

BEAM BENDERS

PROVIDING ADVANCED

SOLUTIONS FOR

LASER DELIVERY SYSTEMS

LASER MECH

BEAM BENDERS

The Beam Bender is part of Laser Mechanisms' AccuCutter modular component line and is used to provide an adjustable means to divert a laser beam through a 90 degree angle.

Laser Mechanisms offers two types of adjustable beam benders. One is an interlocked version, sensing mirror presence, for use outside the workstation enclosure. The second is the non-interlocked version for use inside protected enclosures. With 65 different beam benders currently offered, there is a beam bender to fit virtually any size system or application.

Each type is available in either 35 mm, 50 mm or 70 mm clear apertures. English or Metric diameter mirrors can be used interchangeably. They also accommodate a wide range of thicknesses and materials allowing use of mirrors from many sources.

The adjustable mirror holder fixes the mirror to the bender block. It provides fine orthogonal ± 2 degree adjustment of the mirror about the beam axis. The holder is mounted to the bender block and the mirror is retained by a unique method which allows the mirror to be removed and replaced without affecting the alignment.

- Sealed Design. Beam paths can be sealed with hermetic seals
- Precision Adjustment. Two .25 – 80 fine thread screws provide precise adjustment of the mirror about the laser beam axis within ± 2 degrees. Resolution of 10 micro-Radians is possible

- Air Or Liquid-Cooled Design. A cooling passage is provided in the mirror holder for air or liquid cooling as required
- Unique Mirror Heat Sink. The rear surface of the mirror is heat sunk with a spiral design or direct contact heat sink. The sink applies even pressure to the mirror to maintain alignment while drawing away the heat generated by the laser beam on the mirror
- English or Metric hole mounting patterns available

While the Beam Bender Block and Adjustable Mirror Holder are an integral part of the AccuCutter System, adapters and special engineering assistance are available to adapt it for use with existing optical systems provided by major YAG and CO₂ laser manufacturers.

INTERLOCKED TYPE

Model PLBBA0084 35 mm Aperture / 2.0" Mirror

Model PLBBA0088* 35 mm Aperture / 2.0" Mirror

Model PLBBA0091 50 mm Aperture / 3.0" Mirror

Model PLBBA0092 70 mm Aperture / 4.0" Mirror

NON INTERLOCKED TYPE

Model PLBBA0083 35 mm Aperture / 2.0" Mirror

Model PLBBA0087* 35 mm Aperture / 2.0" Mirror

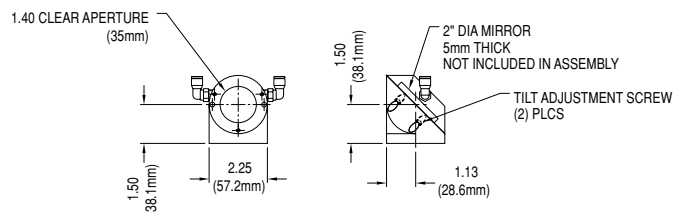
Model PLBBA0050 50 mm Aperture / 3.0" Mirror

Model PLBBA0053 70 mm Aperture / 4.0" Mirror

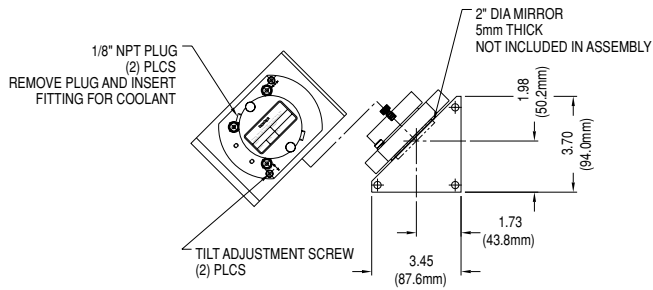
Model PLBBA0093† 35 mm Aperture / 2.0" Mirror

*Metric hole mounting pattern

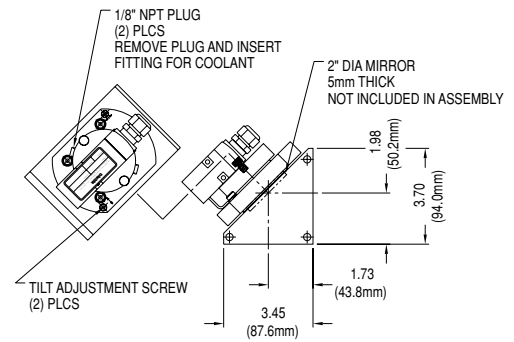
† Slim Design



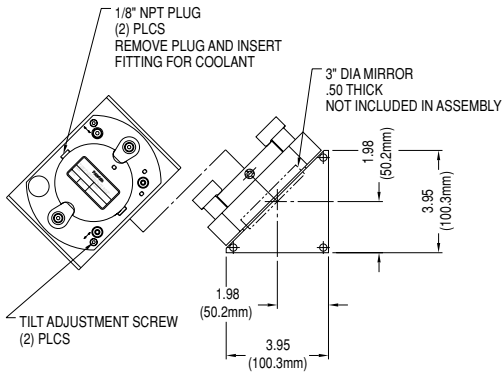
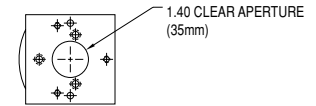
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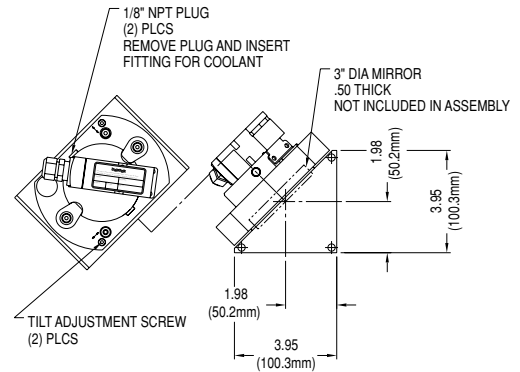
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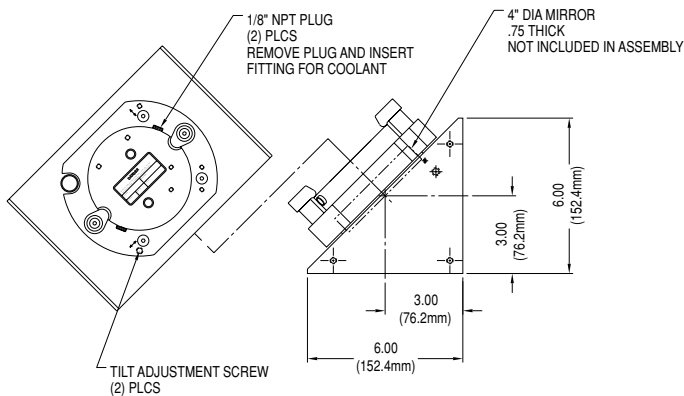
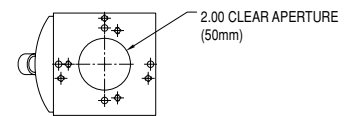
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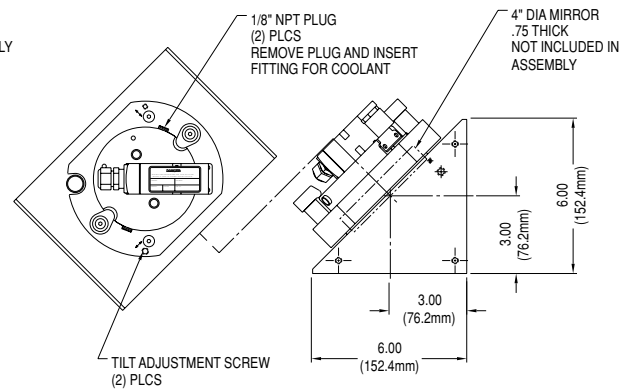
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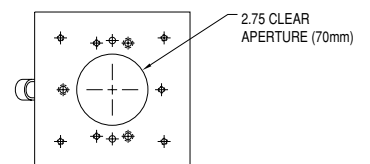
PLBBA0091



PLBBA0053



PLBBA0092



The Beam Benders in this brochure are just a sampling of the 65 different styles and sizes Laser Mechanisms currently offers

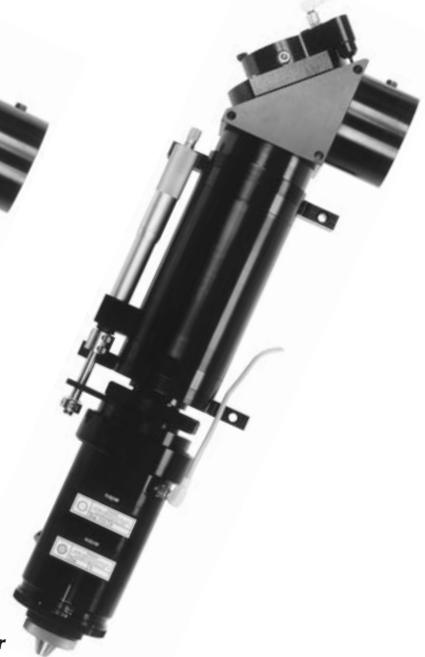


*Laser Mechanisms' Beam Benders
are integral components of the
state-of-the-art AccuCutter System*

Non Par-Focal AccuCutter



Par-Focal AccuCutter



Laser Mechanisms, Inc. specializes in Laser Beam Delivery Components to make the most of your laser.

ALL WAVE LENGTHS • BEAM DIAMETERS TO SIX INCHES • CW POWER TO 25KW

Let our staff of laser system engineers, with a total of over 200 years collective experience, supplement your in-house people. We will provide a design for a performance guaranteed beam delivery system for your special laser machine or new industrial laser based product. We are price effective and qualified to handle everything from the most basic to very sophisticated active sensing beam delivery systems.

We Specialize In...

- Complete system analysis
- CAD drawings for your quotations
- Engineering of customized delivery components
- Value line standard components
- Designs to suit OEM configurations
- Guaranteed performance delivery systems
- Large spare parts & optics inventory
- Fast delivery
- "Just In Time" OEM supplier arrangements



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