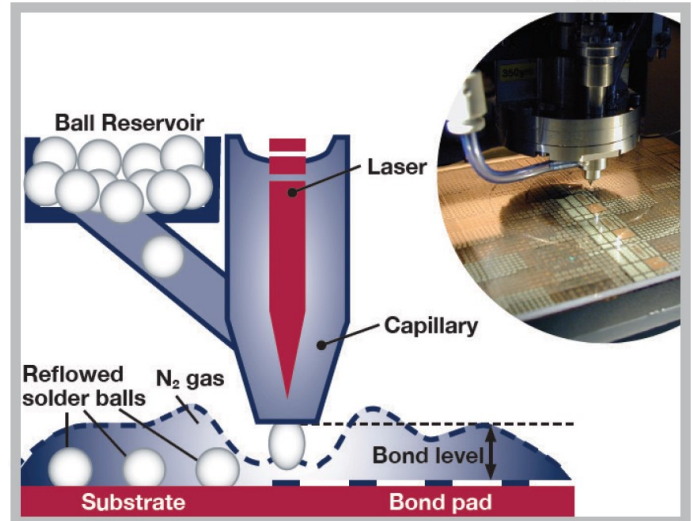


- SCOPE: What is Laser Solder Jetting?

**How does laser solder technology work?**

Within the Jetting Head a singulation disc will dispense a single solder ball into the bottom of a capillary where the laser's thermal energy melts the solder ball, enabling it to shoot under pressurised nitrogen onto any soldering position being reflowed immediately. The process works with various solder alloys, all with different melting temperatures (SnPb, SnAgCu, SnAg, AuSn, InSn, SnBi....), and requires no solder flux. Therefore is it a clean process.

The localised heat and short pulse period of the laser assures that minimal thermal stress is applied to the areas beyond the joined surfaces. The single solder ball dispensing mechanism required no tooling, enabling flexible soldering location and contactless soldering.



The great advantages of this process are the lowered thermal stress of localised heating and no mechanical contact to substrates or delicate components such as MEMS.

The solder jetting process can be used in a number of applications such as discrete devices, probe-cards, memory, camera modules, wafer pieces, PCB, Flex-substrates, BGAs, CSPs, sensors and 3D components like MEMS. Target Markets span Defence, Medical, Automotive and Aerospace.

**Specifications:**

- 40µm to 2mm solder spheres.
- 80µm to 1mm pad pitch.

