

ESEC Wire Bonder

Precision and Performance

- Positioning < 1 μm
- Cycle time of the axes 0.1 ms
- Synchronism of the axes 70 ns



The application

A wire bonder establishes electrical connection within an IC (Integrated Circuit). A wire made of pure gold is used for this purpose. The gold wire measures 17.5 to 50 μm and is thus eight times thinner than a human hair. The wire is soldered at both ends. Thanks to perfectly synchronized and highly precise axis movements, the wire is finally in a precisely defined shape and position in space. The axis movements are too fast to be detected by the human eye: In extreme cases, over 30 such wires are bonded per second!

The system

The powerful Indel INFO-PCIe fieldbus master coordinates the entire periphery of this machine. With its four interlinked axes, the "Bond-

head" places particularly high demands on CPU performance and the speed of the fieldbus.

Successful cooperation

Thanks to the close cooperation between ESEC and Indel, this machine was converted from the previous control system to the Indel control system in record time and successfully launched on the market.

**Precision and performance.
Indel Automation.**