

Move **The Present**
Charge **The Future**



MOVE THE PRESENT CHARGE THE FUTURE

Sebang Global Battery has exported products to more than 130 countries and has grown into the top 10 battery manufacturers in the world. Now, we want to be an energy company that move the present and charger the future.

A company that moves the today's world for everyone's happiness
A company that fills the energy of the future for a better world
We will do our best to make the best results.

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OUR MESSAGE

Sebang Global Battery promises to make better future by producing energy for people

We are becoming a future energy company through continuous innovative management to accommodate rapid market changes, and we put continuous efforts to develop technologies to make the best products. As a result, the company has grown to become one of the top 10 battery makers in the world, we exports our products to more than 13 countries around the world.

Sebang Battery is making its way into the world with the nation's best technology.

In order to expand its global business area, it established a branch office in Germany and Dubai in the Middle East. In 2016, it established JV (Joint Venture) in Malaysia, Southeast Asia, to expand its sales channels in Asia and implement localized sales strategies.

The future of Sebang batteries is a world where everyone is comfortable and happy. To this end, we will actively focus on develop advance technology in new business areas.

The end goal of technology development is to gain a solid advantage in the soft cell and to strengthen research and development in future energy fields such as ESS and BMS, and the basic policy of preparing for new business is to strengthen the core capabilities of the group and advance into areas where we can do the best.

The key capability of Sebang Global battery is its know-how in battery technology obtained the research and production of parts that requires for a condensed battery, manufacturing, and condensed battery.

The battery sector is committed to improving the quality of conventional coaxial batteries and enhancing their price competitiveness, and is thoroughly preparing for the lithium batteries which is a major trend in the energy market. The strategy of differentiating the lithium battery business of Sebang Global Battery focuses on the development of lithium packs that can be applied to a wide range of applications by using cells.

The core of the future energy industry is energy storage and utilization.

To this end, Sebang Global Battery continues to invest and study lithium pack design and manufacturing technologies that can be applied from large ESS for storing power generation storage to small ESS, electric buses, electric trucks, and in households by using solar energy. We are proud to announce our efforts to store and utilize energy and this will become an important growth engine for the Sebang Group in the future. Our company has also stepped up research and development of 3D printer materials using high-molecular materials by utilizing the capabilities and technology of its affiliate, which is the only company in Korea that manufactures the separating membrane of the fuel cells.

As Klaus Schwab, president of the World Economic Forum and a futurist, said: "The largest beneficiaries of innovation tend to be the providers of intellectual and physical capital are the innovators, shareholders, and investors who can provide intellectual and physical capital." We think it all comes down to human values, and the future vision of the Sebang Group is not different.



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SEBANG GROUP CEO
Sang Woong Lee

42%

Domestic car battery market share

Total of domestic automobile battery market share is 40%

Sebang Global Battery held 42 percent which is an overwhelming share compared to company A 21.7 percent, company D 18 percent, and company H 12.9 percent even with the recent decline in sales volume of finished vehicles.

NO.1

Automotive Battery category

(as of 2019)

Topped the K-BPI Automotive Battery category for 11 years in a row

The rocket battery has topped the K-BPI Automotive Battery category for 11 years in a row, selected by the Korea Association of Performance Council Consulting (KMAC). In the K-BPI evaluation, which examines the consumer's awareness and loyalty to the brand by evaluating its brand value status and future brand growth, the rocket battery was honored as a 'Golden Brand' for brands that have topped for more than a decade in a row.

11

YEARS

Topped the K-BPI Automotive Battery category for 11 years in a row

TOTAL
680
MILLION DOLLARS

Based on solid domestic sales, our export performance has improved dramatically, exporting \$680 million to over 130 countries in the world, ranking 5th to 6th in terms of sales. Gradually, the percentage of sales of automotive batteries is increasing.

1,180,800

(Unit, 1 million won)

SALES OF SEBANG GLOBAL BATTERY IN 2018 increased 15.5 percent year-on-year to 1.08 trillion won in 2017. It marks the first time since the company's establishment that it has surpassed 1 trillion won in sales. Thanks to this, sales in the first quarter of 2018 rose about 15 percent year-on-year to 293.9 billion won, and the company achieved 1.18 trillion won in annual sales.

Support for social contribution project

Honorary chairman of Sebang Group, Lee E Sun, founded "Sebang Lee E Sun Foundation" in December 2007. The foundation provided 5.2 billion won for various social service activities, including support for underprivileged people, Vision Scholarship, education for children and emergency relief aid, and the number of participants reached more than 1,000 during the same period.

5,200

(Unit, 1 million won)

1,858

(Unit, 10 thousand)

Annual production capacity of automotive batteries

Sebang Global Battery already boasts the largest output in the nation in automotive batteries. It also produces 2.1 million AGM batteries a year, making most of the world's leading car manufacturers use Sebang batteries.

1952

SINCE

Sebang Global Battery is founded in 1952 as the parent of the Naval Technology Research Institute. Sebang is based on the management philosophy of "practice of creativity" and "artificial cooperation" to charge tomorrow from the batteries that move today. We would like to be a company that satisfies from the development of clean energy to the development of clean energy, everyone wants to be an energy source in the world to have a convenient and happy life.

67

YEARS

BATTERY FOR BETTER LIFE

Energy is a very important area of business that can determine the future of humanity and big changes and innovations will be made in the next decade. Many countries around the world are recognizing the energy business as a national business and move strategically. Sebang Global Battery will also be reborn as a creative and innovative energy company to change and innovate in energy business, and to create a better life and a better world.

A brand of Sebang Global Battery's "Rocket Battery" slogan is "Battery with a Powerful and Long Life" has been a belief that has been around for more than 60 years. So what can be the driving force to continue for the next 600 years of 'Strong and Enduring' Sebang Global Battery?

Strong & Enduring

- Car batteries, which already have the largest market share in Korea and are in the top 10 in the global market, will be the main driving force behind the future of Sebang. Especially in the renewable energy business, electric vehicles (EVs) are considered an obvious alternative to gasoline-powered cars. Sebang's EV battery has the world's best technology in every contents from battery cells, modules to battery packs that make up the car battery. Based on this, the company has a stable supply and distribution network not only for EVs but also for batteries used for golf cars and forklifts.

- Another reason why Sebang battery can be strong and durable is because of the combination of renewable energy and a storage battery. It's because we have the technical skills and available know-how. From 2025, solar and wind power generation will be rapidly distributed. The ESS, BMS, and UPS technologies that are available in a cubicle are the key know-how of a 'strong and enduring Sebang battery'.



Sebang R&D Center

Located in Anyang, Gyeonggi Province, Sebang R&D Center has state-of-the-art research equipment and facilities. We will continue to provide the best support for our research staff to focus on developing the next generation of clean energy.



In preparation for the future of limited resources and possible population congestion in a specific region, Sebang Global Battery is preparing a physical and technical integration, and system integration related to hardware and software.

Prepared Energy

- Energy storage devices (ESSs), battery management systems (BMSs), and uninterruptible power units (UPSs) are energy integrated operations (SIs) that are essential to the management system (EMS) of the energy sector. As a future energy preparation, operation, and management system, Sebang Global Battery researches and develops ESS, BMS, and UPS fields, and develops a business that builds an optimal system for energy use, ranging from management/operating system consulting to maintenance and repair, to meet the needs of users.

- The future will be the era of smart grids in other words new ICT convergence, where three industries, telecommunications, IT, and energy, are fused together. Because of its distributed network structure, smart grids can sometimes result in the consumer becoming a supplier using solar or accumulator when distributed power is available. ESS and BMS are essential, and through constant R&D, Sebang Global Battery already have sufficient technical skills in the Energy Management System (EMS) in order to store all of this energy solar, wind, and electricity.



Sebang Global Battery, as a battery system maker, is actively developing a lithium packing business using superior lithium cells and exploring the battery application market.

Infinite

Future

Sebang Global Battery focuses on automotive, industrial batteries and lithium packing. As of 2012, internal combustion engines accounted for 84 percent of the automobile market, but the share of start-stop vehicles will increase to 50 percent to 60 percent in 2020 due to environmental regulations and the preference for high fuel efficiency vehicles. Therefore, Sebang Global Battery will continuously researching and developing the performance improvement and product development of premium batteries such as AGM series and EFB series for vehicles with durability and longevity used in start-stop vehicles. An increase in the weight of the Start-Stop vehicle will inevitably lead to growth in the premium battery market, such as AGM.

Batteries are the most important source of energy in the transition from 'Analog the power generation era' to the 'energy Internet era'. Also, it will be a driving force for the change of the IT industry as well as the development of the whole industry such as automobiles, electric power, and ESS. Sebang Global Battery manufactures and sells batteries with world-class reliability and affordability in both domestic and overseas markets.



Energy 4.0 combines energy with high-tech technologies in ICT, IOT, logistics, and service industries, and it is an innovative energy management system that will bring about overall structural changes in related industries from manufacturing to service industries.

Next Generation

- The energy management system of Sebang Global Battery also integrates and operates energy-related information using ICT-based technology. We collect and analyze the power supply and demand status by networking large and small power plants and supply them in a timely manner. In particular, the company focuses on smart energy management systems such as energy prediction, optimal supply control, optimization of charging of electric vehicles (EVs), and connectivity between buildings.

- Sebang Global Battery concentrates one of the next-generation businesses that is focused on is the ESS, in other words, the energy storage system. ESS is a key element in the deployment of next-generation power grids because it stores renewable energy such as solar and wind power and can be used at any time. From the world-moving batteries to the development of clean energy that charges tomorrow, Sebang Global Battery will do to our best to create a world of convenience and happiness.



ROCKET BATTERY PRODUCT LINE UP



Sebang Global Battery received the “Process Audit A” from Volkswagen and engages in OE business distributing our products to global leading car brands such as BMW, Volkswagen, Hyundai, KIA, and other brands. We hold more than 40 percent market share in the AS market for automotive battery industry in the domestic market and over 30 percent for OE business market.

GB Series



Battery that protects car from extreme environment

It is composed of special calcium alloy to maintain powerful starting performance.

- Prevents low battery life at a high temperature.
- Upgrade in the start-up performance for special calcium alloy plate.
- Use highly purified water.
- Use of the 'Special Tissue' and HTC alloy minimizes battery's self-discharge and maximizes battery's recovery performance.
- The Maintenance Free (MF) does not have any electrolyte leakage and no maintenance is required due to the double lid design and the labyrinth style composition.

AGM Series



For AUTO STOP (ISG System) vehicles

A vehicle battery with increased durability and with enhanced rapid charging capability appropriate for vehicles with ISG.

- Saves 5-10% fuel. (CO2)
- Extended battery life by 300% .
- Power management system with fuel economy control technology.
- Improved durability compared to the normal flooded battery.
- It is made by an optimized substrate for the application of the Auto Stop System and it improved the active material and the electrolyte stratification. In addition, electrolyte is absorbed to prevent leakage from the punch substrate, high density hygroscopic glass mat separator, and glass fiber mat.
- Valve Regulated (re-coupling one way valve) is applied to control the gas generated inside the battery.

GP Series

Premium Battery recognized worldwide

Increased capacity and durability deliver powerful starting performance and longer battery life

- Benchmarked prestige German function.
- Under Volkswagen evaluation ranked 'grade A'.
- Composed of Sebang Global Battery core technical skills.
- No. 1 sales brand in domestic market, No.1 in world export.
- More powerful start-up performance. (CCA up to 100A increase)
- Korea's longest warranty period. (1year or 20,000Km)



Taxi Wing Plus Series



Thermal Shock Protection Battery Considering the characteristics of Taxi Vehicle

Thermal Shock Protection Battery Considering the Characteristics of Taxi Vehicle.

- Improved battery life.
- Installed insulation plate to protect the battery from thermal shock.
- For taxi or long-running vehicles, battery life is dramatically reduced by the heat shock in the engine compartment, which is hotter than the usual, resulting in electrolyte depletion and active material fall-out.
- Heat Shield System, the world's first patented technology developed by Sebang, is a product structure that dramatically improves battery life by removing heat shock from engine rooms by installing insulation plates in a car battery.

Motor Cycle Series



Battery for motorcycles Do not require replenishment for distilled water

It uses a special alloy plate and a high performance separator for a longer battery life.

- Elongate battery life performance.
- Apply exhaust side to recombine gas generation.
- Improved starting performance by using a special plate made by particular calcium alloy and high purified water, it can prevent degraded life at high temperature condition .
- The decomposed characteristics of the calcium electrode plate have been improved and the high-performance separator does not require the need to replenish distilled water, as enough electrolytes are supplied inside each cell of the container, and long-term storage electrolyte is supplied in a separate container allowing the electrolyte be injected when needed, regardless of the storage period.

Marine Series

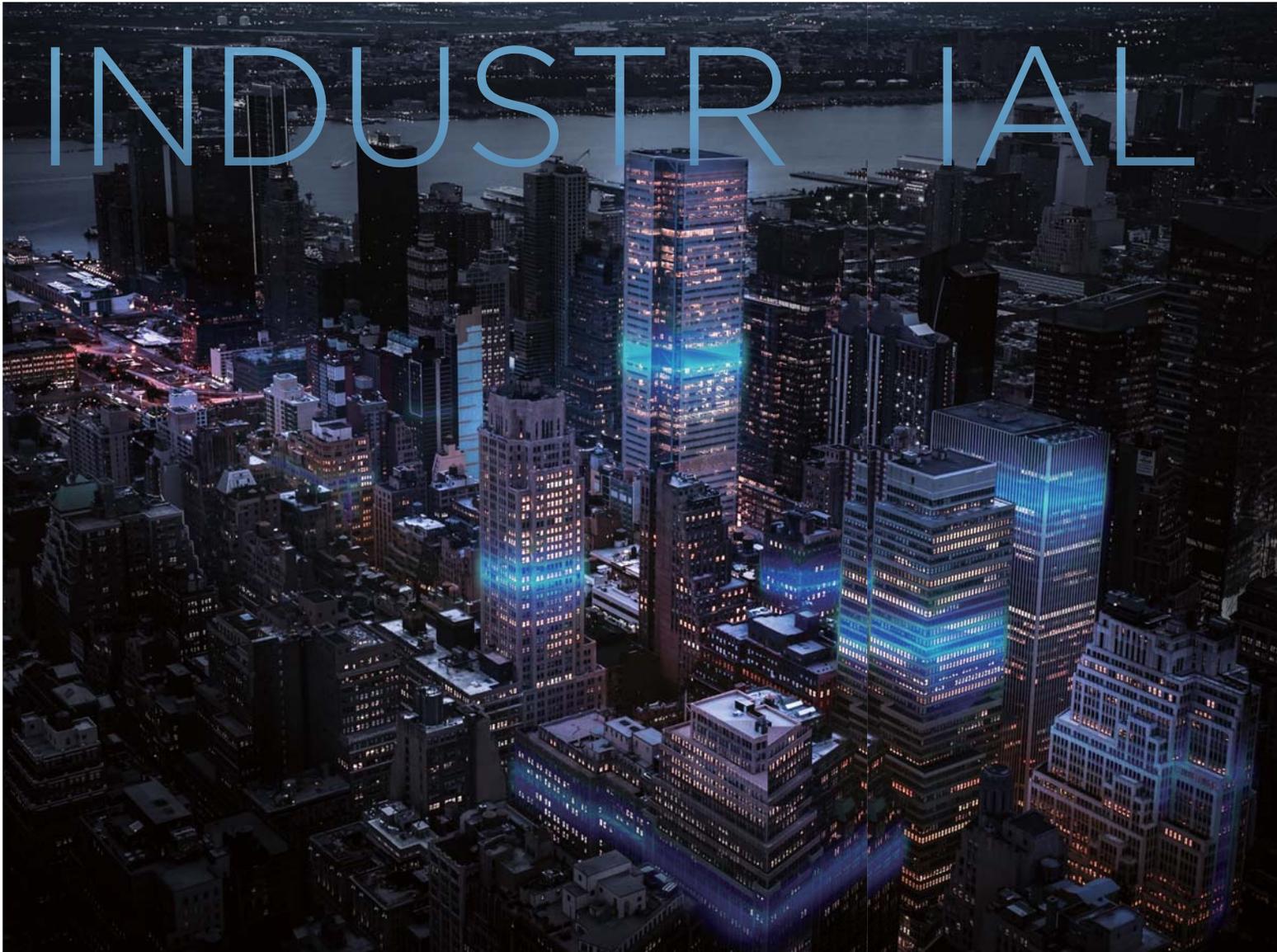


Batteries designed for rugged sea and long-term operation

Double cover design prevents electrolyte leakage and intrusion of external materials.

- Use of new material minimizes self-discharge.
- Faster battery recovery even after a long-time neglect.
- The Maintenance Free (MF) does not have any electrolyte leakage and no maintenance is required due to the double lid design and its labyrinth style composition.

ROCKET BATTERY PRODUCT LINE UP



Sebang's technology-intensive industrial battery has the durability to withstand sudden changes in the environment and extreme conditions. It is also recognized for its economic value and efficiency on its long lifespan through the use of special alloys.

GSL Series



Maintenance-Free battery with no electrolyte leakage

GSL batteries are maintenance-free, long life, enclosed type lead-acid battery with abundant capacity and high economic value.

- Secures safety in overcharge and excessive gas.
- Built-in explosion-proof safety valve and special filter.
- It is a maintenance-free product with no need of repair or weight check. It is designed to recombine internally generated gas into water.
- Sufficient electrolyte impregnated with a special isolation plate allows to maintain longer life, and triple-enclosed structure design ensures no leakage of electrolyte.

Uses: UPS System (Un-Interruptible Power Unit), Telecommunications, Alternative Energy (Solar, Wind Power, etc.), Computer Memory, Alarm, Other Equipment Requiring DC Power

ESP



Extending the life of the product by applying the latest plate manufacturing method

ESP battery shows improved performance and longer life span with the adoption of high-purity alloy and latest version of plates.

- Valve-controlled recombination battery.
- Lead/calcium alloys in both positive and negative electrodes.
- Thick plates with mechanical strengthening of the positive mass.

- Self-discharge is suppressed by electrolyte leakage prevention function.
- The basic performance of the battery is improved by special additives that control the chemical reaction.
- Product lifespan is increased due to suppression of self-discharge and improvement of basic performance.

Uses : UPS, Communication, Spare Power, Security Equipment, Renewable Energy (Solar, Wind, Etc.), All Other Equipment Requiring Dc Power

Product Name	Voltage	Capacity (AH)					Measurement (mm)				Weight (kg)
		10HR (1.8V/Cell)	5HR (1.7V/Cell)	3HR (1.67V/Cell)	1HR (1.6V/Cell)	0.5HR (1.6V/Cell)	Length (L)	Width (W)	Height (H)	Height (TH)	
ESP 40-12	12	40	34.0	30.8	24	20	197±2	165±2	174±2	174±2	12.0
ESP 65-12	12	65	55.3	50.1	39	33	325±2	165±2	174±2	174±2	19.0
ESP 100H-12	12	93	85	77.1	60	46.5	345±2	170±2	229±2	229±2	26.0
ESP 100-12	12	100	92	83	65	50	442±2	168±2	198±2	237±2	30.0
ESP 120-12	12	120	110	100	78	60	550±2	168±2	198±2	237±2	34.0
ESP 130-12	12	130	119	108	85	65	550±2	168±2	198±2	237±2	36.0
ESP 150-12	12	150	137	124	98	75	520±2	224±2	198±2	237±2	46.0
ESP 200-12	12	200	183	166	130	100	520±2	269±2	198±2	237±2	59.0

※ The above specifications may be changed without notice

ESG Series



Explosion proof valve: Excellent safety and recovery performance

ESG batteries are maintenance-free, enclosed type battery which shows excellence in recharging efficiency even when it gets over-charged. It is designed for stationary services.

- Minimized self-discharge allowed longer storage.
- Use of special lead, calcium, alloy substrates.

- In case of excessive gas caused by temporary overcharging, the explosion-proof safety valve is built in to ensure safety.
- Recoverability is excellent even if the load is inevitably connected and left unattended for a long period of time.

Uses : UPS Systems (Un-interruptible Power Supplies), Electrical panel, Communication, Precision Machinery Equipment , Railway Signals, Alternative Energy (Solar, Wind), Switch board, Factory Automation Systems

PS Series

A battery that is not flammable by external fire

Stable operation is possible under any bad conditions in the industrial field.

- Design strong against acidity and shock.
- Use of high quality transparent synthetic resins.
- The content of the container is visible, so that the level of electrolyte, state of the plate, and volume of cathode material sediment can be inspected.
- It is equipped with explosion proof device in order to prevent ignition caused by external fire under common use.



Uses: Electrical Panel, Telecommunication, Telephone Exchanger Power Supply, Nuclear Power Plant Power Supply, Substation Power Supply, Lighthouse Power Supply

VGS Series



Safety and affordability for ESS

By transforming electrolyte into GEL(solid) type, VGS became an eco-friendly battery which causes no harm to equipment and human body when it is damaged. It is proved to be stable and economical, so this lead acid battery is mainly used in many industrial sites including solar power plants, ESS and BMS.

- Triple-sealed structure with no electrolyte leakage.
- Internal pressure structure that does not explode even when overcharged.
- Horizontal or vertical arrangement is possible.
- Excellent deep discharge and recovery charge characteristic, and the prescribed capacity is maintained until its end of use.
- Self-discharge is extremely low than conventional sealed products, allowing long-term storage at room temperature without recharging.
- Anode plates, made by special lead alloy, has excellent corrosion resistance by adopting ultra-high pressure casting method.
- The cathodic plate has excellent deep discharging characteristic due to the application of specially treated cathode material and additives.
- The terminal is a nut-buried structure (99.9% copper), which is also safe for convection.
- The safety valve is made of a special synthetic rubber material for better durability and resist of acidity.
- Isolation plate is made of PVC material that is highly acid-resistant and highly porous.
- In the event of battery damage, electrolyte is gelled, which minimizes equipment damage and human risk.

Uses : Communication, ESS, UPS System (Un-interruptible Power Unit), Various Alarms, Alternative Energy (solar, wind, etc.), Computer Memory, Medical Devices, Internet Data Center (IDC), Any Other Equipment that Requires Direct Current Power

CGS Series

The only relief valve that is specially manufactured in Korea

CGS battery is the product that realizes the optimal installation space and high efficiency compared to the same lead-acid battery. It does not require maintenance such as water replenishment, and the battery lifespan is extended due to increased stability.

- Efficient installation and storage cost reduction for users.
- Innovative minimization of installation space and floor area.
- Horizontal or vertical arrangement is possible.
- The gas recombination principle is used to recombine the internally generated gas into electrolyte, which requires no refill maintenance.
- The only relief valve that is specially manufactured in Korea is applied to maintain the life expectancy and doubled the safety.

Uses : UPS System (Un-Interruptible Power Supply), Communication, Electronic Medical Equipment, Alternative Energy (solar, Wind, etc.), Security Equipment, Spare Power, All Other Equipment Requiring DC Power Communication



RP Series

Prevent sudden aging with special cathode material

RP product has maximized electrolyte-reduction resistance function by manufacturing in cutting-edge automation system with adoption of Full-Ca alloy.

- Low internal resistance and excellent backup performance.
- Using special separator and diamond shaped grid.
- Achieved maintenance-free with excellent electrolyte-reduction resistance characteristic.
- Use only selected materials such as special lead, calcium alloy substrate and highly refined electrolytic solution.
- By adding special cathode material, it is possible to prevent rapid aging at the end of its lifespan.



Uses : Electrical Panel, Generator, UPS system (Un-Interruptible Power Supply), Communication, Generator Startup, Fire Extinguishing System, Other Mechanical Equipment

ROCKET BATTERY
PRODUCT LINE UP

MOTIVE



Longest Series which are used in golf cart and electric vehicles, and electric forklift batteries both contain special know-how of Sebang Global Battery. Cell balancing function which allows to prolong life span, and improved technical skills that expand the range of use temperature can be the representing know-hows.

Longest Series



**60 years of know-how built
for Cycle Service**

Longest Series are made by Sebang's lead-acid battery technical skill which is accumulated for half century. It is exclusively used for Cycle service such as golf cart, electric vehicle, and unmanned transportation.

Uses: Golf CAR & CART, Unmanned Transport Equipment (AV), Electric Vehicle, Garbage Truck, Electric Wheelchairs, Other Cycle Service

Golf Cart Battery



REPAIR TYPE LONGEST

Special plated terminal strong against heat and electrical resistance

Special plated terminal strong against heat and electrical resistance.

Features and characteristics

Headlamps and covers

- Lightweight, acid resistant, and impact resistant cover terminals is designed to prevent electrolyte from spilling out.

Terminal

- Designed to be safe from vibration by minimizing heat generation and electrical resistance at terminals by special plating treatment.
Standard bolt: Nut structure facilitates removal

CAP

- Gas and acid generated during charging are filtered
Internal combustion design allows not explode when external battery is nearby.



Electrolyte

- Use high purity, colorless, odorless, purified sulfuric acid. (KSM 1203 No. 3 or later)

Bulk laxative device

- Decrease the injection time by collective injection.
- Prevent corrosion of surroundings of equipments by preventing liquid leakage.
- A cell with an exact amount of main quantity.
- Deviation and life extension—Basic balance items purchased separately.

Isolation plate

- Rubber resistant acid with excellent porosity, excellent corrosion resistance.
- Low electrical resistance, very good physical properties.
- Structural design for internal penetration and transfer prevention.
- Use microfilter glass fiber to prevent gliding of live matter.

Cathodic plate

- Spore consists of 99.9% or more pure lead.
- Rich in porosity and reactivity, using special additives that are strong in atrial fibrillation anode plate.
- Use special additives that are strong in atrial fibrillation.

Anode plate

- Use special additives that are strong in atrial fibrillation.

Battery pack for golf cart

High efficiency battery pack / Li-ion battery



- 51V class 4.54kwh capacity battery for golf carts.
- Li-ion application allowed longer lifespan and reduced replacement cycle.
- Significantly reduced maintenance time.
- Safe to use with BMS system.

Features and characteristics

Extend of battery life

- High energy density.
- Improved performance and longer life expectancy.
- Extended life through the Cell Balancing function.
- Life Cycle (2000 Cycle DOD 80% standard room temperature)

Securing safety

- Dual protection structure of the Slave BMS and Master BMS inside the pack.
- Rapid charging/discharging capability depending on the charger's capacity.
- Designed high current discharge, high capacity realization, heat value/serial explosion control pack.
- Block design eliminates shock/vibration stress.
- Control of the minimum heating rate with a natural cooling flow path design.
- Eliminate cell deviations.
- Secured space between cells and designed the case to be flame retardant.

Electric Forklift Batteries



The best choice for electric forklift batteries

We provide high-capacity power for any type of electric forklift by Sebang Global Battery's own technology.

- Easy maintenance.
- Provides high performance cycle.

Features and characteristics

Prevent Overcharge

- Prevent overheating and extend battery life by applying the optimal charging time proportional to the discharge amount.

LCD display

- Charging information and various error messages can be checked.
- battery's capacity and charged amount can be checked and compared by indicated charged accumulates. One can judge the battery's condition by analyzing the data.

Black box function

- Charging voltage/ Current/ Total amount.
- Charging time memory storage function. (stores 2 months memory)

Automatic recharge function in case of power failure

- When the black-out is solved, it automatically gets back to charging without manual operation.

Equal charge

- Equalization function to equalize the electrolyte weight of each cell. (2 hours automatic extension charge)

Emergency stop function

- In case of emergency, it will automatically stop operating. However, it will continue charging when the problem is solved.

Vacuum impregnation process and vacuum drying process

- Improve the electrical characteristics by suppressing the rise of the transfer temperature and minimize vibration to reduce noise and increase durability.

Electric forklift battery charger

An optimal charging algorithm

- Charging amount and charging time applied depending on the battery's discharged amount.



Battery protection system (Prevent overcharge)

- Extend battery life and improve performance.

Easy maintenance and management

- Minimized maintenance cost, check charging status and information by LCD window.

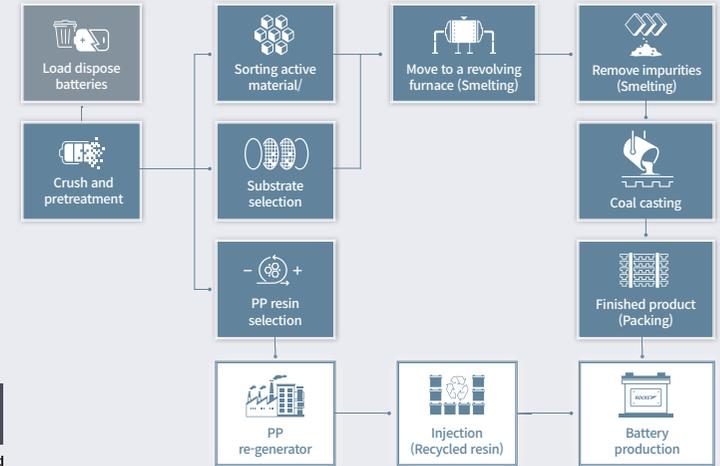
LCD function

- Checking the current battery charging status.
- Used to manage battery by checking charging time and accumulated amount.
- Immediate on-site response by message confirmation on LCD.

Characteristics of load degradation

- Automatically determines the amount of charge according to the amount of discharge by output voltage.
- Prevent battery overcharge.
- Prevent recharging battery after battery is fully charged.
- Prevent charging battery when it reached over voltage points of 68V.

RECYCLING



Dongyang Metal Co. Ltd Provides complete recycling system of waste batteries

Dongyang Metal Co. Ltd, founded in 2011, is a waste management recycling company that processes operation system and safety management. Despite the risk of safety accidents due to the nature of the business, it is necessary to take special safety rules and precise process operation. We had no safety accidents have occurred until now. The main processes are pretreatment, smelting and casting. The process range is 200 tons per day, 60,000 tons per year. The waste cell is broken down, producing 100 tons per day, 33,000 tons per year of molten iron production. The waste cell is producing 110 tons per day, and 33,000 tons per year of coal production.

Authorization of import and export of waste battery



Licensing and waste disposal status

- Noise and Vibration Report. · Hazardous Chemical Industry.(Pb, As, NaOH) · Report waste emission from business. (General)
- Waste recycling business management. (collect and transportation-designation, general)
- Waste water discharge facility installation. (4 kinds (special))
- Installation of air discharge facilities. (1 kind (special), 3 kinds (special), 4 kinds (special), 5 kinds)
- Designated waste. (consignment): slag, waste sulfuric acid, sludge
- General waste. (general consignment): general waste, P-P (case), P-E (separator)

SUSTAINABLE MANAGEMENT

SOCIAL CONTRIBUTION

The light of the world

Social welfare foundation <SEBANG ESL FOUNDATION>

The Sebang Lee ESL Foundation was established by Lee ui sun, honorary chairman of the current Sebang Group, in December 2007 to contribute to enhancement of social welfare through volunteer work and support for underprivileged people, including low-income children, teenagers and senior citizens.

Major projects are supporting underprivileged people through sharing love among single elderly people, educational support for children and teenagers by providing 'Vision scholarship' emergency relief for children in the international poverty, in-house flea markets, and volunteer work for new employees. Since the foundation was established, The total cost of the project was 6 billion won for 11 years until 2018 and the number of people who participated in volunteer work has been around 1,000 people.

Switch on for Hope!

'Switch on for Hope!' is a social contribution program that designed to enhance emotional stability and concentration of children by creating a pleasant and safe learning environment in local children's center. Currently, we are operating 107 centers in nationwide.

ENVIRONMENTAL MANAGEMENT

Energy reduction, Sebang recycling

Implementing New Renewable Energy Business and Environmental Management Policy

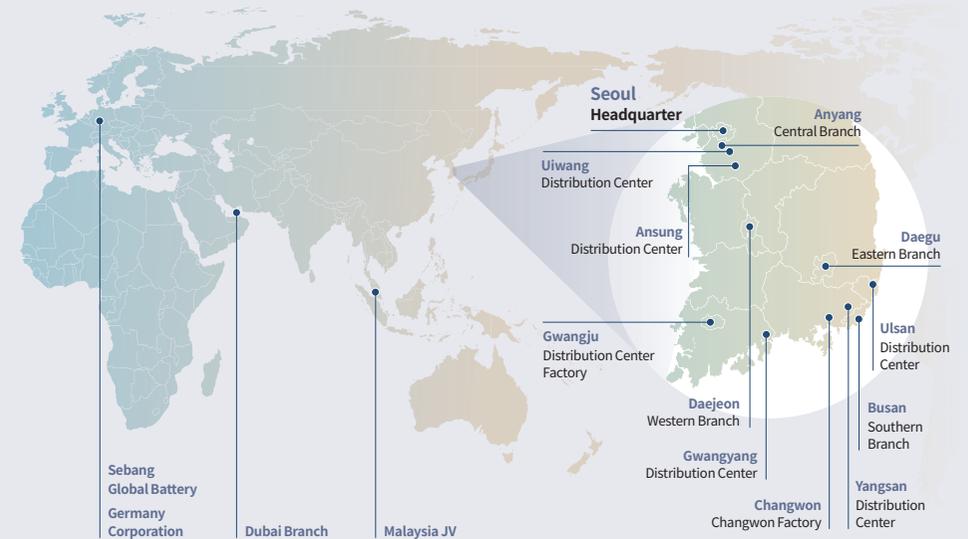
The goal of environmental management of Sebang Global batteries is to reduce carbon dioxide emissions due to energy production and establishing energy storage and power saving policies. The best way to reduce carbon dioxide is to use renewable energy, solar power, wind power, and so on. The ESS, BMS, and UPS technologies of Sebang Global Battery are the optimal conditions for energy recycling.

In addition, we will actively develop R&D research for the development of eco-friendly technologies to further establish a new and renewable energy business and an environmental management system.

Respect the value of a person

Sebang Global Battery promises to respect, trust, and cooperate with people work in our corporation as our priority business goal. In order to increase our business efficiency, we will conduct various in-house and volunteer activities and further expand our exchanges between our executives and employees by promoting our intranet communities and publishing company newsletter. We will continue to pursue a constant welfare policy to be a "strong and lasting" company for our employees.

NETWORK



OFFICE

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Tel: +81-2-3451-62033 Fax: +81-2-538-4353

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