MAKstorm 4x30i HD Prismatic Scope



n the firearms industry of today we live in an age of optics. I guess these days I'd be deemed middle-aged but it doesn't seem so long ago that an optic on a rifle was a luxury. When I was a boy, scoped rifles were like automatic transmission in cars - great if you could afford it but not necessarily a standard fitment.

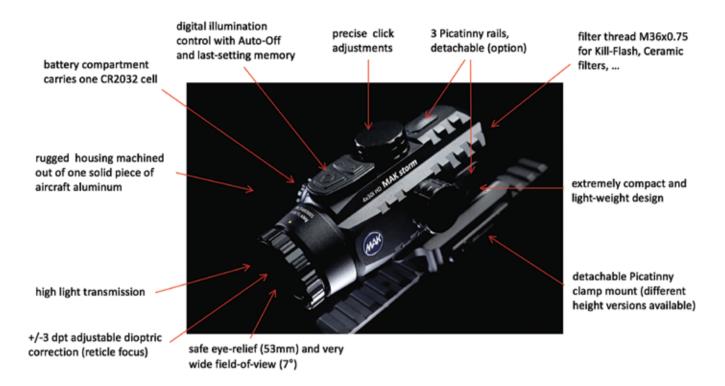
Back then even cheap scopes were relatively expensive with range and features limited. Today we are spoilt for choice with seemingly endless options. Quality has also improved significantly at all levels as cheap scopes used to be practically useless, once cloudy and dark and of questionable reliability. Nowadays even most entry level scopes are bright, clear and track just fine. Meanwhile, top-end glass seems like walking through a display of the latest HD televisions with the image almost better than real life.

A more recent development in optics would be compact scopes that are almost hybrids of traditional lenses scopes and red dot-styled sights. German manufacturer MAK CET Scope and Mounts has a really interesting variant on this theme with its MAKstorm Prismatic Scope. Kleinod Pacific Enterprises is the MAK distributor in this country and gave *Australian Shooter* the chance to put one to the test.

The MAKstorm scope arrived in a padded hard case which was possibly not necessary as my first impression was it felt so solid that I doubt it was possible to break even if you tried. The MAKstorm is milled from one solid sturdy piece of 6061-T6 aircraft grade aluminum, is only about 56mm in diameter and a compact 120mm in length. It weighs in at a stout 398 grams.

Optically the MAKstorm is a 4x30 fixed power scope with illuminated reticle that features 10 daylight illumination settings and two for night vision applications. The objective lens is 30mm in diameter while the ocular lens measures 26mm. The exit pupil measurement is 7.3mm with eye relief to 53mm and a generous seven-degree field of view providing 13.1m coverage at 100m.

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Daytime light transmission is 85 per cent which the maker claims to be the highest in this class of optic.

There's even a focus ring at the ocular providing diopter compensation of \pm -3. The MAKstorm is indeed a fully featured scope which is quite remarkable in such a compact 120mm long package and is only achieved by use of a sophisticated optical prism system.

The MAKstorm has adjustment turrets for elevation and windage at the usual 12 and 3 o'clock positions on the main body. Positive click adjustments are measured in Milliradians as opposed to MOA, simplifying adjustment on our metric ranges. Adjustment increments on the test sample were 0.20 Mrad but a recent upgrade now has MAKstorm variants with .15 Mrad at 100m (or 15mm at 100m) for even finer adjustment. The turrets provide a total of 30 Mrad adjustment for both elevation and windage.

Located directly behind the elevation turret are the controls for the illumination level adjustment. A raised rubberised pad provides touch press buttons for on and off with plus and minus for brightness. The digital illumination system has a memory and maintains the last setting when the unit is turned off. It also turns off automatically after four hours if no motion is

The two night vision settings are barely visible and can only be seen if you cover the objective lens to black out any light

transmission. However, this feature would most likely only be used in military settings, not sports and hunting applications. It's all powered by a single 2032CR battery in a third turret at the 9 o'clock position on the body.

The main body has flexibility in that it includes three rail mounting points at 9, 12 and 3 o'clock which can be employed to add accessories such as lights, lasers or perhaps even an extra reflex sight for close-up targets. The inside lip of the objective lens housing is threaded M36x0.75 so lens protection can be added.

MAK specialises in mounting solutions offering a large range of specialty European-style bases, mounts, rails and rings as well as modern target and tacticalstyle mounts and rails. As such it is no



surprise the MAKstorm comes with a firm detachable base for mounting to any standard M1913 (Picatinny) rail. The base is held in place by two counter-sunk hex screws for removal should the end user require a higher base or want to switch to a quick detachable option. As standard the mount provides a line of sight 39mm above the rail height of whichever rifle to which it's fitted.

The growth of this style of compact optic is driven by global demand from military and law enforcement agencies. Again it wasn't too long ago that optics on rifles in these applications were exclusively the domain of special or elite forces. Now it's rare to see any soldier in the field without some form of combat optic fitted to their service rifle at least in terms of the western world.

It could be argued that many advancements in the firearms industry are born of military requirement before being adapted to civilian use. In this case, many of the attributes that make such an optic desirable to military and law enforcement ranks also makes them popular for civilian needs. To this end the MAKstorm 4x30i HD has a reticle specifically designed for IPSC rifle competition. The reticle presents as a T-shape featuring a central circle with fine-aiming dot point. It also has marked subtensions for 300, 400, 500 and 600m hold-over points calibrated for .223 Remington, 308 Winchester ballistics.

Below the reticle is a ranging graph

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designed to transpose against a standard IPSC metric target to estimate range to target. An IPSC Classic target is 75cm tall top to bottom. You simply hold the graph against the distant target, if it fits neatly between the graph lines above the 6 mark it is 600m away, the 2 mark 200m away etc. In a hunting application you could use the same graph based on distance from the backline to brisket on larger deer species like sambar which would likely be a similar height (75cm).

The central circle acts as a quick aiming point for snap shooting while the central smaller dot can be used for more precise aiming. Both can be employed for ranging as well. The circle specification has the outer ring covering 15.5 MOA, the line thickness 1.75 MOA and the inner circle edge 12 MOA. As the optic is fixed power, those measurements stay constant. So if you were aiming at a target with a known



height of 36" and that target just squeezes into that inner circle being 12 MOA (12" at 100 yards) it would mean the target is 300 yards away (36 \div 12 = 3). For the record, the more precise central aiming dot covers 1.5 MOA or 4.37mm at 100m.

As the MAKstorm's reticle was set up for the IPSC rifle competition, I mounted it on a Remington 7615 pump-action rifle that represents a favoured choice for Australian competitors shooting this discipline. I shot a few ISPC targets in simulated competition and would consider it a good choice in that role, especially for close-up work. Although limited in magnification for longer ranges it would still be a worthy compromise if running a single on the gun, especially with the ranging reticle.

Optics were bright and clear as would be expected from such high-end European glass and targets loomed large on fast transitions. The etched glass reticle was easy to pick up while other range markings and numbers were fine enough as to not clutter the view and stayed perfectly legible. The illumination was bright and sharp with ample adjustment to remain clear in even the most intense sunlight yet not overpower in low light.

Apart from sports target and tactical use, this style of optic would be equally at home in the field on any hitting scrub gun, be it for jumping deer or pigs in the lignum. Typically Germanic, it's so solid it presents as just about bullet-proof in construction so would be bound to take any rough and tumble and hard knocks dished out.

I could see it quite at home on a

lever-action guide gun or big game bolt gun. For its compact size it incorporates a lot of highly technically advanced features such as its Prismatic lens system and digital illumination. Quality, of course, comes at a premium so the MAKstorm is not cheap with an RRP of \$1950 but I'm sure it would definitely fall into the buy right, buy once category.

Further information at kleinodpacific. com/brand/mak/

MAKstorm 4x30i **HD Prismatic Scope** specifications

Magnification: 4x

Objective clear aperture: 30mm

Exit pupil: 7.3mm

Eye relief: 53mm

Field of view: 13.1m

Diopter range: +/-3

Turret adjustment: 0.15 Mrad

Elevation adjustment: 30 Mrad

Windage adjustment: 30 Mrad

Light transmission: 85 per cent

Digital illumination adjustment:

12-position

Objective filter thread: M36x0.75

Waterproof: 400mbar

Housing material: 606 I-T6 aluminum

Dimensions (LxWxH):

120mmx64mmx56mm

Battery: CR2032



Light Mount is designed by Smart Rest. Made from steel and it's built tough. Great for shooting off Quad Bikes, Utes and UTV's. Light Mount - SRLM1 swivels, pivots and supports the spotlight while you drive. Easy to mount and reliable.

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