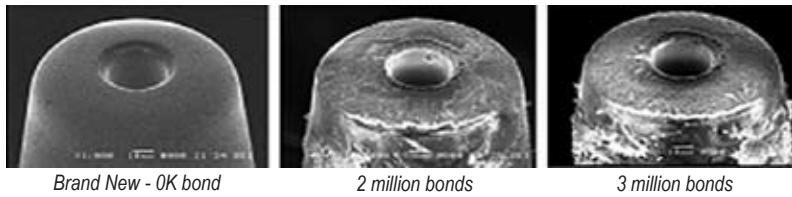


INFINITY CAPILLARY

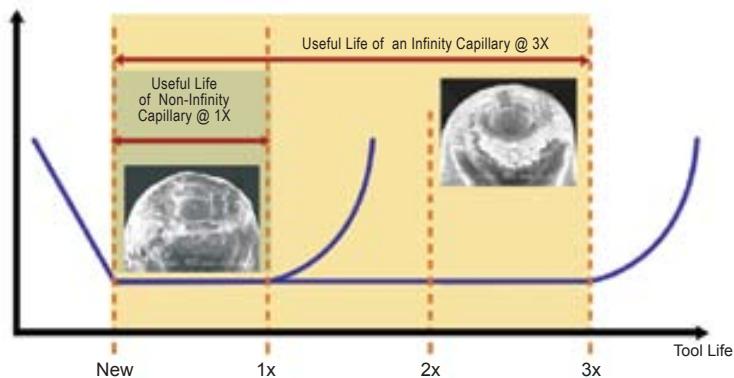
Enhanced Tool Life



In wire bonding, load-up on the capillary face is inevitable as the bond touchdown increases. This is mainly due to the scrubbing action of the capillary from the ultrasonic energy applied in the process of making bonds. As the load-up amount increases, bond quality is affected. The useful life of the capillary can be defined as the maximum bond number before the bond quality produced by the capillary is deemed unacceptable. Depending on the types of substrate and bonding condition, the tool life of the capillary can vary from a few hundred thousand bonds to more than 1 million bonds.

An SPT proprietary process has been developed to extend the bonding tool life by at least 3 times its current limit, utilizing state-of-art controlled high purity process that enhances the sub-surface properties of the ceramic based material. Through various in-house testing and user evaluations, the *Infinity* capillary has proven to exceed the current tool life by at least 3 times the standard.

Failure Rate Distribution as a Function of Tool Life
Comparing Infinity and Non-Infinity Capillary



Features:

- Long life capillary at least 3x of its original.
- No change in bonding parameters
- Higher mean time before failure (MTBF)
- Less bonder downtime; higher production output

SBN 33 110 51 5 F ZP 3 6 T Y

