

# HANDLING INSTRUCTIONS



ETP | CUBIT™

The ultimate way to profile precision

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# General information

Everyone strives to achieve the same goal in the laminate flooring industry. Maximum productivity, high feed speeds and the best possible profile precision. The ETP CUBIT will help you reach these goals.



- Extremely high precision and unrivalled repeatability
- Minimal run out
- User-friendly design and easy to operate

The adjustable patented ETP CUBIT concept has extremely high precision and unrivalled repeatability. The concept is made for two part tools that are adjustable on the machine spindle. The concept consists of two symbiotic parts, a special hydraulic sleeve and a unique adjustable unit. The adjustable unit is easy to attach or remove from the hydro sleeve since it is mounted by four bolts only.

The adjusting system is completely covered in the adjustable unit and there are no other small parts. This makes it very user-friendly and guarantees a consistent high precision. The pressurizing and adjustment is easily axially accessible.

The ETP CUBIT can be used on horizontal, vertical and tilted spindle positions. The adjustment of the profile, tongue or groove due to cutting wear or non consisting working material is made by 0,010 mm increments. The ETP CUBIT can be used in righthand or lefthand motor spindle rotation. The interface with the profile tool is of great importance and is thoroughly specified from ETP.

## The patented ETP CUBIT hydro sleeve

The ETP CUBIT hydro sleeve has two independent separate hydraulic systems providing a maximum performance and minimal run out. The inner system, indicated yellow (C), is centring and fastening the CUBIT on the machine spindle. The outer system, indicated red (A), is centring and fastening the two part tools on the hydro sleeve. The maximum operating temperature of the hydro sleeve is 70 degrees C.



## Safety regulations

The ETP CUBIT has been manufactured according to the EN-847-1.  
Please read and understand the instructions provided in this manual before usage.  
Pay special attention to any nation or regional safety regulations and standards.  
The CUBIT unit is balanced to be used at max 9000 rpm but the maximum allowed rpm is depending on the specified value on the mounted tools.

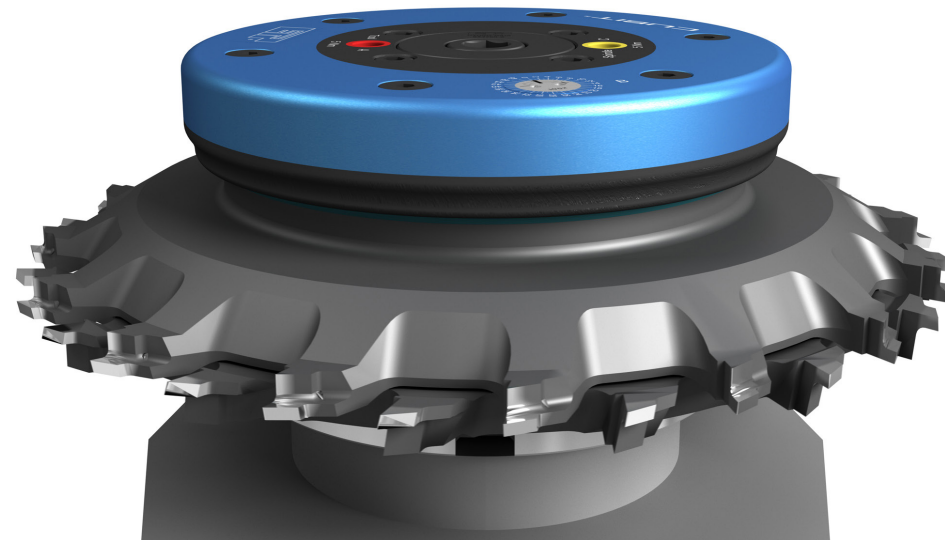
### **ATTENTION!**

Assemble and check the tool set according to instructions provided from the tool- and machine manufacturer. Check machine settings and way of rotation.  
Make sure that the hydro systems are fully pressurized and the safety disc is mounted on the machine spindle before any machine start.  
Danger of injury by the mounted sharp cutting tools on the CUBIT.

## Handling

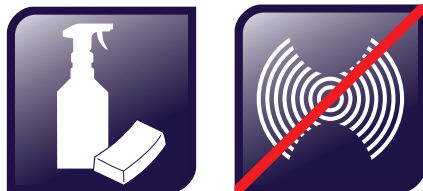
Please handle the CUBIT carefully when moving or mounting/dismounting from the machine as it is a high precision unit. Make sure that the clamping surfaces on the hydro sleeve and the machine spindle is clean and free from impurities.

Never pressurize any of the two systems without having tools or motor spindle/ grinding arbour mounted on the hydro sleeve.



# Assembly

Pay special attention to all parts being thoroughly cleaned and free from purities, dust, chips etc. before any assembly and mounting work is carried out. Coat the CUBIT hydro sleeve lightly with anti-moisture spray. Do not clean the CUBIT parts in ultrasonic cleaning.



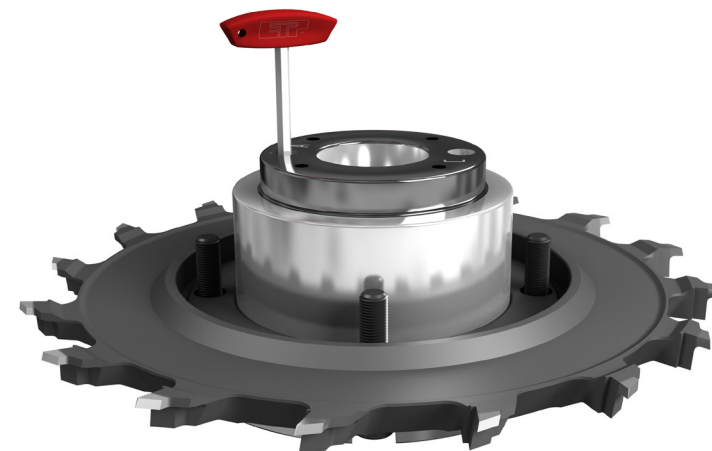
## Mounting of the fixed tool part

Slide the fixed tool part onto the CUBIT hydro sleeve and attach the 4 M8 bolts through the hydro sleeve flange. Tight the bolts finger tight.



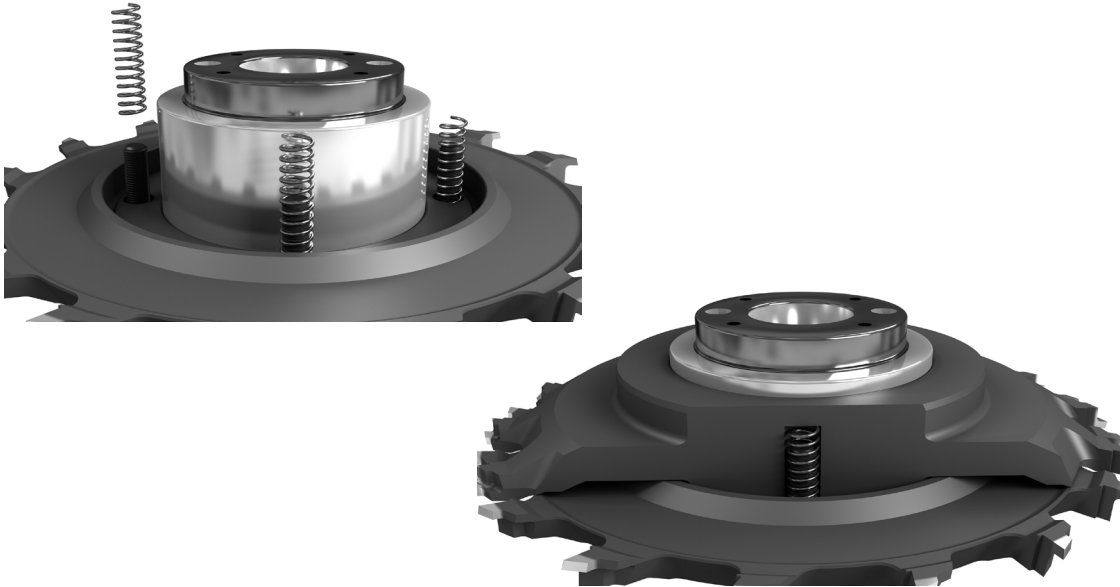
## Centering and fastening of the fixed tool part

- Pressurize the outer hydraulic system by inserting 6mm Allen key T-wrench at the pressurizing screw indicated (A).
- Turn the Allen key wrench until the system is fully pressurized and the pressurizing screw reaches a firm stop (5 Nm). Please note that any higher tightening torque will not increase the fastening force but may cause damages of the thread and piston.
- Tighten the 4 bolts finally to 12 Nm. The fixed tool part is now centered and fastened on the hydro sleeve.





## Mounting of the adjustable tool part

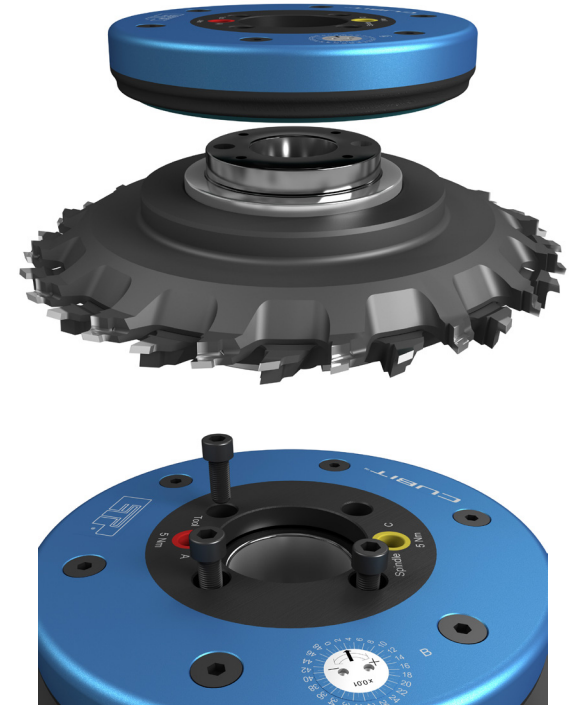


Release the pressure on the outer system, indicated (A), on the hydro sleeve. Place the four CUBIT springs on the bolts and slide the adjustable tool part onto the hydro sleeve. Make sure that the tool is positioned in such a way that the holes on the under face matches the location of bolts and springs. Pay special attention to the springs are inserted into the holes in the adjustable tool part.

## Mounting of the CUBIT adjustable unit

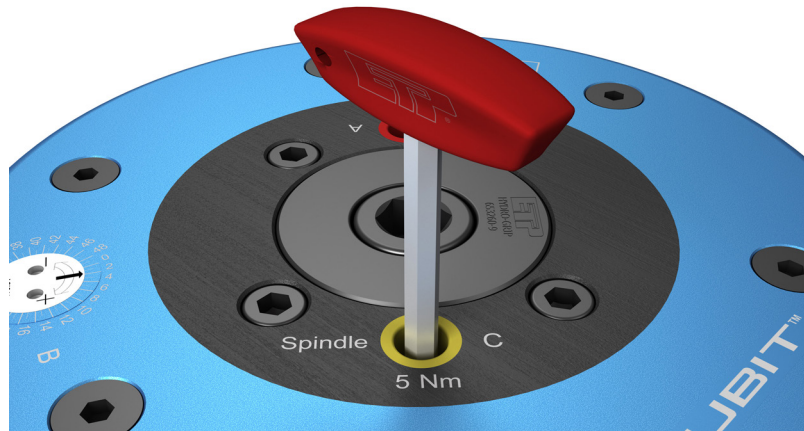
Keep the two tool parts together and compress the springs lightly by hand as the CUBIT adjustable unit is attached to the hydro sleeve. Position the adjustable unit, the red (A) indication must match the indication (A) on the hydro sleeve. Please note that the design is made making it impossible to mount it incorrect. Attach the four M6 bolts and tighten them with an Allen T-wrench to 8 Nm.

Pay special attention and make sure that the upper tool can be moved easily by pressing the tool downwards by light finger force. Make sure that the adjusting device is working correctly by using the handle and the special bits. Each snap is equal to 0.010 mm movement between the two tools. Pressurize at red (A) position and clamp the tool. The complete CUBIT unit with tool set can now be moved for balancing and grinding. Please note that the very best result is achieved if both tool parts are grinded on the actual and same hydro sleeve.



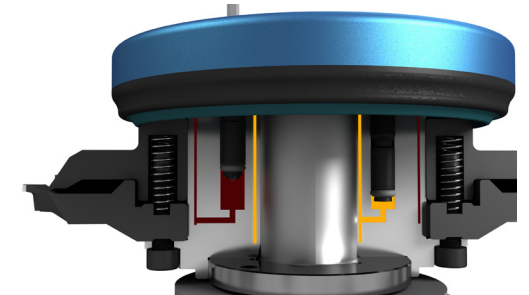
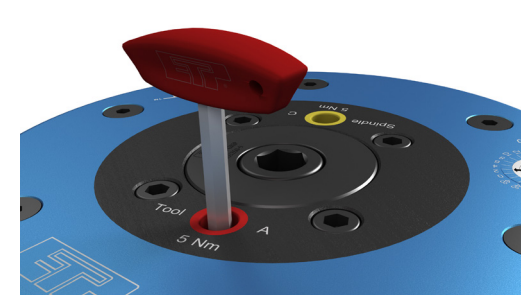
# Adjustment

Place the complete CUBIT unit with the tool set on a machine or grinding spindle. Pressurize the inner system by using an allen T-wrench at the yellow (C) indication for centring and fastening the CUBIT on the spindle.

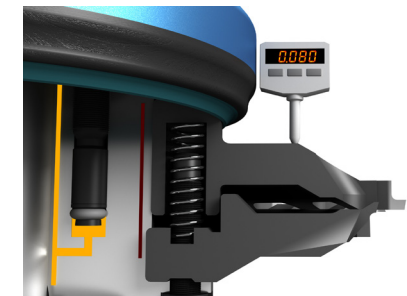


The adjustment of the profile is quick and easy to carry out in three steps.

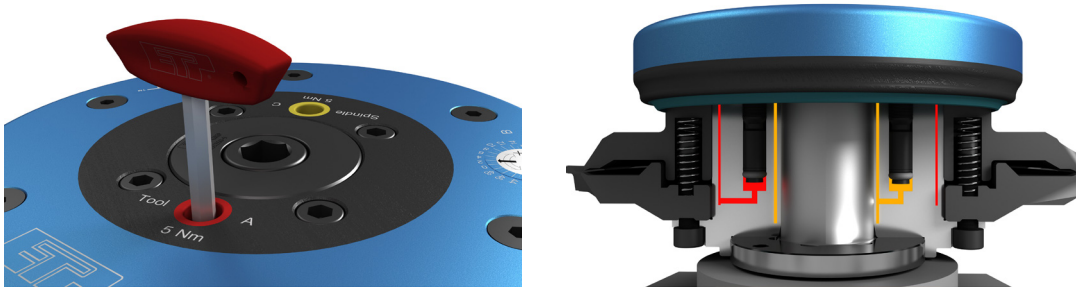
**1.** Release the pressure against the adjustable tool by using an allen T-wrench at the red (A) position on the adjustable unit.



**2.** Turn the adjusting device by using the handle with the special bits. Each snap is equal to 0.010 mm movement between the two profile tools.



**3.** Pressurize and clamp the tool by using an allen T-wrench at the red (A) position on the adjustable unit. Turn the Allen key wrench until the system is fully pressurized and the pressurizing screw reach a firm stop (5 Nm).



**⚠ ATTENTION!**

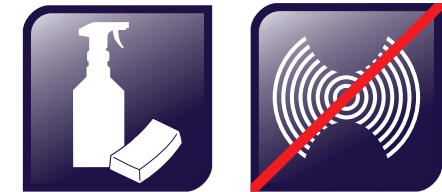
Do not forget to release the pressure against the adjustable tool at the red (A) position before any adjustment is carried out. Make sure that the adjustable tool can move freely i.e. the springs can be compressed by a light finger pressure on the adjustable tool.

Please note that any higher tightening torque will not increase the fastening force but may cause damages of the thread and piston.

## Maintenance and service

Make sure that the clamping surfaces on the hydro sleeve, the adjustable CUBIT unit and the machine spindle are cleaned on a regular basis. Do not clean the CUBIT parts in ultrasonic cleaning. We recommend a quick wash of the hydro sleeve in 80 C (175 F) emulsion, containing anticorrosion medium. After cleaning the sleeve, the pressurizing screws should be lubricated with molybdenum disulfide grease. Coat the hydro sleeve lightly with anti-moisture spray.

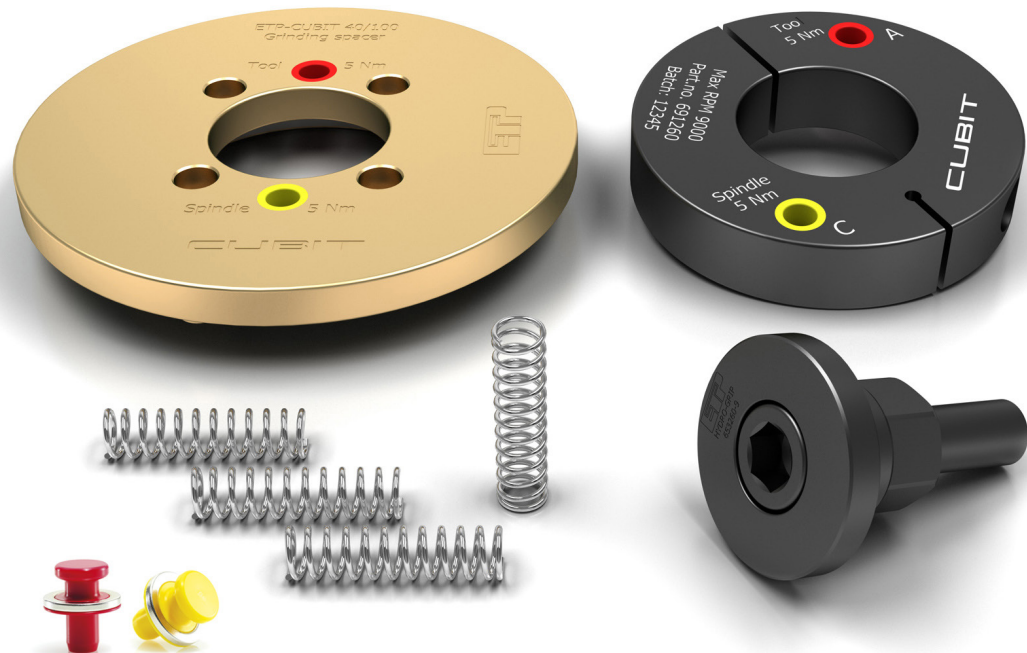
The CUBIT adjustable unit and specially the area around the adjusting device must be cleaned with great care and make sure that no aggressive fluid are used. There is no need to disassemble the adjusting unit and in case of any failure the unit is to be returned to ETP where only certified technicians are authorized to carry out repair or special service.





## Accessories

Our range of CUBIT accessories include a high precision grinding disc with springs, safety ring and safety disc developed for various machine spindles.

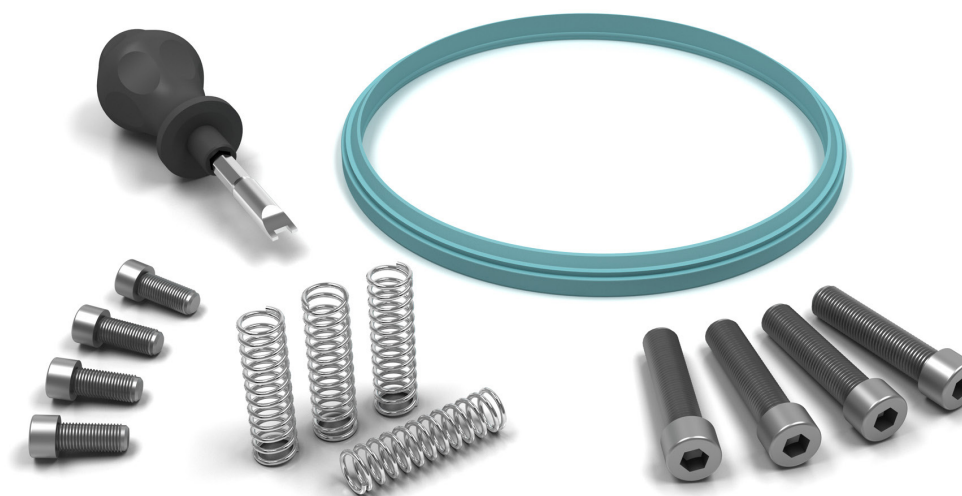


## Spare parts

Only original CUBIT spare parts are to be used.

Please see separate spare part list.

Never disassemble the CUBIT adjustable unit, it is a high precision part and in case of failure the complete unit is to be returned to ETP.



## Contact information

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