



PI0709

**Product Information** 

### **NORIS-M3F** For tapping threads in conical cast core holes



Ernst Reime – The tradition continues.



# Reduction in machining costs

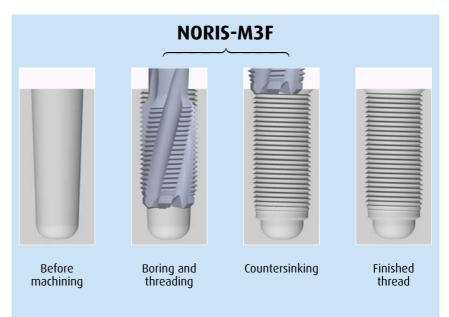
#### Tapered cast core holes require extraordinary tools!

The continuous development in production technology for casting aluminium or grey cast iron means that it is now possible to produce components with complex shapes or contours at low cost. The finishing process that used to be required for this purpose by means of machining is no longer required as a result of the application of Near-Net-Shape technologies.

Cast bore holes for blind hole threads feature a tapering towards the base of the core hole by virtue of the process. Before the tapping process, therefore, this area must be machined with a twist drill or a similar tool.

The newly developed **NORIS-M3F** tap allows the conical core hole to be widened at the same time as tapping the thread without the need for any preparation or finishing work.

After completing the return cycle, the protective countersink can be produced at the start of the thread in a circular milling operation.



### **Benefits**

- Tool made entirely of solid carbide with standard PVD-coating to ensure high cutting speeds and an extreme long tool life
- Specially developed cutting geometry to guarantee good chip flow, a smooth operation and reliable machining
- Saves on tool changing (boring, tapping and countersinking with a single tool) and reduces production time
- The geometrically defined core hole diameter on the tool ensures excellent thread quality and prevents incorrect operation due to inaccurate pre-drilling.

One tool with three functions – a true professional when it comes to saving!



#### **One tool - three functions**

Thread section: Cutting geometry specially tailored to the workpiece material to produce true to gauge threads with high surface quality

Boring section of the front geometry: This part of the tool widens the pre-cast holes to the dimensions of the core hole

Countersink section of the front geometry: This cuts the countersink for the thread in a circular operation

Machining of components made out of aluminium alloys





Thread dimension:M6Thread depth:19 mm



Thread dimension:M18 x 1,5Thread depth:39 mm



Cutting speed: 50 m/min

Technical features

# Practical examples



How to machine tapping threads in tapered cast core holes quickly and reliable?

#### **NORIS-M3F**

We can manufacture this tool to suit your needs. Simply let us know what you want. Precise application data are available from our thread specialists.



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