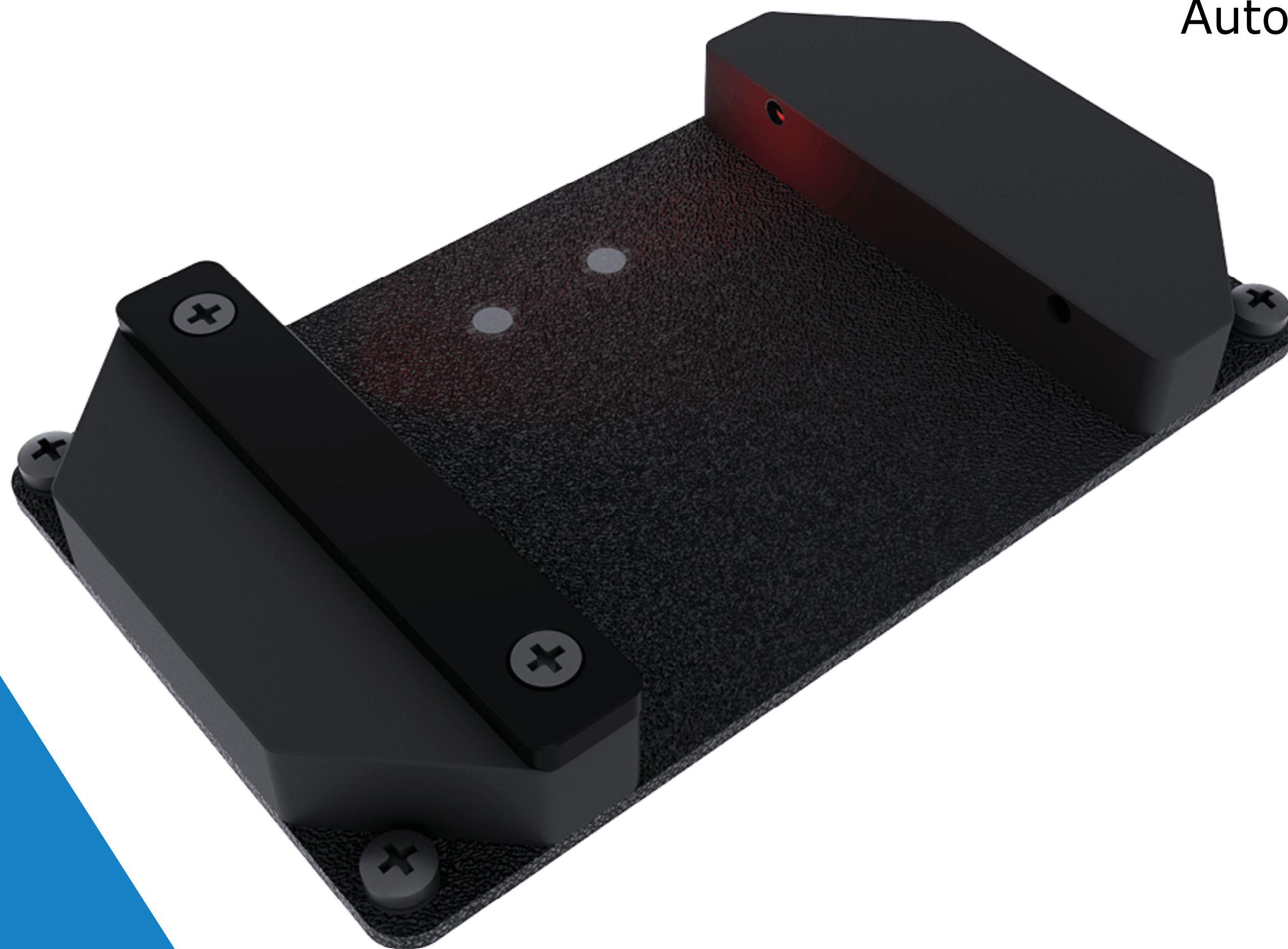




ADC for Summa F Series™

Automated Depth Control



Intro

The optional Automated Depth Control (ADC) simplifies tool, knife or bit changes significantly. The ADC measures the tip of the knife or bit accurately and sets the down position of the tool to the level of the table⁽¹⁾.

When starting up the unit or after a tool change, all⁽²⁾ installed tools are measured to detect changes and **avoid operator errors**.

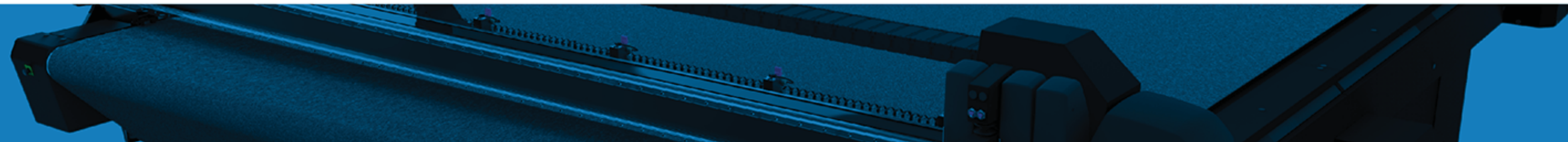
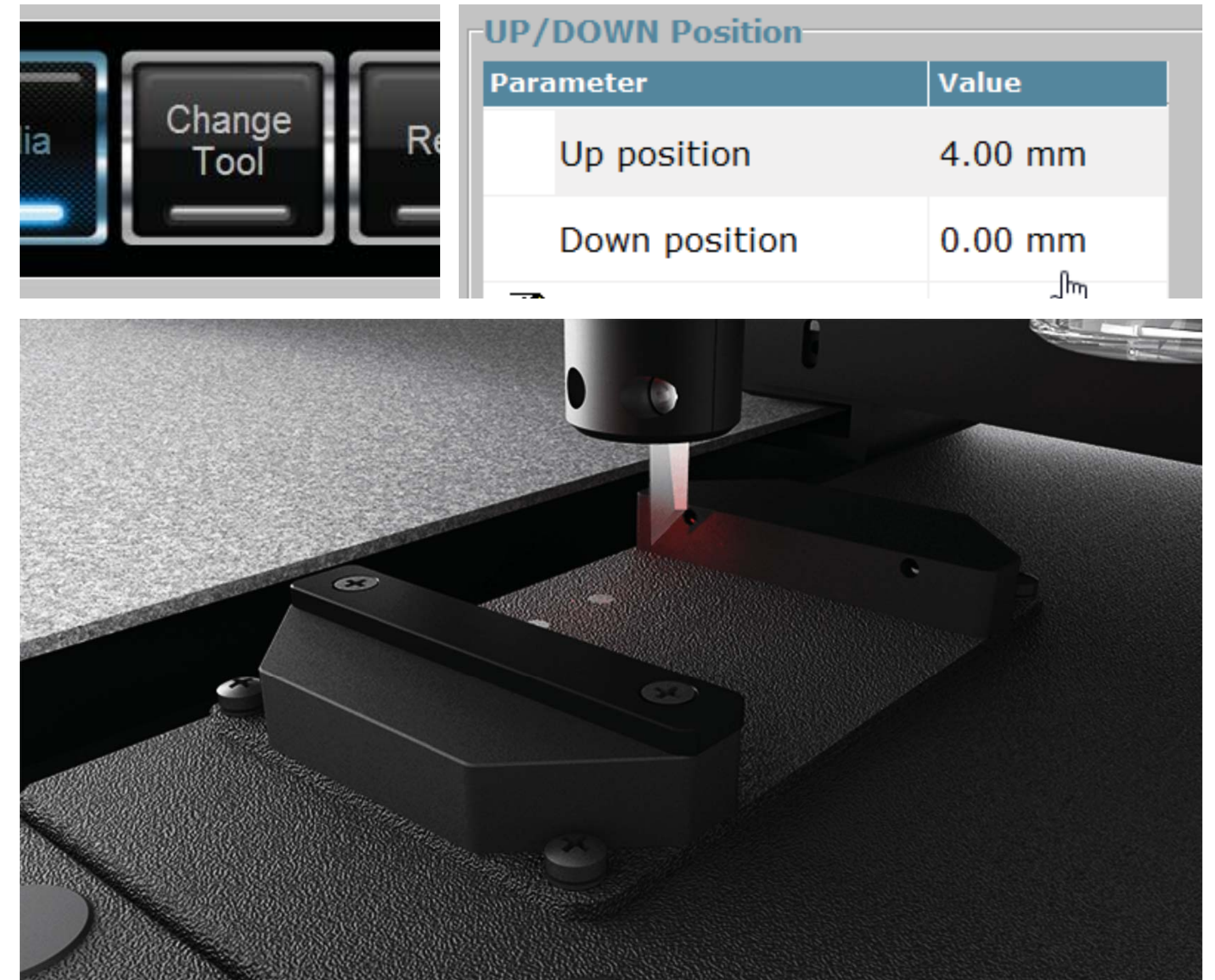
The measurement only takes a few seconds and provides for a swift tool change.

On request, also other knife settings can be measured (tangential parameters) within half a minute. This ensures the best settings can always be used to get the most **optimal cut quality**.

- Youtube Video: <https://youtu.be/5fwdfJqB7vA>

(1) More explanation about the exact level (see further)

(2) Depending on the ADC sensor units installed (see further)

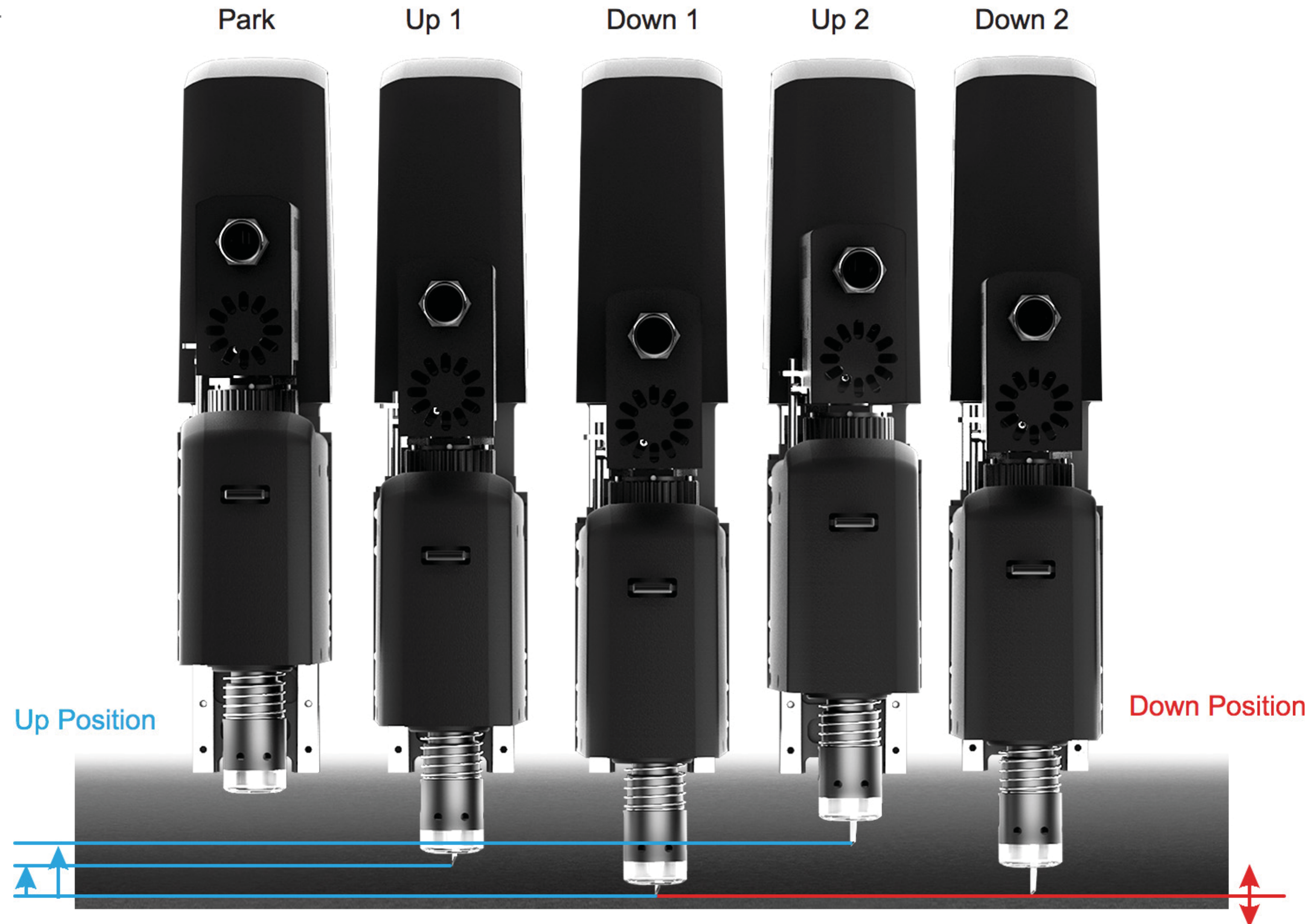


ADC Depth Positions

- All tools controlled by the ADC will have up and down position values relative to the calibrated table height. The down position of ADC controlled tools should be around zero.

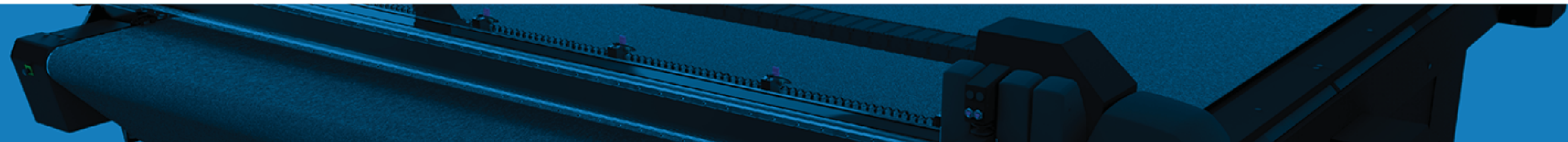
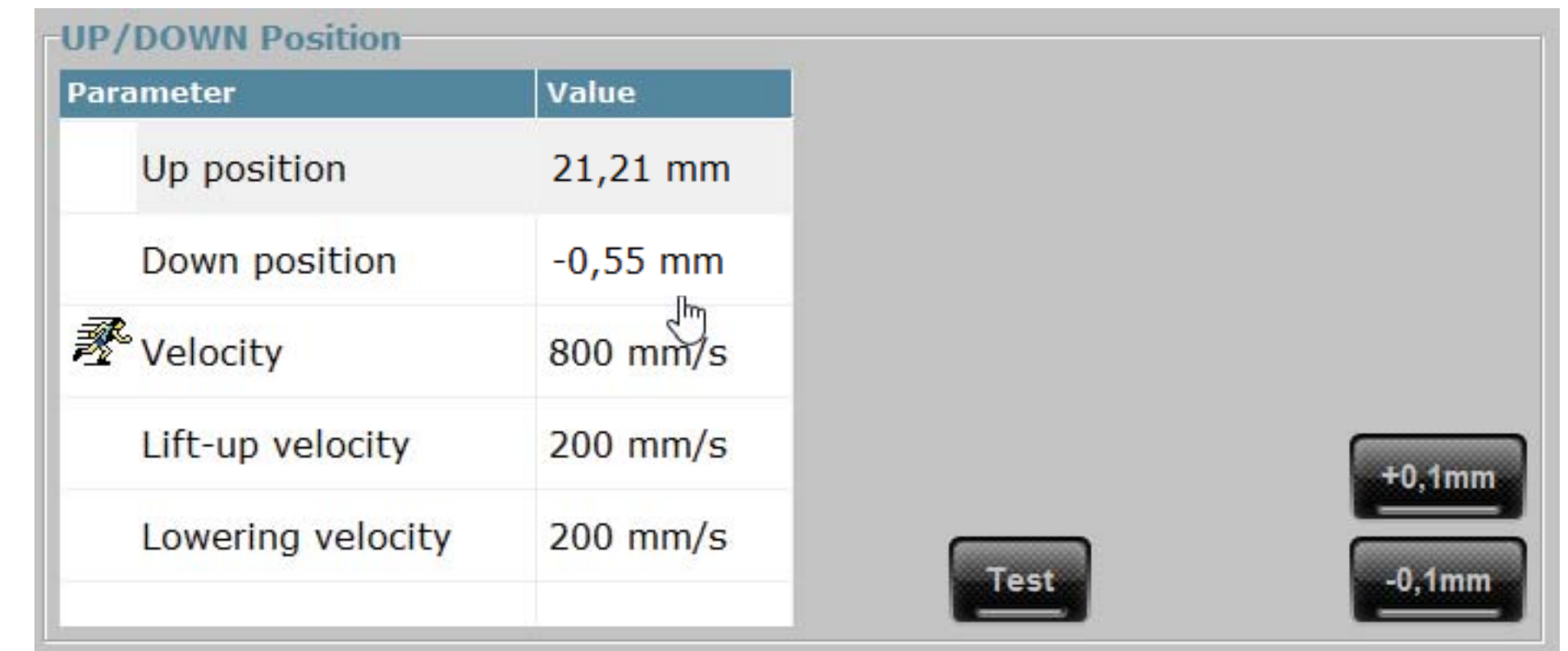
UP/DOWN Position	
Parameter	Value
Up position	4.00 mm
Down position	0.00 mm

- The up position is the relative distance from the down position. Make sure the up position value is several millimeter more than your material thickness!
 - Note: with the latest firmware & Axis Control, the up position is now also relative to the down position, even if no ADC is used! This relative value gives more information about the free space under the tool.



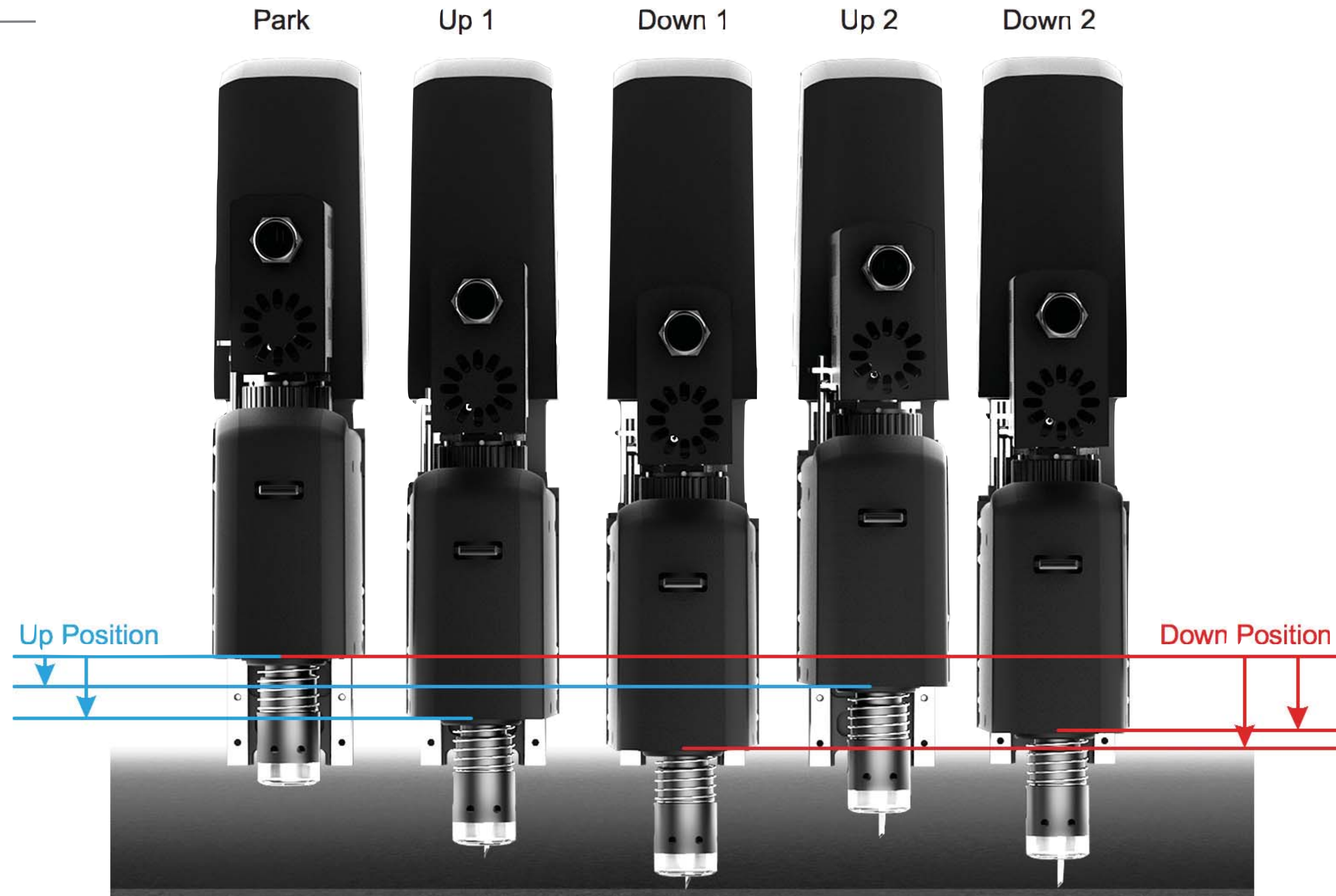
ADC Down Position

- Different materials (or speeds) may need different down positions. Similar as without use of the ADC, the down position can be adjusted manually. The value will indicate the difference compared to the calibrated table height. If the tool is measured again it will maintain the manually calibrated offset to make sure the cutting result is the same as before.
- If an extra protection mat is used, this value should be around 2,5 mm.
- The down position for the router assumes a routing mat is used. This means that the down position should be around zero (and not about 2 mm).



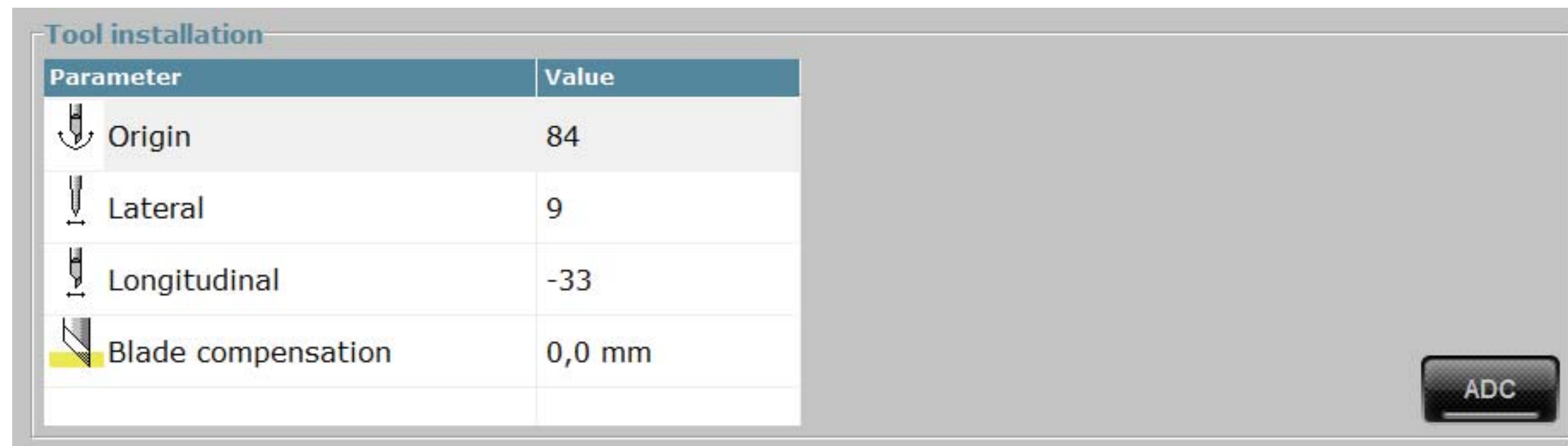
Classic Depth Positions

- Without the ADC the up and down position need to be set manually.
- The values refer to the distance from the park position (completely up).
- Note: With the latest firmware the up position is relative to the down position (see ADC Depth Positions).







Tangential Calibration

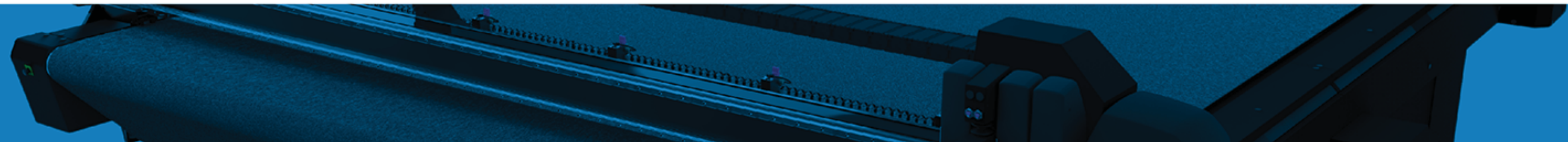
- On all tangential controlled tools ⁽¹⁾, the ADC can also detect the tangential calibration values (Origin, Lat and Long).



The screenshot shows a software window titled "Tool installation". Inside, there is a table with two columns: "Parameter" and "Value". The table contains four rows of data. To the right of the table is a large grey rectangular area. In the bottom right corner of the window, there is a button labeled "ADC".

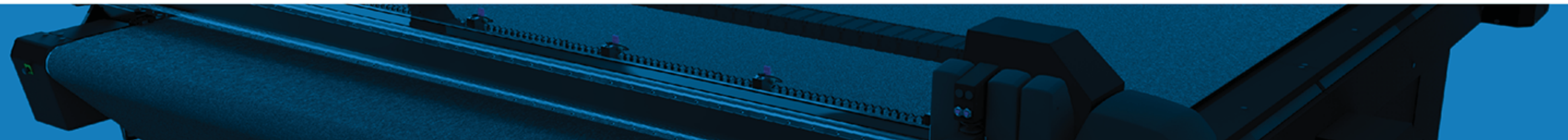
Parameter	Value
 Origin	84
 Lateral	9
 Longitudinal	-33
 Blade compensation	0,0 mm

- ⁽¹⁾ see further



Integration: Left and Right

- The ADC is integrated in the side covers of the table. Once installed and calibrated it is permanently available and doesn't need to be removed after usage.
- The ADC works contactless and works by interruption of a light beam. This is harmless for the tools.
- The ADC has a sensor unit in the right-hand side cover to measure the tools in **slot 2 & 3**.
- An optional second sensor unit in the left-hand side cover can measure the tools in **slot 1**.
- Note:
 - The drag module, which moves low over the table, can't pass over the ADC sensor units. If only the right-hand side unit is installed, it is advised to place the drag module in slot 1.
 - If both ADC sensor units are installed, the working area will be reduced when using the drag module in order to avoid that the module hits the ADC sensor unit.



Tools

- The ADC can be used for:
 - All tools of the tangential module: Kiss-Cut, Cut Out, EOT, POT⁽¹⁾, Creasing wheels, V-Cut tools.
- ⁽¹⁾The measurement of the POT knives isn't as accurate as on the other tools. Extra manual fine tuning may be required to have the most optimal down position. It is important to have stable pressure on the compressed air supply. Variations in air pressure result in depth variations!
- Rotary module
- Router module (bits)
- In order to avoid dust influencing the ADC, **an integrated compressed air nozzle** blows away the dust before measurement.
- The ADC can't be used with the drag module.



Compatibility

- The ADC is available for all F Series units. Depending on the model different order numbers are available. The right and left hand sensor units can be ordered separately. The right hand side sensor unit is required in order to install the left hand side sensor unit.

- F1612:

500-9123	FACTORY INSTALLED: ADC RIGHT F1612 * requires: Pneumatic pack [500-9111] not included
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500-9124	FACTORY INSTALLED: ADC LEFT F1612 * requires: ADC RIGHT [500-9123] not included
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- F1330 & F2630:

500-9127	FACTORY INSTALLED: ADC RIGHT Fxx30
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500-9128	FACTORY INSTALLED: ADC LEFT Fxx30 * requires: ADC RIGHT [500-9127] not included
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- Existing tables can be retrofitted. (update of firmware and software is required)

- F1612:

500-9125	FIELD UPGRADE: ADC RIGHT F1612 * requires: Pneumatic pack [500-9111] not included
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500-9126	FIELD UPGRADE: ADC LEFT F1612 * requires: ADC RIGHT [500-9123] or [500-9125] not included
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- F1330 & F2630:

500-9129	FIELD UPGRADE: ADC RIGHT Fxx30
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500-9130	FIELD UPGRADE: ADC LEFT Fxx30 * requires: ADC RIGHT [500-9127] or [500-9129] not included
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