



## Interview of Kenichi (Ken) Sekiya

Interviewed by:  
Craig Addison

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**Craig Addison:** I understand that you joined Disco in 1960, after graduating from university. What was your first job at Disco, and do you recall any highlights from your first few years in the job?

**Ken Sekiya:** I started working at the Hiroshima plant of a small company manufacturing abrasive wheels, which my father founded. At that time, the monthly sales of that company amounted to approximately Yen 10,000,000 (US\$27,000). At first, I was in the administration division mainly looking after the accounting of the factory. But as it was a small company, I sometimes went to the manufacturing site to help with many different things. This eight and a half years' experience in Hiroshima taught me about manufacturing and the value of making something.

**Addison:** Why (and when) did the company decide to move into the semiconductor equipment market? Was it an easy or difficult transition?

**Sekiya:** In 1968, upon a request from a major electronics manufacturer, we developed ultra-thin abrasive cut-off wheels of 70 microns thickness. We were looking for appropriate equipment that could utilize our new abrasive wheels but could not find one. This led us to develop the first dicing saw on our own in 1975 after seven years of trial and error. It was my younger brother and an engineer who came from a manufacturer of machine tools who played the main role in the development but I also took part as a project manager from the planning stage. When I look back on those years now, it was not a hardship but a great experience and challenge which I enjoyed very much.

**Addison:** What was Disco's first product for the semiconductor industry? Was it an initial success?

**Sekiya:** We were trying to expand sales of our ultra-thin abrasive cut-off wheels in the new semiconductor market. Disco came to specialize in the core technologies of "kiru/kezuru/migaku" (cutting, grinding and polishing) in the abrasive field and then in 1980 developed a new equipment and system called the wafer back grinder utilizing our "kezuru/migaku" technologies. This was a great success and today it is our main line of products together with the dicing saw previously mentioned.

**Addison:** Please talk about your move up the "corporate ladder" at Disco. What roles did you play along the way? What memories do you have of successes, and failures?

**Sekiya:** As Disco was a small company I was able to experience all kinds of things in the company, taking part in the management as an assistant to my father. I became a member of board of directors at the age of 25, and assumed the post of the vice president when I was 32. I was indeed lucky to be able to participate in the semiconductor business with my brother as the second-generation founder. Of course I experienced many failures as well along the way. The biggest one was that we once expanded our field of development much too far, believing that we were able to succeed in whatever field as our company gained the recognition of the industry. We got involved in a lot of areas outside of our core technology. For instance, we were even involved in developing a fusion furnace. Needless to say, those that were not our core technologies turned out to be a failure. From this bitter experience, we realized that we should better concentrate on the core technologies, which were cutting, grinding and polishing.

**Addison:** Disco was one of the first Japanese equipment companies to go overseas, specifically to the U.S. What was the strategy behind that move?

**Sekiya:** Disco's first involvement in the overseas market was in December 1969 when we opened an office in Silicon Valley [California]. At that time it was only for blades, we didn't have any equipment. We had it for a while and we put the operation into hibernation. Once we developed the dicing saw in 1975 we reopened the U.S. operation, primarily to provide after sales service but also to be close to the customer. That was a very key aspect of what we were doing.

**Addison:** As a smaller company, was it difficult for Disco to compete against large Japanese conglomerates?

**Sekiya:** The dicing system is a very niche market among the semiconductor manufacturing equipment. Disco's business model to offer the three core technologies of "kuru/kezuru/migaku" as a system is unique. This uniqueness enabled us to get ahead of the competition (among a few competitors) and so far no industrial giant has emerged in our business domain. In this way, Disco continued to achieve a remarkable development since 1975 and we did not experience the cyclical aspect of the industry until after 1986.

**Addison:** From your observations, did Japanese device makers develop their own IC manufacturing equipment and processes in-house? When did an independent equipment sector begin to develop in Japan?

**Sekiya:** Until the 1970s, semiconductor-manufacturing equipment was mainly manufactured in the U.S., and the equipment used in Japan was mainly imported. However, in Japan, all the basic technologies required for the production of IC devices -- such as printing technology, optical technology and chemical equipment technology -- had already been established with a long tradition and history. This was the background when the development and production of IC devices was started mainly by the electronics manufacturers in consumer electronics and heavy electrical machinery industry in Japan. So they were able to foster equipment manufacturers in collaboration with such established technologies in the different industries. At that time in Japan, equipment suppliers and IC device manufacturers were connected to each other much more closely than today and they worked hand-in-hand to develop new manufacturing methods and equipment. The device manufacturers accepted incomplete equipment from the suppliers and by trying it in their manufacturing process, they jointly worked to improve and develop the equipment. There was a lot of collaboration between the equipment manufacturers and the device manufacturers. In the past 10 years, as the industry has gotten larger, there is more of a need for turnkey solutions where we are required to develop the equipment 100 percent before we deliver it to the customer.

**Addison:** How did you come to be elected to the SEMI board of directors?

**Sekiya:** While in the process of opening a SEMI Office in Japan, Bill Reed, the president of SEMI at that time, made many trips to Japan and then asked me to join the board of directors as a representative of Japan. However, Disco's situation did not allow me to accept his offer. I was much too busy starting up the business of our own company. Later as our company developed, I gradually started to participate in the activities of SEMI in Japan. I recall that I started as the chairman of the advisory committee for the first SEMICON Japan exposition. After that, I took part in ITPC [the International Trade Partners Conference], starting with the first one held, and I once co-chaired ITPC. I began to get acquainted with many SEMI members from the U.S. I was elected as a member of SEMI board of directors in July 1994.

**Addison:** What is the story behind your election as SEMI chairman, and some highlights from your term?

**Sekiya:** In July 2001, I was nominated to become the chairman of SEMI. At first, I declined the offer taking into consideration the size of our company and my modest English proficiency, but as many of the board members encouraged me and urged me to accept the offer, I finally decided to assume the post of the chairman.

During my term for one year, I led the SEMI board of director meetings with the help of simultaneous interpreters, which was unusual, but I was able to accomplish my duties as chairman thanks to the warm support of my colleagues and members.

A number of years before, Disco had gone through a dramatic organizational change, so Stan Myers [SEMI president and CEO] asked me to become chairman so that SEMI could gain from the experience at my own company.

**Addison:** When you declined to join the SEMI board the first time, did you think there was a conflict between SEMI and the SEAJ (Semiconductor Equipment Association of Japan)?

**Sekiya:** At the time of the first approach by SEMI I had no involvement in SEAJ. Now I am a board member of SEAJ. Even at that time, I felt very strongly that SEMI was a global organization and I realized that SEAJ would only be a domestic organization. I felt then, and I feel now, there is a parallel need for both organizations.

**Addison:** In your view, was the first SEMICON Japan exposition a success?

**Sekiya:** At the time of the first SEMICON show [in Japan], the semiconductor equipment manufacturing market in Japan was just having its first birth cry -- basically in the infancy stage. As well, it was the very early stages of the device manufacturers themselves. So it was a very dynamic and energetic marketplace and industry. I felt that from the very first [SEMICON] show it was a complete success.

**Addison:** What contributions do you think SEMI has made to the Japanese semiconductor industry?

**Sekiya:** In my opinion, SEMI has conducted global industry activities and greatly contributed to bring the world's semiconductor equipment and materials manufacturers closer to Japanese semiconductor industry through various shows such as SEMICON. Although not as readily visible as the equipment, the role of SEMI in developing equipment standards is a true contribution, where we have engineers from Japan, the United States Europe and Asia jointly developing these standards.

END OF INTERVIEW