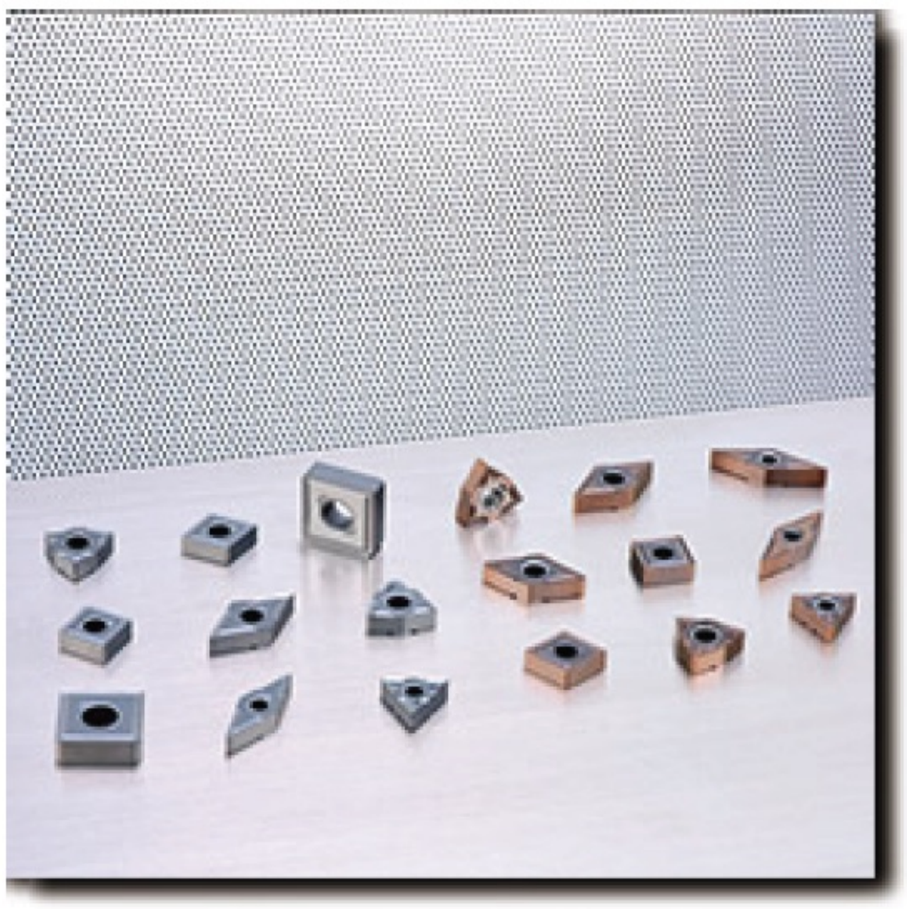
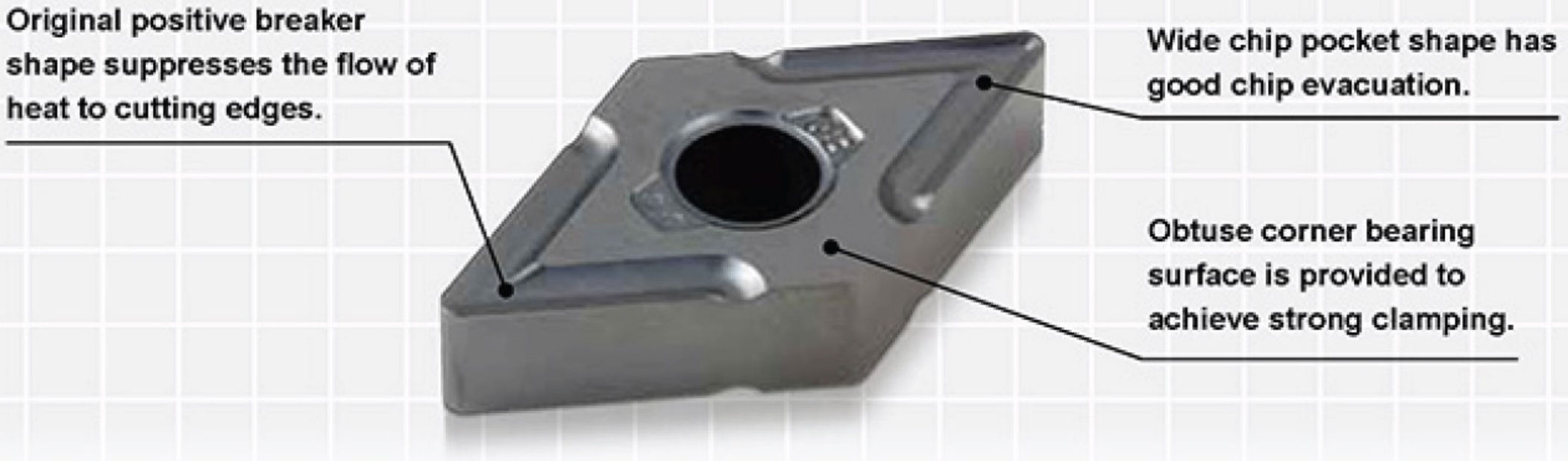
Turning insert "VI Breaker" for Nickel based alloys



- For machining aircraft parts or power generation machine parts such as shafts, disks, etc.
- Achieves long tool life for machining Ni-based alloys!
- High-speed cutting (*V*c = 80m/min) improves machining efficiency!

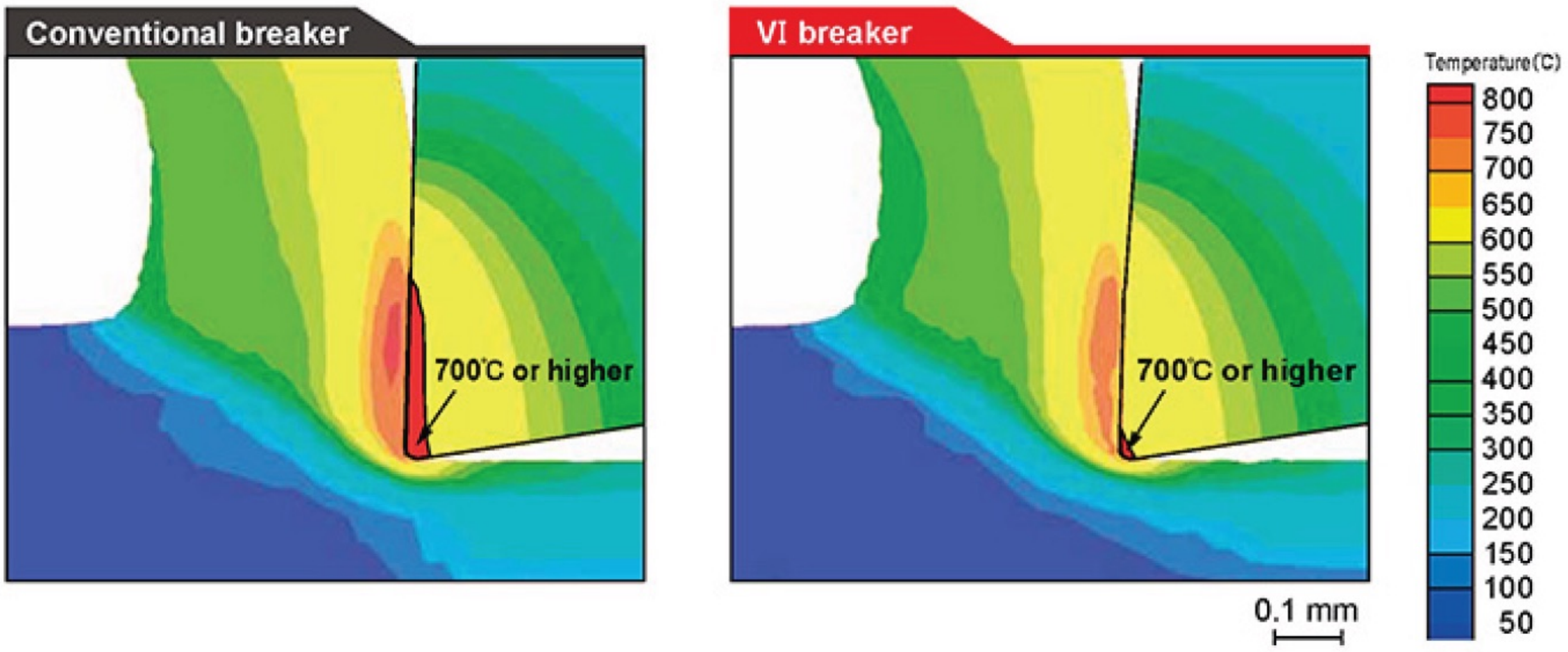
Features & Applications

- Newly developed coating and carbide base material with excellent high-temperature strength improves wear resistance.
- Newly developed chip breaker shape suppresses the flow of heat to the cutting edge to enable long tool life.
- Wide chip pocket breaker shape provides excellent chip evacuation.
- The combined effect of the above features suppresses temperature increases of cutting edges to enable high-performance machining.



New positive breaker shape

The new positive breaker shape which suppresses the flow of heat to cutting edges is an effective countermeasure against heat sagging even when machining Ni-based alloys and also extends tool life



CAE analysis conditions | Analysis mode: Two-dimensional analysis, Work = Inconel718(AG)
v_c = 40m/min, f = 0.2mm/rev. a_p = 0.8mm

Effectively suppresses heat flow to cutting edges

※Because VI-RCMM1204M0 and VI-RCMM1606M0 are for unstable machining (interrupted cutting), there for, the cutting edge has negative honing geometry.