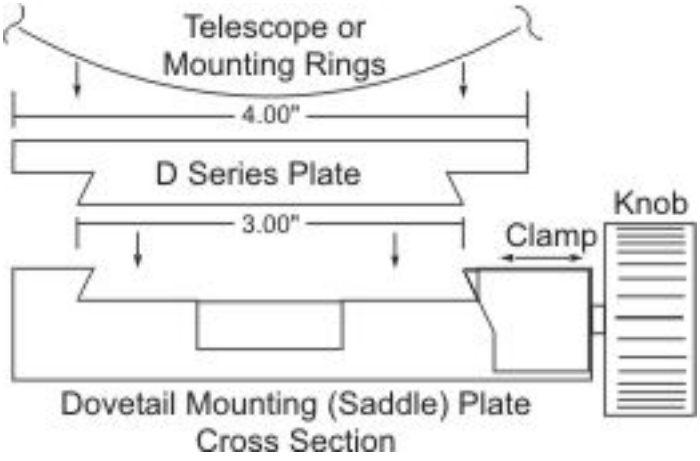
Astro-Physics Mounting Plate Introduction

Dovetail Systems: Saddle Plates and Sliding Bars

Over the years, dovetail systems have become a mainstay in the amateur astronomy community. A dovetail system consists of a saddle (sometimes called a receiver) plate which is attached to the declination axis of a mount, and a dovetail sliding bar (or plate). The telescope's rings are attached to the dovetail sliding bar, and then the ring/bar assembly is seated into the saddle plate. Slide the plate forward or back to balance your telescope and tighten the knobs to secure it. We offer a variety of widths to accommodate juat about any large or small telescope that you may own.

This arrangement is extremely popular due to the ease of setup and the versatility it offers to those with multiple instruments. A variety of sliding bars are now available to allow the astronomer to switch between the smallest refractor and the largest reflector in his collection with but a few minutes of precious observing time lost.



Other pertinent applications include:

- Aid in re-balancing your scope after switching from featherweight orthoscopics to hefty eyepieces, binocular viewer or camera arrays
- Quickly interchange accessories when used as an accessory plate in the "piggyback" position
- Facilitate multi-instrument, side-by-side setups
- Allow users to use scopes and various manufacturers' accessories on a given mount

Astro-Physics dovetail saddles have a unique slot design which permits the user to tilt a sliding bar into place, rather than trying to slide it in from the end of the saddle. This latter arrangement can be an awkward task when a heavy telescope is attached to the sliding bar! Our saddles are also designed with a U-groove safety feature on each end of the dovetail channel to help "catch" a sliding bar from slipping through if the clamps are accidentally loosened (assuming the sliding bar has the appropriate safety stop!).

Our dovetail bars include a safety screw threaded into the bottom surface of each plate to aid in the prevention of a dropped instrument. We strongly recommended that you NEVER leave your telescope hanging from your saddle plate by only this safety screw without the clamps tightened down. Serious and irreparable damage is likely to occur!

Most dovetail bars have multiple holes to attach various telescopes, but the bars differ in length and width. Similarly, saddle plates can vary in length and channel width, and can only accommodate dovetail sliding bars that match their given specifications. If you are not sure which plates would be best for your setup, please call our technical support department for assistance.

Flat and Ribbed Plates

Flat and ribbed plates may be the connection of choice for the astronomer with a permanent installation. Situations which might warrant your consideration of a fixed mounting system:

- Very large instrument
- Exceptionally heavy imaging or accessory load
- Setup being used for critical applications
- Ability to switch instruments is not a priority

These plates provide a solid connection to your mount while naturally reducing flexure potential. Astro-Physics flat plates are made of solid aluminum and are machined for the addition of keyhole slots to attach telescope rings. Our ribbed plates are thicker than our flat plates. However, a portion of the material is removed from the underside of these plates in such a way as to provide strength without the excess weight load. We recommend these plates for the largest instruments.

Fasteners for Plates

Mounting plates ordered from Astro-Physics come with screw packets to attach them to our mounts. For a listing of the required fasteners for a given application, please refer to our Mounting Plate Fastener Chart PDF.