Efficient flow.

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

BALINIT® 用于有摩擦且不充分润滑环境下的旋转泵。
**BALINIT® coatings resist extreme conditions.**

**BALINIT®涂层抗极端条件**

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.

螺旋轴，叶片，齿轮，叶和离心泵，必须在有摩擦并且不充分润滑中工作。譬如磨床中的螺旋泵内啮合齿轮泵使用的冷却液，淡水或海水螺杆泵的不充分润滑应用。此外，汽车喷漆行业中，外啮合齿轮泵的部件会同时遇到磨损，腐蚀和粘连等问题。BALINIT®涂层的螺钉的实现了高硬度和低摩擦力的完美结合，并在不充分润滑的条件下防止磨损。

**Your advantages with BALINIT® coated pump components.**

**BALINIT®涂层的给你带来各种优势**

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

**Less wear and leakage free operation.**

**低磨损，无泄漏操作**

![Graph showing wear and leakage comparison](image)

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

![Graph showing lifetime](image)

BALINIT® FUTURA (TiAIN)涂层的齿轮相比于没有涂层的氮化钢，泄漏更少。

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.**

**我们推荐：BALINIT®涂层为您带来更高效率**

<table>
<thead>
<tr>
<th>Coating</th>
<th>Coating material</th>
<th>Micro-hardness (HV 0.05)</th>
<th>Typical thickness (μm)</th>
<th>Coefficient of friction μ against steel (dry)</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALINIT® DLC</td>
<td>a-c-H</td>
<td>2500</td>
<td>2-4 μm</td>
<td>0.1 - 0.2</td>
<td>Black-grey</td>
</tr>
<tr>
<td>BALINIT® FUTURA</td>
<td>TiAIN</td>
<td>3300</td>
<td>3-7 μm</td>
<td>0.5</td>
<td>Violet-grey</td>
</tr>
</tbody>
</table>

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

更多需要了解，请与我们联系

OC Oerlikon Balzers AG | Balzers Technology & Service Centre | Iramoll 18 | 9496 Balzers | Liechtenstein  
T: +423 388 7500 | F: +423 388 5419 | E: components.balzers@oerlikon.com | www.oerlikon.com/balzers

Oerlikon Balzers Coating (Suzhou) Co., Ltd | No.9 Chang Yang Street | Suzhou Industrial Park 215024 | Jiangsu Province | P.R.China  
T: +86 512 67620369 | F: +86 512 67620359 | E: info.balzers.cn@oerlikon.com