

**oerlikon**  
balzers

# **BALIQ MICRO TISINOS**

The coating revolution for micromachining up to HRC 70.



# BALIQ MICRO TISINOS: innovative micromachining for hardened steels.

## BALIQ™ MICRO TISINOS

### The technological progress

Revolutionary smooth and defect-free coatings with outstanding adhesion



High coating thickness precision for very sharp edges



Outstanding wear resistance of TiSiN-based coatings, even at extreme service temperatures as in hard machining



### The hands-on advantages

High component quality due to coating surface quality and problem-free chip evacuation without mechanical post-treatment

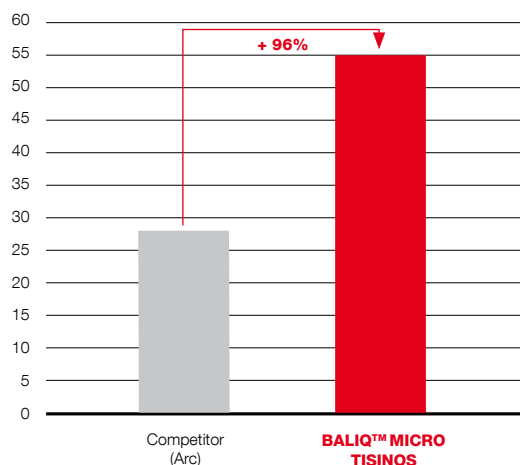
The ultimate in tool precision

Very high thermal stability and oxidation resistance, resulting in longer tool lives with perceptibly fewer tool changes

## Top-flight results in superfine machining of hardened materials:

### BALIQ™ MICRO TISINOS for hardened steel (Stavax)

Tool life (m)



#### Tool

Ballnose endmill Ø 1.0 mm

#### Workpiece

Steel 1.2083 (Stavax) (AISI 420), HRC 52

#### Cutting parameters

$v_c = 80$  m/min  
 $f_t = 0.02$  mm  
 $a_e = 0.04$  mm,  $a_p = 0.04$  mm  
Dry cutting

#### Source

Tool manufacturer

Even very fine surface structures can be reliably machined

Long tool lives even with hardest conditions

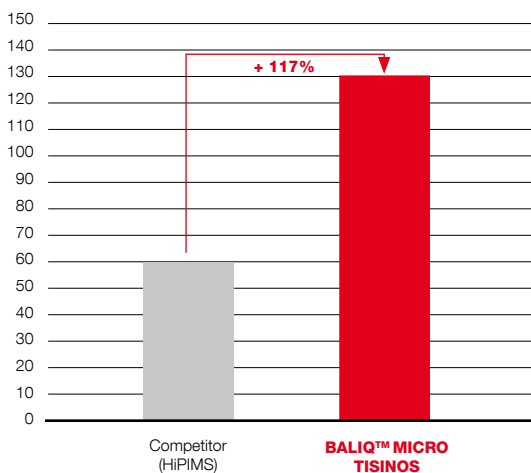
Workpieces can be machined in a single pass, eliminating expensive post-polishing

Noticeable cost and time savings with high process reliability



## BALIQ™ MICRO TISINOS for high hardened steels

Tool life (m)



### Tool

Ballnose endmill Ø 2.0 mm

### Workpiece

Steel 1.2379 (AISI D2, SKD11), HRC 62

### Cutting parameters

$v_c = 130$  m/min  
 $f_t = 0.04$  mm  
 $a_g = 0.1$  mm,  $a_p = 0.1$  mm  
Dry cutting

### Source

Oerlikon Balzers Cutting Laboratory

Competitor (HiPIMS)



BALIQ™ MICRO TISINOS



# Are you ready for BALIQ MICRO TISINOS? Contact us now!

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