Hitachi has released two models of Two-Stage Boost cyclonic cleaners that are easier to use thanks to a new slim, lightweight suction head design, which can even suck up dust at the rear of the head when being pulled.

The main features are as follows:

1. Use a double suction mechanism to efficiently suck up dust when pushing or pulling the suction head. At approximately 30 cm wide, the head enables quick and easy cleaning. The newly designed suction head is slim and lighter. These models have the lightweight and easy-to-maneuver hose and carbon-fiber-reinforced plastic suction head and pipe used in previous models.

2. The higher-end model boasts a powerful 470 W of suction power while the operation noise has been reduced to an industry-leading level of 52 dB. In addition, both models feature clean output, with a high filtering rate of 99.999%, confirmed by the method specified in the International Electrotechnical Commission (IEC) standard IEC 60312-1:2010 (ed. 1).

3. The suction power is sustained at 99% or higher due to the...
**Stainless/Clean Room Air Conditioner**

Hitachi has released a series of stainless/clean room air conditioners that provide comfortable air conditioning while quickly conserving energy by using two cameras with different functions to perform detailed monitoring of the room and the people in it.

The main features are as follows:

1. Uses a system of two cameras with different functions that includes an image sensor to detect the number of people in the room, their active mass, location, taking account of the layout of the room, and a temperature sensor to detect the ambient temperature of the floor, walls, and around people in the room. This model provides comfortable air conditioning while quickly saving energy by carefully sensing the occupancy of the room and the room conditions to prevent wasted energy, such as overheating or overcooling of the occupied spaces.
2. Uses stainless steel in the air ducts and filter that is effective in reducing bacteria and dust, and new large double louver is also applied with stainless steel. This provides a cleaner air conditioner interior.
3. Features a new heated floor setting to warm the space at your feet in a way that can be felt similar to underfloor heating. It also comes with a warm air plus setting to constantly supply very warm air at 55°C for approximately 30 minutes and a quick heating setting, which starts blowing warm air in about 30 seconds.

(Hitachi Appliances, Inc.)

**Home Lighting Fixtures**

Hitachi has released LED ceiling home lighting fixtures, which balance high energy efficiency (intrinsic energy consumption efficiency of 102.4–104.8 lm/W*1) with the ability to provide maximum brightness within the brightness standard for applicable room size*2.

The main features are as follows:

1. Newly-devised arrangement of domed light-emitting diode (LED) units equipped with a unique lens function, as used in previous products*3, together with a large heat dissipation structure controls the heat generated from the LEDs, balancing maximum brightness for each applicable room size with high energy efficiency. This provides an approximately 16–18% reduction in energy consumption in comparison to previous products*4. The lens function diffuses light efficiently, allowing the entire room, including the ceilings and walls, to be lit brightly.
2. Equipped with a light selection function that combines four different combinations of lighting colors and brightness to allow people to select suitable lighting for a scene of life.
3. The high-end models automatically dim or switch off lighting when the room is lit sufficiently by natural light, lowering energy consumption by approximately 70%*5 in comparison to using full-strength lighting. Additionally, these products now feature a new brightness up button that will increase total brightness by a factor of 1.2 for 30 minutes at times when additional brightness is required, such as when doing detailed work.

(Hitachi Appliances, Inc.)

*1 The intrinsic energy consumption efficiency is equal to the rated luminous flux divided by rated power consumption.
*3 The models released in October 2012.
*4 Compared new models with previous models (released in October 2012) of the same type and applicable room size.
*5 According to Hitachi measurement conditions. Energy consumption results depend on changes in daylight hours due to region, location, weather, and season.
tion together with an evolved version of the “Photocatalyst Preservation” function that has been offered on models from 2012 onwards. These new models use a new “Fresh Cassette” in the Vacuum Compartment (a unique Hitachi feature that uses vacuum to suppress oxidation in food and keep it fresh), which uses the effect of piquant flavor components to preserve the umami (pleasant savory taste) and texture of fish.

The main features are as follows:

1. The fresh cassette releases piquant flavor components such as wasabi (Japanese horseradish) in the Vacuum Compartment to suppress the functions of enzymes of food and preserve the umami and texture of fish. Photocatalysts and the operation of an LED light source are used in “Photocatalyst Preservation,” which preserves food as if it “sleeps.” These models feature an increased number of LED light sources and other innovations that offer better food preservation and deodorization than previous models.

2. Continued use of “Frost Recycle Cooling,” which utilizes cold air from frost that builds up on the evaporator. These models are also equipped with a new dedicated fan in the upper area of the refrigerator compartment, acting in tandem with the existing fan to chill the refrigerator compartment quickly with lower energy loss.

(Hitachi Appliances, Inc.)

* Indicate a state when atmospheric pressure is low with the Vacuum Compartment deemed to be in a “vacuum” when it is at approximately 0.8 atmospheric pressure.

Hitachi has released a superheated steam microwave oven. It is equipped with a unique Hitachi grill and steam function and a quick-baking function that allows bakers to bake a delicious loaf of bread, taking approximately 100 minutes to automatically complete the entire process from kneading and proofing the dough to baking it. Operation is easy, performed via an LCD touch panel.

The main features are as follows:

1. Enhances kneading and adds processes of steaming and others during proofing to reduce the time required for cooking a loaf of bread to approximately 100 minutes, down from approximately 2 hours for previous products.

2. Fitted with a grill and steam function that allows frying without oil as well as cooking of foods such as fried dumplings, for which it is difficult to control the heating temperature appropriately. Low-oxygen cooking is also possible, allowing the preparation of steamed vegetables with a lower reduction in vitamin C than oven cooking.

3. LCD touch panel and voice guidance functionality allows easy operation of 483 automatic menus.

(Hitachi Appliances, Inc.)

* Vitamin C remaining per 100 g serving of broccoli after “grilled and steamed broccoli” (69.1 mg) compared to when just grilled (48.3 mg) (ascertained by Hitachi Appliances).
CP-X9110 10,000-lm high-brightness projector is ideal for 24-hour use and capable of multi-projection using multiple projectors. Equipped with a dual lamp system that achieves a high brightness of 10,000 lm, the projector provides 24-hour continuous operation in alternative mode which alternates the use of the two lamps.

This projector is equipped with an edge blending function that achieves seamless projection using multiple projectors.

(Hitachi Maxell, Ltd.)

CP-WU8460 WUXGA Projector

Hitachi has released a projector with high-brightness (6,000-lm) and high-resolution [wide ultra extended graphics array (WUXGA): 1,920 × 1,200 dots] that is about 10% taller than full high definition. Part of the new Hitachi installation series, the projector provides ease of installation and ideal functionality for large venue applications.

The projector offers several groundbreaking features, including two High-Definition Multimedia Interface (HDMI)* inputs to address the increasing demand for digital connectivity. It features motorized focus, zoom, and lens shift for easy image adjustment, and a 360-degree vertical adjustment capability that makes it ideal for creative applications.

(Hitachi Maxell, Ltd.)

* See “Trademarks” on page 142.
Hitachi has developed an 800-W rated-output lithium-ion energy storage system with a 1.4-kWh storage capacity, intended for installation in individual apartments in apartment complexes. It was developed in cooperation with Mitsui Fudosan Residential Co., Ltd.

Equipped with small, high-capacity battery packs utilizing laminated lithium-ion rechargeable batteries and industry-leading compact inverters, these systems offer a high energy density of 43.6 Wh/L. As a result, they can now be fitted in the area above a refrigerator. Additionally, power supply can be switched over to battery output within 10 ms after the unit detects a power outage, allowing it to function as an uninterruptible power supply (UPS) in order to protect connected appliances for extended periods after power is cut off. Furthermore, since this energy storage system conforms to the ECHONET Lite communications standard, it can also be linked to home energy management systems (HEMS), allowing energy management for electric power peak shifts and others. This product will be installed in Mitsui Fudosan Residential’s “Park Tower Shin-kawasaki” (planned for completion in March 2015), and commercial sale is to start in spring 2014.

Hitachi will continue to expand the energy storage system lineup.

(Hitachi Maxell, Ltd.)

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*1 As an ECHONET Lite compatible energy storage system. As of August 2013.
*2 See “Trademarks” on page 142.