Business Overview

Precision Equipment Business

Nabtesco’s precision reduction gears and other precision equipment support cutting-edge industries around the world.

Nabtesco’s Precision Equipment business has been providing precision reduction gears based on advanced technologies offering compact-size, lightweight, high positioning accuracy, highly rigid and highly efficient features, as well as rapid prototyping machines (stereo lithography) and other equipment and systems focusing on next generation technologies.

For precision reduction gears at the core of the Precision Equipment business, applications are extending to industrial robots, machine tools, and semiconductor manufacturing. In particular, for application to the joints of industrial robots, Nabtesco’s precision equipment has been highly rated in the world market and it maintains a dominant share of approximately 60%. Nabtesco has started the development of a new series of products to offer increased accuracy and rigidity, thereby further enhancing competitiveness.

In the business of rapid prototyping systems (stereo lithography), which manufactures resin models without using metal molds, Nabtesco has established an industry-leading development capability and a wide variety of service-providing systems. In fact, Nabtesco has been encouraging various industries, including manufacturers of automobiles, electromechanical systems manufacturing, digital home electronic appliances and precision equipment to utilize this rapid prototyping technology, thereby aiming for positive market development. Nabtesco is also making an aggressive effort to develop new businesses and new products such as vacuum actuators for the transferring and position alignment of semiconductor wafers or LCD glass substrates, dry vacuum pumps rated highly in the semiconductor manufacturing industry and commended as a Superior Energy-Conserving Machinery, thermal management products based on proprietary heat transfer technology, and other products, while Nabtesco’s precision equipment continues to support cutting-edge industries.

In fiscal 2005, the Company started an extension work of the Tsu plant, a main plant for the precision equipment business, scheduled to be completed by March 2008. Production capacity after extension will increase by 60% from the current level.
Transport Equipment Business

Nabtesco’s motion control system and products making full use of advanced technologies ensure safety and comfort of railroad vehicles, automobiles and ships.

In the Transport Equipment business, Nabtesco has been involved in three major fields. For railroad vehicles, Nabtesco primarily deals in brake systems and door operators; for automobiles, Nabtesco deals in air brake systems and air dryers for commercial vehicles; and for ships, Nabtesco produces engine control systems for large vessels.

For railroad vehicles, Nabtesco provides brake systems, door operators, and other products for high-speed bullet trains (Shinkansen), commuter trains and new forms of transportation systems within Japan as well as to other countries with a focus on East Asia, where demand for railroad construction is high.

In the business of automobiles, as a leading manufacturer of braking systems for commercial vehicles in Japan, Nabtesco provides various brake products and clutch hydraulic products. In order to match the industry’s expectations for safety, Nabtesco has been taking action through constant consideration for the future. Today, its share of the market for air dryers and brake chambers for commercial vehicles each account for approximately 90% and 70% of the domestic market.

In the ship business, Nabtesco has set up a worldwide network to provide various services, through its three major bases established in Japan, Singapore and the Netherlands and with Nabtesco supplying marine engine remote control systems, electric digital governor systems and other transport equipment worldwide. Nabtesco has the largest share of the overall market for remote control systems for marine vessel engines with over 50% of the domestic market in Japan and a large share of approximately 40% of the world market.

In fiscal 2006, the Company not only promoted the establishment of overseas bases, but also started delivery of products compatible with electrically controlled engines, which are expected to grow in response to the global movement to tighten exhaust emission control for vessels.
Nabtesco’s highly rated technological development capability keeps pace with demand in the field of aircraft equipment, construction machinery and other sophisticated systems.

In the defense aircraft market, Nabtesco has been engaged in the development through to the manufacturing and repair of hydraulic equipment, engine accessory/fuel systems, flight control systems and power generation systems for a number of Japanese Defense Agency programs and has earned a high reputation in the industry as one of the most experienced equipment manufacturers.

In the civil aviation sector, Nabtesco supplies flight control systems and other equipment and also after-sales services to the Boeing Company (USA), Cessna Aircraft Company (USA), Bombardier Inc. (Canada), and Embraer (Brazil). Nabtesco boasts numerous achievements such as a blanket order for FlyByWire (FBW) flight control actuation systems for the Boeing 777 Aircraft. Through the superior technologies and high-quality services that it has developed and accumulated over many years, Nabtesco has been meeting customer needs as one of the leading suppliers in the aircraft manufacturing industry, both at home and abroad.

For hydraulic excavators that play an essential role in construction work, Nabtesco primarily supplies hydraulic traveling motors, a key component for driving hydraulic excavators, and maintains a large market share backed up by the market’s high rating and high level of reliance on its products. The products configured with a reduction gear, a hydraulic motor, valves and a brake integrated in a compact design are very popular among users in Japan and abroad. Additionally, with the aim of providing construction machinery further capable of highly precise operation, Nabtesco is actively involved in research and development of fine control that fuses electronics with hydraulic technology.

The Company is also promoting expansion of energy-saving and environmental equipment fields. For example, the Company started mass production and export of drive units for wind turbines that were newly developed with the application of our oil hydraulic technology.

In the fiscal year ended March 2006, we received orders for “Rack & Panel” (high voltage electric power unit) for the Boeing 787 Aircraft, a next-generation passenger aircraft. Thanks to this, the Company was able to enter the electrical system business in addition to the existing market of flight control actuation system.
Nabtesco’s industrial equipment offers comfort, safety and efficiency to everyone in every possible location.

Nabtesco has been primarily involved in the business of producing machine tools by offering not only automatic doors and packaging machines, but also multi-forming machines and CVJ (constant velocity joint) processing machines. In addition, Nabtesco has just entered the new field of welfare and medical equipment and is achieving good results.

Nabtesco is the first producer of automatic doors in Japan. At present, Nabtesco offers a variety of automatic doors chiefly for the construction industry, industrial doors to ensure insulation against heat, sound and radiation, and station platform doors to provide increased safety and convenience. The company has a share of approximately 50% in the market of the domestic automatic doors for buildings.

Demonstrating Nabtesco’s reputation in this field, the Company’s automatic doors are in use at the Museum of Modern Art (MoMA, New York), Beijing Capital International Airport, Shanghai Pudong International Airport, Suvarnahumbi airport (Thailand) and other landmarks. Nabtesco also is widely recognized as a leading manufacturer of platform screen doors, with a strong supply record at home and abroad. Moreover, recently, Nabtesco has started to deal in high security automatic doors and sensors (for automatic doors) with wider field of detection to keep up with the needs of the times. Nabtesco is making every effort to further enhance its control technologies and offer automatic door systems that ensure greater comfort, safety and efficiency for everyone.

Nabtesco is also developing equipment and devices that flexibly and precisely match various industrial needs, such as for automation, labor saving and energy conservation. Among these items of equipment and devices, Nabtesco’s packaging machines maintain a dominant market share in the food industry and their application is being extended to detergents, chemical agents and other sectors. By constantly planting technological seeds in the soil of practical applications and then refining and nurturing them, Nabtesco continues to develop industrial machinery and equipment that focuses on originality.