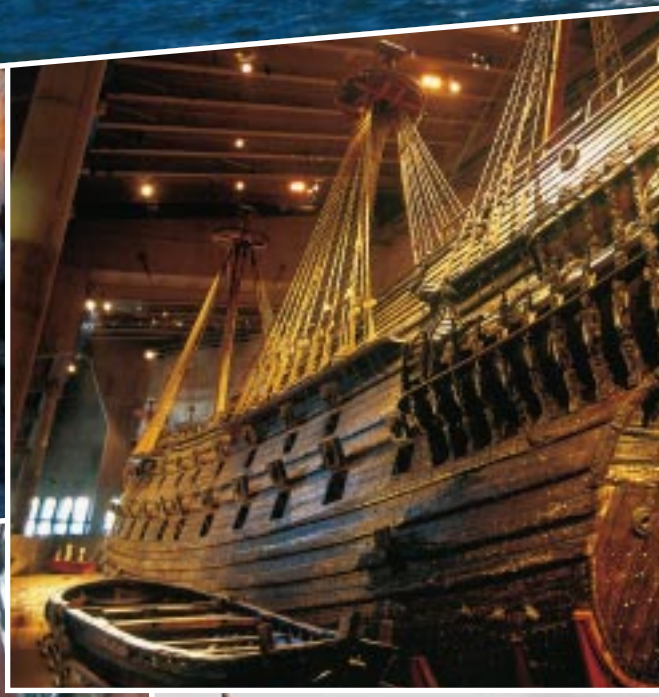
MAY 98

LS news



The CE mark, - market protection or a valid tool for competing businesses?

Over the last few years, industrial companies have made substantial efforts to standardise in order to be able to apply the famous CE mark. It first appeared in 1987, and since then has continued to acquire an ever greater importance. Today many manufacturers are asking about the real impact of this work. In order to make a first assessment of the situation we met Alain LIBEROS, regulatory aspects coordinator of the "Quality, Certification and Conformity Marks Policy Unit" of the General Industry Directorate-General of the European Commission.

Redistribute responsibilities

In 1985 the European Commission adopted a "new approach" with regard to European harmonisation. The idea was to redistribute responsibilities between the public authorities and the commercial players. Since the early Eighties, many member states have wanted to gradually integrate the various quality tools (standardisation, certification and approvals) developed by the private sector into their national regulations.

Editor :
Patrick Lesueur
Leroy Somer
Bld Marcellin Leroy, 1
F-16015 Angoulême

Coordination and Page setting :
Corporate Communication

Editorial Committee :
R. Barondeau, A. Galloway, P. Hellstrand, J. Laureys, P. Lesueur, M. Oosterlynck, O. Powis, A. Rostain, G. T. Sørensen, V. Viccaro.

Cover: Stockholm.
Photos : S. Colbing/Skärgårdsfotografen, C. Lundin, R. Ryan, J. Halaska.

On the basis of this "new approach" the Commission limited itself to setting the essential requirements of a public order nature (health, safety, consumer protection, etc) and mandated the European standards organisations (CEN, CENELEC and ETSI) to convert these rules into common standards applicable throughout Europe.

In 1989 the "general approach" was to complete this orientation by specifying European policy on the evaluation of conformity. The manufacturers, test laboratories and certification bodies became responsible for the application of evaluation procedures instead of the national public authorities. The "general approach" clearly required the control of products by the manufacturers before being put on the markets rather than market regulation by the public authorities".

The standardisation aspect was set in 1985, and the evaluation aspect in 1989, but it was not until 1993 that the rules for affixing and using the CE mark were unequivocally set. Before 1993 there were as many CE marks as there were directives.

The CE mark

From the beginning the CE mark has primarily been intended for the market regulatory authorities. It represents the material realisation of community regulations on product conformity. As the "new approach" directives gradually come into force, (there are 20 today, 16 of which are applicable), the CE mark is gaining an increasingly specific content for the various target groups concerned: manufacturers, distributors, consumers.

In its "internal market action plan" of 1997, the Commission set two priorities: clarify the problem of the proliferation of marks and implement a community wide market regulation system.

Originally viewed as a constraint by companies, it rapidly proved to be a mark of product quality. By changing attitudes within companies it became a real competitive tool. The Commission had to take this change into consideration. In its "internal market action

plan" of 1997, the Commission set two priorities: clarify the problem of the proliferation of marks and implement a community wide market regulation system.

The proliferation of marks

As a result of the rapid development of standardisation since the Eighties many European or national marks have appeared on the market. There are marks for conformity with standards that go beyond the harmonised part, i.e. beyond the regulatory area. These voluntary marks signify real added value for the company and the consumer as they provide additional information on the products concerned.

There are also a set of marks which totally or partially come within the field of application of the CE mark and are liable to create confusion. For companies, these marks can also lead to increased certification costs.

This situation should be clarified today and the first objective of the CE mark should be remembered: reducing technical barriers between different member states to ensure the free flow of products.

Market regulation

The finding is unanimous: the fear of the regulator is almost non-existent, and the penalties are not dissuasive. For member states, (i.e. those responsible for market regulation) checking the good application of CE marking by checking the declaration of conformity and accompanying file does not present any particular problem. However, when conformity measures apply to complex areas such as the directive on electromagnetic compatibility, the resources to be put in place are costly and highly specialised technicians are needed. There is also no coordination at a community level to provide such regulation, such that a product can be withdrawn from sale in one state, but not necessarily in the others. The Commission is currently seeking legislative solutions, in consultation with the member states, that could improve market regulation at a European level.

Opening the industrial markets of the EU to other countries

"The conformity evaluation system as it stands is unique in the world. We now have to consider the external dimension, concerning European countries and their international trading partners. Two important areas of work are being undertaken. Firstly, negociations are being held with countries such as the United States, Canada and Japan to obtain their acceptance of certain European bodies to test and certify with respect to American technical specifications. Secondly, work is being carried out to extend the European Union to Central and Eastern European countries and to gradually harmonise them with EU legislation." Negotiations are aimed at extending the European Union sector by sector. When a sector has the required infrastructure and level of competence, it will become a new natural market of the European Union.

LEROY SOMER AND CE MARKING

As a supplier of components that come under the Low Voltage Directive, Leroy Somer has to affix the CE mark on these products. The manufacturers themselves have to comply with the Machine Directive and Electromagnetic Compatibility Directive.

What does Leroy Somer do to help manufacturers?

1. Leroy Somer supplies manufacturers with components on which the CE mark has already been affixed. It is thus not necessary to submit a declaration of conformity with the Low Voltage Directive.

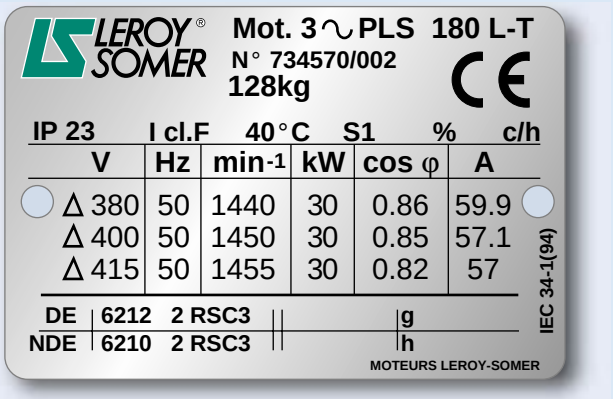
However, Leroy Somer may provide commissioning and maintenance notices as well as advice and precautions to be taken when using certain products.

2. Low Voltage Directive certification is self-certification, and it is not compulsory to provide certificates from an external laboratory. Leroy Somer provides information in its notices on the precautions to be taken so that the manufacturer's machine satisfies the requirements of the directives applicable to it. Leroy Somer also provides information on reducing harmonics and parasitic components in products that generate them. Finally, Leroy Somer has the resources for qualification in its various factories.

3. The manufacturer is required to draw up a file that explains all the precautions taken to comply with the Electromagnetic Compatibility Directive.

On the basis of the main plans of a machine Leroy Somer can specify the protection and filtering that will help in obtaining conformity with the Electromagnetic Compatibility Directive. It is however for the manufacturer to check these choices in laboratory tests. The end customer is bound to make a general evaluation of the machine in situ.

4. A brochure on CE marking is available on request.



Intamin, guaranteed to thrill...

A true world player, Intamin is one of the leaders in the manufacture and supply of specialised material for Theme Parks including the installation of public transport systems.

Since its creation in 1967, Intamin has designed, built, manufactured and installed equipment for Theme Parks, Exhibitions, Sport Stadiums and Leisure Centres world wide. Intamin has installed transport systems at a number of major garden exhibitions. Indeed, during the past 30 years, Intamin has been responsible for such installations at over 300 important locations all over the world

ROLLER COASTER. Using Orthobloc gearbox, brake motor and DC motor LSK 1804 VL 160kW

MARKETS :

Intamin designs, builds, manufacturers and supplies :

- bungie jumping towers, revolving towers from which swinging cabins are suspended, Eiffel style towers and many more.
- installations of roller coasters, looping racers, big wheels, merry-go-rounds, water rides, fountains, artificial rocks, decorations, underwater tunnels, and specialised projects for exhibitions and sports halls,
- installations of "people movers" such as cable-cars, funiculars, monorails, steam trains, sightseeing road "trains", boats and various other modes of transport.

Leroy Somer DC LSK motor

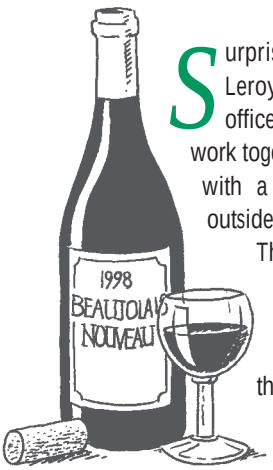
GYRO DROP. Using two DC motors
LSK 2804 CL - 450 kW

For more information contact :

INTAMIN AG
Vernastr. 37
CH-8832 WOLLERAU
Phone : 0041 1 786 91 11
Telefax : 0041 1 785 02 02
E-mail : intamin@active.ch
Compu-Serve : 106 233,1673

All work and no play!

From left to right : **Simon Dodd** - Regional Manager, **John Bayford** - Internal Sales, **Peter Clifton** - Internal Sales - **Kaushik Patel** - Accounts Supervisor, **Tom Emmett** - Distribution Manager, **Carl Webster** - Warehouseman - **Wayne Jarvis** - Warehouseman, **Fiorella Zoltowska** - Sales Administrator, **Stephanie Relph** - Credit Controller - **Keith Hedges** - Financial Director, **Valerie Baldwin** - Sales Administrator, **Debbie Webster** - Distribution Administrator



Surprisingly, the staff at Leroy Somers' UK head office in Hayes don't just work together, they also join in with a range of activities outside work.

The most popular annual event is the "Beaujolais - Quiz Night." Held on the third Thursday of each November to coincide with the arrival of the new seasons , Beaujolais Nouveau, the event is always very well attended. "The Quiz Night Cup," is awarded to the winning team and ear plugs are recommended for the quick fire rounds when the first to answer , gets the point. Competition is fierce and this year the prospect of getting the booby prize for the lowest scoring team seemed to concentrate the minds of everybody.

Another event supported for the first time this year was the national , "Jeans for Genes Day."

Employees were encouraged to wear Jeans to work for one day and asked to pay £1 for the privilege (those not wearing jeans were fined £1 for not taking part!!) A sponsored fun run was also held on the same day and most employees took part , walking, jogging or even sprinting the 3 mile course alongside the Grand Union Canal, which runs close to the Hayes facility. All funds were donated to the Great Ormond Street Children's Hospital. We hope for an even bigger turn out next year !

1998 looks set to be another excellent year for Leroy Somer UK, thanks in no small measure to the teamwork of the staff both inside and outside work.

UK INFORMATION

SUMMARY

For further information contact :

Leroy Somer Ltd
Heathrow Interchange
Bullsbrook Road
Hayes
Middlesex
UB4 0JR
leroysomer@leroysomer.co.uk
Tel: 0181 756 7000 - Fax: 0181 756 7028

Leroy Somer provides the driving force to Camber International

Camber International is a world leader in the design and manufacture of circular knitting machines. Typically, these knitting machines make continuous fine-mesh fabrics that are used to make tee-shirts, fleece garments, football shirts and other casual fashion wear.

Camber operates in a truly world-wide market, exporting to over 60 countries. Competition is fierce and the strengthening of sterling means that Camber has to work hard to reduce costs and improve the competitiveness of its products.

By using Leroy Somer's CB2000 range of geared motors, Camber International has reduced the cost of the drive unit, improved reliability and reduced maintenance costs.

Until recently Camber used DC motors to drive the knitting machines. DC motors are inherently more complex and less reliable than AC motors but they do have the advantage of being simple to control and can produce high torque at low speed.

In general, the machines require high starting torque to overcome the static friction when the machine is cold, mainly due to the viscosity of the oil. Once the oil warms, however, the running torque drops by around 60% of the starting torque.

With a DC motor therefore, a large motor would be required for starting, but it would run on low load for most of the time. Low load in a DC motor means low brush current density which can result in high brush wear. This is a significant factor in the maintenance of DC motors and a major consideration by end-users.

The simplicity of the AC motor means that not only does Camber have a lower cost motor, but because it does not use brushes, maintenance costs are reduced too. In addition, using an AC inverter means that the motor speed can be easily controlled to accommodate different yarns and mesh sizes for different fabrics.
In order to generate the required start-up torque, Camber uses an AC inverter that is able to run at 200% overload during the start-up period. By using a gearbox, the available torque is further increased and it also enables the motor to be more efficiently matched to the knitting machine.

Equally important to the new design, is the service and support that Leroy Somer provides. These, together with its experience in manufacturing and supplying world-wide are key factors in the choice of Leroy Somer. Knitting machines go all over the world and the level of technical expertise available locally to service them can vary considerably. Camber International can be confident that the driving force behind its knitting machines will not fail.

Stuart Smith, Joint Managing Director of Camber International Ltd says, " Leroy Somer's AC motors have helped us to stay competitive. Our costs are reduced, but more importantly, our customer's maintenance bills are lower, which is a great help to us.

Flexible manufacturing gives Leroy Somer a lift

Stothert & Pitt is part of the Materials Handling Group within Rolls Royce. Recently they faced a serious problem when the supplier of motors for their 40 Tonne 'Multi-Purpose Dockside Cranes' was no longer able to provide them.

These cranes offer cargo handling for general cargo, bagged goods, palletised loads, heavy lifts, bulk material and containers

Multi-Purpose Dockside Cranes represent

30% of Stothert & Pitt's turnover, so it was extremely important to find a suitable replacement.

The motors drive the 'luffing' and 'slewing' of the cranes and need to meet demanding performance characteristics. In general, crane motors provide high starting torque to turn the crane (slew) and continually cycle backwards and forwards while unloading.

Stothert & Pitt prefers to use AC slip-ring motors for their cranes as they can provide 200% starting torque and use a relatively small variable speed drive -which is important with the limited space available in a crane.

Also, in order to maintain a high work rate and bring the hoist to rest in the desired position, it is necessary to drive the slewing motor in the reverse direction while the hoist is still in motion. This 'plugging' requires a feedback signal from a tachometer on the motor to indicate its speed.

Stothert & Pitt shortlisted motor manufacturers in Italy and Germany as well as Leroy Somer, that were able to supply 25 kW to 50 kW motors with a tachometer.

Reliability and support are also key issues. Contracts frequently specify utilization rates from the crane - with penalties if these are not met. With a worldwide customer base, Stothert & Pitt need to keep them up and running.

Stothert & Pitt chose Leroy Somer's 'FLSB' range not only because they were rugged enough for the task, but also because of the reliability of the motors and the support.

Steve Wilkinson, Electrical Engineer at Stothert & Pitt says, "Controlling the slewing action puts tremendous strain on the motors. We have found that motors that have not been designed specifically for crane use can simply disintegrate. Leroy Somer's range has performed extremely well in all our tests."

Cambridge University chooses Leroy Somer

Leroy Somer is well known as one of the largest manufacturers of rotating equipment in Europe, Universities and Colleges have been keen to take advantage of the range adapted for training and provide students with industrial machines to work with.

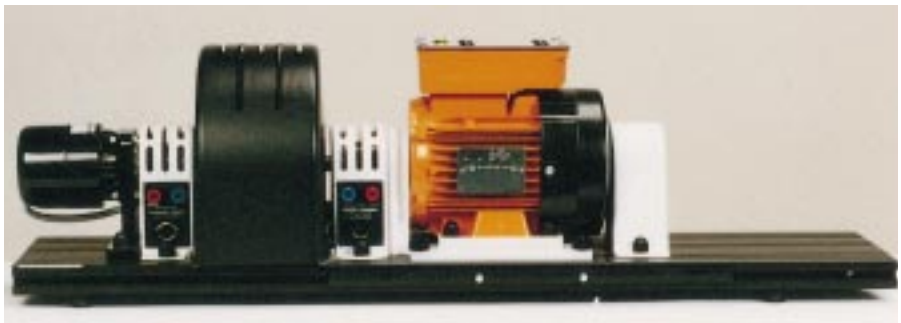
Cambridge University recognised worldwide for it's academic excellence, chose Leroy Somer equipment. Faced with alternatives of scaled down or purposed built models of the real thing, they felt that students would be given a false impression of the industrial

Cambridge University

Part of the Leroy Somer equipped laboratory at Cambridge University.

The University found that they had a full range of AC and DC machines, with load banks, measurement devices, data capture software and the latest electronic motor control equipment, from which to chose.

The control and display modules give readouts of speed, torque, current, voltage, input electrical power and output mechanical power directly measured from the machine test bed.



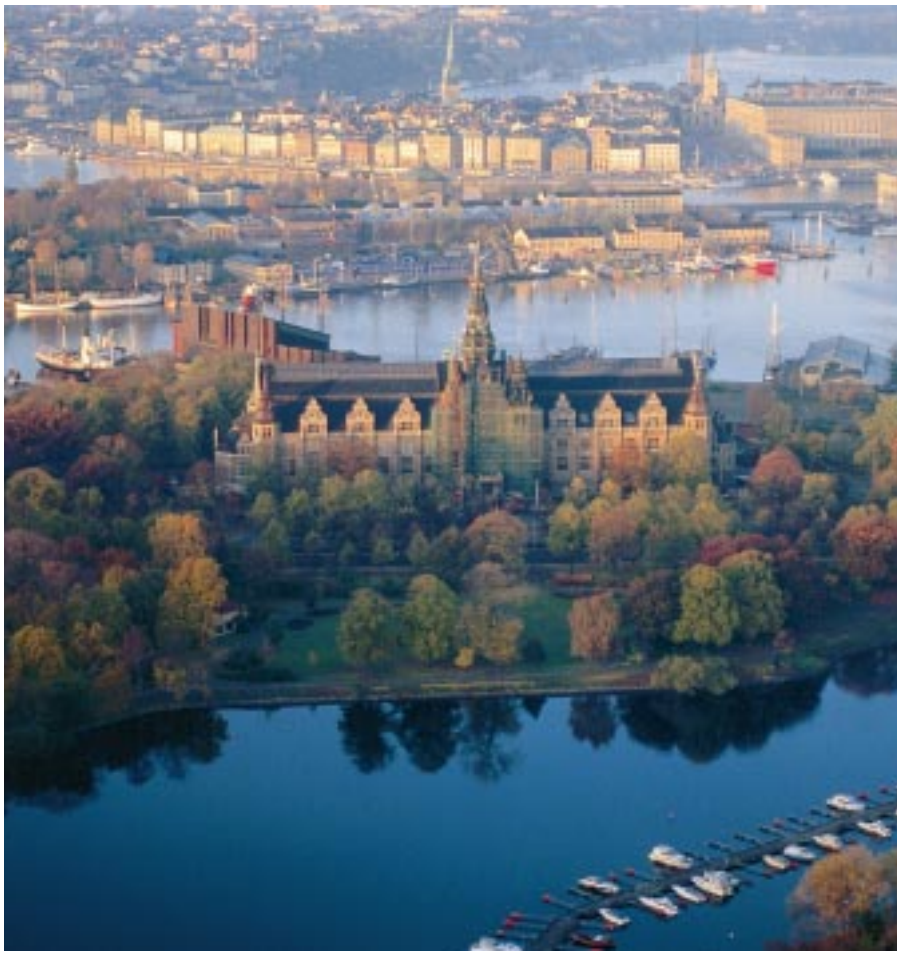
Test bench

As new products emerge from the industrial sector of our business these are immediately made available in a form which is safe and quick to use by students.

UMV Controller

Stockholm, the 1998 european capital of culture

Stockholm is impressively rich in culture. The city has no less than 70 Theatres, over 60 Museums and historic houses 1,500 artists and craftspeople. The design and decorative arts are well known all over the world for their combined practicality, style and beauty. In 1998, Stockholm, European Capital of Culture, will be host to over 1,000 events, taking place throughout the year. From them, we have focused on a lead theme : Architecture.



Photos : R. Ryan

A city on water...

"One of the most beautiful cities on earth, above all renown for its exceptional architecture". This is the opinion of the famous Spanish architect "Rafael MONEO", creator of the new Modern Art Museum in the Swedish capital. Inaugurated in February, this Moneo masterpiece is amongst the most interesting pieces of contemporary architecture. Built on a small island in the Baltic Sea, in the middle of the city, the Modern Art Museum blends harmoniously with its 18th century local environment. It successfully represents the local architectural tradition, which is inspired by water, greenery and Nordic lights.

Building next to the water is an art perfected over the last thousand years in this royal capital.

In this way, the oldest part of the town, the Old Town, was built on one of the islands, half way between the Baltic and the Malar Lake. A more modern example is provided by the Town Hall, whose shape is reflected in the Malar Lake.

We should also mention the Vasa Museum, which was built at the beginning of the 1990s, over a Royal Navy dry dock . This is how the Vasa, a Royal vessel which sank in 1628, has been resurrected 333 years later, and has emerged into the Museum via the waterways.

Nature nearby...

Space and light are the reference points for Stockholm. From the light and spacious architecture of the Gustav period to the functionality and pure modernism, of Gunnar Asplund . Architectural enthusiasts come from all over the world to see it in perhaps it's most outstanding form, the Wood Cemetery called SKOGSKYRKOGARDEN.

The proximity of nature is also a source of inspiration for Nordic architecture. One third of Stockholm consists of parks and green spaces.

In this way, this Year of the European Capital of Culture has seen the dawn of an array of landscaping, horticultural and ecologist expressions.

Gond Pontouvre = a plant ready to meet customers' expectations

From the beginning, Leroy Somer factories have adapted products to the changing needs of the market. The GP factory, one of 29 plants within the LS group, located near Angouleme, is a perfect example. Set up in 1966, it amalgamates under one roof the whole range of LS production : cutting of steel sheets, welding, injection moulding of aluminium parts, tooling, winding, impregnation, assembly, research and development, production methods, testing and despatch. ISO 9001 certified, GP is the most important electric motor factory in Europe. To give you an order of magnitude, over 100 tonnes of steel sheets are being used every day!

Over 20 new products are being conceived every day...

"75% of our production is made up of adapted or optimised motors", Plant Manager, Philippe Thiery explains. "Innovation and flexibility have become the main competitive issues.

For example, a team of 25 people are designing more than 20 new products. Of course, it is not a complete motor each time, but a precise solution to the particular need of a customer : the modification of a fixing point or the adaptation of a cooling system to a specific application. At the same time, 50% of our products are less than 5 years old".

... Steady progress

To manage such diversity, the Gond - Pontouvre teams put into place continuous progress checks, based on a Just in Time policy. It is the customer's request which starts up production! It does not require an extra quality programme, but a daily task incorporating quality, deadlines and service. In fact, Philippe Thiery highlights " that to tighten the flow enables us to see the problems and therefore, eliminate them. At all levels of the company, working groups are set up to optimise the production times. Consequently, every member of the staff becomes a progress chaser ".

... A varied and made-to-measure offer.

As a direct consequence of this industrial organisation, the factory is able to develop, in conjunction with the various local subsidiaries, a varied offer of products and services.

"First of all, we can offer the most complete range of standard product available on the market, which is subject to a program called Guaranteed Availability : DG (Fr. disponibilite garantie). We are committed to supplying a range of over 3,000 items at a date and place specified by the Customer. At present, this

system is operational in France, Spain, Benelux and Germany, with a success rate of 99.8%. We are steadily aiming at extending this to other European countries. To ensure this Guaranteed Availability, we have even resorted back to the old principle the Pony Express. Teams of drivers are ready to climb back on to their lorry to start up straight away".

In addition to this, a set of options are available which can be fitted in 48 hours to the standard motors, either at the factory or at Regional Assembly Centres.

Finally, the strong point of GP is the development of optimised motors with world leaders in various specialist markets : pumps,

fans, compressors, textile machinery, etc. We are perfecting sophisticated technologies to develop motors that meet exactly the specific

requirements of their applications.

...The GP production : The products.

1. LS series, Standard AC aluminium frame motors,

frame size of 80 to 160.

2. LS MV series motors to operate with frequency drives without torque loss even at low speed. Capable of accepting, forced ventilation, an encoder and mechanical brake. Frame size of 80 to 160.
3. Switched reluctance motors.
4. Adapted motors for any application such as : immersible motors, water-cooled motors, flat motors, high temperature motors, stainless steel housing motors, etc.
5. Production of components : parts in aluminium, pressure moulding and special steel sheet cutting (for 4 inch motor pump , DC motors) as well as motors for other plants in the Group.

"Just In Time" availability contract, an example of a client partnership :

J+90	Delivery schedule with 3 months slip.
	Reservation of primary materials.
J+30	Provisional delivery schedule ± 10%
J+10	Confirmed order
	Machining and winding start
J+2	Assembly and packing
J+1	Despatch and invoice
J	Delivery

This type of contract is actually practised with 36 major European clients for more than 200 different part numbers.
The contractual delivery time varies from 3 to 20 days.
The reliability of the system is measured regularly and is greater than 99%.

The new technical catalogue, 3-phase ac motors, is available

For many years, this catalogue has been considered as a reference for the industry. It contains all the selection data for a motor. The new version of this indispensable tool shows not only the up to date new electrical and dimensional data of the standard LS product, but also :

- the conformity to new regulations (CE mark, ...)
- Integration of frame size motors 56, 63 and 71.
- The new features of fixing systems, cooling, new protection categories, etc...
- The increased range of centrifugal machines with performance data of the 2-speed motor range.
- Changes to the general torque/speed curves.
- the determination of nominal power in relation to service factors (an LS exclusive feature).

It will soon be available in the 8 main European languages.

A range of motors specially designed for “marine” applications

Leroy Somer is a well known and highly respected name in the shipbuilding industry!

In turn Leroy Somer knows precisely the requirements of the shipbuilding industry.

For many years our alternators have been accepted by all of the principal European ship manufacturers.

Leroy Somer alternators are complemented by a wide range of electric motors especially adapted for use in all conditions. These include above and below deck installation and motors for specific operating conditions, e.g. explosion-proof or non-sparking for hazardous areas.

As with all Leroy Somer motors, marine motors can be combined with gearboxes for adapting torque and speed, brakes for controlling movement and electronic systems for overall control, monitoring and positioning.

Designed to respond to the most rigid specifications in this market, these motors are approved by the most important certification organisations in the world and all carry the CE mark.

A new, dedicated “marine” technical catalogue, giving detailed information concerning motors for this application, is available upon request.

LEROY SOMER®

Ref. 2771-1.1/b-4.98