ReCON

Information for success



What does this module do?

First and foremost, it manages tool assemblies and transfers measured offsets directly to the machine control. Measured values can be transferred directly from a presetting station or imported from the station's standard report.

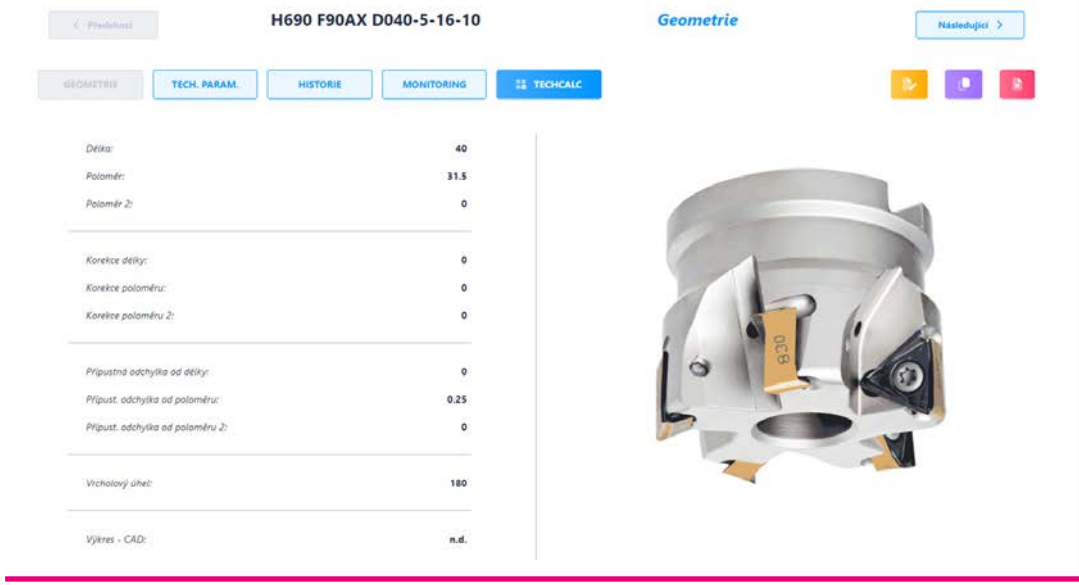
During development, we used a NIKKEN E346+ presetting station on loan together with ISCAR tool assemblies.

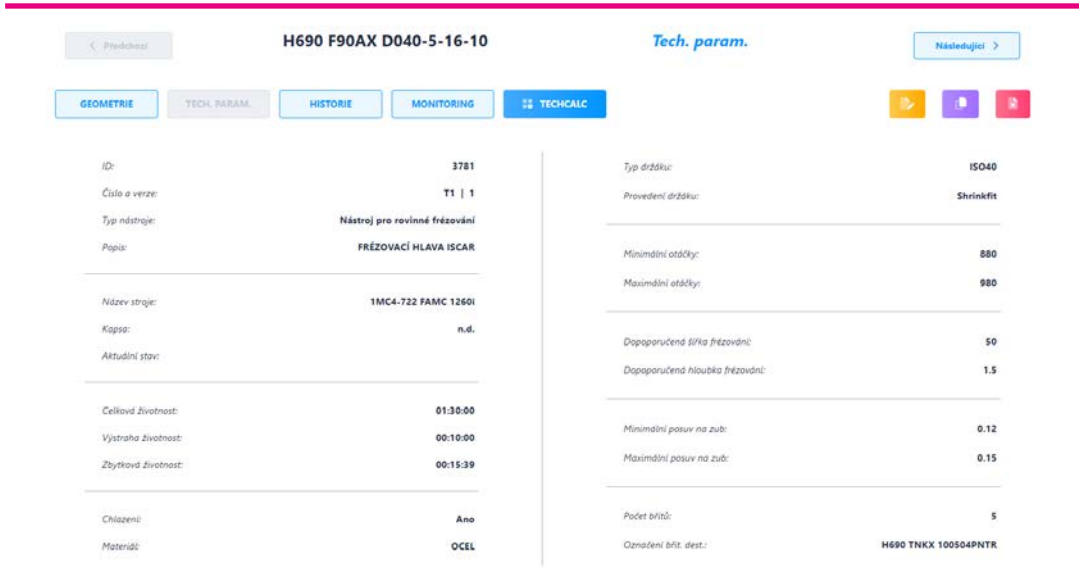
Planned extensions include management of setup sheets and NC programs (including direct transfer to the machine control), as well as display of individual tool components using, for example, ISCAR's widely used MATRIX system.

How does it work?

1. The technologist creates a setup sheet for the job, which is integrated into ReCON JOB.

2. Using the setup sheet in ReCON JOB, the setter checks whether the required tools are already installed on the specific machine and, if so, their remaining life. The setter prepares only the missing tools. Each missing tool is assigned a unique alphanumeric ID, laser-marked on the holder as a QR code (RFID identification is also supported).







3 The setter then identifies the tool on the presetting station by scanning its QR code and performs the required measurement. This updates the tool parameters in the ReCON JOB database.

If no presetting station is available, parameters measured with conventional gauges can be entered manually in ReCON JOB.



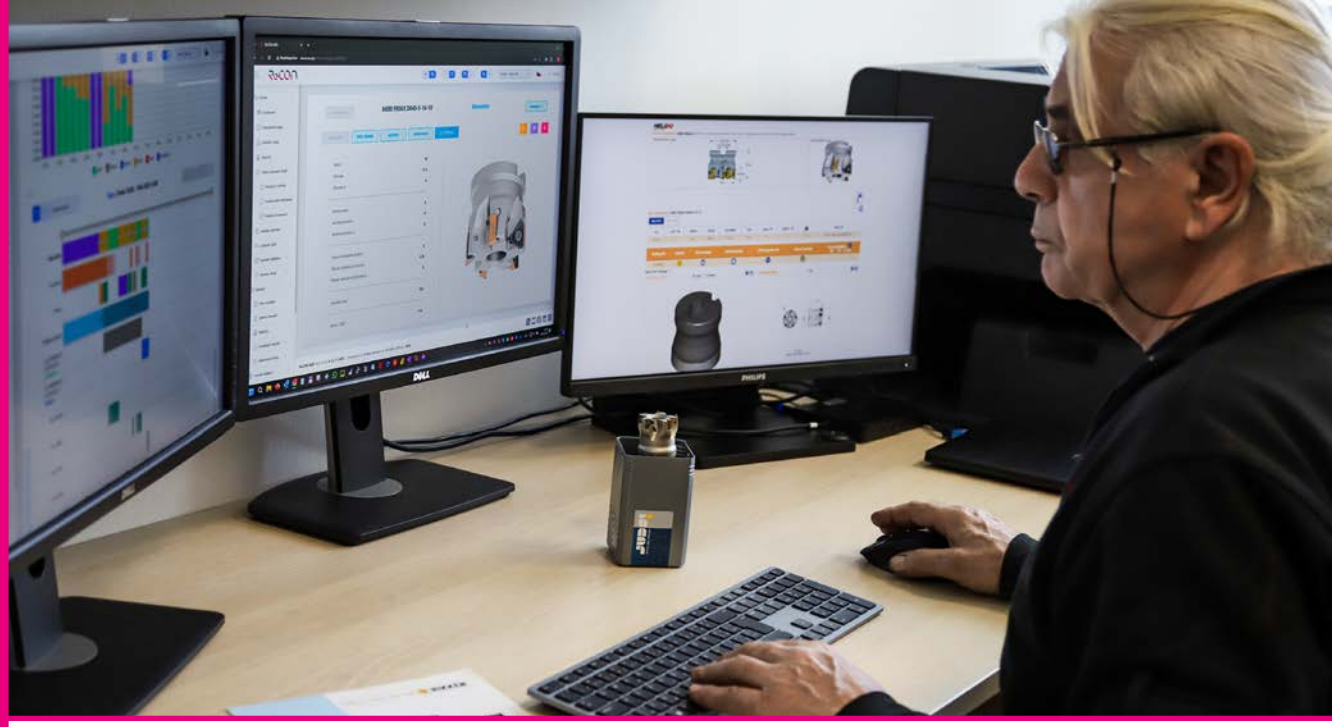




4 Check the tool assembly parameters in ReCON JOB.

If the setter is unsure about the tool's cutting conditions, they can be checked directly in the tool's technology calculator.

The calculator currently supports milling. Support for drilling and turning will be added gradually. In the final phase, as the machine manufacturer, we will link it to the specific TAJMAC-ZPS machine kinematic model.



Předchozí

EC-E4L 16-34/50C16CF100

TechCalc

Následující

GEOMETRIE | TECH. PARAM. | HISTORIE | MONITORING | TECHCALC

Kategorie materiálu: P - Oceli

Skupina materiálů: Nelegované

Spec. skupiny materiálů: Nevybráno

Materiál: DIN S235J2G3 (Žíhano)

Strategie frézování: Čelní frézování

Hloubka frézování [mm]: 2

Šířka frézování [mm]: 10

Excentricita [mm]: 0

Posuv na zub [mm]: 0,1

Otáčky [rpm]: 2500

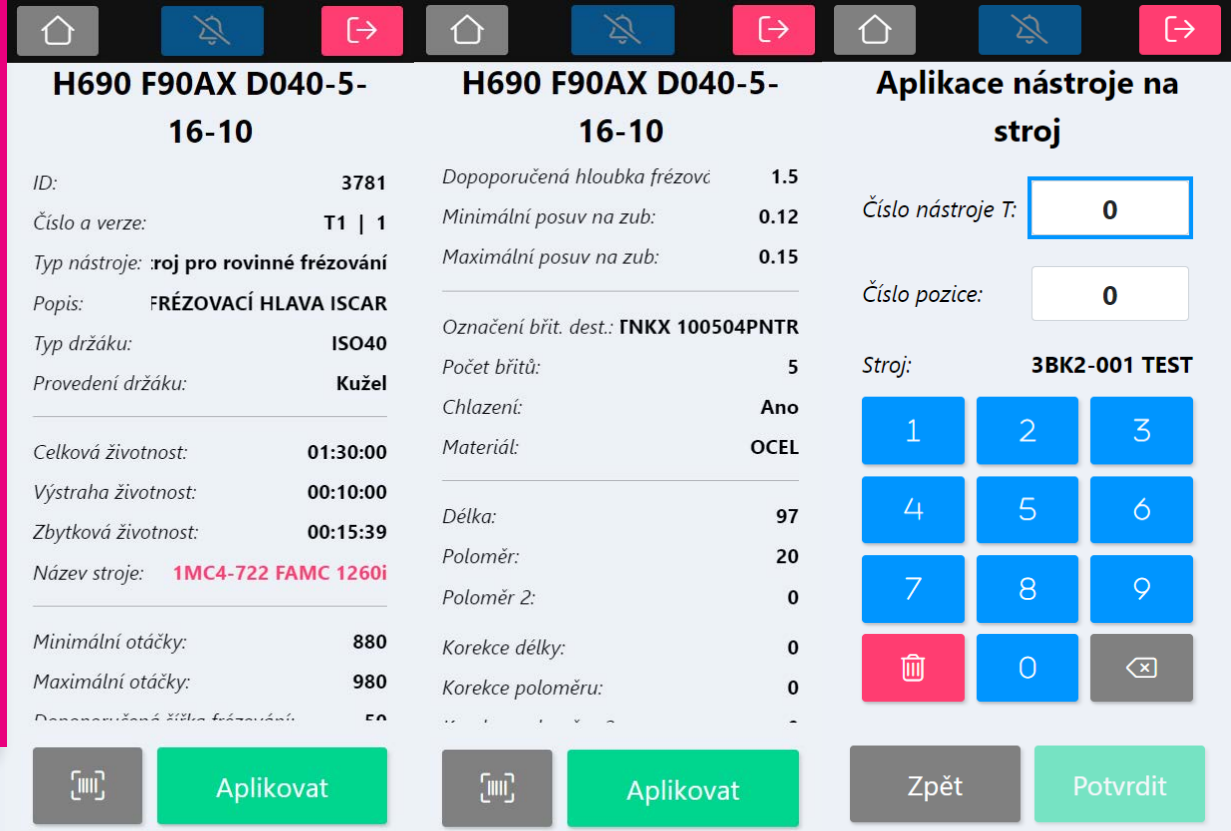
VYPOČÍTAT

Výkon: 0.82 kW

Kroutící moment: 3.13 Nm

5 At the machine, the operator identifies the tool using the terminal. Pressing APPLY prepares the data from the ReCON JOB database for transfer to the machine.



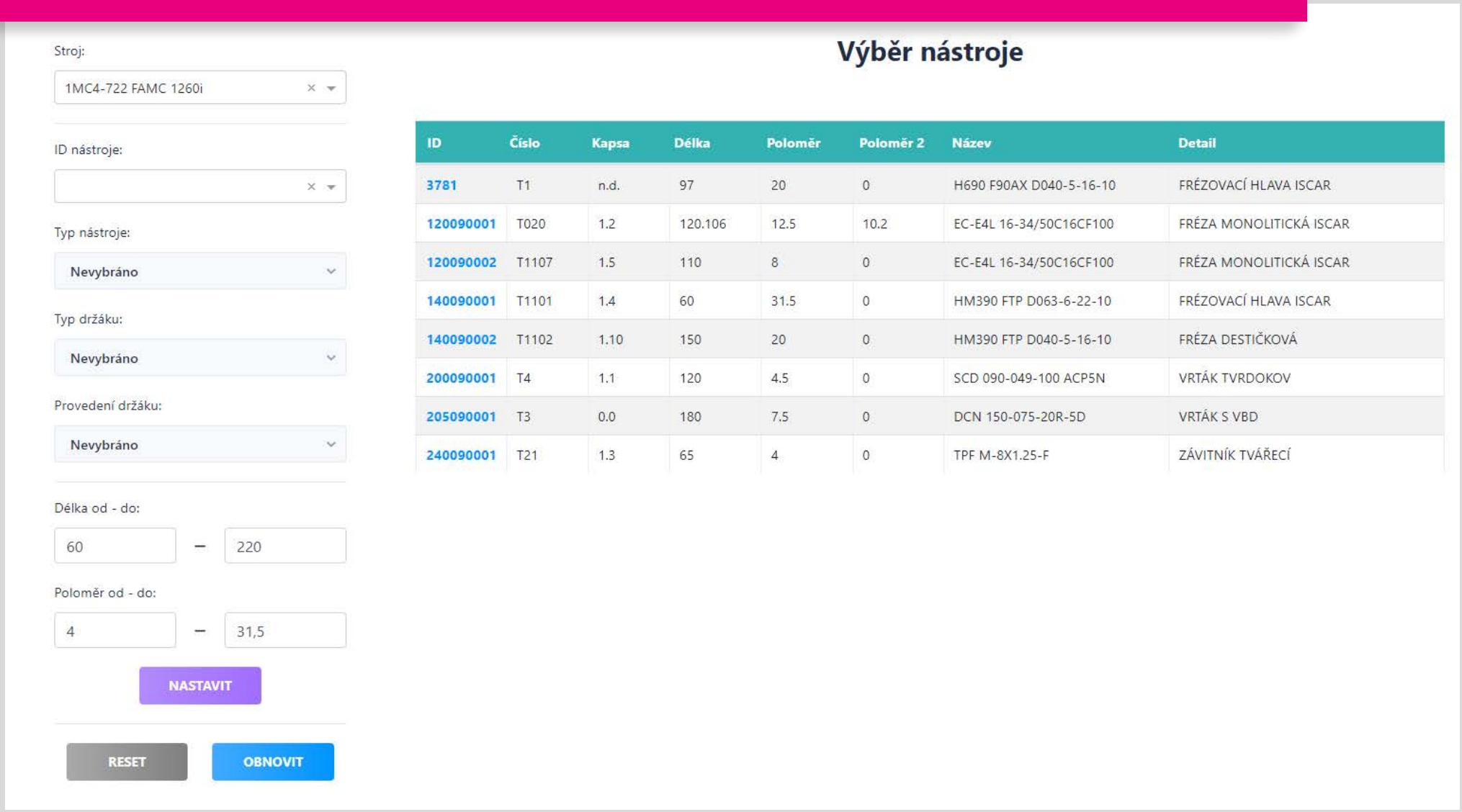


6 Now insert the tool assembly into the spindle and confirm the change.

The tool and its offsets are written to the spindle position in the machine.

The module's full functionality also supports tool assembly management. Using the secure industrial OPC UA protocol, we monitor the complete life cycle and use of tool assemblies in the machine. When an assembly is unloaded, its usage time is read and deducted from the remaining tool life.

The assembly can then be stored with this information for future use. ReCON JOB gives you an immediate overview of all such assemblies.



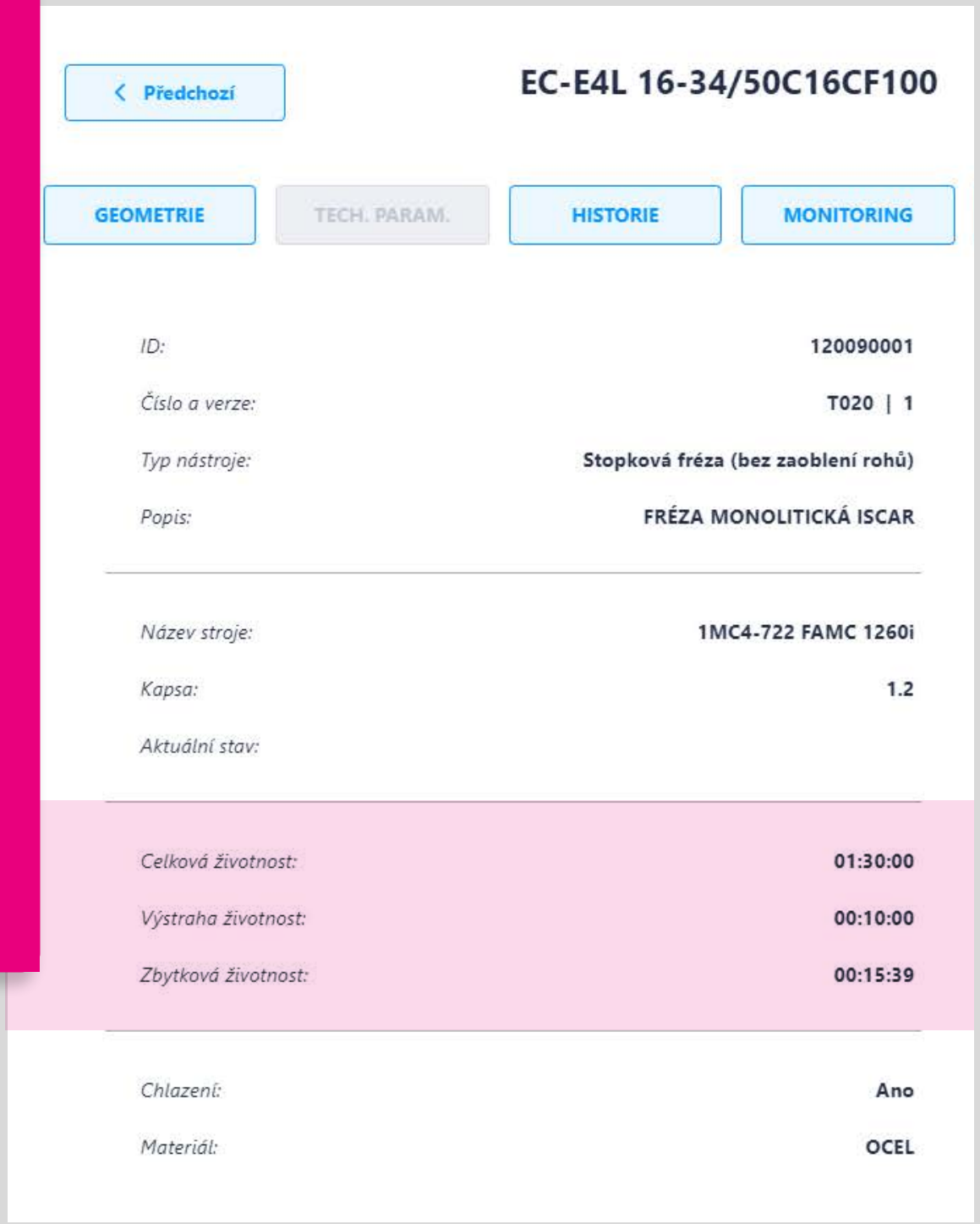
ID	Číslo	Kapsa	Délka	Poloměr	Poloměr 2	Název	Detail
3781	T1	n.d.	97	20	0	H690 F90AX D040-5-16-10	FRÉZOVACÍ HLAVA ISCAR
120090001	T020	1.2	120.106	12.5	10.2	EC-E4L 16-34/50C16CF100	FRÉZA MONOLITICKÁ ISCAR
120090002	T1107	1.5	110	8	0	EC-E4L 16-34/50C16CF100	FRÉZA MONOLITICKÁ ISCAR
140090001	T1101	1.4	60	31.5	0	HM390 FTP D063-6-22-10	FRÉZOVACÍ HLAVA ISCAR
140090002	T1102	1.10	150	20	0	HM390 FTP D040-5-16-10	FRÉZA DESTIČKOVÁ
200090001	T4	1.1	120	4.5	0	SCD 090-049-100 ACP5N	VRTÁK TVRDOKOV
205090001	T3	0.0	180	7.5	0	DCN 150-075-20R-5D	VRTÁK S VBD
240090001	T21	1.3	65	4	0	TPF M-8X1.25-F	ZÁVITNÍK TVÁŘECÍ

When a tool assembly has fulfilled its purpose and needs to be removed, the process is simple: remove the tool from the spindle, scan the QR code and log the assembly out of the machine in the application.

The assembly can then be disassembled and the holder stored separately, or it can be kept complete for future use on another part or machine.

What is the advantage of the second option?
When preparing a new job, the setter can quickly check the tool database to see whether a similar or identical tool is currently unused in a machine or stored for future use. The remaining tool life can also be checked.

The primary purpose of this module is to provide a clear overview of tool assemblies and their use, eliminate unnecessary duplicates and monitor tool life. This shortens setup times and reduces the cost of purchasing redundant tools.




TAJMAC-ZPS
ZPS