A first for internal de-burring: Carbide tools

Guhring is the first manufacturer world-wide to offer carbide tools for internal and external de-burring operations. This, however, does not involve machining in the fullest sense of the word - as with, for exemple, conventional drills, milling cutters, taps, reamers and countersinks. Instead, the de-burring tool very carefully shaves off the burr and can also, if required, create a chamfer.

For the quality of a workpiece – especially with intersecting and cross holes – then internal de-bur-ring is gaining more and more importance. This applies to, for example, oil galleries in modern high performance engines, where an optimal flow rate is dependent on perfect internal de-burring. Highly accurate de-burring and producing a chamfer is also increasingly required in crankshafts, valve blocks, steering arms, rotational housings, drive elements, injector nozzles and brake cylinders.

Whilst the de-burring of the entry to the hole hardly causes a problem, the internal de-burring of through holes in many cases involves an extensive operation that is often carried out manually and is time and cost intensive.

With the newly developed and patented carbide tools for internal de-burring, Guhring is providing the possibility to automate and rationalise this production step applying high performance tools.

There is a choice of four solutions:
1. De-burring fork EW 100 G - standard tool
2. De-burring spiral EW 100 S - semi-standard tool
3. De-burring lance EW 100 L - special tool
   for internal de-burring through deformation caused by very high pressure coolant.
4. De-burring milling cutter EW 100 F - special tool
   for external de-burring.

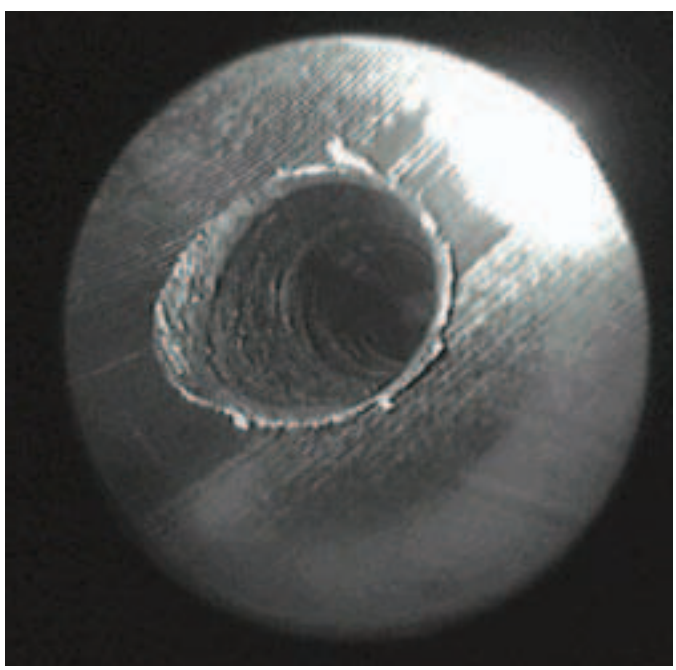
This not only means a considerable cost and time saving for the production, but also, more importantly, improved quality and process reliability. Moreover Guhring offers a de-burring milling cutter for external de-burring to customer's specific application tasks.

Solid carbide de-burring fork EW 100 G

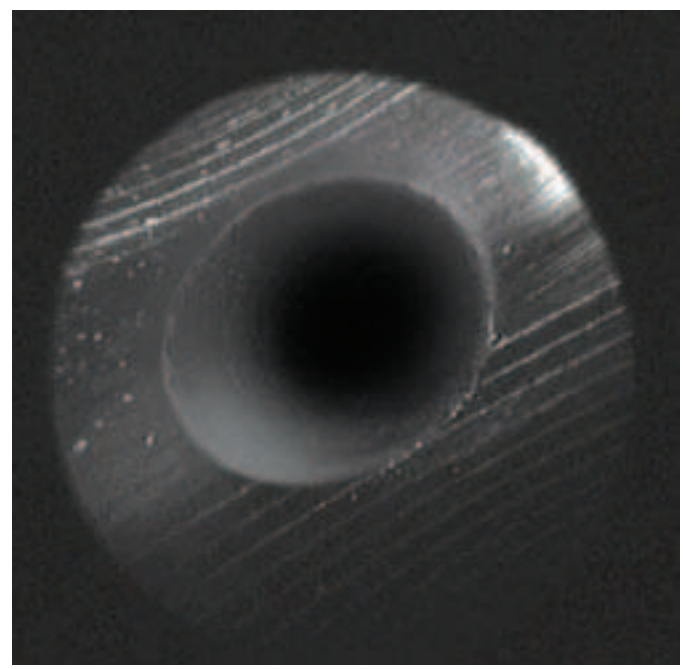
Solid carbide de-burring spiral EW 100 S

Solid carbide de-burring lance EW 100 L

Solid carbide de-burring milling cutter EW 100 F



Exit
of through hole prior to ...



...and following machining with de-burring lance.