

# Askar

# 120 APO

■ User's Manual

**WARNING!**

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

[www.sharpstar-optics.com](http://www.sharpstar-optics.com)

## Instructions for use

The Askar 120APO is an OTA with 120mm aperture, 840mm focal length, and  $f/7$  native focal ratio.

Askar 120APO adopts a triplet air-spaced APO lens design, including one piece of ED glass.

The entire lens tube of Askar 120APO is crafted using high-quality CNC machining, with anodized and surface spray paint treatment. All the inner of the Askar 120APO'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 120APO have a light weight of only 780g. The handle has a special slot design, making it able to attach other accessories that 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 an additional screw hole position design for adjusting the 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 120APO adopts a segmented lens tube design. It allows binoculars to be used for visual observation when the extension tube is disassembled. With the extension tube, the Askar 120APO can be

used with the 0.8x reducer or 1x flattener, or attaching a diagonal for visual observation.

In terms of the focuser, the Askar 120APO is equipped with a CNC machined dual-speed R&P large 3.3-inch rigid focuser, which can be compatible with most motorized focusers on the market. The focuser provides 100mm focusing travel, is equipped with a high-precision big 360° rotator, and adopts laser-engraved scales in the length direction and the circumference direction, which is convenient for adjusting and 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.

The Askar 120APO is an OTA that emphasizes the compatibility of observing equipment. It can easily achieve focus when connected to 1.25" or 2" diagonals or various eyepieces. Because of the segmented lens tube design, it can also be attached to a binoviewer for visual observation.

Aperture size:120mm

Focal length:840mm

Focal ratio:f/7

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

Total length:722mm(when the dew shield is contracted)

804mm(when the dew shield is stretched)

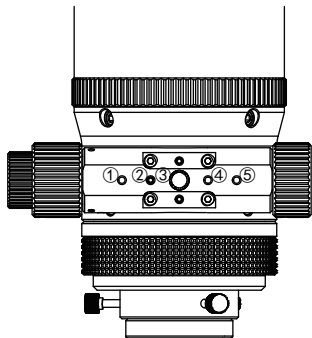
Net weight:5.7kg

Gross weight:6.5kg

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

Standard package items: an 120APO OTA, a pair of tube rings, a handle, an Askar 290mm Vixen dovetail plate, an Oxford cloth case, a manual

## The Locking Screw Position Diagram

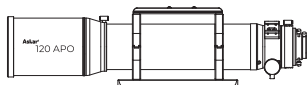


② Bottom Load Adjustment Screw

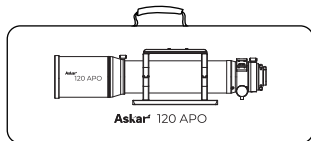
③ Bottom Locking Screw

①③④⑤ can be used for electric focusing bracket installation

## Items in 120APO Packaging



120APO OTA, a pair of tube rings, a handle, a 290mm Vixen dovetail plate



A transportation bag



Instruction manual



Warranty card

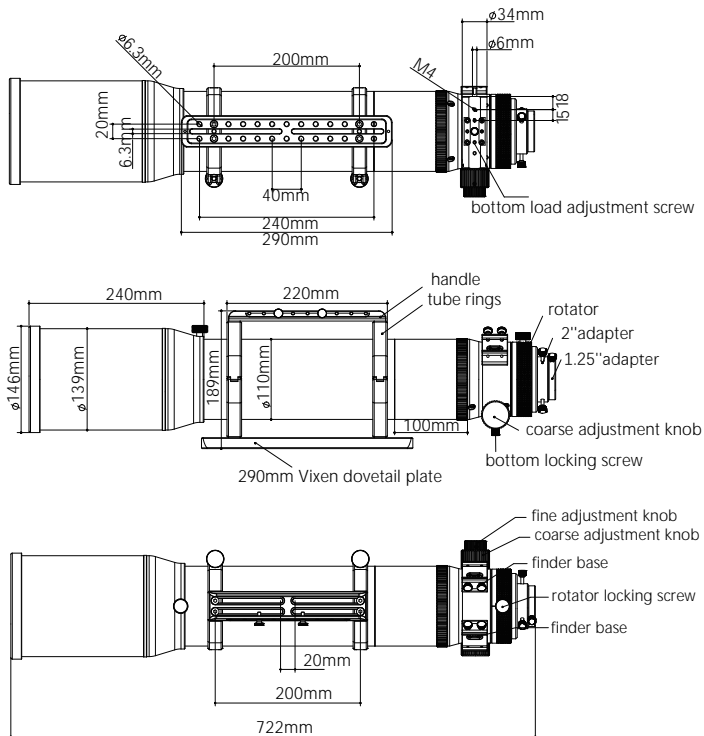


Qualified certificate

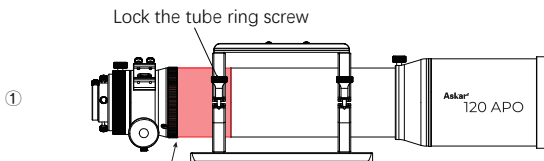


Check list

## Product Parts and the Size Diagram

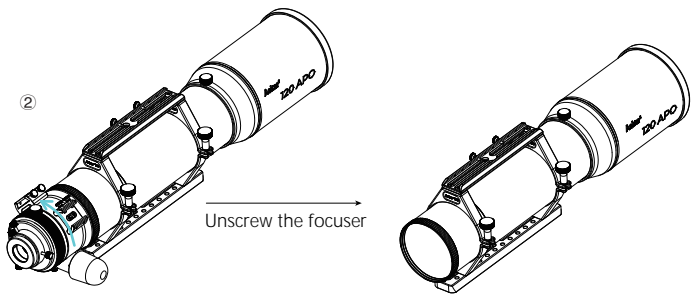


## Steps of Detaching the Extender Tube

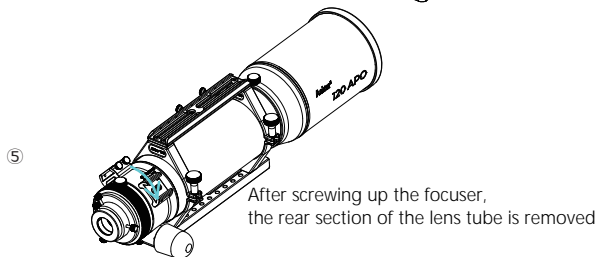
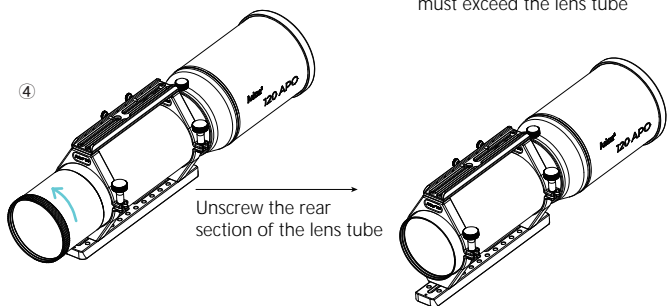
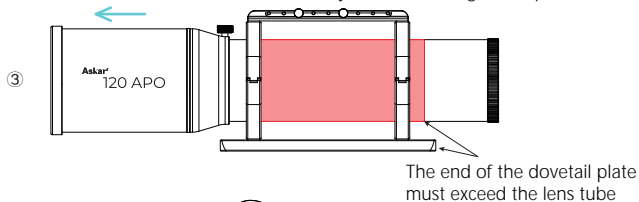


The focuser needs to be positioned

Adjust the tube ring to the position shown



First, stretch the lens hood      Then adjust the tube ring to the position shown





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