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ON TARGET AFRICA

KAHLES 525i
PERFORMANCE WITHOUT COMPROMISE

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SEP 2019

KAHLES K525I 5-25X56

A CUT ABOVE THE REST

BY CHRIS BLATHERWICK

Just saying the name 'Kahles' brings a large amount of prestige and weight to bear on any conversation about the best optics platform for the tactical and Precision Rifle Shooting (PRS) environment. The Viennese manufacturer has long been the first name mentioned when speaking about the highest quality of rifle scopes.

Kahles introduced its new long-range flagship, the K525i, in the first quarter of 2018. This high-magnification optic has taken the PRS community by storm. The K525i draws heavily on the class-leading design elements of its stablemate, the K318i.

However, the K525i features an astounding 5-25 magnification range, making it perfect for long-range target identification and engagement. Join us as we get up close and personal with the K525i to see how it performs under a simulated competition environment.

Rewriting history with lessons learnt from the past Kahles was established in 1898 when two of the top Viennese optics powerhouses, the Simon Plőssl Company and Opto-Mechanical Workshop, joined forces. Kahles flourished under the leadership of Karl Robert Kahles, a true visionary in the optics field.

Kahles designed and produced the first-ever optic featuring ballistic drop compensation in 1904. The company pioneered the first variable power scope in 1949, followed by the first waterproof optic, sealed with O-rings, in 1960. However, this was not the last of the company's innovations. Kahles introduced the first multi-coated rifle optics capable of more than 90% light transmission in 1972.

Johann Peternal took over from Frederick Kahles in the late 1980s, pushing the envelope for innovative optic designs, and introducing its 100-year anniversary Helia C series. Robert Artwohl had the monumental task of establishing the new Kahles production facility in Guntramsdorf, thus moving the company away from its Vienna base.

The new state-of-the-art, world-class facility not only increased production capacity, but allowed for further optical advancements. In 2005, Kahles introduced its innovative multi-zero TM ballistics elevation adjustment, hailing a new era in PRS. However, Kahles did not stop there, and developed the Automatic Light – the first intelligent on-off mechanism for illuminated rifle scope reticles.

TRAVERSING BOUNDARIES

Modern-day gladiators live or die by the sword; now this statement might sound out of place in an optical sighting system review, but allow me to place the statement in context. Competitive PRS participants rely on their equipment to complete all the different stages in a match, but none moreso than the optical sighting system fitted to their rifle.

Competitors cannot engage the steel targets at variable distances if they cannot identify them (the primary function of any rifle-mounted optical system), or gather additional information such as wind direction and speed, and atmospheric conditions such as mirages and other critical factors (its secondary function).

The shooter then formulates an action plan as a result of the information gathered with the aid of their optical sighting system, adjusting either the windage or elevation or both to make that all-important shot that could mean the difference between first or second place.

NO COMPROMISE, JUST OPTICAL PERFECTION

How do you keep your optical sighting system line-up relevant in today's ever-changing global market? It seems as if the Kahles engineers have found the proverbial 'Fountain of Youth', as the K525i does not merely build on the company's 121-year heritage, but brings forth new design innovations, showing why Kahles is the world leader when it comes to optical sighting systems.

The functionality and versatility of the K525i is based on the brand's ultra-short market segment contender, the K318i. Only about ten years ago the K525i would have been considered colossal. Today the optic is the perfect size for the tactical shooting market segment, weighing a mere 30 g more than the ultra-short K318i, as reviewed in a previous edition of On Target Africa.

The K525i is machined from a single block of billeted aircraft-grade aluminium that bolsters the optic's strength and rigidity, while maximising alignment for improved visual performance and accuracy. The K525i features a 34 mm main tube and 56 mm objective lens, combined with a length of 377 mm, and weighing only 970 g.

The optic commands a significant presence, but with that presence comes a feeling of quality and precision, as it should.

The versatility of the Kahles K525i makes it suitable for hunting as well as long-range target engagements

The K525i features Kahles patented parallax adjustment ring located just below the elevation turret

The K525i features an impressive variable magnification range from as low as five power up to 25 times magnification. Our test model was finished with a low reflective matte black hard-anodised coating that protects the optic against field abuse and harsh environmental conditions, while retaining its visual lustre for years to come.

The ocular lens housing includes a fast-focus eyepiece design. The K525i features a rubber ring around the eyepiece to soften the edges of the optic, as well as to protect the shooter's eye socket in case of accidental impact during recoil. There is no lateral movement when the ocular lens is adjusted all the way out. But this is a Kahles, and we would not expect anything less.

The power adjustment ring is located just in front of the eyepiece, and features aggressive knurling, ensuring that the shooter always has a firm purchase on the power adjustment ring when cycling through the entire magnification range. The Kahles engineers have managed to find the perfect balance between function and aesthetics in terms of the power adjustment ring.

The ring requires minimal force to adjust the magnification from minimum to maximum in one fluent motion. The corresponding magnification indication markings are marked clearly, aiding in quick magnification adjustment at variable distances.

The K525i raises the bar yet again

Kahles identified the need for an optical sighting system that adapts to the shooter, and not vice-versa, as is the norm with other optical sighting systems on the market.

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The Viennese manufacturer has yet again raised the bar in the optical sighting systems realm, offering the K525i in either a left- or right-hand derivative.

The illumination rheostat is located on the opposite side of the 34 mm main tube (left- or right-hand derivative dependent), providing unrivalled comfort and flexibility. Kahles continues its design philosophy of 'no compromises' with tactical-style exposed windage and elevation turrets. The turrets feature aggressive knurling, thus allowing for rapid windage and elevation adjustment on the fly, perfect for high-stress competition environments.

The K525i is fitted with heavy-duty O-rings seals to prevent foreign matter and moisture from penetrating the optical sighting system, ensuring it functions unimpaired during any PRS-style match. All Kahles optical sighting systems feature fully multi-coated lenses. All air-to-glass surfaces are coated with the proprietary Kahles lens coating that increases light transmission, with multiple anti-reflective coatings.

The K525i is available in five reticle configurations, namely SKMR, MSR2, Mil4+, MOAK and SKMR3 (as tested), thus affording the shooter with a multitude of options to suit their needs and preferences. Our test model was fitted with the illuminated Kahles SKMR3 reticle design, developed with the input of retired US Army Major Shannon Kay, and well-suited to tactical sports-shooting applications such as PRS. The SKMR3 reticle is milliradian (Mil) based. Therefor any correction can be applied utilising metric units (1 mil = 100 mm at 100 m), with click values of one-click equal to 0.1 mil (10 mm).

WEAPONS-FREE

I did not feel the need to spend time with our standard box tests or tall target testing to determine if the K525i was calibrated correctly. If I were reviewing a lower-end optical sighting system, this might have been worth the time. During testing, the scope adjusted precisely when zeroing on our Howa Extreme.

This quality optic is dead on in making adjustments where it counts

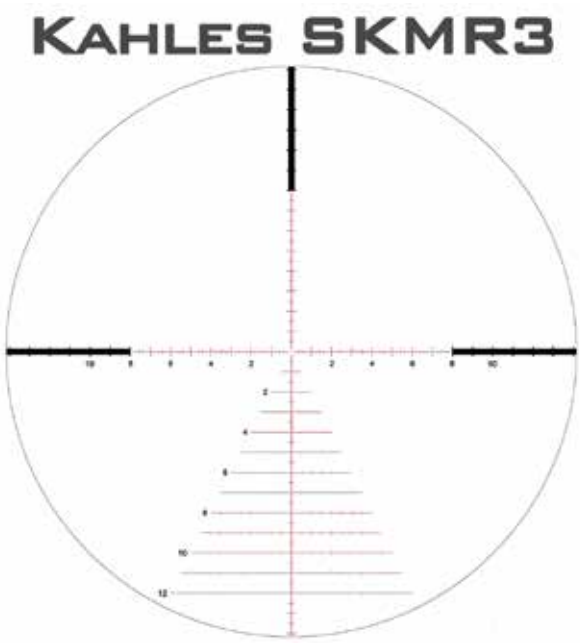
We were able to utilise the reticle to determine the amount of Mil needed for any corrections, and made the adjustments on the elevation and windage turrets precisely, confirming that this quality optical sighting system is dead on in its ability to make adjustments where it counts.

During our zeroing session, I quickly figured out that the K525i is not an optic for the timid. When utilising the turrets, these are designed to be grabbed onto with the shooter's full hand to adjust them, not just with the shooter's fingers, as with other designs. This suits my shooting style perfectly.

The turrets are very positive, with an audible click that can also be felt. The elevation turret features zero stop functionality, as well as a red pop-up indicator as a visual reference to indicate that the turret has completed one full rotation (16 mil).

Kahles incorporated its patented Twist Guard® system into the design of the K525i. This revolutionary system features a free-floating protective bezel on the outside of the windage turret. The simple yet effective design element provides a rotary or physical protective barrier between the windage turret and objects such as barricades and even webbing, when shooters are required to move from one firing point to another, thus ensuring that the windage turret is not adjusted accidentally.

One of the most significant design elements of the new Kahles range of optical sighting systems is the patented parallax adjustment ring under the elevation turret. We were first introduced to this game-changing industry concept when we reviewed the K624i and K318i. The location of the parallax ring allows the shooter to adjust the parallax with either their left or right hand.



This revolutionary position is incredibly intuitive, and allows for lightning-fast parallax adjustment, without the need for the shooter to remove his or her cheek off the rifle's stock or chassis. The K525i's illuminated rheostat is on the left side of the main tube, powered by a single CR2032 battery, making the optic ideal for fair weather or low-light target engagements.

IN CONCLUSION

I have always been a proponent of new optical sighting system manufacturers, as these 'new generation' designers tend to push the envelope when it comes to optical design and functionality. However, this is the time for me to take a bite of proverbial humble pie. Kahles has a long and illustrious history in the optical sighting systems realm. The manufacturer has been at the forefront of optical innovation since its inception in 1898, and continues to push the envelope not only in design, but quality as well.

Designing a sports-shooting optic was a fundamental mindshift for Kahles

Kahles has shown with the K525i that it has its finger on the pulse of the consumer market. Designing an optic for the sports-shooting market segment has not merely been a rebranding exercise, but rather a fundamental mindshift in understanding the needs of the end user, and then designing an optic for that intended use.

The K525i offers unrivalled optical clarity when peering at intended targets. The optic allowed us to identify hits and grouping sizes on targets and steel gongs clearly at the 350 m mark. Kahles has elected to take the road less travelled, and forego the all-too-familiar marketing-hype descriptions such as HD (high definition), ultra-high light transmission lens technology, and other catchphrases. Instead Kahles opted for understated marketing, letting its product range speak for itself on shooting ranges around the globe, where the Kahles name is synonymous with high-performance optical perfection.

The K525i offers edge-to-edge clarity

The K525i offers edge-to-edge clarity. We could find no signs of vignetting and/or blurring, only vivid, super-sharp images.

The optic offers exceptional contrast between objects through the entire magnification range. The FFP (first focal plane) SKMR3 reticle design (the size of the reticle increases or decreases as the shooter cycles through the magnification range) of our test model could seem a tad overcrowded by the traditional hunting fraternity where the duplex reticle still reigns supreme, but the SKMR3 reticle has been designed for the tactical long-range end user.

However, after taking a closer look at the reticle design and its functionality, it becomes a superb tool for long-range target ranging and windage correction/calls, and especially when the time does not allow to make turret corrections when a shooter's time runs out on that all-important last stage of the day in a PRS match.

During our range evaluation, we had the opportunity to compare the optical clarity of the K525i against that of multi-discipline Protea shooter Ludolf Starke's long-range custom built .338 Lapua Magnum mated with a BEAST of an optic from the United States. Even Ludi had to admit that the clarity of the Kahles was exceptional, and perfect for the long-range game. •

The Powder Keg
60 Hendrik Potgieter road
Florida North, South Africa
Tel. +27 11 472 1721
www.powderkeg.co.za

The K525i, as with all Kahles optical sighting systems, is sold with a ten-year warranty. It is available in either MOA or Mil derivatives (reticle dependent), from The Powder Keg of Roodepoort in Gauteng.

DESIGN OVERVIEW AND SPECIFICATIONS

Make: Kahles
Model: K525i
Magnification: 5-25
Objective lens diameter: 56 mm
Reticle: SKMR, MSR2, Mil4+, MOAK, and SKMR3 (as tested)
Illuminated reticle: Yes (red reticle)
Diopter compensation: +2.0/-3.5 dpt
Battery: CR2032
Body: Single-piece anodised aircraft-grade aluminium
Lens coatings: Fully multi-coated
Focal plane: First
Eye relief: 95 mm
Length: 377 mm
Weight: 970 g
Tube size: 34 mm
Turret style: Tactical Mil
Adjustment graduation: 0.1 Mil
Maximum windage adjustment: 13 Mil
Maximum elevation: 29 Mil
Lateral parallax correction: 20 m to infinity
Warranty: Ten years
Applications: Sports-shooting as well as hunting

KAHLES

EXPAND YOUR LIMITS

K525i – Unparalleled precision and ergonomics

For ambitious shooters the K525i provides maximum precision in first focal plane, featuring the unique TWIST GUARD windage optional left or right.

NEW K525i 5-25x56i

The Powder Keg™

60 Hendrik Potgieter Road, Florida North, Gauteng
South Africa. Telephone +27 (0) 11472 1721/2
Email sales@powderkeg.co.za
www.powderkeg.co.za

kahles.at