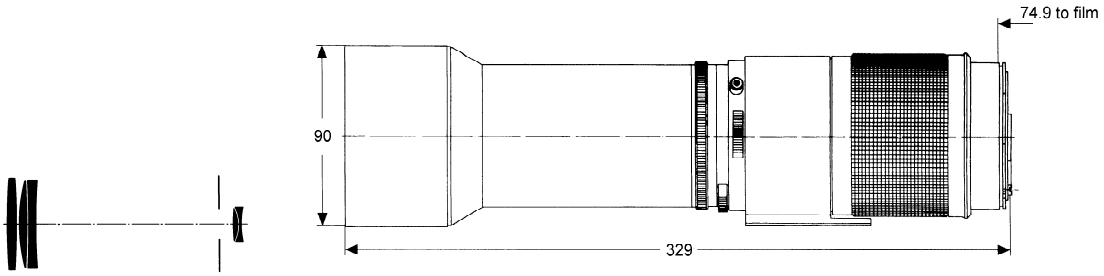
Tele-Apotessar® T* 8/500 CF



HASSELBLAD

Undoubtedly this is the longest telephoto lens in Hasselblad's optical arsenal. A powerful tool for bridging distance and compress perspective. It is the right optic for taking photos of subjects that cannot or must not be accessed, like interesting details of buildings, monuments, towers, dangerous animals, launching rockets, burning fires and the like. And it is an absolute must for nature and wildlife photographers working far away from parking lots, depending solely on their own feet for carrying their equipment: The **Tele-Apotessar**® T* 8/500 CF lens is surprisingly lightweight, a merit of the **Tessar**® lens design principle. The lens comes with a very smooth internal focusing mechanism that can easily be operated with the camera hand-held in the typical Hasselblad manner. Having said this, we strongly recommend to use the **Tele-Apotessar**® T* 8/500 CF lens with a professional grade tripod or monopod, because, due to its apochromatic correction, the optical performance is so high that it can not be fully utilized with hand-held shooting.

For this purpose the **Tele-Apotessar**® T* 8/500 CF lens comes with the Hasselblad system tripod quick mount right under the center of gravity of camera and lens combined.Tripod usage also fosters accurate focusing in general, but especially at an aperture of f/8. The Hasselblad AcuteMatte® bright focusing screen is a valuable item to have in the camera when shooting this lens. The lens barrel incorporates very efficient light baffling devices to control stray light.

The **Tele-Apotessar**® T* 8/500 CF lens can be focused down to 5 meters, and the optic is designed with special attention to close-up performance – a valuable asset in wildlife photograpy. The focusing ring can move beyond infinity to allow use of this lens in a variety of temperature conditions.

Preferred use: editorial, documentation, preservation of historical monuments, nature and wildlife

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Cat. No. of lens	**10 46 15**
Number of elements	5
Number of groups	3
Max. aperture	f/8
Focal length	499.3 mm
Negative size	55 x 55 mm
Angular field*	width 6.5°, height 6.5°, diagonal 9.0°
Min. aperture	64
Camera mount	CF
Shutter	Prontor CF
Filter connection	M 86x1
Focusing range	infinity to 5.0 m
Working distance (between mechanical front end of lens and subject)	4.6 m
Close limit field size	525 mm x 525 mm
Max. scale	1 : 9.4
Entrance pupil*	
Position	486.3 mm behind the first lens vertex
Diameter	61.7 mm
Exit pupil*	
Position	54.1 mm in front of the last lens vertex
Diameter	22.7 mm
Position of principal planes*	
H	373.7 mm in front of the first lens vertex
H'	370.1 mm in front of the last lens vertex
Back focal distance	129.3 mm
Distance between first and last lens vertex	255.0 mm
Weight	1810 g

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* for image scale 1 : infinity

ZEISS

Performance data:

Tele-Apotessar® T* 8/500 CF

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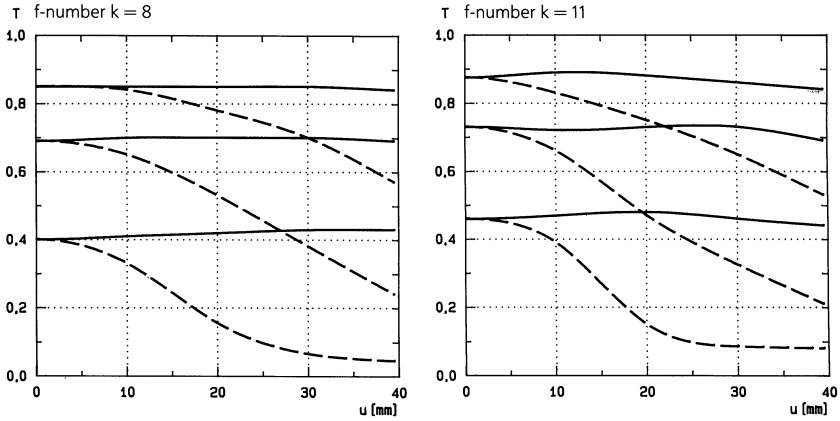
1. MTF Diagrams

The image height u - calculated from the image center - is entered in mm on the horizontal axis of the graph. The modulation transfer T (MTF = M odulation Transfer Factor) is entered on the vertical axis. Parameters of the graph are the spatial frequencies R in cycles (line pairs) per mm given at the top of this page.

The lowest spatial frequency corresponds to the upper pair of curves, the highest spatial frequency to the lower pair. Above each graph, the f-number k is given for which the measurement was made. "White" light means that the measurement was made with a subject illumination having the approximate spectral distribution of daylight.

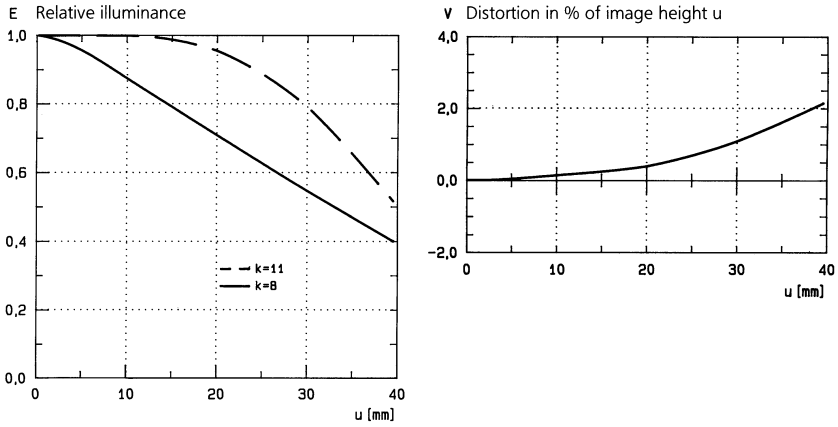
Unless otherwise indicated, the performance data refer to large object distances, for which normal photographic lenses are primarily used.

Modulation transfer T as a function of image height u. Slit orientation: tangential — — — sagittal ———— White light. Spatial frequencies R = 10, 20 and 40 cycles/mm



2. Relative illuminance

In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E, both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.



3. Distortion

Here again the image height u is entered on the horizontal axis in mm. The vertical axis gives the distortion V in % of the relevant image height. A positive value for V means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion distortion); a negative V indicates barrel distortion.

Subject to change.
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