



# Main advantages over other engraving solutions

## Why the ENGRAVER ?

Our ENGRAVER milling and engraving center offers you important advantages over other engraving solutions:

### High surface quality and shorter process times compared to laser processing

Especially for high machining depths and engravings, which are intended for the lifetime, the ENGRAVER offers you significantly shorter process times compared to laser machining. The chip volume or the material removal per pass is significantly higher here and the process time is reduced accordingly. At the same time, with our engraving and milling center, you can achieve the highest surface qualities, which do not need to be reworked. As, for example, by sandblasting during laser processing.



3D engraving / relief machining



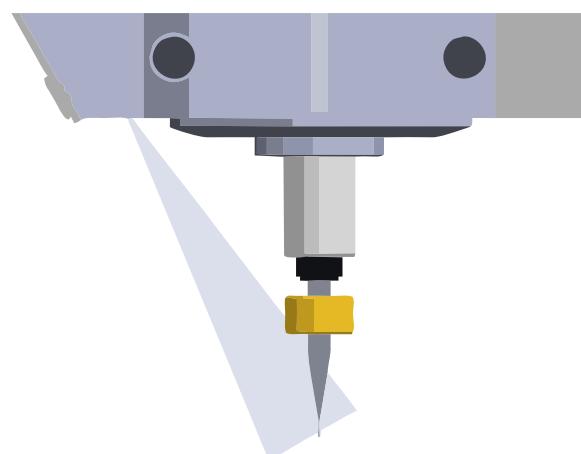
Milling of finest channels in a jewelry pendant

### Innovative machine design leads to increased stability and rigidity

The unique machine design of the ENGRAVER results in significantly higher stiffness. Only through the increased stability can machining operations with significantly larger chip volumes be performed. Our machine can therefore be used not only for simple engraving work but also for more complex milling operations with larger tools. This offers you increased flexibility and shorter process times. You achieve better surface qualities and longer tool life due to the rigidity.

### Better tool life due to minimum quantity lubrication

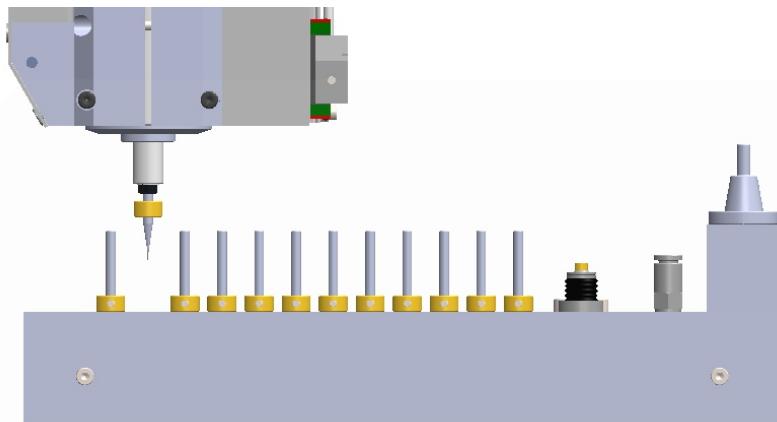
The ENGRAVER has an integrated minimum quantity lubrication. This permanently cools the tool and lubricates the cutting process. The MQL brings the benefits of increased tool life and surface finishes to your jewelry.



Spray jet with cooling and lubricating emulsion on the tool

## Automatic tool change during machining

Our milling and engraving center has an automatic tool change. This allows you to easily store up to 12 machining tools in the tool magazine. If you need another tool during machining, the machine automatically changes the tool and continues machining. In addition, the various tool lengths are automatically measured and corrected. Thus, even complex milling or engraving operations are possible in one piece and without manual intervention.

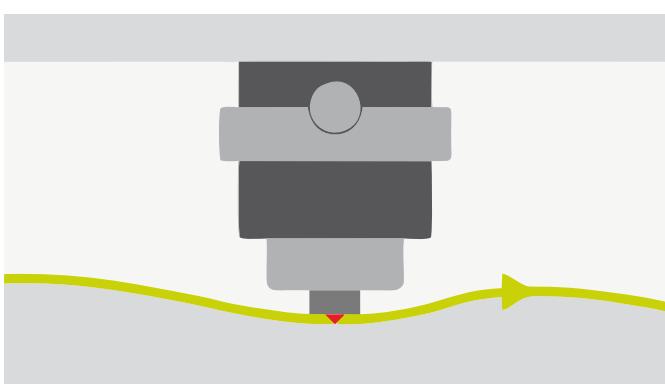


Tool magazine with 12 tool positions + holder for measuring tip

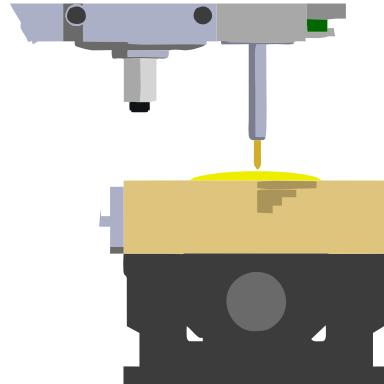
## Electronic height correction for curved or uneven workpieces

The ENGRAVER has a patented measuring system for the application of electronic height correction. The workpiece surfaces are measured before the actual machining. The advantage comes from omitting a mechanical engraving depth controller. The concept of an engraving depth regulator is based on spring preload and counterforce sleeve. The tip of the engraving tool protrudes from the counterforce sleeve with the size of the engraving depth. The sleeve sits on the engraving object and permanently grazes the workpiece surface during machining. Chips can get caught between the counterforce sleeve and the workpiece and scratch the usually very sensitive surfaces. In addition, the engraving depth of the engraving depth regulator must always be set manually. Another problem with depth regulators is that only one engraving or cutting depth can be used during engraving. If the engraving depth does not correspond to the permissible cutting depth of the tool, the engraving depth regulator must be readjusted after each cutting plane. In most cases, the engraving depth does not correspond to the permissible cutting depth of the tool.

With the ENGRAVER, such problems are a thing of the past. Because here uneven workpiece surfaces are compensated electronically. The cutting depth and engraving depth can be set in the software depending on the material and application. The machine takes into account the maximum permissible cutting depth of the tool and moves step by step to the desired engraving depth. Only in this way can optimum cutting data be run, which leads to better workpiece qualities, process times and tool life.



Mechanical engraving depth regulator



Patented measuring system for the application of a Z-height correction in the ENGRAVER