

Askar

FRA500

■ 使用说明书

■ User's Manual

警告 WARNING!!

请不要通过本望远镜直接观察太阳，这样做可能导致瞬间失明，
请购买专用太阳观测滤镜或滤膜，来获得最安全的观测指导。通过
寻星镜，也可以造成眼睛的严重损害。请让孩子白天远离望远镜。

**DO NOT LOOK AT SUN THROUGH TELESCOPE.
IT WILL CAUSE IRREVERSIBLE DAMAGE TO YOUR EYE.**

欢迎使用ASKAR FRA500
www.askarlens.com

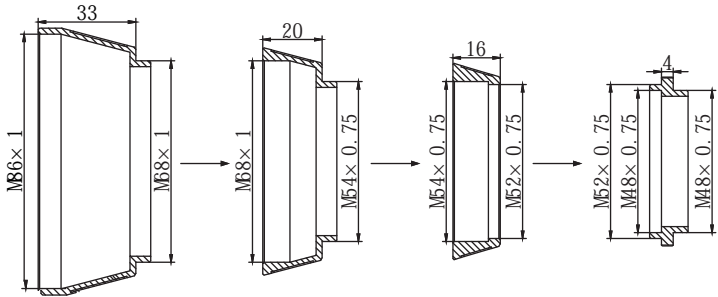
鸠尾板。白色的主镜筒和遮光罩，亮黑色的调焦器以及红色的抱箍和装饰圈让整个摄星镜的色彩搭配活泼而不失沉稳。

Askar FRA500全长407mm，重约4.1kg，无论是设备携带还是安装都极其方便，非常适合经常需要远距离旅行和实地天文拍摄的天文爱好者。
Askar FRA500摄星镜以其巨大的光圈孔径、超快的焦比、缜密的调焦系统、独特的光学设计以及精良的成像效果得到了广大天文爱好者的称赞与支持。Askar FRA500将成为您天文观测和拍摄之旅上的最佳伙伴。

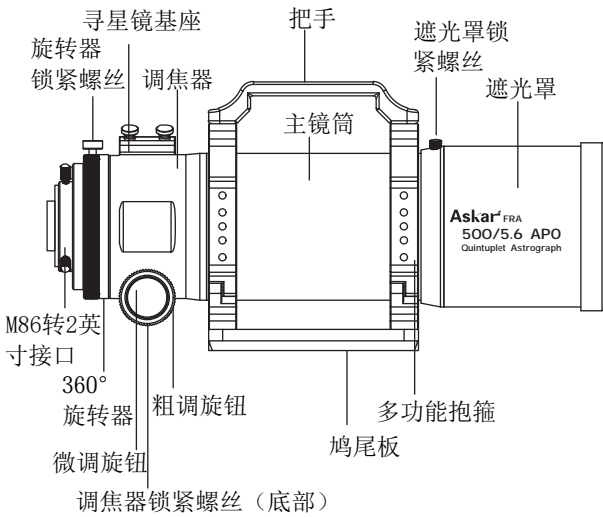
规格

口径：90mm
焦距：500mm
焦比：f/5.6
物镜类型：五片式全分离APO（包括两片ED玻璃）
成像圈：55mm
后截距：85mm（从锥形接口M48×0.75螺纹端面开始算起）
158mm（从旋转器M86×1螺纹端面开始算起）
全长：460mm（遮光罩收缩后为407mm）
本体重量：4.1kg
标准装重量：5.2kg
末端接口：M86×1
锥形接口：M48×0.75
标配：FRA500本体一个，抱箍一对，提手一个，宽型鸠尾板一个，锥形延长管一个，说明书一份，铅箱一个

四段式锥形接口示意图



部件图



中文版（简体）

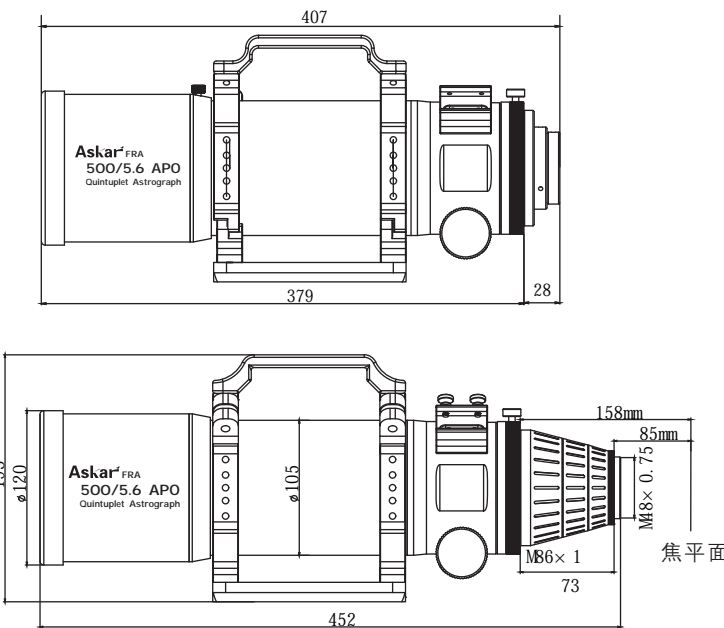
使用产品前请仔细阅读本使用说明书。

锐星光学推出全新Askar FRA500天文摄星镜。Askar FRA500是FRA系列中的第三款产品，相较于Askar FRA400而言，它的口径达到90mm，焦距500mm，焦比f/5.6，能够更好地适应深空天体拍摄需求；和Askar FRA600相比，它更为灵巧轻便，非常适合户外观测和实地天文拍摄。

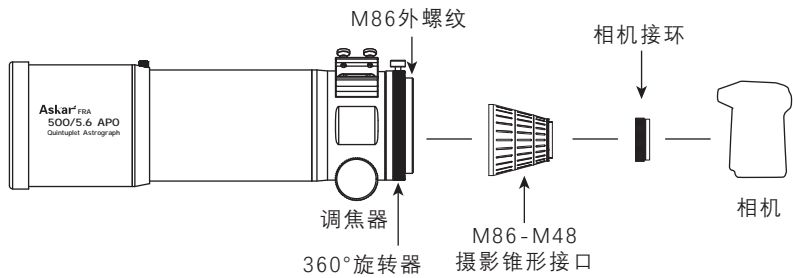
在光学设计上，Askar FRA500秉承FRA系列的高质量设计理念，采用前三后二的五片式全分离APO匹兹伐镜片设计。前端三片式全分离镜片组中含有两块ED玻璃，能够有效纠正色差，提高成像锐度。后侧的两片式全分离镜片组，能够增加像场平坦度。因此，即便在像场最边缘，星点也能达到非常优秀的水平。Askar FRA500的成像圈为55mm，高于44mm成像圈。使得爱好者不必再为周边星点品质而烦恼。后截距也是“合焦即最佳”的设计，天文爱好者不必再反复计算后截距距离或者为寻找合适的接环而苦恼。

Askar FRA500在机械设计上依然追求实用性与技术性的结合，设备整体线条流畅，布局合理。摄星镜前端为带有经典红色装饰圈的遮光罩。遮光罩完全伸展时，摄星镜的整体长度为460mm；收缩遮光罩后，摄星镜的整体长度为407mm。后端是一个高质量的3.5"有齿调焦器。调焦器带有粗调手轮和1:10微调手轮，轻松实现双速焦距调节，在实际天文拍摄和观测中具有很高的实用价值。调焦器表面抛光精良，漆层均匀，内部刻度精准清晰。调焦器坚实稳固，左侧自带一个标准寻星镜底座和两颗手柄螺丝。因此，Askar FRA500调焦器能有效承载寻星镜、导星镜等天文配件，满足天文拍摄或观测时的配件组合需求。Askar FRA500依然包含广受好评的多功能抱箍一对。抱箍上端连接把手，底部连接Askar宽型

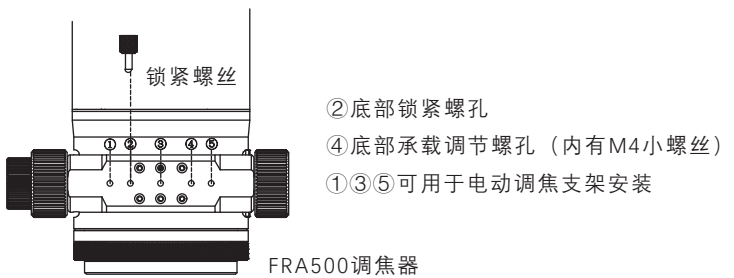
产品尺寸图



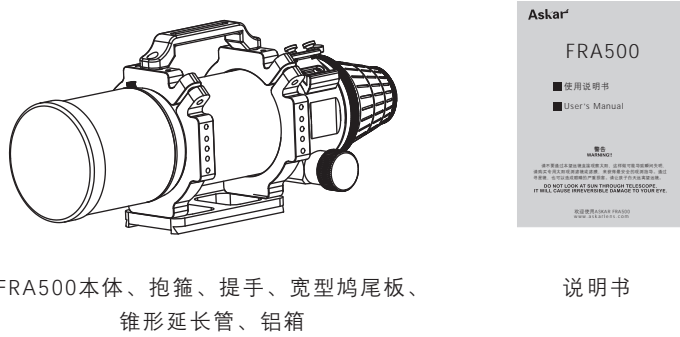
相机连接示意图



锁紧螺丝示意图



包装含有



English

Instructions for use

Sharpstar Optics introduces Askar FRA500 astrograph, which is the youngest among the well-known FRA- family, to our customers. Compared with its siblings, the 500mm-focal-length refractor has an aperture size of 90mm (f/5.6), so Askar FRA500 can better fit into the scenarios of deep-sky imaging than Askar FRA400. Besides, its more lightweight and compact than Askar FRA600, which makes it a great choice for out-door observation or astrophotography.

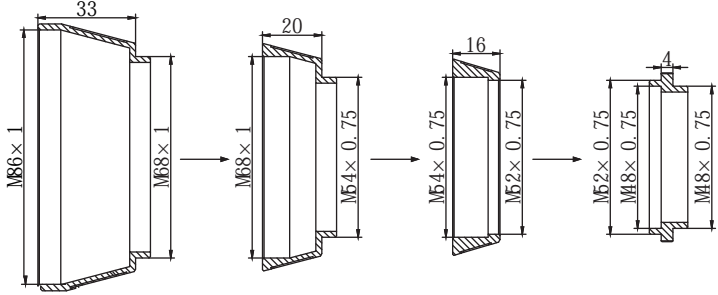
Askar FRA500 has inherited the legacies of superior FRA-series designing. It boasts a quintuplet air-spaced APO optical structure, a "three plus two" Petzval lens combination. The front lens group consists of three lenses (including two pieces of ED glass) for excellent correction of aberrations. The posterior group is composed of two lenses separated by small space which is able to provide fine sharpness across the whole image. You may barely detect any blurry star at the edge of the image. FRA500 supports an image circle of amazing 55mm, much larger than the standard 44mm full-frame image circle. Its special back-focus design frees users from calculating confusing back-focus distance or rummaging around for a proper spacer. What you need to

focus on is just to make your target stay in focus.

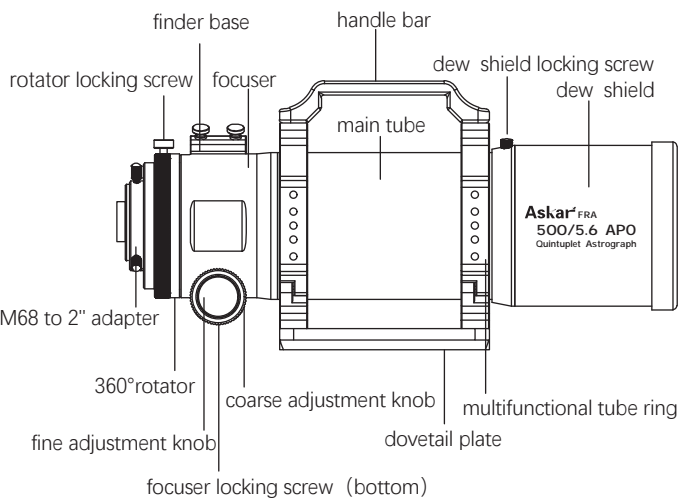
Askar FRA500 is typically a wonderful mix of pragmatism and aesthetics. The astrograph shows smooth lines and a sound layout of components. From the front, the Askar FRA500 has an impressive dew shield decorated with a classic bright-red bezel ring. The total length of FRA500 is 460mm when the dew shield is stretched out and 407mm when contracted back. At the tail end of the astrograph locates a 3.5" massive-ly-built focuser with dual-speed hand knobs (twin knobs for coarse adjustment and one 1:10 fine adjustment knob), which is of great use in real observation or astrophotography. The astrograph wears smooth coating and is evenly finished. The graduation inside of the focuser is quite clear and easily readable. The focuser is tough and solid, and on the left side of it, there is a standard finder base with two silver thumb screws. So the FRA500 can piggyback carry finders, guiders or other potential astronomy accessories. Askar FRA500 comes also with a pair of sought-after tube rings. On the top of the tube rings attached a handle and at the bottom, there is an Askar Losmandy-style dovetail plate. The combination of milk-white main tube and dew shield together with a high-gloss piano-black focuser makes the optical tube assembly calm and deep which is offset by the bright red decorative ring and tube rings.

The Askar FRA500 is 407mm long and weighs about 4.1kg , so

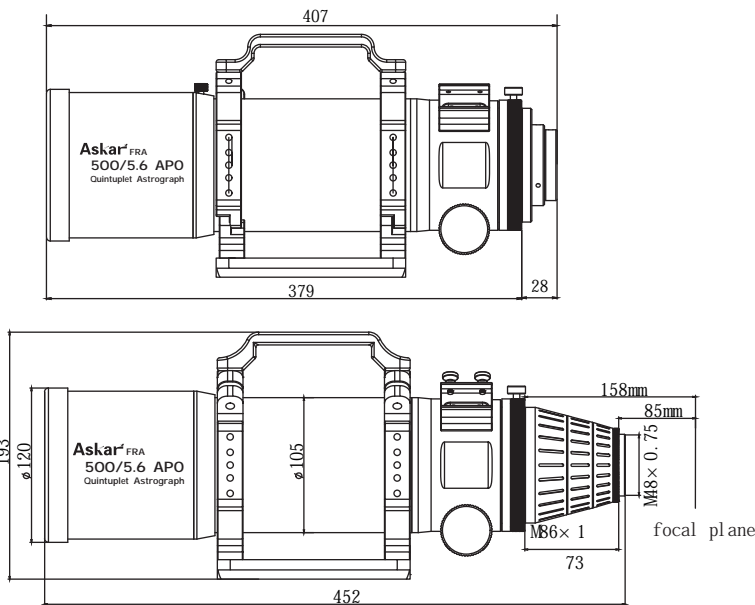
Conical Adapter Diagram



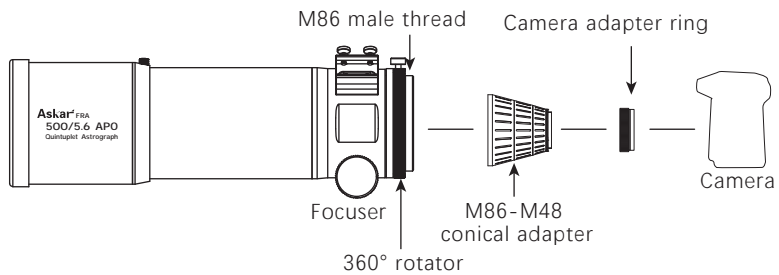
Product Parts Diagram



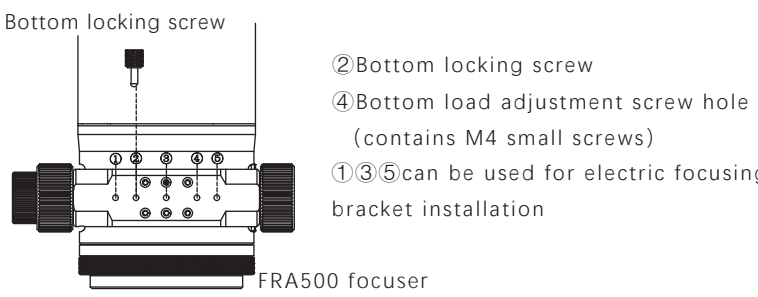
Product Size Diagram



Connection Diagram of Camera



The Locking Screw Position Diagram



Items in FRA500 Packaging

