



We develop products valued and chosen by customers.

### Brother's technical capabilities are used to create customer value

At the Brother Group, we consider that true technical capabilities refer to the utilization of our unique technologies to create products and services that customers demand. This is because we believe that excellent technologies can provide value to people only when they are utilized in a product. In order to offer products valued and chosen by customers, the Brother Group's engineers give full attention and listen to customer opinions sincerely. They devote themselves to value creation by constantly thinking about what technologies they can apply to satisfy customers and what kind of products will support customers.



#### Case Example **Garment printer that takes one-third as much printing time as Brother's conventional models**

A garment printer is capable of printing computer-drawn images on clothes. At Brother, we decided to adopt a new print head for the latest model "GTX" at the request of users to largely shorten printing time and thus increase productivity. In addition, there was a strong request from customers to realize a printed surface with a soft texture and brighter colors.

The new print head needed to be used with inks with much lower viscosity. However, lowering the viscosity of Brother's conventional inks led to color fading from washing.

After much trial and error, and by largely changing the chemical structures of ink polymer components, we succeeded in creating new inks that have less than half the viscosity of the conventional inks and also provide a non-sticky printed surface to meet the customers' request for a soft texture.

To respond to the request for enhanced color brightness, we reduced the size of ink pigment particles. However, this might deteriorate long-term ink storage stability.

To solve this problem, we repeatedly fine-tuned the balance of ink materials and successfully found the best combination of them.

As a result of these efforts, we have realized outstanding productivity that requires only one-third as much printing time as our conventional models as well as high-quality printing that provides a better texture and a wider range of colors.



Employees checking the texture of a printed surface



Discussion to solve the problems