 business segments: Vinyl Products, Industrial Chemicals and Performance Products.

Present in more than 40 countries with 15 000 co-workers, ARKEMA has a € 5.6 billion turnover. With its 6 research centres in France, the United States and Japan, along with internationally known brands, ARKEMA occupies leading position in its main markets.

**ARKEMA CERDATO – 27470 SERQUIGNY - FRANCE**

contact : [marc.audenaert@arkema.com](mailto:marc.audenaert@arkema.com) tel +33 (0)2 32 46 65 00



[www.clextral.com](http://www.clextral.com)

The equipment manufacturer CLEXTRAL, a Division of LEGRIS INDUSTRIES Group, supplies turnkey processing solutions, relative to twin screw extrusion and drying technologies, in areas such as Chemistry-Plasturgy, Food and Feed industries, and Paper Pulp industry.

CLEXTRAL has two Research centres (in France and in the United States), and is present all over the world thanks to its subsidiaries and offices in the United States, Chile, Algeria, Morocco, Denmark, Russia, China, Vietnam and Australia.

**1 rue du colonel Riez - 42700 FIRMINY - FRANCE**

contact : [clxsales@clextral.com](mailto:clxsales@clextral.com) tel +33 (0)4 77 40 31 31



[www.dedienne.com](http://www.dedienne.com)

DEDIENNE MULTIPLASTURGY® Group is specialized in the manufacturing of components and assemblies in technical and composite plastics from prototype to small and large production runs.

It is structured around 5 axis of expertise along with its knowledge of high performance polymer materials and composites.

**ZAC les Champs Chouette N°2 - 1, rue des Houssières -27600 SAINT AUBIN sur GAILLON - FRANCE**

contact : [pj.leduc@dedienne.com](mailto:pj.leduc@dedienne.com) tel +33 (0) 232 223 838



[www.terredelin.com](http://www.terredelin.com)

TERRE DE LIN is an agricultural cooperative, active in all areas of flax production, and is the main european flax fibres producer.

Its activities are: creation of fibre varieties using a genetics laboratory, extraction and preparation processes, the qualification of fibres, and finally the international commercialization.

It has 5 industrial sites located in Normandy. It is a fully "AgriConfiance" certified.

**605 route de la Vallée - 76740 SAINT PIERRE LE VIGER - FRANCE**

contact : [jean-paul.trouve@terredelin.com](mailto:jean-paul.trouve@terredelin.com) tel +33 (0)2 35 97 41 33



[www.coriolis-composites.com](http://www.coriolis-composites.com)

Coriolis Composites developed innovative fiber placement systems mounted on standard automobile robots: placement head, creel and accessories, simulation software and programming CADFiber and CATFiber. These systems lay automatically thermoset, thermoplastic or dry fibers of width 1/8 "-1/4" or 1/2". For these systems, Coriolis Composites has developed — and patented - specific technology of fiber guidance from the creel to the fiber placement head. This guidance is done through specific materials pipes in which the fibers, under low strain, are mediated. To do this, a mechanical tension reducer called Multiwinch was developed. This configuration reduces the mass for better accuracy and permits a more compact head to work on with complex shape molds.

**CORIOLIS COMPOSITES SAS - ZA du Mourillon, rue Condorcet, 56530 QUEVEN - FRANCE**

contact : [contact@coriolis-composites.com](mailto:contact@coriolis-composites.com)

tel +33 (0)2 97 59 94 98



[www.fibroline.fr](http://www.fibroline.fr)

Fibroline is an engineering company, located near Lyon, specialized in powder impregnation and scattering technologies. Fibroline developed and patented a technology (D-Preg) allowing to distribute a powder form material into a porous structure (textile, foam, paper...), thanks to an alternating electrical field. This technology is an ecological alternative to conventional water or solvent based impregnation methods.

A pilot line has been installed in Ecully, near Lyon, for product development as well as sampling.

Fibroline is marketing its technology in the frame of licence agreements for several markets such as composite materials or technical textiles.

**FIBROLINE France SARL - IFTH-Avenue Guy de Collongue - 69134 ECULLY Cedex – FRANCE**

contact : [contact@fibroline.com](mailto:contact@fibroline.com)

tel +33 (0)4 72 86 16 93



[www.karver-systems.com](http://www.karver-systems.com)

KARVER is specialized in the conception and realization of lashings blocks, furlers, jaws handle, cam cleats and custom-made chandlery for sailboats of 6 in 60m.

Each year, Karver invests 20% of its sales income in Research & Development.

The R&D department is the core of KARVER and is equipped with the most powerful C.A.O and R.D.M. software. The biggest strength is the reactivity, the sailboat racing experience. The solutions are directly developed with the skipper and their team, this ensures highly innovative products developed within a short period of time. Since 2008, KARVER have been committed towards sustainable development. Over the years, KARVER have initiated several projects to understand and act upon our ecological impact.

**KARVER - ZI portuaire, Avenue Marcel Liabastre - 14600 HONFLEUR - FRANCE**

contact : [contact@karver-systems.com](mailto:contact@karver-systems.com)

tel +33 (0)2 31 88 37 98



[www.lemondedelapierre.fr](http://www.lemondedelapierre.fr)

Le Monde de la Pierre (The World of Stone) is a specialist in the custom cutting and marketing of all types of materials, including natural stone. The company's experience spans the whole range of processes from the raw material through to the installation of the final product.

The company is always looking for new creative projects. It recently led and innovative collaborative project that won one of regional innovation agency Seinari's 2013 innovation Awards, with Pierre de Lin®. The objective of Pierre de Lin® is to make stone lighter and then strengthen it to compensate for the resulting fragility with natural reinforcement materials ie flax technic fabrics.

**Le Monde de la Pierre – 37 Rue René Coty – 75133 ROLLEVILLE - FRANCE**

contact : [contact@lemondedelapierre.fr](mailto:contact@lemondedelapierre.fr)

tel +33 (0)2 35 26 04 57



[www.polytechs.fr](http://www.polytechs.fr)

Polytechs is an independent company whose main activity is the toll compounding of compounds, masterbatches and compacted additive blends for producers of polymers and converters. In addition to this specific activity, Polytechs also produces and markets a wide range of additive master-batches.

With 30 years of experience, Polytechs is now a leader in the industry, known most widely for the flexibility of its production tool as well as the quality of the products and service it offers.

With a production capacity of 35,000 tons per year, our products are sold worldwide.

**POLYTECHS SAS - Z.I. de la Gare - 76450 CANY BARVILLE - FRANCE**

contact : [commercial@polytechs.fr](mailto:commercial@polytechs.fr)

tel +33 (0)2 35 57 81 81



## MAGNA STEYR

[www.magnasteyr.com](http://www.magnasteyr.com)

Magna Steyr is a leading player in engineering in the automotive sector, its main contractors are the French car and the big equipment manufacturers.

Project	Architecture	Body parts	Equipment	Calculation
<ul style="list-style-type: none"> <li>▪ Development process</li> <li>▪ Project quality</li> <li>▪ Capitalization</li> <li>▪ Magna Steyr knowhow Integration</li> </ul>	<ul style="list-style-type: none"> <li>▪ Body in white</li> <li>▪ Interior</li> <li>▪ Engine bay</li> <li>▪ Chassis system</li> <li>▪ Mechanical components</li> </ul>	<ul style="list-style-type: none"> <li>▪ Structure</li> <li>▪ Closure systems</li> </ul>	<ul style="list-style-type: none"> <li>▪ Interior</li> <li>▪ Exterior</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mesh / reassembly</li> <li>▪ Static / Fatigue</li> <li>▪ Acoustic vibratory</li> <li>▪ Crash investigations</li> <li>▪ Thermal</li> </ul>
TRANSVERSAL TRADES				
<ul style="list-style-type: none"> <li>▪ IAO / PDM</li> <li>▪ Style</li> <li>▪ Electricity &amp; Electronics</li> </ul>		<ul style="list-style-type: none"> <li>▪ Tests management</li> <li>▪ Suppliers management</li> <li>▪ Quality</li> </ul>		<ul style="list-style-type: none"> <li>▪ Prototype management</li> <li>▪ Industrial process</li> </ul>

**MSFR SAS - Burospace - Bâtiment 15 - Plaine de Gisy - 91570 BIEVRES - FRANCE** contact :  
[emile.soba@magnasteyr.com](mailto:emile.soba@magnasteyr.com) tel +33 (0)1 69 35 33 33



[www.saertex.fr](http://www.saertex.fr)

SAERTEX is a global market leader in the development and production of multiaxial Non-Crimp-Fabrics made of glass, carbon, aramid and other fibres. Established on 4 continents the SAERTEX Group is well placed to meet the world wide rising demand for high-tech reinforcing fabrics. Products are mainly used in wind energy, automotive industry, marine, aircraft applications, sports and leisure where SAERTEX textile know-how helps to reach market expectation on current and upcoming manufacturing processes.

**SAERTEX France - 2 parc lot ZA Arandon - 38510 ARANDON - FRANCE**

contact : [t.klethi@saertex.com](mailto:t.klethi@saertex.com)

tel +33 (0)4 74 80 44 92



[www.schappe.com](http://www.schappe.com)

SCHAPPE TECHNIQUES is producing technical yarns filling the requirements of various technical applications and among them, thermoplastic composite materials.

For that market, Schappe Techniques has developed thermoplastic comingled yarns by intimately blending reinforcement fibers (carbon, glass, aramid, linen) and matrix fibers (Pa, PP, PPS, PEI, PEEK). These materials are branded under the name TPFL® as yarns and textiles (fabrics, braids, multiaxials) and can be processed by well-known thermoplastics moulding technologies by composite parts manufacturers.

**SCHAPPE TECHNIQUES - Parc Industriel Plaine de l'Ain - Allée des Erables - 01150 BLYES - FRANCE**

tel +33 (0)4 74 46 31 00



**ZODIAC CABIN INTERIORS EUROPE**  
[www.zodiacaerospace.com](http://www.zodiacaerospace.com)

The Cabin Interiors segment deals with two major fields: designing onboard equipment and interior fitting for civil aircraft cabins.

- The Cabin Equipment division is specialized mainly in the comfort and hygiene of life on board aircraft. They make fitted cabin equipment – water and waste management and galley elements.
- The Cabin System division has become a leader in aircraft cabin fitting largely through the turn-key solutions they provide to aircraft manufacturers, being able to provide complete « Floor-to-Floor » solutions.

Through its Cabin Interiors branch, the Group has become a genuine cabin fitting specialist, with recognized skills in design, manufacture and fitting of a huge range of components, equipment and systems.

**ZODIAC CABIN INTERIORS EUROPE - 12, Avenue Jean Mermoz - 31770 COLOMIERS - FRANCE**

contact : [Sebastien.Sivignon@zodiacaerospace.com](mailto:Sebastien.Sivignon@zodiacaerospace.com)

tel +33 (0)5.61.15. 3641

[Antoine.Martin@zodiacaerospace.com](mailto:Antoine.Martin@zodiacaerospace.com)



Innover en mécanique

[www.cetim.fr](http://www.cetim.fr)

As the leading French player in the fields of mechanical engineering innovation and R&D, Cetim has built up a wide network of partners. Its engineers and technicians operate in more than 30 countries each year.

R&D function is carried out either within specific sectors or cutting across sector boundaries, and within either a national or an international context. It embraces a range of complementary aspects, including prospective studies in conjunction with international scientific communities, R&D concerning all areas of mechanical engineering, industry-specific studies and projects, and the large-scale federative technological projects.

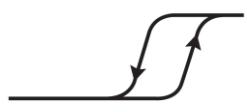
Cetim provides a comprehensive array of services to the mechanical engineering industry from consulting to testing and from engineering to training in new skills.

Cetim is a member of the Carnot institutes network

**Technocampus EMC2 Cetim - Bât A2 ZI du Chaffault - Allée du Chaffault - 44340 BOUGUENAIS - FRANCE**

contact : [alain.lemascon@cetim](mailto:alain.lemascon@cetim)

tel +33 (0)2 28 44 34 56



**Tangent'delta**

[www.tgdelta.com](http://www.tgdelta.com)

Tangent'delta is your expert partner in acoustics, vibration and heat transfer. Our mission is to help you in your innovative projects, in the development stages of your products, to understand and control multi-domain phenomena. We use efficient and suitable measurement and simulation equipments. The reactivity of a human-size company to serve your ambitions.

**Technopôle du Madrillet - 50 rue Ettore Bugatti - 76800 Saint Etienne du Rouvray – FRANCE**

contact : [contact@tgdelta.com](mailto:contact@tgdelta.com)

tel +33 (0)2 35 65 78 32 / +33 6 64 11 82 44



<http://lgcie-bohr.univ-lyon1.fr>

The aim of Laboratory LGCIE is to combine researches in Civil Engineering, Chemical and Process Engineering to improve the knowledge of environmental issues in the development and management of construction. The scientific activity of LGCIE site BOHR focuses on the study of MATERIALS and COMPOSITE STRUCTURES, especially on experimental analysis and civil engineering structure behavior modeling (reinforced concrete, pre-stressed concrete, wood, metal) reinforced by composite materials. The originality of the approach is to consider the interaction between material and structure with regards of process problem. The aim is to develop an interactive research between engineering and innovation to ensure the development of new materials providing greater reliability and sustainability of infrastructure and also to upgrade existing structures to sustain the heritage and improved end users safety conditions.

**LGCIE - Site BOHR - Université Lyon 1 - 82 boulevard Niels BOHR**

**Domaine scientifique de la DOUA - 69622 VILLEURBANNE Cedex - FRANCE**

contact : [emmanuel.ferrier@univ-lyon1.fr](mailto:emmanuel.ferrier@univ-lyon1.fr)



[www.mines-douai.fr](http://www.mines-douai.fr)

Attached to the Ministry of Industry and, member of Carnot MINES Institute, the Ecole des Mines de Douai (EMD) is a top-level engineering college and, together with the ARMINES contract research organization, a research centre (basic and applied research in collaboration with industry).

With a staff of 70 people, the Polymers and Composites Technology & Mechanical Engineering (TPCIM) Department of the ARMINES/Ecole des Mines de Douai joint research center provides a multidisciplinary expertise in materials science, plastics/composites formulation and processing/moulding technologies and prediction of usage properties for different applications fields (transportation, packaging, biomedical ...). Its facilities include a unique plastics/composites processing platform (over 7500 m<sup>2</sup>) with dedicated equipments to characterize the end-use properties of manufactured plastics and composite products and a multi-physics computing cluster (multi-scale and multi-physics modeling and numerical simulation codes in rheology, mechanics among others).

**Ecole des Mines de Douai - 941 rue Charles Bourseul – BP 10838 – 59508 DOUAI - FRANCE**

contact : [dominique.remy@mines-douai.fr](mailto:dominique.remy@mines-douai.fr)

tel +33 (0)3 27 71 23 18

Ecole des Mines de Paris





<http://iut-alencon.unicaen.fr/>

IUT Alençon, part of the University of Caen Basse-Normandie, trains high-level technicians in many fields. The Mechanical Engineering professional degree (specializing in composite materials and plastics), in IUT Alençon imparts skills in the following areas:

- Materials (plastics and composites)
- Design and production of parts (plastics and composites)
- Design and manufacture of tools (plastics and composites).

This training can also be combined with work placement. Continuous training modules can also be provided in these same fields.

The IUT's equipment:

- Composite processing workshop
- Characterization facilities
- Prototype development facilities
- 5-axis machining facilities for tool creation
- Facilities for 3D digitizing of freeform surfaces.

IUT Alençon is a centre of academic certification approved by Dassault Systèmes.

The university technical diploma in Mechanical Engineering and Production Automation specialized in eco-design and sustainable development in IUT Alençon imparts skills in:

- Design and
- Manufacture of economically viable products that are technically feasible and environmentally friendly (determining the environmental impact throughout the life cycle of the product).

This is the only higher education training at the technology degree level offering this course.

IUT Alençon hosts a research team from CIMAP: PM2E Properties of Materials for Energy Savings (Ions, Materials and Photonics Research Centre). Within the context of composite materials, its objective is to develop new reinforcement materials for structural composites integrating new functions and properties: bio-sourced materials, weight savings for reinforcements, improved mechanical strength and with mechanical and acoustic damping.

**contact : [iut.alencon@unicaen.fr](mailto:iut.alencon@unicaen.fr)**

## Associate members - Public fundings

