Established in 1951, Nishat Mills, Ltd is one of the largest textile companies in Pakistan and has since become the country’s representative conglomerate, with its businesses encompassing not only textiles, its founding business, but also banking and insurance. Since Nishat Mills’ establishment, Toyota Industries has been involved in an excellent business relationship with the company across generations as a main supplier of spinning and weaving machinery.

For this special feature, we spoke with Mr. Muhammad Mansha, Chairman of the Nishat Group, about his thoughts on Toyota Industries’ textile machinery and the long-standing history between the two companies.

**Toyota Industries’ Textile Machinery Winning Trust Spanning Generations in the Textile Industry That Drives Pakistan’s Economy**

Nishat Mills began its remarkable journey when my father established a small spinning mill in 1951 in Pakistan. With the purchase of shuttle looms from Toyota Industries (hereafter, Toyota) in the mid-1950s, the company entered the weaving business. In 1962, we established a spinning mill in what was then East Pakistan (currently Bangladesh) and installed Toyota’s spinning machinery. After inheriting the business from my father, we introduced Toyota’s FY spinning frames in 1968 and from there we dramatically expanded our spinning business. In the mid-1990s, we constructed a dyeing and finishing plant, in which we subsequently established the weaving division in 2003, and purchased Toyota’s JAT710 air-jet loom for the first time. Since then, our textile business really took off. From the very beginning of our existence until now, Toyota has always been there for us, supporting our growth with their technologies and services. What is remarkable about Toyota is that they not only offer state-of-the-art machinery but also provide our factory operators with meticulous guidance on the optimum methods of operation and maintenance specifically suited to our business through close observation of the operational status at our factories by Toyota’s developers and service staff. With this kind of support, we have been able to manufacture products by eliciting the maximum performance of the machines at all times. When machines are not working well, we can depend on Toyota to offer quick and comprehensive maintenance support. If improvements are required, they make sure these will be reflected in the development of the successor model. In these ways and others, we have absolute faith in their sincerity and integrity.

**Contributing to the Development of the Textile Industry with the Latest Air-Jet Looms**

In 2014, we completed a new textile mill, which features the latest JAT810 air-jet looms. Under the concept of the world’s best energy-saving textile mill, the factory is fitted with lighting fixtures, air conditioners and other equipment that incorporate the latest advancements in environmental technologies. We believe it’s one of the most environmentally conscious textile mills not only in Pakistan but also throughout the world. Needless to say, we demanded extremely strict environmental regulations to ensure our newly constructed factory is as energy-efficient and environmentally friendly as possible.

Mr. Muhammad Mansha
Chairman of Nishat Group

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**Textile Product Demand and Global Population Growth**

- **Textile product demand (Source: TEXTILE HANDBOOK 2014)**
- **Global population (Source: Population estimates by Japan’s Statistics Bureau, Ministry of Internal Affairs and Communications)**

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**Air-Jet Loom Market Share (2013)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Market Size (units)</th>
<th>Toyota Industries' Share</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>25,000</td>
<td>21%</td>
</tr>
</tbody>
</table>

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**Toyota Industries’ After-Sales Service Network (Overseas Service Centers)**

- South Korea
- China (Shanghai, Shanghai, Wujiang, Jinan, Changzhou, Lanxi, Tantong)
- Taiwan
- Thailand
- Indonesia
- India
- Pakistan
- Switzerland
- U.S.A.
- Brazil
performance of weaving machines because they will play a central role at this factory. After closely comparing Toyota’s and their competitors’ products, we decided to install Toyota’s JAT810 air-jet looms. We know we made the right decision because the textile mill as a whole has been able to save energy by up to 20%.

Although Pakistan has been plagued with unstable power supplies, as the country’s representative conglomerate, Nishat Group is tackling the problem head on. We are straining to take the initiative in energy savings, thus contributing to the development of our country’s industries.

My son, Umer Mansha, has now taken over the Nishat Group’s textile business. I hope he will continue to cherish our relationship with Toyota and continue the journey with the textile business. I hope the two companies will continue to grow while contributing to the development of society.

We are striving to take the initiative in energy savings, contributing to the development of our country’s industries.

Excellent Energy-Saving Performance of JAT810 Air-Jet Loom

The most prominent feature of air-jet looms is to insert the weft yarn at a high speed by injecting compressed air to weave fabrics. This is done using a large compressor, a process that requires the largest amount of energy. Consequently, the key to energy savings is to minimize waste and efficiently insert weft yarn with little air. In other words, using less air equals consuming less power.

Our JAT series of air-jet looms has consistently featured better air-saving performance that surpasses competitor products. For the JAT810, innovations were made to such devices as the sub-nozzle, as well as installing the machine’s very first generation. Our relationship further expanded in 1994 when NPC, which manufactures electronic components, introduced air-jet looms to weave glass fibers. Compared with common clothing fabrics, printed circuit board cloths made of glass fibers require extremely delicate quality management because the tiniest defect, which is unrecognizable to the naked eye, could possibly cause malfunctions. Toyota’s air-jet looms come equipped with highly sophisticated technologies, such as for realizing gentle weft yarn insertion by reducing air pressure to inject yarn even during high-speed operations, enabling us to meet such rigorous demands and weave high-quality cloths.

Air Consumption Volume


20% reduction  20% reduction

Various Products That Toyota Industries’ Air-Jet Looms Can Weave

In Taiwan’s Electronics Industry that Contributes to the Global Economy

The electronics industry accounts for a large portion of the Taiwanese economy. Nan Ya Plastics Corporation (NPC) is a member of the Formosa Plastics Group, one of the largest conglomerates in Taiwan, and engages in the manufacture of such products as clothes for printed circuit boards of mobile phones and PCs as well as glass fibers for weaving these cloths. As one of the world’s most prominent players in the glass fiber field, NPC is a significant contributor to the electronics industry in Taiwan and operates more than 3,000 air-jet looms made by Toyota Industries.

Mr. William Wong, Chairman of the Formosa Plastics Group, to which NPC belongs, talked about the role Toyota Industries’ air-jet looms are playing in the manufacture of high value-added products for the electronics industry.

Air-Jet Looms Suitable for the Production of High-Quality Cloths for Printed Circuit Boards

The Formosa Plastics Group was established by my father, Wang Yung-tai, and his older brother, Wang Yung-ching, to produce polyvinyl chloride products. It has grown into one of the largest conglomerates in Taiwan, with businesses encompassing petrochemistry, electronic components, medical care, education, transportation and other areas.

Our business with Toyota Industries (hereinafter, Toyota) began in the 1970s when Formosa Chemicals & Fiber Corporation, one of the Formosa Plastics Group companies, purchased spinning frames from Toyota. Formosa Chemicals & Fiber has been a continuous user of Toyota’s air-jet looms as well since installing the machine’s very first generation.

Our relationship further expanded in 1994 when NPC, which manufactures electronic components, introduced air-jet looms to weave glass fibers. Compared with common clothing fabrics, printed circuit board cloths made of glass fibers require extremely delicate quality management because the tiniest defect, which is unrecognizable to the naked eye, could possibly cause malfunctions. Toyota’s air-jet looms come equipped with highly sophisticated technologies, such as for realizing gentle weft yarn insertion by reducing air pressure to inject yarn even during high-speed operations, enabling us to meet such rigorous demands and weave high-quality cloths.

Valuing such strengths, we decided to switch from weaving machinery produced by other manufacturers that we were using. Currently, we operate a total of more than 3,000 Toyota air-jet looms at our factories.

Fulfilling Expectations through Ever-Evolving Machine Performance and Sincerity of Toyota Staff

As smartphones and a growing variety of electronic devices rapidly gain popularity, demand for electronic components is exploding all over the world. In response, we need to maximize the capabilities of weaving machinery in our operations. For us, it is of extreme importance that we efficiently manufacture top-quality cloths.

Toyota’s air-jet looms constantly meet such exacting demands at a high level while its service staff quickly arrive
on the scene when we need them and make necessary adjustments so that the machines will operate in optimal condition. We believe Toyota’s attitude of always being sincere in meeting extremely severe requirements for quality and productivity in the manufacture of electronic components is reflected in the product capabilities of its air-jet looms and the level of its services.

Electronic components represent one of Taiwan’s core industries, making significant contributions to the global economy. With Toyota as our essential business partner, we intend to play a central role in Taiwan’s progressively growing electronics industry.

In addition to technologies accumulated to date, we are tapping into the world’s top-level sensor technologies and information processing technologies developed by Switzerland-based Uster Technologies AG, which became a member of the Toyota Industries Group in 2012, in our efforts to create revolutionary new products.

We are striving to further enhance customer trust by strengthening our products along with honing our prompt and meticulous service capabilities.