



WATCH & LUXURY

voestalpine WATCH & LUXURY GOODS BÖHLER A204 | A224

BÖHLER A224 is the premium choice for applications demanding the highest levels of polishability and material purity. As a remelted steel, it offers exceptional cleanliness and structural homogeneity, making it ideal for components requiring flawless, mirror-like finishes. Its outstanding corrosion resistance ensures long-term durability, even in challenging environments, making it particularly well-suited for high-end, luxury applications where both aesthetics and performance are critical.

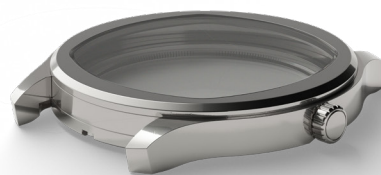
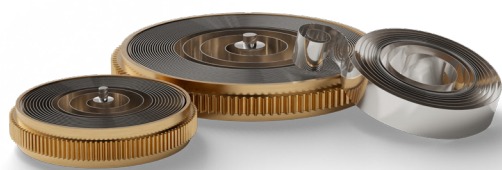
For very large production series, **BÖHLER A204** offers an outstanding solution. Although conventionally cast, it delivers exceptional cleanliness and finishing quality comparable to remelted grades. Its precisely controlled chemical composition ensures a ferrite content below 0.5% and complete freedom from other secondary phases. The extremely low level of non-metallic inclusions guarantees highly reproducible production processes.

MOST COMMON CAUSES OF MATERIAL-RELATED FAILURE:

- » Defects due to lack of material cleanliness
- » Presence of secondary phases/ inhomogeneity
- » Presence of corrosion

VOESTALPINE SOLUTION:

- » Optimized production: several decades of expert know-how in the production of steels for the watch industry, fine-tuned chemical composition and appropriate heat treatment
- » PESR (Pressurized Electro-Slack Remelting): this manufacturing technique significantly improves the cleanliness of steels, including BÖHLER A224 by eliminating non-metallic inclusion & decreasing sulfur content



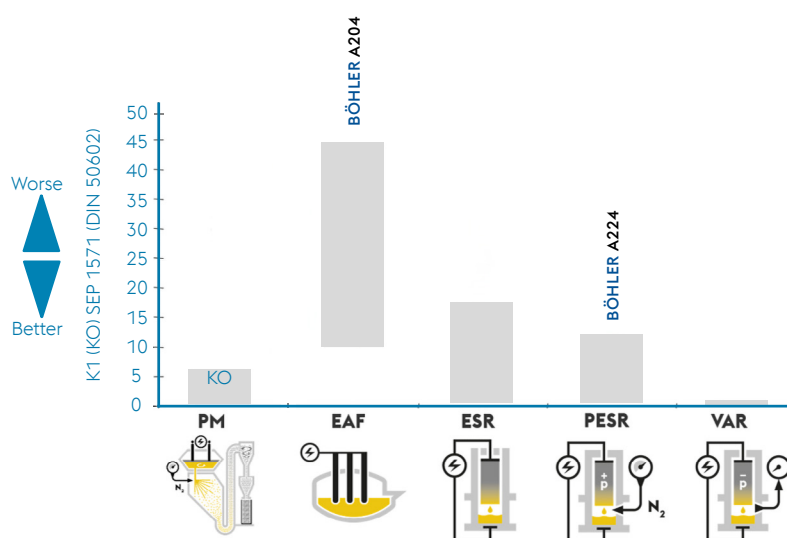
COMPARISON OF PROPERTIES

Properties	BÖHLER A204	BÖHLER A224
Melting	airmelted	airmelted + PESR
Ferrite	< < 0.5% ferrite	0
Cleanliness	very high	excellent
Grain Size	> - 6	> - 6
Polishability	very high	excellent
Corrosion Resistance	very high	excellent

CHEMICAL COMPOSITION COMPARISON

Composition	BÖHLER A204	BÖHLER A224
C	< 0.030	< 0.030
Si	< 1.0	< 1.0
Mn	< 2.0	< 2.0
P	< 0.045	< 0.045
S	< 0.030	< 0.030
Cr	17.0 - 19.0	17.0 - 19.0
Mo	2.5 - 3.0	2.5 - 3.0
Ni	12.5 - 15.0	12.5 - 15.0
N	< 0.1	< 0.1
Fe	balance	balance

MELTING PROCESS VS CLEANLINESS



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ONE STEP AHEAD.