

D-TOP Optics Guide

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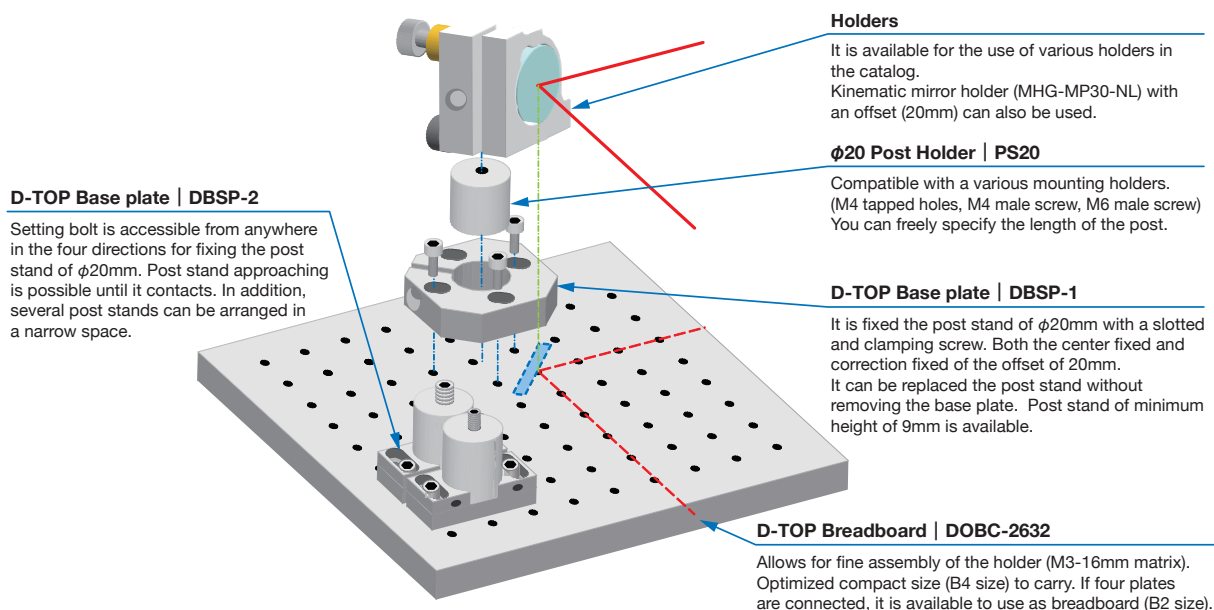
Laser Processing

D-TOP optical system offers a new alternative to the optical experiment. By breaking the stereotype that says “optical system can not be moved due to the heavy and large”, we propose a highly stable optical system that is capable of carrying with a compact size.

In case of D-TOP optical system, optical elements and holders, which have been used until now, can be used as it is, you can save the initial investment. Moreover, by replacing the experimental system of surface plate with the D-TOP optical system, it becomes possible to remove or for space saving and enables effective use of the space occupied by the optical system.

[Characteristics of D-TOP]

- Low optical axis (45mm recommended) ... well match to low optical axis laser
- High rigidity less affected by vibration, interferometry is possible at simple vibration isolation
- Advantage for small sample possible approaching between each element, the magnification of image system can be enlarged
- Compact can be carried in a B4 size, and packable in bookshelf
- Easy assembly possible to place accurately a holder by refined and simple structure on the optical axis. Also, possible to change the position of the holder and the height of the optical axis.



D-TOP optics can be sold from one base plate. Referring to the configuration of the practical example and module, please select a various device.

There may not be fixed a light source, sample with a special shape and detector in the existing holders. In this case, custom-made base, holder and adapter are available. If D-TOP base and catalog products can be combined, the custom-made manufacturing is reduced, and it is possible for configuration at low cost. If the custom-made holder and base are requested, please inform us the exact shape of each device and the height of the optical axis.

In addition, it is also available for design, production, adjustment and functional verification of the optical system based on the D-TOP optical system.

To meet customers' needs, we will answer to the needs of every stage.

$\phi 20$ Post Holder | PS20

Catalog Code W1039

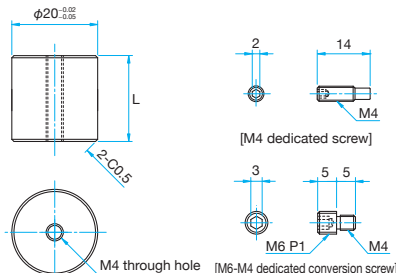
It is a post stand of $\phi 20\text{mm}$ that has been optimized for the low optical axis and compact for D-TOP. It is very useful when holders of different heights of optical axis are adjusted to the same heights of optical axis.

Outline Drawing

(in mm)

PS20

- M4 dedicated screw ...2 screws
- M6-M4 dedicated conversion screw ...2 screws



- L length can be specified in any length. According to the height of the optical axis of the holder, please specify the L dimension.
- Other than the hexagonal socket head cap screws of M4, the mounting of the holder can be mounted to the tap hole of M4 rod and M6 rod by using the screws provided
- It can be used as the rod of 20mm or less (RO-20-L).

Specifications

Part Number	L Specified range [mm]
PS20-L	$10 \leq L \leq 30$

D-TOP Base plate | DBSP-1

Catalog Code W1040

It is a base plate to fix $\phi 20\text{mm}$ post stand. By only a little loosening a clamping screw of slotted, it can be replaced holders without changing position and adjusted the height of the optical axis. It is also possible for the offset (20mm) correction between the mounting position of Kinematic Mirror Holder (MHG-MP20-NL/MP25-NL/MP30-NL) and the mirror surface.

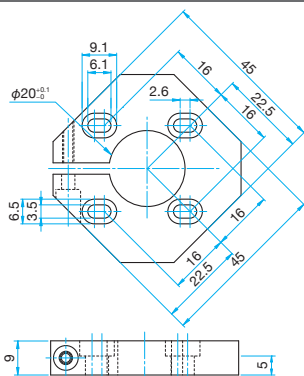
- It can be placed that the center of the cube beam splitter (NPCH) and polarization beam splitter (PBS) is arranged on the optical axis (tap sequence of the base).
- By using the long hole (2.6mm shift) in the mounting, it can do fine-tuning the position of the optical element and be used to correct the optical axis deviation.
- Since the post stand is fixed by the clamping screw, it can be fixed at random in the horizontal direction of the optical element.

Outline Drawing

(in mm)

DBSP-1

Hexagonal socket head cap screw M3x10...3 screws



Guide

- ▶ When it is fixed the long hole with a screw by the side of slotted clamp, it becomes the 20mm offset mounting of MHG series holder.

Attention

- ▶ Slotted was made harder in order to maintain accuracy. Please securely tighten until tighten the post stand does not turn.
- ▶ There are four mounting holes, but please fix either side of slotted without tightening of screw. There are four mounting holes, but please fix either side of slotted without tightening of screw.

Specifications

Part Number	Offset (Diagonal direction) [mm]	Optical Axis Height [mm]
DBSP-1	0 - 2.6, 20 - 22.6	0 - 5

D-TOP Base plate | DBSP-2

Catalog Code W1041

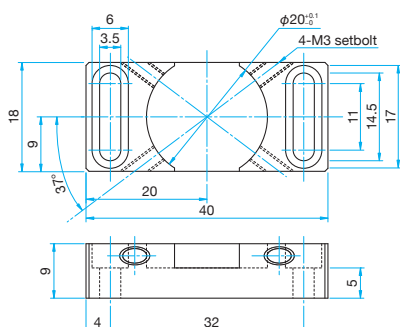
It is a base plate to fix $\phi 20\text{mm}$ post stand. It is used when thin elements such as a lens and a polarizer are placed close to the optical axis. It is a base plate to fix $\phi 20\text{mm}$ post stand.

Outline Drawing

(in mm)

DBSP-2

Hexagonal socket head cap screw M3x10...2 screws



- Due to the thickness of the base plate, the optical axis height is 5mm raising.
- Since the width is 2mm shorter than a post stand, the interference of the base plate does not cause, even in approaching of optical elements.
- Post stand can be fixed by setting bolt of 1 - 2 positions from the side. It is accessible from any direction because of set bolt attached to the four directions.

Specifications

Part Number	Optical Axis Height [mm]
DBSP-2	5

D-TOP Breadboard | DOBC-2632

Catalog Code W1042

It is a breadboard of B4 size for D-TOP. To remove wasted space regarding the placement of the existing holders, it adopted a matrix M3-16mm tap hole.

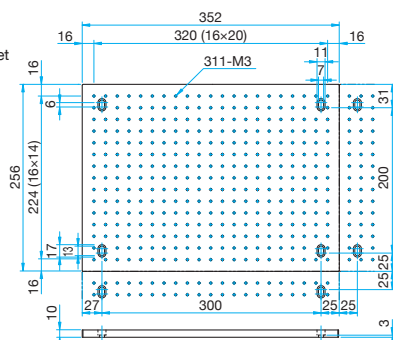
As arranging four breadboards squarely, on the surface plate with prepared M6 tap holes, it can be used as a single breadboard of 704mm x 512mm (poster size).

Outline Drawing

(in mm)

DOBC-2632

Hexagonal socket head cap screw M6x8...4 screws



- It can be carried in a state of assembled optical system of B4 size.
- It is designed to fit properly the position of the tap even if four breadboards are combined. (It may slip off the error of the processing and mounting.)

Specifications

Part Number	Top-mounted	Top-mounted [mm]
DOBC-2632	M3-16mm matrix	10