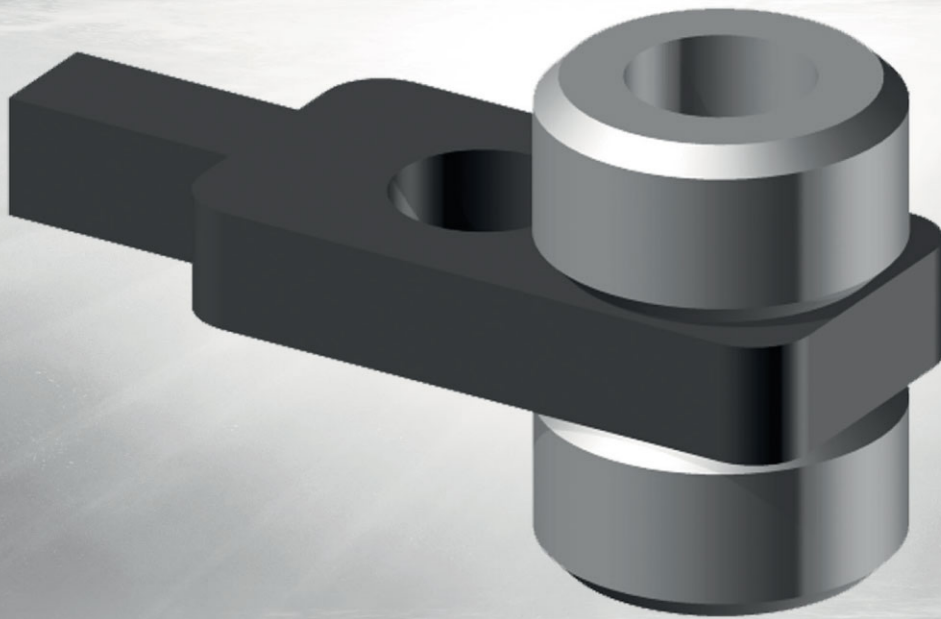


Going even deeper. 更深开采

BALINIT® DLC coating increases the performance and reliability of XMT Valve Systems for deep water oil & gas production.

BALINIT® DLC 涂层增强用于深海石油和天然气开采的XMT 阀系统的性能和可靠性



BALINIT® DLC is the key success factor for deep offshore oil & gas production.

BALINIT® DLC 涂层是深海石油和天然气成功开采的关键因素

Subsea XMT valves and actuators are among the most important systems for a safe and reliable deep water oil & gas production, especially as water depths exceed 10,000 ft (3 km) with pressure over 100 MPa and temperatures close to 180°C. Although the use of advanced nickel alloys (Inconel 725 & 625) in combination with high density HVOF thermal Spray WC coatings improved the anti-galling and sealing ability properties between valve seats and valve gates, the high friction problem remained unsolved. BALINIT® DLC is specifically designed for High Pressure High Temperature (HPHT) deep water conditions and provide unique frictional, wear and bearing load capacity properties. Thereby it is a key element for the reliable operation of XMT valves.

特别是当水深超过10,000 ft (3 千米)、水压超过100 MPa、温度接近180° C的时候，对安全可靠的深海石油与天然气开采来说，海底的XMT阀和制动器是非常重要的系统之一。虽然，先进的镍合金（铬镍铁合金725和625）加上高密度HVOF热喷涂WC涂层改善了阀座和阀门间的抗粘扣性能和密封性，但是高摩擦力的问题仍旧没有解决。BALINIT® DLC涂层为高温高压（HPHT）深水条件特别设计的，提供了独特的抗摩擦、耐磨损和提高轴承负荷的性能。因此，它是XMT阀可靠工作的关键因素。

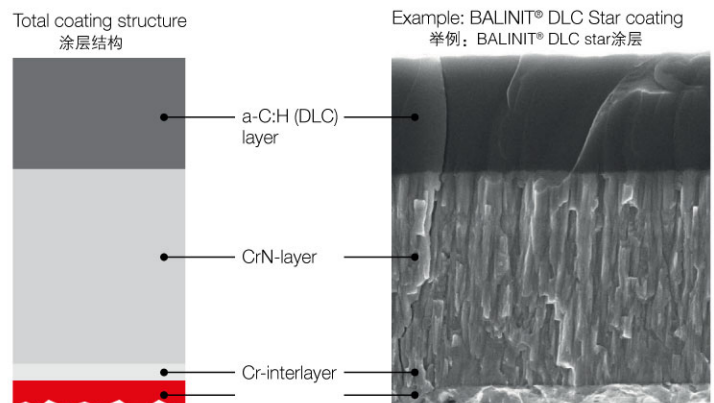
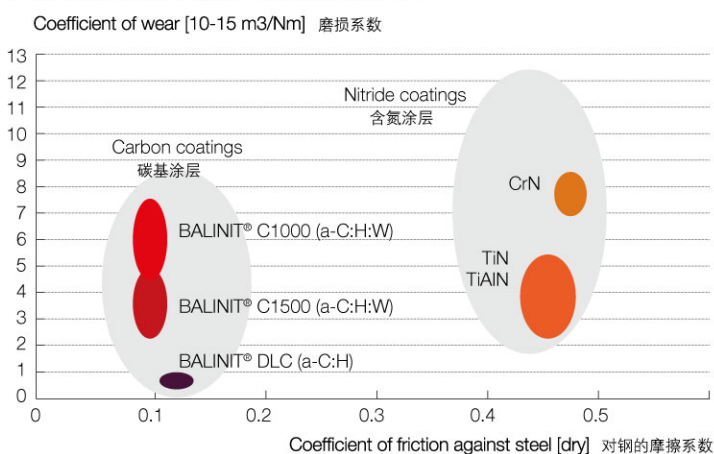
Your advantages with BALINIT® coated XMT Valve Systems.

经BALINIT®涂层处理后的XMT阀系统的优势

- Reduction of coefficient of friction up to five times (COF: ~0.15 compared to steel) –降低高达五倍的摩擦系数（COF:~0.15对钢材）
- Reduction of friction torque in water, gas and at high temperature –降低在水、气体和高温中的摩擦力矩
- Excellent anti-galling and wear properties –极佳的抗粘扣和耐磨性能
- Superior seal performance –优异的密封性
- Stability during exposure in High Pressure High temperature (HPHT) conditions –在高温高压(HPHT)条件下非常稳定

Low friction and high abrasive wear resistance are proven.

已证实其低摩擦性和高耐磨性



The abrasive wear resistance was measured by the ball crater method where a 20 mm ball rotates on the surface with continuous addition of diamond suspension. The friction is measured in a pin disk arrangement under dry condition against steel. Especially BALINIT® DLC and DLC STAR show a unique combination of low wear and low friction.

耐磨性是通过球痕法测量得出。球痕法即一个20mm的球在连续增加金刚石磨料混合液的表面旋转。摩擦力是在干式情况下对钢材，于销盘装置中测量。BALINIT® DLC和DLC STAR展现了独一无二的低磨损、低摩擦的结合。

We recommend: BALINIT® DLC for lowest wear and friction.

我们推荐：最低摩擦磨损的BALINIT® DLC涂层

BALINIT® DLC and DLC STAR			
Coating material 涂层材料	Micro-hardness (HV) 维氏硬度	Typical thickness 标准厚度	Colour 颜色
DLC/CrN	>2000	2-4 µm	Black 黑色

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

OC Oerlikon Balzers AG | Balzers Technology & Service Centre | Iramali 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