



# 103 APO

■ 使用说明书

■ User's Manual

警告  
WARNING!

请勿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。

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

欢迎使用ASKAR 103APO  
www.sharpstar-optics.com

中文版（简体）

使用产品前请仔细阅读本使用说明书。

Askar 103APO是一款拥有103mm口径，700mm焦距，原生焦比f/6.8的天文望远镜。Askar 103APO的镜片结构秉持了锐星光学APO镜片传统，为三片式APO全分离镜头设计，其中含有一片ED玻璃。

Askar 103APO镜筒全部使用高质量CNC加工工艺，经过阳极氧化和表面喷漆处理。主镜筒内置光阑，且内壁全部进行消光处理，有效减少杂散光对成像的影响，此外，遮光罩使用可伸缩设计，并配有加大的遮光罩手拧锁紧螺丝，防止遮光罩在使用过程中滑落。

在Askar 103APO的调焦器上，共设有2组寻星镜底座，分布在调焦器的两侧。除了在更换寻星镜位置时无需拆装，还能提供更多位置接驳天文配件。

Askar 103APO 抱箍的轻量化设计，使其整体重量仅750g。提手的多功能设计，使其同样可以接驳需要使用寻星镜底座的天文配件。抱箍使用CNC定制手拧螺丝搭配蚌壳式开口设计，无需多余工具，可直接拆装。鸠尾板规格为Vixen型，可搭配同规格赤道仪或经纬仪，鸠尾板多孔的设计，便于调整鸠尾板相对抱箍的位置，其长度达到290mm，在使用时更方便配平。

Askar 103APO 采用分段式主镜筒设计，在不使用延长管时，可搭配专用0.6倍减焦镜或可搭配双目镜使用。装配延长管后，即可使用0.8倍减焦镜或1.0平场镜，或连接天顶搭配目镜观测天体。

在调焦器选择上，Askar 103APO 采用了双速齿轮齿条式3.3英寸刚性调焦器，CNC高精度加工，兼容大部分电动调焦设备，提供100mm调焦行程，并搭载高精度重型构图旋转器，采用激光雕刻长度方向与圆周方向的

标尺，便于用户调整和信息记录。旋转器使用加大锁紧螺丝，防止在拍摄过程中图像的位移。调焦筒内壁加工特殊消光纹并且使用高质量消光漆涂装，降低杂散光的干扰。

最后 Askar 103APO是一款非常注重观测设备的兼容性的产品，无论连接1.25英寸、2英寸天顶镜或目镜，都可合焦观测。

有效口径：103mm

焦距：700mm

焦比：f/6.8

物镜类型：三片式全分离APO（包括一片ED玻璃）

全长：600mm（遮光罩缩进状态）711mm（遮光罩伸出状态）

本体重量：4.75kg

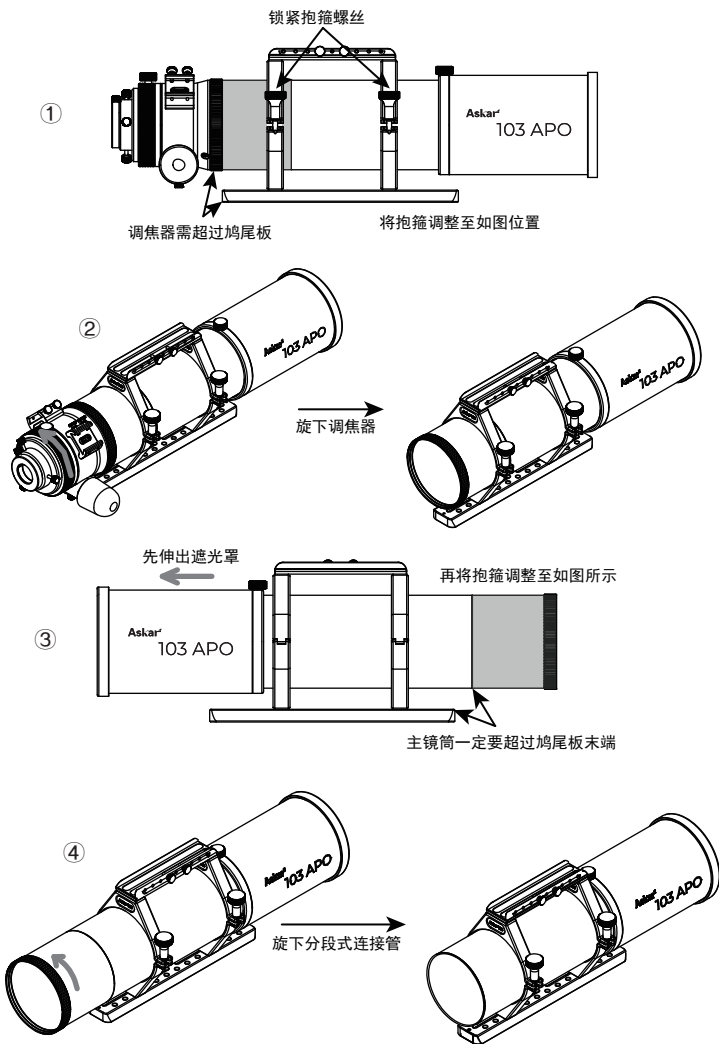
标准装重量：5.5kg

末端接口：2英寸接口、1.25英寸接口

标配：103APO本体一个，抱箍一对，提手一个，290mm Vixen

窄型鸠尾板一个，说明书一份，箱包一个

## 延长管拆卸步骤



English

## Instructions for use

The Askar 103APO is an OTA with 103mm aperture, 700mm focal length, and f/6.8 native focal ratios. Askar 103APO adopts a triplet air-spaced APO lens design, including one piece of ED glass.

The entire lens tube of Askar 103APO is crafted using high-quality CNC machining, with anodized and surface spray paint treatment. All the inner of the Askar 103APO's dew shield is covered with matting felt, and inside the main tube it is coated with matting paint and equipped with the internal baffle. The retractable design of the dew shield, along with the enlarged locking screw, prevents the dew shield from slipping.

There are two finder bases on both sides of the focuser, which not only eliminates the need for disassembling when changing the position of the finder scope, but also provides additional mounting positions for other astronomical accessories.

The tube rings of the Askar 103APO have a light weight of only 750g. The handle has a special slot design, making it

able to attach other accessories which need a finder base. The CNC thumb screws of the tube rings enable easy opening and locking without other tools. The standard Vixen dovetail plate, which is compatible with most equatorial or Altitude-azimuth mounts on the market, has additional screw hole position design for adjust position of the tube ring and the plate. The length of the plate reaches up to 290mm, making it more convenient for balancing on the equatorial mount.

The Askar 103APO adopts segmented lens tube design. It can be attached to a 0.6x reducer or a binoviewer with the extender tube detached. While with the extender, the Askar 103APO can be used with 0.8x reducer or 1x flattener, or attaching a diagonal for visual observation.

In terms of the focuser, the Askar 103APO is equipped with CNC machined dual-speed R&P large 3.3-inch rigid focuser, which can be compatible with most motorized focusers on the market. It provides 100 focusing travel, equipped with a high-precision heavy composition rotator, and adopts laser-engraved scales in the length direction and the circumference direction, which is convenient for user adjustment and information recording. It is also equipped with an enlarged rotator locking screw, preventing image shifting during shooting. Inside the focuser tube there is an anti-reflective internal design and matting paint, providing extra

measures to eliminate stray light.

Last but not least, the Askar 103APO is a product that pays great attention to the compatibility of visual accessories, so it is compatible whenever attached to 1.25" or 2" diagonals and eyepieces.

## Specification

Aperture size: 103mm

Focal length: 700mm

Focal ratio: f/6.8

Objective lens: Triplet air-spaced APO (including one ED glass)

Total length: 600mm (when the dew shield is contracted)

711mm (when the dew shield is stretched)

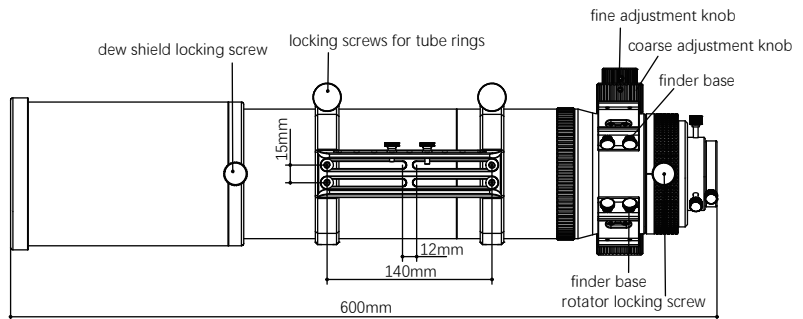
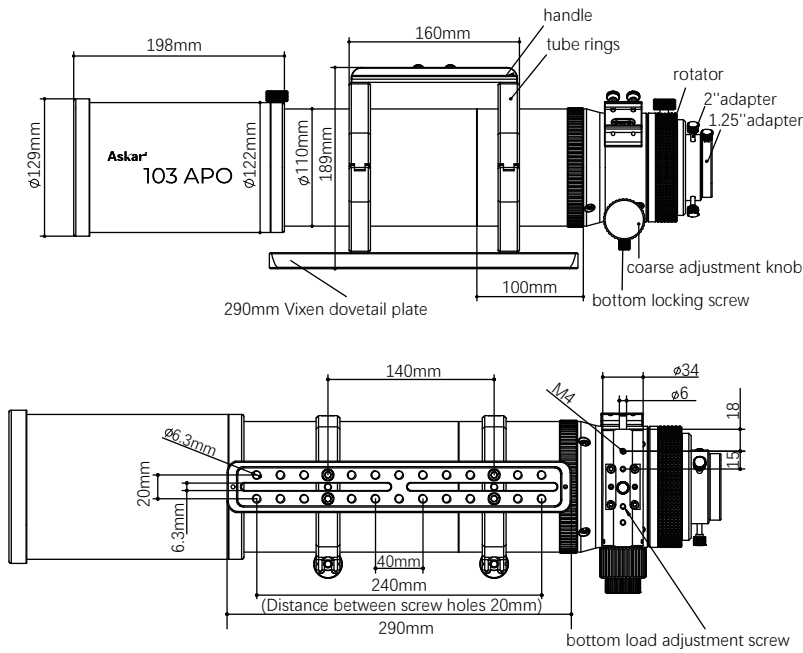
Net weight: 4.75kg

Gross weight: 5.5kg

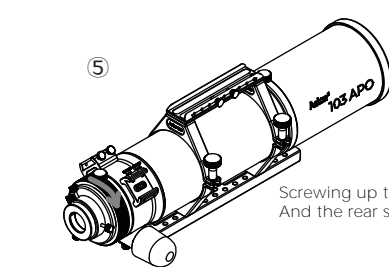
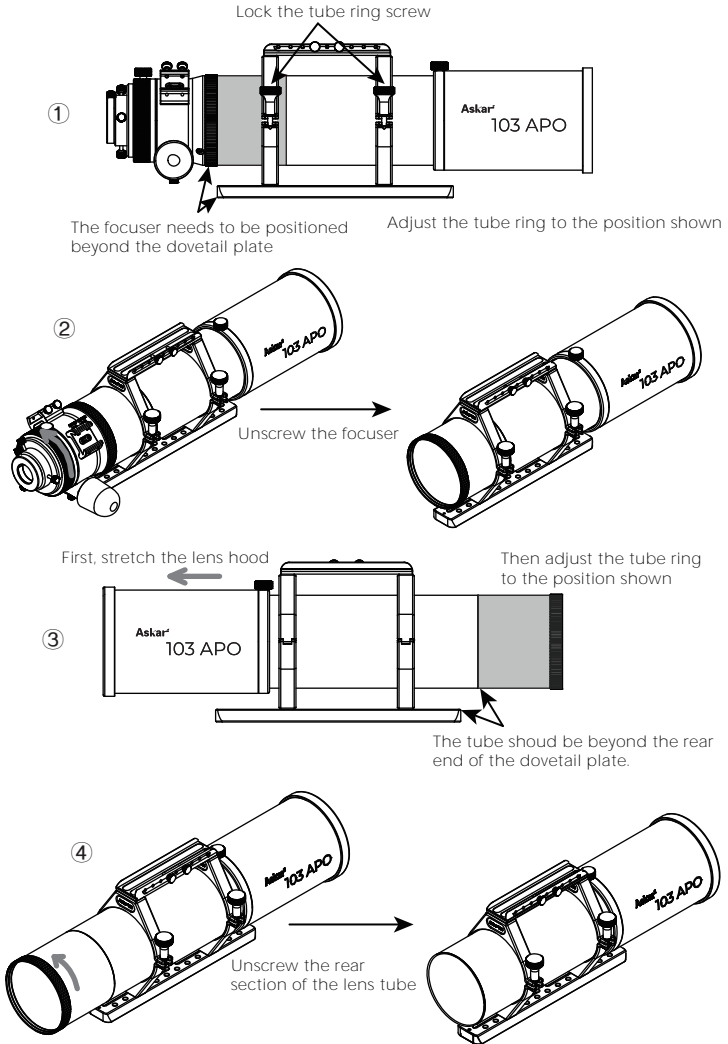
Rear-end adapter: 2" adapter, 1.25" adapter

Standard package items: a 103APO OTA, a pair of tube rings, a handle, an Askar 290mm Vixen dovetail plate, a manual, a transportation bag

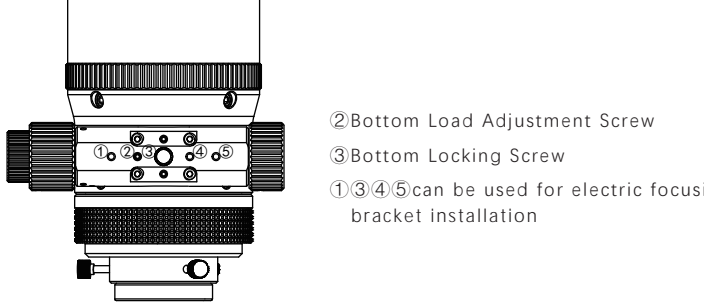
## Products Parts and the Size Diagram



## Steps of Detaching the Extender Tube



## The Locking Screw Position Diagram



## Items in 103APO Packaging

