

Housing X37CrMoV5



INNOLITE
TAILORED MOLDS AND OPTICS

*Ultraprecision Technology
for the Watch Industry*

Face 45MoV14-13

Cutting with single crystal natural diamond

Diamond cutting with ultra precision machine tools allows for the highest surface quality on metal surfaces. Smooth surface as well as ultra precise micro structures can be realized deterministically to the highest customer demands.

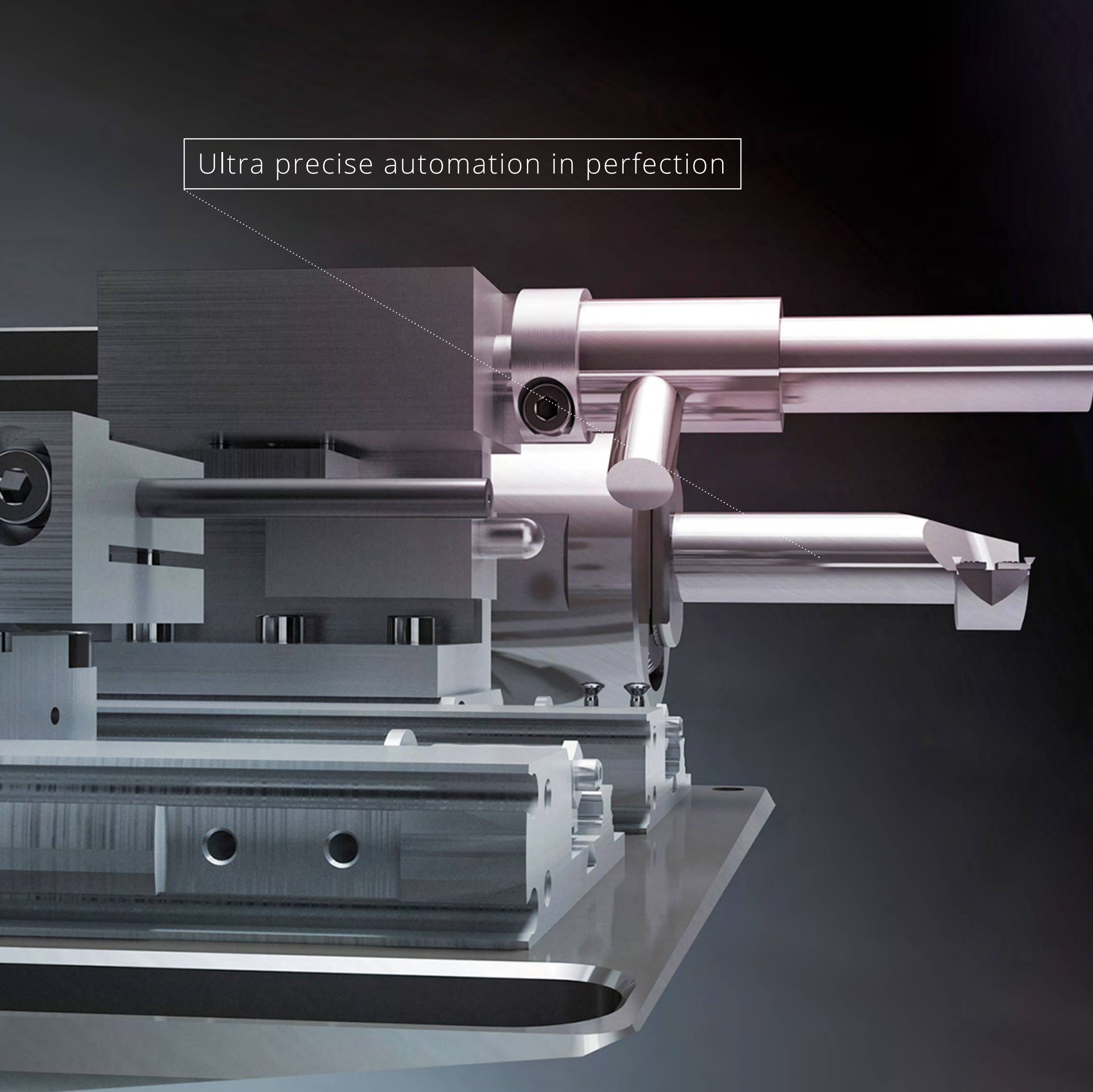
ILSonic – Machining Stainless Steel with natural Diamond

The unique Innolite development of the ultra sonic tool holder ILSonic allows for applying diamond turning to stainless steel surfaces. The realization of optical surface finish micro structures becomes feasible for the first time.

Customized solutions for highest production requirements

Innolite provides manufacturing services for feasibility analysis as well as serial production. Beyond Innolite will supply the required machine and automation equipment for transferring the technology into your production for higher volume manufacture.

stainless



Ultra precise automation in perfection

Process performance

Materials, Standard

Brass, Gold, Aluminum, Titanium

Material @ Ultrasonics

Stainless Steel (up to 60 HRC)

Structure Features

Depth up to 50 μm
Lateral up to 500 μm
Inclination up to 5°

Surface finish

Shape accuracy < 2 μm
Surface Roughness < 5 nm Ra

The machines

IL300 3 Axis Turning

Dynamic untrue turning for superimposed microstructure

IL600 Up to 5 axis machining

Ultra precise Turning, Milling, Ruling

ILSonic Transversal Ultrasonic Unit

Diamond cutting of steel @ 98 khz for high productivity

ILCAM Software package for machine programming

Code generation for IL300 and IL600

Customized micro structures



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