

# Spreading 'Made-in-Japan' technology across the world

A leading developer of high-performing ring gears for cars, trucks, ships, constructional and agricultural equipment, Benda Kogyo is developing groundbreaking products for the next-generation of automobiles.

A well-built car may carry the logo of Toyota or Honda on the bonnet. But on closer inspection, you will find that a high-performing automobile comprises of thousands of parts and components made by smaller, lesser-known companies—all of which must work in perfect unison to ensure the best and safest driving experience.

Carmakers like Toyota, famed worldwide for its dedication to the tenets of *Monozukuri* (Japanese craftsmanship), depend heavily on smaller Japanese manufacturers to supply these parts, which essentially ensure the high-quality and performance of their vehicles. As such, these specialized SME manufacturers are themselves proponents of the *Monozukuri* philosophy and the

Hiroshima-based firm made a name for itself with the development of its proprietary 'Benda Method' – a cold bending process used to manufacture metal rings for which Benda Kogyo held patents in nine countries after its launch in 1975.

This revolutionary metal ring-forming method – which the company has constantly improved over the years – enabled 95% material yield and drastically raised productivity and efficiency, ensuring products of the highest quality with little-to-no material waste.

With such products, Benda Kogyo subsequently rode the wave of motorization that hit Japan, becoming a top company in the manufacture of starter ring gears used for automobile engines, as

"Our revolutionary 'Benda Method' led to the establishment of high-quality, high-yield metal ring manufacturing technology that produces an extremely small amount of material loss"

Kazunari Yashiro, President,  
Benda Kogyo Co., Ltd.

"*Monozukuri* excellence is born in our factories as a result of the technologies utilized in the process. These techniques were introduced by my grandfather, Kazuyoshi Yashiro, who was the founder of Benda Kogyo and the Benda Method," says a proud Kazunari Yashiro, the current third-generation president of Benda Kogyo.

"The cold-bending method is what distinguishes us and makes us unique. We are the only company capable of performing this process on the domestic market. The excellence of *Monozukuri* allows us to exceed the quality standards set in the national and international market."

In line with the growing proliferation of electronic, hydrogen and autonomous vehicles, as well as higher environmental standards for automobiles, there is an ever-increasing demand higher-performing parts and components.

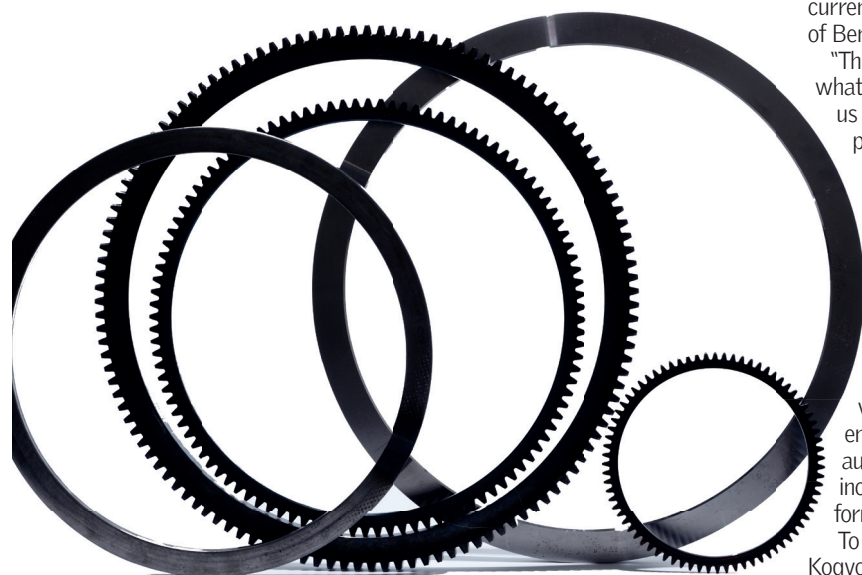
To meet this demand, Benda Kogyo's R&D Centre in South Korea has worked tirelessly to create next-generation products, such as a new product currently in development that is aimed at a major carmaker's hybrid electric vehicles (HEVs). On the back of its commitment to constant innovation, the company will establish a second R&D centre in Japan next year.

"After 2030, electric automobiles will grow their presence in the market. For that reason, we have adopted this vision to

create more innovative products," adds Mr. Yashiro. "We must adapt quickly and take advantage of market opportunities. Particularly with our new R&D Centre in Japan, we can focus on the new age dawning in the automobile industry."

Another focus for Benda Kogyo over the coming years will be further diversification into new industries while at that same strengthening its presence in overseas markets. The company has identified the construction, agriculture, shipping and robotics industries in its strategy for future growth – sectors in which it currently has a presence but not a significant one.

"We might be small, but we are a very ambitious company and we have a long road of growth ahead of us," concludes Mr. Yashiro. "We are already present in many countries through the establishment of local companies or large suppliers. And we want continue to strengthen the bonds throughout the group, to strengthen the role of each company, and capture a greater share of global markets. We are aiming to become a global-tier corporation that develops cutting-edge technology."



constant pursuit of innovation—often creating groundbreaking products to meet the demands of one of the world's most technology-intensive industries.

Established in 1964, Benda Kogyo is a small company that has made an enormous impact with its manufacturing technologies, and today aims to spread 'Made-in-Japan' technology across the world. A leading manufacturer of ring gears, inertia rings, drive plates and flywheels essential to the operation of automobiles, this

well as for trucks, ships, construction and agricultural equipment. In recognition of its manufacturing prowess, the company won 'Minister of Economy, Trade and Industry Award' at the 'Manufacturing Japan Awards' in 2009 for making "perfectly round rings a reality when no one else could". Today, Benda Kogyo holds 20% of the global market for its number one product, the ring gear.



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