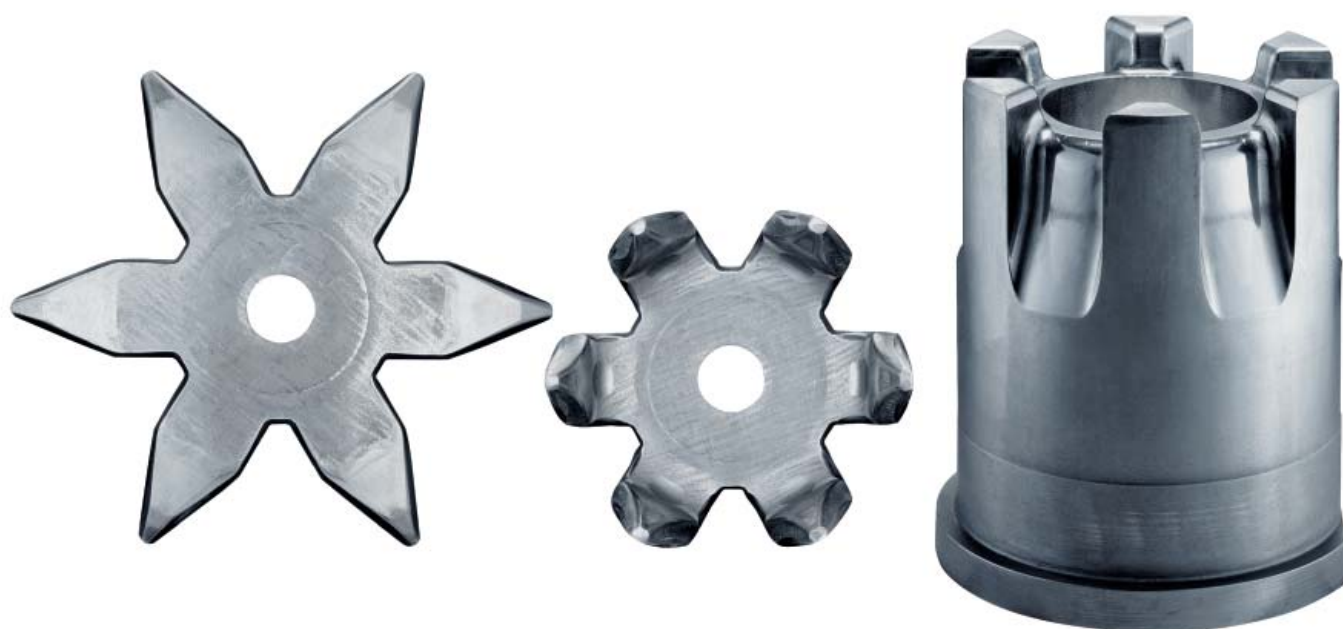


BALINIT® ALCRONA PRO

Punching and forming
at the top level



BALINIT® ALCRONA PRO establishes new benchmarks in manufacturing

Excellent wear resistance, thermal shock stability, and hot hardness are the properties that Oerlikon Balzers modified in depth to enhance the proven BALINIT® ALCRONA coating. Optimised process parameters and adjustments of the coating structure have substantially upgraded the performance profile of the new coating. BALINIT® ALCRONA PRO is the new top-tier allrounder in punching and forming.

Better coating properties for moulds, punches & Co.

In many applications, extreme mechanical and thermal stresses impose considerable problems on tools. Now, service lives can be significantly extended at higher loads with the new AlCrN coating BALINIT® ALCRONA PRO.

Your gain: greater productivity

Boost your productivity and reduce unit costs with

- longer service lives and overall tool life spans
- less machine downtime for tool changes and setup work
- less rejects and lower pre-operating expenses

Applications

BALINIT® ALCRONA PRO is ideally suited for operations such as

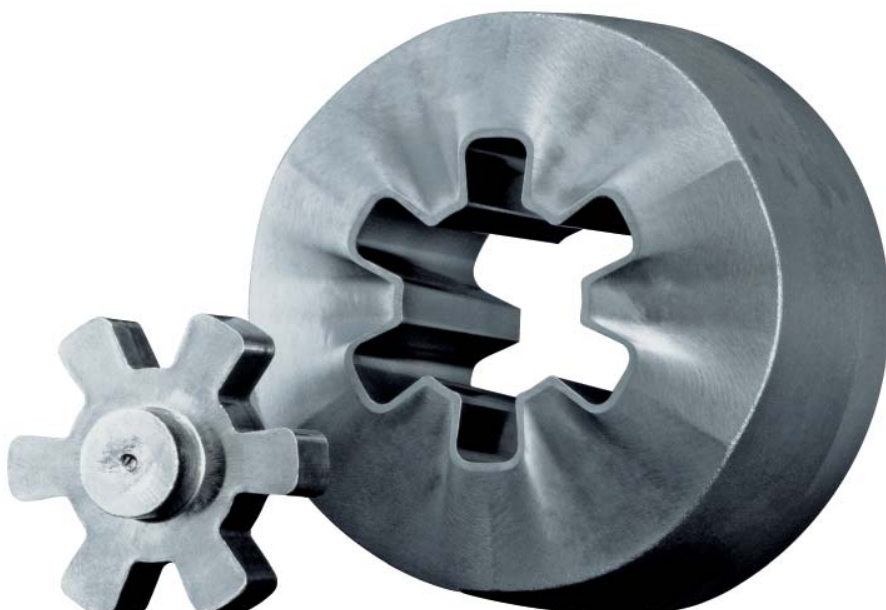
- Piercing and blanking
- Fine blanking
- Extrusion
- Sheet metal forming
- Forging

Tools such as piercing and blanking punches can be reground and recoated without any loss in performance. This significantly prolongs their overall life span, thus perceptibly reducing tool costs.

The ever greater demands imposed on the quality of tool and workpiece surfaces can be optimally fulfilled if the functional surfaces of the tools are treated prior to and after coating in accordance with the application. This further increases the life of the tools, improves process reliability, and in many cases eliminates the need for subsequent machining.

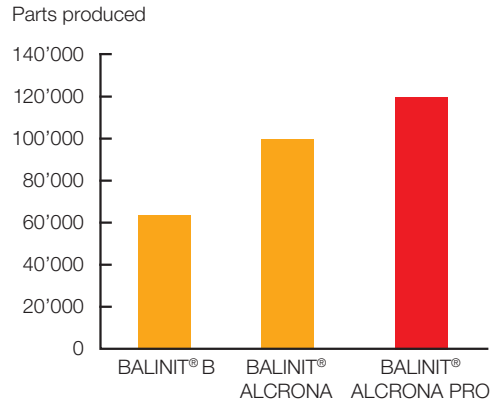
Properties of BALINIT® ALCRONA PRO

Coating material	AlCrN
Microhardness (HV 0,05)	3'200
Max. service temperature (°C)	1'100
Residual compressive stress (GPa)	-3
Coating colour	bright grey



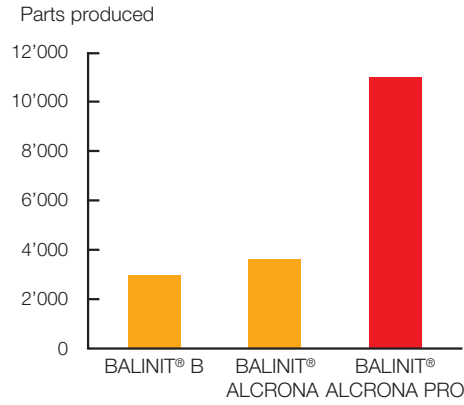
Precisely shaped with BALINIT® ALCRONA PRO

Fine blanking



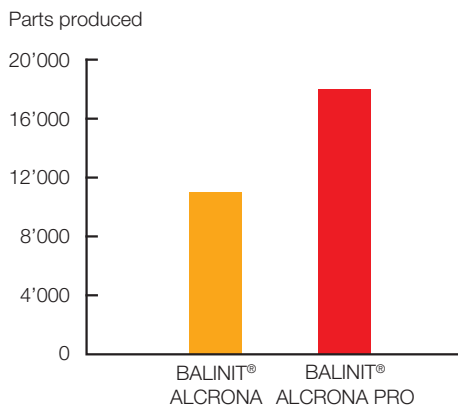
Tool: Fine blanking punch P15 (S390PM)
 Tool data: 74.5 x 40.8 x 18 mm
 Workpiece: DIN 1.7131 (~ AISI 5115), 500 N/mm², 6 mm
 Source: Automotive supplier

Sizing



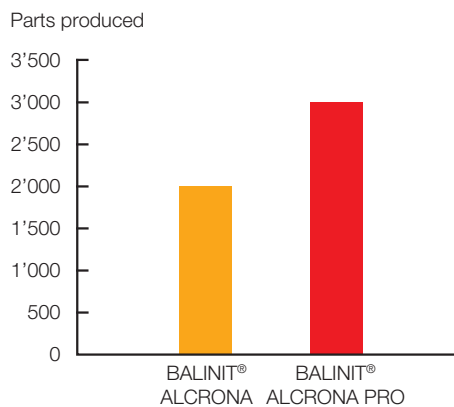
Tool: HSS mandrel
 Tool data: Length 270 mm, Working depth 150 mm, Ø 15.5 mm
 Workpiece: DIN 1.1121 (~ AISI 1010)
 Source: Tube manufacturer

Forging



Tool: Forging tool, HSS
 Tool data: Ø 75 mm
 Workpiece: DIN 1.7131 (~ AISI 5115)
 Source: Automotive supplier

Peeling



Tool: Peeling die, HSS
 Tool data: Ø 125 mm
 Workpiece: DIN 1.0406 (~ AISI 1025), 4.5 mm thick
 Source: Automotive supplier

We are at your service. Worldwide.

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