AVIAN

Starseeker 100

Mark Parrish gives his verdict on the sleek looks and polished aluminium lines of Avian's new refractor, to see if the views match the style

VITAL STATS

- **PRICE** £699 (£799 with diagonal)
- **OPTICS** ED fully multi-coated doublet lens
- **APERTURE** 100mm
- **FOCAL LENGTH** 600mm (f/6)
- **FOCUSER** 11:1 dual speed Crayford
- **EXTRAS** 2- and 1.25-inch eyepiece adaptor; tube rings
- **LENGTH** 655mm fully extended, 470mm retracted
- **WEIGHT** 3.6kg
- **SUPPLIER** Ace Astronomical
- **TEL** 01454 325615
- **WWW**.acecameras.co.uk

ALL PICTURES: PAUL WHITFIELD

Telescopes are for looking through rather than at, but the Avian Starseeker 100 is certainly a very attractive instrument. Its highly polished, aluminium components with rounded edges and chrome detailing are very much in vogue, and this telescope is as well-finished as any we've seen.

The Starseeker's 100mm doublet lens features extra-low dispersion (ED) glass to minimise colour aberrations and the lens surfaces are fully multicoated, giving them a deep green appearance.

It's quite compact, but at over 3.5kg the Starseeker 100 is no lightweight, needing a proper astronomical mount and tripod, attached via its pair of strong, precisely machined mounting rings. These are felt-lined and tightened using glove-friendly aluminium knobs, which make it easy to adjust the position for balance when swapping eyepieces or adding a camera. There are holes in the top and bottom of the rings, threaded to take M6 bolts, which corresponded nicely with the dovetail plates many of us use to hold the scope in the mount.

Optional extras

The basic package does not include a diagonal, which is essential for visual use. Similarly, there is no finderscope provided and – rather disappointingly – no shoe in which to slot a standard ►

OPTICAL TUBE

The quality of construction, choice of materials, finish, and attention to detail make this telescope tube a pleasure to use. The shiny finish shrugs off moisture droplets and dust and should prove to be hardwearing and maintenance-free. What's more, the polished surface means that sliding the dew-shield in or out or moving the scope in its rings, both of which have felt-lined surfaces, is a surprisingly satisfying experience!

At the eyepiece end of the tube, the whole focuser unit can be rotated through 360° and locked in position, which is great for composing photographic images. The locking screw had to be tightened quite hard to hold the unit firmly, but once tightened we found that there was no discernable wobble, although we did occasionally need to make a tiny adjustment to focus.

All the knobs and screws were easy to operate and effective, and everything had a robust and durable feel, with no plastic parts used. When fully retracted, the whole assembly is less than 500mm long, which means it is easily transportable.

The Starseeker's tube is a joy to use with a sturdy but sleek design

Tube rings

We loved these tube rings – they're thick, strong and hold the tube very securely. Once loosened off a little, it's very easy to reposition the telescope. The threaded holes on the top are suitable for mounting a second telescope for guiding or piggybacking a camera.

Objective lens

The optics were hard to fault; astrophotographers will appreciate the versatility of the design and the quality and rigidity of its components.

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First light

Focuser

This silky-smooth Crayford focuser offers plenty of travel and has brass compression rings on the 2-inch tube and 1.25-inch adaptor to protect eyepieces. With two speeds in an 11:1 ratio and rubber-coated wheels, focusing is a pleasure. The whole unit remains rigid and aligned even when a heavy load like a camera is fitted to it.

Carry case

The Starseeker comes in a strong, well designed, aluminium-skinned carrying case, measuring 570 x 340 x 205mm. The die-cut foam lining holds the telescope snugly and there are a few pre-cut holes for accessories.

Dew shield

The all-metal dew shield and aluminium lens cap provide reassuring protection to the objective lens. The dew shield slides out about 125mm beyond the lens and helps to reduce unwelcome condensation as well as shield it from stray light sources.

► finderscope bracket. However, the focuser body (which looks very similar to the current Williams Optics range) has a threaded hole for mounting the finder. So unless you are able to improvise as we did for our test, a William Optics finderscope bracket is likely to be an essential accessory.

Luckily, we experienced some clear nights for our tests and we soon began to appreciate the Starseeker's versatility. We spent one really enjoyable evening roaming through the Milky Way, starting with a wide-field view of the Double Cluster, NGC 869 and 884. The cluster's stars were sharp and round across the whole field of our 40mm Plössl eyepiece with excellent contrast. In Cassiopeia, higher magnifications revealed plenty of resolved stars within the open cluster star M103, while nearby double star Eta (η) Cassiopeiae displayed subtle colour variations.

We switched to a 2-inch 30mm wide-field 80° eyepiece as we scanned the sky through Cygnus. The Starseeker really seemed to excel in this wide-field mode, and although there was a noticeable drop in quality near the edge of the huge field, the sense of being immersed among the stars was great. M57, the Ring Nebula, is a challenge for a small aperture, but we enjoyed a good view with a medium-power 12.5mm eyepiece. Higher magnifications didn't allow in enough light, while lower ones made it a little tricky to pick out this relatively dim object from the bright surrounding stars.

Our final visual test was on the low-altitude Jupiter. With fairly steady seeing, we were impressed with the good contrast and sharp views. There were none of the blue fringes associated with some lower-quality refractors. Using a 6mm eyepiece, we could easily resolve the four Galilean moons and the equatorial belts, and using colour filters we could make out some detail in the northern and southern tropical regions. Greater magnifications only resulted in a deterioration of the image when we tried, but it was still bright.

Sharpshooter

The Starseeker caters well for astrophotography. We attached a DSLR camera with a 50mm extension tube (needed for prime focus imaging). With the rotatable focuser we were able to frame shots nicely, although the movement occasionally required a tiny focus adjustment. The resulting images revealed stars that were round and sharp across the whole frame (15mm x 22.5mm), which was acceptably flat – larger camera sensors may need a field flattener. The f/6 ratio meant it was just possible to fit M31 across the diagonal of the image frame.

This telescope's visual and photographic versatility, ease of use and portability make it good value, along with components seemingly designed to last a lifetime. The cost of a mount and accessories needs to be considered, but if you already have these, this scope could be a great choice. ✪

VERDICT	
BUILD AND DESIGN	94%
EASE OF USE	94%
FEATURES	90%
FIELD OF VIEW	85%
OPTICS	93%
OVERALL	91%

ALL PICTURES: PAUL WHITFIELD