Altair Astro Wave Series 130 EDT apo refractor

A solid 5-inch scope with a well considered optical arrangement

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VITAL STATS

- Price £2,250
- Optics Triplet apo
- Aperture 130mm (5 inches)
- Focal Length 905mm (f/7)
- Focuser 2.5-inch dual-speed 10:1 rack and pinion
- Extras Tube rings, dovetail bar, carry handle and flight case
- Length 788mm with dew shield retracted, 938mm extended
- Weight 8kg
- Supplier Altair Astro
  - www.altairastro.com
  - Tel: 01263 731505

There is something rather special about a large refractor – and with an aperture of 5 inches and a focal length of 905mm, Altair Astro’s Wave Series 130 EDT is certainly a large instrument. The fit and finish of the component parts is really excellent and the telescope exudes quality. It is supplied in a fairly lightweight aluminium ‘flight case’, but this is probably not rugged enough for extended use.

Attached to the top of the attractive tube rings is a useful carrying handle. We were not too keen on the modified Vixen-style dovetail bar (this had to be installed to ensure the necessary spacing to fit the handle) as this had a minimum amount of contact area in the saddle. For astrophotography purposes, we would advise upgrading this to a Losmandy-style dovetail bar.

The rack and pinion focuser performed smoothly and precisely, allowing stars to snap into focus with ease, irrespective of magnification, while its Teflon-coated rotation system made camera alignment a simple process.

Views through the 130 EDT were excellent. Despite numerous clouded out sessions, we enjoyed some very memorable sights. Globular clusters M13, M92 and M56 were particularly good, as were planetary...
nebulae M27 and M57; the latter looked particularly strong with very nicely defined central darkness.

We turned to star hunting next. The beautiful colour-contrast components of double star Albireo in Cygnus looked fabulous at various magnifications and the Garnet Star, Mu Cephei, displayed amazingly vivid colour. Splitting the Double Double, Epsilon Lyrae, revealed a distinct dark space between the individual stars, which looked very impressive through our 5mm eyepiece.

Smooth operator

Star shapes remained excellent out to about 85 per cent of the field of view, with a gentle deterioration in shape and star colours reddening towards the field edges as seen with our 68° apparent field of view eyepieces. The view had good contrast, no doubt assisted by the CNC-machined baffles in both the optical and focuser tubes.

We were keen to try imaging with the telescope, attaching our own cooled CCD camera and off-axis guider for this purpose. This combination yielded a field of view a fraction under 1.5° by 1°. It was at this point that we realised just how good the self-centring eyepiece holder was. The inner surface comprises a smooth, matt finish nylon sleeve with a generous 20mm-deep gripping surface.

This excellent system allowed for easy and smooth insertion of the imaging equipment, and a quick turn of the capstan resulted in a very firm and well-aligned grip. The operation of the capstan was so silky that it almost made the focuser rotator redundant for the purposes of orientating the camera to suit the object being imaged. The rack and pinion focuser was more than capable of holding our camera when pointing towards the zenith and its operation was very smooth.

Imaging conditions were pretty poor during the review period, not helped by the limited available darkness. Our images of the North America Nebula’s ‘Mexico’ region (also known as ‘The Wall’) showed good star colouring. We noted a small level of vignetting that was easily corrected by applying flat frames. Star shapes towards the edges of the field of view became elongated due to field curvature, but this is normal for a triplet design such as this.

Altair Astro’s Wave Series 130 EDT would be a good choice for intermediate astronomers, for both observing and imaging – though for deep-sky imaging we would recommend the addition of a focal reducer to improve star shapes at the outer edges of the field of view.

SKY SAYS...

Now add these:

1. iOptron CEM60 equatorial mount
2. Altair PlanoStar 0.79x reducer/flattener
3. Altair TMS 250mm Losmandy dovetail plate

VERDICT

| BUILD & DESIGN | ★★★★★ |
| EASE OF USE   | ★★★★★ |
| FEATURES      | ★★★★★ |
| IMAGING QUALITY | ★★★★★ |
| OPTICS        | ★★★★★ |
| OVERALL       | ★★★★★ |