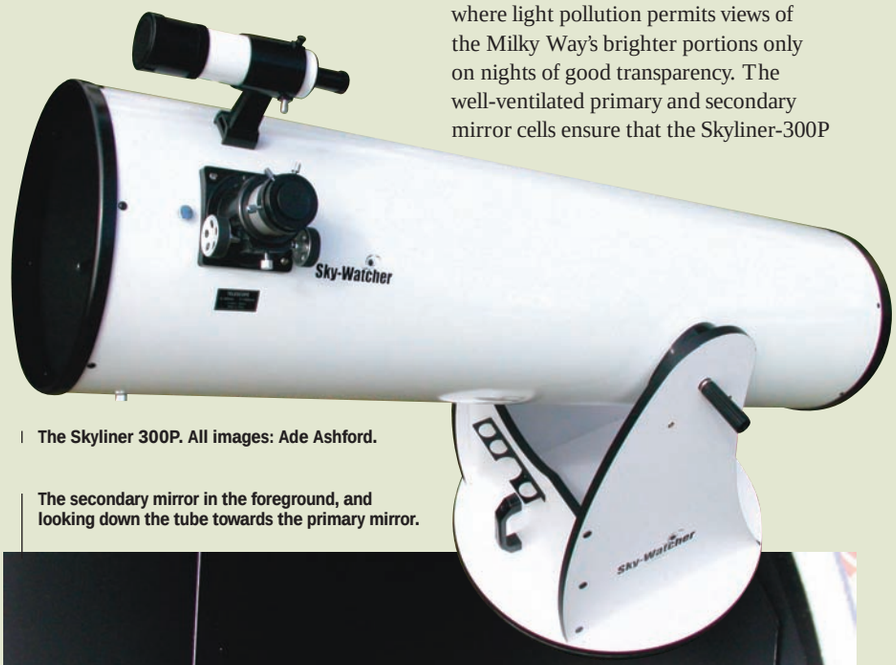
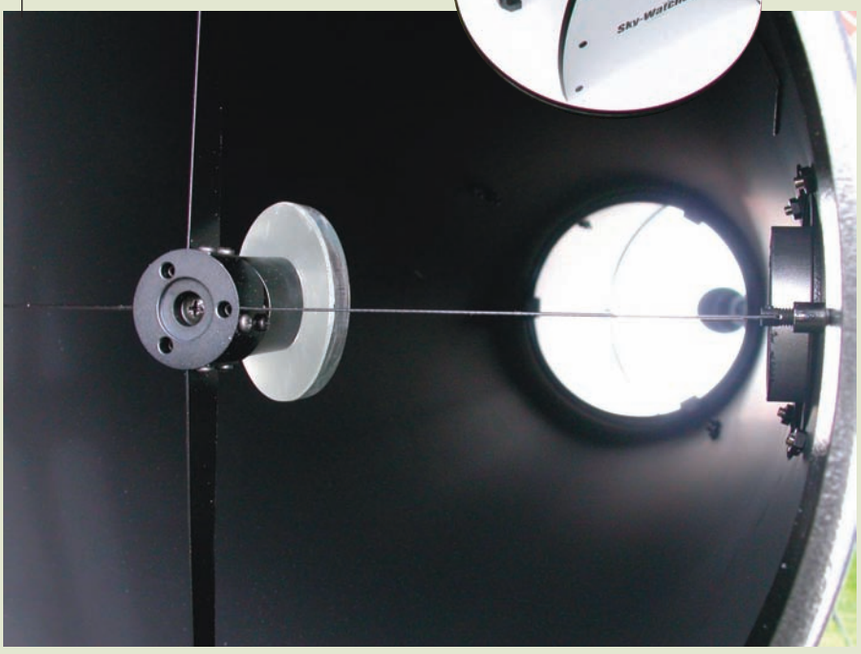
Go sky watching with the Sky-Watcher Skyliner-300P

The humble Dobsonian is unquestionably the instrument of choice for the budget-conscious observer seeking the largest aperture telescope for their money. They are often unfairly perceived as the poor relation to equatorially mounted Newtonians of the same size and focal ratio, but the reality is that they frequently use the exact same optical tube assemblies of their more expensive counterparts.

Many observers prefer the optical security offered by one-piece optical tube assembly over the rather more portable truss-tube models. Now that the highly regarded GSO Revelation Dobsonians are no longer readily available, the Sky-Watcher Skyliner range from Taiwanese manufacturer Synta Technology Corp. offers some of the best-equipped instruments of this type. The largest model in the range is the Skyliner-300P, a 305mm (12-inch) aperture Dobsonian of 1,500mm focal length (f/5).



The Skyliner 300P. All images: Ade Ashford.



The secondary mirror in the foreground, and looking down the tube towards the primary mirror.

Put to the test

In tests conducted during July and August the instrument was used on the Moon and Jupiter plus a number of deep-sky objects from a typical suburban back garden where light pollution permits views of the Milky Way's brighter portions only on nights of good transparency. The well-ventilated primary and secondary mirror cells ensure that the Skyliner-300P cools down surprisingly rapidly for such a large instrument. I found that I could get good images after only thirty minutes exposure to outdoor temperatures (in the winter this will be somewhat longer).

Given the relatively short focal ratio (f/5), one could be forgiven for thinking that this 'scope would not excel as a planetary instrument but, when seeing permitted, Jupiter displayed a wealth of detail despite its low altitude from the UK. In fact, my non-astronomer neighbour described the Jovian Red Spot without any prompting from me. Once I had recovered from the brightness of the Moon (a polarising or neutral density filter is recommended), its surface was replete with sharply defined rille, craterlet and mountain detail.

From my lunar and planetary experiences I already knew that figure of the mirror was good, but star testing with a Ronchi grating revealed just a hint of overcorrection with a smooth polish and no astigmatism. On one memorable night of good seeing with Vega riding high I looked at the Double-Double – epsilon Lyrae – with the 10mm Plössl and a 2x premium Barlow. At 300x the 'scope clearly showed even diffraction rings around all four components.

Not surprisingly given its aperture, the Skyliner-300P really showed its mettle on the deep-sky. The Hercules globular cluster, M13, was a magnificent sight, beautifully framed in the supplied 10mm Super Plössl eyepiece and easily resolvable with direct vision even in my light-polluted skies. The Ring Nebula, M57, had the appearance of a fine gauze across the centre of the ellipse while the Dumbbell Nebula, M27, nestled in a field full of background Milky Way stars. Even the brighter portion of the Veil Nebula surrounding 52 Cygni, NGC 6960, was there.

Good looks

The curvaceous lines of the alt-azimuth mount immediately sets it apart from the boxy appearance of traditional Dobsonians. Interestingly, the rolled steel tube of the Skyliner-300P appears to have a finely welded seam rather than the commonly encountered folded form. This gives the instrument's 147cm-long, 36cm-diameter tube a very smooth and professional appearance, especially in its pure white livery