



For customers

Fluid Machinery & Systems Company

To keep developing world-class products, we work on enhancing *monozukuri* (manufacturing) and *genba-ryoku* (shop-floor management) which are the basis of a manufacturing enterprise.

We have provided many kinds of custom-made and standard products manufactured at domestic and overseas plants for companies and municipalities. These products and technologies are led by the knowledge and skills that we have accumulated and enhanced from the day EBARA was established.

Around 2010, we expect there will be fewer highly-skilled and experienced workers in production sites because baby boomers will retire. Therefore, so that they can pass on their technology and expertise to enhance the integration with *genba-ryoku* (shop-floor management),



Steam turbine assembling work

we are making efforts in the areas of personnel systems, international specialization, and knowledge management.

Three approaches to enhance *genba-ryoku*

EBARA's *genba-ryoku* is a string of mechanisms to make improvements by thinking and learn-by-doing. And those improvement activities in the workplace put out know-how, which is a vital element of *genba-ryoku*. To take over this know-how, EBARA created a new job title of "manufacturing engineer" in 2005. Professional manufacturing engineers have technical expertise to convert implicit knowledge (learned only by experience) into explicit knowledge (contained in manuals and procedures). And they play the role of receiving expertise

in a short time, something which can only be done on a man-to-man basis. By nurturing these professional manufacturing engineers, the EBARA Group's *monozukuri* is supported both in Japan and overseas. (See page 38). We deploy the manufacturing plants all over the world divided by market, component and product. Up to now, in Japan, we have trained more than 100 workers and technicians from overseas manufacturing plants, especially from Asia, and have promoted penetration of the evaluation system for technology and skills since 2003. In 2007, we held an "EBARA Skill Asia 2007



EBARA Skill Asia 2007 Competition

Competition" at P. T. EBARA Indonesia, aiming to have workers compete using their skills in a friendly way.

As a means of passing on expertise in our production bases located in Japan and overseas, we have produced an operating manual called "Digital Meister." This assembly manual enables simulations to be run on a computer, using 3D CAD drawings, pictures and moving images. It deals with working procedures, and operational actions that are hard to describe in a document. By having workers repeat learning activities again and again, this manual not only allows them to realize explicit knowledge, but it is also useful in ensuring thorough quality management.

We are responding to changes in the business environment, and we will continue to provide trustworthy products and services to customers all over the world. And we will go on striving to keep customers satisfied.



Atsuo Suzuki
President, Fluid Machinery & Systems Company

We consistently promote *monozukuri* for customers.

The Fluid Machinery & Systems Company is the oldest among EBARA's three companies, and it produces pumps, blowers, compressors and chillers both in Japan and overseas. Each of these products supports our life, industry and the social infrastructure. We are contributing to society by providing our products to customers. And as the top manufacturer of fluid machinery and systems, we imbue each and every one of our products with our thoughts on

monozukuri, and we steadfastly carry out each workflow and operation to provide products and services that satisfy our customers' needs. We will continue to nurture people to whom excellent technologies have been passed down, further make efforts for *monozukuri*, and aim for an EBARA brand that is trusted by customers.