

# FAQ - Digital Experience: Thread milling with DATRON



## Can the tools exhibited in the live streaming be used on all DATRON machines?

Basically, all tools shown can be used on all DATRON machines. The only exception is the thread drill, which can only be used on machines with 8kW vector spindles (DATRON M10Pro/DATRON MXCube), as a clockwise/anticlockwise rotation is required. Our colleagues from the Competence Center Tools will be happy to provide you with individual tool advice on your application:

Phone: +49 (0) 6151-1419-480, Email: [cct@datron.de](mailto:cct@datron.de)

## Can you mill a chamfer with the thread milling cutter in a following step?

Yes, the DATRON thread commands (DATRON next/DATRON HSCpro/CNC) have a checkbox to mill a chamfer on the thread. The chamfer angle then corresponds to the flank angle of the tool.

## Is a thread compensation chuck required for the thread drill?

No, a Tribos recording was used here as usual. The spindle runs completely synchronized to the feed.

## Which cooling lubricant is suitable for M1.6 in titanium?

For titanium we recommend our DATRON ProCut 56 coolant or simple air cooling. Ethanol is not recommended for titanium. Purchase our DATRON ProCut 56 from our colleagues at the Competence Center Tools: Phone: +49 (0) 6151-1419-480, Email: [cct@datron.de](mailto:cct@datron.de)

## Is there anything special to consider when drilling deep core holes?

Due to the chip removal, it is essential to ensure that the cutting edge or chip channel length is sufficient. As an alternative, deep hole drilling with retraction is recommended for drilling holes smaller than 4mm in diameter.

## What about milling an M130 in brass? Up to now I have always used the DATRON article 0068451. The milling cutter tends to vibrate

Depending on the thread pitch or flank depth, the milling cutter is of course exposed to a high cutting pressure. The larger version 0068451A could be an alternative, as the tool has a larger free grinding diameter. The thread depth also plays an important role in this case: If the tool is unnecessarily long, vibrations will occur. If you need a special tool with a special shank length, please contact our colleagues of the Competence Center Tools: Phone: +49 (0) 6151-1419-480, Email: [cct@datron.de](mailto:cct@datron.de)

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## Can I get the cutting values for the bore holes showcased in the live streaming?

Tool: 0068250X (Drill Ø5mm)  
Speed: 15000 min-1  
feed rate: 2000mm/min  
infeeds: 2mm

## Do the various strategies work with the regular ethanol pressure (approx. 1.5bar)?

Yes, but at a certain point when executing deeper drillings, not enough coolant will reach the cutting edge. From about 2-3xD it is therefore recommended to increase the ethanol pressure.

## Topic thread milling cutters: Which sizes work best?

We have achieved the best results with sizes between M4 and M6 (in aluminium). However, it is important to consider the limited milling depth (max. 1xD).

## Do I need a special cycle for the "drill milling cutter" or is this cycle available on an "older" DATRON M8Cube?

On machines with DATRON HSCpro or CNC control the thread command can be used. The direction must be set to "both", i.e. down and up again.

Alternatively, a helix with the corresponding thread pitch must be programmed, making sure that the exit is towards the center.

## Where and when can I purchase the new milling cutters of the DATRON thread series?

You can purchase the new milling cutters of the DATRON thread series starting from 01 June 2020. Please contact our colleagues of the Competence Center Tools: Phone: +49 (0) 6151-1419-480, Email: [cct@datron.de](mailto:cct@datron.de)

## The following link takes you directly to our digital showroom for the complete recording: Digital Experience - Thread Milling with DATRON

[experience.datron.de/digitalevents\\_en](http://experience.datron.de/digitalevents_en)

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