

R&D Structure to Create New Customer Value

AISIN aggressively promotes R&D fully conscious of the fact that utilizing technological development to create appealing products with new value contributes to both the betterment of society and expansion of business.

Introducing Truly Original New Products

As the needs of end-users continue to diversify, including requirements in line with global environmental preservation, safety and realization of a comfortable and enjoyable driving experience, the sophistication of those needs also continues to escalate beyond previous levels. To fully provide for such needs and gain the trust of users, above all else, AISIN must perpetually undertake cutting-edge technological development and persevere with the endless pursuit of securing users' trust. With these challenges in mind, AISIN has given ultimate priority to, and is diligently promoting, the development of unique technologies and the creation of wholly appealing original new products.

In fiscal 2005, AISIN launched new drivetrain related products, including the World's first 6-speed AT (A46 series) for light-duty (2-4t) commercial vehicles and the RR 6-speed MT (SP6) that offers sporty handling through comfortable and responsive shifting. At the same time, we concurrently improved our lineup of 6-speed ATs for passenger vehicles offering superb environmental and handling performance. In doing so, AISIN garnered considerable respect from Japanese and overseas customers. Moreover, we were also aggressive in launching a host of products that offer a comfortable and enjoyable driving

experience, including functional parts for a wider passenger-side sliding door system that enables easier entry and exit even on compact models, as well as a panoramic glass roof that offers a more open cabin.

In fields outside the Automotive Parts and Systems Business, AISIN forged ahead in collaboration with Toyota Motor Corporation (Toyota) with the development of its residential fuel cell cogeneration system, which is anticipated to become a highly efficient and clean energy system.

While working to create appealing new products, AISIN is making optimal use of its accumulated expertise and technologies in a broad range of product fields to establish an unrivalled technological domain and improve its competitiveness in related markets.

Group Companies Display Magnificent Expertise in their Specialties

Each Group company within the AISIN development structure manages its own development resources and conducts highly specialized technological development in its field of strength. While concentrating resources for added efficiency is important, it is also essential for Group companies to engage in friendly



"Ultra-short pulse laser" technology advances applications in optical engineering



Designing power sliding doors using 3-D models



Anechoic chamber which evaluates the influence of electromagnetic waves, ranging from low to high frequency zones, on electronic devices



competition amongst themselves in fields where creative development is more crucial. As such, AISIN employs a unique development structure that emphasizes both competition and cooperation.

Aisin Seiki is displaying initiative in every field of development through participation in each product segment, focusing on body related and engine related products. Aisin AW plays a key role in the technological development of drivetrain and information related products, Aisin AI Co., Ltd. (Aisin AI) of drivetrain related products and ADVICS Co., Ltd. (ADVICS) of brake and chassis related products. In addition, Aisin Takaoka Co., Ltd. (Aisin Takaoka), Aisin Chemical Co., Ltd. (Aisin Chemical) and other Group companies conduct elemental technology development in such areas as iron casting, metal forming and plastic molding, while concurrently developing functional products using proprietary methods.

Broad-based Cutting-edge Technological Development

The worldwide family of the AISIN Group includes four advanced research and development companies through which we are pursuing cutting-edge technologies in the automotive field and other areas. In particular, IMRA America, Inc. (IMRA

America) and IMRA Europe S.A.S. are collaborating with local universities and research institutes on state-of-the-art technology in optronics, and telecommunications and energy, respectively. IMRA America has developed femtosecond fiber laser* technology and commercial products that have gained a strong reputation in the laser industry. Applications include optical telecommunications, micromachining, instrumentation, physical and chemical science research, and healthcare.

* The laser emits optical pulses with a pulse duration on the order of a femtosecond (1 fs = 10^{-15} s).

World-class Proving Facilities for Heightened Product Reliability

AISIN has the world's most illustrious proving facilities, which are capable of evaluating not only components, but component-mounted vehicles as well. In addition, in North America and Europe, AISIN conducts field-testing to assess product performance and durability under varying conditions. Such facilities are an irreplaceable element for ensuring and enhancing the reliability of AISIN products, and AISIN aims to further augment these facilities and their structures in the future.



Performance test for automatic transmission for commercial vehicles

Performance testing on residential fuel cells

