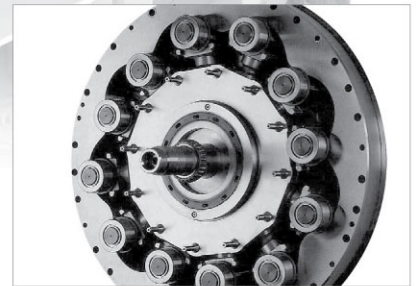
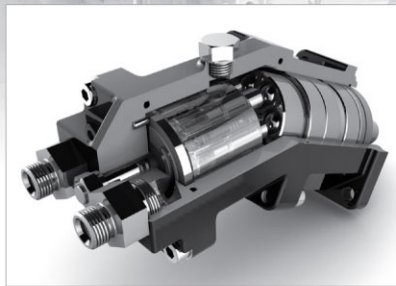


Reliable hydraulic power. 稳定的液压动力

BALINIT® DLC for long-living hydraulic- and high pressure piston pumps.

BALINIT® DLC 涂层，用于高压柱塞泵。



BALINIT® coatings deliver performance and efficiency.

BALINIT® 涂层带您提升性能和效率

Radial- and Axial Piston pumps are used to transform the energy of diesel engines into extreme working forces. These are required in earth movement construction machines, cranes or industrial applications like elevation of off shore oil platforms. Core of hydraulic drives are hydraulic pump and motor. They operate at high hydraulic oil pressure. This requires component designs with very small tolerances. At high load and tight tolerances even hardened or nitrided steel components or components made of bronze suffer by wear because of too high friction (nitride components) or too high wear (bronze components). High pressure piston pumps are used to produce extremely high forces (e.g. metal working industry, water jet cutting,...). Plunger, camshaft and seals can suffer by sliding- and abrasive wear. BALINIT® DLC (diamond like carbon) coating combines in a unique way low friction and high hardness and is therefore ideal for highly loaded precision components of axial-, radial- and high pressure piston pumps.

径向和轴向柱塞泵用于将柴油发动机的能量转换成极强的作用力。挖土机，起重机或如深海采油平台的工业应用中都需要这种泵。液压驱动的核心是液压泵和马达。他们在极高的液压压力下工作。这些零件设计的公差范围很小。在高负荷和严格的公差要求下，就算是硬化或氮化钢零件，或者青铜制成的零部件都会存在不耐磨的问题，因为氮化钢的摩擦力太大，而青铜容易被磨损。高压柱塞泵用于产生极强的机械力（如金属加工行业，水切割，..）。柱塞，凸轮轴和密封件需要承受滑动和磨损。BALINIT® DLC（类金刚石）涂层以独特的方式结合了低摩擦力和高硬度，所以对于轴向、径向和高压柱塞泵中的高负荷精密部件来说，是最理想的涂层。

Your advantages with BALINIT® DLC coated piston pumps components.

使用BALINIT® DLC涂层的柱塞泵零件的优势：

- High protection against seizure due to low friction
- Good resistance against abrasive particles due to high hardness
- Little stick slip and starting torque
- Increased efficiency due to reduced friction
- 降低摩擦力，从而抗咬合，提高保护
- 提高硬度，从而减少磨粒磨损
- 减少粘滑，降低起动力矩
- 通过减少摩擦提高了效率

Use constantly low actuation forces and resistance against premature wear.

保持低驱动力对抗过早磨损

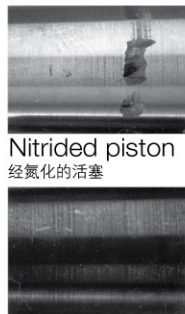


BALINIT® C (WC/C) coated roller show:

- No seizure
- After 58,000 revolutions nearly no wear
- Static friction between roller and piston decreased by 40%
- Losses at start-up reduced by 18%
- Less "stick-slip"

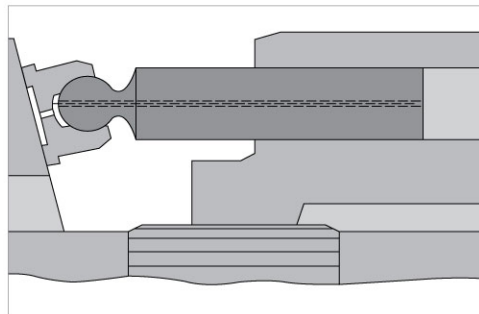
BALINIT® C (WC / C)涂层后的滚轴

- 无咬合
- 经过58000次运转几乎无磨损
- 滚轴和活塞之间的静摩擦减少了40%
- 启动时的损耗降低了18%
- 粘滑更少



Nitrided piston
氮化的活塞

BALINIT® coated piston



BALINIT® 涂层柱塞

Test conditions

Pressure: 400bar
Speed: 3000 rpm
Time: 1000 hours

测试条件

压力: 400bar
速度: 3000 rpm
时间: 1000 hours

BALINIT® DLC coated pistons prevent wear at highly loaded plungers of axial piston pumps compared to nitrided pistons.

BALINIT®DLC涂层后的高负荷轴向柱塞泵中的柱塞耐磨性，相较于氮化柱塞，要高很多。

We recommend: BALINIT® DLC for optimum values.

我们推荐：BALINIT® DLC给您带来最优性价比

Coating 涂层	Coating material 涂层材料	Micro-hardness 维氏硬度 (HV 0.05)	Typical thickness 标准厚度	Coefficient of friction 摩擦系数 μ against steel (dry) 对钢 (干切)	Colour 颜色
BALINIT® DLC	a-c:H	2500	2-4 μm	0.1 - 0.2	Black-grey 黑灰色
BALINIT® C	WC/C	1000	2-4 μm	0.1 - 0.2	Anthracite 无烟煤色

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

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