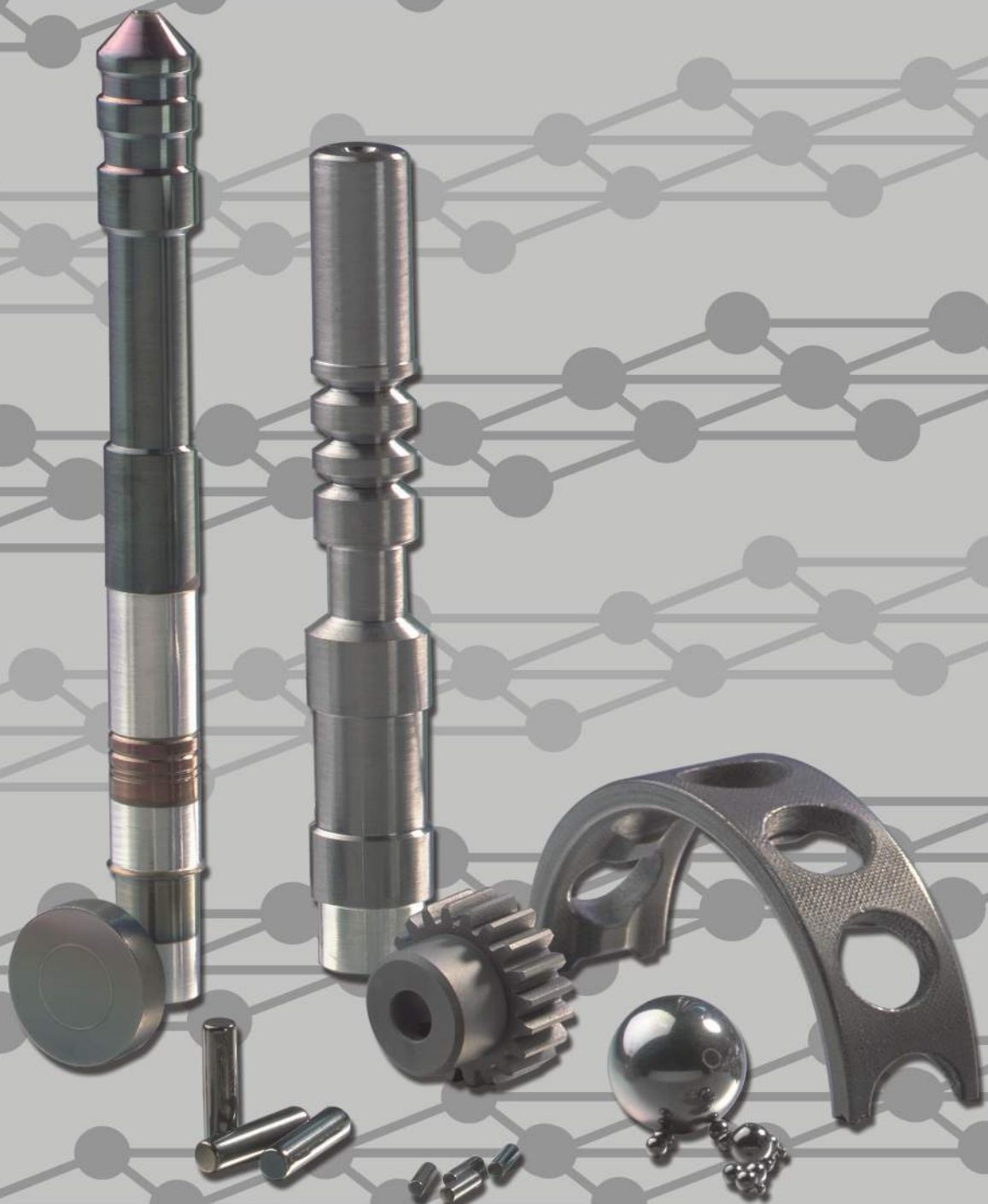




**MOVIC<sup>®</sup>**

**Lubricity Coating  
for Wear Parts  
and Dry Machining**

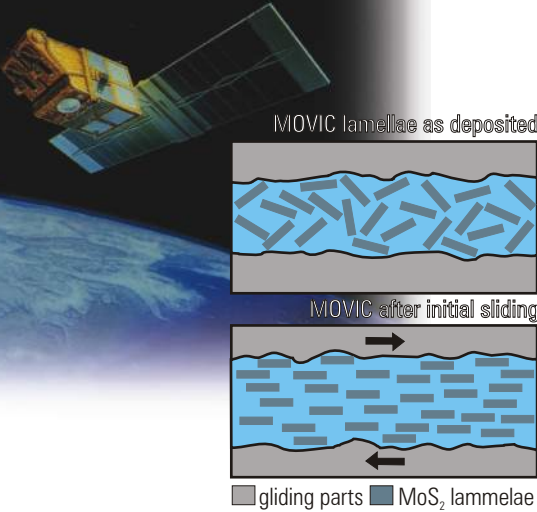


# Lubricity Coating

## MOVIC®

With MOVIC, Swiss-Tek offers a dry thin film lubricant coating with a very low coefficient of friction. By reducing friction, MOVIC reduces wear on machine parts and cutting tools, resulting in improved tool and part life. It also allows dry cutting, reducing or eliminating the need for lubricants.

MOVIC's roots can be found in space technology: Under low atmospheres and in vacuum, no wet lubricant could be used for moving parts, so the lubricant had to be integrated into the surface. A variation of this technology has been commercialized for industrial use.



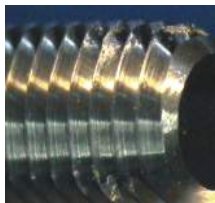
	Color	Nanohardness [GPa]	Thickness [μm]	Friction (fretting) coefficient	Max. usage temp. [°C/°F]
TiN	golden yellow	24	1 - 7	0.55	600/1100
TiCN	blue-grey	37	1 - 4	0.2	400/1500
TiAlN	violet	35	1 - 4	0.5	800/1500
MOVIC	grey-silver	-	0.5 - 1.5	0.15	400/750

### Advantages

- significantly decreases friction
- especially uniform and well adherent even on components with very complex geometry.
- very thin (under 1 μm); does not affect tight component tolerances
- low deposition temperature (under 150 °C / 300 °F) does not cause part distortion or loss of hardness

### Applications

- bearings and linkages: decreases friction and wear, increases mobility
- machine parts: increases part life
- cutting tools: enables dry high speed cutting (combination with appropriate hard coating recommended)
- reduces material build-up on mating surfaces and cutting tools

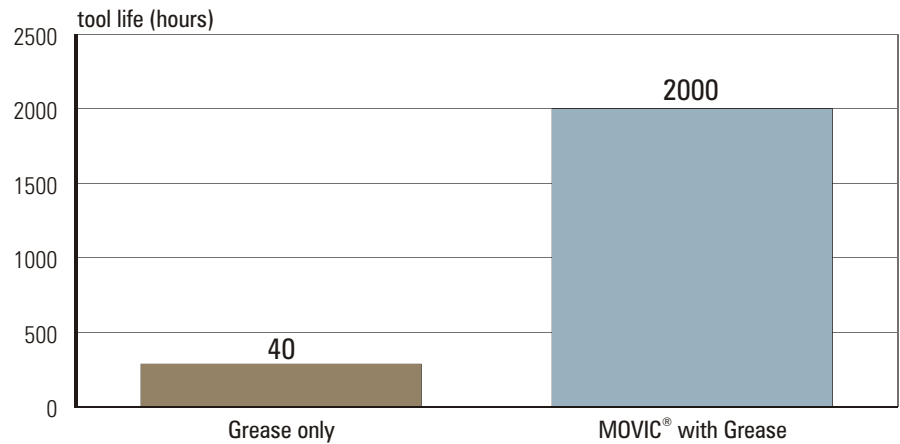


Built-up edge



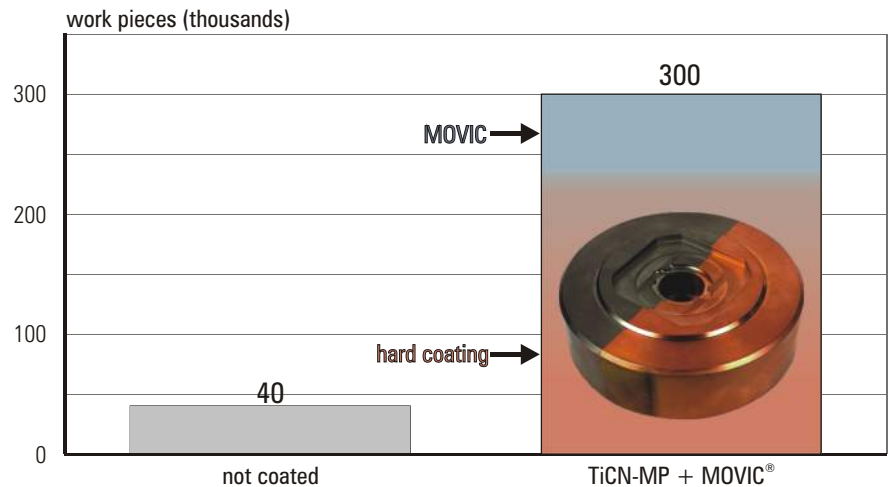
Built-up edge avoided with MOVIC

### Lubricated Spindle Bearings



Source: Vilab / BCI

### Stamping - Tool Life Comparison



Work piece material: 8 mm INOX (stainless steel)