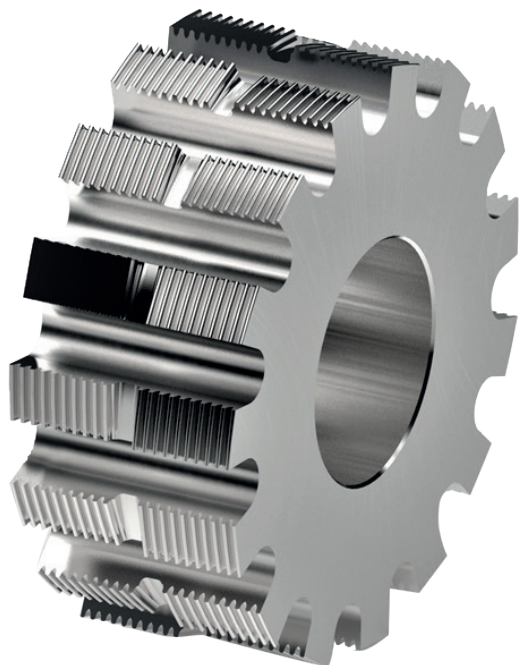


DUPLEX - HOBS CUTTER

Burr-free gear cutting



CONCENTRICITY

Even if the positioning of the milling cutters is realized very conscientiously and precisely, there is a risk of movement of both cutters when tightening the complete assembly. As can be seen on the picture, deviations of several microns or even hundredths of a mm can appear from one milling cutter to the other.

Having a monobloc design makes the cutter intrinsically strong and uniform. The adjustment of the system is therefore done in one single operation!

When using the control hub on either side of the tool, ultra-precise adjustment is possible with ease.

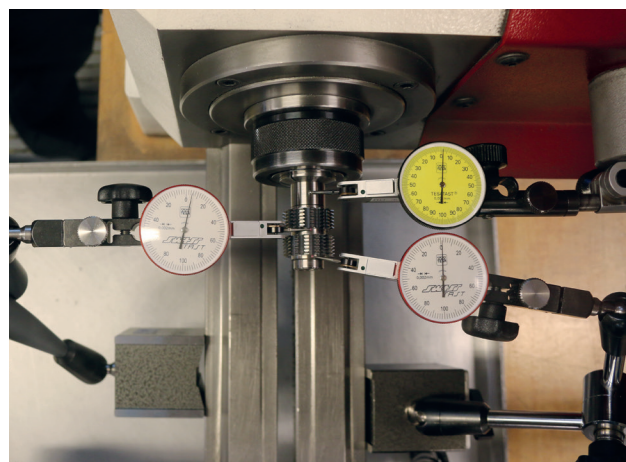
Hobbing process allows mass production of gears in a short time. Depending on the material, burrs may occur during this machining.

In order to overcome this problem, the assembly of two hobs of the same module and profile mounted «head to tail» on an arbor is used in some industries.

The process is efficient, but adjustments to avoid errors in stacking and aligning the two profiles make set-up complex and challenging.

Indeed, a setting is necessary for each of the milling cutters, with an increased difficulty on the second one. The innovation of Louis Bélet SA is to produce this set of hobs in monobloc.

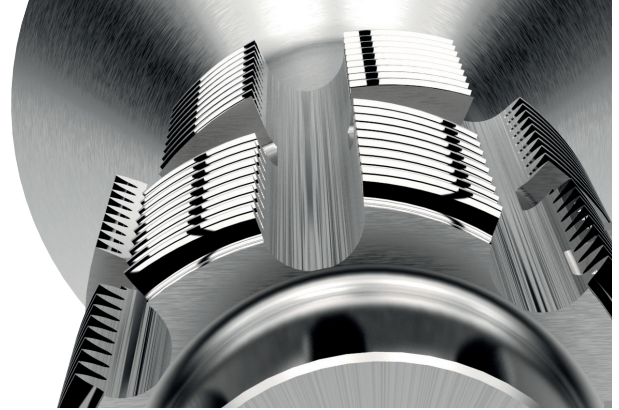
The production of the gears is therefore easy and without adjustment problems: only one single set-up is necessary since the milling cutters are perfectly aligned and in phase! With the Duplex hob cutter, no need for additional post-deburring operation!



SETTINGS

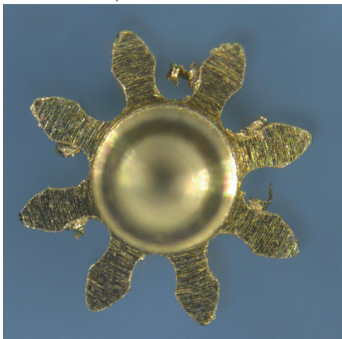
According to the users' words, the settings to get the hobs perfectly aligned on an arbor is a huge challenge and is almost impossible! They require a considerable amount of time and it is almost impossible to align the two hobbing areas. The advantage of this monobloc solution is a one-shot grinding on the hob.

This allows the machine to be set up in a few minutes, thanks to the distance between the hobbing zones, which are a multiple of the pitch! This saves several hours of set-up time!



BURRS

Duplex standard



Duplex reverso



With setup times that generate high costs on the piece price, burrs regularly require additional post-operations to achieve the desired result.

The cleanliness of the profiles produced at the output of the machine thanks to this method, allows to avoid post-processing such as rolling or production time such as deburring with inserts.

CUSTOM-MADE

The features of this Duplex tool can be customized according to your needs. Initially focused on very small modules, our machine park has been considerably expanded. We can therefore offer larger sizes up to module 1. Control track, different widths for hobbing and deburring areas are some of the possible customizations available.

Our experienced technical advisers from the world of production are at your disposal for any request.

