



The Professional Photo SourceBook

Section 3a

LargeFormat - Field

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LARGE FORMAT

INTRODUCTION

The term *Large Format* simply means big film size. Large format cameras use sheet film sized 4 x 5" or larger with the most common film sizes being 4 x 5" and 8 x 10". Why such a large film size? Because in photography, the bigger the film size, the better the quality. A larger negative produces better quality prints because it requires less magnification than a smaller negative would. For example, to create a 8 x 10" print from a 35mm negative, you must enlarge the print 8 times. If you had a 4 x 5" negative, you'd only have to enlarge it 2 times. And if you used an 8 x 10" negative, you wouldn't have to enlarge the print at all! In addition, a larger negative offers a much greater range of tonal values and less apparent graininess, due to the greater number of silver halide crystals on the image.

Modern View Cameras

Although the basic concept of the view camera has changed little since the early days of photography, refinements in design, materials and manufacturing have brought today's large-format cameras into the realm of space-age technology. Offering precision adjustments of the lens and film plane, modern view cameras provide unparalleled control of the large-format image. With the aid of computers, designers have improved both the speed and quality of large-format lenses. Yet, it remains what it has always been – a tool for the creativity of the user.

Types of View Cameras

Virtually all view cameras can be divided into two basic design types – flatbed and monorail. Each type of camera has its own advantages and disadvantages. Choosing the one that is right for you is largely a matter of knowing what types of subjects you'll be working with and under what conditions you'll be photographing. All view cameras have three common components: a rear standard to hold the film, a front standard to hold the lens, and a flexible bellows to adjust the distance between the lens and film. The way the standards are joined defines the type of camera.

Flatbed Cameras

Often referred to generically as *field cameras*, flatbed cameras are light and portable enough to carry any-



Toyo 45GX monorail view camera shown on a pan head with a Nikkor-W 210mm lens mounted on a lensboard

where. In a flatbed camera, the two standards travel on a rectangular framework or "bed." The frame usually consists of a dual telescoping track that allows you to easily adjust the lens-to-film distance. Most flatbed cameras can be folded up into a compact, self-contained box for carrying. Potential limitation of field cameras is that not all of them accept interchangeable bellows — a major drawback if you work with very wide-angle lenses.

Monorail Cameras

In a monorail camera, front and rear standards travel on a single tubular channel or rail. The great advantage of monorail cameras is their extraordinary flexibility and almost limitless combination of camera movements. Front and rear standards can be independently adjusted to the most extreme angles — usually far beyond the needs of most shooting situations. Some monorail cameras are designed in modular fashion so that parts like standards and bellows and extension rails can be snapped in or out easily.

Monorail cameras are particularly popular with studio and industrial photographers whose photography frequently demands radical camera adjustments, or use of more elaborate accessories.

The drawback is a lack of mobility. If you are working

in a studio or at locations where bringing your equipment is no problem, a monorail camera should not present any real handicaps. But if you are traveling some distance by foot, a monorail camera can be a burden. While all of those great accessories are fine in the studio, they can quickly become a nuisance to keep track of in the field.

Regardless of which type of camera you are thinking of working with, the questions of portability and convenience should be given serious and realistic consideration. Field and monorail cameras range from a few pounds to 30 or more pounds. And remember, where the camera goes, so must the film holders, the light meters, the camera case and the tripod.

Selecting a Format

Over the years, view cameras have been made to accommodate a variety of film sizes, from as small as 35mm to as big as 20 x 24 inches and larger. Today, the two main view-camera formats in use are 8 x 10" and 4 x 5"; and though rapid strides in film technology are noticeably eroding the quality differences even between these two, each format does have its own virtues and benefits.

Which format is right for you?

Choosing a camera on the basis of film size requires serious consideration of several factors. In many commercial applications (studio still lifes, for instance), the quality of reproduction will almost certainly be an important priority. Many product photographers prefer working with 8 x 10 cameras, because such large negatives (and transparencies) allow far greater freedom in post-production techniques — retouching, stripping, making composites, etc. Industrial photographers, on the other hand, may prefer a 4 x 5 format camera, because a wider variety of lenses are available in this size, and because it is more portable and easier to use.

Though view camera prices tend to increase substantially as the format size increases, there is a far greater difference in price among the brands within the same format. Precision, high-quality workmanship and durability generally account for the differences. Lenses for 8 x 10 cameras are less plentiful and more expensive than lenses for smaller formats, and the size of the film being used has an effect on cost throughout your processing and printing system.

Multiple Formats

For those who must produce photographs in more than

one format, it is not necessary to purchase a completely separate view camera for each film size — there are alternative methods of adapting cameras to different formats.

- A. The interchangeability of lenses with the appropriate lens board adapters.*
- B. Reducing backs, available for many larger view cameras, allow you to use smaller film sizes.*
- C. Some view cameras, called convertibles, use a more elaborate system that involves switching bellows and rear standards to change formats.*
- D. For switching to an even smaller format, rollfilm backs are also available and allow you to use 120-size rollfilm on your view camera. In essence, you can convert a 4 x 5 camera to a medium format view camera. Some brands of view cameras also allow you to attach your existing 35mm or 120-rollfilm camera body directly to the back of your view camera.*

A Choice of Accessories

Camera and lens manufacturers have made considerable progress in simplifying view camera operation. The shutters on most modern view camera lenses, for example, can be opened for focusing and closed with a separate lever without altering the shutter speed or aperture setting.

Several devices enable you to set the shutter speed and the f/stop from behind the camera. Another somewhat more sophisticated device automatically opens the shutter and diaphragm for focusing when a film holder is removed from the camera. To "correct" the upside down groundglass image, there is a reflex viewer that also eliminates the need for a focusing cloth.

Horseman Woodman 45 field camera shown with a 150mm Schneider lens mounted on a lensboard



LARGE FORMAT

INTRODUCTION

An exposure meter with a probe to take spot readings directly from the groundglass simplifies exposure readings. One of the benefits of exposure reading taken at the film plane is that it eliminates the need to calculate an exposure increase for the extended lens-to-film distance. As an aid in previewing a setup, instant print film backs are available in both the 4 x 5" and 8 x 10" formats. Using an instant print film back allows you to produce test results for checking the image before committing to the final result. You can examine composition, lighting and exposure – in black & white or color.

Movements

The principal features that set view cameras apart from all nonadjustable cameras are the cameras movements. In a nonadjustable camera, the relationship of the lens to the film plane is fixed and permanent; other than switching from one lens focal length to another, or changing your camera position, fixed cameras offer you little actual control over image manipulation.

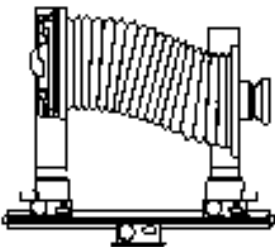
A view camera, on the other hand, allows you to change virtually every aspect of the lens/film relationship, including: lens-to-film distance, vertical and horizontal displacement and angular relationship. Because of this flexibility, you have almost limitless control over the groundglass image. You can enhance, change or exaggerate image size, shape, sharpness, depth of field and apparent perspective. In addition, you can shift the placement of the main subject within the borders of the glass without having to move the camera, allowing you to fine-tune composition even after the camera position has been established.

Basic Swing and Tilt Operations

The following basic movements are possible in actual use:

1. Rise and Fall

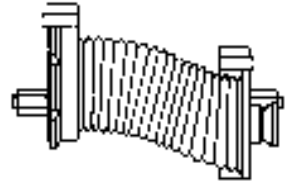
These terms refer to moving the lens and/or film upward or downward while keeping the lens and film planes perpendicular to each other. Upward movement is called rise, downward movement is called fall. The effect remains almost identical



regardless of whether it is the lens or film holder that is moved. However, it must be remembered that when the film holder is moved, the image moves in the opposite direction, as when the lens is moved. (This is also true for all other movements.)

2. Shift

"Shift" (sometimes also called "slide") is movement of the lens and/or film horizontally while keeping the lens axis and film plane perpendicular to each other. It is used to move the subject area laterally.



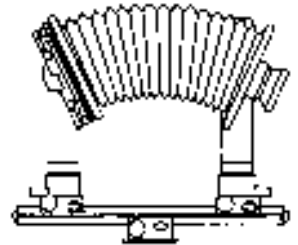
3. Swing

Swing means slanting the lens and/or film holder to the left or right. Unlike with rise, fall and shift, the lens axis and film plane are no longer perpendicular to each other. Swing is used to correct or deliberately exaggerate distortions in the (horizontal) linear perspective.



4. Tilt

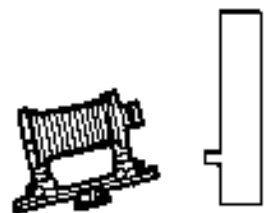
Tilt means slanting the lens and/or film holder upward or downward. In other words, "tilt" does for vertical lines what "swing" does for horizontal lines. Swing and tilt are used to change the depth of field to match the subject, or to compensate perspective lines for correct image size.



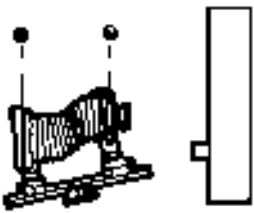
Since each of these basic movements can be performed by moving the front and/or back of the camera, there are 16 possible patterns using the four movements. In actual work, a combination of two or more of these movements is often used to obtain the proper effect for each photograph.

Vertical Perspective Control

Useful when photographing buildings from a low angle. If the camera is pointing upward. . .

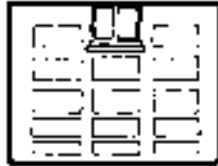


and the subject looks like this on the groundglass (converging vertical lines). . . remember, the image will be upside down.



1. Tilt camera back parallel to the face of the subject to correct perspective.
2. Tilt camera front parallel to the back to correct sharpness. Refocus if necessary and . . .

The subject will look like this. The perspective is corrected.



Horizontal Perspective



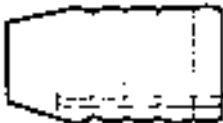
Useful in architectural, still life and product photography. If the camera is pointing at a slight angle to the subject. . . (top view)

And the subject looks like this on the groundglass (converging horizontal lines). . .



1. Swing the camera back parallel to the face of the subject to correct perspective.
2. Swing the front parallel to back to correct sharpness. Re-focus if necessary and . . .

The subject will look like this. The perspective is corrected.



Vertical Image Placement

Improves composition, eliminates reflections.



If the subject looks like this on the groundglass, or . . .

. . . like this . . .

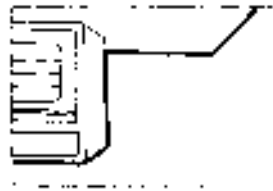
Use the front rise or fall or . . . use the back rise and fall, and . . .



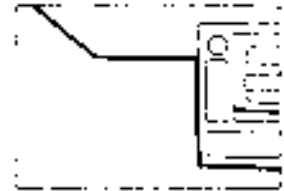
The subject will look like this, properly composed.

Horizontal Image Placement

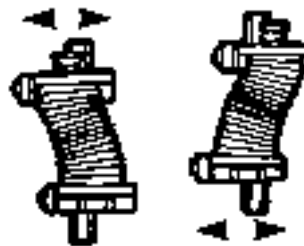
The Horizontal Image Placement is used for the same purposes as Vertical Image Placement



If the subject looks like this on the groundglass, or . . .



. . . like this . . .



Use the front lateral shift or. . .

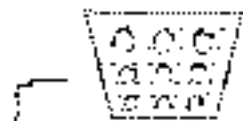
use the back lateral shift, and . . .

The subject will look like this, properly composed.



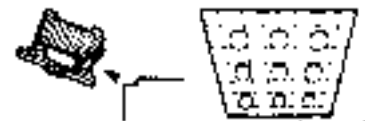
Depth-of-Field

To control depth of field with the camera.



To achieve maximum depth-of-field from the front of the subject to the back. . .

Tilt front of the camera forward, and stop down as necessary to achieve desired effect. The swings are used to control depth of field on the left to right subject plane. The swings and tilts on the back of the camera can also be used to control depth-of-field.



LARGE FORMAT

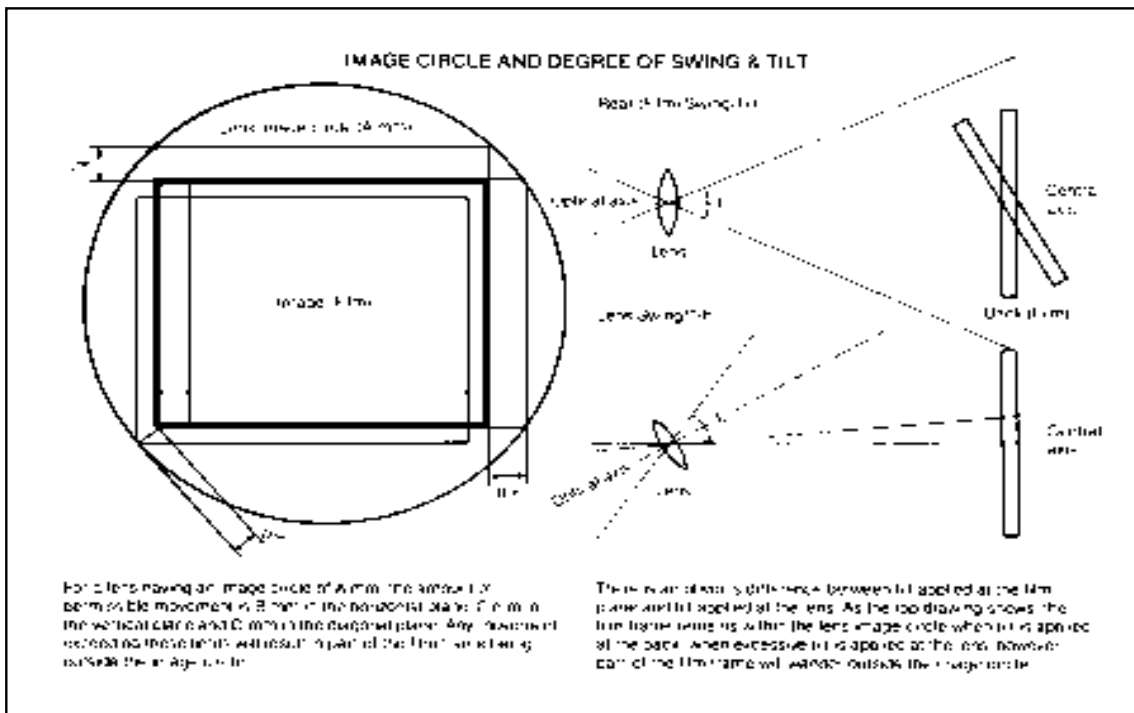
INTRODUCTION

Image Circle and Degree of Swing and Tilt

The circular image which a lens projects on the focal plane is called the "image circle." It is brightest in the center, while (with a simple lens) both its quality and brightness deteriorate towards the edges. The image circle determines the lens usable field angle, one of the

In a large format camera with swing and tilt capability, the optical axis of the lens only in rare cases intersects the film plane at its center. When a generous amount of swing and/or tilt is applied, part of the film frame may wander outside the image circle. This means that the

maximum permissible swing/tilt is limited by the size of the image circle. Although the size of the image circle can be enlarged by extending the bellows, using excessive swing or tilt will result in part of the frame being outside the image circle. To prevent this from happening, it is necessary to take into account the lens type, image circle diameter and field angle before setting the degree



characteristics of every lens. The field angle is the angle between a line from the center of the lens to the outermost edge of the image circle, and a line to the center of the circle. This is a unique, fixed lens characteristic that has no relationship to focusing distance or image size. (It does, however, change with the lens aperture.)

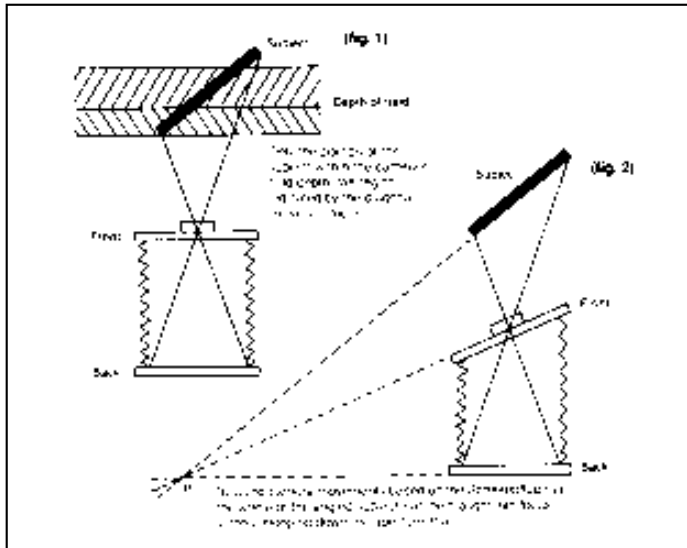
The lens minimum image circle is measured at a particular focusing distance, usually at infinity. When a nearby object is focused upon, the lens moves farther from the film plane, and the image circle naturally grows. In simple cameras without swing or tilt, the image circle and the optical axis of the lens always coincide. That means the diagonal of the film frame can, theoretically, be as long as the diameter of the image circle. However, cameras are usually designed with a somewhat smaller film frame to compensate for the loss in brightness toward the edge of the image circle.

of swing or tilt. *Even lenses of identical focal length will have different field angles and image circles if their internal composition differs; telephoto lenses, for example, have a narrower field angle than their focal length would suggest.*

The Scheimpflug Rule

In order to use camera movements properly, an understanding of the Scheimpflug rule is essential. This is the principle which enables us to form a focused image of the subject even if it is at an angle relative to the camera at wide open aperture. If the subject is at an angle relative to the optical axis of the lens, we can sometimes bring the whole of it into focus by closing down the lens aperture and thus increasing the depth of field. However, the problem cannot always be corrected sim-

ply by stopping down (see picture on left). A host of related problems can crop up as well, caused by such things as too slow a shutter speed or stopping down the aperture too much (which will cause the picture quality to deteriorate). Such difficulties are frequent when we rely only on small f-stops to solve the problem. By contrast, if we use camera movements based on the Scheimpflug rule, we can bring the whole of an angled subject into perfect focus without stopping down the aperture at all. The Scheimpflug rule states that it is possible to keep in focus all of the subject, provided that the axis formed by its surface, the axis of the camera front and the axis of the camera back all meet in a single point. The Scheimpflug rule is a technique no photographer using camera movements can ignore.



Close-Ups

Large format cameras permit macro or close-up photography without adding supplementary bellows or extension tubes. Most view cameras can achieve anywhere from a 1:1 magnification with a 210mm lens, up to 4:1 ratio with a 90mm lens. Yet if additional magnification is needed, usually a supplementary bellows can be added, or a shorter focal length lens can be used. Film exposure with a view camera is the same as that of any other camera, except that the bellows extension (the distance from the center of the lens to the film) and reciprocity failure more often need consideration. As the bellows extension increases, the intensity of the light reaching the film decreases. The formula is as follows:

$$\frac{(\text{bellows length})^2}{(\text{focal length})^2} = \text{exposure factor}$$

Assume that the focal length is six inches (150mm), and the bellows extension is twelve inches. Therefore:

$$\frac{12^2}{6^2} = \frac{144}{36} = 4X$$

The exposure factor is 4x (or two stops), so if the indicated exposure is 1/250 at f/8, use a corrected exposure of 1/60 at f/8, or 1/125 at f/5.6 or 1/250 at f/4.

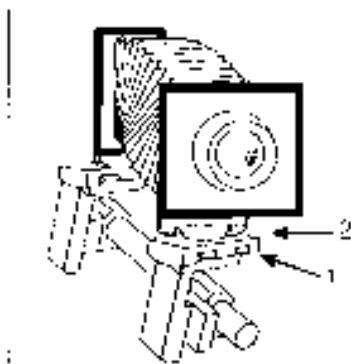
A simpler way to figure the needed correction is the 50 percent rule: For every 50 percent increase of bellows extension over focal length, increase exposure by one stop.

The table below converts exposure factor into an exposure value for you.

Exposure Factor	4X	5.6X	8X	11X	16X
Exposure Value	2EV	2.5EV	3EV	3.5EV	4EV

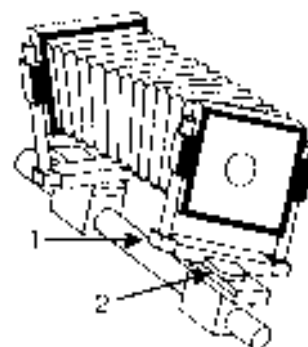
Yaw-Free

Yaw is defined as the sideways tilting of a standard when swing is applied to the standard after it has been tilted. This results in standards which are not parallel in any axis. A yaw-prone camera requires multiple adjustments to maintain depth-of-field and focus when two or more adjustments are made to the same standard. A yaw-free design allows the photographer to tilt and swing a standard without having the second adjustment negate the benefits of the first.



Whether a camera yaws or not depends on the sequence of the joints. If the joint for tilting about the horizontal axis (1) comes first in the standard block, the camera design is yaw-free.

If, however, the joint for swinging round the vertical axis (2) is located ahead of the joint for tilting round the horizontal axis (1), the camera will be subject to yaw.



GANDOLFI

VARIANT 4x5" CAMERAS

FIELD CAMERAS

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The Gandolfi Variant 4x5 field cameras from England are truly portable cameras that fold up neatly for field operation. They also offer a variety of sophisticated features for professional work in the studio. Both models are constructed with super stable MDF composite with aluminum and brass hardware, in a professional black finish.



Lens not included

FEATURES

- Interchangeable Bellows
- Base and axis tilts on Variant Standard and Deluxe models
- Yaw-free on Standard and Deluxe models
- Rack & pinion front and rear focusing

Bellows

Wide Angle Bellows (1533)

Ideal for wide-angle photography, for maximum camera movements at minimum bellows extension. Suitable for short and ultra short lenses. Folds down to 2" (50mm) and extends to 7" (178mm).

Item # GABB279.95

For Lensboards, see Linhof, Wista or Pro Accessories.

Variant Standard
4x5 Field Camera (1530)
With long bellows and standard back.
Item # GAV451,516.50

Variant Deluxe
4x5 Field Camera (1531)
With long bellows and standard back.
Item # GAV45K1,794.95

Variant Standard
4x5 Field Camera (1530)
With long bellows and revolving back.
Item # GAV45Q1,948.50

Variant Deluxe
4x5 Field Camera (1531)
With long bellows and revolving back.
Item # GAV45KQ2,128.50

VARIANT STANDARD AND DELUXE

TILTS:

Variant Standard:
Front: 50° + 50% Axis;
Rear: 50° + 20% Axis

Variant Deluxe:
Front: 50° + 50% Axis;
Rear: 50° + 20% Axis

SWINGS:

Variant Standard:
Front: 50°, Rear: 23°

Variant Deluxe:
Front: 50°, Rear: 23°

RISE & FALL (COMBINED):

Variant Standard:
Front: 2 3/8" (70mm)

Variant Deluxe:
Front: 2 3/8" (70mm),
Rear: 1.38" (35mm)

LATERAL SHIFT:

Variant Standard:
Front: 2" (51mm)

Variant Deluxe:
Front: 2" (51mm),
Rear: 2" (51mm)

CAMERA BACK:

Variant Standard:
International Standard 4x5
Quick Change back;

Variant Deluxe:
International 4x5
quick change back

FOCUSING SCREEN:

Variant Standard:
Groundglass with Grid Lines

Variant Deluxe:
Groundglass with Grid Lines

INTERCHANGEABLE BELLOWS:

Variant Standard: Yes;
Variant Deluxe: Yes

MINIMUM BELLOWS DRAW:

Variant Standard:
2 3/8" (73mm);

Variant Deluxe:
3 1/8" (81mm)

MAXIMUM EXTENSION:

Variant Standard:
19" (482mm);

Variant Deluxe:
19" (482mm)

YAW-FREE BASE TILT:

Variant Standard: Yes;
Variant Deluxe: Yes

LENSBOARD:

Variant Standard:
Technika Wista type;

Variant Deluxe:
Technika Wista type

DIMENSIONS LWD:

Variant Standard:
9.8 x 9.8 x 6"
(249 x 250 x 150mm);

Variant Deluxe:
9.8 x 9.8 x 6"
(249 x 250 x 150mm)

WEIGHT:

Variant Standard:
7.5 lbs. (3.4kg);

Variant Deluxe:
8.8 lbs. (4kg)

Subject to change without notice

HORSEMAN

VH 6 x 9 cm FIELD SYSTEM

For over 50 years, Horseman has been producing the world's finest metal body field cameras. The VH is the culmination of many years of popular predecessors. The lack of a rangefinder reflects on the growing trend towards tripod versus hand-held use. The VH is a genuine technical camera, based on the 6x9cm format, which is easily adaptable to formats from 6x7cm to 4x5" by choosing from among the wide range of Horseman accessories. High precision engineering permits a variety of swing and tilt functions, as well as close-up and macro photography to be performed with ease. The lightweight Horseman VH is eminently suitable for field work. As focusing is done on the groundglass screen, exact picture composition in landscape work, for example, can be easily achieved. The Horseman VH - a versatile system for the mobile photographer.



Horseman
VH Camera
(11102) lens
and lensboard
not included

FEATURES

- 6x9 format, adaptable to 6x6, 6x7, 6x12cm and 4x5"
- 90° revolving back for greater efficiency
- Rear tilts and swings for perspective control
- All machined parts with adjustable infinity stops for quick set up
- Small, light and compact
- Front tilts and swings for extending depth-of-field in landscape situations
- Rise, fall and shift for image alignment
- Leather-like finish
- Right and left focusing knobs
- Extendible bellows for high resolution macro and repro work
- All metal body

VH Camera (11102)
Complete with groundglass screen, folding focusing hood, revolving back and handstrap.
Item # HOVH2,069.00

VH SPECIFICATIONS

TILTS:
Front: 25°; Rear: 11°

SWINGS:
Front: 30°; Rear: 10°

RISE & FALL (COMBINED):
Front: 1.1" (28mm)
+ 15° Bed Drop

LATERAL SHIFT:
1.2" (30mm)

CAMERA BACK:
Revolving Back
accepts Standard 6x9
Cut Film Holders
and Rollfilm Holders

FOCUSING SCREEN:
6x9 Groundglass with
10mm Grid Lines

MINIMUM BELLOWS DRAW:
50mm

MAXIMUM EXTENSION:
Front: 9.8" (249mm);
Rear: + .9" (23mm)

TRACK LENGTH (EXTENSION):
2.8" (72mm)

LENSBOARD:
80 x 80mm Horseman
Technical Type

FOLDED DIMENSIONS:
6.2 x 6.3 x 3.8"
(157 x 160 x 97mm)

WEIGHT:
3.7 lbs. (1.7kg)

Subject to change without notice



HORSEMAN

WOODMAN 45 4x5" FIELD CAMERA

FIELD CAMERAS

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Horseman, renowned for its metal body field cameras, is proud to introduce its first wooden body camera, the affordable Woodman 45. Combining the beauty and warmth of a hand-crafted wooden body with the technical movements of view camera, the Woodman 45 is appropriate for many field applications. Constructed entirely of cherry wood, to ensure strength and beauty, it will eliminate the possibilities of warping. The hardware has a satin chrome finish, with skillfully joined corners, which combine to give the Woodman beauty and life-time durability. The compact, easy-to-set-up body, accepts Linhof standard lens panels that give you a tremendous choice of lenses — from wide-angle to telescopic. Plus, full swing and tilt functions meet all artistic demands.



Horseman Woodman 45 (27191)

FEATURES

- Beautifully finished cherrywood body
- Lightweight construction. Weighs just 3.2 lbs. (1.45kg)
- Focusing knobs both on right and left hand sides
- Folds to a very compact package
- Accepts Wista or Linhof type lensboards
- Accepts Horseman 6x7, 6x9 and 6x12 rollfilm holders, as well as other international accessories
- Includes convenient carrying strap

Woodman 45 Camera (27191)

With standard grid screen.

Item # HOWM451,079.00

Linhof-Wista Compatible Metal Lens Boards

Lens Panel
Drilled for #0 (27621)
Item # HOLB0L.....49.95

Lens Panel
Drilled for #3 (27623)
Item # HOLB3L.....49.95

Lens Panel
Drilled for #1 (27622)
Item # HOLB1L.....49.95

Lens Panel Adapter (27625)
Accepts Horseman 80 x 80mm mounted lensboards.
Item # HOLB8SL.....319.95

WOODMAN 45 SPECIFICATIONS

TILTS:
Front: 50°; Rear: 40°

SWINGS:
Front: 20°; Rear: 20°

RISE & FALL (COMBINED):
Front: 2.4" (60mm)

LATERAL SHIFT:
Front: 0.8" (20mm)

CAMERA BACK:
International 4x5 Standard
4-way Changeover

**MINIMUM BELLOWS
DRAW:**
1.7" (45mm)

MAXIMUM EXTENSION:
12.4" (315mm)

TRACK LENGTH
12.4" (315mm)

MOVEMENTS:
Geared Track

LENS:
Accepts all Lenses in #0, #1
and #3 Shutters

LENSBOARD:
96 x 99mm, Linhof
Technika or Wista type

FOLDED DIMENSIONS:
7.9 x 8 x 3.3"
(200 x 205 x 85mm) HWD

WEIGHT:
3.2 lbs. (1.45kg)
Subject to change without notice

Literature Available Upon Request

HORSEMAN

45HD 4x5" FIELD SYSTEM

The Horseman 45HD is the latest edition to Horseman's comprehensive range of large format technical cameras. This heavy duty 4x5" field camera is fully compatible with international standard film holders, as well as with all Horseman components and accessories. The Horseman 45HD takes into consideration the needs of professional photographers whose work includes strenuous field assignments. It offers simplified handling, rugged shock protection, and competitive pricing, which is well below that of many wooden cameras. And despite its heavy duty construction, the 45HD weighs only 1.7 kg., making it ideally suited to dynamic field work. Being so light, it can be mounted on a tripod for even greater total weight savings.



Horseman
45HD Camera (21105).
Lens and lensboard not
included

FEATURES

- Rugged, synthetic housing provides additional protection
 - High-precision 4x5 compact field camera
 - Leatherette hand strap can be moved to either side of the camera body
 - Shock-protected for rugged field work
 - Advanced "flip top" permits full rise with wide angle lenses
 - Quick change of vertical/horizontal setting
 - Focusing is possible on both sides of the camera body
 - No assembly! Simply snap open and shoot.
 - Weighs only 1.7 kg (under 4 lbs.)
 - Comes with one set of infinity stops
 - Great for students or hobbyists
- Horseman
45HD Camera (21105)
Complete with:
Groundglass, vertical/horizontal camera back and strap.
Item # HO45HD.....1,980.00

45HD SPECIFICATIONS

TILTS:
Front: 25°

SWINGS:
Front: 30°

RISE & FALL (COMBINED):
Front: 1.1" (28mm)
+ 15° Bed Drop

LATERAL SHIFT:
Front: 1.2" (30mm)

CAMERA BACK:
Quick Change
Vertical/Horizontal Back
accepts Int'l Standard 4x5

FOCUSING SCREEN:
4x5 Groundglass with 10mm
Grid Lines

MINIMUM BELLOWS
DRAW:
Minimum 60mm

MAXIMUM
EXTENSION:
Front: 9.8" (249mm);

TRACK LENGTH
(EXTENSION):
2.8" (72mm)

LENSBOARD:
80 x 80mm Horseman
Technical type

FOLDED DIMENSIONS:
6.8 x 6.5 x 3.8"
(173 x 164 x 97mm)

WEIGHT:
4.4 lbs. (2kg)

Subject to change without notice

HORSEMAN

45FA 4x5" FIELD SYSTEM

FIELD CAMERAS

134

Built of rugged, aircraft quality aluminum, the FA weighs only 2 kg. (4.4 lbs.). Combining full front movements with rear tilts and swings, the 45FA is suited to both landscape and industrial photography. In addition, its finely pleated bellows allows the use of lenses as short as 65mm. To switch from horizontal to vertical shooting is effortless, thanks to a removable back. The pop-up folding focusing hood combined with the included fresnel screen enables the photographer to focus without a dark cloth, even in daylight conditions.



Horseman 45FA Camera (21104)
lens and lensboard not included

FEATURES

- High-precision 4x5 compact field camera
- Tough and durable construction to survive even rugged field conditions
- Full range of camera movements
- Quick change of vertical/horizontal setting
- Built-in spirit level
- Three tripod sockets allow flexibility in mounting
- Comes with three sets of infinity stops
- Has reversible focusing scale which covers six different focal lengths of lenses
- Features rear and tilt swings
- All machined parts with adjustable infinity stops for quick set up
- Hand strap can be moved to either side of the camera body
- Focusing lock lever
- Focusing is possible on both sides of the camera body
- Leather-like finish
- All metal body

45FA Camera (21104)
Complete with groundglass, fresnel lens, folding focusing hood, vertical/horizontal camera back and strap.
Item # HO45FA.....2,695.00

45FA SPECIFICATIONS

TILTS:

Front: 25°; Rear: 10°

SWINGS:

Front: 30°; Rear: 11°

RISE & FALL (COMBINED):

Front: 1.1" (28mm)
+ 15° Bed Drop

LATERAL SHIFT:

Front: 1.2" (30mm)

CAMERA BACK:

Quick Change
Vertical/Horizontal Back
accepts International
Standard 4x5

FOCUSING SCREEN:

4x5 Groundglass with 10mm
Grid Lines

MINIMUM BELLOWS

DRAW:
Minimum 60mm

MAXIMUM EXTENSION:

Front: 9.8" (249mm);
Rear: + .9" (23mm)

TRACK LENGTH (EXTENSION):

2.8" (72mm)

LENSBOARD:

80 x 80mm Horseman
Technical type

FOLDED DIMENSIONS:

6.8 x 6.5 x 3.8"
(173 x 164 x 97mm)

WEIGHT:

4.4 lbs. (2kg)

Subject to change without notice

H O R S E M A N

V H , H D , F A S Y S T E M

FIELD CAMERAS

135



BODY ACCESSORIES

Quick Shoe with Camera Adapter (27564)
For quick, secure mounting of camera on the tripod. Simply attach shoe to tripod, adapter to camera, then slide shoe into adapter until it locks in place. The shoe has spring-loaded stopper pins at both ends to secure the camera, even when it is not yet properly locked in place. The two spring-loaded guide pins on the adapter determine the positioning of Horseman field cameras.
Item # HOQS294.95



Quick Shoe with Camera Adapter (27564)

Quick Shoe Adapter (27565)
When attached to the camera, the Quick Shoe Adapter permits quick slide-in/slide-out mounting on tripods equipped with a Quick Shoe. (Replacement.)
Item # HOQSA69.95

Flashgun Clamps (38mm) (25661)
When mounting electronic heavy duty flash unit, use clamps to attach strobelight or flashgun (grip type) to Horseman camera.
Item # HOFGC3879.95

Hand Strap (27841)
For sturdier hand holding of 45FA.
Item # HOSHER149.95

Hand Strap (27823)
For sturdier hand holding of VH and VH-R.
Item # HOSHVH39.95

Extension Adapter (22521)
For 45FA or HD for using long focal lenses up to 720mm..
Item # HOEA45FA1,494.95



VIEWING ACCESSORIES

6x9 Grid Pattern Groundglass (27833)
10mm grid pattern on groundglass gives critical correction of vertical/horizontal lines. (Replacement.)
Item # HOGGG6936.95

6x9 Goundglass (27832) (Replacement.)
Item # HOGG6934.95

6x9 Fresnel Screen Kit (27835)
Fresnel lens offers a brighter viewing area for judging camera movements and focusing. The fresnel snaps easily into place over the groundglass. Includes mounting hardware.
Item # HOF69K29.95

6x9 Fresnel Lens (27834)
Fresnel lens only.
Item # HOF6924.95

4x5 Groundglass (23891) (Replacement.)
Item # HOGGG4549.95

6x9 Angle Viewer (22551)
Right-side-up viewer for outdoor use. Shuts out stray light. Rotating eyepiece angled 70° against optical axis for comfortable viewing in natural position. Approximately 2x magnification of screen image.
Item # HOAV69324.95

4x5 Binocular Direct Viewer (23547)
The 4x5 Binocular Direct Viewer is ideal for clear observation of image on the groundglass screen, even in bright lighting or outside under the sun. The image of the groundglass screen is observed through +3 dioptic magnified glasses. The bellows' flexibility offers a desired viewing angle.
Item # HOB DV609.00

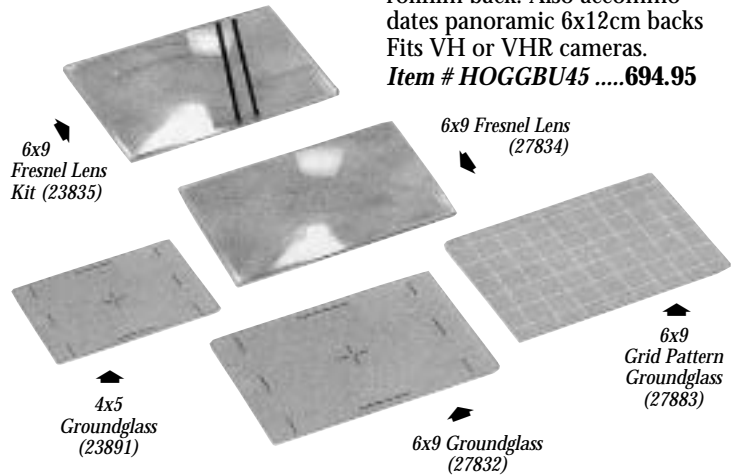
Wide Angle

4x5 Fresnel Lens (23892)
Fresnel lens only.
Item # HOF4579.95

Snap-On Fresnel Attachment (23831)
Attachment for fresnel lens. Snaps easily on and off groundglass, magnetically.
Item # HOFA79.95

4x5 Aerial Image Focusing Screen (24593)
For microscopic and extreme low-light photography.
Item # HOGGA145249.95

4x5 Universal Groundglass Back (22511)
Upgrades 6x9 cameras to 4x5 format. Attaches as easily as a rollfilm back. Also accommodates panoramic 6x12cm backs. Fits VH or VHR cameras.
Item # HOGGBU45694.95

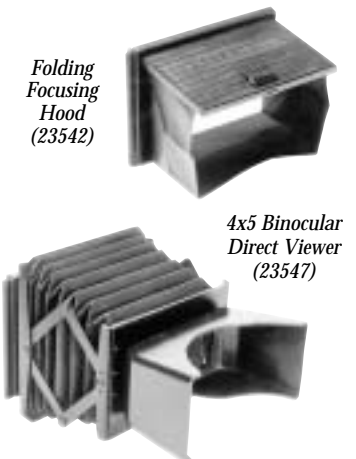


Focusing Hoods

6x9 Angle Viewer (22551)
Right-side-up viewer for outdoor use. Shuts out stray light. Rotating eyepiece angled 70° against optical axis for comfortable viewing in natural position. Approximately 2x magnification of screen image.
Item # HOAV69324.95

4x5 Folding Binocular Reflex Viewer (23543)
Gives viewer two right-side up corrected image. Folds into a small, easily portable unit. Usable in the field, as well as in the studio. Made of sturdy, yet light synthetic material. Accurate mirror angle adjustment by Horseman's unique, smooth helicoid drive. Mounts on Horseman standard, as well as 14 x 14cm standard cameras.
Item # HOBRV849.00

4x5 Folding Focusing Hood (23542)
For easier focusing outdoors. Folds together for convenient carrying and storage. Easily snaps on and off frame which attaches it to the groundglass.
Item # HOFH45194.95



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HORSEMAN

VH, HD, FA SYSTEM



VIEWING ACCESSORIES, *continued*

Miscellaneous Viewing

Precision Magnifier (4x) (25612)

A superbly designed magnifier with focus adjustment and edge to edge flat field over its large diameter (55mm) field. An especially valuable tool for examining negatives, prints, etc.

Item # HOMAX.....214.95



*Universal Zoom
Finder 69 (21501)*

Universal Zoom Finder 69 (6x9cm) (21501)

Can be used either attached to a camera for hand-held shooting, or separately. By using the Universal Zoom Finder to compose the subject and the zooming knob to determine the focal lengths of the lenses you wish to use, you can avoid moving the camera about and changing lenses unnecessarily. Suitable for use with lenses with a focal length of 65-300mm.

Item # HOZF69.....849.95

Universal Zoom

Finder 45 (4x5") (21502)

Same as Zoom Finder 69, but with a format mask 4x5 for use with lenses of a focal length of 90-400mm.

Item # HOZF45.....899.00

Format Mask 6x9 (21701)

Item # HOMZF69.....294.95

Format Mask 4x5 (21702)

Item # HOMZF45.....294.95

Photo Angle Finder (25615)

Measures relative angle between film plane and object, or angle against perpendicular of object itself. For accurate swing/tilt operations. Features oil damped indicator needle.

Item # HOFPA.....Disc



BACK ACCESSORIES

6x9 Film Backs

Horseman provides four types of rollfilm holders in 6x7 and 6x9cm formats, for 120 and 220 rollfilm, respectively. Every Horseman rollfilm holder features smooth, positive film transport, maintains "Film Plane" surface and eliminates interior light reflections. Horseman film holders are easy to use. They are professionally designed and built to the highest quality standards.

Rollfilm Holder 1 (22401)

6x9cm. 8 exposures on 120 rollfilm.

Item # HOFB69120VH...399.00

Rollfilm Holder 2 (22402)

6x7cm. 10 exposures on 120 rollfilm.

Item # HOFB67120VH...399.00

Rollfilm Holder 3 (22403)

6x9cm. 16 exp. on 220 rollfilm.

Item # HOFB69220VH...399.00

Rollfilm Holder 4 (22404)

6x7cm. 20 exp. on 220 rollfilm.

Item # HOFB67220VH...399.00

Sheet Film Holder

(6x9cm) (22481)

For times when only one or two shots are needed. Double exposure prevention.

Item # HOFH69.....84.95

6x9 Polaroid Film Back (22471)

For instant preview shots. Supplied "G" spacer permits focusing on groundglass.

RF spacer for rangefinder coupling of model VH-R.

Item # HOFBPVH.....375.00

Groundglass Back for

Polaroid Photography (22573)

Allows you to use the 6x9 Polaroid back with a Rotary Back. Keeps the same film plane as the Polaroid film.

Item # HOGGBP.....98.95

P-Adapter for

Rollfilm Holder (22572)

To obtain the same film plane as the 6x9 Polaroid Film Back, use the P-Adapter on the rollfilm holder.

Item # HOPA.....224.95

4x5 Film Backs

Film backs for 4x5" cameras feature ratchet advance and automatic counter resetting. There are backs for 120 and 220 film and a 6x12 for panoramic photography. They are designed to fit all 4x5" cameras that follow the accepted international standard.

Rollfilm Holder 451 (22451)

6x9cm. 8 exposures on 120 rollfilm.

Item # HOFB6912045...469.00

Rollfilm Holder 452 (22452)

6x7cm. 10 exposures on 120 rollfilm.

Item # HOFB6712045...469.00

Rollfilm Holder 453 (22453)

6x9cm. 16 exposures on 220 rollfilm.

Item # HOFB6922045...469.00

Rollfilm Holder 454 (22454)

6x7cm. 20 exposures on 220 rollfilm.

Item # HOFB6722045...469.00

Rollfilm Holder 612 (22461)

6x12cm. 6 exposures on 120 rollfilm.

Item # HOFB61245.....849.00

Format Mask Set (23870)

For 6x7, 6x9 and 6x12cm. rollfilm. Supplied as a set.

Item # HOFMS.....29.95



*Assorted Horseman 4x5
and 6x9 film backs*

Overnight Shipping Available

BACK ACCESSORIES, *continued*

Rotary Backs

For quick changeover of rollfilm holder and groundglass, mount screen and film holder side by side on a circular, rotating camera back. Compose and focus on the screen, then simply rotate the back through 180° in a single motion. Efficiency will be greatly improved. The built-in exposure prevention permits the back to be rotated without insertion of the dark slide.

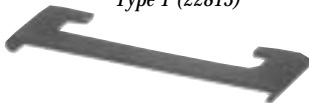
Rotary Back Type 1 (22501)
For VH and VH-R with 6x9cm fitting plate. Use groundglass back for the camera bodies. Cannot be used with 65mm and 70mm lenses.
Item # HORB1664.95



Rotary Back Type 2 (22502)

Rotary Back Type 2 (22502)
Fits all international standard 4x5" cameras. For 6x7 and 6x9cm photography. Supplied with groundglass back.
Item # HORB2794.50

Spacer for Rotary Back Type 1 (22813)



Spacer for Rotary Back Type 1 (22813)
Due to the thickness of the Rotary Back Type 1, the film plane is 25mm further back than normal, which requires lens readjustments. This spacer compensates for this difference, permitting easy focusing to infinity.
Item # HORB1S14.95

Exposure Meters

TTL meters for average, full-area measuring on the film plane. Read-out of film surface value with immediate computation of shutter speed or aperture setting. Fits cameras like a sheet film holder. No need to calculate bellows factor for close-ups, or to consider any other effect on the exposure caused by the movements or filter usage.



Exposure Meter 69 (04301)

Exposure Meter 69 (04301)
Full area measuring on the entire 6 x 9cm format. For VH, VH-R, Rotary Back and 6x9 Reducing Back.
Item # HOM69659.00

Soft Case (25671)
For Exposure Meter 69. Made from synthetic leather.
Item # HOCSM.....49.95

4x5" Adapter (24645)
For Exposure Meter 69. Measures 6 x 9cm area on the 4 x 5" format when mounted.
Item # HO45AM69149.95

Exposure Meter 45 (04311)
Full area measuring on the entire 4x5" format. The meter face can be rotated with click spots at 45°, to be readable from any direction. Battery supplied. For all 4x5" cameras.
Item # HOM45945.00

Hard Case (25675)
For Exposure Meter 45.
Item # HOCHM.....74.95

6.2v Spare Battery (25837)
For Exposure Meters.
Item # HOBQ22.50

FRONT ACCESSORIES

Lensboards and Adapter Lensboards

Blank Field Lensboard (25655)
For drilling one's own lens opening.
Item # HOLBBF74.95

#0 Field Lensboard (25656)
Accepts all #0 size shutters.
Item # HOLB0F.....84.95

#0 Field Lensboard with C1 Ring (25651)
The shutter is mounted forward of the panel surface, improving operability with a #0 shutter.
Item # HOLBC0RF94.95

#1 Field Lensboard with C1 Ring (25651)
For mounting Copal #1 shutters. The C-ring (spacer) moves the shutter a bit forward from the panel for smoother operation.
Item # HOLBC1RF94.95

For Woodman lensboards, see Woodman camera



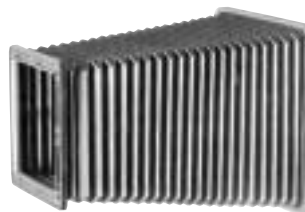
#1 Field Lensboard for Telephoto (25658)

#0 Field Lensboard for Telephoto (25652)
Cone shaped extension for 360 and 400mm lenses.
Item # HOLB0F.....124.95

#1 Field Lensboard for Telephoto (25658)
Cone shaped extension for telephoto lenses.
Item # HOLB1F.....124.95

Linhof to Horseman Field Adapter Board (25659)
Fits Linhof or Woodman mounted lenses onto adapter board.
Item # HOLBALF.....494.95

Bellows



Bellows VH (27825)
Also for VH-R. (Replacement.)
Item # HOBVH.....99.95

Bellows 45FA (27828)
(Replacement.)
Item # HOB45FA109.95

CASES

Field Carrying Case (25669)
Camera bag, with shoulder strap, made of lightweight, water repellent, cushioned Cordura nylon.
Item # HOCF238.95

Lens Case (S) (25673)
Genuine leather case for ER 75, 90, 105, 120 and 150mm lenses.
Item # HOLCS59.95

For more accessories, see Horseman View Camera accessories.

Lens Case (S) (25673)



Lens Case (L) (25674)
Genuine leather case for ER 65 and 180mm lenses.
Item # HOLCL64.95

L I N H O F

SUPER TECHNIKA 23 2¼ x 3¼" SYSTEM

The Technika is a superior technical camera which is respected for its outstanding design. It is considered to be the most universal and compact precision large format system for both location and studio shooting. It is a technical baseboard camera with sturdy die-cast body and lift-up flap on top of the camera body for increased wide-angle efficiency. Built-in coupled precision long-base dichroic range-finder, triple drop bed extension, detachable quick-change swing back with revolving frame, grid groundglass and removable focusing hood. Fold-up infinity stops and interchangeable distance scales for each coupled lens, tricom coupling disc for three lengths.



Super Technika 23 (000037) shown with optional Multifocus Finder (001388) and Left Hand Grip (002512) shown with optional lens and lensboard

FEATURES

- Compact, light-weight, sturdy die-cast body
- 6x9 format, adaptable to 6x6 and 6x7
- Complete freedom with swing and tilts on both front and rear
- Groundglass or rangefinder focusing offers choice of hand-held or tripod use
- The smallest all-around technical camera
- Rangefinder coupled lenses
- Optional optical multi-focus finder allows the photographer quick handheld shooting
- Quick change revolving frame allows both horizontal and vertical images
- Optional anatomical left-hand or right-hand grip
- No assembly! Snap open, and shoot!

Super Technika 23 Body (000037) With folding focusing hood and groundglass grid screen. Item # LIST236,895.00

SUPER TECHNIKA 23 SPECIFICATIONS

TILTS:

Front: 30°; Rear: 15°

SWINGS:

Front: 15°; Rear: 15°

RISE & FALL (COMBINED):

Front: 1.3" (32mm) + 15° Bed Drop;

Rear: -

LATERAL SHIFT:

Front: 2" (50mm); Rear: -

CAMERA BACK:

Revolving Back accepts Standard 6x9 Cut Film Holders, Super Rollex and Cine Rollex rollfilm Backs

FOCUSING SCREEN:

6x9 Groundglass with Grid Lines

MINIMUM BELLOWS DRAW:

47mm

MAXIMUM EXTENSION:

11.8" (300mm)

LENSES:

58-180mm can be Rangefinder Coupled. 210, 270 and 360mm lenses can be infinity-adjusted for groundglass focusing. Diameter of Front Standard opening is 62mm.

LENSBOARD:

Linhof Technika 23 Lensboards 74 x 81mm

FOLDED DIMENSIONS:

7 x 5.5 x 3.5" (17 x 14 x 9cm)

WEIGHT:

4 lbs. (1.8kg)

Subject to change without notice

L I N H O F

MASTER TECHNIKA 4x5" SYSTEM

Technical baseboard camera with sturdy die-cast body that closes to extremely compact dimensions. The ideal large format system for handheld rangefinder-focused action shots, and for deliberately composed studio or location subjects. Built-in coupled precision long-base dichroic rangefinder, triple drop bed extension, lift lever for standard rise, universal spring back with revolving swing frame, including grid groundglass and focusing hood. Lift-up flap on top of camera housing for increased wide-angle efficiency. Easily interchangeable scale stage for three each distance scales to match rangefinder-coupled lens. Removable finder shoe and additional tripod socket on top for positioning the camera upside down for extreme lens drop.



Master Technika (000054) shown with optional Multifocus Finder (001378) and Left Hand Grip (002549) shown with optional lens and lensboard

FEATURES

- **Extra tripod socket allows mounting camera upside down**
 - **Built-in triple extension allows magnification of 12:1**
 - **Optional optical multi-focus finder allows quick handheld shooting**
 - **Groundglass or rangefinder focusing**
 - **Revolving back for horizontal/vertical images**
 - **Omnidirectional swing back for perspective corrections and depth-of-field control**
- Original Classic Master Technika 4x5 (000054)
With wrist loop, folding focusing hood and ground-glass grid screen.
Item # LIMT45.....4,995.00
- Master Technika 4x5 Black Limited Edition (000054B)
With wrist loop, folding focusing hood and ground-glass grid screen.
Item # LIMT45BLE..3,999.00
- Master Technika 4x5 Kit
Consists of Master Technika 4x5 Black Limited Edition (000054B), a Rodenstock 150mm f/5.6 cammed and mounted on a Linhof lensboard.
Item # LIMT45BLEK.....4,899.00

MASTER TECHNIKA SPECIFICATIONS

TILTS:

Front: 60°; Rear: 36°

SWINGS:

Front: 30°; Rear: 36°

RISE & FALL (COMBINED):

Front: 2.2" (55mm)
+ 15° and 30° Bed Drop
Rear: 40°

LATERAL SHIFT:

Front: 3" (78mm)

CAMERA BACK:

International Standard
4x5 Revolving Back

FOCUSING SCREEN:

4x5 Groundglass
with Grid Lines

MINIMUM BELLOWS DRAW:

65mm

MAXIMUM EXTENSION:

Front: 15.7" (400mm)
Back: + 1.4" (35mm)

LENSES:

75-360mm (Tele) can be rangefinder-coupled, other focal lengths and Imagon lenses groundglass focusing only, 58/65mm extreme wide-angle lenses (no displacements) require focusing adapter 002555. Front standard accepts all lenses with a maximum rear diameter of 83mm.

LENSBOARD:

Linhof Technika 45
Lensboard 96 x 99mm

FOLDED DIMENSIONS:

8 x 7 x 4.5"
(20 x 18 x 11cm)

WEIGHT:

6 lbs. (2.6kg)

Subject to change without notice



MASTER TECHNIKA 2000 4x5" SYSTEM

Master Technika 2000
(000120)
shown with
optional lens,
lensboard and EMS
Module viewfinder
(001350)



The Master Technika 2000 is the first large format baseboard camera that offers the option of adding a separate electronic range/viewfinder module. This system remains the classic tool for the creative and technical photographer, offering a full range of adjustments for perspective corrections and depth-of-field control with convenient groundglass observation. It also features a focusing track inside the camera housing for increased wide angle efficiency, which permits convenient and positive focusing of even the shortest wide angle lenses with the aid of a fingertip-controlled focusing lever.

FEATURES

- **Integrated wide angle focus track for extreme wide angle lenses**
 - **Optional EMS process computer provides electronic range/viewfinder control for handheld action shots without interfering with mechanical features and the full range of movements**
 - **LCD provides focusing information on EMS module**
 - **Dropped struts with notches for 15° and 30° drop for wide angle shots**
 - **Front standard accepts lenses from 45 to 500mm**
 - **Revolving back**
- Master Technika 2000 (000120)
With built-in wide-angle focusing track, revolving groundglass back, cm-grid groundglass, and folding focusing hood.
Item # **LIMT200045..5,795.00**

- **Optional left-hand or right-hand grip**
- **No assembly! Snap open, and shoot!**

EMS Module for Master Technika 2000 (001350)
Opto-electronic range/viewfinder system attaches to the Linhof Master Technika 2000 body. Suitable for lenses from 90 to 300mm with memory for 10 focal lengths, pre-programmed format delineations from 6x6cm to 4x5". Automatic sensing of horizontal/vertical image orientation.
Item #
LIFMT2000454,821.95

MASTER TECHNIKA 2000 SPECIFICATIONS

TILTS:
Front: 60°; Rear: 40°

SWINGS:
Front: 30°; Rear: 40°

RISE & FALL (COMBINED):
Front: 2.2" (55mm)
+ 15° and 30° Bed Drop

LATERAL SHIFT:
Front: 1.6" (40mm)

CAMERA BACK:
International Standard
4x5 Revolving Back

FOCUSING SCREEN:
4x5 Groundglass
with Grid Lines

MINIMUM BELLOWS DRAW:
65mm (on bed rail)

MAXIMUM EXTENSION:
Front: 16.9" (430mm)
Back: + 1.4" (35mm)

LENSES:
47mm to 300mm with groundglass viewing. With the optional EMS module it accepts 90 mm to 300mm with memory for 10 focal lengths, pre-programmed format delineations from 6x6cm to 4x5", with automatic sensing of horizontal and vertical image orientation.

LENSBOARD:
Linhof Technika 45
Lensboard 96 x 99mm

FOLDED DIMENSIONS:
Master Technika 2000:
7 x 7 x 4.3"
(18 x 18 x 11cm)

EMS Module:
6.3 x 3.3 x 2.75"
(16 x 8.5 x 7cm)

WEIGHT:
Body only:
5.6 lbs. (2550g)
With module:
7.4 lbs. (3350g)

Subject to change without notice



VIEWFINDERS

Multifocus Optical Viewfinder

A truly versatile accessory which not only determines with accuracy the selected picture area, but can also be used to determine the focal length if the location is already known. The photographer can use the viewfinder by itself to establish the focal length and selected picture area by turning the focal length ring. The Multifocus Optical Viewfinder is also used to determine the correct place for the camera. If focal length and image field have already been determined, it is easy to find the correct place for the camera with the aid of the viewfinder, which means that it is not necessary to keep moving the camera and tripod.

23 Multifocus Finder (001388)
Distance scale in feet. Includes 6x9 mask for Super Technika 23 and other 2x3 cameras.
Item # LIFMF231,398.50

45 Multifocus Finder (001378)
With 4x5 mask for Master Technika 45 and other 4x5 cameras.
Item # LIFMF451,398.50

9x12cm Mask (001379)
For 45 Multifocus Finder.
Item # LIM912MFF45...125.95

612 Mask (001444)
6x12cm mask for 45 Multifocus Finder.
Item # LIM612MFF45...125.95

23 Mask (001381)
6x9cm mask for 45 Multifocus Finder.
Item # LIM69MFF45.....125.95

67 Mask (001382)
6x7cm mask for 45 Multifocus Finder.
Item # LIM67MFF45.....125.95



23 Multifocus Finder (001388)

66 Mask (001383)
6x6cm mask for 45 Multifocus Finder.
Item # LIM66MFF45.....119.50

45 Mask (001385)
4x5" mask for 45 Multifocus Finder. (Replacement.)
Item # LIM45MFF45.....125.95

Polaroid Mask (001386)
For 45 Multifocus Finder.
Item # LIMPMFF45.....125.95

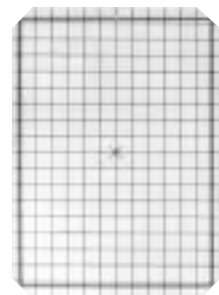
66 Mask (001396)
6x6cm mask for 23 Multifocus Finder.
Item # LIM66MFF23.....119.50

67 Mask (001397)
6x7cm mask for 23 Multifocus Finder.
Item # LIM67MFF23.....125.95

Focusing Screens

NOTE: 45 screens are for all 4x5 Linhof cameras, and 23 screens are for 2x3 cameras.

45 Groundglass (021805)
With grid lines and scoring for 9x12cm. (Replacement for Master Technika 45.)
Item # LIGGG45.....49.95



45 Groundglass (021805)

45 Groundglass (021812)
With grid lines and scoring for 9x12cm.
Item # LIGGCS45.....57.95

45 Groundglass with Micro Grain (021824)
For macro photography.
Item # LIGGMG45.....49.95

23 Groundglass (021807)
With grid lines and scoring for 6x7cm. (Replacement for Super Technika 23.)
Item # LIGGG23.....38.95

23 Groundglass (021813)
With grid lines and scoring for 6x7 and 6x9.
Item # LIGGCS23.....43.50

45 Super Fresnel Screen (002522)
Gives a brighter viewing area to judge camera movements and focusing.
Item # LIF45.....204.50

23 Fresnel Screen (002566)
With retaining clips. Same as above, for 2x3 camera.
Item # LIF23.....164.95

Focusing Hoods

NOTE: 45 Focusing Hoods are for all 4x5 Linhof cameras, and 23 Focusing Hoods are for 2x3 cameras.

45 Folding Focusing Hood (001612)
Prevents stray light. Snaps open by spring tension. Folds away for fine focusing with magnifier. (Replacement for Master Technika 45.)
Item # LIFFH45439.95

23 Folding Focusing Hood (001613)
Same as above. (Replacement for Super Technika 23.)
Item # LIFFH23324.95

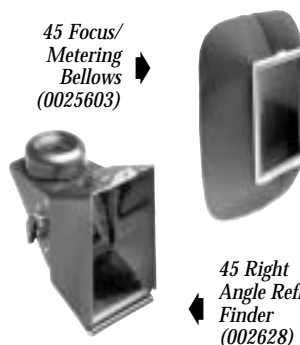


23 Folding Focusing Hood (001613)

45 Right Angle Reflex Finder (002628)
4-way horizontal/vertical right angle reflex attachment, especially recommended when working with long lenses.
Item # LIFR45764.95

23 Right Angle Reflex Finder (002629)
Same as above. For Super Technika 23.
Item # LIFR23508.50

45 Focus/Metering Bellows (002503)
With 4x magnifier for spot viewing and 2x magnifier for full area viewing. Also used as a metering bellows in conjunction with Luna Pro or Luna Pro SBC.
Item # LIBFM45.....634.95



45 Focus/Metering Bellows (002503)

45 Right Angle Reflex Finder (002628)

23 Focus/Metering Bellows (002504)
Same as above. For Super Technika 23.
Item # LIBFM23.....609.95

Adapter for Gossen (002710)
For Luna Pro (Luna-Six) to meter with Focus Meter Bellows.
Item # LIGLSA134.95





BACK ACCESSORIES

Rollfilm backs for Super Technika 23 and Technikardan 23S, Super Rollex Film backs for using rollfilm on 2x3 cameras when camera back is removed.

6x6 Super Rollex Film Back (001526)
120 film, 6x6cm, 12 exposures.
Item # LISR6612023...1,817.50

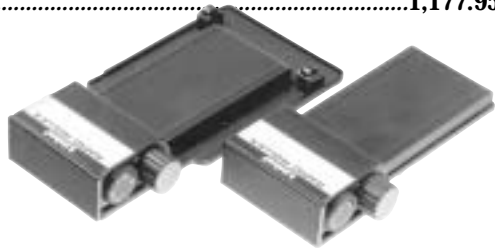
6x7 Super Rollex Film Back (001460)
120 film, 6x7cm, 10 exposures.
Item # LISR6712023...1,817.50

6x7 Super Rollex Film Back (001465)
220 film, 6x7cm, 20 exposures.
Item # LISR6722023...1,817.50

6x7 Rapid Rollex Film Back (001566)
120 film, 6x7cm, 10 exposures. Push-in film holder fits between groundglass and camera in the same manner as the cut film holder. Camera back is not removed. Automatic Exposure Counter.
Item # LIRR6723.....1,177.95

6x7 Rapid Rollex Film Back (001566), left

6x7 Rapid Rollex Film Back (001567), right



For back accessories for the 4x5 cameras, see listings on View Cameras.

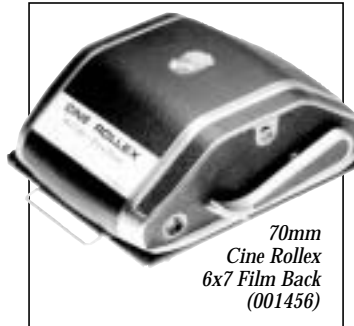
6x9 Super Rollex Film Back (001524)
120 Film, 6x9cm, 8 exposures.
Item # LISR6912023...1,817.50

70mm Cine Rollex Film Back (001457)
70mm perforated film, 6x7cm, 53 exposures. Mounts on camera without film back.
Item # LICR6723.....2,389.50

Hasselblad Film Back Adapter (001565)
Hasselblad film backs can be used with this adapter on all 2x3 cameras.
Item # LIFBAHTK23.....567.95

Polaroid Back 23 (001666)
Modified #405 back. Fits Polaroid 600 series film.
Item # LIFBP23.....788.50

Rollfilm Backs for All Standard 4x5 Camera Backs



70mm Cine Rollex 6x7 Film Back (001456)

6x6 Super Rollex Film Back (001527)
120 film, 6x6cm, 12 exposures (2 1/4 x 2 1/4").
Item # LISR6612045...1,817.50

6x7 Super Rollex Film Back (001459)
120 film, 6x7cm, 10 exposures (2 1/4 x 2 3/4").
Item # LISR6712045...1,817.50

6x7 Super Rollex Film Back (001464)
220 film, 6x7cm, 20 exposures (2 1/4 x 2 3/4").
Item # LISR6722045...1,817.50

6x9 Super Rollex Film Back (001523)
120 film, 6x9cm, 8 exposures (2 1/4 x 3 1/4").
Item # LISR6912045...1,817.50

6x7 Rapid Rollex Film Back (001567)
120 film, 6x7cm (2 1/4 x 2 3/4") slide-in rollfilm holder. Fits between groundglass and camera, same as cut film holder. Camera back is not removed.
Item # LIRR6745.....1,177.95

35mm Super Rollex Film Back (001568)
35mm film, 24 x 36mm, 30 exposures.
Item # LISR3545.....1,817.50

6x12 Techno Rollex Film Back (001560)
120 film, 6x12cm, 6 exposures (2 1/4 x 4 1/4").
Item # LITR61245.....2,917.95

70mm Cine Rollex 6x7 Film Back (001456)
53 exposures, 2 1/4 x 2 3/4"/6x7cm on 70mm perforated film, with automatic exposure counter and film winding lever. Film is spooled from one daylight loading cartridge into the other. No rewinding, which greatly minimizes the risk of film scratches. Supplied with 2 empty 70mm cartridges (022508).
Item # LICR6745.....2,389.50



BODY ACCESSORIES

Anatomical Grip

Anatomical Left Hand Grip (002549)
With 17" cable release and handstrap. For Master Technika 45 and MT2000. Helpful for fast action photography.
Item # LIGALTK45.....537.95

Anatomical Right Hand Grip (002552)
Grip only, for Master Technika 45 or Super Technika 23.
Item # LIGRA.....Disc

Anatomical Left Hand Grip (002512)
With 13.5" cable release and handstrap. For Super Technika 23.
Item # LIGALTK23.....537.95

Shoulder Strap (022530)
For Master Technika 45
Item # LISSMT.....64.95

A Telephoto Macro Track for Technika 4x5 is available by Wista. See Wista Extension Tracks and Rails.

70mm Accessories

Super Rollex Insert (001528)
12 exposures, 2 1/4 x 2 1/4"/6 x 6cm. (Replacement for 23 and 45 film backs for 120 film.)
Item # LII66120SR.....1,254.95

Super Rollex Insert (001467)
10 exposures, 2 1/4 x 2 3/4"/6 x 7cm. (Replacement for 23 and 45 film backs for 120 film.)
Item # LII67120SR.....1,254.95

Super Rollex Insert (001525)
8 exposures, 2 1/4 x 3 1/4"/6 x 9cm. (Replacement for 23 and 45 film backs for 220 film.)
Item # LII69120SR.....1,254.95

Super Rollex Insert (001462)
20 exposures, 2 1/4 x 2 3/4"/6 x 7cm. (Replacement for 23 and 45 film backs for 120 film.)
Item # LII67220SR.....1,254.95

6x12 Techno Rollex Film Insert (001562)
For 220 film, 12 exposures, 2 1/4 x 4 1/4"/6 x 12cm.
Item # LIITR.....464.50



BACK ACCESSORIES, *continued*

70mm Accessories

- | | |
|---|--|
| 70mm Cartridge with Reel (022508)
<i>Item # LIC70CR.....69.95</i> | 70mm Cartridge Case (022509)
For 70mm cassette.
<i>Item # LICC70.....66.50</i> |
| 70mm Reel (022510)
(Replacement for 022508
70mm Cartridge with Reel.)
<i>Item # LICR70.....22.95</i> | Storage Box (022511)
For two 70mm cassettes.
<i>Item # LISC70.....57.95</i> |
| | Bulk Film Loader
for 70mm Film (002513)
For spooling 70mm film in
cassette.
<i>Item # LIBFL70.....833.95</i> |



*Bulk
Film Loader
for 70mm Film (002513)*

Film Plane Metering

Using the focusing/metering bellows (*see View Accessories*), TTL metering can be achieved together with a handheld Gossen Luna-Pro, Luna-Pro F, Luna-Pro S and Luna-Pro SBC. This system provides a highly accurate average reading, as well as semi-spot readings of selected image portions, taking into account such variables as subject brightness, filter factor and bellows extension. For correct results, a fresnel screen or super screen should be used.

- | | |
|--|--|
| Adapter for Gossen Luna-Pro (002581)
Also for Gossen Luna-Pro S
and Luna-Pro F.
<i>Item # LIGA.....134.95</i> | Adapter for
Gossen Luna-Pro
SBC (002710)
<i>Item # LIGLSA134.95</i> |
|--|--|

Luna Pro S (4020)
Provides accurate reflected or incident light readings in all kinds of light, from a flickering candle to a bright summer's sun. As a system meter, it will provide correct exposures in any situation. Wide range of optional accessories further increase versatility.
Item # GOLPS.....199.95

Luna Pro F (4030)
Measures both continuous light and flash. A silicon blue sensor for instantaneous reading of high and low light levels. Incorporates a null meter readout. Determines scene brightness range and lighting ratios, which can be read directly from the meter at any light level.
Item # GOLPF.....289.95

Luna Pro SBC (4025)
Reads accurately down to -4 EV for extreme low light capability. It also provides ± 3 f-stop scale for direct read-out of brightness range, Zone System values and lighting ratios.
Item # GOLPSBC.....251.95



FRONT ACCESSORIES

Technika 23 Lensboards (74 x 81mm) for Technika 23 Dropped 6x9 Cameras as of 1962

- | | |
|--|---|
| Flat Lensboard 23 (001001)
With center pilot hole.
<i>Item # LILBST23.....125.95</i> | Copal #0 Lensboard (001124)
With cable release socket. For
100mm lens.
<i>Item # LILWFDQA.....179.95</i> |
| Compur #0 Lensboard (001002)
With cable release socket. For
wide angle lenses.
<i>Item # LILB0ST23.....179.95</i> | #1 Lensboard (001106)
<i>Item # LILB1ST23.....125.95</i> |
| Compur #0 Lensboard (001005)
With cable release socket. For
100mm lens.
<i>Item # LILBWAFF.....179.95</i> | #3 Lensboard (001058)
With spacer tube. For
telephoto lenses.
<i>Item # LILB3ST23.....395.95</i> |

Technika 45 Lensboards (96 x 99mm) for Master Technika 45, MT2000, Technikardan 23 and Technikardan 45

- | | |
|--|---|
| Flat Lensboard 45 (001013)
With center pilot hole for one's
own drilling.
<i>Item # LILBBT45.....125.95</i> | Compu/Prontor
#3 Lensboard 45 (001059)
<i>Item # LILBT345Q.....125.95</i> |
| #0 Lensboard 45 (001143)
<i>Item # LILB0T45.....125.95</i> | Compur #3 Lensboard 45 (001119)
<i>Item # LILB3T45.....139.50</i> |
| #1 Lensboard 45 (001026)
<i>Item # LILB1T45.....125.95</i> | Recessed Lensboard 45 (001153)
For lens in Barrel mount.
<i>Item # LILBRBT45.....132.50</i> |

Technika 45 Lensboards (96 x 99mm) for Master Technika 45 and MT2000 with Cable Release Socket

- | | |
|---|--|
| Compur #0
Flat Lensboard 45 (001017)
<i>Item # LILB0T45Q2.....189.95</i> | Copal #1
Flat Lensboard 45 (001121)
<i>Item # LILB1T45Q4.....189.95</i> |
| Copal #0
Flat Lensboard 45 (001120)
<i>Item # LILB0T45CQ1.....189.95</i> | Compur #1
Recessed Lensboard 45 (001015)
<i>Item # LILBR0T45.....273.50</i> |
| Compur #1
Flat Lensboard 45 (001126)
<i>Item # LILB1T45Q5.....189.95</i> | Copal #0
Recessed Lensboard 45 (001016)
<i>Item # LILBR0T45Q2.....309.50</i> |
| Compur #1 Flat Lensboard 45 (001128)
Aperture control possible.
<i>Item # LILB1T45Q3.....228.50</i> | |

Technika Adapter Board

- | |
|---|
| Technika Lensboard Adapter 45/23 (001070)
Permits lenses mounted on Technika 23 (74x81mm) lensboards to
be used on Technika 45 and MT2000.
<i>Item # LILBAR4523.....372.50</i> |
|---|





FRONT ACCESSORIES, *continued*

Bellows Hood

Compendium Lenshood
Technika 4x5 (001926)

Bellows hood is used to eliminate glare. It accepts 4x4" gels. Simple screw-in installation. Swing up to exchange lenses.
Item # LICHT45538.95

Filter Holder MT 45 (001933)
For 95mm glass screw-in filters. Also accepts 4x4" gels. Fits directly in back of lenshood.
Item # LIFH9544324.95

Filter Holder MT 45 (001933)



Vignetting Mask Holder (001932)
For bellows hood. Fits directly in front of lenshood.
Item # LIVM133.95

TK Lens Coupling

Lens Coupling Standard Package TK 23 (001711)
For 53-180mm lenses.
Item # LICPTK23179.95

Lens Coupling Ring (001718)
For 180-360mm lenses.
Item # LICPTK4518093.50

Wide Angle Focus Attachment TK45 (002555)
For 58 or 65mm wide angle lenses.
Item # LIFDWA65899.95

Lens Coupling Package TK 45 (001716)
For 75-165mm lenses.
Item # LICPTK4575209.95



CASES



Aluminum Case ST23 (022458)
Tropical proof, dust and humidity protected, with adjustable partitions. The Linhof Aluminum Case ST23 holds the camera with its basic accessories. Its dimensions are 17 x 8 x 14" (44 x 21 x 13cm).
Item # LICAST23986.95

Aluminum Case MT45, MT2000 (022457)
The Aluminum Case MT45, MT2000 holds the camera with its basic accessories. Tropical proof, dust and humidity protected, with adjustable partitions. Dimensions are 17 x 8 x 14" (44 x 21 x 13cm).
Item # LICAMT45986.95



MISCELLANEOUS ACCESSORIES

10" (250mm) Cable Release (002432)
With T-Lock.
Item # LICR1027.50

13 1/2" (340mm) Cable Release (002429)
T-Lock and turning nipple.
Item # LIHDCR13529.95

17" (430mm) Cable Release (002430)
T-Lock and turning nipple.
Item # LIHDCR1734.95

17" (430mm) Cable Release (002433)
T-lock and turning nipple (Metal Covered).
Item # LICR1742.95

20" (500mm) Cable Release (002435)
(Black) With T-Lock.
Item # LICR2042.95

21" (530mm) Cable Release (002431)
T-lock and turning nipple.
Item # LICR21Q35.95

21" (550mm) Cable Release (002440)
T-Lock with special unthreaded nipple for cable release quicksocket.
Item # LICRQL2142.95

30" (750mm) Cable Release (002434)
T-Lock and turning nipple.
Item # LICR3052.95

Angle Connector (022765)
Conical thread and turning nipple.
Item # LIACT32.95

Linhof 18x24 / Bx10 in. Schärftiefen-Messgerät
Abbl. Magnifikation: 18x24 / Bx10 in. Depth-of-Field Chart

	1:1	1:1.5	1:2	1:3	1:4	1:6	1:10	1:20	∞
8	80%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%
10	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%
12	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%	11 1/3%
15	16 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%
18	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%
22	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%	22 2/3%
30	32 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%
35	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%
40	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%	45 2/3%
50	64 2/3%	64 2/3%	64 2/3%	64 2/3%	64 2/3%	64 2/3%	64 2/3%	64 2/3%	64 2/3%

Depth-of-Field Chart (025009)

Angle Connector (002727)
Unthreaded nipple for quicksocket.
Item # LIACUT45.95

Linhof Spirit Level (002599)
Glass clear plastic body with dual level for horizontal and vertical levelling, for horizontal and vertical formats.
Item # LISL55.95



Prontor Professional Timer (022502)

Prontor Professional Timer (022502)
Mechanical timer with built-in 500mm/24" cable release, for long time exposures with the shutter set to "B". Reliable timing mechanism, stepless adjustable from 2 to 32 seconds. Particularly recommended for macro work to eliminate vibration.
Item # LIST638.95



Professional Calculator (002744)

Linhof Prof Calculator (002744)
Ingenious aid for numerous special photographic calculations, such as depth-of-field, lens tilt, etc.
Item # LICP518.50

Linhof Universal Depth-of-Field Chart (025009)
For establishing extension differences, checking the reproduction ratio, reading of working aperture, etc.
Item # LIUDFC9.95

TOYO

45AII 4x5" FIELD CAMERA

Toyo, known to professionals for their superbly built monorail cameras, has designed the 45AII and 45AX field cameras to live up to their well-earned reputation for being functional and elegant. The 45AII and 45AX are full-featured, portable, folding, rugged and lightweight 4x5 technical field cameras, which offer modern alloy durability and unique features, such as polymer-coated parts for precision smoothness. Both cameras offer a full range of camera movements, including 90° drop bed and 15° positive stops. The 45AX camera body is identical to the 45AII and is equipped with a standard, reversible 4x5 Graflock back, in place of the 45AII's deluxe revolving back, to economize on cost.



Toyo 45AII/AX

FIELD CAMERAS

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FEATURES

- Lightweight, compact all metal folding field camera
- Accepts Polaroid 4x5 holder and 6x7, 6x9 or 6x12 rollfilm holders
- Micro fine focusing on front
- Convenient hand strap
- All metal alloy construction
- Tapered 12³/₄" bellows with built-in double extension bed
- Optional 4" extension backs for use with long telephoto lenses
- Accepts wide angle lenses down to 47mm, with optional recessed board

45AII Pro Camera 180-224 (120)

Consists of: 360° revolving back, Super Brite fresnel lens, acid etched grid groundglass, 1/4" and 3/8" interchangeable tripod sockets, 4 x 5 folding focusing hood and #0 lensboard.

Item # TO45A2.....2,139.00

45AX Pro Camera 180-223

Consists of: Reversible back, Super Brite fresnel lens, acid etched grid groundglass with 6x7 and 6x9cm markings, 1/4" and 3/8" interchangeable tripod sockets and Blank lensboard.

Item # TO45AX.....1,499.00

For accessories, see Toyo View cameras

45AII SPECIFICATIONS

CAMERA MOVEMENTS:

TILTS

Front 105°; Rear 105°

SWING

Front 16°; Rear 16°

RISE & FALL

Front 1.7" (43mm)

Subject to change without notice

LATERAL SHIFT

Front .5" (14mm)

CAMERA BACK

International Standard 4x5,
360° Revolving Back

FOCUSING SCREEN

4x5 Fresnel Lens in front of acid etched grid ground-glass with 6x7 and 6x9cm markings

MINIMUM EXTENSION

2.8" (70mm)
with Standard Board
1.7" (43mm)
with Recessed Board

MAXIMUM EXTENSION

12.8" (324mm)
Optional 4" extension back is available for long focal lenses

LENSBOARD

Toyo 110 x 110mm Flat or Recessed Board, or misc Lensboard Adapters

FOLDED DIMENSIONS

AII: 7.4 x 8.3 x 4.2"
(188 x 209 x 107mm)
AX: 7.4 x 8.2 x 4.2"
(188 x 208 x 107mm)

WEIGHT

AII: 6.2 lbs. (2.8kg)
AX: 5.8 lbs. (2.6kg)



THE PROFESSIONAL'S SOURCE (212) 444-6630 • FAX: (212) 239-7770

1 • 8 0 0 • 9 4 7 • 6 6 5 0

TOYO

810 MII 8x10" FIELD CAMERA

FIELD CAMERAS

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Although the 4x5" format is by far the most common large format film size, many situations demand the use of the superior 8x10" image. Only Toyo can combine the 8x10" large format film size with an all metal body and put it in a package suitable to be used in the field. The Toyo Field 810 MII is a lightweight folding 8x10" field camera with all metal alloy construction and format reducing capability to 5x7" and 4x5" formats. It has independent locks on all movements, all-metal rubber covered GX control knobs, reversible 8x10 back and a pro-black matte finish. It accepts many Toyo Modular system accessories, including interchangeable wide angle bellows, backs and viewing accessories.



Toyo
810 MII Camera
180-225 (18) shown
with optional lens

FEATURES

- **Lightweight, compact all metal folding field camera**
- **Extra-long 882mm extension bed for use with all telephoto lenses**
- **Interchangeable 26" bellows with built-in double extension bed**
- **Front base tilt, rise, fall swing and shift**
- **Optional wide angle bellows for use with lenses down to 65mm**
- **Practical for studio or location use**
- **Rear base tilt and swing**
- **Heavy-duty back with Easyload Dual Dampened Bail Arms**
- **Extra large 8x10" format in a convenient field camera package**
- **Multi format capable with optional reducing backs**

810 MII Camera 180-225 (18)
Consists of:
Extra-long 882mm dual extension drop bed, heavy duty back with Easyload Dual Dampened Bail Arms, Toyo acid etched grid groundglass, and a predrilled #0 lensboard.
Item # TO810M24,515.00

For accessories,
see Toyo View cameras

810 MII SPECIFICATIONS

TILTS

Front 105°, Rear 105°

SWINGS

Front 360°, Rear 12°

RISE & FALL

Front 3.5" (90mm),
Rear -

LATERAL SHIFT

Front 3.1" (80mm)
Rear -

CAMERA BACK:

International Standard
Vertical/Horizontal
8x10 Back

FOCUSING SCREEN:

Grid Groundglass 8x10

INTERCHANGEABLE BELLOWS:

Yes

MINIMUM EXTENSION:

3.5" (88mm) with Standard Board

1.9" (48mm) with Recessed Board

MAXIMUM EXTENSION:

32" (822mm)

LENSBOARD:

Toyo 158 x 158mm Flat or Recessed Board, or misc. Lensboard Adapters

FOLDED DIMENSIONS:

Toyo 14.4 x 14.9 x 6.2" (366 x 379 x 158mm) L.W.H.

WEIGHT:

15 lbs. (6.8kg)

Subject to change without notice

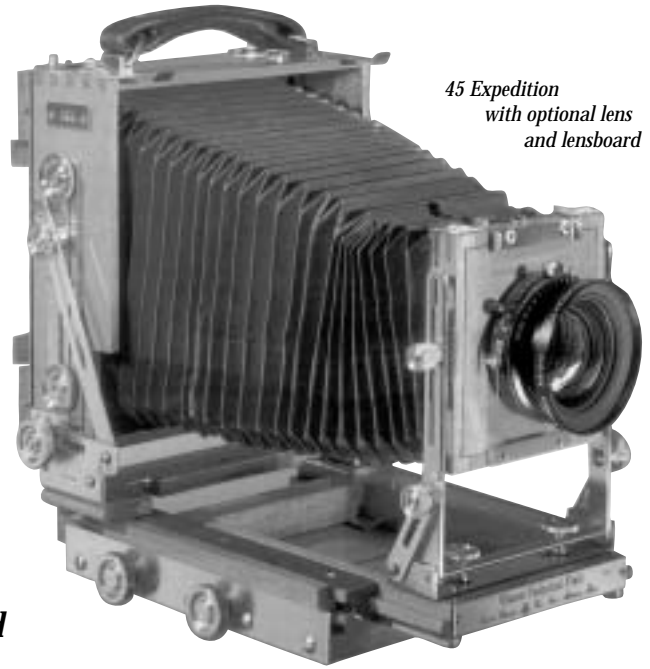
WISNER

SYSTEM

Well known for their innovation and the highest quality in the manufacturing of fine wooden cameras, the Wisner Company has developed a most advanced and truly professional technical field camera.

The Wisner Field cameras, with the exception of the 4x5 and 8x10 Traditional, are the only cameras in the world with the patented, geared axis tilt in the rear standard. With the geared tilt knob on one side of the camera and the focusing knobs on the other, the photographer can both tilt and focus the camera at the same time, making the composition of table-top and landscape photographs both faster and easier.

This system allows the subject to remain in focus at a point near the center of the groundglass when the camera is tilted in the normal manner. Until now, this capability has only been available on monorail cameras. The ability to hold focus at a central position is, of course, a convenience. Because they have a base tilt, all other field cameras move the groundglass and lens away from each other, as the camera standard follows the arc of tilt, which then requires that the camera be refocused. With its geared axis tilt, the Wisner Technical Fields do not have this problem. Parallel Rear Rise: Rear rise is valuable for making vertical composition adjustments, especially after the lens-subject relationship has been established. Because the rear rise is parallel to the focal plane, any amount of rear rise can be made, and the image will remain in focus, regardless of the degree of tilt. This means that after the desired tilt has been achieved, vertical cropping adjustments may be made without disturbing the focus.



45 Expedition
with optional lens
and lensboard

FEATURES

- Greatest extension of any field camera
- Interchangeable bellows
- Vertical, horizontal and plumb spirit levels
- Rigid focusing track and rails
- Heavy duty, padded, sewn leather handles
- The 4x5 and 8x10 accept Polaroid backs
- High strength bronze tripod plate with European and American tripod threads
- Precision rack and pinion focusing of hard brass in both front and rear beds
- Reversible back (vertical, horizontal)
- Large brass focusing knobs and easy access control knobs for all movements

4x5 S Traditional Item # WIT45Q.....1,495.00	7x17 Traditional L Panoramic Item # WIPT717.....3,999.50
4x5 Technical Field Item # WIT45.....1,850.00	8x10 Traditional L Item # WITL810.....2,595.00
4x5 Expedition Item # WIE45.....2,195.00	8x10 Technical Item # WIT810.....3,495.00
4x5 Pocket Expedition Item # WIPE45.....2,495.00	8x10 Expedition Item # WIE810.....4,195.00
4x10 Panoramic Item # WIP410.....2,194.95	8x20 Technical Panoramic Item # WIT820.....4,000.00
5x7 Traditional L Item # WITL57.....2,294.95	11x14 Technical Item # WIT1114.....4,400.00
5x7 Technical Item # WIT57.....2,675.00	12x20 Technical Item # WIT1220.....5,000.00
6x10 Panoramic Item # WIP610.....2,194.95	20x24 Technical Item # WIT2024.....8,998.95



WISNER

SYSTEM

WISNER FIELD CAMERA SPECIFICATIONS

CAMERA FORMAT	4x5 S Traditional	4x5 Technical	4x5 Expedition	4x5 Pocket Expedition	4x10 Panoramic
Front Base Tilt	125°	125°	125°	135°	125°
Front Swing	24°	24°	24°	24°	24°
Front Rise & Fall	3.1" (79mm)	3.1" (79mm)	3.1" (79mm)	2" (50mm)	3.1" (79mm)
Front Shift	9" (25mm)	1" (25mm)	1" (25mm)	1" (25mm)	1" (25mm)
Rear Axis Backward Tilt	-	25°	25°	25°	25°
Rear Base Tilt	125°	110°	110°	110°	110°
Rear Swing	30°	30°	30°	30°	20°
Rear Rise Parallel Foc	-	1.5" (38mm)	1.5" (38mm)	1.5" (38mm)	1.5" (38mm)
Int'l Std Camera Back	4x5"	4x5"	4x5"	4x5"	4x10"
Fresnel GG Grid Screen	√	√	√	√	√
Interchange Bellows	√	√	√	√	√
Minimum Bellows Draw	3.5" (90mm)	3.5" (90mm)	3" (75mm)	2.3" (58mm)	3.25" (82mm)
Maximum Extension	20" (508mm)	23" (584mm)	20" (508mm)	19" (480mm)	23" (584mm)
Yaw Free Base Tilt (via rear rise)	x	√	√	√	x
Lenses in Shutter #	#0, #1	#0, #1	#0, #1	#0, #1	#0, #1, #3
Lensboard	4 x 4" (101 x 101mm)	4 x 4" (101 x 101mm)	4 x 4" (101 x 101mm)	4 x 4" (101 x 101mm)	4 x 4" (101 x 101mm)
Folded Dimensions WHD	9.5 x 8.75 x 3.75" (24.1 x 22.2 x 9.5cm)	9.5 x 7.75 x 4.75" (24.1 x 19.6 x 12cm)	9.5 x 8.75 x 3.75" (24.1 x 22.2 x 9.5cm)	7 x 7 x 3.3" (17.8 x 17.8 x 8.4cm)	14 x 8 x 4.75" (55.6 x 20.3 x 12cm)
Weight	6 lbs. (2.7kg)	6.5 lbs. (2.9kg)	3.9 lbs. (1.8kg)	3.6 lbs. (7.9kg)	7 lbs. (3.2kg)

Subject to change without notice

WISNER FIELD CAMERA SPECIFICATIONS

CAMERA FORMAT	5x7 Traditional L	5x7 Technical	8x10 Traditional L	8x10 Technical	8x10 Expedition
Front Base Tilt	120°	120°	115°	115°	115°
Front Swing	36°	36°	44°	44°	44°
Front Rise & Fall	5" (126mm)	5" (127mm)	6.9" (175mm)	6.9" (175mm)	6.9" (175mm)
Front Shift	3" (76mm)	3" (76mm)	2" (51mm)	2" (51mm)	2" (51mm)
Rear Axis Bkwrtd Tilt	-	20°	-	25°	25°
Rear Base Tilt	110°	110°	135°	110°	180°
Rear Swing	30°	30°	36°	36°	36°
Rear Rise Parallel Focus	-	2" (51mm)	-	2.5" (64mm)	2.5" (64mm)
Int'l Std Camera Back	5x7"	5x7"	8x10"	8x10"	8x10"
Fresnel GG Grid Screen	√	√	√	√	√
Interchangeable Bellows	√	√	√	√	√
Minimum Bellows Draw	4.5" (115mm)	4.5" (115mm)	4.5" (90mm)	4.5" (90mm)	4.5" (90mm)
Maximum Extension	27" (686mm)	30" (762mm)	36" (914mm)	40" (1016mm)	43" (1092mm)
Yaw Free Base Tilt (via rear rise)	-	√	x	√	√
Lenses in Shutter #	#0, #1, #3	#0, #1, #3	#0, #1, #3	#0, #1, #3	#0, #1, #3
Lensboard	5.25 x 5.25" (133 x 133mm)	5.25 x 5.25" (133 x 133mm)	5.25 x 5.25" (133 x 133mm)	5.25 x 5.25" (133 x 133mm)	5.25 x 5.25" (133 x 133mm)
Folded Dimension WHD	10 x 10 x 4" (25.4 x 25.4 x 10.2cm)	10 x 10 x 5" (25.4 x 25.4 x 12.7cm)	13.5 x 15.2 x 4.5" (34.3 x 38.6 x 11.4cm)	13.5 x 15.2 x 5.5" (34.3 x 38.6 x 14cm)	14 x 15.5 x 4" (35.6 x 39.4 x 10.2cm)
Weight	7 lbs. (3.2kg)	10 lbs. (4.5kg)	10.5 lbs. (4.8kg)	17.5 lbs. (7.9kg)	11.4 lbs. (5.2kg)

Subject to change without notice

Corporate Accounts Are Welcome

WISNER FIELD CAMERA SPECIFICATIONS

CAMERA FORMAT	8x20 Technical	11x14 Technical	12x20 Technical	20x24 Technical
Front Base Tilt	25°	25°	25°	25°
Front Swing	44°	40°	44°	44°
Front Rise & Fall	7.9" (200mm)	8" (203mm)	8" (203mm)	3" (76mm)
Front Shift	2" (51mm)	1" (25mm)	3" (76mm)	4" (102mm)
Rear Axis Backward Tilt	25°	25°	25°	25°
Rear Base Tilt	110°	110°	110°	110°
Rear Swing	24°	36°	30°	—
Rear Rise Parallel Foc	2.5" (64mm)	2.5" (64mm)	2.5" (64mm)	—
Int'l Std Camera Back	8x20"	11x14"	12x20"	20x24"
Fresnel GG Grid Screen	√	√	√	—
Interchange Bellows	√	√	x	x
Minimum Bellows Draw	6" (152mm)	6" (152mm)	6" (152mm)	6" (152mm)
Maximum Extension	40" (1016mm)	50" (1270mm)	50" (1270mm)	55" (1397mm)
Yaw Free Base Tilt (via rear rise)	√	√	√	√
Lenses in Shutter #	#0, #1, #3	#0, #1, #3	#0, #1, #3	#0, #1, #3
Lensboard	5.25 x 5.25" (133 x 133mm)	5.25 x 5.25" (133 x 133mm)	5.25 x 5.25" (133 x 133mm)	6 x 6" (15.2 x 15.2mm)
Folded Dimensions WHD	13 x 13 x 5.5" (33 x 58.4 x 14cm)	17.5 x 17.5 x 6" (44.5 x 44.5 x 15.2cm)	17.5 x 23 x 6" (44.5 x 58.4 x 15.2cm)	30 x 30 x 6" (76.2 x 76.2 x 15.2cm)
Weight	22 lbs. (10kg)	30 lbs. (13.6kg)	30 lbs. (13.6kg)	40 lbs. (18.2kg)

Subject to change without notice



BODY ACCESSORIES

Wide Angle (Bag) Bellows

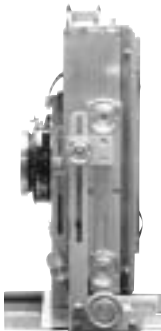
4x5 Wide Angle Bellows
Minimum extension 1.4"
(35mm), maximum extension
8" (203mm).

Item # WIBB45.....189.95

5x7 Wide-Angle Bellows
Minimum extension 1.9"
(49mm), maximum extension
12" (305mm).

Item # WIBB57.....289.95

*4x5 Expedition
shown folded*



4x10 Wide-Angle Bellows
Minimum extension 1.4"
(35mm), maximum extension
8" (203mm).

Item # WIBB610.....227.95

6x10 Wide-Angle Bellows
Minimum extension 1.4"
(35mm), maximum extension
8" (203mm).

Item # WIBB410.....227.95

8x10 Wide Angle Bellows
Minimum extension 1.6"
(40mm) on Technical cameras,
0mm on 8x10 Expedition camera;
maximum extension 12"
(305mm).

Item # WIBB810.....389.95

12x20 Wide-Angle Bellows
Item # WIBB1220.....599.95

Format Conversion

Wisner cameras are one of the only wooden field cameras that can be converted to larger formats. Conversions are done by focusing the rear track all the way back, then unhooking the bellows. The rear portion of the camera comes apart, and the conversion kit is ready to slide into place. When the camera is converted, it works as if it would have been purchased originally as that sized camera.

4x5 to 4x10 Conversion Kit
Item # WICK45410 ...1,098.95

4x5 to 5x7 Conversion Kit
Item # WICK45571,098.95

4x5 to 6x10 Conversion Kit
Item # WICK45610 ...1,098.95

8x10 to 8x20 Conversion Kit
Item # WICK810820...2,004.95

8x10 to 7x17 Conversion Kit
Item # WICK810717...2,004.95



8x10 Expedition





BACK ACCESSORIES

Reducing Backs

Reduces picture format from camera size to desired format. Made of fine wood to match the camera used. Reducing back is placed on camera by removing existing back. Includes a built-in groundglass back and focusing screen.



8x10
Rear
Standard

5x7 to 4x5 Reducing Back
Item # **WIRB5745**.....**274.95**

5x7 to 4x5
Grafflock Reducing Back
Item # **WIRB5745G**.....**474.95**

8x10 to 4x5
Grafflock Reducing Back
Item # **WIRB81045G**.....**574.95**

8x10 to 4x5 Reducing Back
Item # **WIRB81045**.....**374.95**

8x10 to 5x7 Reducing Back
Item # **WIRB81057**.....**472.50**

11x14 to 8x10 Reducing Back
Item # **WIRB1114810**.....**499.95**

11x14 to 5x7 Reducing Back
Item # **WIRB111457**.....**499.95**

11x14 to 4x5 Reducing Back
Item # **WIRB111445**.....**499.95**

11x14 to 4x5
Grafflock Reducing Back
Item # **WIRB111445G**.....**699.95**

12x20 to 11x14 Reducing Back
Item # **WIRB12201114**.....**599.95**

12x20 to 8x10 Reducing Back
Item # **WIRB1220810**.....**599.95**

12x20 to 5x7 Reducing Back
Item # **WIRB122057**.....**599.95**

12x20 to 4x5 Reducing Back
Item # **WIRB122045**.....**599.95**

Grafflock Conversion Backs

4x5 Grafflock Back
Converts 4x5 cameras to Grafflock type.
Item # **WIFBL45**.....**249.95**

Film Holders

4x10 Panorama Film Holder
Requires 4x10 Clam Shell.
Item # **WIFH410**.....**149.95**

4x10 Clam Shell
For inserting 4x10 film holder.
Item # **WICS410**.....**79.95**

6x10 Panorama Film Holder
Item # **WIFH610**.....**149.95**

7x17 Film Holder
Item # **WIFH717**.....**449.95**



8x20 Film Holder
Item # **WIFH820**.....**449.95**

12x20 Film Holder
Item # **WIFH1220**.....**499.95**

20x24 Film Holder
Item # **WIFH2024**.....**599.95**

Groundglass Cover

4x5 Groundglass Cover
Item # **WIGGC45**.....**59.50**

4x10 Groundglass Cover
Item # **WIGGC410**.....**74.95**

5x7 Groundglass Cover
Item # **WIGGC57**.....**74.95**

6x10 Groundglass Cover
Item # **WIGGC610**.....**74.95**

8x10 Groundglass Cover
Item # **WIGGC810**.....**89.95**



VIEWFINDER ACCESSORIES

Replacement Groundglass

4x5 Groundglass
Item # **WIGG45**.....**29.95**

4x10 Groundglass
Item # **WIGG410**.....**83.95**

6x10 Groundglass
Item # **WIGG610**.....**83.95**

5x7 Groundglass
Item # **WIGG57**.....**39.95**

8x10 Groundglass
Item # **WIGG810**.....**54.95**

8x20 Groundglass
Item # **WIGG820**.....**79.95**

11x14 Groundglass
Item # **WIGG1114**.....**74.95**

12x20 Groundglass
Item # **WIGG1220**.....**89.95**



FRONT ACCESSORIES

4 x 4" (101 x 101mm) Lensboards for all 4x5 Cameras

Blank
Uncut Lensboard
Item # **WILBB45**.....**34.95**

Lensboard #0
Cut for #0 hole.
Item # **WILB045**.....**34.95**

Lensboard #1
Cut for #1 hole.
Item # **WILB145**.....**34.95**

Lensboard #3
Cut for #3 hole.
Item # **WILB345**.....**34.95**

5.25 x 5.25" (133 x 133mm) Lensboards for 5x7, 8x10, 8x20, 11x14 and 12x20 Cameras

Blank Uncut Lensboard
Item # **WILBB810**.....**39.50**

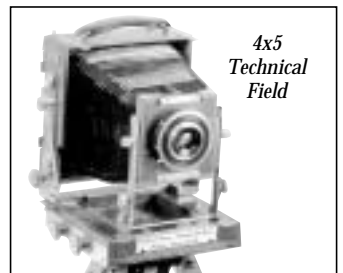
Lensboard #0
Cut for #0 hole.
Item # **WILB0810**.....**39.50**

Lensboard #1
Cut for #1 hole.
Item # **WILB1810**.....**39.50**

Lensboard #3
Cut for #3 hole.
Item # **WILB3810**.....**39.50**



Adapter Board 4x4 to
5.25x5.25
Permits lenses mounted on
Wisner 4x4 to be used on all
larger format cameras requir-
ing a 5.25x5.25 lensboard.
Item # **WIAB81045**.....**59.95**



4x5
Technical
Field

All items are complete with all accessories as supplied by the manufacturer

W I S T A

DX, DXII, DXIII 4x5" CAMERAS

Constructed entirely of seasoned wood to ensure strength and beauty, the Wista Field-45 DX models eliminate the possibility of warping. The hardware is brass, the corners skillfully joined with durable tongue and groove joints. The hardwood and brass give the DX beauty and life-time durability. The DX and DXII models are available in Cherrywood and Rosewood. The DXIII model is only available in Rosewood and has the capability of changing bellows. The recessed base plate allows the camera to be folded and transported without having to dismount the lens. DX models will accommodate short focal lenses up to 65mm without the aid of a recessed lens board. These short focal length lenses and others, up to 150mm in length, can be left on the camera when transported, saving set-up time and space in your camera case.



Lens and lensboard not included

FIELD CAMERAS

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FEATURES

- Choice of Cherrywood or Rosewood
 - Smoked gold color brass hardware
 - Housing simple and compact; camera can be held and transported without dismounting lens
 - 3 models available: DXII without rear shift; DX with rear shift; DXIII with interchangeable bellows
 - 12" leather bellows
- | | |
|---|---|
| <p>45DX/II Cherrywood (4499)
With fresnel screen.
Item # WI45DX2CW...1,229.95</p> <p>45DX Cherrywood with Rear Shift (4500)
With fresnel screen.
Item # WI45DXCW.....1,289.95</p> <p>45DX/IIIW Rosewood with Rear Shift (4607)
Interchangeable bellows camera with fresnel screen.
Item # WI45DX3R.....1,879.95</p> | <p>45DX/II Rosewood (4504)
With fresnel screen.
Item # WI45DX2RW...1,589.95</p> <p>45DX Rosewood with Rear Shift (4507)
With fresnel screen.
Item # WI45DXRW.....1,624.95</p> |
|---|---|

DX, DXII, DXIII SPECIFICATIONS

<p>TILTS: Front 127°; Rear 106°</p> <p>SWINGS: Front 30°; Rear 24°</p> <p>RISE & FALL (COMBINED): Front 1.4" (36mm) up, 29mm down</p> <p>LATERAL SHIFT: Rear 1.3" (32mm) on DX and DXIII only</p>	<p>CAMERA BACK: International 4x5 Manually Revolving</p> <p>INTERCHANGEABLE BELLOWS: Model DXIII</p> <p>MINIMUM BELLOWS DRAW: 2" (51mm)</p> <p>MAXIMUM EXTENSION: 12" (305mm)</p> <p>TRACK LENGTH: 12" (305mm)</p>	<p>MOVEMENTS: Geared Track with Rack and Pinion</p> <p>LENS: Accepts all Lenses in #0 and #1 Shutters</p> <p>LENSBOARD: Wista 96x99mm or Linhof Technika type</p> <p>FOLDED DIMENSIONS: 8.5 x 6.75 x 3.5" (21.6 x 17.1 x 8.9cm) H.W.D.</p>	<p>WEIGHT (BODY ONLY): DXII Cherrywood: 53.2oz (1500g); DXII Rosewood: 65.9oz (1874g); DX Cherrywood: 59.5oz (1666g); DX Rosewood: 72oz (2040g); DXIII Rosewood: 77.8oz (2206g) <i>Subject to change without notice</i></p>
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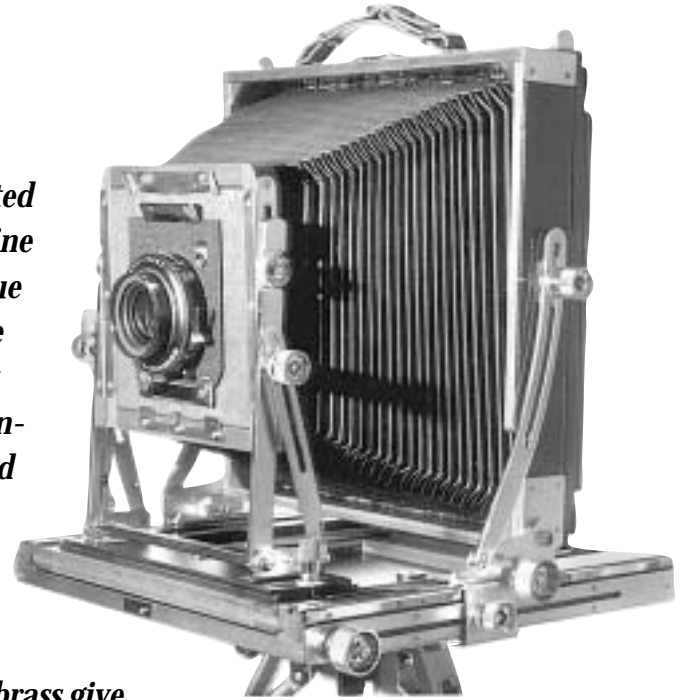
WISTA

DX 8x10" CAMERA

FIELD CAMERAS

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Even though the 8x10" format is generally associated with commercial and industrial photography, many fine art photographers graduate to this larger film size due to its superior sharpness and its ability to show fine details. The Wista Field 810 DX is compact and light enough to allow the nature photographer to take advantage of this big film size. The body of the Wista Field 810 DX is constructed entirely of seasoned Cherrywood to ensure strength and beauty, and to eliminate the possibility of warping. The hardware is brass, and the corners are skillfully joined with durable tongue and groove joints. The hardwood and brass give the DX beauty and life-time durability.



This larger version of the 45DX has dual rack and pinion focusing and is built with a double extension bed, 22" (550mm) bellows extension, and its compact size makes it convenient to carry in the field.

Finely crafted and handmade, carefully blending durability with portability and sophistication, this instrument is the ideal lightweight 8x10 camera.

FEATURES

- **Elegant Cherrywood, with smoked gold colored brass hardware**
- **Housing simple and compact, camera can be carried or dismounted in no time**
- **Accepts lenses mounted on Sinar or Horseman 140x140mm lensboards, as well as on the Wista 140x140mm wooden lensboard**
- **Opens and closes with one simple touch**
- **Convenient carrying handle**

Wista 810 DX
Cherrywood Camera (4508)
Double extension with fresnel screen.
Item #
W1810DCW2,299.00

DX 8x10 SPECIFICATIONS

TILTS:

Front 70°;
Rear 105°

SWINGS:

Front 52°;
Rear 30°

RISE & FALL (COMBINED):

Front 3.5" (88mm)

CAMERA BACK:

International Standard 8x10

FOCUSING SCREEN:

Fresnel with Grid Lines

MINIMUM BELLOWS

DRAW:
3.5" (90mm)

MAXIMUM EXTENSION:

21.7" (550mm)

TRACK LENGTH:

21.7" (550mm)

MOVEMENTS:

Geared Track with Rack and Pinion Movements

LENS:

Accepts all Lenses Mounted in #0, #1 and #3 Shutters

LENSBOARD:

Wista 140x140mm Wooden Board, Sinar or Horseman 140 x 140 Boards

FOLDED DIMENSIONS:

12x12x3.75"
(300 x 300 x 95mm) H.W.D.

WEIGHT:

10 lbs. (4.5kg)

Subject to change without notice

W I S T A

VX, SP, RF 4x5" SYSTEM

Sophisticated metal cameras, the VX, SP and RF were designed for the photographer who wants more than just a field camera. The 45-VX is the basic rugged, compact metal camera with revolving Graflock spring back, folding focusing hood, extension beds and long bellows availability. The 45-SP has the same features as the 45-VX, plus micro focus back swing for close-up photography. The 45-RF is the rangefinder-coupled camera cammed to accommodate 120, 135, 150 and 180mm lenses.

All three accept holders, as well as 5x7" back adapters; extension rails and extension bellows for telephoto work, using lenses up to 600mm, as well as wide-angle bellows for wide-angle photography.

Designed to simplify handling and use of the camera, the variable swing and tilt movements, both front and back, can be easily set. This enables pictures to be taken quickly and almost effortlessly. The compact size and light weight of these cameras make them as easy to use in the field, as in the studio.



FEATURES

■ **Compact; black finish; all light die-cast alloy; folding field and technical camera**

■ **Opens and closes with one simple touch**

■ **Diamond polished large lever knobs**

■ **Full revolving back with click stops**

■ **Interchangeable bellows and extension rails**

Technical 45-VX (4503)
With folding focusing hood and fresnel screen.
Item # *WI45VX*.....**1,964.95**

Technical 45-RF (4501)
Rangefinder camera with folding focusing hood and fresnel screen.
Item # *WI45RF***3,019.95**

Technical 45-SP (4502)
Micro swing camera with folding focusing hood and fresnel screen.
Item # *WI45SP***2,089.95**

VX, SP, RF SPECIFICATIONS

TILTS:
Front 30°; Rear 105°

SWINGS:
Front 30°

RISE & FALL (COMBINED):
Front 2.2" (56mm)

LATERAL SHIFT:
Front 3.1" (80mm)

CAMERA BACK:
International Standard 4x5
Revolving Back with 90°
Click Stops

FOCUSING SCREEN:
4x5 Groundglass with Grid
Lines

INTERCHANGEABLE BELLOWS:
Yes

MINIMUM BELLOWS DRAW:
2" (51mm)

MAXIMUM EXTENSION:
12" (300mm) with Optional
Track

TRACK LENGTH:
6.5" (164mm)

MOVEMENTS:
Geared

LENS:
Accepts all Lenses Mounted
in #0 and #1 Shutters

LENSBOARD:
Wista 96x99mm or Linhof
Technika Type

FOLDED DIMENSIONS:
VX: 180 x 197 x 100mm;
SP: 180 x 197 x 105mm;
RF: 215 x 197 x 100mm
H.W.D.

WEIGHT:
VX: 5.2 lbs. (2.4kg);
SP: 6.3 lbs. (2.9kg);
RF: 6.3 lbs. (2.9kg)

Subject to change without notice





BODY ACCESSORIES

Bellows

4x5 Standard Bellows (4540)
12", for Technical VX, SP, RF and DXIII. (Replacement.)
Item # WIBS45RF198.50

4x5 Wide-Angle Bellows (4541)
An ideal accessory for wide-angle photography, for maximum camera movements at minimum bellows extension.

Due to flexible construction, the 4x5 wide-angle bellows is suitable for use with short and ultra short focal lenses. For Technical VX, SP and RF 4x5 cameras. Folds down to 1" (25mm) and extends to 6" (150mm).

Item # WIBWA45RF326.50

4x5 Wide-Angle Bellows (4541A)
For DXIII, VX, SP and RF 4x5 cameras. Requires recessed wide-angle lensboard (4544).
Item # WIBWADX3W...344.95

4x5
Wide-
Angle
Bellows
(4541A)



4x5 Long Bellows (4542)
24" (600mm), for DXIII, VX, SP and RF 4x5 cameras. Effective for long focus lenses or close-up photography. Requires additional bed tracks.
Item # WIBL45RF.....306.95

For additional extensions and extension bellows, see Front Accessories.

Extension Tracks and Rails

Extension Bed Track 300mm (4551)
12", for Technical VX, SP and RF cameras, when using long bellows or extension bellows.
Item # WIEBT300.....137.95

Extension Bed Track 460mm (4550)
18", for Technical VX, SP and RF cameras, when using long bellows or extension bellows.
Item # WIEBT460.....182.50

Tele-Macro Rail (4576)
For Technical VX, SP and RF cameras. Requires long bellows (4542).
Item # WIRTM45SP.....386.95

Extension Track and Frame (4580)
For DX, DXII and DXIII cameras. Track includes a front mounted frame, similar to a front standard on a rail camera, which is connected to a front extension bellows (4546). *See Front Accessories.* Front mounted frame will hold lensboard.
Item # WIETFDX.....559.95

Tele-Macro Rail for Linhof Technika (4585)
Same as above. Fits Linhof Technika cameras. Front extension bellows (4546) is required.
Item # WIRTMLT.....589.50



Extension Bed Track 460 (4550)



Extension Bed Track 300 (4551)



VIEWING ACCESSORIES

Groundglass

4x5 Groundglass w/Grid Lines (1214)
Item # WIGGR45.....41.95

4x5 Groundglass Plain (1221)
Item # WIGG45Q.....29.95

4x5 Prot Glass Only Plain (1240)
Item # WIPG45.....14.95

4x5 Protective Glass Only with Grid Lines (1241)
Item # WIPGR4529.95

4x5 Groundglass Fresnel (1230)
Fresnel with a protective glass. Increases brightness 3 to 4 times.
Item # WIF45.....104.50

5x7 Groundglass Plain (1220)
Item # WIGG57Q.....34.95

8x10 Protective Groundglass with Grid Lines (1219)
Item # WIGPR81047.95

8x10 Groundglass Fresnel (1229)
Fresnel with a protective glass. Increases brightness 3 to 4 times.
Item # WIF810.....174.95

Focusing Hoods

Focusing hoods eliminate the necessity for a focusing cloth.

4x5 Standard Folding Hood (1110)
Foldable hood, on hinges. Opens for loupe focusing. Also used to protect groundglass. Replacement for VX, SP and RF.
Item # WIFH45RF92.95

6x9 Standard Folding Hood (1111)
Same as above. For quick reducing adapter (4529) and rollfilm slide adapter (4530).
Item # WIFH69.....75.95

4x5
Monocular
Reflex
Hood
(1000)



Monocular Reflex Housing is a 90° focusing hood with a built-in diopter. It enables upright images to be seen with one eye, for critical observation of the entire groundglass.

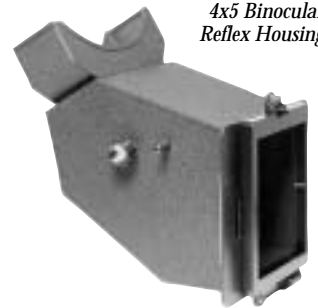
4x5 Monocular Reflex Housing (1000)
For VX, SP and RF.
Item # WIMRH45VX184.95

4x5 Monocular Reflex Housing (1002)
For DX, DXII and DXIII.
Item # WIMRH45DX....184.95

4x5 Binocular Reflex Housing (1001)
For VX, SP and RF. A 45° focusing hood viewed with both eyes. Built-in diopter. Allows right-side-up viewing of the entire groundglass area. The brightest image is seen, especially when used with fresnel lens.
Item # WIBRH45VX393.95

4x5 Folding Focusing Hood (4565)
Right-side-up folding focusing hood for VX, SP and RF. Same features as above, plus bellows flexibility, allows for desired viewing angle. Can be folded for storage.
Item # WIFHRSU45SP ...319.95

4x5 Binocular
Reflex Housing



4x5 Folding Focusing Hood (4566)
Right-side-up folding focusing hood for DX, DXII and DXIII.
Item # WIFHRSUDX.....319.95



VIEWING ACCESSORIES, *continued*

Loupes and Focusing Cloths

Wista has created advanced focusing loupes for professional users. All loupes are constructed with 3 optical lenses, diopter correction adjustment and neck strap.

5x Standard Focusing Loupe (1046)
5x magnification. Includes opaque dome for viewing back lighted subjects. With strap.
Item # WIL5X49.95

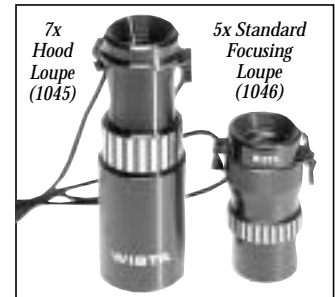
4x Jumbo Loupe (1047)
70mm diameter covers 6x9cm wide area.
Item # WIL4X166.50

7x Hood Loupe (1045)
7x magnification. For cameras with folding hoods. Can be used when retracted. With strap.
Item # WIL7X94.95

6x9 All View Loupe (1109)
For rollfilm adapter (4530), or (4531). See *Rollfilm Backs and Adapters*.
Item # WIL69217.50

Standard Focusing Cloth (1070)
With velcro. For 4x5 cameras.
Item # WIFCSQ56.95

Large Focusing Cloth (1072)
For larger cameras. Without velcro.
Item # WIFCLQ56.95



BACK ACCESSORIES

Reducing Backs and Adapters

8x10 to 4x5 Reducing Back (4535)
Reduces picture format from 8x10 to 4x5. Made of fine Cherrywood to match the DX 810 camera. Reducing back is placed on camera by removing 8x10 back. Includes a built-on 4x5 groundglass screen.
Item # WIRB81045Q472.50

8x10 to 5x7 Reducing Back (4536)
Same as above. Fits DX 810. Reduces picture format from 8x10 to 5x7.
Item # WIRB81057472.50

4x5 to 5x7 Adapter Back (4533)
Same as above. Fits DX, DXII and DXIII. Upgrades 4x5 camera to a 5x7 camera.
Item # WIAB57DX444.95

4x5 to 5x7 Adapter Back (4534)
Same as above. Fits VX, SP and RF. Upgrades 4x5 to a 5x7 camera.
Item # WIAB57SP354.95

Quick 6x9 Reducing Adapter (4529)
4x5 to Graflock adapter. Allows 4x5 back to accept rollfilm holders with Graflock fittings.
Item # WIQRA6967289.95

Rollfilm Backs and Adapters

The Rollfilm Slide Adapter attaches to the back, instead of a 4x5 back. It has a groundglass focusing panel on one side and a rollfilm holder adapter on the other. For 6x9 focusing hood, see *Miscellaneous Viewing*. After focusing, it permits quick sliding of the film holder into place. It will accept Graflex, Wista, Mamiya RB and Horseman Graflock type rollfilm holders.

Rollfilm Slide Adapter (4530)
For Technical SP.
Item # WISB45SP472.50

Rollfilm Slide Adapter (4531)
For Technical VX and RF.
Item # WISB45RF472.50

6x7 Rollfilm Back (1032)
120 film, 6x7cm, 10 exposures. Graflock back. For rollfilm slide adapter.
Item # WIFB67120SB329.95

International Standard Rollfilm Backs (1033, 1034, 1035) for 4x5 cameras attach to the camera instead of to the 4x5 back. The rollfilm back is built onto a 4 3/4 x 6 1/4" (120x157mm) plate.



4x5 to 5x7 Adapter Back

6x9 Rollfilm Back (1031)
120 film, 6x9cm, 8 exposures. Graflock back for rollfilm slide adapter.
Item # WIFB69120SB329.95

6x9 Rollfilm Back (1030)
220 film, 6x9cm, 16 exposures. Graflock back. For rollfilm slide adapter.
Item # WIFB69220SB364.95

45/6x7 Rollfilm Back (1035)
120 film, 6x7cm, 10 exposures.
Item # WIFB67120G389.95

45/6x9 Rollfilm Back (1034)
120 film, 6x9cm, 8 exposures.
Item # WIFB69120G389.95

45/6x9 Rollfilm Back (1033)
220 film, 6x9cm, 16 exposures.
Item # WIFB69220G429.95

International Standard Rollfilm Backs (1036, 1037) for 4x5 field cameras are used when the groundglass is not removed. The rollfilm back is built onto a 4 3/4 x 6 1/4" (120x157mm) plate and slides into the place of a cut film holder.



45/6x7 Rollfilm Back (1035)

Field 45/6x7 Rollfilm Back (1037)

Field 45/6x7 Rollfilm Back (1037)
120 film, 6x7cm, 10 exposures.
Item # WIFB6745DX389.95

Field 45/6x9 Rollfilm Back (1036)
120 film, 6x9cm, 8 exposures.
Item # WIFB6945DX389.95



FRONT ACCESSORIES

Bellows Lens Hood

Bellows lens hoods are used to eliminate unwanted glare. Basic parts are made of aluminum alloy. They can be folded or extended to 5" (125mm) in front of the lens with simple screw-in installation. They swing up for replacement of lens and to control shutter and diaphragm.



Bellows (Compendium) Lens Hood (4510)
For Technical VX, SP and RF cameras.
Item # WICH45RF129.95

Bellows (Compendium) Lens Hood (4511)
For DX 4x5 cameras.
Item # WICH45DX.....179.95

Shutters and Cable Releases

The self-cocking interlock Wista/Copal-Press shutters are great for multiple exposures, and will automatically stop down the lens and close the shutter when a film holder is inserted.

Wista/Copal Press Shutter #0 (9000)
Item # WIPS0.....182.50

20" (50cm) Cable Release (1053)
Item # WICR20.....19.95

Wista/Copal Press Shutter #1 (9001)
Item # WIPS1.....189.95

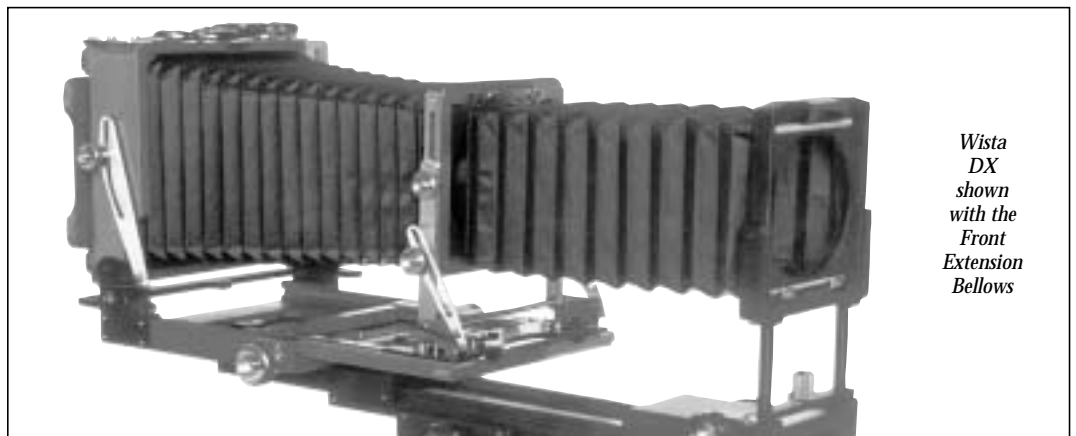
Shutter Interlock Cable (1051)
Item # WISILC.....27.95

Wista/Copal Press Shutter Leica Mount (9002)
Enlarging lenses can be used for regular work and extreme close-ups with the Wista/Copal-Press shutter with Leica (39mm) mount.
Item # WIPSL.....218.50

Custom Aperture Scales (9003)
For above shutter.
Item # WICS.....49.95

Front Extension Bellows

Front Extension Bellows (4546)
For Wista DX, DXII and DXIII 4x5, and Linhof Technika cameras. The Front Bellows extension allows the use of telephoto or macro lenses for greater extension. Requires the use of extension track and frame (4580) for Wista cameras, and tele macro rail (4585) for Linhof Technika cameras.
Item # WIBEDX.....219.95



Wista DX shown with the Front Extension Bellows

96 x 99mm Lensboards For All 4x5 Cameras

Flat Lensboard Blank (4518)
Item # WILBBQ39.95

Flat Lensboard #0 (4516)
Cut for #0 hole.
Item # WILB0.....39.95

Flat Lensboard #1 (4517)
Cut for #1 hole.
Item # WILB1.....39.95

Recessed Lensboard Blank (4544)
For wide-angle lenses.
Item # WILBRDX3W213.95

Recessed Lensboard #0 (4526)
With cable release adapter.
For wide-angle lenses. Cut for #0 hole.
Item # WILBR0.....227.95

Wooden 139 x 139mm Lensboards For 8x10 Field Cameras

Flat Lensboard Blank (4525)
Item # WILB810B48.95

Flat Adapter Board (4524)
Permits lenses mounted on Wista or Technika lensboards to be used on Wista Field 8x10 camera.
Item # WILBA81045113.95



For more Lensboards, see **Sinar or Horseman Lensboards.**