

**oerlikon**  
balzers

## **Efficient flow.**

BALINIT® coatings for rotary pumps in abrasive and poorly lubrication media.



**General Engineering**



## BALINIT® coatings resist extreme conditions.

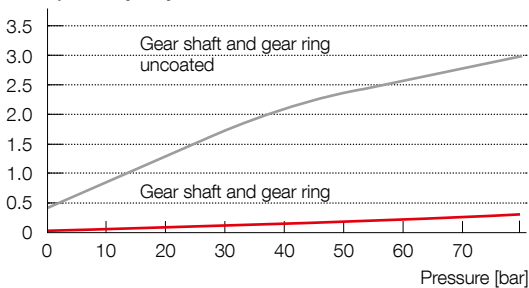
Screw spindle-, vane-, gear-, lobe- and centrifugal pumps have to work in abrasive and poorly lubricating media. This could be cooling media in grinding machines such as screw pumps and internal gear pumps; poor lubrication are applications in fresh- or seawater like screw spindle pumps. Furthermore a combination of abrasion, corrosion and adherence damages parts of external gear pumps for lacquer in the car painting industry. BALINIT® coated screws show an excellent combination of hardness and low friction and prevent wear in poorly lubricating conditions.

## Your advantages with BALINIT® coated pump components.

- Excellent wear resistant in metallic sliding (DLC)
- Highest abrasive wear resistance (TiAlN)
- Extended lifetime in severe working conditions
- Reduce friction and energy consumption
- Enable higher efficiency

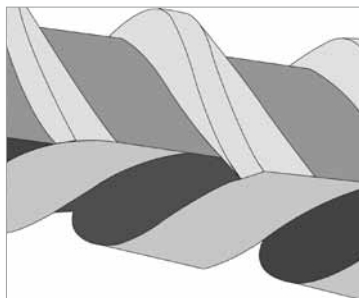
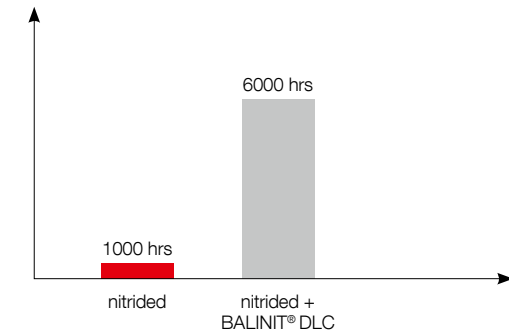
## Less wear and leakage free operation.

Delivery losses [l/min]



BALINIT® FUTURA (TiAlN) coated gears show much less leakage compared to uncoated nitride steel.

Lifetime



BALINIT® DLC for screw spindles shows significantly longer lifetime compared to nitride steel DIN 1.7131 in abrasive grinding cooling media.

## We recommend: BALINIT® coatings for high-level efficiency.

Coating	Coating material	Micro-hardness (HV 0.05)	Typical thickness	Coefficient of friction $\mu$ against steel (dry)	Colour
<b>BALINIT® DLC</b>	a-c:H	2500	2-4 $\mu\text{m}$	0.1 - 0.2	Black-grey
<b>BALINIT® FUTURA</b>	TiAlN	3300	3-7 $\mu\text{m}$	0.5	Violet-grey

**There's much more to talk about – please get in touch to discuss what we can do to improve your business.**

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