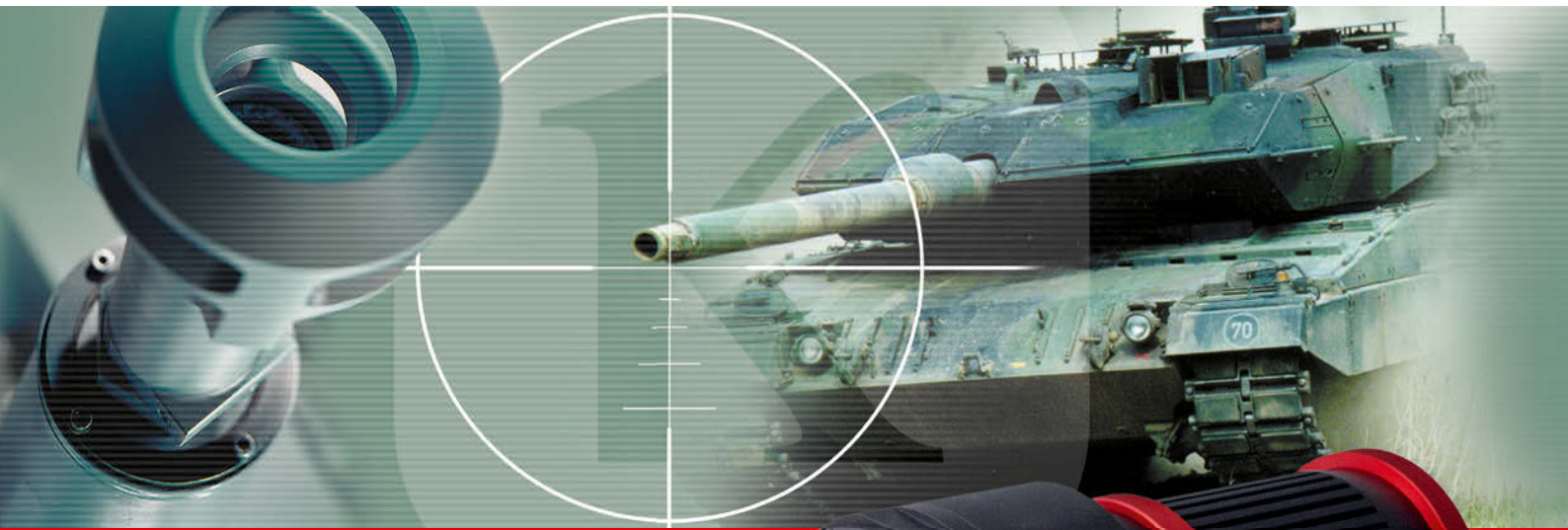







RIB 4D:

Innovative Gun Barrel Inspection



Combined Power of **Laserscan** and **Camera Technology** for Advanced Wear Assessment

-  Complete fully-automated barrel digitization in less than 30 minutes
-  High-precision measurement results | TDv018
-  Only one operator required
-  Fits all barrel sizes 120-155 mm
-  For smooth and rifled barrels



realize visions .

Kappa optronics RIB 4D

High-performance system for high-caliber weapon barrel inspection

Safety first with always ready-to-use, always reliable, thoroughly tested weaponry – and the systems to ensure their readiness!

The RIB 4D is designed for every conceivable use, whether in the maintenance shop with weapons in assembled or disassembled condition, or by maintenance troops working directly on vehicles – without having to dismantle the barrel – with the highest possible demands placed upon the measurement results. An automatic feed systematically moves the measuring head through the lowered barrel.

Within the completely newly designed RIB 4D measuring head, the entire bandwidth of the newest image-generating technology for seamless, complete barrel inspection is used. A supersensitive laser scan generates a detail-rich point cloud. In addition, 8 CMOS sensors provide the viewer with brilliant 360° videos of the barrel's interior surfaces. The highly precise barrel digitization offers a comprehensive data basis for secure assessment of a barrel interior's condition. Cutting-edge technology, robust, easy to transport, fast, and user friendly: unbeatable!

For troops: TDv018 conforming evaluation of post-firing barrel status and calculation of remaining service life

For manufacturers: Quality control / status documentation of newly manufactured barrels



Measuring Head in Completely New Cutting-Edge Design

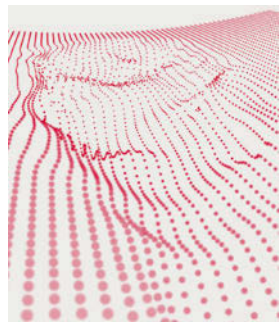
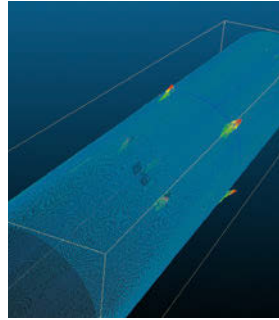
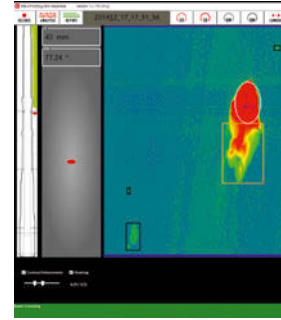
- Hybrid image-generating technology for seamless barrel inspection
- Supersensitive 3D laser scanner & 8 CMOS VIS sensors

Ingenious Feed Unit Concept




- Easy adaptation to multiple calibers, even to smaller calibers
- Ascent / descent in the lowered barrel
- Integrated wire-draw encoder for distance measurement
- Magnetic fixture with mechanics outside of the barrel

Easy to Use In- and Outdoors





- Inspections directly on the vehicle: lower the barrel and introduce the measuring head with automatic feed
- Dismantled barrel: inspections from either side of the barrel due to unique feed system
- Only one operator required: simple handling of the low-weight automatic system



Accuracy


-  Laser Scan: Grid 100 μm & 8000 sample points/cut
-  Diameter Measurement: up to +/- 10 μm
-  Depth Measurement: +/- 50 μm

Outstanding Versatile!





-  For smooth and rifled barrels
-  120-155 mm calibers (easily adaptable with adapter rings, other calibers on request)
-  TDv018 compliant
-  Versatile use, e.g. with tank barrels, howitzers, naval guns

Complete All-in-One System

Everything you need for professional barrel inspection: measuring head, feed unit, computing unit, display unit and transport case. Plus the interactive RIB measurement software for reliable assessment in accordance with TDv018 technical regulations.





-  High performance barrel digitization and precise measurement of damaged areas (erosion, corrosion, chrome spallings, bulgings) plus bore measurement

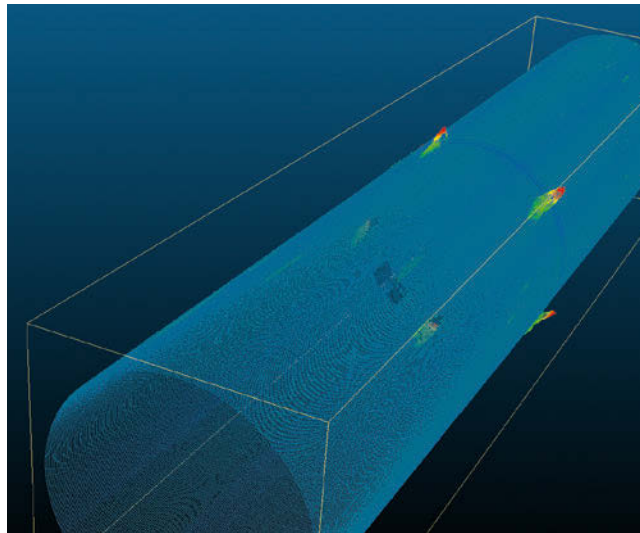
High-Precision Measurement Results & Unmatched Speed of Barrel Digitization

-  8 CMOS sensors for brilliant 360° videos (resolution < 100 μm) of the barrel's interior surfaces – perfect for visual damage assessment
-  Supersensitive Laser Scan for detail-rich point cloud presented as heatmap/intensity image
-  Precise coordinate information of all damaged areas, reproducible measuring results
-  Extremely fast: Complete fully-automated barrel digitization in less than 30 minutes! (Ex. Leo 2)

An **Unrivaled Level of Experience** in Gun Barrel Inspection

RIB gun barrel inspection systems are in use in over 20 countries worldwide!

-  Kappa is the pioneering supplier in the area of gun barrel inspection systems since 1988.
-  Continual development & improvement along with technical evolution in close exchange with customers and users all over the world.
-  A company that knows its customers' requirements inside and out!
-  Rely on state-of-the-art Kappa RIB systems, built upon 3 decades of experience!



NATO Stock Number



Development Partner: **BUNDESWEHR**

Product Video:



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