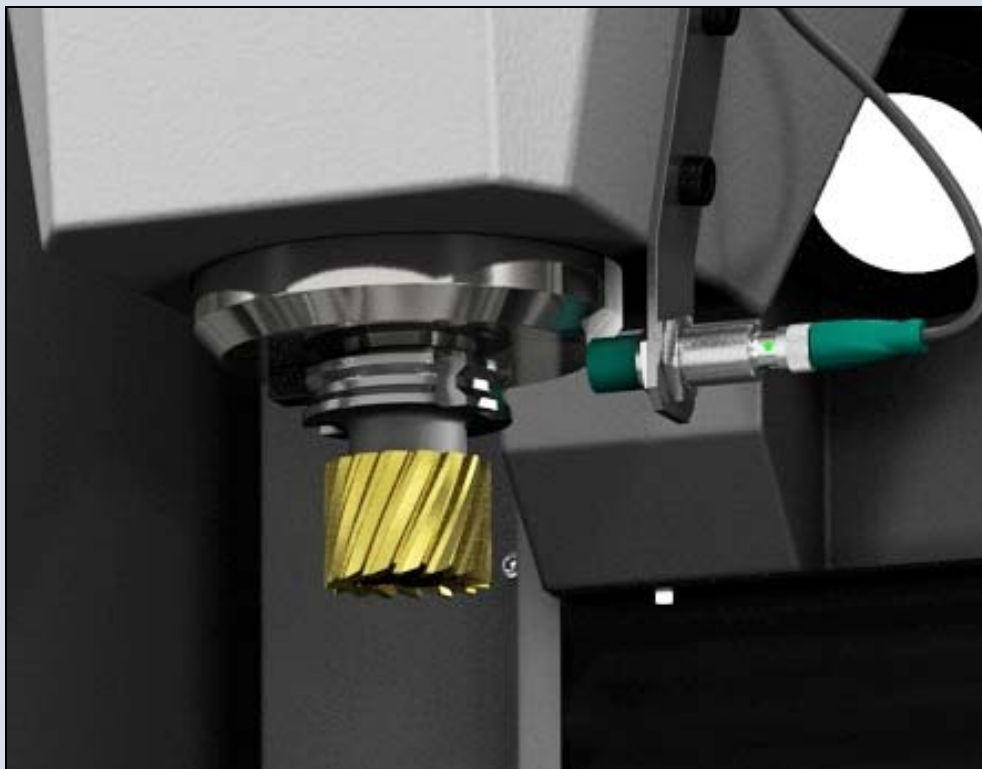




***Reliable identification of the work piece and machine tool eliminates expensive waste.***

**Application:**

Securing the machining process of application critical and expensive components.



***Machine tool verification with RFID***

**Goal:**

Waste reduction combined with fast, secure machine setup.

**Requirements:**

Reliable association between the machine tool and the component to be worked on.

**Customer advantage:**

Enables fully-automated machining centers with the highest reliability, automatic tool changers.  
Waste reduction.

**What is being done:**

Today's modern machining centers are frequently fully automatic CNC programmable systems. These machines are frequently used to produce application critical and expensive parts; aerospace components come to mind. Consequently, it is important to guarantee that a part is processed with the right tool, that the CNC controller has received the correct setup parameters, and that the controller is running the proper program. This is accomplished using an RFID tag that is permanently mounted on the tool carrier; tool carrier and tool are said to be *married* and form a unit. With this information the work process, the installed tool, and the selected CNC program can be verified. Using the RFID data, a plausibility check is performed before the machining process begins. With this process in place, almost scrap-free processing of parts and minimal machine downtime plus fast, automatic setup and changeover can be accomplished. This application is particularly well addressed using the IDENTControl Compact interface in conjunction with small read heads and fully-embeddable RFID tags, as those parts can be integrated without the fear of interference. Reliable operation, even under the harshest application conditions, can be assured. RFID interfaces supporting commonly available industrial communication networks make this a solution that can be offered on a global scale.



*An RFID system enables this automatic tool changer setup to securely pick the right tool for the job.*

IDENTControl satisfies the requirements of machine tool builders world wide:  
Robust, reliable, and with support for all commonly-used communication interfaces.