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Speedsynchro® Modular – Frequently asked Questions | FAQ

What is the Speedsynchro Modular?

- The Speedsynchro Modular is a threading tool adaptation with minimum length compensation and a quicker transmission gear.

Why would you need a Speedsychro Modular?

- The synchronous rpm over 2000 U/min programmed for thread machining are often not reached on modern machine tools.
- The threading tool may though not be driven with the optimal cutting speed.

What is the use of the Speedsynchro Modular?

- A significant cycle time reduction, a clear saving of energy during the thread machining and a perceptable increase of the threading tool life.

Is the Speedsynchro Modular a tapping attachment?

- No! It is not a tapping attachment! The reverse of the tool rotation direction is carried out through the machine spindle and not through the transmission gearing!

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How does the Speedsynchro Modular work?

- Due to the Speedsynchro gearing the machine spindle may be programmed with a lower speed (< 2000U/min). This programmed spindle speed is reached during the thread machining in any case. The cutting speed at the threading tool is actually higher due to the transmission gearing.

What can the Speedsynchro Modular be used for?

- The Speedsynchro Modular is suitable for thread cutting and thread forming from M1 – M8. For soft materials and fine threads even bigger dimensions are possible upon consultation.

Where does the use of the Speedsynchro Modular make sense?

- The Speedsynchro Modular may be used on any machining centre with synchronous spindle.

What are the savings when using the Speedsynchro Modular?

- The cycle time savings depend on the dynamics of the machine spindle. Empirical values show a cycle time reduction between 20 and 50% of the entire threading process.
- The energy reduction at the thread production is about 90%.
- The reduction of the axial force depends on the process and is known from our Softsynchro tap holders with minimum length compensation since many years in practice.

How to determine the cycle time reduction?

- To do this you do not need a Speedsynchro Modular!
- You only need to change the tool parameter for spindle speed and feed rate in your CNC programme!
- Thread cycle Speedsynchro Modular: Spindle speed/4,412 spindle feed rate x 4,412.
- Run the thread cycle Speedsynchro Modular without component in the machine – measure the cycle time for the thread machining – Compare the time for the previous machining with the Speedsynchro Modular time.
- By increasing the cutting speed compared to your today's parameter, the cycle time may be reduced further on.
- With our **Return-On-Investment-calculator**, please see www.speedsynchro.com, the percentage saving and cost reduction may be estimated.

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What do you need for the use of the Speedsynchro Modulars?

- Ensure the locking mechanism: The Speedsynchro Modular is equipped with a stop fixture for the tool magazine which is connected with the fixture of the spindle. Your machine supplier may tell you whether your CNC machine spindle is already equipped with the spindle stop fixture.
- Adapt programme parameter: For the use of the Speedsynchro Modular it is only required to adapt the CNC programme parameter to the transmission gearing by changing the speed and the feed values.

How to get a quotation for the Speedsynchro Modular?

- To submit you a quotation we require a drawing of the spindle front side of your CNC machine. The drawing is normally part of your machine documents or may be received from your machine supplier.
- The stop fixture of the Speedsynchro Modular is adapted to the machine conditions.
- You will receive a drawing of the design together with our quotation and with this you may carry out the crash contour research for your machining centre.

For further information please contact your **EMUGE-FRANKEN reference**

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