BALIQ TAP ALCRONOS
The coating revolution for thread formers and taps.
BALIQ TAP ALCRONOS redefines the benchmark in process reliability.

The technological progress

Revolutionary smooth and defect-free coatings with outstanding adhesion

Low susceptibility to sticking of AlCrN-based coatings

Coating design possible even beyond TiN / TiCN

High wear resistance of AlCrN-based coatings even under severe thermal stress

The hands-on advantages

Superior process reliability under all application conditions, no post-treatment necessary

Prevention of adhesion and build-up edges even with difficult-to-machine materials

Universal deployment: one coated tool for several applications

Long tool lives, even under MQL and dry machining conditions

Revolutionary superiority in thread forming:

**Application: stainless steel**

<table>
<thead>
<tr>
<th>Tool life (number of threads)</th>
<th>BALINIT® A (Iontron)</th>
<th>BALIQ™ TAP ALCRONOS</th>
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<tbody>
<tr>
<td>2,000</td>
<td>+171 %</td>
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<tr>
<td>1,800</td>
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<td>1,600</td>
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<td>1,400</td>
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<td>1,200</td>
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<tr>
<td>1,000</td>
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<td>800</td>
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<td>200</td>
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<td>0</td>
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**Tool**
PM-HSS thread former M3

**Workpiece**
Steel 1.4571 (AISI 316Ti, SUS 316 Ti)

**Machining**
vₜ = 12 m/min
Thread depth: 7.5 mm
Blind hole
Emulsion 6 %

**Source**
Oerlikon Balzers and University of Hamburg
Application: steel

Tool life (number of threads)

<table>
<thead>
<tr>
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<th>BALINIT® A (Ionitron)</th>
<th>BALIQ™ TAP ALCRONOS</th>
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</thead>
<tbody>
<tr>
<td>350</td>
<td>+146 %</td>
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<tr>
<td>300</td>
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<td>250</td>
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<td>200</td>
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<td>0</td>
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</table>

**Tool**
- PM-HSS thread former M10

**Workpiece**
- Steel 1.7225 (AISI4140, SCM440)
- 1000 N/mm²

**Machining**
- \( v_c = 17.5 \text{ m/min} \)
- Thread depth: 20 mm
- Blind hole
- Emulsion

**Source**
- Oerlikon Balzers
- Cutting Laboratory

**Reliable machining processes avoid loss of expensive components**

**Reduction of tool costs and changeover times**

**Simple product selection and lower inventory costs**

**New manufacturing options with high process reliability and efficiency**
Are you ready for BALIQ TAP ALCRONOS?
Contact us!

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