



## HBL IN OMAN : A LONG HISTORY OF SUPPORT IN A GROWING COUNTRY

### Design, Manufacture, Supply & Commissioning of DC Systems

HBL has been active in Oman for 30 years. We have been pleased to provide batteries and rectifier systems to many customers in the utility, oil and gas and general contracting markets. We support our customers with field service for all of our products. They can have the confidence that we can service what we sell. Our success in Oman has been the result of an enduring partnership with the Bahwan Group - Bahwan Projects & Telecom LLC. The support of this team allows us to ensure that customers have knowledgeable local engineering support and customer service. We would like to publicly thank them for the years together.

We continue to grow together - HBL has recently successfully completed the supply of new DC system for powering DC loads in the grid, transmission and distribution substations of the Rural Areas Electricity Company S.A.O.C. (RAECO).

This customer issued EPC contract for construction of a double circuit 132 kV overhead transmission line with associated 132 / 33 / 11 kV Grid Substations located at Khasab in Oman. Khasab is a picturesque location and is known as the "Norway of Middle East".

The batteries require no maintenance, spill proof and safe to operate as there is no emission of toxic fumes. They can be stored for up to 2 years and then deployed immediately, making spare part holding straightforward.

HBL's Battle Ready batteries for Main Battle Tanks and Armoured Vehicles are Valve Regulated Lead Acid, Maintenance free. These batteries are aggressively tested to withstand Mil standard vibration & shock specifications. Battle Ready batteries are delivered fully charged and are ready for use and conform to DIN VG 96924 Part 2 and 9 Standard. These batteries carry NATO Stock number 6140-41-000-1992.

## BATTERIES FOR TANKS AND ARMoured VEHICLES

Military operations present unique requirements for vehicle battery technologies and to meet such operational requirements HBL utilizes the pure lead thin plate technology for our advanced design batteries for military applications.

Batteries on a military vehicle must be capable of delivering high power to meet engine starting and combat mode operational requirements, and they must offer utmost reliability in the field.

Stealth is a major advantage for tanks – the battery is key in "Silent Watch" operations - it must be capable of deep cycling to maximise the watch-keeper duty – and still retain the ability to immediately mobilize the vehicle and continue warfighting.

Military batteries must operate in the harshest of environmental conditions. These conditions are characterized by temperature extremes including -40°C, high vibration, high impact, dust, dirt and moisture. HBL's "Battle Ready" range of batteries have been tested and field proven with many militaries to withstand these conditions. When the battery must work, it will work.

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## HBL CONCRETE PRODUCTS - 150KTA CARBON BLACK PROJECT - DAHEJ, GUJARAT

HBL is a diverse, engineering focused company. Many of our traditional battery customers may not be aware of just how diverse we are. India is a fast growing country as many who visit regularly realise. HBL is truly underpinning that growth – literally building the bedrock of many new projects.

High Strength pre-stressed “spun concrete” piling is an advanced technology in pile foundations and is being extensively used in Japan, Malaysia, many South East Asian countries and beyond. HBL is the only company that manufacture and supplies these piles in India.

A recent example of HBL's foundations for India is in our supply for a major new manufacturing plant. Continental Carbon India Limited is establishing a large scale carbon black manufacturing plant in Dahej, Gujarat.

HBL has supplied all of the spun concrete piles of  $\phi 400\text{mm}$  and  $\phi 600\text{mm}$  diameter as a foundation for this prestigious project. HBL was selected by our customer Cinda Engineering and Construction Pvt. Ltd, an Indian subsidiary of CTCi corporation, Taiwan early in 2020 and delivery was achieved on schedule. By using precast spun concrete piles, Cinda Engineering has reduced pile foundation construction time significantly – saving costs and increasing profitability. HBL has helped them in squeezing the project time - as early completion of project construction results in early returns on investment for the owners.



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Saudi National Contracting Company (SNCC) once again trusted HBL for the new battery and rectifier systems. Bahwan Projects & Telecom LLC managed the contract locally to ensure deadlines were met and our customers were completely satisfied.

HBL was trusted again for this major project as a result of the excellent track record of the past supplies to RAECO, as well as professional, service oriented relationship with the EPC contractor. The project was technically demanding and challenging in delivery schedule – HBL was able to react quickly, submit approval drawings, build and deliver within the tight schedule. An advantage of having significant engineering support and being closer to our customers than many competitors.

HBL supplied 4 systems for the project, each comprising : -

- 110V & 48V Nickel Cadmium Pocket Plate Batteries (KBM & KBL)
- 110V & 48V Three phase Thyristor chargers along with DCDB and spares.

The systems are now commissioned and working to the complete satisfaction of RAECO.



## BATTERIES FOR TANKS AND ARMoured VEHICLES

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HBL Battle ready batteries are trusted by our customers in numerous battle tanks and armoured vehicles:-

- |                  |                           |                       |
|------------------|---------------------------|-----------------------|
| • Leopard I & II | • M60A3                   | • M41, M47, M48 & M60 |
| • AMX 30         | • Pandur                  | • Challenger I & II   |
| • Bionix AFV     | • Renault Military Trucks | • Vickers MK 1&3      |
| • Leclerc        |                           |                       |
| • HIMARS         | • Terrex                  |                       |

About HBL - HBL is a 43 year old research led Indian company listed on the Indian stock exchanges. We design and manufacture the world's widest range of specialized batteries and related electronics. We supply customers in the telecoms, industrial, military, railway, utility and UPS markets worldwide. We are able to supply products from standard ranges and to provide customized designs for challenging projects. We would be pleased to hear from you. For more information please visit our website [www.hbl.in](http://www.hbl.in)