Together with our customers

In their own words

Nikon Corporation

Established in 1917. One of Japan's foremost manufacturers of optical instruments and precision measurement and manufacturing equipment. Nikon has developed a broad range of technologies, products, and services based on its core technologies, opto-electronics and precision, focusing on three areas of business: precision equipment, imaging products, and microscopes and measuring instruments.

Nikon's Kumagaya Plant.

(From left) Junior Executive Staff, Research Toshikazu Ebina, Manager Masaru Okada, Junior Executive Staff, Research Yasuyuki Goda. All three work in 6th Development Section, 2nd Development Department, Development Headquarters, Precision Equipment Company.

Grateful to THK for faithfully meeting difficult requirements unique to semiconductor exposure equipment.

How did you come to use THK products?

We design and produce semiconductor exposure equipment, and we were looking for a linear guide for a damper on an optical vibration device used in that equipment. This was around 2000. At that time we heard from colleagues that THK made linear guides providing very high rigidity and that it produced the largest share by far of the linear guides used in machine tools, so we met with some of their sales people.

Since then there's been a big surge in demand for switching mechanisms for illumination optics, and we've used THK's LM Guides, ball screws, and other products for a variety of purposes.

What's your opinion of THK and its products?

We work for the Seiki Company Semiconductor Exposure Equipment Division. Our development and production facility is in the city of Kumagaya in Saitama Prefecture, but we deal with people from THK's Tokyo location. We're pretty far away, but they've been very conscientious about coming out to make sure our needs are met, and we're very impressed with that.

The optical systems in semiconductor exposure devices are extremely precise, and even minor irregularities in optical dynamics will upset their delicate patterns. Exposure to ultraviolet light causes ammonium sulfate, silicon, and other contaminants to adhere to lenses, making them cloud up. That causes irregularities in the light passing through, so ordinary lubricants and anticorrosive agents can't be used on the guides. Fluorinated lubricants have to be used, and the guides have to undergo a special chemical cleaning process. THK has been very conscientious about dealing with these types of specifications, which are unique to semiconductor exposure equipment. They continually meet our highly demanding requirements, making it possible for us to do things we couldn't do before. We think of them as a reliable partner, a company we can have a lasting relationship with.

The Nikon NSR-S622D,
a semiconductor exposure device.

What do you expect from THK in the future?

We'd like to develop an even stronger partnership with THK, with more interaction between our development divisions. In terms of technology, we're hoping they expand their product lineup by making products even smaller and thinner, and we'll be glad to hear more ideas from them for combining drive mechanisms in various ways. We hope to do more designing and producing of components and controls for custom-made products, dividing the work between our two companies, with each bringing its own technology to the task. We want to keep our win-win relationship going.