PART # 8J06008. REV 02

User Notes

CUP APERTURE FOR BEAMWATCH®

P/N SP90476 FOR BW-NIR-130 MODEL

P/N SP98008 FOR BW-PLUS-45 MODEL

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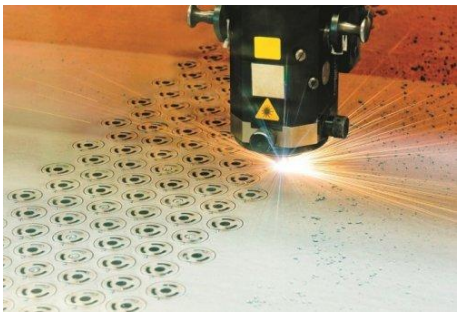
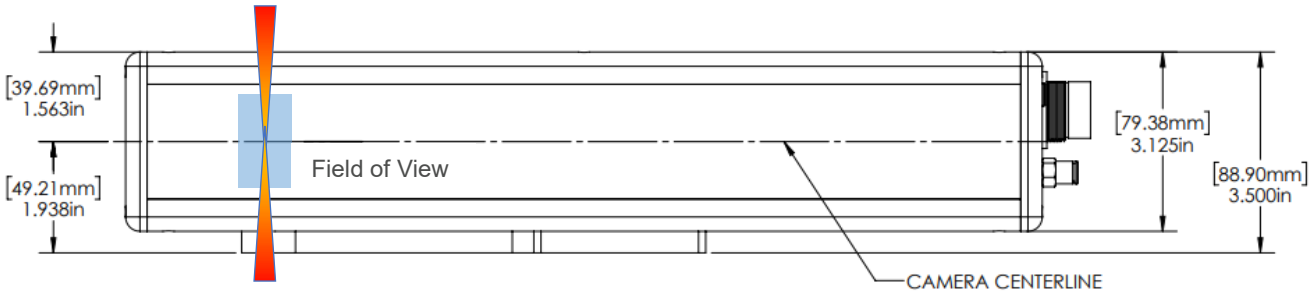
Cup Aperture for BeamWatch® P/N SP90476 and P/N SP98008 User Notes



Some laser processing heads, particularly those used in laser cutting and welding applications, have very short working distances (distance from the end of the delivery system to the focal plane).

The focal spot of such laser heads is typically located ~10–50 mm below the nozzle. In this case, the mechanical structure of a standard BeamWatch® aperture can prevent the laser waist from being properly introduced into the camera field of view.

The Cup Aperture accessory is designed to ensure the focal spot in such systems can be positioned inside the field of view. It installs at the input of the BeamWatch and allows the laser head to approach 16 mm or 27.5 mm (depending on the model) past the top casing of the BeamWatch.

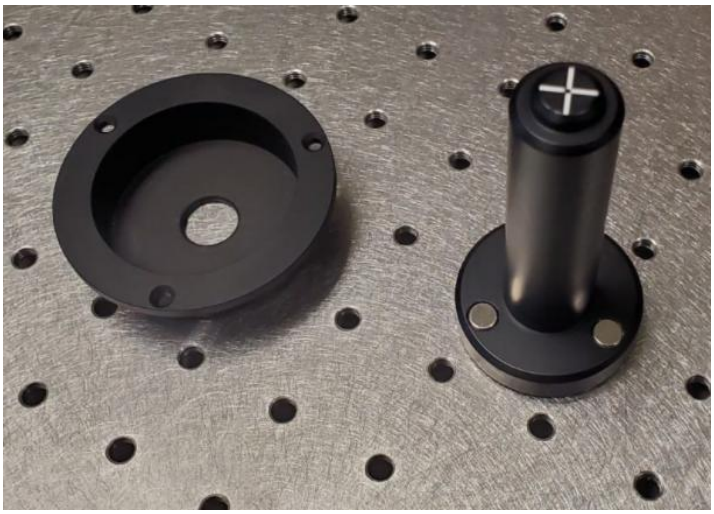


With the Cup Aperture accessory for the BW-NIR-130 (P/N: SP90476), the distance from the entrance aperture to the center of the FOV is reduced from 39.7 mm to 23.8 mm.

With the Cup Aperture accessory for the BW-PLUS-45 (P/N: SP98008), the distance from the entrance aperture to the center of the FOV is reduced from 39.7 mm to 12.2 mm.

INSTRUCTIONS

The Cup Aperture accessory is supplied with a special magnetic alignment tool.

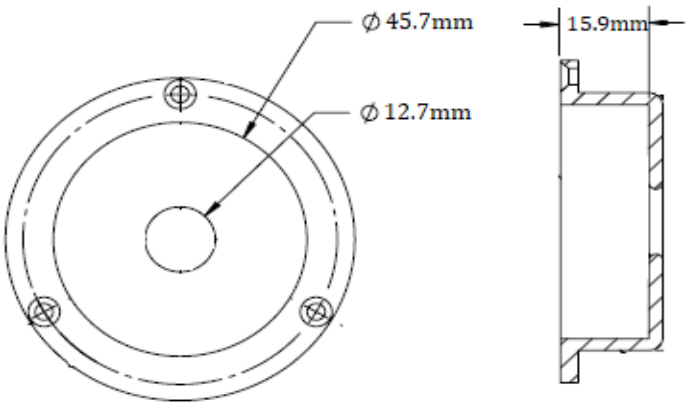


To install the Cup Aperture, simply remove the three screws (4-40 UNC) holding the standard aperture and replace it with the Cup Aperture. Please work in a clean environment to prevent BeamWatch contamination.

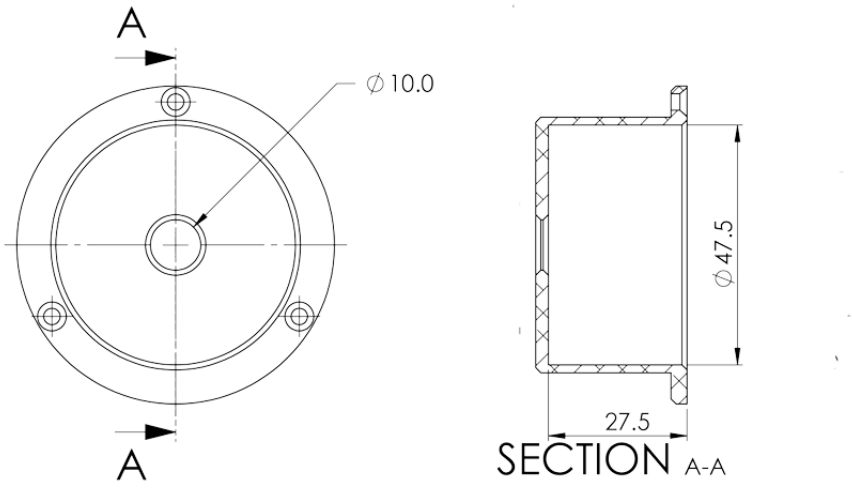
The magnetic alignment tool is used similarly to the standard bottom alignment tool.
The alignment procedure of a BeamWatch equipped with the Cup Aperture is similar to the standard process, which is detailed in the BeamWatch User Notes, section 2.1.6 (Alignment).

MECHANICAL DIMENSIONS

P/N: SP90476 FOR BW-NIR-130



P/N: SP98008 FOR BW-PLUS-45



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