

Re: Dimensions of Zeiss Phase 1 plate?

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- *From:* cladocera56@xxxxxxxxxxxxx
 - *Date:* 27 Feb 2007 10:41:32 -0800
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On Feb 26, 11:29 am, "Oncologists" <Oncologi...@xxxxxxx> wrote:

Does anyone have the dimensions of a Zeiss Ph1 phase plate, please?
Outer diameter + inner diameter would be much appreciated.
Incidentally, there is a scaleable template buried in the artwork in
MSWord, which can be printed on to an acetate – or at least, that is
what I am trying to do!
Not as messy as a sooty candle.....
Thnx, HJ

Hi

My Zeiss PH1 plate is homemade so pending some accurate measurements offered from an undamaged one, a central diameter of 3.7 mm and annulus width 0.4 mm works fine on my 1970s vintage Zeiss stand with achro / apl phase condenser and Zeiss 10/0.22 Ph objective. The annulus could do to be a bit bigger if I redo it but works well enough.

It's possible to measure the desired annulus pretty well with a 'phase ruler', ie concentric rings of known width printed from e.g. a CAD package placed in the phase stop plane and the inner and outer annulus lines determined with a phase telescope. Then print this out blackened in. Although the PH1 will be the trickiest being the smallest. Ian Walker has a downloadable 'phase ruler' in TurboCad format on 'Micscape' (3–12 mm in 0.5 mm steps). The condenser focus can usually take up small errors.

<http://www.microscopy-uk.org.uk/mag/imgsep04/phaseruler.tcw>

Some hobbyists stick together two back to back printouts to make the acetate plate denser, although found on my printer this wasn't dense enough so painted mine on a slide ringing table feathering the paint almost but not quite to the annulus edges so that the neat printed out circle is retained but the black areas are made denser with paint.

Good luck!

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regards

David

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