

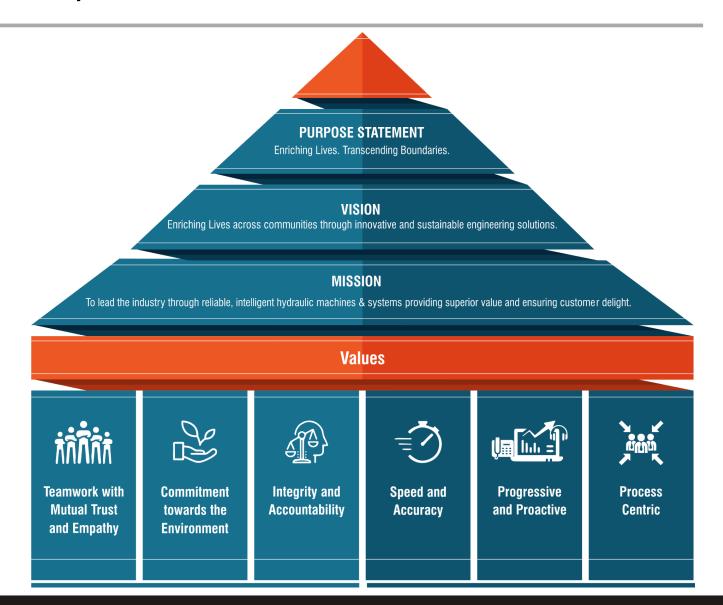


KIRLOSKAR BROTHERS LIMITED

Established 1888 A Kirloskar Group Company

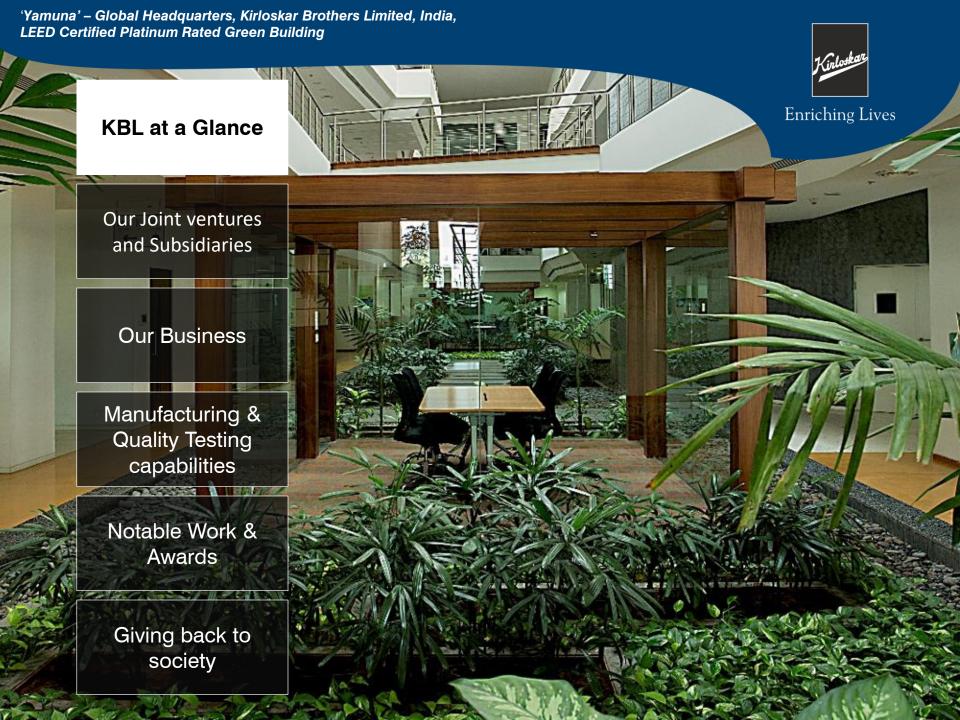
Our Purpose, Vision, Mission & Values











Key Facts about KBL



Giving Employment to

6,000+ people

Serving the world for

133+ years

Manufacturing across

16 plants

9th pump manufacturing company to get N and NPT certification from American Society of Mechanical Engineers

Our Journey

B.V.



1888	1920	1941	1946	1958	1988	2003
Establishment of Kirloskar Brother	•	Divested machine tool business to form The Mysore Kirloskar Ltd.	Divested electrical business to form Kirloskar Electric Company Ltd Divested internal combustion enginess to form Kirloskar Oil Engines Ltd.	compressors business to form Kirloskar Pneumatic Co. Ltd.	Established Kirloskar Ebara Pumps Ltd. Acquired Hematic Motors Pvt. Ltd.	Acquired SPP Pumps Ltd. Incorporation of SPP Inc (USA)
2006	> 2007	2008	2010	2013	2014	2015
JV with Corrocoat Ltd, UK to form Kirloskar Corrocoat Pvt Ltd	Acquired The Kolhapur Steel Limited Incorporation of Kirloskar Brothers International	Incorporation of Kirloskar Pompen BV Incorporation of Kirloskar Brothers	Acquired Braybar Pumps PTY (South Africa)	Amalgamated Hematic Motors Pvt. Ltd. with Kirloskar Constructions & Engineering Ltd to form	Acquired SyncroFlo Inc. (USA)	Acquired Rodelta Pumps International B.V. (The Netherlands)

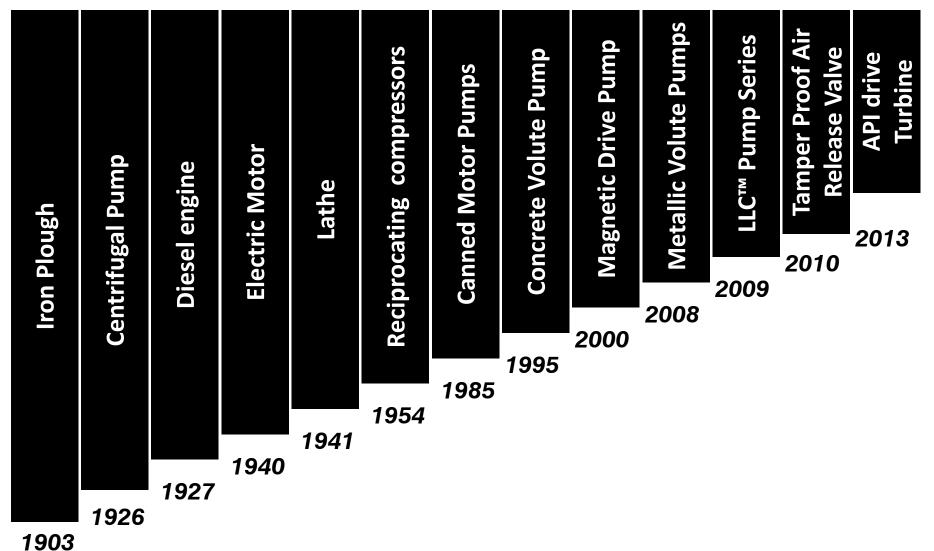
Thailand Ltd.

Karad Projects

& Motors Ltd.

Giving India Its First







KBL at a Glance

Our Joint ventures and Subsidiaries

Our Business

Manufacturing & Quality Testing capabilities

Notable Work & Awards

Giving back to society



Our Joint Ventures and Subsidiaries





SPP Pumps Limited, United Kingdom

- Leading market presence in Fire Pump Packages business. Lowest life cycle cost pump range
- R&D, manufacturing and test facilities in UK



SyncroFlo Inc.,
The United States of America

- Leading American pump Packager
- Provides Booster and HVAC Packages



Rodelta Pumps
International B.V., The
Netherlands

- Leading manufacturer of API and Non-API pumps
- Specialization in O&G, Paper, Chemical and other fluid management applications



Kirloskar Brothers (Thailand) Limited, Thailand

 Sales and packaging of centrifugal pumps for South East Asian markets



Kirloskar Brothers
Europe B.V., The Netherlands

 Sales and packaging of centrifugal pumps for European markets



Braybar Pumps Limited, South Africa Manufacturing and sales of high head Multi-Stage pumps, Rubber lined slurry pumps and white metal lined bearings

Our Joint Ventures and Subsidiaries





Kirloskar Ebara Pumps Limited

- Centrifugal pumps as per API 610
- Multistage Boiler feed pumps
- Steam turbines and Turbo-gensets
- Hydraulic Power Recovery Turbine (HPRT)



Karad Project's And Motors
Limited

- Motor manufacturing company with expertise in manufacturing of Stampings, Stators, Rotors, AC rotating machines, Aluminium Die-cast Connecting Rods and Pump assemblies.
- Also manufactures energy efficient motors for various applications.



The Kolhapur Steel Limited

- Specializes in the manufacture of a wide variety of castings.
- The castings caters to demand for products like pumps, valves, turbines (steam and hydro), marine, rubber machinery, mining and general engineering.



Kirloskar Corrocoat Private Limited

- Energy efficiency coatings
- Sea water application
- Single point solution provider for applications in Infrastructure, Water, Power, and Oil & Gas



Our Business



Large & Medium
pumping solutions
for complex fluid
management system

Small pump
for day-to-day use at
households and farms.

Valves
for industrial and largescale applications

Hydel turbines



Oil & Gas



Power



Marine & Defence



Irrigation & Agriculture



Building & Construction



Industrial



Water Resource Management



Customer Service & Spares



Small Pumps Business

Our Product Line



Over 75 types of Pumps

Pumps up to 22 MW

Lowest Life-cycle Cost (LLC™) pump series

Flow up to 120,000 m³/hr

Head up to 3200 m

28 Types of Valves

Valve diameter 50mm to 5m

Low Tension Induction <u>Mo</u>tors Pico and Mini Hydel Turbines (3 KW - 10 MW) PLIMP RODA MORE MANUAL MANUA

EPC Capabilities

Global Footprint





At KBL, identity of women workers matters



Enriching Lives



100% women operated manufacturing plant at Kaniyur

Our Innovative Solutions





Solar Pumping System



Lowest Life-cycle Cost (LLC)™
Pump Series



Augmented Reality Mobile Training Guide



Pump Selection Package



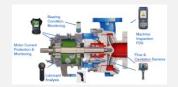
Primary Heat Pumps for Nuclear Power Plant



Canned Motor Pump



Fire Pump Monitoring



Remote Monitoring System – KirloSmart®



Digital Sizing Guide

Association with Governments



Angola



Ghana



Lesotho



Sudan



Cambodia



Jamaica



Senegal



Vietnam



Egypt



Laos



Sri Lanka



Zimbabwe



Our Global Partnerships













































Few of our Global Customers













































End-to-end Capability



Conceptualization

Manufacturing

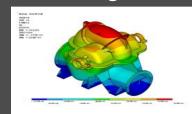
Implementation



Concept Design



Engineering Design



Performance Analysis







Manufacturing



Quality Check



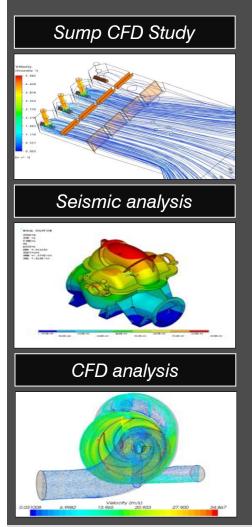
Installation & Commissioning



Authorized
Service Centre

Our R&D capability





- High performance and new product development
- Experimental Sump model studies
- Sump model
 studies using
 computational
 fluid dynamic
 (CFD) techniques
- Surge, Structural, Cavitation test, and Transient analysis



6 US patents filled & approved

Approved Patents

'Arrangements for pumping fluids from sumps' is published in US.

Benefit in terms of efforts

Helps in elimination of air entrainment and reduction of minimum submergence.

Benefit in terms of monetary value

Saves in the cost of excavation of the pit as well as in the concrete lining.

Our Manufacturing Capability









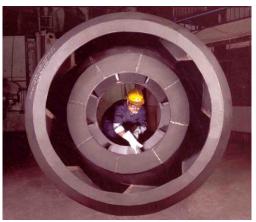




Foundry Capability









- 3D Printing facility
- Monthly production capacity = 1,400 tons
- Capability to produce a single casting weighing up to 8,000 kg
- Casting capability of special alloy steels to international standards
- Equipped with a centralized pattern shop, mechanized sand processing system, automatic molding machines and metal pouring system.
- Independent units for cast iron, alloy steel and non-ferrous metals.

Testing and Quality Control Capability



Enriching Lives

Quality Control



FARO arm

Material Testing and MetrologyUniversal Testing Machine

- Fatigue Testing Machine
- Hardness Tester
- Portable co-ordinate measurement
- 3D scanning
- Spectrometer (computerized)
- Surface Finish Measuring Instruments

Non Destructive Testing Laboratory

- Radiography
- Ultrasonic Testing
- Magnetic Particle Testing
- Helium Leak testing
- Liquid Penetrant Testing

Testing



Hydraulic Research Centre

- Closed circuit NPSH testing capabilities
- Computerized data acquisition system
- Pump testing at duty conditions up to 5000 kW motor and discharge up to 50,000 m³/hr.
- Physical Sump and Pump model study
- Built as per British Hydraulic Research Association
- Testing at 50 Hz and 60 Hz frequency covering all global supply voltages (3.3 to 13.2 kV)

Our International Testing Facility











Certifications and Approvals



- First Indian Pump Manufacturing Company to Receive Integrated Management System Certificate (ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018)
- CE
- ATEX
- FM approved / UL Listed fire fighting packages
- India Design mark for various products







Certification and approvals – For manufacturing plants

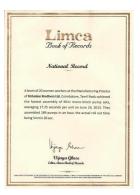




Kirloskarvadi & Dewas – Both Facilities are Greenco Gold certified Dewas – First pump manufacturing plant to receive Greenco certificate Kaniyur - First Mini pump manufacturing plant to receive Greenco certificate



KBL – Small Pump Business received the coveted CII-EXIM Bank commendation for 'Significant Achievement on the journey towards Business Excellence'.



A team of 20 women workers at the Manufacturing process achieved the fastest assembly of Mini mono-block pump sets, averaging 17.25 seconds per unit on June 24, 2013. Assembled 189 pumps in an hour, the actual roll out time being 54 min 20 sec.

Customer Service and Support



Authorized Refurbishment Centers

Global service contact points

Authorized Service and Spares Dealers

Authorized Service Centers

No.

4

36

126

467



Kirloskar Authorised Refurbishment Centre, Jamshedpur

- Reduction in lead time through Smart planning at works
- Reduction in order creation time and empowerment of sales force through CRM 7.1 Service Max ™



SPP MENA Service Centre, Egypt



Water Resource Management



Pelubang Water Supply Scheme, Malaysia

KBL supplied 8 Nos Horizontal Split Case Pumps (Bottom Suction, Side Delivery)

Head: 98m

Flow: 570.6 m³/hr

RPM: 993 rpm

Motor Rating: 988 HP



Water Resource Management (Cont...)



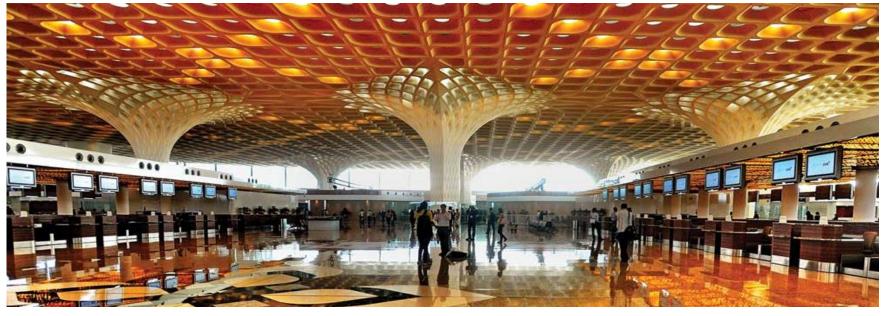


Hunter Water Corporation, South Wales, Australia

KBL supplied 2 Vertical Turbine Pumps (BHQ70), Motor 872 HP

Building & Constructions





Mumbai International Airport - T2 Terminal

KBL supplied 27 pumps for the maintaining systems at the Airport.

Maximum flow: 1703 m³/hr Maximum head: 27.5 meters Maximum Speed: 2900 RPM

Building & Constructions (Cont...)





Gujarat International Finance Tec-City (GIFT)

Presently under construction to cater to India's large financial services potential by giving global MNCs a world-class infrastructure and facilities.

KBL supplied 12 pumps for its district cooling systems.

Maximum flow: 3407 m³/hr Maximum head: 90 meters Maximum Speed: 1492 RPM

Irrigation





Sardar Sarovar Narmada Nigam Ltd. (SSNNL)

KBL's concrete volute pumps and vertical turbine pumps support the world's largest pumping system.

Liquid: Water

Flow: 72,000 m³/hr.

Head : 16.3 MWC

Speed: 200 RPM

Motor: 6035 HP



After supporting the Green Revolution in India, our pumps made Senegal & Laos self sufficient in food and facilitated the transformation of the arid desert belt across the river Nile in Egypt into a lush green farmland. Kirloskar pumps are operational in one of the world's largest pumping schemes, Sardar Sarovar Narmada Nigam Limited, irrigating 540,000 hectares of land and providing drinking water to over 30 million people.

Cambodia

Cambodia

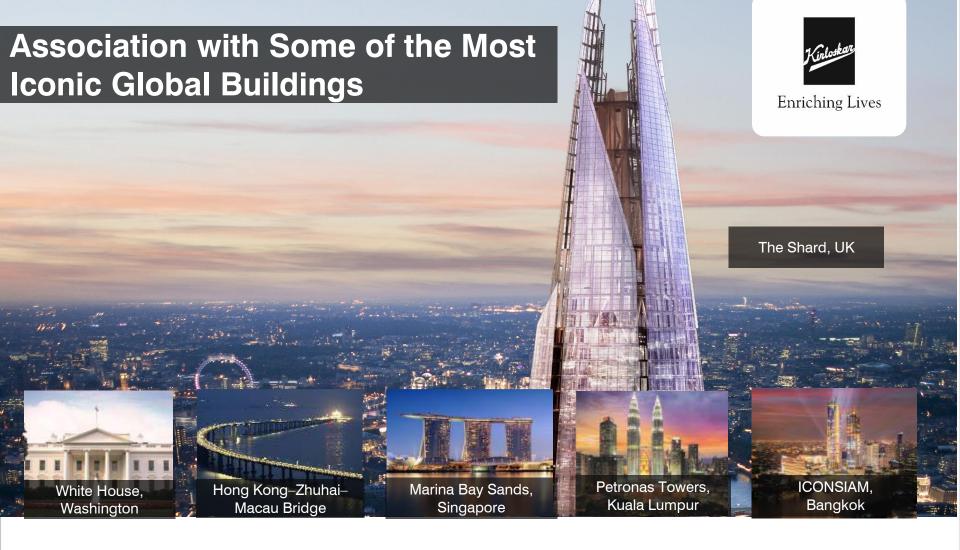
Laos

" A Pump is called Kirloskar in Egypt"

Egypt



We are the first and leading manufacturers of critical pumps in India. We have supplied primary and secondary sodium pump to Bhavini and specialised pump sets for the ITER (International Thermonuclear Experimental Reactor) project in France, the world's largest magnetic confinement plasma physics experiment. Our pumps made India self sufficient in production of heavy water.



KBL's pumping solutions are operational in many of the world's iconic buildings



KBL's pumping solutions are in operation in many of India's iconic projects like Sardar Sarovar Narmada Nigam Ltd, Statue of Unity, Kartarpur corridor, PSUs, Metro trains, Airports, major municipal corporations, leading power plants, etc.

Oil & Gas





Bharat Petroleum Corporation Limited, Mahul-Mumbai 1st pump of KEPL supplied in 1989, which is still running satisfactorily.

Model: UCW 350 X 200

Liquid: Naphta

Flow: 1000 m³/hr.

Head: 115 m

Speed : 1490 rpm

Temp : 70°C

Motor: 469 HP



Reliance Industries Limited, Hazira-Gujarat. KBL pumps used for Fench water application

Model: BB1 (KBAD) Speed: 1470 rpm

Liquid: Water and hydrocarbon **Temp**: 90°C

Flow: 1300 m³/hr. **Motor**: 1342 HP

Head: 137

Oil & Gas (cont...)



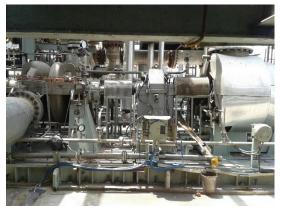


Saudi Aramco Base Oil Company (Luberef)- Saudi Arabia

Head: 1603.9 m

Speed: 4483 rpm Capacity: 92 m³/ hr.

Motor: 900 kW



Indian Farmers Fertiliser Cooperative Limited, Kalol- Gujarat

KBL supplied Unit + HPRT + Clutch + Driven Pump + Motor Model : 400 X 300 SPD 2 GT

DRIVEN PUMP		
Head	203 m	
Capacity	1399 m³/hr.	
Speed	1700 rpm	
BKW	1471 kW	
Temp.	73°C	

HPRT		
Capacity	1636 m³/hr.	
Pressure	30 kg / cm ²	
Power Generated	1080 HP	

Valves





KBL's valves supports Massachusetts Water Resources Authority, Boston, USA

Size of valves = 2.1 m Type of valves = Butterfly Valves



KBL's valves supports TNEB. India Project : Periyar Vaigai Project

Size of valves = 3.0 m Type of valves = Turbine Inlet

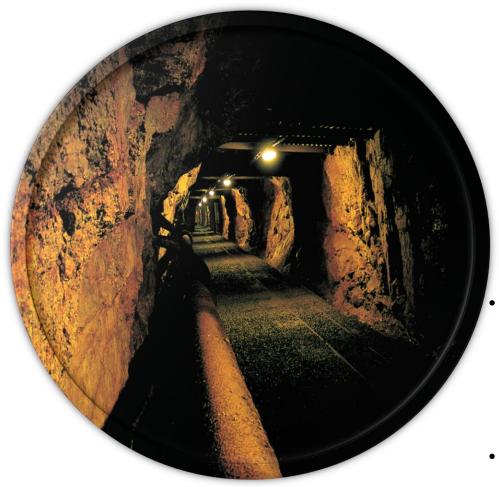


KBL's valves supports industrial projects like Jaypee Nigrie TPP

Size of valves = 3.8 m Type of valves = Butterfly

Industry





Sonshi Mines

 Design, manufacture and supply of Pontoon mounted, Autoprime Pumping system with Automation for pit dewatering

Head 450 m³/hr.

Capacity 160 m Motor 422 HP

- The pump solution included complete electric system, instruments for recording discharge, flow, pressure, power record, safety system, protection devices, alarms, stoppage under dry running, over loading, etc.
- It also included GSM based alarm system.

Industry (Cont...)



EPC For Sea Water Pumping System Of CCWS, Sohar, Oman

Liquid: Sea Water

Pump Type: Vertical mixed flow

Qty: 3 Sets

Design Capacity: 15,000 m³/hr

Total Head: 35 m **Speed**: 490 rpm

Motor Rating: 2548 HP



Marine & Defense





- Presence in projects of national interest like nuclear submarines and Indian naval warships
- Kirloskar systems installed in Shipyards and dry docks such as MDL, GRSE, Pipavav
- Unique solutions:
 - Water Mist Firefighting system
 - Axial flow pumps and Containerized pumps
 - Jet propulsion pumps for the coast guard
 - High head pumps



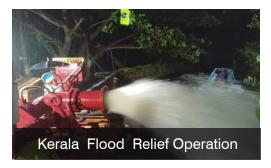
Corporate Social Responsibility



KBL conducts an array of activities and campaigns throughout the year. Primarily, the company focuses on three areas for its CSR contributions: **Education**, **Healthcare**, **and Environment**, through the Vikas Charitable trust and Sou. Radhabai Trust.













CSR activities in India



Supporting creation of clean water source for underprivileged school kids

Self-employment awareness campaign amongst unemployed youths

Health-check, eye-check camps and Vaccination camps

Provision & Up-gradation of education facilities for underprivileged school kids

Tree Plantation

Save girl-child campaigns and Sponsoring foods for orphaned kids

Donating first aid boxes and water pumps to schools of underprivileged school kids

Awareness campaign for young farmers relating cultivating and cattle breeding best practices.

Recognitions to KBL's dedication for society







Overall excellence Award – Amity CSR Conclave 2012

Kirloskar Brothers bags overall excellence award

Indore: A corporate social responsibility conclave was organized by Amity Group of Institution here on Saturday. Corporate personalities from national and multi-national companies attended the event.

More than 100 companies sent their nominations to compete in the three categories namely large, medium and small enterprise category and the overall excellence award.

Director, Amity Indore Dr Rajeev Samuel, in his welcome speech commended the initiatives taken by all the corporates. IG Indore Anuradha Shankar, was the chief guest of the programme, while chairman Bloomberg Realty Prafull Saklecha and Dr Janak Palta McGilligan were the special guest and keynote speaker at the event respectively.

The overall excellence trophy was won by Kirloskar Brothers. In the large enterprises category, Gabriel India won the first position. Mahendra & Machindra two-wheelers and Crompton & Greaves were declared as the first and secondrumners-uprespectively. In the medium enterprises category, Radisson Blu took the first spot; Impetus were the first runner-ups as to Caparo Engineering which claimed the second runner-upspot.

InfoBeans was the winner of small enterprises category. Premier Biosoft and CDN Solutions bagged the first and second runner-up spot respectively. 1884

KBL Dewas won the Award of "The Best Corporate Social Responsibility Practices"

Organized by World CSR Congress, Mumbai.

Almost 500+ companies from 30 countries had participated.

World CSR Congress recognizes KBL as India's Most Ethical Company





KBL bags 'India's Most Ethical Company' award by World CSR Congress



THE FINANCIAL EXPRESS

Kirloskar Bros gets award for ethical manufacturing

Kirloskar Brothers (KBL), a global fluid management company, has been honoured with the World CSR Congress 2014 award under the category 'India's Most Ethical Company in Industrial Manufacturing'. The

Sakal Times

KBL bags 'Most Ethical' firm award

International CSR Activities



- Listed in England's top 100 apprenticeship employers by City & Guilds and the National Apprenticeship service
- Work with the Hero's First Foundation in the USA to raise money for war veterans of the Iraq and Afghanistan campaigns which is donated to hospitals and skill building institutions
- Sponsor skill building programs in the Republic of South Africa
- 2% of average net profit for preceding 3 financial years are invested in CSR activities

SPP Pumps has been recognized as one of United Kingdom's best Apprenticeship Employers in the regional final of the National Apprenticeship Awards 2013



DEPUTY PRIME MINISTER 70 WHITEHALL, LONDON SWIA 2AS

7th October 2013

From the Deputy Prime Minister

Dear Gary Hurcombe, SPP Pumps Limited

National Apprenticeship Awards and the City & Guilds Top 100 Apprenticeship Employers

Every year, City & Guilds and the National Apprenticeship Service publish the official list of England's Top 100 Apprenticeship Employers 2013. I am delighted to inform you that, in recognition of your impressive work with Apprentices, your company will be included in the 2013 list.

In addition, I would also like to take this chance to congratulate you on your success at this year's National Apprenticeship Awards.

Apprenticeships are at the heart of our drive for a stronger economy: equipping people of all ages with the skills employers need to help their businesses prosper and compete in a global market.

As we work to increase the opportunities for hard-working young people to achieve their ambitions through high-quality apprenticeship training, it is vitally important that we celebrate the achievements of employers like you, who go the extra mile to help their apprentices succeed.

We want more organisations to know the very real benefits of hiring an apprentice. Every week, the average fully trained apprentice boosts business productivity by £214. Employers who hire apprentices are not only securing their own company's future prosperity, but also making an invaluable contribution to our economy, their local communities and the lives and careers of individuals across the country.

The Top 100 will be officially announced at the National Apprenticeship Awards ceremony at the NBC Birmingham on 14 November. And I hope that you can attend this prestigious awards evening and The Skills Show, which will be taking place alongside it.

Congratulations again on your awards and thank you for your continued commitment to helping apprentices succeed.

Best wishe

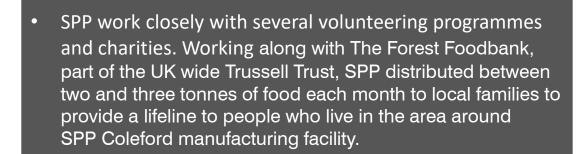
NICK CLEGG

Niw Ugg

CSR Activities undertaken by SPP Pumps during Covid-19 Pandemic



 Great Oaks Hospice, is situated close to SPP main manufacturing centre at Coleford, and like so many of hospices nationwide, are unable to take day patients due to the current situation. Instead they are doing home visits, whilst these home visits take place, SPP provides each patient with a special food package.



 SPP donated laptops to students of Coalway Junior School, located near main manufacturing plant, to ensure they have access to suitable devices to continue learning from home during the lockdown.







Thai Cave Rescue









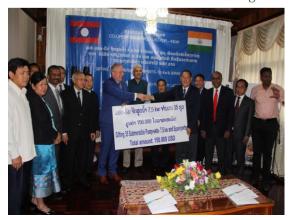
How this episode came about was something beyond control and we were all caught by surprise. Search and rescue had to be put together on the spot, right there and then it's now clear that everyone of us rose to the challenge, in dealing and adapting to the changing demands of the situation. All parts of society pulled together — government, private sector and the general public alike, mustering whatever resources at their dispose, be they physical labour, ideas, donations, and, even, in one case, the ultimate sacrificed of life itself. The group in danger themselves were taking good care of their fellow sufferers in the most admirable manner. The outpouring of sympathy and concern from all corners of the world in support of both the group and their rescuers, were overwhelming. The rescue mission, however hard and archous it proved, has indeed given rise to something of great

accomplished on 10 July 2018.

beauty whose value is truly beyond measure

I owe my deepest thanks to every single individual and every single body having a part in this mission. Clearly, there are important lessons to be drawn from this experience. The application of good management, knowledge, and technical expertise in a manner suited to the demands of the situation, are essential, keys to success in overcoming obstacles and finding solution, not only in this context but equally, in the great task of national development itself. These essential keys should of course be accompanied by personal qualities of caution, self-discipline, control, and the ability to give one's utmost in working with others. The basic human virtue of helping one another in a spirit of generosity and love, is in itself a power of formidable strength which can make humankind go on living together in an evertasting peace.

Vajiralangkorm





During Thai cave rescue, KBL sent our multi-national team of experts comprising of members from KBL (India), KBTL (Thailand) and SPP Pumps (UK), who were present onsite at the Mae Sai cave to offer their technical expertise during the rescue operation to support the Thai government and fly the Indian flag





KIRLOSKAR BROTHERS LIMITED

Established 1888
A Kirloskar Group Company

Registered Office & Global Headquarters: "Yamuna", Survey No. 98/(3to7), Baner, Pune 411045, Maharastra, India.

Phone: +91 20 2721 4444 I Email: marketing@kbl.co.in I Website: www.kirloskarpumps.com

Our Companies











India

UK

South Africa

USA

The Netherlands