

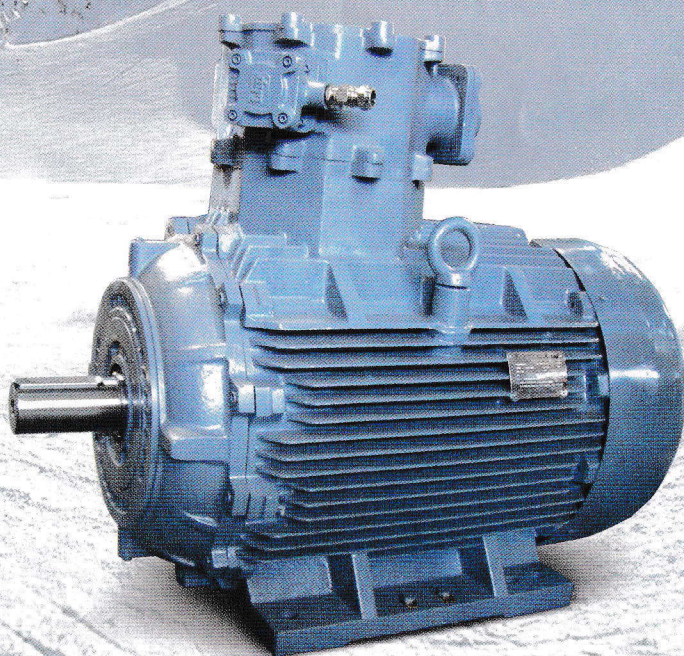
LHP UPDATE

Quarterly Newsletter

Issue 13 June 2012

Performance at sub-zero
temperature in Russia

LHP Flame-proof motors

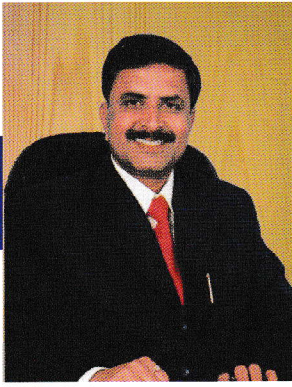


New approvals

| Launch of IE2 motors

| New pump for Railways

Lhp
MOTORS DRIVES
Driven by Commitment



The Mentor Speaks

Dear Readers,

Through this LHP UPDATE, the first of this financial year,

I am happy to share our recent achievements. LHP recorded a growth of 40% in the turnover during FY 2011-12. This takes us closer to **₹ 2500 million mark** in spite of all odds and a record hike in raw material prices, particularly metals. I sincerely thank all our customers for their trust and support in brand LHP.

After the introduction of VFDs and Soft Starters in the previous year, we focused our efforts on strengthening our position in the Flame-proof motor market. Several new developments were undertaken on this front and a major breakthrough was achieved by bagging a sizable **exports order from Russia**. This order was challenging to execute since the motors are expected to operate at sub-zero temperature. New development of **IE2 motors** was started in the last year and will yield results. We are almost ready with the range of IE2 motors adhering to the new international efficiency class. A new pump was developed for a special application in railways and has started working successfully at several installations.

Our participation in Eleccrama 2012 received a good response from the existing clients as well as business delegates from several new companies in India and abroad. Our stall aptly conveyed our image as a 360° solution provider of the drive technology. The overall response was very encouraging with several MOUs for regular procurement were signed on the stall.

Recently, LHP has adopted the local Industrial Technical Institute (ITI), Pandharpur to elevate the standard of education in technical institutes and to help students gain an exposure to practical industrial environment.

Now, Team LHP is charged to handle bigger challenges in the future while committing itself to the customer satisfaction as its prime goal. I thank all employees, customers, suppliers, associates and well-wishers for their valuable support and wish all of you a happy and healthy new financial year.

Sharadkrishna Thakre

Managing Director

LHP displays
360°
solutions range at
Eleccrama 2012

Day-by-day, our solutions range is growing rapidly with the changing industry demands. Today, we are in a position to offer complete drive technology solutions and have become a one-stop-shop in the LT range. The recent addition of VFDs, Soft Starters and Encoder Motors enables us to be in this position. While keeping this aspect in mind, the theme selected for Eleccrama 2012 was **LHP : 360°**. Apart from 360° solutions, LHP is also known for its all-encompassing customer focus, development, service, performance and technology. All these advantages with LHP were prominently brought out through appropriate posters in the stall. A well-arranged display of the entire range of LHP offerings turned out to be a great attraction for the visitors.



The display included Gearmotors, Roller table motors, Inverter duty motors, Encoder motors, Flame-proof motors and Drives apart from Standard induction motors. Our regular customers, during their stall visit, expressed happiness on knowing about our latest introduction of VFDs, Soft starters and Encoder motors. Many new customers from India and abroad have shown keen interest in associating with LHP. A few **customers from Singapore, Germany, UAE and African countries** have either **signed MOU** or given their LOI for various types of LHP motors. All in all, participation in this event was a great success for LHP. We thank all our customers who have visited our stall and encouraged us to develop further.



Lhp
MOTORS DRIVES
Driven by Commitment

360° Technology

Performance
Services

Tested and certified by major consultants, laboratories and statutory authorities

Drive technology to run simple machines and for automation of complex process plants

Technology to perform in any work environment – humid, dusty, corrosive, high temperature, and even explosive atmosphere

Introduction of sophisticated technology - VF drives, soft starters and encoder motors

Our 360° superior technology offerings can become your competitive advantage.

Lhp E.P.A. **LPower** **Poised to be #1**

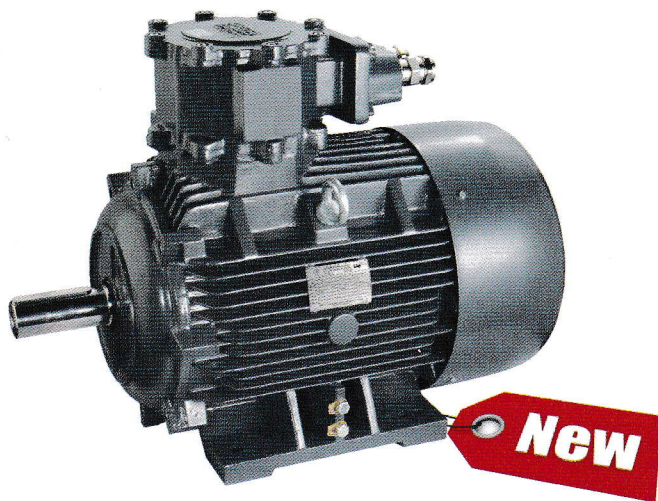
Flag-off to the first consignment of Flame-proof motors to Russia

The challenge

A petrochemical company in Russia approached LHP for development of special Flame-proof motors to be installed in their plant at critical process stations. The atmospheric condition at these locations is highly explosive which can be classified as Explosion Group IIC. The requirement was for **20 motors ranging from 40HP to 200HP**. The most challenging part of this project is that the atmospheric temperature at this plant location sometimes reaches even as low as to -20°C . The flame-proof motors are expected to run round-the-clock without any trouble even at this sub-zero temperature.



Expanding flame-proof motors, Gas Group IIC range up to 250 frame size



LHP Flame-proof motors for Gas Group IIC application are known for their highest safety standards, quality, faster deliveries and customisation. They are being widely used in industry sectors such as oil & gas, petrochemical, chemical, mines, pharmaceuticals, paint, etc. However, this range was so far limited to 160L frame size. This imposed certain limitations on the usage and there is a constantly growing demand from the user industries to expand our range. Considering this, our development team focused its efforts on widening this range. During the last year, **the development of new models upto 250 frame size for Gas Group IIC was complete**. They have been now tested in various laboratories and are ready for the



The solution

LHP has experience of developing over 5000 solutions in the form of customised motors and pumps. We also possess expertise of over a decade in manufacturing world-class Flame-proof motors for various explosion groups and applications. This includes hands-on experience with installations in other countries as well. With this background, the Russia project was a welcome challenge for us. Our R&D team put in extra efforts and care to develop these motors, so that they can **work flawlessly even at -20°C**. The first

consignment of these motors was flagged-off with great pride. Our R&D team, under the able leadership of Mr. G. R. Madgundi, was instrumental in the development and execution of this order.

This major order from the Russian petrochemical giant is a major breakthrough for LHP and we now look forward to several such challenges.

New approvals

market. Statutory approvals for this range include those from Petroleum and Explosives Safety Organisation (previously Chief Controller of Explosives) and Bureau of Indian Standards. This is an important development for LHP. With this, we can serve larger markets with more safe and reliable range of Flame-proof motors. For your requirements, do get in touch with us.

Alloy Steels Plant, Durgapur under Steel Authority of India Ltd. (SAIL) has approved the complete range of LHP motors for use in their steel plant. LHP already possesses approvals from Bhilai, Rourkela and Visakhapatnam Steel Plants.

The Indian Railways authority **RDSO has approved** our specially developed **Oil Cooling Blower Motors**. They have been developed exactly as per specifications from RDSO. These motors are being used in railway engines and similar applications. Already, LHP has the approval for supplying pumps and motors for use in AC coaches.

STEEL AUTHORITY OF INDIA LIMITED
(A Govt. of India Enterprise)
ALLOY STEELS PLANT
MATERIALS MANAGEMENT DEPARTMENT
DURGAPUR - 713205

Ref. No. : ASP / PUR / CO-ORD / VR / 3211 - 13 Date 15/11/2012

To M/s. LAXMI HYDRAULICS PVT. LTD.
B-11, MIDC, Chincholi Purna Road,
Solapur - 413555.

VENDOR REGISTRATION CERTIFICATE

We have pleasure to register you as a Vendor of ASPMMD for the item / items listed below :-

Sl. No.	Area Sl. No. w.r.t. Application Form	Remarks
Application No. 358	Regn. No. 11098	Supplier Code 54178
Status Code		Approved <input checked="" type="checkbox"/>
		Potential <input type="checkbox"/>
		Validity 31-12-2016

NOTE :

- (i) This registration does not necessarily confer the right to get all our enquiries for these items as and when we are in the market. This registration does not also guarantee award of contracts.
- (ii) We reserve the right to demand from you such surities as may be necessary as an earnest of you fulfilling contracts / supply orders which we may award you.
- (iii) We reserve the right to withdraw the registration from our panel without assigning any reason therefor.
- (iv) It shall be your responsibility to apply for renewal of registration on payment of stipulated fees and production of requisite documents 60 days before expiry of Registration period to keep your name in the register of approved suppliers.
- (v) Your performance appraisal shall be governed by our existing "Vendor Rating Procedure" wherever applicable.
- (vi) Validity extension shall be subject to revalidation of dealership / agency certificate wherever applicable.

General Manager (Materials Management)

LHP Flame-proof / Non-sparking motors : Safe solutions for explosive atmosphere

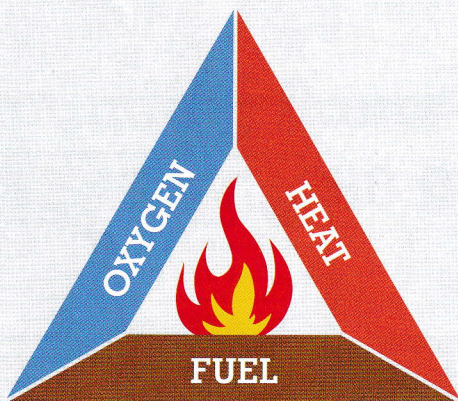
LHP manufactures a wide range of motors for use in hazardous areas or explosive environment. They are known as Explosion-proof motors.

Hazardous area

A hazardous area is defined as an area in which explosive atmosphere is present or may be given rise to, which requires special precautions for the construction, installation and use of potential ignition sources. Major industries / processes which fall under hazardous area classification include oil, gas, petroleum refineries, chemical plants, sewerage treatment, spray painting shops, petrol depots, terminals and coal mines.

Explosion

An explosion occurs when three factors are present i.e. explosive material, oxygen and a source of ignition. LHP Flame-proof motors are constructed with an aim to prevent the source of ignition from electric motors operating in hazardous area.



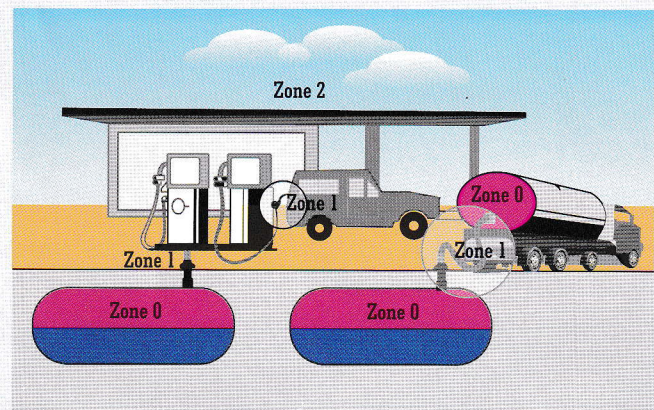
Hazardous location - Zone classification

Hazardous areas are defined as locations where explosive gas-air mixture may occur in dangerous concentrations. Competent authorities such as the Bureau of Indian Standards have classified hazardous locations into three zones, depending on the frequency and duration for which the flammable material concentration is likely to be present. This facilitates the selection of appropriate electrical apparatus as well as the design of suitable electrical installations.

Zone 0 : An area in which hazardous atmosphere is continuously present.

Zone 1 : Hazardous atmosphere is likely to be present at any time under normal operating conditions.

Zone 2 : In this area, hazardous atmosphere is likely to be present only under abnormal operating conditions and for a short period.



Classification of hazardous gases Explosion Groups

Hazardous gases have been classified by statutory authorities such as Bureau of Indian Standards and this classification is associated with the selection of Flame-proof enclosures and appropriate electrical apparatus.

Hazardous area equipments are specified in terms of the gases present :

Group I : Electrical apparatus for mining application

Group II : Electrical apparatus for all other potentially explosive atmosphere

In the case of electrical apparatus in Group I (Mining), it is assumed that the only flammable gas to occur is Methane, but in combination with coal dust. Other flammable gases which can also occur in these areas must be further classified as shown in Group II. Electrical apparatus in Group II is further classified into explosion groups and temperature classes.

LHP Flame-proof / Non-sparking motors

LHP offers Flame-proof / Non-sparking motors for various applications in coal mines, oil exploration and refineries. They are approved by Director General of Mines Safety (DGMS) for coal mines and oil mines application. They are also approved by Petroleum Explosives Safety Organisation, Nagpur of the Department of Explosives. This is as per the requirement of the Petroleum Act. Before approval from these authorities, the motors are tested in the NABL accredited laboratories such as ERTL, Kolkata.

For a coal mine application like mining machines (loaders, drilling machines, etc.) LHP offers very special motors in Rod Mounted Construction with terminal box assembled on the outside of the fan casing for mine ventilation service. For other underground applications like pumps, conveyors, power packs, compressors, fans, etc. LHP has developed 13 models in different frames up to 200 kW.

LHP - Group IIC Flame-proof motors

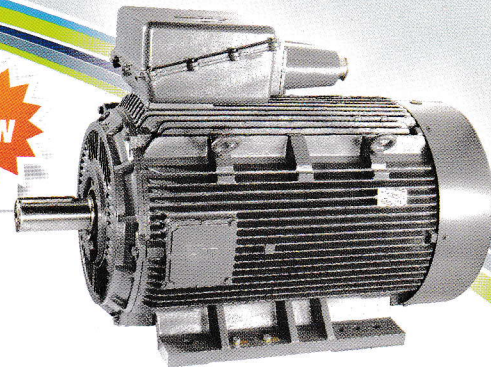
Hydrogen-laden gas atmosphere is classified as Group IIC. Hydrogen is being used as a fuel in space shuttles and also in food preservation. LHP has developed Flame-proof motors for use in this atmosphere. Hydrogen is going to be the gas for the future since its applications are increasing. Hydrogen is buoyant in the air. Hydrogen flames tend to ascend rapidly and cause damage. Hydrogen gas leaking in the air may spontaneously ignite. Moreover, Hydrogen fire while being extremely hot is almost invisible and this can lead to accidental burns.

LHP has developed a complete range of Flame-proof motors suitable for Gas Group IIC including Hydrogen-laden gas atmosphere. They are available in 8 different frame sizes from 63 to 250m IEC frames.

Recognitions

LHP Flame-proof motors are being exported to Russia. We are also a trusted supplier to the Indian Defence Establishments such as Ordnance Factories (where highly sensitive equipments and accessories such as rockets, missiles, grenades, bullets are manufactured or tested). LHP is also an accredited supplier to major coal mines such as Western Coal Fields, Neyveli Lignite Corporation (open mine), etc. and is on the approval list of Engineers India Limited (EIL) which is a consultant of international repute to certify and accept motors for use in hazardous areas especially in Petrochemical and Pharmaceutical industries. LHP Flame-proof motors are CE ATEX certified from BV/LCIE, France which is an international testing and certification laboratory.

Launch of energy-efficient IE2 motors



There is a growing worldwide concern for environment protection and reducing carbon footprint. This calls for drastic measures to reduce / limit electricity consumption. Greater attention is being paid towards using more and more energy-efficient motors as they account for a significant power consumption out of the total electricity produced globally.

For many years, low voltage 3 phase motors were sold under efficiency classification as EFF3, EFF2 and EFF1. The efficiency factor defines the efficiency of the motors when transforming electrical energy into mechanical energy. In order to focus on this issue and bring harmony in worldwide standards, the International Electrotechnical Commission (IEC) has recently developed and published an energy efficiency standard which replaces all differences. The new standard IEC 60034-30 (2008) defines and harmonises the efficiency classes (IE = International Efficiency) IE1, IE2 and IE3 for low voltage 3 phase motors from

0.75 to 375 kW. This is effective in India from June 2011 and defined in the latest Indian Standards IS:12615-2011.

You can approach LHP for IE2 standard motors to achieve a significant energy saving particularly in energy-intensive industries such as paper, pulp, cement, metal, textile, mining, chemical, fertiliser, etc. The efficiency levels according to IEC 60034-30 are measured based on the test methods defined in IEC 60034-2-1. For example, 2.2 kW 4 pole EFF-1 motor with 86.4% efficiency is equivalent to a new IE2 motor with 84.3% efficiency. With LHP IE2 motors, depending on frame size, up to 45-50% losses are reduced because of low power consumption. LHP is also in the process of developing IE3 motors which is the highest efficiency class prevalent among the countries which follow IEC standards.

We are sure, these new developments will bring cheer to our customers while enhancing their profitability.



Pump for Railways : New development

Indian Railways is one of the largest customers of LHP. Regular supplies of pumps are made to various organisations of Railways in Kolkata, Jabalpur, Chennai, Bangalore, etc. These pumps need to comply with high standards specified by the Research, Design

and Standards Organisation (RDSO) of Railways based at Lucknow. LHP is a trusted supplier of Indian Railways and very obviously the responsibility of new development was entrusted to us. Recently, we have developed **a special pump** required by them **for use in air-conditioned railway coaches.**



Venkata Subba Rao
Karna

**Who's
who?**

Name of team member	: Venkata Subba Rao Karna
Age	: 41 years
Family status (Married to)	: Nirmalamma Karna
Names of children	: Sneha, Sai, Asmitha
Qualifications / experience	: B.E. (E&C), 20 years
Date of joining LHP	: 06.12.1996
Present designation in LHP	: Manager - Testing
Responsibility shouldered in LHP	: Ensure products as per customer specifications
Special achievements	: Energy saving in testing (Electrical)
Hobby	: Listening to music and watching news channels
Favourite snack	: Idli Wada
Favourite celebrity	: Mr. Mahesh Babu
Favourite holiday destination	: Pondicherry
Strength	: Developing good relationships with colleagues to achieve the target within stipulated time
Weakness	: Over-expectations from subordinates
Message to colleagues	: Use techniques for conservation of energy

Upscaling performance in technical education : LHP adopts ITI



Industrial Technical Institute of Pandharpur

Recognising the urgent need to bridge the gap between technical education provided and the skill set required for working in industries, Government of India

has developed a special programme. This calls for private-public partnerships in technical institutes across the country. Under this programme, LHP has adopted Industrial Technical Institute of Pandharpur. A team of experienced engineers from LHP now devotes its time and efforts in designing the curriculum with an aim to suit modern requirements of engineering industries. LHP takes special interest in training these students, so that they will be competent to work in various trades such as industrial automation, CNCs, machinists, turners, fitters and welders immediately after their education.

Corporate office & manufacturing plant

National sales & marketing office



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