Lovin' life in the loft range - and this red-dot exploration makes things even better!

– clever – and 11 settings of brightness on the red dots are all you will ever need. I only went up to level 4 in the loft range and that was bright enough. They all run off of common CR2032 batteries as well, which are easy to obtain.

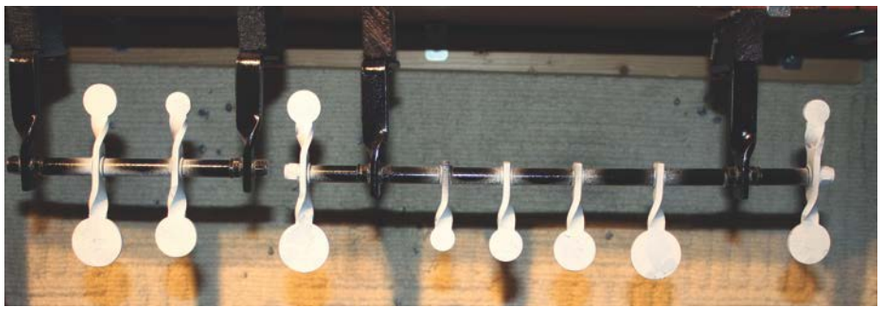
BEST SIZE

The best objective size on the HW45 was the 25mm, a bigger sight picture than the 20mm, but lighter than the 30mm, I would choose the 25mm for the HW45 and the 30mm for the Buckmark, but in the back of my mind, the two just looked and handled better with the tiny 20mm.

I shot with a two-handed grip, with one eye closed, on all of these tests for accuracy because the springers are single-shot airguns. Next time, I'll shoot the same sights, but at speed, with both eyes open on multiple targets – that is where the red dot should shine, but would the 20mm be just as good as the 30mm? That'll be in two months' time because I have to build the speed targets in the loft range next month – but not any type of target – a target shape universally used for speed in practical shooting circles. I can't wait to get stuck into that!

Many thanks to Jamie at Hawke for the help in production of these articles ■

The bottom row of spinners; eight targets were the test targets.



One of the HW45 five-shot groups.

TECH SPEC

Maker: Hawke Optics www.hawkeoptics.com
Model name: Vantage
Model numbers: 12: 102, 103, 104, 105, 106, 107
Magnification: 1x
Object diameter: 102 and105 - 20mm
103 and 106 - 25mm
104 and 107 - 30mm
Eye relief: 4 inches (min recommended) to unlimited
Dot diameter: 3 MOA
Dot colour: Red
Brightness settings: 11
Click value @100yds: 1 MOA
Parallax: Free from 9m
Mounts: 102,103,104: Weaver/Picatinny/20mm
105,106,107: 11mm
Finish: Matte black
Coated lens: Yes (25 layers)
Weights: 102: 120g **105:** 125g
103: 185g 106: 190g
104: 230g 107: 240g
Lengths: 102 and 105: 74mm
103: 95mm
106: 96mm
104 and 107: 97mm
RRP 102 and 105: £79
103 and 106: £85
104 and 107: £89

RRP

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WHEN ACCURACY IS YOUR OBJECTIVE!

Tim Finley begins a thought-provoking investigation into red dot lens size

How does the size of the objective lens affect the ability of the shooter to hit the target? It's a question I was asking myself when I needed a new red-dot sight on my HW45 spring-powered pistol for my loft range. It's no good having a superb range without lots of different guns to shoot on it, and I'm able to go up there on a whim so I have gravitated toward spring-powered rifles and pistols. I just take them out of the bag and shoot them – no charging with air, fitting CO2 bulbs or any of that.

The spring-powered HW45 is superbly accurate with open sights, with 15mm spinners on my range, and now I wanted to be able to hit the tiny targets more consistently and, to be honest, faster. I've already proved that red dots allow hitting targets quicker and faster than open sights. The HW45 has an 11mm sight rail so I needed a variety of sights to prove to myself how much difference the size of the objective on a red dot makes; the added element would be because it's on a pistol.

Hawke make 20, 25 and 30mm diameter objective lens red dots. Pistols are much harder to shoot than rifles and going from a 20mm objective lens to a 30mm gives an increase of 50% in pure lens area. I should be able to ascertain the difference in sight picture, ease of shooting and, of course, accuracy. Speed is not an issue with spingers because they are one-shot deals.

Six red dots, two spring-powered pistols, let s do it!

GAME ON!

The three sights helping me were from the Hawke Vantage range, The test would not solely be accuracy, ease of use and which was best on a pistol; two pistols, in fact, because Hawke had also sent me Weaver-based versions of the same sights.

The HW45 is a heavy pistol, but I have an Umarex Browning Buckmark URX break-barrel springer, which is very light – 0.68 kg compared to the HW45's 1.15kg. I already had a really cheap 20mm red dot on the Buckmark, but it would be fantastic to get a proper sight on it to see what difference that made. Two pistols, six Hawke red dots, and if I do say so myself, a kick-ass loft range. Game on!

"Speed is not an issue with springers because they are one-shot deals,"

EQUAL TESTS

Having such an assortment of different targets in the loft range, I laid out the same test for each sight; the bottom row of spinners, eight discs. Starting with 30mm on the left, then 25mm, 30mm, 15mm, 20mm, 25mm, 30mm and finally 25mm. A really good test; one shot at each, three runs with each pistol and sight, that was 144 shots just on the spinners. Before the spinners, I shot some five-shot groups with each of the objective-sized red dots on both the HW45 and the Umarex Buckmark URX.

MASSIVE RECOIL

Shooting the spinners did indeed give me the same results. The bigger the objective, the

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AFTER A FEW RUNS OF THAT THE FIVE-SHOT GROUP, RESULTS CAME OUT AS:			
	20mm Obj	25mm Obj	30mm Obj
HW45	23.7mm	18.3mm	16.4mm
Buckmark URX	28.7mm	24.6mm	19.3mm

I really did not expect the size of the objective to have any effect on the size of the groups I was able to shoot, but it appears that it did.

MOVING ON TO THE SPINNERS WOULD THE SAME RESULTS BE BORNE OUT?									
30mm	25mm	30mm	15mm	20mm	25mm	30mm	25mm	Misses	
3 ex 3	2 ex 3	2 ex 3	2 ex 3	2 ex 3	2 ex 3	3 ex 3	2 ex 3	7	HW45 20mm Obj
2 ex 3	3 ex 3	2 ex 3	2 ex 3	2 ex 3	2 ex 3	3 ex 3	2 ex 3	7	Buckmark 20mm Obj
3 ex 3	3 ex 3	2 ex 3	2 ex 3	3 ex 3	3 ex 3	3 ex 3	3 ex 3	3	HW45 25mm Obj
3 ex 3	2 ex 3	2 ex 3	2 ex 3	2 ex 3	2 ex 3	2 ex 3	3 ex 3	6	Buckmark 25mm Obj
3 ex 3	3 ex 3	2 ex 3	2 ex 3	2 ex 3	3 ex 3	3 ex 3	2 ex 3	4	HW45 30mm Obj
3 ex 3	3 ex 3	3 ex 3	2 ex 3	2 ex 3	3 ex 3	3 ex 3	0 ex 0	5	Buckmark 30mm Obj

more accurate I was, with both heavy and light springers. The HW45 is 1/2kg heavier than the Buckmark, and the Hawke red dots also varied in weight.

There was something else unexpected; the 20mm sight moved on the HW45's 11mm sight rail. It only has one clamping screw, and I didn't want to strip the thread by swinging on the screw because it was going back to Hawke. The 20mm version moved 1mm on every shot, so I had to keep moving it back to the rear after every run on the spinners. It moved due to the massive recoil of the high-powered HW45; if I used the HW45's lower power cocking swing, it only moved slightly after ten shots. The Buckmark is much lower powered, but it has the slotted Weaver/Picatinny 20mm sight rail, so the sight cannot move.

BIGGER IS BETTER

It was clear that a larger, clearer sight picture has a massive effect; the 30mm is 50 grammes heavier than the 20mm objective lens red dot. If you can deal with the extra weight on a pistol, then going bigger is better, it would seem. The sight picture on the 30mm sight is 50% bigger than on the 20mm, and that made all the difference.

The Hawke sights are well made and have all of the features you need; for zeroing the caps on the windage and elevation there are raised sections that fit the slots in the adjustment dials

All six sights laid out, 20mm on the left, 30mm on the right, 25mm in the middle.