

HEULE CASE STUDY

Medical Application SNAP



Deburring/Chamfering Polyether Ketone (PEEK) Bores of Back Implants

Challenge

The customer was looking for a solution to deburr/chamfer bores of back implants for the medical industry.

Application details:

- Bore Ø2.0mm
- Material PEEK: Polyether ketone possesses a very high continuous service temperature, stiffness and hardness as well as a unique high tensile strength. The material is very similar to the human bone.

Note: The treatment has to be executed dry because processing of implants with coolant was not allowed in this situation.

Solution

HEULE offers two solutions to the task. The first solution is a treatment with a SNAP2/2.0 standard chamfering tool with a working length of 10mm. The second possibility is a COFA2/2.0/H standard deburr tool.

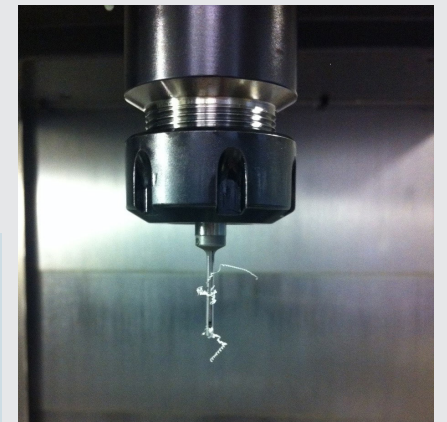
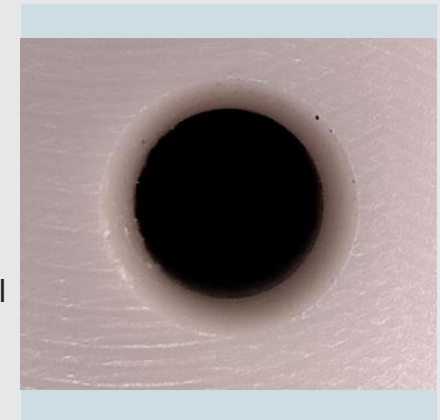
Machining parameters:

SNAP: working speed chamfering 5000 rev/min, feed 0.1 mm/rev

COFA working speed deburring 5000 rev/min, feed 0.05 mm/rev

Results:

Both solutions provide convincing results. However, the SNAP solution delivers a few advantages. The blade change on the machine is easier. Furthermore, SNAP enables faster working speed in this application (the cutting data can still be corrected upward). Another advantage is that the SNAP, unlike the COFA, does not leave any compress shavings on the tool. The customer is very satisfied with both solutions.



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