



Enriching Lives

cascade

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INNOVATION

KIRLOSKAR BROTHERS LIMITED

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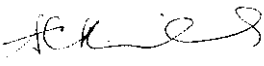


concept

“No one can resist an idea whose time has come”, said the influential French author Victor Hugo. We too believe that the spirit of innovation is so contagious, so energetic that it enlightens the environment around it and encourages people to make a difference.

A light bulb is the most easily understood and universally accepted representation of innovation. Symbolising a great idea, a bright spark and a Eureka moment, the illuminated bulb on the cover of this issue of Cascade represents KBL’s focus on innovation.

This Cascade is dedicated to the spirit of innovation and creativity inherent in the DNA of KBL and we hope that the bright spark of innovation continues to propel us in bringing better, efficient and valuable products and solutions for our customers.


Sanjay Kirloskar
Chairman and Managing Director,
Kirloskar Brothers Limited

foreword



Innovation

I read somewhere that Peter Drucker believed “Innovation is the specific instrument of entrepreneurship. The act that endows resources with a new capacity to create wealth.” I couldn’t agree with him more.

It is innovation that is responsible for development of new products and services, winning marketing strategies and re-engineered business processes for successful businesses. There are several best practices for creating an innovative work culture, which we at KBL, willfully promote. Really, everything can be improved.

The goal of innovation is to create business value by developing ideas from mind to market. There isn’t a business that doesn’t want to be more creative in its thinking. In business and economics, innovation is the catalyst to growth. I believe employees who are knowledgeable about their company’s processes, products and services are better equipped to discover innovative solutions. Therefore at KBL, training is top priority and we feel that as an organisation, we greatly benefit from it.

In today’s ever-changing economic landscape, inventiveness has become a key factor influencing strategic planning. Innovation is no longer about science and technology. Firms can innovate in other ways. Co-creation, user involvement, environmental and societal challenges are factors that increasingly drive innovation today.

As per Jim Selman’s perspective a more powerful way to think of innovation is that it means: intentionally ‘bringing into existence’ something new that can be sustained and repeated and which has some value or utility. To my mind, innovation is always related to some practical ‘in-the-world’ value. It is about making new tools, products or processes, bringing forth something ‘new’ which allows human beings to accomplish their own potential.

It is my belief that good leaders promote innovation and thus allow for growth of an environment of out of the box thinking. It is our continuous effort to create and maintain such an environment.

from the director's desk



Jayant Sapre
Director, Kirloskar Brothers Limited

The ability to proactively see the need for change and put in place the transition process by actively influencing the sources of resistance is one of the key roles of a good leader. Most people are used to their “stream of life” and seem baffled by change and so, do their best to avoid it. Others find the outlook of uncertainty revitalising, often seeking out situations that promise opportunities for new adventures and exploration.

Only people with a drive for change know that in order to progress you need to improve, and improvement means embracing Change. You have to adjust your methodologies, processes and products to the changing environment, to keep up the pace of your business. Willingness to change guarantees flexibility in business and ability to face competitiveness. Business depends on the way we think; traditional or

innovative. Creating a suitable platform changes the organisation’s perspective. A constant change in process and methodology ensures sustained efficiencies.

The process of change needs a different perspective to ensure acceptability of with ease. An open mind and a futuristic approach accept change as inevitable.

‘Change’ asks for change in habits of people. Recognising these differences in yourself and others, and addressing them when communicating and implementing change, you are more likely succeeded.

To effectively lead, one has to recognise that the process needs to involve people at all steps.

We must accept that change is the only constant.

editor's word



Shipra Tripathi
Head, Global Marketing and
Communication, Kirloskar Brothers Limited

As new challenges are drawn up, new answers and several times old answers with a new twist provide solutions. Cascade comes to you with this ‘new twist’, to be a vehicle for greater information and greater engagement.

In this new edition, the editorial team has given Cascade a new look and a new feel. It is our effort to encourage you to contribute to the magazine.

Our Guest Column, and the contribution this time, of Mr. Ramaswami has enriched the magazine and our reading experience. We hope that many more such entries will provide the variety to our thoughts as we move forward.

I wish you an enjoyable read...

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Transfer of DB pumps from Kirloskarvadi to Dewas A Successful Project that Saved Cost

- Subhashis Das and Sanjay Karmarkar - Dewas Operations

Get to know how the Dewas team made ‘More with less’ in this challenging project.

When the Dewas team got manufacture of DB pumps in their fold, they had no time to plan capital investment, they lacked trained manpower and did not have the necessary infrastructure to accommodate large size pumps. They still had to acquire and adopt DB pump product technology and manufacturing processes, also to modify and convert existing Motor Assembly Line to DB Assembly Line would have taken great efforts. The Dewas plant lacked the facility for hydro-testing of casing and cover as per IS norms. The team had to cover backlog along with new order quantity during the period of product transfer. This was against the backdrop of inability of the

existing supplier network to supply DB components as they had a full load of existing commitment. The team was dependent on Kirloskarvadi for casting and machined components during initial two-three months. In addition, there was also the issue of migration of all products in SAP from Kirloskarvadi to Dewas.

The innovative approach of the team that included optimising the available resources, smart modifications and nimble approaches ensured that the transfer was smooth and uninterrupted. The team has been gradually accelerating their performance to meet the planned production target.

Achievements

The investment for two new milling machines would have been significant. This was avoided by minimum investment in cross slide lead screw and mounting arrangement.

60% of pump casing variants covered for in-house machining.

DB Pumps Plan vs Actual

	April	May	June	July
Plan	2000	2000	2000	2000
Actual	735	1567	2027	1535
Achievement	37%	78%	101%	77%



DB Constructional Features

These are single stage, single suction and horizontal shaft type. Made in accordance with DIN 24255. DBHS are similar to DB pumps but with heavy duty bearings.

- Delivery size up to 150 mm
- Capacity up to 550 m³/hour
- Head up to 100 m

{Enabled by Innovation}

Kirloskar Corrocoat Private Limited (KCPL) : Preferred Choice of CEOs and Project Investors'

- Abhay Kulkarni

Expansion of KCPL increasingly becoming a preferred choice of Corrosion Control Solution provider to many of India’s blue chip companies. One of the key factors for winning over CEOs and investors’ confidence has been KCPL’s Adaptive Application Ability®. This ability enables KCPL to offer innovative solutions to demanding requirements of customers at Indian costs.

KCPL’s KAW 24 x 7 Xpertise® helps site production even in monsoons cutting down project times and saving costs to investors.



Monsoon at it’s peak level outside the shed



KCPL Coating work in full swing inside the site erected temporary facility with ideal environment

KCPL developed KAW 24 x 7 Xpertise® – All weather 24 hours a day working environment- wherein coating works could be done throughout the year irrespective of climate and weather. This is a boon for investors putting up projects, as full production is ensured even in the peak of monsoons. This means that plants could be commissioned in time to recover investments without incurring huge interest costs due to delays related to climate. This system can be installed anywhere in the country within short times and at affordable charges.

Pipe Internal Longitudinal Weld Seam Dressing Machine: KCPL has a keen eye to detail and quality. To solve a problem for one of our clients, we required a tool to remove the longitudinal weld seam on pipe internal surface. By analysing and implementing basics of science, we at KCPL encouraged the working crew to come up with solutions. Their combined efforts developed the Pipe Internal Longitudinal Weld Seam Dresser - probably one among the first and most simple solutions to this problem. Today this machine is one of the unique techniques in KCPL service basket and saves lot of time and money of KCPL as well as Indian project investors at the project stage and through the life of the project as better reliability in quality is ensured.

Laid Pipeline Internal Rehabilitation Systems: Power plants have CW lines extending from pump house to condenser and from condenser to cooling tower. Mostly these lines are buried underground and have very few manholes. In pipelines handling seawater, the integrity of the protective lining is important for the plants commercial viability. Power plant downtime due to failure of internal lining costs losses worth millions. KCPL have innovative processes to remove the old coatings and provide long term protection systems. These refurbishment services are offered in fully laid underground pipelines on emergency 24 x 7 basis with attractive techno-economics.

Some of the other solutions which have saved investors’ money are:

24 metre pipe coating capability - reduces number of flanges required in a project

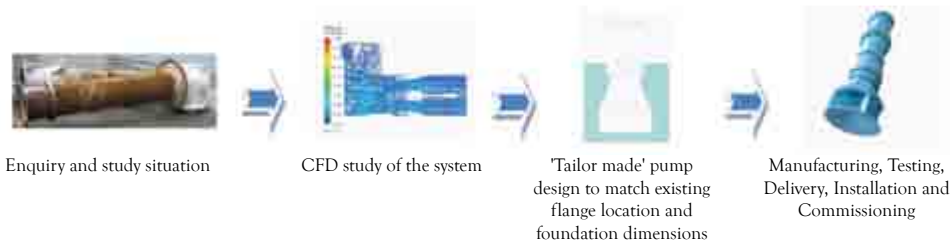
Underground small bore pipe field joints - reduces number of flanges required in a project

KCPL innovations save investors' and CEO’s money and enable them with newer possibilities to cut down time. At KCPL, we take pride in being a preferred choice amongst CEOs and investors.

® applied for

Kirloskar Engineering Research and Development “Does More” to come to the best hydraulic solution with “Tailor Made” pumps

- Pushkar Kulkarni



Replacement of a pump in an existing installation may sound simple, but in many cases a customer requires wide ranging hydraulic changes for these replacements. For example, the demand for cooling water has increased over the last few years and hence the capacity of pumps to support this demand needs to be increased. In the past few months, Kirloskar Brothers Europe BV (KBE) has executed projects in Malta and Belgium where pumps were tailor made. The initial request for both these projects was for a replacement pump. During the dialogue with the customer it was observed that the changes required in the hydraulic performance of the pump or design of sump has a significant effect on performance of the

pump which could result in cavitations / vortex formation / energy loss and down time.

The “does more” approach of the Kirloskar team, ensured that some of world’s best - hydraulic engineers, pump designers and production specialists come together to find a suitable and cost effective solution for the customer. This approach required detailed communication with the customer. In the Malta and Belgium projects, the Kirloskar team designed Integral Vortex Breakers. All the dimensions of the old pumps were matched for the replacement which facilitated no changes in foundation or piping.

For more information on the “does more” approach please contact Mr. Pushkar Kulkarni, Head of Engineering and Design of Kirloskar Brothers Europe BV at pushkar.kulkarni@kbl.co.in

‘Kirloskarvadi is the ‘City of Pumps’’, say AVI International Inc Visiting Executives

Boiler Water Recirculation Pumps-New Product Innovation for Power Sector

- Amit Padhye / Yogesh Gaikwad - Marketing, Power Sector, KBL

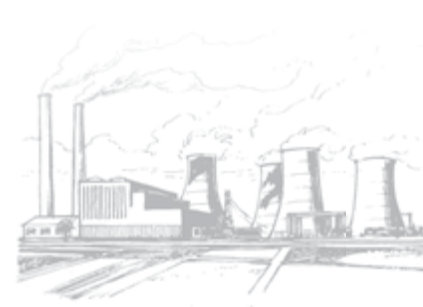
KBL recently signed a co-operation agreement with AVI International Inc, for boiler water re-circulation Pump. AVI, a USA based company has expertise in design, manufacture, upgrade, repair and service of boiler water circulation pumps. It provides electromersible equipment and energy services throughout North America and United Kingdom.

Mr. George Field, FBIM (Vice President - Engineering) along with Mr. Clifford W. Burrell (President) of AVI visited KBL office at Pune between October 17-21, 2011 to hold the discussions.

KBL is working on the product portfolio for the Indian Power market. Boiler Water Circulation Pump (BWCP) is a product having a huge potential in the market particularly for Ultra Mega Power Plant. BWCP is used to circulate the water in the Boiler Drum, which increases the steam generation rate as it

reduces the temperature gradient in the Boiler Drum due to circulation.

AVI provides repair and maintenance service for Boiler Water Circulators to the power boiler industry on a worldwide basis. AVI has, in the past, designed and built new BWCP units in cooperation with pump hydraulic experts. AVI being experts in the motor design and manufacture now see opportunity in the Indian Electric Power Program and in Asia. They are looking at KBL as the most suitable partner in this endeavour.



The AVI team visited the Kirloskarvadi plant and was impressed with the infrastructure and capability. They described Kirloskarvadi as the ‘City of Pumps’ and our founder Laxmanrao Kirloskar as the ‘Henry Ford of Pumps’.



Uninterrupted Water for the City of Antwerp

Computational Fluid Dynamics Study of System

- Jeroen Bonnet / Pushkar Kulkarni - Kirloskar Brothers Europe BV

Recently, a team from Turbin BV, our partner in Belgium and Kirloskar Brothers Europe BV (KBE) completed the pump installation at Antwerp Water Works (AWW) in Belgium. The project comprised the replacement of existing pumps and was completed without any loss of production for AWW.

Excellent cooperation between the three companies and precise project planning by the AWW team ensure that the project was completed as planned.

The pump replacement was completed within the planned time frame without stopping the production. This was done in two- stages to assure uninterrupted

water supply.

Kirloskar Brothers Limited (KBL) did a Computational Fluid Dynamics (CFD) study of the sump including the intake basin. There were six pumps of which four were to be replaced to increase the production capacity. CFD study observed that pumps engineered by

KBL matched the parameters without any changes to civil structure. New pumps were engineered, designed to match existing pipe connection / dimensions of existing pumps. This resulted in easy replacement of pumps

and saved high costs in civil and piping changes. The capacity of pump station is 16000 m³/hour and it delivers water to the city of Antwerp, the Antwerp Industrial area and the Harbor. The system at present is operated

temporarily on alternative power supply and will be completely operational on new panels by August 2012. The pump house will be refurbished by the end of 2012



SPP Pumps chosen to protect Europe's tallest building

- Alex Playfair - Business Manager, Fire Division, SPP Pumps, U.K.

The Shard - most recent addition to the London Bridge Quarter has finally been unveiled. Completed in March 2012, it is acknowledged as the tallest building in Europe. The spectacular skyscraper stands 309.6 metres tall.

For SPP Pumps, who supplied the **Fire Safety Pump Sets** for this groundbreaking construction, the design of water supplies for the highest building in Europe presented a unique challenge.

Although many pump manufacturers can offer equipment designed to the various locally applicable fire rules and regulations, SPP is one of the select few who have had their sprinkler and wet riser pumps subjected to the stringent performance and reliability tests of specialist fire approval laboratories worldwide.

Because of their experience, SPP was aware that European Sprinkler regulations do not allow the use of pressure reducing valves due to their unreliability - therefore zones had to be created to limit the pressure on the sprinkler heads in lieu of the valves.

This concept has never been applied to a building over 300 metres before and SPP worked with the consultant Arup to create a solution that produced a quality, reliable water source that satisfied the challenging regulations.

Sprinkler Pumps

- Two 10 stage 200 kW Multi Stage Multi Outlet Pumps. Seven outlets to supply to seven sprinkler zones in the building

- Maximum CV pressure 32.4 bar

- Each zone has its own jockey pump to maintain the pressure

Hydrant Pumps

- Three pump stations were installed at various levels in the building

- At base level two 315 kW Horizontal Split Case Pumps were installed to produce 4500 L / min at 24 bar

- The mid and high level pump houses were equipped with a 4 stage 132 kW Multistage Pump producing 3000 L / min at 24 bar

The Shard was designed by Renzo Piano, the Italian Pritzker Prize-winning architect who was best known previously for his collaboration on the design of the Pompidou Centre in Paris. The main structure of the Shard has 72 habitable floors comprising office space, a 200-bed 5-star hotel, three floors of restaurants, and ten luxury apartments. To top it off, the viewing gallery and open-air observation deck on the 72nd floor is the UK's highest, at a height of 245 metres.

The Shard was designed with an irregular pyramidal shape from the base to the top, and is clad entirely in glass. The structure was completed in April 2012. The tower was inaugurated on July 05, 2012, and is scheduled to open to the public in February 2013.

According to Renzo, he was inspired by the railway lines next to the site, the

London spires depicted by the 18th-century Venetian painter Canaletto, and the masts of the sailing ships that once populated the busy waters around London's Docklands.

Full construction of the tower began on March 16, 2009, and the first steel work went into the Shard's piles on April 27 that year. A total of five cranes were used to build the Shard, with four of them 'jumping' upwards with the tower as it rose.

This inspiring recent addition to the London skyline is yet further endorsement of the skills and expertise embedded into UK engineering companies such as SPP and others who, between them, breathed life into the architect's vision and made this construction possible

Success Story of order from Sesa Goa for the Auto Prime Dewatering System

- Arun Chougule - Zonal Head, West and Central Zone

Mumbai registered office of KBL recently bagged a prestigious project of Mine Dewatering on Floating Pontoon from SESA Goa, India's largest producer and exporter iron ore in the private sector. Expected to be one of the top four iron ore producing companies in the world, SESA Goa operates from two major iron ore mining areas, one in Codli village (in South Goa District) and the other in Sonshi village (in North Goa District). The Sonshi mine comprises an open-pit mine and it is fully mechanised mining unit.



Solving a Complex Problem

SESA Goa had challenges with fabrication of pontoons in Goa due to non-availability of proper design. Their pumps would trip, de-prime, overload or drop in pressure often. Local control panel operation was an issue, due to which they had to deploy labour near the pump station. There was no mechanism to check the health of the pumps or motor.

KBL made a detailed proposal to SESA Goa where KBL recommended the following:

Pump set mounted on Pontoon with an Auto Prime to take care of priming issues

A KBL electrically actuated butterfly valve on pump discharge side

Instrumentation - PLC + HMI features to help record or overcome on issues of overloading, dry running, drop in pressure or flow rates

During the course of discussions with the SESA Goa Engineering team, Mr. Yogesh Garudangiri, General Manager - Engineering Services & Projects expressed concerns over working of Auto Prime in an environment mines and also lack of critical signals on pump working.

KBL proposed demo of Auto Prime in their mines, detailed seminar to all the concerned authorities and inclusion of GSM backed technology to give critical signals like tripping of pump or reduced flow at rated head.

The strategy on Auto Prime demo at Goa helped a lot. The customer was elated to see the performance and was confident in the ability of KBL.

“KBL’s proposal offers entire pumping philosophy we had aspired to have and would like to have the same at the earliest”

- Yogesh Garudangiri, G.M. - Engineering Services & Projects, SESA Goa

Project Details

- Three Pumpsets Model DSM 150/52 Code 74 with 315 kW/4P motor
- Three Auto Prime Attachments
- Three Pontoons
- Three KBL Electrically Actuated Butterfly Valves
- Instrumentation - MCC, PLC with HMI, GSM technology for critical alarms

Few of the important points in which SESA Goa started seeing solution were :

Auto Prime device:

The Auto Prime is compact hence :
Requires small pontoon

Eliminated use of water tanker during priming / re-priming as in conventional method ensuring reduced costs

Eliminated periodic manual intervention as no de-prime required

No additional prime mover for Vac pump

Does not require any additional instrumentation logic for Vac pump, thus simplifying and reducing cost

Instrumentation: A Turning Point

A clear offer giving minute details of instrumentation was proposed. Working philosophy, circuit diagrams and other details made SESA Engineers initiate discussions on the requirement. This was the turning point in the project. The customer who had initially thought of buying only a pump from KBL was now discussing a complete pumping system. The requirement began in December 2010 and was concluded in December 2011.

After Successful Delhi Metro Project, KBL bags Mumbai Metro Project

- Ashwin Deshpande - Marketing, Building and Construction Sector, KBL

KBL has bagged the prestigious infrastructure project of the Mumbai Metro for supplying FM / UL Fire Fighting Pump Sets and Vertical Turbine Pumps (VT) for Versova Depot.

The success comes after three years of extensive effort that included working with the consultant and contractor on each minor specification, sharing best practices, capabilities of our products and experience in metro rail applications.



The KBL team helped the customer with optimised solution after an in-depth understanding of their needs, resources and constraints. Our expertise and knowledge of Delhi Metro established credibility with the contractor and the end customer. The scope of the project includes supplying of FM / UL Engine and Motor Driven Fire Fighting Pump Sets, Inline Jockey Pump and VT Dewatering Pump.

Remedial Measures for Ferroresonance at 2 x 1.75 Mw Balij-Ka-Nala Hydro Project

- Pradeep Kaushik, Kirloskar Systech Limited

Balij-Ka-Nala Small Hydro Electric Project is a “Run Of The River Project” located in Chamba District of Himachal Pradesh, about 39 kms from Chamba town and 478 kms from Shimla. It envisages utilisation of waters of Balij-ka-Nala, a tributary of river Ravi. The Power house is located on the right bank of Balij-ka-Nala. The installed capacity of Balij-ka-Nala Small Hydro Electric project is 2 x 1.75 MW.

KBL scope covers design, engineering, shop testing, inspection, packing and forwarding up to site, loading and unloading, erection, testing, commissioning of electro-mechanical equipment.

Project Details

- KBL Make NS-160 Horizontal axis Francis Turbine with adjustable guide vanes, all associated auxiliary and ancillary equipments, main inlet valve etc.
- 2 x 1.75 MW with 15% continuous overload, Horizontal shaft Synchronous Generators complete with excitation system, AVR, NGR, control protection and metering equipment etc.
- Power House crane
- 1 Nos. 5 MVA 3.3 / 33 kV step-up transformer
- 3.3 kV & 415 V A.C. switchgear and other associated Electrical System
- 33 kV Switchyard

Project Highlights

- The turbine is coupled with 3.3 kV generator. Both the generators supply power to 3.3 kV bus
- There is a circuit breaker between 3.3 kV generator and 3.3 kV bus
- 3.3 kV bus is connected to primary side of step up transformer
- This transformer step-up the voltage from 3.3 kV to 33 kV and supplies power to grid
- There is a breaker between 33 kV transmission line and step-up transformer



Phenomena of Ferroresonance faced at site during commissioning checks (First time faced by KBL at Hydel Site)

- First of all, 33 kV transmission line and transformer was disconnected through breaker
- The turbine was started and generator also started producing 3.3 kV power
- There is a Power Transformer (PT) (PT ratio 3.3 / $\sqrt{3}$ kV / 110 / $\sqrt{3}$ V- 110 / $\sqrt{3}$ V) on 3.3 kV bus
- There is a Star connection on primary side of PT, while on secondary side one core is star connected for metering / synchronising and other core is open delta connected for protection
- 3.3 kV bus is connected to primary of step-up transformer (3.3 kV / 33 kV), which is delta connection and secondary of step-up transformer is with star connection
- During condition of turbine running and isolation of step-up transformer from the grid, the voltage in secondary winding of 3.3 kV bus PT was 63 V (phase to neutral) and 110 V (phase to phase). The system was OK during forward power charging of the system
- Before synchronising the generator to the grid or transmission line, as a commissioning check, it is a usual practice to check back charging by isolating the generator through the breaker between 3.3 kV bus and generator
- During this operation of back charging, it was observed that in open delta of 3.3 kV bus PT there was fluctuating voltage of 190 to 220 V. This had burnt the relay at site
- In star winding of 3.3 kV bus PT, the voltage between phase and neutral was 95 V instead of 63 V. This indicates neutral displacement in the star winding of the PT
- Under this condition of unbalance voltage sensing, machine could not be synchronised with the grid as it will lead to severe surges on the transformer and generator

- The following remedial measures were suggested for future projects for such condition:
 - Providing Ferro damping resister across the open delta terminals of protection PT
 - V-guard manufactured by ABB to be provided across the open delta terminals of protection PT
 - Isolation transformer across secondary winding of PT for isolation of Ferro-resonance imbalance

Evolution and what we can learn from it

Charles Noordhoom - Kirloskar Brothers Europe BV

In the Cascade of Jan-Mar 2010 Mr. Kirloskar wrote:

“The King of the Jungle, they say, looks back after every ten steps forward, in a heightened state of alertness, taking every cue from the environment around him to ascertain that the path he is on is right; and to assess whether the path already travelled was as per his expectations. This helps determine whether any course correction is needed.”

A Matter of Perception

Personally I like these metaphors. Bringing it back to mankind and KBL in particular, I feel there is so much to learn from nature. We are a part of it and we are made by it.

Who is the king of the jungle? In Holland we do not have a jungle. Rabbit or fox maybe the king of the forest here. In Africa, it may be a lion, elephant or even a gorilla. In South-America, it may be a leopard and in North-America, a mountain lion or lynx may take the position. It is all a matter of perception in the brain. In the Indian context, it may be a tiger.

Learning from Nature

Whoever is the king evolves to the position. We can learn greatly from evolution. It is the ultimate system of survival. Here is what we can derive from the metaphor: In order to survive, pumps have to evolve step by step. The one that makes the best adaptations to live longer survives.

The adaptive company becomes the market leader and others remain followers. Always remember, a good second place follower, is less vulnerable than a first place market leader.

We live in an economical world of supply and demand where competition is tough. It is an illusion to think we can supply more of the same if the demand is limited. It is only possible if the product is better.

When we stop learning and do not evolve, we become extinct. Nature gives plenty of signals / warnings. When you see a potentially hazardous situation, act on it. Be open to suggestions to prevent disasters.

KBL's First Turnkey Project in Egypt is Fully Operational

- Navayan Mirji - Head, Cairo Office, KBL

Commissioning of Benban Pumping Station

Mechanical & Electrical Department, Cairo, Egypt (MED) awarded KBL a prestigious contract for the construction of large irrigation pumping station at Benban and Rozaikat, at Qena and Aswan Governorates on "total turnkey basis". The scope involved design, manufacture, supply, erection, commissioning and handing over of large vertical turbine pumps, gear boxes, HT motors, HV / LV panels, transformers, piping, cabling, instruments, lighting, earthing, ventilation, electro-mechanical equipments and complete civil work.



Design and Engineering was completed in a well-planned manner. Supply of equipment was also planned in an organised way so that they are taken up for erection at the right time. Installation of all the equipment was completed as scheduled. The pumping station was commissioned on March 08, 2012 and the pumps were put under 72 hours running test. As per the contractual requirement, hydraulic testing was conducted by MED on all the pumps and they were found to be satisfactory. Preliminary handing over of the entire pumping station (civil work with all electro-mechanical equipments) was successfully completed on April 29, 2012.

Alexandria Water Company Awards KBL a Prestigious Project

Alexandria Water Company has entrusted KBL with an order to supply 28 Horizontal and Vertical pump sets with valves, motors and other accessories. This order has been bagged against stiff international competition including the pump manufacturers from Europe. KBL is replacing existing 15 vertical pumps and split case pumps in two of the major pumping stations.

A Sweet Deal from Alexandria Sugar Company

KBL has been successful in getting the first significant order for Process Pumps from sugar sector in Egypt. The scope involves supply of Process Pumps for acid, caustic soda, sulphuric acid and hydro chloric applications. All pumps will be supplied with motors, mechanical seals and accessories. These pumps would be supplied in special material of construction viz. Hastalloy B & C, Alloy 20 and SS 316.

Unilever Ghana Limited Opts for KBL Process Pump

KBL bagged the first process pump order from the edible oil segment from Ghana. The scope involves supply of iCP (Innovative Chemical Process Pump without mechanical seal and / or gland packing arrangement) motor and accessories. It also includes process pump with 7.5 kW/2P motors and accessories.

Kirloskar Pumps Cool Calik Enerji's Power Plant at Uzbekistan

- Nikhil Dhole, Kirloskar Brothers Europe BV



Kirloskar Brothers Europe BV (KBE) supplied Vertical Turbine pumps with a capacity of 10881 m³/hour to Calik Enerji, Turkey. These pumps are used for the circulation of cooling water for the Power Plant. The pumps were installed in adverse weather conditions. Calik was satisfied with the support of KBE / KBL during execution and installation of the pumps. The pumps are now scheduled for commissioning in the 3rd quarter of 2012.

Project : Calik Energy, Turkey

Power Plant : 477 MW CCPP, Navoi, Uzbekistan

Head : 21.4 m

Speed : 590 rpm

Motor Rating : 850 kW

Year of supply : 2011

Pump Type : Vertical Turbine (VT) BHQ 75 M Single Stage

Qty : 2 nos.

When completed, the new power generation system will supply electricity and heat (hot water) to the Navoi Free Industrial Economic Zone and thereby contribute to the development of industry in the region.

Repeat Orders!

- Nikhil Dhole, Kirloskar Brothers Europe BV

KBE has been successful in getting repeat orders from the customers like EFACEC - Portugal, Danieli - Italy and SNC Lavalin. These pumps are being supplied for their global projects for various critical applications. With its world class quality products and services, KBE is looking to increase its presence in Europe.



Kirloskar Corrocoat Private Limited - Application Unit



BGR : Rewards of a Good Work

Thermal Power Corporation India Limited (TPCIL) is currently setting up a 2 x 660 MW super critical coal based power plant in Krishnapatnam, Nellore (A.P.), around 200 km from Chennai. TPCIL project is going to use sea water for cooling purpose. The end user had earlier visited LANCO project site

(Udupi) in Karnataka and were amazed at the excellent work by the KCPL team. This endorsement led BGR Energy Systems Limited, the EPC contractor for this project to give the pipe internal coating work to KCPL. The KCPL is now executing 45000 m² of pipe internal coating of 3.8 metre and 2.2 metre diameter pipes.

New Order Bagged

- Terry Newby - Head Operations, SPP Pumps, Coleford, Gloucestershire

Customer	: COSCO (Nantong) Shipyard Co. Ltd. China
Project	: Cheviot - Fire protection on platform which will be towed to North Sea for 2 years and then transferred to Gulf of Mexico
Pumps	: Vertical Turbine Pump (GL16) 2 stages
Engines	: Caterpillar
Overall Weight	: 53 tonnes each

‘Sanand’- Delivering the Superlative!

- Chimanbhai Dobariya - Head, Operations, Ahmedabad



Keeping in line with the growth plans, a new KBL plant was recently inaugurated, on June 17, 2012. Mr. Sanjay Kirloskar inaugurated the plant to manufacture submersible pumps at Ahmedabad. The plant is 40 kms on the Ahmedabad Virmagam highway at Chharodi village in Sanand. The 8500 square metres plant has production capacity of 125 pumps per shift. The targeted production capacity in the two quarters is around 500 pumps per day from two shifts.

Highlights of KBL Sanand plant

Manufacturing

Machine Shop: The fully-equipped machine shop has 21 CNC Machines and sets of four BFW, and axis drill tap centres with auto pallet changer for operation of drilling and tapping. It has 21 multi spindle PLC drilling machines with heads, bush pressing and burnishing SPM. In addition, the shop-floor has a set of two vertical impeller keyway broaching machines and two impeller balancing machines.

Assembly shop: Assembly shop is equipped with four conveyerised assembly lines. Two of these are for submersible motor assembly with computerise routine testing setup. The rest are for submersible pump assembly of with overhead material handling arrangement. The conveyerised assembly lines have a single piece flow with lights and fan at each station. The lines are equipped with computerised routine testing system, material flow racks, operation wise process display at each station.



KBL's vision to be amongst the first five companies by 2015 has invigorated the teams across the organisation into taking concrete steps to achieve it.

What is Electrocoating?

Technique widely used across the globe. CED coating is done in a process plant using electrocoating process, a method of giving metals an organic finish by using electrical current to deposit the paint. An electrocoat system applies a DC charge to a metal part immersed in a bath of oppositely charged paint particles. The paint particles are deposited on the metal part immersed in the bath forming an even, continuous layer on the surface. The process ensures that component is coated with the desired thickness and the no area remains uncoated.

CED (Cathodic Electro Deposition)

Plant: It is here the components get their super finish. They are coated to improve their durability and life underwater. The CED process coats 20 to 23 micron uniform layer on components making them withstand 1500 hrs of salt spray test.

Raw Material and Finish Goods

Storage: The raw material and finish goods stores follow KANBAN and two-bin system to ensure the availability of materials and visual control of materials. This section of the plant is designed to optimally use vertical space. Vertical storage racks and mezzanine floors for lightweight materials store the material safely. All materials are moved on wheels. Rubber pads on metallic pallets and engineering plastic pallets are used to protect flooring. Battery operated fork lift truck and stackers are used to help minimise pollution. Docks & Dock levelers are used for ease in material loading and unloading.



Safety and Environment: KBL is committed to providing safe and healthy working condition for all employees. The plant is equipped with fire alarms system, close loop pressurised fire hydrant system, smoke and heat detector. Further, the concept of Green Environment has been taken care of at the plant to save water and energy. Over a thousand trees have been planted to cultivate the greenery. The roof of the plant has sky lights to make best use of natural light. Wind ventilators ensure cool ambience and minimise the use of electricity in the plant. Conservation of water has been addressed by means of water harvesting, zero discharge and water recycling through Effluent Treatment Plant (ETP) / Sewage Treatment Plant (STP).

Manpower: The plant has CNC operators with experience of working on CNC machines. The plant also has assembly operators and other associates, who have been selected after a rigorous selection process comprising written tests, interview and training.

SPP USA Delivers on a Critical Oil and Gas Project for Petroleos de Venezuela, S.A. - John Kahren, SPP Inc., USA

SPP USA is closing on a prestigious Petroleos de Venezuela, S.A. (PDVSA) project. Headed to Venezuela are nine Vertical Turbine Fire Water Pumps made entirely of Nickel Aluminum Bronze with K Monel trim, all sea water duty.



PDVSA, the state-owned corporation of the Bolivarian Republic of Venezuela, is solely responsible for the efficient, profitable, and dependable exploration, production, refining, transport and commerce of hydrocarbons. This

company is deeply committed to environmental protection and its main objectives are to foster the harmonic development of the country, to guarantee sovereignty of national resources, to increase endogenous development and to serve and benefit the Venezuelan people.

SPP Pumps University - John Kahren, SPP Inc., USA

A Fire Sprinkler Industry Education Innovation

Now fire officials, sprinkler contractors, distributors, engineers, industry professionals and anyone eager to learn more about the Fire Industry can do so at the SPP Pumps University training lab. The state-of-the-art, hands-on training facility is equipped with five fully-functional fire sprinkler systems, four fire pumps and a complete range of fire sprinkler industry components. Attendees joining the programme earn continued education credits, Fire Pump Certification, Fire Pump Engine

Training, Flow Test Training and NFPA 20 Training. Some additional benefits include Flow Switch Testing (Zonecheck™), Back Flow Preventer Repair, Corrosion Monitoring Station, Remote Alarm Training, Various Control Panel Starting Applications, Sprinkler Head Spray Patterns, Dry System / Preaction System Training. SPP conducts classroom and hands-on training for the attendees. The SPP University has graduated a total of 167 students since its inception in 2011.



ISO 9001:2008 certification for Kirloskar Brothers Europe BV (KBE)

- Nick Appel

After significant efforts in refining and improving the internal processes, KBE was awarded with the ISO 9001:2008 certification. During the audit, not a single non-conformity was detected in the processes of KBE.

KBE now has a system in place to make sure all the products are delivered to the expectations and satisfaction of the customer. The entire team of KBE did a magnificent job in supporting and adjusting to the new system which made sure that the certification is recognised within six months. KBE is now ready for the next step toward ISO 14001 and OHSAS 18001.



VGI EPC for Germany and Austria - Frans van der Zanden, Kirloskar Brothers Europe BV

In February 2012, VG Industrie Fluid Technology & Engineering GmbH (VGI) started representing Kirloskar Brothers Europe BV, exclusively for EPC business in Germany and Austria.

Today VGI is working with a team of four sales managers with long term experience in EPC sales to cover the region. In return the inquiry activity has increased significantly. Promising projects have been quoted and first orders have been booked. The progress in that region is recognisable. Within a short time some major EPC's out of Germany have been visiting the factory at Kirloskarvadi and the Global Headquarters in Pune; among them are Linde Engineering and ThyssenKrupp UHDE. A focus has been given on international EPC's with business in Asia, Middle East and North Africa.

German EPC contractors have very demanding requirements for technology, warranty, reliability, high engineered products, zero mistake philosophy and high environmental concerns in regards of physical and noise pollution. Also documentation and engineering requirements are very high since they have worked with top class pump manufacturers.

The recession in Europe and globalisation of EPC work encourage the German EPC contractors to open their eyes for cost effective alternatives without

waiving their high requirements. A lot of these EPC Contractors have subsidiaries in India and several leading EPC companies already audited Kirloskar factories and their total quality systems, with solely positive results.

The Managing Director of VG Industrie, Mr. Sven Schimmel is reporting great interest in products of Kirloskar Brothers Limited, auditors - often very experienced global procurement managers are without exception, pleasantly surprised about the high standards and state of the art facilities of Kirloskar Brothers Limited and Kirloskar Ebara Pumps Limited.

“However we can still experience a lack of confidence in Indian producer among those who have not yet visited the factory personally. Increasing the thrust level will be the challenge for the next year in order to turn the good quotations into billable orders.” Having experience of more than 100 years in centrifugal pump business and being in the business of EPC sales for many years, the team of VGI is using their contacts to get Kirloskar reference projects within the General Industry, Irrigation and Oil & Gas market.

Emergency Response Training for Kirloskar Brothers Europe BV (KBE) Employees

- Nick Appel, Kirloskar Brothers Europe BV



"Be Prepared... the meaning of the motto is that a scout must prepare himself by previous thinking out and practicing how to act on any accident or emergency so that he is never taken by surprise" Robert Baden-Powell

All KBE employees successfully completed the 'Emergency Response' training on the June 08, 2012. During the training, all employees of KBE gained the required knowledge on what to do when an emergency occurs. This half day programme covered how to revive victims, provide first aid and to fight fire. A very constructive course took place with the interest and commitment of the trainees. Safety first!

Kirloskar Brothers (Thailand) Limited (KBTL) - A Trusted Vendor Toyo-Thai

- Tamil Selvan

Toyo-Thai (TTCL) is one of the biggest chemical industrial EPC (Engineering Procurement Construction) contractors in Thailand. The Kirloskar Brothers (Thailand) Limited (KBTL) team got a breakthrough in the organisation with Kirloskar pumps now included into their vendor list.

KBTL bagged the first order from Toyo-Thai in 2011 for lamps up project located in Malaysia and was executed by the industry sector business vertical. A team including Mr. Napat, Deputy Manager for rotating equipment visited KBL factory to inspect the pumps for the project and also to evaluate the

facilities. The client was impressed with the infrastructure at Kirloskar Brothers Limited (KBL) and Kirloskar Ebara Pumps Limited (KEPL). The visit concluded positively leading to many enquiries for various projects from their organisation.



KBL Wins Prestigious Promotion Marketing Awards of Asia

- Akash Joshi - Marketing, Distribution Sector



Kirloskar Family Bonanza is the Dragon of Asia. The programme won the Silver award in the prestigious Promotion Marketing Awards of Asia (PMAA) - also called the Dragon of Asia in Business to Business category.

Kirloskar Family Bonanza is a programme to manage the secondary line of network (i.e. retailer for Domestic Segment) and a scheme for retailers to drive secondary sales. In the Financial Year 2012, the programme successfully registered more than 6500 retailers and 130 distributors in the KBL network and impacted sales positively.

You may log on to the following sites to know more:

<http://www.pmaa-awards.net/documents/2012awards/06%20Best%20B2B%20Campaign.pdf>

www.pmaa-awards.net

Changes in Kirloskarvadi Shop Floor Layout

The layout changes were carried out in 2011 in Split Case, Multistage and Process Pump manufacturing shop floors.



To meet the demands of both domestic and international market, a need emerged to increase the capacity of the Kirloskarvadi plant. The capacity can be increased by either increasing the manpower or changing the layout to make the best use of existing sources and reducing the time. Company opted for the later process which was quite a big challenge. The daily manufacturing was also functional without affecting the demands, during the implementation of the layout change process, which was a huge success in itself. There were many other benefits apart from increasing capacity and the aesthetic look which are like more natural light on shop floor, which reduces use of conventional energy resources and adds a greener value to the manufacturing capability. The atmosphere around the machines is more ventilated and well lightened. The men machine interface is much simpler now and it showing results in the form of higher production. Discipline of operations is also on the

higher level. The implementation of unidirectional material flow saves both time and manpower. Optimum lifting and lowering of heavy components by provision of stands, trays, bins. Loading station heights at same level (as far as possible) to address fatigue on Team members. Localised crane availability to avoid waiting of team members and thus working efficiently. Encouraging multi machine operations helped in saving time and effort. Quality / First time right has changed the thinking of the employee and better results are attained. Asset / resources swatting process are improved. Minimum handing of material in entire process of pump making shortens the cycle time for manufacturing. Main benefit was increased output per head on manpower engaged, on this beside lay out change other contributing actions like reduction in material allowance, optimisation of process parameters are already initiated by respective departments.

Greetings from KBL Coimbatore Plant

- Dr. R.V. Raj Kumar - Head Operations, Coimbatore

The new KBL Coimbatore plant having world class manufacturing system was inaugurated on June 17, 2011. It has achieved 98% production target as per the roadmap laid out for this facility. The plant has reported below 1000 ppm of TBR rejections and has had only five customer complaints. The plant has developed lowest cost pump range, the "Jalraaj Series." Run with precision and efficiency, the plant has reported quarterly stock audit mismatch below ₹ 10,000/- consistently for the last two quarters.

The plant is unique as it has 97.5% female associates involved in manufacturing process and has more than 65% of females in the total strength.



KBL Coimbatore Unit has been certified with ISO 9001:2008, EHS 14001:2004 and BS OSHAS 18001:2007 in less than one year.



The Second Best Productivity Award by Coimbatore Productivity Council for 2012



5S Award by the Quality Circle Forum of India and earned productivity award from the Coimbatore Productivity Council for 2012

KEPL Website Launch

- Abhinav Dhar - Marketing, KEPL



Kirloskar Ebara Pumps Limited (KEPL) launched its website www.kirloskarebara.co.in on July 10, 2012 during an internal global conference of Kirloskar Brothers Limited (KBL) and Kirloskar Brothers International BV (KBI) in Amsterdam, The Netherlands.

Winning highlights from Dewas Plant

5S Four STAR Performance Awarded to KBL - Dewas by Quality Circle Forum of India



Regional Productivity Championship Winner 2011-12



Reaching Out to a Significant Audience

- Akash Joshi - Marketing, Distribution Sector

Kirloskar Captains Bonanza

Influencers play a key role in the marketing and sales process. In the sale of submersibles, the mechanics, plumbers and borers play a significant role as they influence the decision making. Kirloskar Captain's Bonanza is a programme targeting these influencers. It is a concerted effort to engage this network and boost sales through them. The recently launched programme is a sales booster scheme in which the influencers are rewarded for positively influencing sale of Kirloskar Submersible Pumps. The programme registers the target group, known as the 'Captains' across India. Keep watching this space for more on the Kirloskar Captains Bonanza in the forthcoming issues of Cascade.



MAGMA - Argon Oxygen Decarburisation (AOD)

- Sadanand Pose - Head, Human Resource Management

The Kolhapur Steel Limited
(subsidiary company of Kirloskar Brothers Limited)

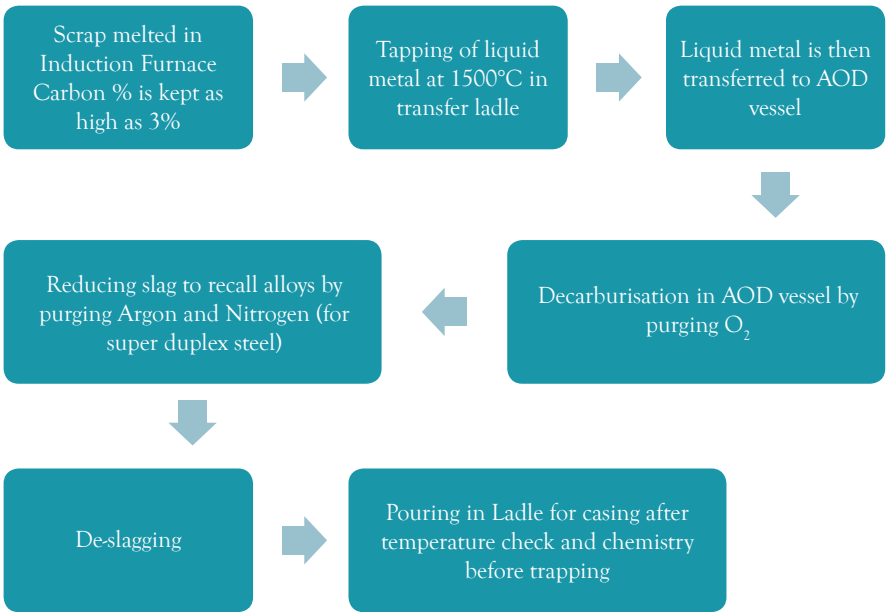


Stainless Steel

Stainless steel typically contains between 9% and 30% chromium. Varying amounts of nickel, molybdenum, copper, sulphur, titanium and niobium may be added to obtain the desired mechanical properties and service life.

Stainless steel is corrosion resistant and provides wide range of strength, formability and high or low temperature service application. Stainless steel is primarily classified as austenitic, ferritic, martensitic, duplex, or precipitation hardening grades.

AOD Process



Need for AOD

Nearly all pump and hydro turbine manufacturers are shifting from alloy steel to stainless steel, mostly to duplex and super duplex grade. The inherent properties of stainless steel, like its corrosion resistance, wide ranges of strength, formability, and high or low temperature service are some of the reasons behind this shift

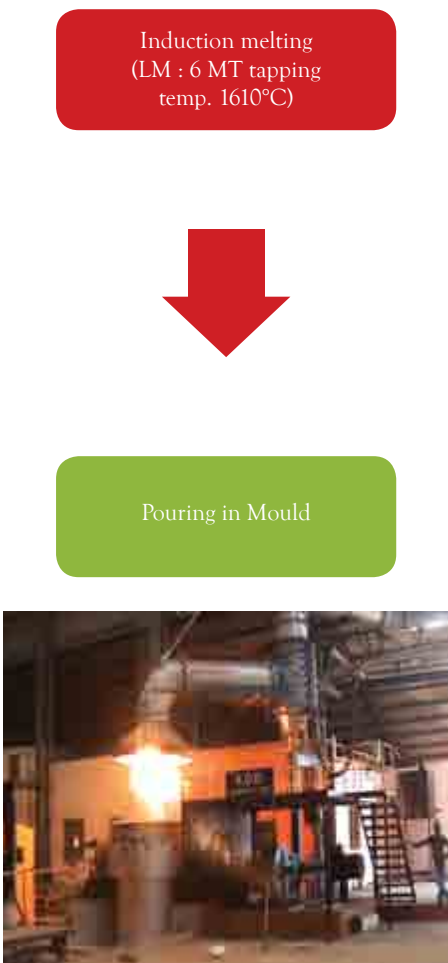
Manufacturing stainless steel with conventional methods leads to poor control over gases and inclusion of non-metals thus rendering it less resistant to corrosion

AOD is secondary refining process in steel manufacturing process which helps manufactures have an effective control over gases and non-metallic inclusions

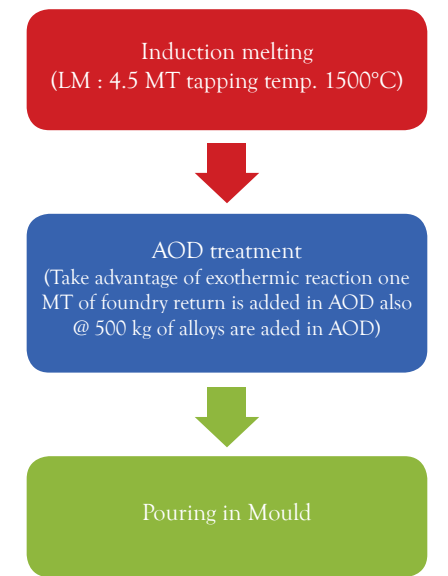
Benefits of AOD

- Energy :**
- Reduction of power consumption cost by 30%
 - Direct saving of 190 units / ton while indirect saving of 65 units / ton. Total saving of 255 units / ton
- Quality :**
- Improvement in purity in term of gases impurities as low as 50 ppm for O₂ against 200 ppm in induction
 - Reduces non-metallic inclusion (as low as 0.5 as per ASTM E-1122)
 - Reduces sulphur level
 - Reduces carbon percentage to the desired limit
 - Makes any grade of stainless steel casting
 - Effective homogenisation of liquid metal for chemical analysis
- Commercial :**
- Use of high carbon (cheaper) scrap leading to 25% saving

Conventional Process



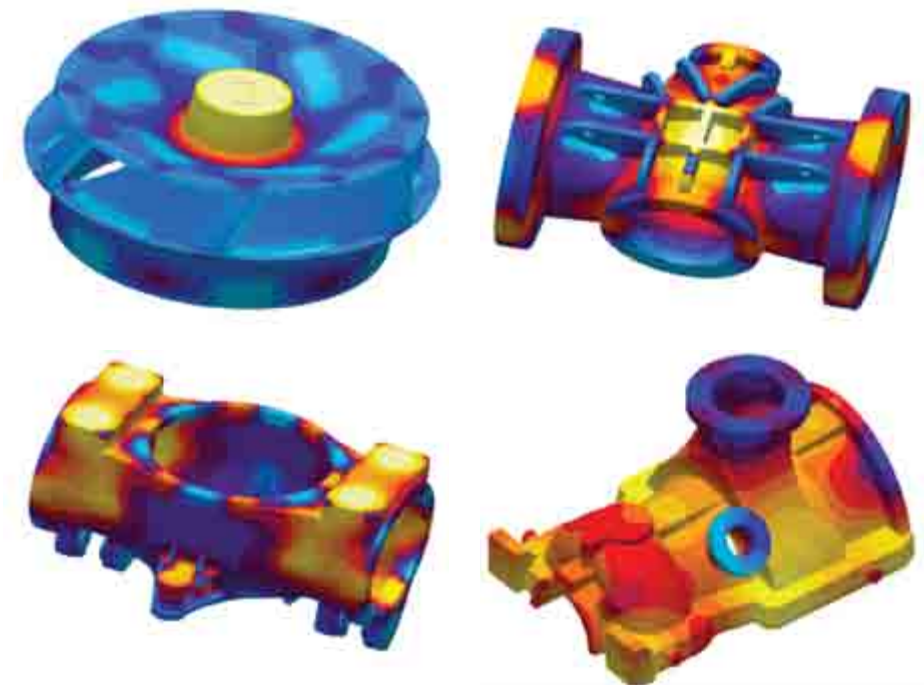
AOD



Casting Simulation

Magma simulation software predicts the complete casting process including filling, solidification, cooling and allows the quantitative predication of various properties.

Simulation accurately describes a cast component quality up-front before it is manufactured. The casing methodology can be designed to meet required quality invariably reducing casting development time.



Mapping the Future

- B. R. Pachkawade - Head, Channel Partner Management, Kirloskarvadi (KOV) Dealers, KBL

Gen-Next Programme (Module-2) for KOV Dealers
at KBL Global Headquarters, Pune



The participants engaged in discussions on topics including HR Planning and Recruitment, Appraisal Process and System, Human Relations at Work, Compensation and Reward System, Employee Motivation and Leadership Development, Strategic Leadership and Strategy Implementation and Control and Strategic Choices and Fits.



The planning process at KBL turned a new leaf with the launch of Gen-Next. The programme organised from April 26 to 29, 2012 at Pune, was inaugurated by Mr. Sanjay Kirloskar, Chairman and Managing Director and Mr. Jayant Sapre, Director, Kirloskar Brothers Limited (KBL) at KBL Global Headquarters, Pune.

The session included presentation of business plans for next five years by

team leaders. This interesting session had the participants present the 'Vision and Mission' statements of their organisations and how those aligned with KBL's corporate vision and mission statement. The eminent panel of senior KBL leaders gave their advice to the enthusiastic presenters. The programme ended on an upbeat note, with a number of participants demanding more programmes like this in future.

Pumping Innovation at Plumbex 2012

- Sumit Bhat - Global Marketing and Communication

Plumbex India Show is India's only international trade show for plumbing and its allied products. It was an apt platform to showcase its world class range of pumping solutions in plumbing. Kirloskar Brothers Limited's (KBL) participation was represented by its Building & Construction Sector team. The KBL stall was awarded the 2nd prize for the best Stall Design which pertinently related to theme on "Pumping Innovation". It exhibited its Space Saving Multi Stage Multi Outlet (MSMO) fire fighting pump, Containerised Fire Fighting set, Hydro Pneumatic Pressure Boosting System (HYPN), SMS Alert System and Jalverter. This was highly appreciated by the senior consultants and customers from across the country who visited the stall at the three day expo.



KBL participates in IFAT ENTSORGA 2012

- Preeti Sapre - Global Marketing and Communication

IFAT ENTSORGA is world's leading trade fair for water, waste water, sewage and raw material handling. The high-caliber event is attended by key players of the sector from around the world. Organised from May 7 to 11, 2012 in Munich, the event had a total of 2,939 exhibitors from 54 countries present on 215,000 square metres. The event was attended by over 125,000 visitors from 180 countries.

For KBL, IFAT ENTSORGA is an important platform to meet the customers and present our products. Europe is an important market for KBL's wide range of products for different applications. The KBL presence at the event was impactful and over 100 international visitors familiarised themselves with our new technologies at KBL stand. The diversity of attendees visiting this trade fair makes it an extremely attractive show. There were 1200 exhibitors of pumps, valves and systems. The product categories on display included, water extraction and treatment, water and sewage treatment, coastal protection / flood control and systems that generate energy from waste materials.



KBL Participates in Bharat Petroleum Vendor Meet

- Sawantan Majumder - Global Marketing and Communication



KBL attended a vendor meet organised by Bharat Petroleum Corporation Limited (BPCL) on June 27, 2012 in Kolkata. The KBL team was given a prime slot for deliberations and presentation. During the day long networking event, our team shared details about our Innovative Energy Efficient Products with the BPCL authorities, their contractors and consultants.

East Zone (India) Channel Partners' Meet of Industry Sector

- Sawantan Majumder - Global Marketing and Communication

A day long meet was organised for the Industry Sector Channel Partners' on July 13, 2012 at The Park Hotel, Kolkata. The meet was attended by our partners from across the East Zone (India). The theme of the meet was "Widen and Deepen Our footprints". A fruitful dialogue took place between the channel partners and KBL representatives. The meet discussed the way forward for this fiscal and deliberated on various issues. The meet was attended by KBL industry team comprising Mr. Swapan Mitra, Mr. Baban Pachkawade, Mr. Sanjay Moghe, Mr. Abhijit Kulkarni, Mr. Ramchandra Mahind, Mr. Susobhan Mitra and Mr. Suman Chakraborty.



Power Sector Customer Meet

- Chandan Singh - Marketing, Power Sector

A customer meet for all stakeholders of Power Sector was organised in Kolkata on July 12, 2012. The theme of the seminar was "State-of-the-art Energy Efficient, Innovative Pumping Solutions for Power Sector". Presentations were made on Hydrel, Valve, Corrocoat, Motors Lowest Lifecycle Cost (LLC), Concrete Volute Pump (CVP) and

Vertical Turbine Pump (VTP). The seminar generated remarkable response from all customers and they have clearly demonstrated their faith in KBL as their trusted partners. Senior stalwarts of the industry like Mr. S.Dasgupta Ex-Chairman of MPEB and senior advisor DCPL, Mr. A.Mishra, Director Technical DVC, Mr. A.K.

Ghosh, Director Projects WBPDCCL and Mr. Rabindra Bose, Director Operation WBPDCCL spoke highly of the engineering capabilities of KBL, especially the products. In the afternoon a presentation was organised, which was attended by over 70 engineers.

The theme of the seminar was "State-of-the-art Energy Efficient, Innovative Pumping Solutions for Power Sector"

Hearing from the Customers

Mr. Kirloskar meets Key Customers in Kolkata

- Chandan Singh - Marketing, Power Sector

Mr. Sanjay Kirloskar visited Kolkata on June 15, 2012 to meet important customers like Bengal Ambuja, Metro Railways and DCPL

Technical Seminars in Odisha Attract Customers

- Suman Chakraborty - Zonal Head, East Zone, KBL

A series of technical seminars was organised at Paradeep Phosphate Limited, IIFCO & Essar Steel Limited between May 23 and 24, 2012. The seminar was attended by 75 participants from Engineering, Maintenance and Purchase departments. The presentations covered Kirloskar Process Pumps, Lowest Lifecycle Cost (LLC), Auto Prime, Energy Audit and Valves. During interactive session KBL's Customer Services and Spares (CSS) representative shared useful tips on pump maintenance with the customers. These seminars generated a lot of interest on **Kirloskar's innovative and energy efficient product range.**



Mr. Kirloskar met **Bengal Ambuja's** Mr. Harsh Neotia - Chairman, Mr. N.K.Jain - Whole Time Director, Mr. Dipak Agarwal - G.M., Contracts & Procurement.

He also met Mr. Radhey Shyam - G.M., Mr. R.K.Roy - Chief Electrical Engineer Construction, Mr. C.N.Singh - Deputy Chief Electrical Engineer, Mr. S. Bhattacharya - Deputy Chief Electrical Engineer Projects from **Metro Railways**.

From **DCPL** he met Mr. G.C.Nundy - Vice Chairman & Managing Director, Mr. S.K.Dasgupta - Vice Chairman (Technical) and Mr. D.S.Mullick - Executive Director & Head of Department (Mechanical Engineering)

Mr. Sanjay Kirloskar, made time to have an informal lunch with the KBL Team led by Mr. Suman Chakraborty. This daylong event was received enthusiastically by the employees who were motivated by interacting with CMD in an informal manner. In the evening he met Mr. Shantanu Chowdhury of M/s. Powertech Mining Corporation - Assansol.



IISCO & ECL Participate in Technical Seminar at Assansol

- Suman Chakraborty - Zonal Head, East Zone, KBL

A technical seminar was organised for customers from IISCO & ECL on July 6, 2012. The seminar focused on “Innovative Energy Efficient Fluid Handling Solutions” from KBL. Kirloskarvadi and Dewas range of products was showcased along with a presentation from Customer Services and Spares (CSS). The seminar was attended by more than 70 senior representatives from ECL & IISCO.



Kirloskar Ebara Pumps Limited (KEPL) Vendor Meet

- Ashish Tiwari - Marketing, KEPL

KEPL organised a meet for its key vendors and suppliers on July 28, 2012 in Pune. The meet was held to share with the members in upstream supply chain, the KEPL goals 2016-17. It addressed the matters related to material procurement at KEPL. This followed KEPL's Sales Partners Meet which was held at KEPL Head Office in Pune on July 27, 2012.



KEPL, Technical Seminar

- Ashish Tiwari - Marketing, KEPL

KEPL organised technical seminar for its esteemed customers from Hydrocarbon and Chemical process industries in Ankleshwar on May 23, 2012 and in Dahej on May 24, 2012.

The seminar in Ankleshwar was organised with IICHE (Indian Institute of Chemical Engineers), Ankleshwar chapter, where 100 customers from various organisations attended the session.

Dahej seminar was exclusively for Reliance Petrochemical complex where 40 key officials from Reliance Industries Ltd. attended the session.

Safety First!

- Dr. Rajan Kamat - Kirloskarvadi

Mock drill for a LPG leakage at cylinder storage area

In keeping with the Safety-First philosophy of KBL, a mock drill was organised on July 19, 2012 at the CI Foundry LPG Cylinder Storage Area to check the alertness of the organisation, in case of an LPG leakage incident. The assigned observers Mr. S.S. More and Mr. J.S. Makandar noted the following in their report:

Fire tender and security guards reached to emergency location within five minutes

Department fire fighting trained employees played their role actively

Head count taken by shop supervisor at assembly point

Security guard came to the location with two fire extinguishers



Birth of BLACK Gold

- Nirmal Tiwari - Head, Dewas Operations

Foundry Productivity Improvement

Black Gold: A Re-Engineering Foundry Project for Value Addition

Project Black Gold is an initiative to manufacture intricate hydraulic pump castings in a mechanised foundry using latest technology to cater 100% in-house requirement for volute and intricate impeller castings. The name BLACK GOLD is an apt description for the production of Black castings which are as precious and valuable as gold when assembled in pump adding value to the product. The main objective of new automated foundry is to improve productivity, reduce cost and improve casting quality with safer working environment and lesser worker fatigue.

Project Black Gold Vision

Project Black Gold set for itself some steep targets. The vision was to become the lowest cost producer of intricate castings for KBL small pump operation; to become an independent profitable cost centre and to ensure high quality of international standard.

Re-layout of existing foundry setup

Capital investment was proposed for balancing the plant infrastructure with replacement of old unserviceable equipment in different areas of foundry. The project team visited foundries around Indore and Kolhapur to benchmark foundry working layout, plant infrastructure. They observed consistent moulding output of 35-40 boxes / hour.

Precious Black Gold

Project Black Gold met all its targets of productivity improvement. With fully mechanised plant, modern infrastructure and technology upgrades the plant improved upon capacity to meet market growth. Process upgrades led to higher yield, faster response and quick delivery of castings for product development. Scoring high on aesthetics, the castings manufactured here are low on maintenance and weigh less. The functional areas of the plant are a treat to the eyes with pleasing visual displays. Safe and pleasing work environment have led to superior managerial efficiency. The operator friendly processes have lowered fatigue levels of the workmen.

With FIFO / KANBAN system, 2S certification and MOST implemented across the foundry, quality and productivity has been maintained.

Dealer Portal for Kirloskarvadi Dealers

- B. R. Pachkawade - Head, Channel Partner Management, Kirloskarvadi (KOV) Dealers, KBL

In line with our policy to further strengthen our channel partners, several links have been provided on dealer portal that have encouraged paperless working. The links have facilitated online interaction amongst dealers. KBL online status of an order can be checked, so also online performance monitoring, efficient and fast communication, helping dealers in higher inventory turns. The new environment has increased confidence of customers and reduction of email for status follow up.



Online Performance Monitoring

'Online Performance Monitoring' is a feature on dealer portal which helps dealers monitor their performance online. This initiative is in line with KBL's endeavour to 'GO-GREEN' and reduce paperwork. In addition to helping dealers reduce and even eliminate use of paper for this activity, this feature has increased convenience by keeping the dealers updated with current information.

This platform enables dealers to interact within themselves and also with KBL employees and sharing experiences, major achievements, new applications and suggestions for improvements with each other. Dealers are able to get online status of pending order. All technical details including pump selection package, 'Dolphin' required for marketing of products and other facilities are available, to empower the dealers to be self-sufficient. Digital marketing access is available through webinars, which gives insight on product offerings. Provision is made for updating own stock and checking pumps from other dealer's stock to fulfill requirement of customers and for fast rotation of inventory. All dealers are able to book their pump orders online which have resulted in huge reduction of order processing time, paper work and other errors.

Empowering Vendors

Translating imagination into action

- Anushka Shembekar - Corporate Information Centre

Windows SharePoint is making it easier for people to work together in an enterprise environment. Users in organisations leverage SharePoint to set up web sites to share information with others, manage documents from start to finish, and publish reports to help everyone make better decisions. At KBL, SharePoint is being used to collaborate, increase productivity by finding pain points, solving them with new internal tools.

Vendor Portal Initiative

The internal supply chain, from material requirement generation to vendor payment is handled completely through SAP. Traditionally communication to external vendors for purchasing transactions was done through means like paper / e-mail / phone till March 2012.

Vendor Portal Initiative was launched to cater the exponential growth of business and facilitate real time communication with our vendors. The objective was to make deliverables to our customers in more efficient and professional way. The vendor portal addresses critical areas like, Purchasing Process (RFQ and Quotation), Online SAP Reports and Communication Channel.

Through the vendor portal initiative, vendors and KBL can see the orders placed in real-time and view dispatch details online. The portal has reduced the time, effort and money spent on communicating and frequent follow-ups. The vendor portal has a user

base of around 400 and the feedback received from vendors is positive and encouraging.

Working Smarter with SharePoint

SharePoint Document Library Initiative

At KBL, the sharing of files and documents had been happening through email (as attachments) and by sharing folders. While this is one way of sharing information, there are significant disadvantages to these methods. The methods are not secure, there is no easy way to save versions of a document, no easy method for content approval and the documents are hard to search in network folders / emails.

With the implementation process of SharePoint 2010, a document library is being deployed for all users. Departments / sectors already using this facility include; Power, Water, Industry, CSS, CHRMC, Legal, Purchase and Manthan Project.

Productivity Matters

Implementing Maynard Operation Sequence Technique (MOST) at KBL-Dewas and Shirwal

- Vasant Grover - General Manager Foundry, Dewas Operations

The MOST (Maynard Operation Sequence Technique) Work Measurement Technique is a revolutionary system that concentrates on analysing activities based on the movement of objects.

Kirloskar Brothers Limited, Dewas was established in the year 1962 for the manufacturing of small pumps. During the 90's, in the conducive environment of economic liberalisation KBL- Dewas improved the manufacturing processes to meet the changing requirements of the market and customers. It was in line with KBL's corporate vision to be recognised globally as a reliable, innovative and cost effective solution provider in hydraulic machines and system. While embarking journey towards achieving the vision and mission, a detailed

study of manufacturing operations was done to identify the opportunities for improvement and a significant scope was observed for improving productivity. Maynard Operation Sequence Technique (MOST) was implemented to measure productivity at Dewas. The results were stunning and the first phase of the implementation saw 250% increase in productivity. Another 40% increase was achieved in the second phase through layout improvements.

Benefits

With the implementation of MOST, the plant at Dewas achieved cost reduction, significant increase in capacity from 180000 to 400000 numbers / year and rise in sales. With improved layout, engineers were motivated to adopt new methods and innovate. Workmen adopted productivity improvement drive zealously as it directly contributed to their wellbeing. Financial incentives improved the social status of the employees.

The Shirwal plant too implemented MOST for 480 EWT and improved the production capacity from 80 pumps in a day to 200 pumps / day. The momentum of improvement still continues at both these plants where it has become a way of life.

Visit of key delegation to Kirloskarvadi Works

- Abhinav Dhar - Marketing, KEPL

Officials from Technip-France, Italy and India included Mr. Giorgio Santolini, Mr. Stéphane Vignaud, Mr. Jean-Marc Fosseux, Ms. Sveva Depetrillo, Mr. A. Anandan, Mr. Samuel Lemesnager. UHDE-Germany - Mr. Somar and Mr. Rao visited Kirloskarvadi Works



Delegates from Technip - France, Italy and India



Delegates from UHDE - Germany

Key officials from Mangalore Chemicals and Fertilizers

- Ashish Tiwari - Marketing, KEPL

On July 25, 2012 Mr. K. Prabhakar Rao, Director - Works, Mr. Ramesh Bhat N, General Manager - Projects and Mr. M. Mohan Rao, Dy. General Manager - Projects (Mechanical) from Mangalore Chemicals & Fertilizers Limited (MCF) visited KEPL works at Kirloskarvadi.



Our Culture is Our Organisation's Culture, and so are our Values

- Shreekanth Ramaswami

Shreekanth Ramaswami joined KBL in 2003 as G.M. (East Asia Business) and is presently the Business Head of Kirloskar Brothers (Thailand) Limited, a KBI subsidiary located in Bangkok with regional offices in other ASEAN countries. A qualified Engineer, in 2006 Shreekanth has attended an intensive Executive Management Programme at India's premier institute, IIM – Ahmedabad. Passionate about his fitness, he is also an avid follower of global economics and geopolitics.

An interesting read to share with a great take-away on Values and Culture...

In the opening chapter of his book, “Outliers - The Story of Success”, Malcom Gladwell tells a short story of the inhabitants of a lesser known town in Pennsylvania State called Roseto. Let me briefly take you through what the author has discussed in this narrative - The story dates back to 1882, regarding the migration of Italians from Roseto Valfortore, which lies one hundred miles southeast of Rome to Pennsylvania, United States and there the creation of a small town today known as Roseto. Going fast forward and in the 1950's, a startling revelation comes to fore accidentally due to the presence of a Physician named Stewart Wolf on a visit there. He is informed that the residents of Roseto under the age of sixty five do not suffer from heart diseases and related ailments (this was at a time that Heart Attacks were an epidemic in the United States). Detailed investigation of the entire community followed, by studying the dietary system to living standards and medical tests. In short and as narrated by the author - “In Roseto, virtually no one under fifty-five had died of a heart attack or showed any signs of heart disease. For

men over sixty-five, the death rate from heart disease in Roseto was roughly half that of the United States.”

The author further writes of the difficulties that Messer's Wolf and his colleague Bruhn faced in presenting their findings to the Medical Community, given the skepticism and negativity in accepting such unconventional medical conclusions. The medical conclusion presented suggested thinking about health in terms of community further stating that it was required to look beyond the individual and human body; it was pertinent to understand the culture he or she was part of, and who their friends and families were, and what town their families came from. They had to appreciate the idea that the values of the world we inhabit and the people we surround ourselves with have a profound effect on who we are.

The above detail is as narrated by the author.

I felt this was an interesting read to share given its context and reality on how our values and culture matter in our everyday living existence. This is harmony, regarding which I will discuss, later in this writing.

Values and Culture, diverse in different organisations...

We see this commonly, including in our past organisations and across a set of organisations. In seeing this dissimilarity, exists the essence of understanding why the culture and values in the organisation matter to the future of the organisation. Now this does create a dilemma though! Are we referring to people identifying their values to the organisation or is it identifying themselves to the organisation values? Complex but simply put, how does the employee and the organisation meet the identification criteria? After all, only if there is a match, can there be harmony!

And this is not very different from what we see within our families, in our lives and our social interactions. Don't we all see this manifest in all aspects of our living existence?

I do not think there is a need for the organisation to write down a defined set of values for its people; this implies a disciplined approach without understanding the ideals. So, I realise that it is our values that we take to building an organisation and it is our culture that the organisation experiences.

The analogy...

The parallel discussed moves further to our organisation or as Arie de Gues rightly termed as "The Living Company"; I see this book as very apt in our context. The book discusses why there are companies living generations in the business environment while some close-up along the way. Having worked at KBL for nearly a decade now (in addition to three years at KOEL earlier in my career), I am sure one would agree

that KBL and the Kirloskar Group are a living company having celebrated over a century in existence. This happened because the right people built, nurtured and the organisation evolved with the right set of rules. But in all this I understand, came along their values and culture which created and ensured a vibrant living legacy.

But I sometimes wonder by basking in this glorious past, are we conservative and orthodox in today's workings? Or are we learning, contributing and adapting by remaining involved in the company's vision for a determined future? Here is where and how I bring to the table my set of values and culture, and so does each one of us who works in this organisation.

My association with the organisation...

A decade ago when I joined KBL, together with my qualifications, I naturally brought with me, my set of values and culture; I was not sure then if these matched the company's set of values and its inherent culture. But the question here is, did KBL choose me for my work credentials or for my set of values and the culture I bring with me? I am sure the latter would not have crossed the mind of the interviewer when recruiting me. And so, the resultant position meant the company got more than it bargained for, good or bad, appropriate or not. In discussing this, I now reflect on my own values, culture and that prevalent within the organisation. I see similarities, which reflects the primary reason for succeeding a long working status in this company.

I have spent a much lesser time within this organisation than a majority who proudly proclaim their decades of service in this company. And in

this, I also see that it is a common set of values and a similar culture that translated in retaining people within the organisation. It is their values and their culture, which has united the organisation in its business continuation.

Our Organisation, a Living Company...

I look at us as a Living Company. In the "The Living Company", Arie de Gues dispassionately discusses on what if we thought of a company as a living being? We at Kirloskars surely can, after all our company has lived beyond a 100 years and this not true with other living beings, though medical sciences are continually working on aging medicines for the human needs to improve longevity.

So, if we accept this, what is it that gave us this extended life span when compared to many other institutions that do not exist any longer though started in the same era? Well, the business dynamics across industries are different and so incomparable, but it is easy to note that truly the values and culture of this living company played a positive role in ensuring its longevity.

Looking Forward...

In my commentary, I felt it necessary to talk our past, given its heritage and credentials in deciding our future. Initially I was part of the company; but after a decade when I look back, I notice that the company has become a part of me, and so realise the need to adapt to its future.

Our organisation has a vision of a global mandate; this has translated our workings with different cultures and adapting our values to respect and imbibe theirs. The beginning will bring to fore barriers we are not conversant

with, but this does not mean we take a rigid attitude in our daily workings as it is this cross-cultural team that will lead our organisation into the next generation.

We are at this cross-road of transforming ourselves from a legendary Indian living company to a similar, global, multi-race status. At this stage, the essence of the living company credential necessitates what my association does to our organisation for its future. I am not suggesting a compromise situation, as at the very core of values are principles we believe in and a culture which is shared by familiar feelings.

It is we who matter in enabling the right values in our new generation organisation and creating a truly enriching, multi-cultural work place.

Not all of us openly profess our ideologies in the being together, but if we truly accept our togetherness as our acknowledged strength, we then need to contribute the appropriate values within this living organisation of people with whom we share this common culture.

To remain in a living company means, we persistently need to translate our value beliefs and culture within the organisation but by adapting to the company's vision. After all, I have not been identified by the values set forth by the organisation but rather by the values set forth by colleagues whose culture is the widespread working style of the company.

And in conclusion, "Holding Hands, Building Trust"- not my words, but the citation mentioned in KBL's webpage on 'Ethics and Values'. Interesting and very true in reasserting that in all this together people movement, sets our organisation advancement.



Enriching Lives

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