Jewelry Ice: Must-see Winter Attraction in Hokkaido

Jewelry Ice. The New York Times describes it as: “A truly rare phenomenon. This may be the only spot to find this kind of river ice,” referring to the estuary shores of the Tokachi River, which flows through the vast Tokachi Plain in Hokkaido, Japan’s northernmost island. When the temperatures drop in winter, the Tokachi River freezes and chunks of nearly transparent ice are washed out into the Pacific Ocean. Wave action leaves these chunks rounded and polished like a crystal before they are thrown up onto the estuary shores where they glitter like gems under Tokachi’s clear and sparkling winter skies. Jewelry ice can be found in the period of late January to the end of February when temperatures are at their coldest.
**Mitsubishi Motors**

- **Passenger Car—ECLIPSE CROSS**

Mitsubishi Motors

As the compact SUV market continues to grow, customer needs and wishes continue to diversify. Today, they are looking for a car that combines SUV qualities with stylish and refined looks. Mitsubishi’s Eclipse Cross provides the high driving position, roomy cabin and luggage space expected of an SUV but is dressed in coupe-like styling that attracts attention in town. Developed to a "vibrant & defiant" concept to give expression to a new sporty look, Eclipse Cross’s design marries crisp coupe lines and a bold wedge silhouette with the dynamic mobility expected of an SUV.

[http://www.g-mark.org/award/describe/4702?token=Hy2400sJ3&locale=en](http://www.g-mark.org/award/describe/4702?token=Hy2400sJ3&locale=en)

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**Mitsubishi Electric**

- **Wire-cut Electrical Discharge Machining—MX Series**

Mitsubishi Electric

The MX Series is Mitsubishi Electric’s high-end range of wire-cut electrical discharge machines that are used in the manufacture of molds and in the cutting of difficult-to-machine materials. The machine features full 360-degree designs and personifies what smart machines and factories are. The series makes possible large-scale precision machine materials. The machine features full 360-degree designs and personifies what machines that are used in the manufacture of molds and in the cutting of difficult-to-machine materials.

[http://www.g-mark.org/award/describe/47502?token=IippI6lr6v&locale=en](http://www.g-mark.org/award/describe/47502?token=IippI6lr6v&locale=en)

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**Lawson**

- **MONOPOLIS POS**

Lawson

Developed jointly by Lawson and NEC, this space-saving POS terminal is designed for retail stores with face-to-face checkout counters. With its hygienically black and white color scheme, the compact design takes up about 54% less counter space. This makes it ideal for convenience stores with restricted counter space while the result of a display is a must for the many foreign visitors to Japan for the Olympic Games in 2020. Further space is saved with the vertical arms-type display. The user interface is similar to that of a smartphone or tablet, making it easier to learn and helping to speed up store operations.

[http://www.g-mark.org/award/describe/472908?token=q.jpmECy2g&locale=en](http://www.g-mark.org/award/describe/472908?token=q.jpmECy2g&locale=en)

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**Nikon Group**

- **Digital Camera COOLPIX P1000**

Nikon Group

The COOLPIX P1000 is a compact digital camera that supports an incredibly broad zoom range, offering users the opportunity to enjoy the recording of photos and movies at focal lengths that were never before possible. For enhanced stability when taking zoom shots, all the main controls are positioned for easy operation when holding the camera with two hands. This camera is suited to a wide variety of scenes, from macro photography of subjects as close as 1 cm, to super telephotography of distant subjects at a focal length equivalent to 3200 mm when focusing and changing settings can be difficult.

[http://www.g-mark.org/award/describe/473407?token=3jpmETc2g&locale=en](http://www.g-mark.org/award/describe/473407?token=3jpmETc2g&locale=en)
Joint Development of Cobalt/Nickel Recycling Technology

Mitsubishi Materials and Nippon Magnetic Dressing Co., Ltd. have jointly developed recycling technology for cobalt, nickel and other metals used in xEVs’ lithium ion batteries, a recycling demand which is expected to increase substantially. Leveraging Mitsubishi Materials’ rare metal hydrometallurgy technology, the two companies are aiming at the early commercialization of lithium ion battery recycling. By developing a comprehensive recycling technology for the safe and proper handling of spent xEVs lithium ion batteries, as well as facility rejection from battery manufacturers, and thereby efficiently recovering cobalt, nickel and other metals, the companies will contribute to the stable supply of lithium ion battery materials and to developing a recycling system for them.

*‘xEVs: A collective term for electric vehicles, including hybrid vehicles (HEVs), plug-in hybrid vehicles (PHVs) and battery electric vehicles (BEVs)."

Cobalt/Nickel recovery plant


A New Digital Solution for Factory Energy Management

Mitsubishi Heavy Industries (MHI) has launched ENERGY CLOUD Factory™, a new factory energy management service package that utilizes AI and IoT technologies. The cutting-edge energy solution was unveiled at Takasago Works of Mitsubishi Hitachi Power Systems, following pre-release usage at the Main Plant of Mitsubishi Heavy Industries Aero Engines. ENERGY CLOUD Factory™ is a package specifically for factories within ENERGY CLOUD™, MHI’s comprehensive energy solution service. The package enables real-time visual monitoring of productivity and energy consumption, while evaluating the factory’s overall performance. Proprietary AI technology enables the factory to forecast future performance, which leads to advanced factory management that contributes to preventive maintenance and optimization of production and energy consumption. ENERGY CLOUD Factory™ enables the efficient energy usage and encapsulates MHI Group’s comprehensive expertise in manufacturing.

Takasago Works has started use of ENERGY CLOUD Factory™


Moving Toward 100% Biomass Sources: Biodegradable and Plant-derived Plastics

As concern about plastic waste grows globally, Mitsubishi Chemical (MCC), a subsidiary of Mitsubishi Chemical Holdings, is working to strengthen its biodegradable and plant-derived plastics businesses. Developed by MCC, BioPBS™ is an environmentally friendly material which is gradually broken down by living microorganisms in soil and seawater, and decomposes into water and carbon dioxide. Now BioPBS™ is produced from a succinic acid derived from natural resources and 1,4-butanediol, but mass production of the plastic using 100% biomass materials will start in 2019. In addition to conventional items such as compost bags and agricultural mulch film, BioPBS™ can be used in various applications such as coffee capsules, paper cups, straws and other food-related products due to its high heat resistance and high flexibility. MCC is already in discussions with several major fast-food chains.

Coffee capsules


Joint Development of Vacuum Insulated Glass for the European Market

AGC and Panasonic have jointly developed a vacuum insulated residential glass product, whose sales launch in Europe is scheduled in March 2019. Investing roughly 10 million euros, they plan to newly hire 20 employees and install a new production line at the AGC plant in Belgium. There is growing demand for the replacement of older window glass with highly-insulating window glass in Europe as more homeowners choose to renovate old houses and as they live longer. The new vacuum insulated glass combines AGC’s Low-E glass and glass processing technologies with Panasonic’s plasma display panel development and manufacturing technology.

New Lighting System Mimics Blue Skies, Sunrises and Sunsets

Mitsubishi Electric has developed an indoor lighting technology that mimics the blue sky. The proprietary system consists of a thin blue-sky panel and frame measuring less than 100 mm, incorporating an edge-lit method to achieve the color of the sky with depth and natural light even indoors. Panel and frame thickness are comparable to conventional lighting fixtures, allowing the new system to be used in wide-ranging applications. The controlling system, having the amount of light emitted by different color LED light sources changed with automatic setting, realizes color transition at sunrise or sunset, as well as blue skies during midday. The company is also developing applications for closed space like window-less rooms or basements in offices, aiming to improve the comfort of indoor space such as offices and public facilities.

Prototype simulating blue sky


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Note: We sincerely apologize for a mistake with the Portuguese flag in the World Scope article on page 5 of Mitsubishi Monitor (December 2018 – January 2019).
Weathering Storms as a Family

One Team One Lawson

It’s been a roller-coaster ride for the convenience store business in the Philippines, where it has to cater to all classes and walks of life, where entering this market is a combination of risk and opportunity. 7-Eleven and Ministop dominate the market but not by so much because of the strength of the sari-sari or mom-and-pop stores. Many things have happened both for competitors and us. Some convenience stores have changed their entire management team, ownership, and their format. Some have failed and closed their business in the Philippines, and Lawson is not exempt from this ever-changing market.

Lawson opened its first store in Manila in 2014 when we became the youngest CVS Pharmacy store. There has been much trial and error in opening our stores since we are testing market acceptance. We did feel how hard the market was and we were not enjoying strong patronage in our test market. Now I can say that Lawson has been reborn and is getting stronger. There are now over 36 Lawson stores and we are expanding throughout the Metro area. Competitors are starting to notice us as a threat. Customer loyalty is growing and they show their support with feedback and comments. The management team, both in Japan and the Philippines is showing their trust and giving us their full support. For sure we will experience more problems in the future but with our management team and employees growing closer together like a family, we can weather all storms that come our way.

My Family My Strength

I have a family of four: My wife who works in IT in Bonifacio Global City, Metro Manila, and my son and daughter who are studying at the same school as nursery and grade students. As a father and a parent, I always try to balance our activities so that there is time for work, for study and time for fun and leisure, and most importantly for our faith and religion. In our busy schedule I try to find time on a weekend to go out and bond with my family and attend our Kingdom Hall church every Sunday. Sometimes we go and visit some beautiful places outside of the country so my kids can appreciate the beauty of nature. But most of the time we stay at home, buy some food and drinks, watch TV or a movie and have some quality time together. We even play-act some biblical stories using our beds and bed sheets as props.

My wife and kids may always see me as their knight in shining armor, their shelter and protection. But the truth is they are my strength in everything I do. They are the ones who support me every time I’m down and worn out. They are the reason I wake up in the morning and they make me complete as a man.