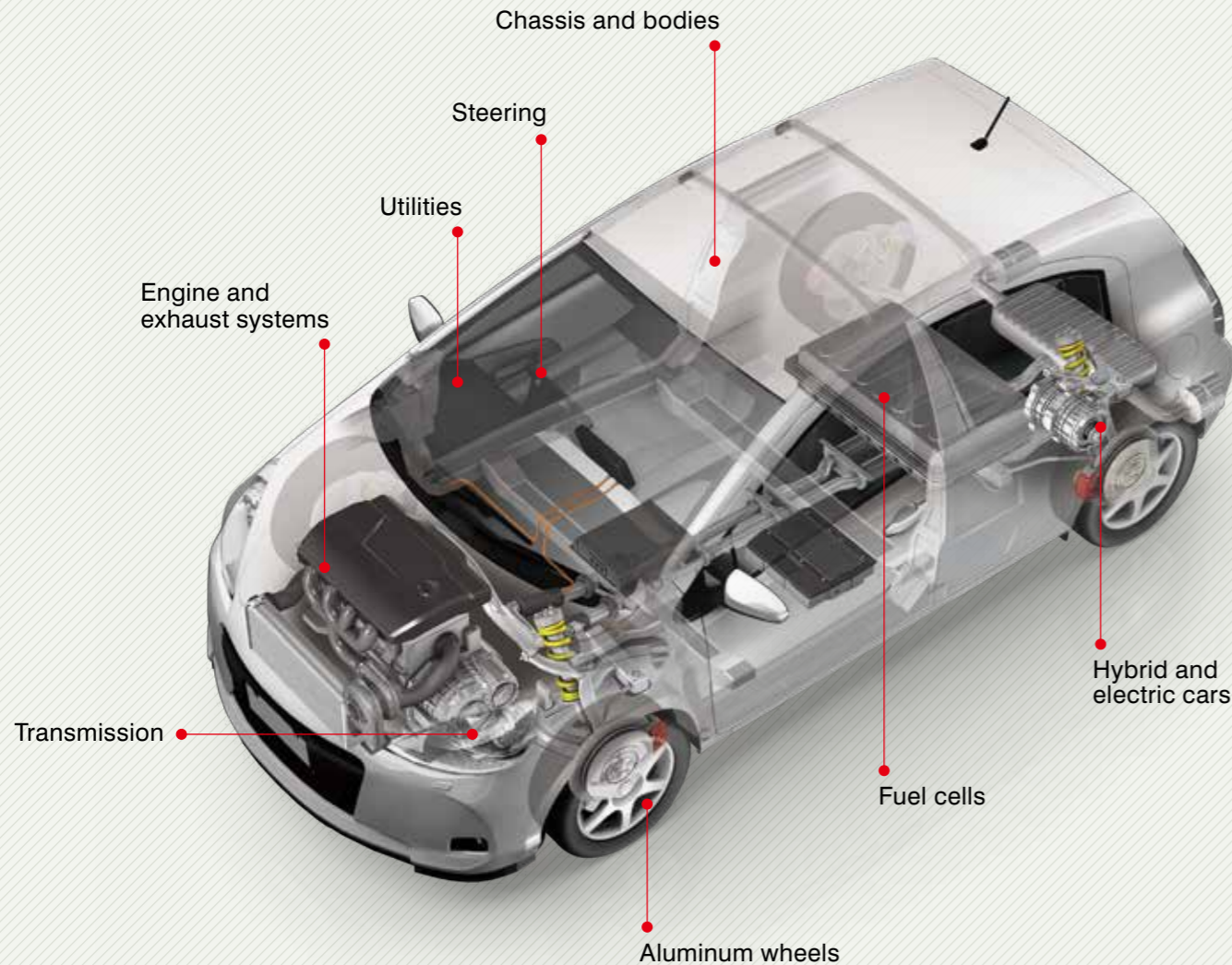


# Products by Market

## Automotive-Related Products

### Contributing to the Manufacture of Safe and Eco-Friendly Automobiles



Over the years, Hitachi Metals has consistently supplied a wide range of components for use in engines, exhaust systems, steering systems, chassis, electronic equipment, and other automotive areas—all part of the Company's perennial quest to contribute to the advancement of motor vehicles.

Today, the performance requirements of automobiles are undergoing major changes, with energy savings and environmental preservation emerging as critical development themes in the push to protect the environment.

Hitachi Metals is responding to these new requirements in the automobile industry.

The outstanding technical development capabilities of the Hitachi Metals Group are being utilized to develop components for drive motors that function as the heart of hybrid and electric cars, exhaust system components used in fuel-efficient engines of gasoline-powered vehicles for the next generation of automobiles, and components in other pivotal areas.

### High-Grade Specialty Steel for Automotive Components that Contribute to Increased Combustion Efficiency

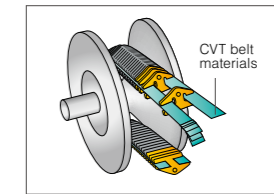
High combustion efficiency requires enhanced engine airtightness and sophisticated capabilities in fuel injection, admission, and emissions technologies. Utilizing proprietary alloy design and processing technologies, the Hitachi Metals Group provides high-performance materials and solutions to customer needs.



Piston ring materials



Engine valve materials



CVT belt materials

### Magnetic Materials for Motors that are Essential in Sophisticated Electrical Operations

Highly functional motors are integral to the efficient transfer of power from engines and batteries to automobile wheels. They are also a prerequisite for the electrical operation of many of the functions found in today's vehicles including windows, steering columns, and seats. Leveraging its sophisticated materials development capabilities, the Hitachi Metals Group provides magnetic materials that contribute to enhanced motor performance.



NEOMAX® series radial-oriented ring magnets



NMF™ series sintered ferrite magnets

### Environmentally Conscious High-Grade Casting Components for Automobiles

Heat-resistant exhaust components capable of withstanding high exhaust temperatures are indispensable to maximizing combustion efficiency in vehicle engines. The Hitachi Metals Group promotes environmentally conscious measures utilizing its highly functional heat-resistant casting technologies. Making full use of its sophisticated casting technologies, the Group also produces aluminum wheels that appeal to consumer demands for safety and style.



HERCUNITE™ heat-resistant exhaust casting components



SCUBA™ aluminum wheels

### Magnetic Materials for Hybrid Systems that Address Needs for Energy Efficiency

As a comprehensive manufacturer of magnets and soft magnetic materials, the Hitachi Metals Group provides materials for a variety of purposes including high-efficiency motors and converters with the aim of realizing compact, lightweight, and highly efficient hybrid systems.



NEOMAX® rare-earth magnets



Metglas® amorphous metals

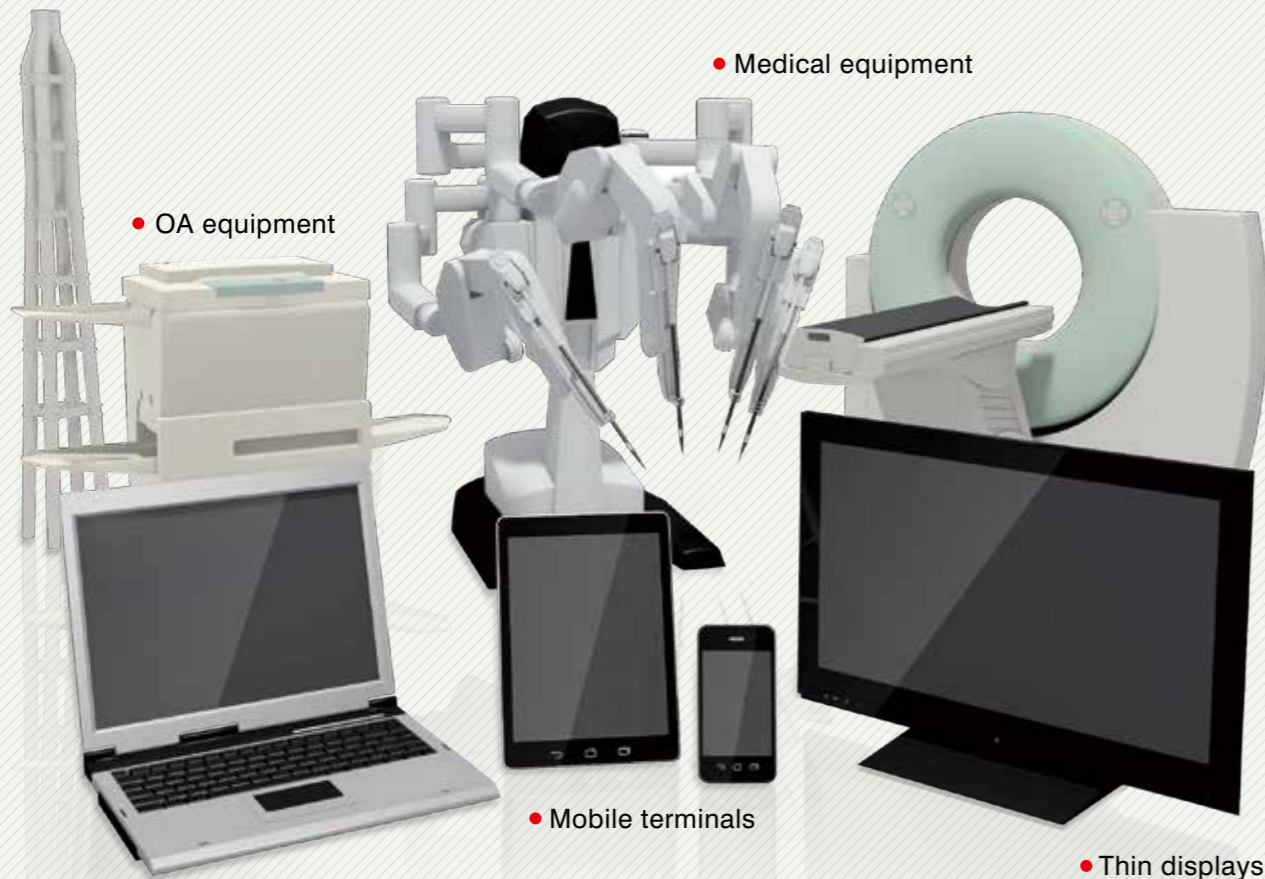


FINEMET™ nanocrystalline magnetic materials

## Electronics-Related Products

# Advancing the Progress of Electronic Products in Size and Function

- Power-generating facilities



- IT components

Today's electronics sector demands materials and products that are increasingly compact and light and demonstrate high performance, while using less resources and energy and containing no hazardous substances. To meet these demands, Hitachi Metals develops distinctive products with sophisticated functions for sectors ranging from telecommunications and the digital household appliance sector all the way through to the daily lifestyle sector. The Company supplies multilayered devices, isolators, electronic metal

materials used in liquid crystal displays and IC package components, magnets mounted on hard disk drives, and other products.

Also, there are huge expectations that there will be growing demand for soft magnetic materials for use in products that reduce electromagnetic noise related to electromagnetic interference and electromagnetic compatibility in compliance with regulations as well as for magnets for use in motors.

## Combinations of Magnets and Soft Magnetic Materials

As electrical devices become increasingly sophisticated, customer demands for high-performance motors that are more compact and lighter in weight are also growing more stringent. As one of the world's foremost suppliers of magnetic materials, the Hitachi Metals Group offers customers the optimal mix of magnets and soft magnetic materials to enhance the performance of the motors in their products.



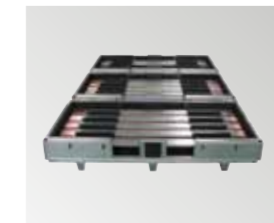
NEOMAX®  
rare-earth magnets



FINEMET™  
nanocrystalline magnetic materials

## Alloy Design Technologies

The Hitachi Metals Group excels at providing customers with unique proposals for material composition to match their specific needs. Through our rich experience in the field of metallurgy, we have succeeded in developing and commercializing materials with exceptional heat-resistance and anticorrosive properties for wiring applications. These are becoming even more essential as glass substrates for use in LCDs grow larger in size.



Sputtering target materials

## Ceramic Scintillator Materials

Scintillator materials absorb the energy of radiation that strikes them and emit it as visible light. Because of their high sensitivity and large X-ray absorption coefficients, they contribute to reductions in device sizes. They are used in X-ray CT scanners and other medical equipment as well as analytical devices.



Ceramic scintillator materials

## Probe Cables for Ultrasound Diagnostic Equipment

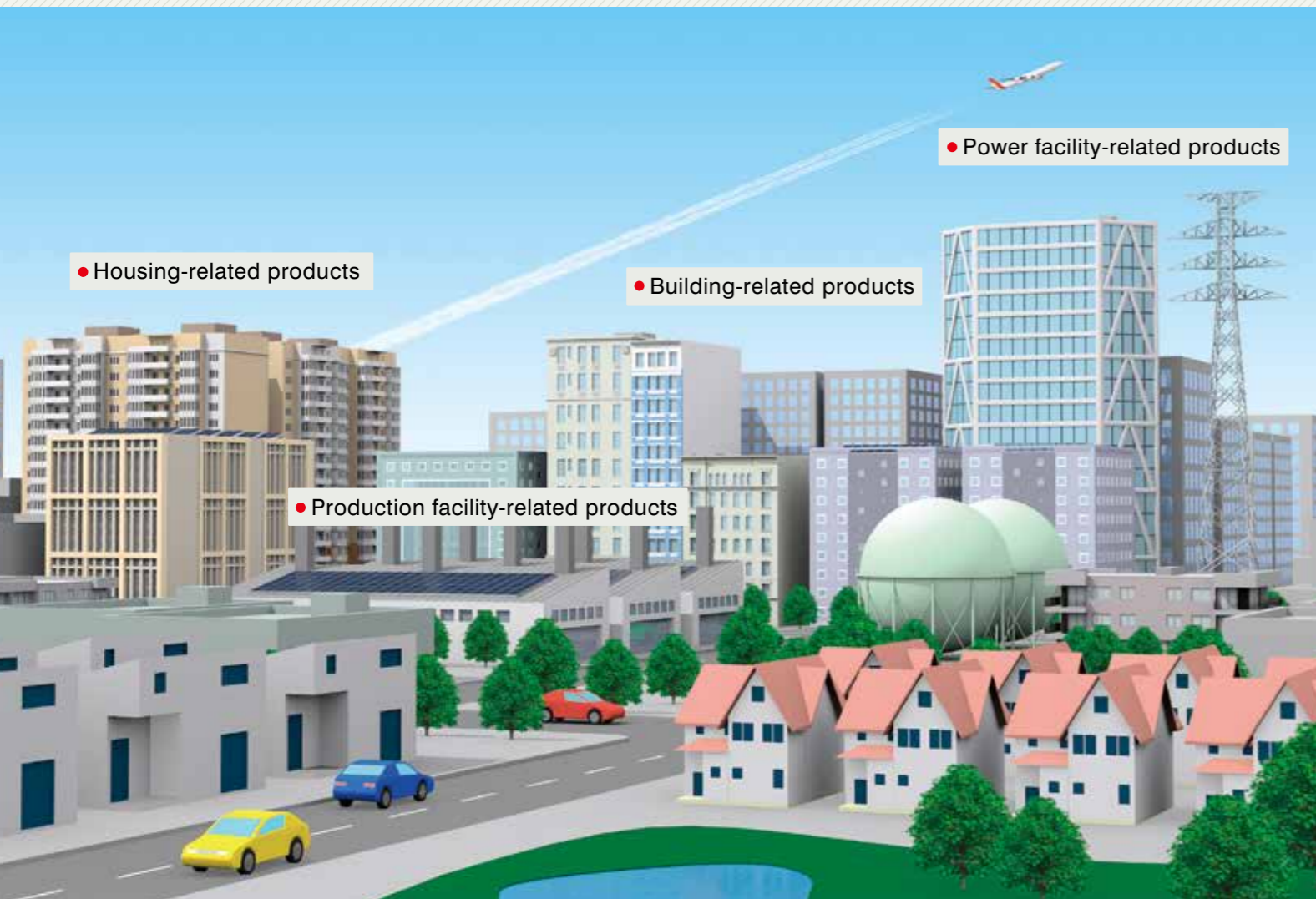
The cable connects the main body of ultrasound diagnostic equipment and the probe used for echographic investigation. It is lightweight, excels in elasticity and flexibility, and has high-quality electric characteristics, realizing ease of handling and high-definition images, thereby contributing to the development of medical equipment.



Probe cables for ultrasound diagnostic equipment

## Infrastructure-Related Products

# Fortifying Industries and Social Infrastructure with Top-Brand Products



It is the infrastructure sector that supports the essential foundations of economy and society, such as residential and office building equipment, factories, and power generation plants.

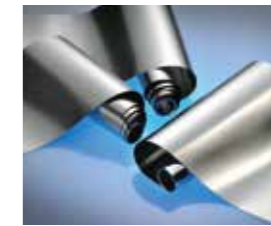
In this domain, Hitachi Metals furnishes the market with mold-use steel products manufactured from specialty steel, plumbing equipment, and construction materials made through state-of-the-art casting technology, and other top-brand products. Moreover, with the development of new alternative energy and diversification of power generation systems now

unfolding on a global scale, expectations are high for materials and components engineered for use in machinery, transformers, and other systems indispensable to power generation facilities.

In addressing the vital need to build and support a sustainable society, Hitachi Metals continues to spearhead the development of outstanding products that conserve resources and are friendly to the environment. Owing to these efforts, the Company fortifies initiatives aimed at protecting the global environment from all aspects, even infrastructure.

### Metglas® Amorphous Metals Save Energy

Amorphous metals differ from conventional metal materials. This results from their manufacturing process, which involves extremely rapid cooling (over one million degrees Celsius per second) of molten alloy. This process imparts properties not ordinarily found in conventional crystalline materials. Our industry-leading Metglas® brand exhibits high magnetic permeability and exceptional, low-loss soft magnetic properties while maintaining a high level of saturated magnetic flux density. This is possible because it has neither crystalline grain boundaries nor the anisotropic properties of crystalline structures. With mass-production capabilities for this innovative material, the Hitachi Metals Group contributes to greater energy saving and higher efficiency in products such as transformers in the power supply industry.



Metglas® amorphous metals

### ∪™ Gourd Brand Pipe Fittings for Safe and Comfortable Living Spaces

Since registering the ∪™ Gourd brand as a trademark in 1912, Hitachi Metals' ∪™ Gourd brand pipe fittings are trusted as the top brand around the world. In response to diversifying customer needs, we are complementing our array of fittings with the development of a comprehensive lineup, from castings through stainless steel and plastic piping components to support safer, more comfortable living.



Pipe fittings for general use



Polyethylene gas piping systems

### World-Renowned YSS™ Brand Steel

YSS™ is Japan's longest-running, tradition-rich specialty steel brand. A rich heritage of steel manufacturing techniques has been preserved through Japanese swords, which were traditionally crafted using only high-purity *masa* iron sand from Yasugi, where the Company's Yasugi Works is located. Determined to select only the finest ingredients to create steel of the highest caliber, Hitachi Metals carries on this rich tradition of steel-making techniques. By doing so, Hitachi Metals has earned an outstanding reputation in the international market for its material development strengths, commitment to quality, and provision of solution-based technical support.



SLD-MAGIC™ cold-working die steel



HPM series plastic mold steel



DAC-MAGIC™ die cast tool steel

### Hitachi Rolls: Leveraging Our Mastery of Steel-Related Technologies

Exceptionally strong and wear-resistant, high-performance HINEX™ rolls boast a uniform metal composition. Customers worldwide have come to trust HINEX™ rolls for their contribution to producing high-value-added steels. With our well established roll manufacturing technologies, we are advancing aggressively to pioneer new fields. We also offer construction components and cylinders, screws and other items for use in injection molding machines, and extruders.



HINEX™ rolls for steel mills



Cylinders and screws for injection molding machines