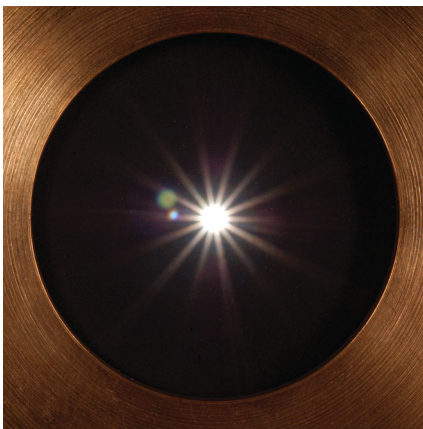


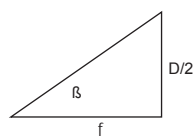
argentum



This extremely simply functioning ancient tool is used even in our days, likewise it was hundred years ago. Significant number of those who train themselves in photography make their first frames with a pinhole camera. This magic box is the most useful tool to get familiarized with the mysteries of photography. Many feel a need of such way of picture making even after many years of photographing, while even serious life works were produced by camera obscura. As simple is its operation and usage, as easy it is to construct, even at home. Our intention is not to deprive anybody of the experience of photographing with his own made pinhole camera, we only would like to help making photos with camera obscura more practical, versatile, and controllable. Furthermore our customer will have an aesthetic, precisely built box, which is specifically useful for such institutions or schools, which put an emphasis on photography education. You do not have to bother with investing into expensive lenses, there is no need of a groundglass, and a separate production of rear, because it is a part of the box. The rear of a 4x5" camera obscura is constructed to be compatible to today's standard cut filmholders (Fidelity, Lisco etc.), and roll and Polaroid filmholders for 4x5" format cameras. Customization is possible of course, when using for example a Rada filmholder. Furthermore camera obscura may be constructed smaller or bigger then the 4x5" format. Another important point of the camera is the pinhole, through which exposure is done. The pinhole is drilled in a very thin metal film, so that it will have an orderly formed circular shape, and its diameter will be optimal to the distance between the plane of the pinhole and the film plane, thus insuring the smallest circles of confusion, that is excellent picture quality. In case of damage of the pinhole film, it is easy to exchange. The mount holding the pinhole film is also for mounting color filters. The depth of the box, which sets the camera obscura's angle of view, must be determined by the costumer. The F stop of the camera is precisely countable, so our first frame can be exposed correctly.

The tripod mounts (1/4 inch) on both sides of camera obscura make it possible to mount the camera on a tripod when taking a photograph either in horizontal or vertical format.

The diameter of the hole is generally 0.3 mm. According to my experience an opening of such a measure ensures excellent image quality in case of the most common focal distances (75-150 mm). As soon as the angle of view is decided, the f-stop of the pinholecamera is easy to calculate. Then the exposure time can be set accurately.



$$f = \frac{D/2}{\tan \beta}$$

$$F = \frac{f}{d}$$

$$t = \frac{F^2}{2^{EV}}$$

f: distance from hole to film (depth of the box)
 β: half of angle of view
 D/2: half of diagonal of frame (at 4x5" appr. 75mm)

F: f-stop (aperture)
 d: diameter of hole

t: exposure time at ISO 100
 EV: light value measured by a lightmeter or estimated by the photographer at ISO 100

