

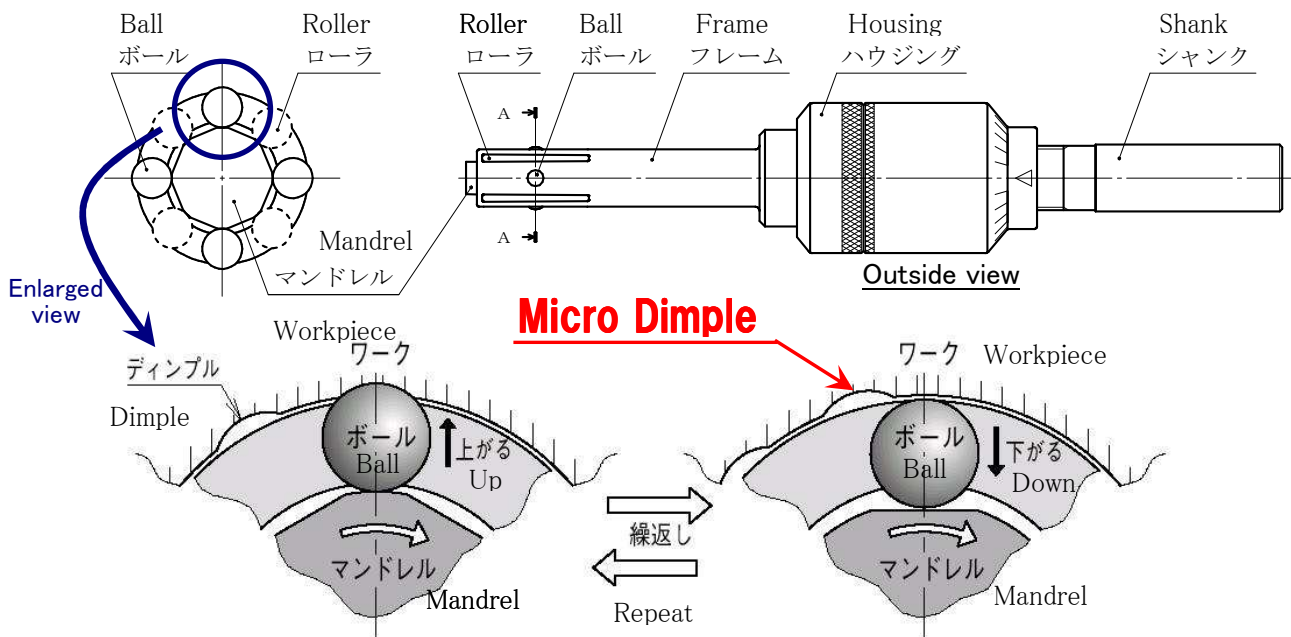
Micro Dimple Forming Tool

【Characteristic】

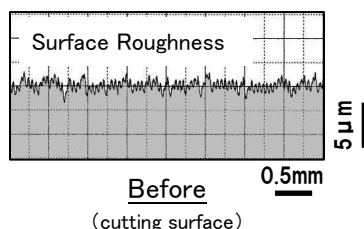
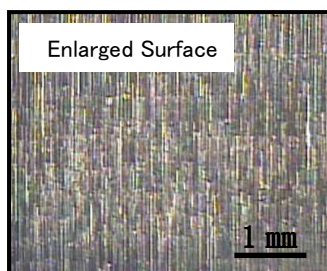
1. Regular **Micro Dimple**, the depth some μm , can be **fast-formed** on various surface.
2. **Drilling Machine, Machining Center, Lath** and etc. are available for the driving machine.
3. The processed surface is superior for **Abrasion Resistance, Resistance against Seizure and Sliding characteristic**.
4. **Various Dimple Pattern** is able to form by changing tool shape and processing parameters.
5. Any metal, **HRC40 or less** is available for Micro Dimple Forming Tool.

【Principle of Process】

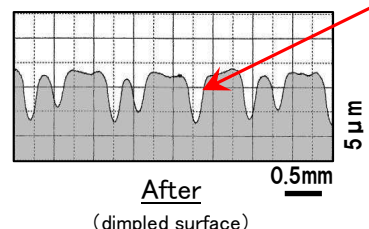
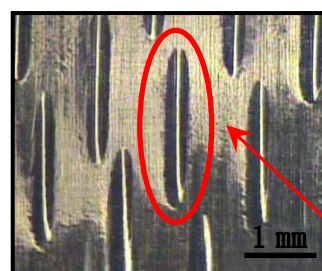
- ① Rotating polygon shaped Mandrel. (Rotating Shank)
- ② Balls are bounced and vibrate up and down as Pulse wave.
- ③ When Balls are bounced up, they're pushed into the workpiece and form **Micro Dimples**.



【Surface Roughness】



↓
Dimple Forming Process



《Processing Parameter》

Workpiece Material: A2017-T4
Processing Diameter: $\phi 22\text{ mm}$
Rotation Speed: 1000min-1
Feed Rate: 1.5mm/rev

Micro Dimple

Dimple Dimension
Width 0.3 mm
× Length 2.5 mm
× Depth 5 μm



【Tool Examples】



For Inner Surface

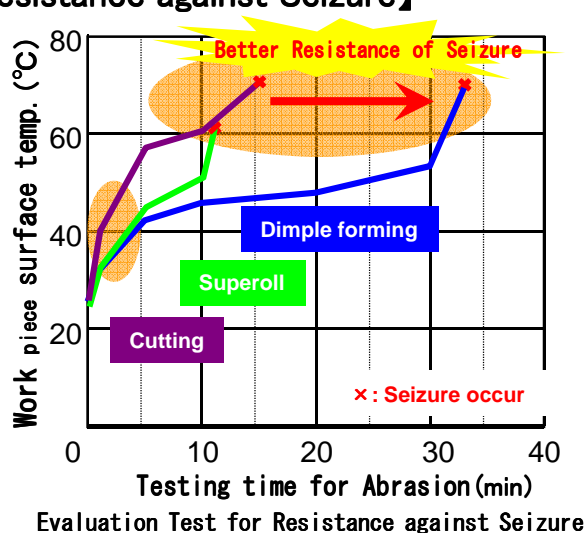
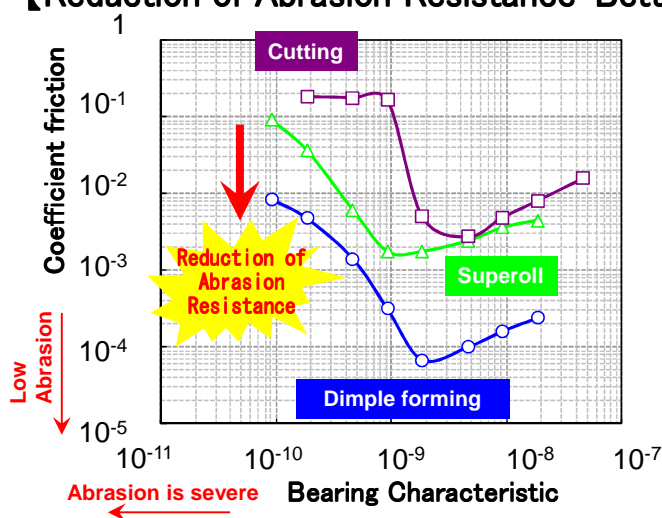


For Outer Surface



For Flat Surface

【Reduction of Abrasion Resistance • Better Resistance against Seizure】



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