

## **Advanced PacLine A25 Installed at Alpha Bumping in Japan**

Palo Alto, California—February 22, 2001—Pac Tech GmbH, a leading German supplier of services, equipment and chemicals for semiconductor wafer bumping, today announce that it has installed their most advanced wafer bumping system in Japan. The PacLine 2000 A25 was installed at Alpha Bumping Technology, Co., Ltd, headquartered in Tokyo. Pac Tech has also transferred process technology to Alpha Bumping as part of the total sales and license agreement.

The A25 is a fully automated electroless nickel/gold wafer bumping system that is capable of processing from 4- to 12-inch wafers. The system comes fully functional with advanced Pac Tech software for process control and total quality management at every step during the wafer bumping process.

The PacLine A25 has a fully automated robotic handling system with the capability of processing 50 wafers per hour. It consists of several process modules, one input, and one output station

Mr. Thomas Oppert, VP Marketing & Sales of Pac Tech GmbH states, "This is the first system installed in Japan, and represents a major step in our worldwide position strategy."

"This sale of the PacLine A25 to Alpha Bumping of Japan serves to validate that electroless nickel-gold wafer bumping is an arriving technology, an alternative to costly traditional electro-plating process technologies, and this is the first major step in developing a presence in the Japanese market" said Ron Blankenhorn, president and CEO of Pac Tech USA.

Alpha Bumping will use the A25 systems semiconductor surface processing technology to produce flip-chip packages for Japanese consumer market applications. The technology, developed and licensed by Pac Tech GmbH, provides a low cost method of forming the barrier metal connection layer between aluminium or copper upper metal layers of a chip and the solder bumps used in flip-chip assemblies. The ability of the PacTech system in handling wafers of different sizes, can reduce production costs by as much as 50%

"Prior to selecting Pac Tech, we reviewed many other processes for wafer bumping. The Pac Tech solution offered the most advanced, cost effective and versatile alternative to any of the others", comments Mr. K. Matsuki, President of Alpha Bumping Technology in Japan.