

Car Air-Conditioning Compressor Business — Establishing a Global Presence with Advanced Technologies

The production of car air-conditioning compressors is a core business not only of the Automobile Segment but also of Toyota Industries itself. Making full use of our cutting-edge technologies, we develop and manufacture products that meet the needs of each local market throughout the world.



Technological Superiority Beating the Competition

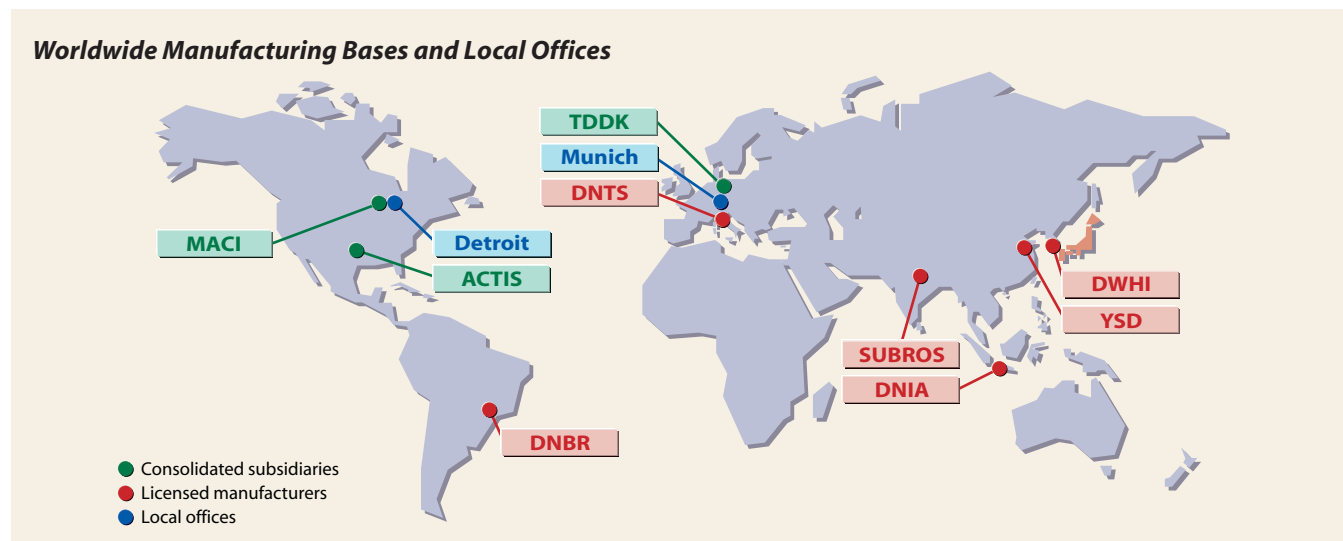
Toyota Industries' car air-conditioning compressors are the preferred choice not only of Toyota Motor Corporation ("TMC") but also of many other of the world's major car manufacturers. Competitors cannot match them in terms of technology and overall quality.

Toyota Industries has made an important contribution to innovation in the automobile field. We anticipate changes in market needs accurately and develop products to meet those needs ahead of competitors. For example, in the 1980s we launched our compact, lightweight 10-cylinder compressor with swash plate and fixed displacement, which is extremely reliable at high operating speeds. In the 1990s, in response to increased environmental concerns, we launched a one-way swash plate compressor with continuous variable displacement, which increases fuel efficiency by reducing the load on the engine. In the late 1990s, we introduced an external signal-controlled compressor with one-way swash plate and continuous variable displacement, which offers both excellent acceleration and lower energy consumption.

In the near future, electric vehicles are expected to become more popular, leading to increased demand for electric compressors. Toyota Industries is undertaking substantial research and development in this field. We are also conducting extensive research into new products. These include a car air-conditioning compressor that uses CO₂ as a refrigerant.

Strong Global Presence

We hold a leading share in the global car air-conditioning compressor market, producing more than 13 million units a year at our facilities around the world.





Over the years, Toyota Industries has globalized its production, establishing a tri-polar production network with bases in all the major automobile markets, i.e., Europe, the U.S. and Japan. We also license production in Asia (excluding Japan) and South America. Local production allows the manufacture of products that accurately reflect local needs, while at the same time reducing shipment costs and exchange rate risks. Local procurement is increasing, and will continue to increase for the foreseeable future.

Our U.S. production base, Michigan Automotive Compressor, Inc. ("MACI")*, sold over 4.4 million swash plate compressors with fixed displacement in 2001. Our European production base, TD Deutsche Klimakompressor GmbH ("TDDK")*, produced approximately 0.7 million swash plate compressors with variable displacement in 2001.

In fiscal 2002, Toyota Industries was the leading player in the Japanese market, selling more than 5 million units to major car manufacturers, including TMC. Sales to American automakers and Japanese manufacturers producing in North America totaled over 4.5 million units (including exports and local production), mainly fixed displacement compressors.

In Europe, Toyota Industries sold over 4.1 million units (including exports and local production), including variable displacement compressors for luxury cars and compact variable displacement compressors for smaller cars. Despite uncertain prospects for automobile sales triggered by an economic slowdown in the U.S., our medium-term focus is on North America and Europe. In North America, we will seek new orders aggressively. In Europe, the potential for sales is vast as the proportion of cars fitted with car air-conditioners is expected to increase significantly. We will vigorously cultivate new customers by rapidly developing and launching products tailored to European needs, such as the compact variable displacement compressor.

Production Integration and the Aftermarket

In May 2001, in order to enhance mutual international competitiveness, Toyota Industries and DENSO Corporation ("DENSO") agreed to integrate their production of car air-conditioning compressors. Toyota Industries now takes the lead in product development and manufacturing, while DENSO focuses on sales while also undertaking limited manufacturing operations. Toyota Industries is now taking over production of car air-conditioning compressors at DENSO's Toyohashi Plant in Japan. Overseas, production will be shared between the two companies on a country-by-country basis. As has always been the case, all our car air-conditioning compressors will be supplied to DENSO, which will then sell them to major automakers worldwide. Our compressors are also incorporated in DENSO's car air-conditioning systems.

In July 2001, Toyota Industries established ACTIS Manufacturing, Ltd. LLC ("ACTIS") in Grapevine, Texas, as a joint venture with DENSO and Toyota Tsusho Corporation. ACTIS, a remanufacturer of car air-conditioning compressors for the North American market, started production in March 2002. The company was created to cope with the rising demand for remanufactured compressors, itself a response to social and environmental needs for more efficient utilization of automotive part resources. Making full use of our long-accumulated know-how in production technologies and quality control, ACTIS intends to reinforce competitiveness in the North American aftermarket for remanufactured compressors. In June 2002, the compressor remanufacturing business of American Industrial Manufacturing Services, Inc. ("AIMS"), a DENSO subsidiary, was integrated into ACTIS.

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* MACI and TDDK are joint ventures with DENSO Corporation. As of March 31, 2002, Toyota Industries held 60% and 65%, respectively, of the shares of these companies. The fiscal years of MACI and TDDK, unlike that of Toyota Industries, run from January 1 to December 31.



ACTIS Manufacturing, Ltd. LLC