

Ref. 353

Louis Bélet drilling tools are made from the best carbides and ground on the latest generation of machines.

The 3-lip drill Reference 353 is no exception to this rule and belongs to the EXPERT TITANIUM tool family.

This drill, which is particularly efficient in titanium, is also used for drilling other metals such as brass and platinum and as a reamer in stainless steel. It is available as standard in diameters from 0.10 to 14.00 mm.

The drill is also available in different cutting lengths.



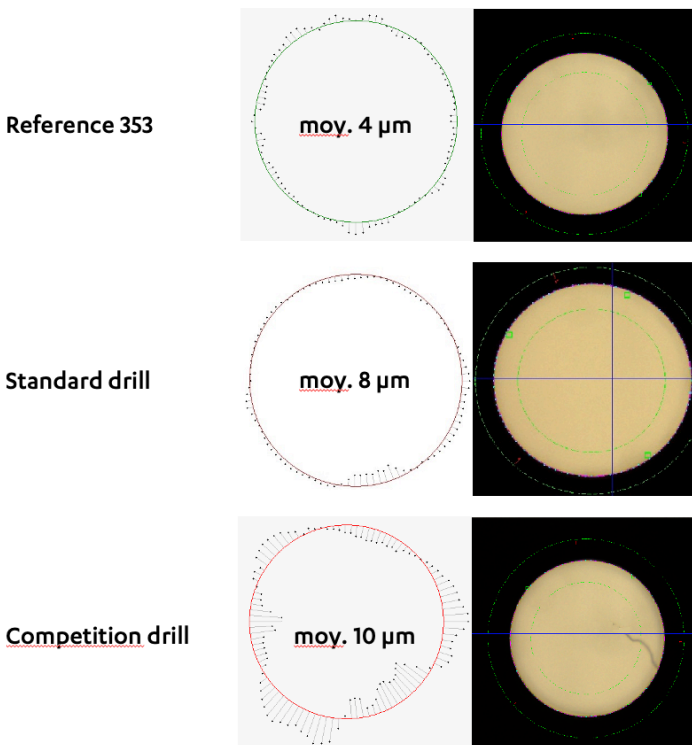
 **LOUIS BELET**
Swiss cutting tools

ROUNDNESS

One of the most remarkable features when drilling with this tool is the roundness of the hole produced.

The three flutes guide the tool during the drilling process and have the function of self-centering. The results are excellent in terms of circularity, even after more than 3,000 holes!

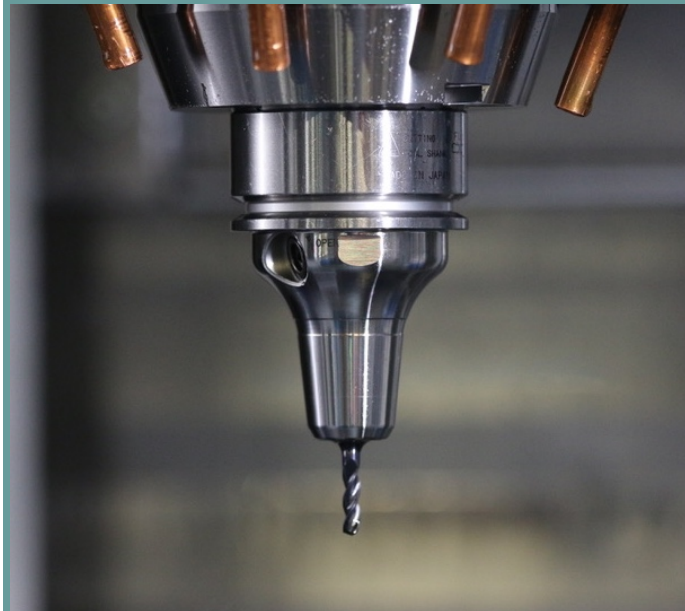
The positioning accuracy is in the order of $4\ \mu\text{m}$, well worth mentioning without centering!



BURR

During tests performed on our 3-axis machine, we found that the burr formation was extremely low both at the entry and exit of the hole.

The comparison with a standard drill and a competitor tool for titanium shows that the tip and cutting angle of the 3-lip drill ensure ideal penetration into the material. Burrs of $4\ \mu\text{m}$ at the entrance and $15\ \mu\text{m}$ at the exit were measured.

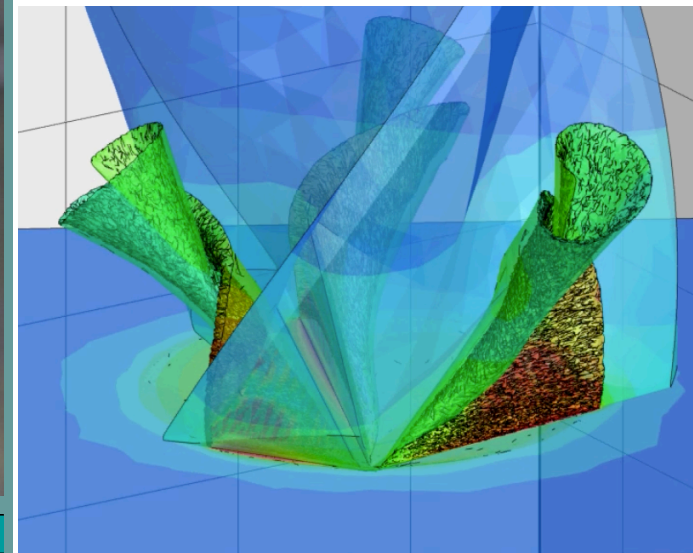


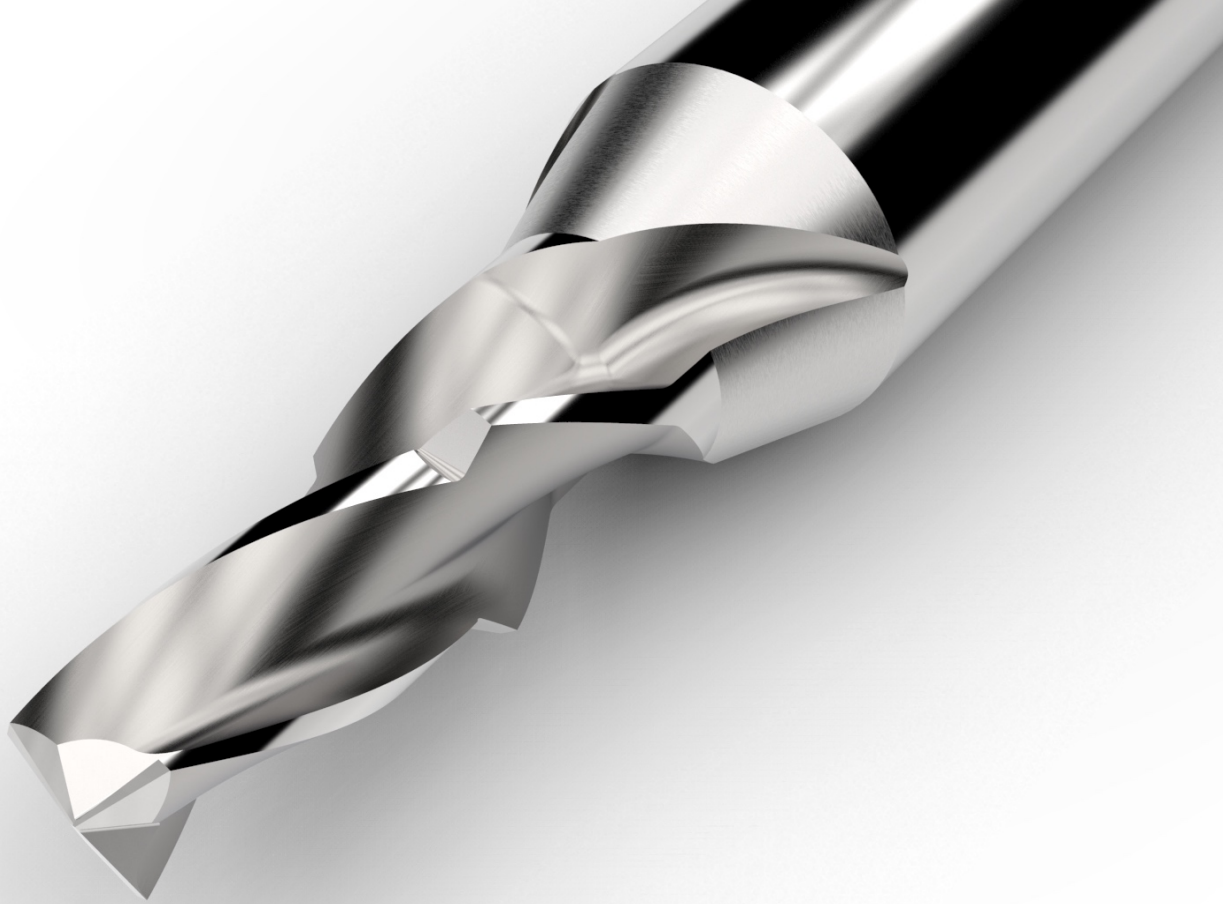
	353-1	Z2 standard LB	Z2 competition
Burr on the top [mm]	0.004	0.030	0.040
Burr on the bottom [mm]	0.015	0.120	0.090

CHIP

The specially designed geometry for chip removal focuses on two specific elements:

- 1) The tip and the sharpening of the drill enable an optimized penetration into the material. This limits the temperature rise, which prevents premature wear of the tool.
- 2) The particularly low helix angle and the low roughness in the chip flutes allow the chips to be removed quickly. Furthermore, overheating of the tool is reduced.





Hervé Baour
hbaour@louisbelet.ch
078/646 94 18



Custom-made

The properties of this drill can be adjusted according to your needs. Cutting lengths, diameters and steps can be adapted on request. Our experienced technical advisors from the production sector are at your disposal for any request.

The quest for excellence

Since 1948, Louis Bélet SA has been manufacturing cutting tools in tungsten carbide, ceramic or PCD. The one hundred and fifty employees of this family business are constantly looking for the best tools and the best service they can provide their customers. Creative, technically, ecologically and socially efficient, Louis Bélet is a reference in the manufacture of form milling cutters, generation, hobbing and micro-tools.

