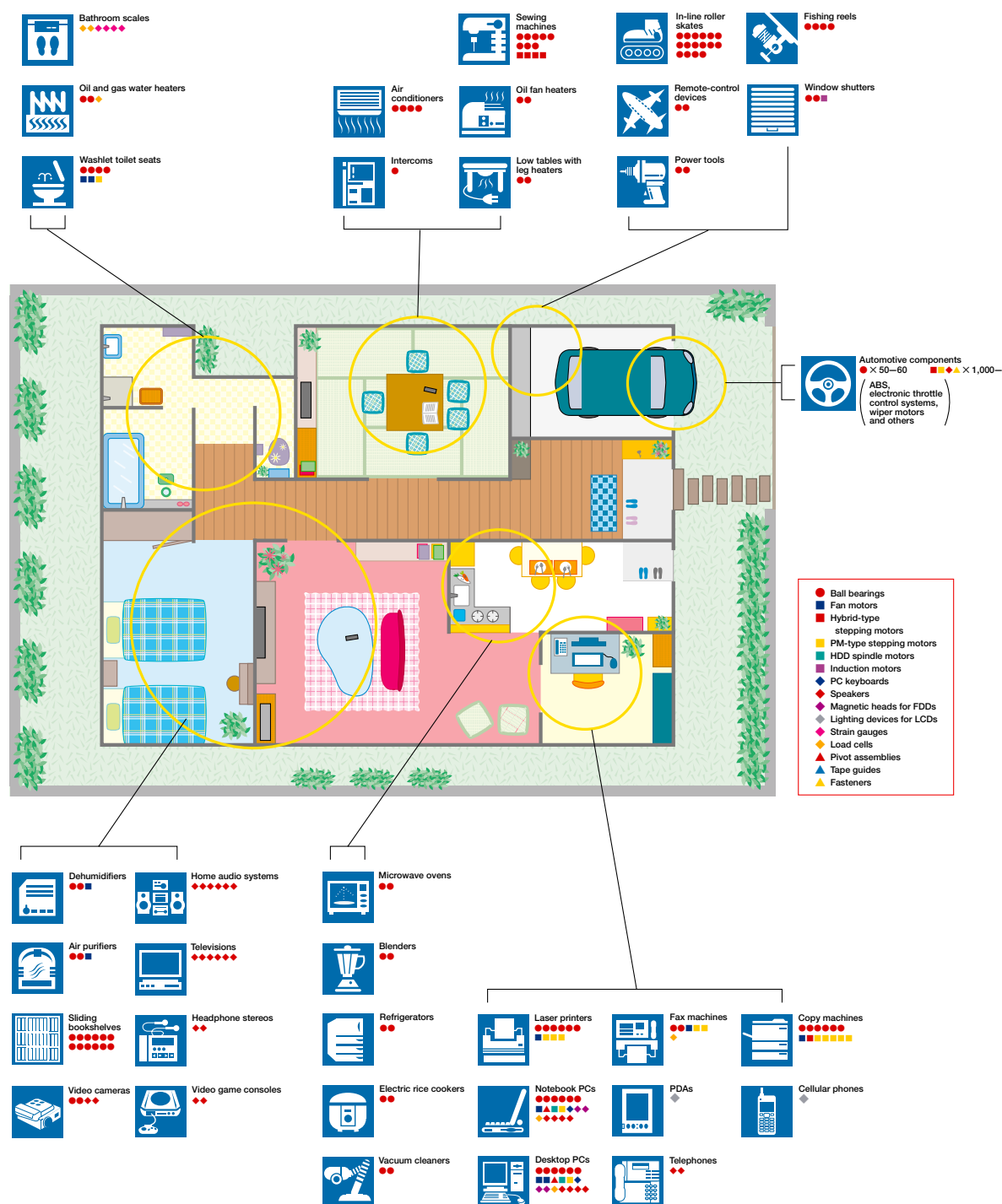


Minebea's ball bearings, fan motors, electronic devices and components and other precision products are used in a wide range of applications in the home and office, as well as in the aerospace and automotive industries. It is estimated that, for example, between 100 and 200 small-sized ball bearings are used in the average home. Ball bearings are bearings that contain rolling elements, that is, balls, which minimize friction, thus enabling devices to spin smoothly. In today's increasingly sophisticated, information-driven society, miniature ball bearings are required in ever-greater numbers for advanced home and office electronic equipment and are contributing to efforts to develop models that are smaller, use less energy and last longer.

◆ Minebea Products: Essential to Modern Lifestyles



◆ Reduction or Elimination of Hazardous Chemical Substances in Products

■ Ensure Bearings Comply with RoHS Directive

Minebea's ball bearings are used extensively in PCs, printers, copiers and other information and communications equipment, as well as in video cameras and other household electronic

equipment. Minebea began taking steps early to eliminate substances banned under the RoHS directive¹ from its bearings and has succeeded in achieving this goal.



■ Eliminate Hexavalent Chromium

Fasteners for automobiles are often coated with anticorrosion coatings called chromates. Chromates contain hexavalent chromium, which is considered a hazardous chemical substance and is banned under the European Union (EU) ELV directive².

The Fujisawa Plant, Minebea's production base for fasteners, has introduced equipment for processing chromates without using hexavalent chromium and is eliminating hexavalent chromium from its automotive fasteners in response to customer demands.

Glossary

1. RoHS (Restriction of Hazardous Substances) directive

An EU directive banning the use of lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyls (PBB) in electrical and electronic equipment brought to market after July 1, 2006.

2. ELV (End-of-Life Vehicles) directive

An EU directive aimed at reducing environmental impact and improving the recyclability of end-of-life vehicles by banning the use therein of lead, mercury, cadmium and hexavalent chromium. (Certain components and the retroactivity of this directive are still under consideration.)

◆ Reduction of Energy Consumption/Contribution to Prevention of Global Warming

■ Helping Ball Bearings and Fluid Dynamic Bearings Contribute to a Healthier Environment

A ball bearing's precision depends on the raceway roundness of its inner and outer rings, sphericity of the balls used and the quality of the materials used in its various parts. Minebea's constant efforts to improve its performance on all fronts has enabled it to set the global standard for ball bearing precision.

Minebea's machining and maintenance technologies cultivated in the half-century since its

establishment, together with its highly efficient production line layout, facilitate the production of all the ball bearing parts it uses in-house.

The outstanding precision and quality of Minebea's bearings is contributing not only to higher levels of precision for information and communications equipment, automobiles and other applications, but also to longer product lives and lower energy and resource consumption.



■ Development of Medium-Sized LED Backlight

Flat panel displays (FPDs)¹ are increasingly prevalent, with applications varying from cellular phones to large-screen televisions. This trend has been supported by the development of high-performance backlights.

Conventional medium-sized (6- to 10-inch) LCD modules use cold cathode fluorescent lamps (CCFLs) as their light sources. Minebea has developed a new medium-sized backlight that

uses a white LED instead of a CCFL, facilitating extensive and continuous dimming control. Minebea's proprietary thermal radiation design technology greatly improves efficiency while reducing power consumption and prolonging operating life. Moreover, unlike CCFLs, which contain mercury, a substance hazardous to human health, Minebea's LED backlights are entirely free of mercury as well as lead.

Glossary

1. FPD (Flat Panel Display)

Lightweight, thin screen displays that use LCD technology instead of cathode-ray tubes.

2. LED (Light-Emitting Diode)

A light-emitting diode (LED) is a semiconductor device that lights up when electricity is passed through it. The development of the white LED made it possible to use LEDs not only in as well as in conventional display equipment applications, but also in lamps for automobile headlights and taillights and fluorescent lamps.