

1968

KEEP ON FILE

REFERENCE

CENTURY

MOTION PICTURE EQUIPMENT

Manufacturers of:

ZOOM LENSES

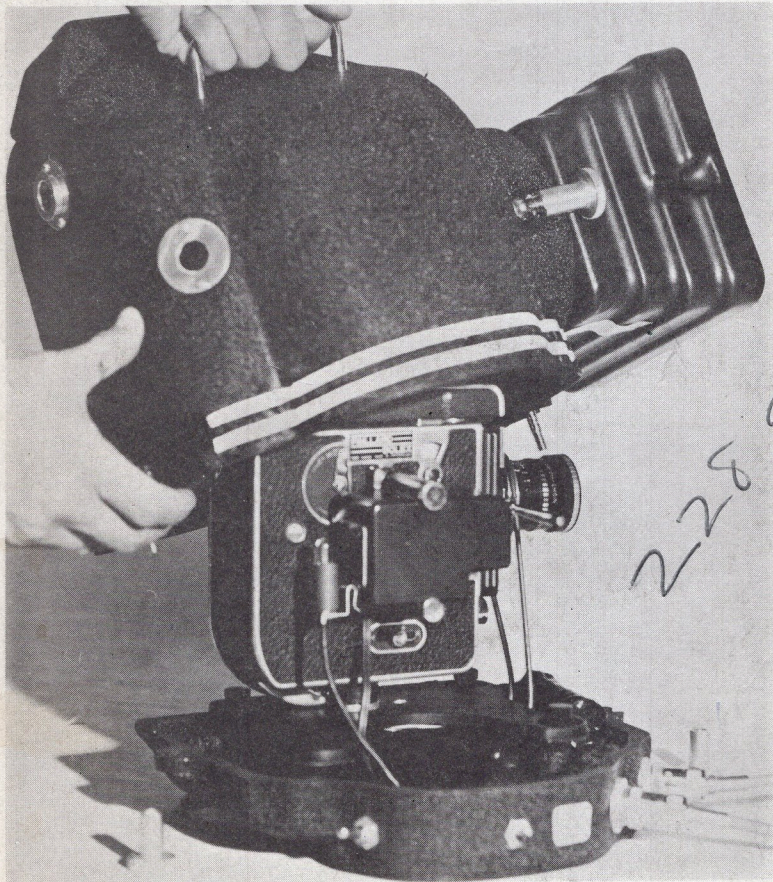
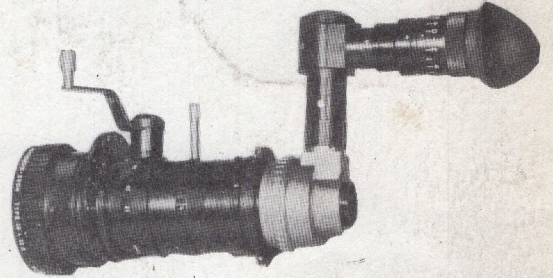
TELEPHOTO LENSES

SOUND BLIMPS

OPTICAL SYSTEMS

MAGAZINES

SYNCHRONOUS MOTORS



SERVICES

REPAIRS AND SERVICE ON ALL ZOOM AND CONVENTIONAL LENSES.

NATIONWIDE RENTAL

CUSTOM DESIGN & ENGINEERING

ZOOM LENS REPAIRS

ALL TYPES SALES, SERVICE, OPTIMIZING

Century

PRECISION OPTICS

Cine Equipment Co.

10659 Burbank Blvd.,
North Hollywood, Calif. 91601

Phone (213) 7663715

TV



Century PRECISION Cine Equipment

(213) POPLAR 6-3715
PRECISION OPTICS
TELEPHOTO LENSES
ZOOM LENS SPECIALISTS
SALES - SERVICE
MANUFACTURING
INSTRUMENT ENGINEERING
CINE-CAMERA SYSTEMS
TV-ELECTRON-OPTICS

10659-10663 BURBANK BLVD., NORTH HOLLYWOOD, CALIFORNIA 91601

TO OUR CUSTOMERS:

The enclosed literature describes many exclusive new products designed for efficient and creative cinematographers. Some are patented and not available elsewhere.

Please note that some items such as camera magazine conversions, sound blimps, etc. are usually custom fitted at our factory. In such cases, send camera well packed. Please allow ample time for delivery or request estimated delivery date. Our shop schedule often is crowded and good workmanship and proper inspection requires adequate time allowance.

A 50% deposit is required from non Dun & Bradstreet rated firms on all custom work. Balance can be sent upon completion or C.O.D. Include sufficient shipping charges, otherwise, item will be sent via Express, charges collect. (Except items marked postpaid). Foreign customers must send full payment with order. Add 6.00 handling charge for documents and government forms.

Long term rental on some items is available to qualified users. Please write describing your requirements and we will furnish details.

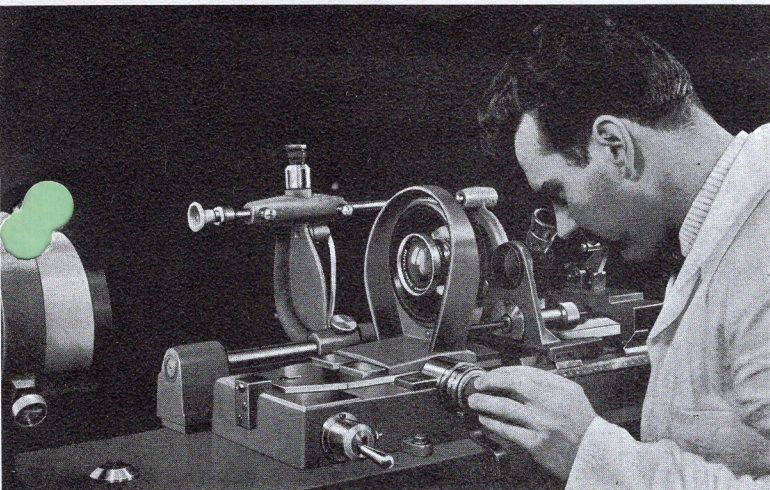
As you probably know, CENTURY PRECISION OPTICS maintains what is in all likelihood America's most specialized LENS REPAIR department. Since 1948 when our company was first established, we have repaired almost every known type of camera and TV lens, including those of foreign manufacture. We have been repairing ZOOM LENSES since their original commercial introduction in 1950. A whole department is devoted to repair and servicing Angenieux, Berthiot Pan Cinor and every other cine zoom lens. Special 48 hour EMERGENCY RUSH repair service is available for TV News and film production units, as we AIR SHIP daily to all parts of the U.S.A.

Trade-ins accepted. That broken or obsolete lens may have repair parts value.

We invite bid quotations from educational institutions and official agencies. Buyers are urged to carefully check and test equipment upon receipt to insure that it has arrived in perfect operating condition. This should always be done prior to using equipment for actual production use.

Prices are subject to change without notice and we reserve the right to modify design specifications whenever technical improvements warrant.

Your patronage is sincerely appreciated. We invite your suggestions and will gladly supply information relative to the use of our products, by phone or letter.



ZOOM LENS REPAIRING

ANGENIEUX

AND

PAN-CINOR

He knows **LENSES...**

GET SHARPER PICTURES

- Special adaptations and lens mounts machined in our own shops
- 8mm, 16mm and 35mm lenses re-focused
- Anti-reflection treatment
- Lenses re-collimated for super accuracy
- Optical bench lens testing (1/1000 accuracy!)
- Special telephoto lenses made to order
- Aberrations corrected, where possible
- Camera and projection lenses cleaned
- Trade in your excess stock lenses and cameras on our new Tele-athenar telephoto lenses. Send description for our trade-in allowance.
- All cameras and lenses insured while in our shop and in transit.

CAMERAS TESTED FOR CORRECT LENS SEATING.

Specializing in precision servicing of Zoom lenses. Every lens is optically tested before leaving our shop. Precise focus collimation, complete rebuilding and servicing.

SEND LENS OR CAMERA FOR PROMPT ESTIMATE, PACK WELL.

WE SHIP BY UNITED PARCEL SERVICE OR PARCEL POST, INSURED. AIR, etc

WE SERVICE ALL MAKES OF LENSES, INCLUDING JAPANESE AND GERMAN. SPECIALISTS IN BALTAR, EKTAR, ZEISS, EASTMAN, MEYER, ANGENIEUX, ETC.

20 years of Photo-Optics repair and servicing experience. Same location 12 years

Professional ZOOM lens **OPTIMIZING** for precise sharpness over the entire range of focus.

Century

PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.



Century PRECISION OPTICS

POPLAR 1-2927
SALES - SERVICE
MANUFACTURING
PRECISION OPTICS
INSTRUMENT ENGINEERING
CINE-CAMERA SYSTEMS
TV-ELECTRON-OPTICS

10657-10659 BURBANK BLVD., NORTH HOLLYWOOD, CALIFORNIA

Gentlemen:

Why should you buy your 12mm to 120mm $f/2.2$ Angenieux Zoom lens from Century Precision Optics? There are three excellent reasons other than the extreme focal range:

- 1.) Lenses, from any manufacturer, vary in optical quality. Since we are zoom specialists, we accept only those lenses which pass our critical optical-bench test.
- 2.) Those lenses which are accepted are "Optimized" in our own laboratories to increase optical performance. As a result, they equal or surpass Ektar and Switar lenses.
- 3.) We are equipped and staffed to provide you with prompt post-sale servicing, and should you decide to change cameras, we can remount this fine lens for you.

After reading the enclosed descriptive literature you, as dozens of our other professional customers, will want to order today. Simply initial this letter and return it. We shall be pleased to send your office one of these fine instruments for a 10-day trial, with no obligation. Your satisfaction is guaranteed. Write today and you will get prompt delivery.

CENTURY PRECISION OPTICS Div.

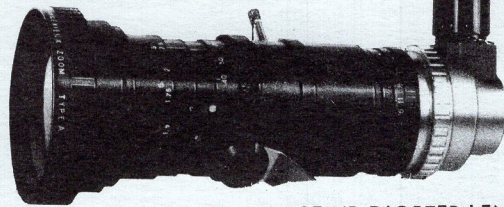
Chris J. Condon
Sales Mgr. Optics Div.

CJC/mp

P. S. Because we specialize in 16mm lenses, we can offer top allowance for your used lenses or cameras. Send well packed for prompt estimates.

ANGENIEUX 12 TO 120 mm ZOOM LENS

MANY EXCLUSIVE CENTURY ITEMS



Phone
(213)7663715

Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif. 91601
Prices and specifications subject to change without notice

ACCESSORIES, SERVICES
and Basic ZOOM lenses

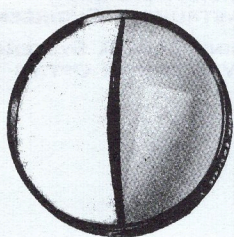
		<u>Net</u>
<u>CLOSE UP DIOPTR LENSES</u>		
Stock		
CU-9	No. 1/2 (80"), No. 1 (40"), No. 2 (20"), No. 3 (13") Superior grade, lab tested.....	22.50 ea.
SF-9	Split Field Diopter lens, for simultaneous close and far focus, No. 1, 2, or 3.....	44.50 ea.
<u>SPECIAL PARTS</u>		
C-9	Replacement threaded front metal lens cap (original).....	7.50
C-12A	Replacement "C" adapter assembly for 12-120 A and AZo.....	36.50
C-ST	Precision Steel Replacement "C" mount thread to replace brass "C" mount of 12-120 A or AZO....	9.80
DR-4	Custom machined Focus and Iris data rings, view from rear of camera, engraved, set of 4.....	69.50
TWR	T Wrench for 12-120A or AZo.....	1.00
CA-12	Special Aluminium carrying case for 12-120 A and AZo lens. 12" x 14" x 4", lock, foam lined .	34.50
ZLS	Replacement short Zoom lever.....	2.50
ZLL	Long 3-1/2" Zoom lever for all 12-120 Zoom lenses.....	6.50
LCA	Protective Custom machined threaded cap to fit front of filter adapter ring...for fast shooting....	12.50
<u>CUSTOM SERVICES</u>		
CO-AA	Conversion of 12-120 B "C" mount lens to Arri 16 mount (5 day delivery).....	74.00
CA	"C" mount adapter for Arriflex mount lenses.....	18.50
ZSB	12-120 Zoom Support Bracket for Arri 16. Fits into camera matte box bracket.....	59.50
	OPTIMIZE your 12-120 Zoom for max. sharpness and to minimize focus shift during zoom..	27.50 to 75.00
AR-12A	Adaption of your 12-120A or 12-120 AZo to Arri 16. This adapter is removable to replace with reflex viewfinder. (10 day delivery). Fits by 5 screws	192.00
12AU	CONVERT 12-120A or AZo to fit Auricon Super 1200 recessed Turret.....	165.00
LVF	LENGTHEN Viewfinder of 12-120A by 1-5/8" (1-625).....	96.00
SB-AU	Viewfinder Support Bracket for Auricon. Cine voice or Pro-600 easilly installed on door.....	22.50
SVF	Install Short Viewfinder 2-1/2" long for shoulder mounted news camera (exch.).....	250.00
ICT	Reversal of iris control ring so "T" stops are on top (Includes T test).....	16.50
12RX	CONVERSION of 12-120B "C" mount to RX mount for Bolex H-16 Reflex.....	18.50
12CA-1	CONVERSION of 12-120 "C" mount lens to Eclair CA-1 mount.....	93.00
12RX8	Conversion of 12-120B "C" mount to fit H-8 REX 8mm Reflex camera.....	29.00
CO-EK1	Conversion of Cine Special 1 lens hole to "C" mount to accept 12-120A Zoom lens.....	44.50
TL-CS	Turret Lock Knob installation on Cine Special 1 Turret.....	12.50
SAM	Install TV safe area reticle in finder. Also shows area out of field... 55.00	
<u>FILTERS AND ACCESSORIES</u>		
F-9	<u>FILTERS:</u> Optical grade A, tested (85, haze, skylight, yellow, orange, green).....	22.50 ea.
FND	Neutral Density Filters, Grade A.....	27.50 ea.
POL	Polarized filter.....	38.00 ea.
12EL	CPO Electric Motor drive for Zoom, deluxe, control box, NIC. CAD Battery, etc....Price on Request	
LLS	Large 10" Dia. Super Lens Shade. Flex. ABS Plastic with metal ring. Fits adapter ring. Maximum efficiency.....	34.50
SLS	MED. Custom Lens Shade. Fits front retainer ring, also holds filter in place.....	19.00
FC-12	Gel Filter Cell for rear of 12-120B (Fits into rear of "C" mount).....	24.00
FC-12A	Gel Filter Cell for rear of 12-120A (presses into rear of reflex viewfinder.).....	28.00
	Note: Gel Filters at rear of lens allow brighter focusing and use a large variety of inexpensive EK gels	
RQ-FA	Snap-On Quick removable slip fit filter adapter ring, to quickly add filter when going to daylight..	19.50
GF75	3/4" Diameter Gel Filters, all common types (specify) fit above gel filter cell.....	.75 ea
GFP	Precision Gel Filter Punch (3/4") for cutting above Gel Filters.....	36.00
<u>12-120mm ZOOM LENS PRICES (Optimized for professional resolution standards)</u>		
12A	12-120mm f/2.2 Angenieux Zoom lens with standard 7-1/2" reflex viewfinder, Std. "C" mt....	925.00
12AZO	12-120mm AZo f/2.2 Angenieux Zoom with 10" viewfinder 1050. With Century 3" finder installed..	1125.00
12RX	12-120mm f/2.2 Angenieux Zoom lens without viewfinder for Bolex Reflex, Beaulieu, etc. (please specify).....	765.00
12AR	12-120mm f/2.2 Angenieux Zoom lens for Arri 16.....	795.00
12CA	12-120mm f/2.2 Angenieux Zoom lens in Eclair CA-16 bayonet mount.....	818.00

Prices include Cptimizing test. Repair charges for 12-120 Zoom lenses will be quoted upon request.
Spare parts in stock. Experienced Zoom technicians for fast service.
Minimum order - 10.00. All prices F.O.B. North Hollywood, California

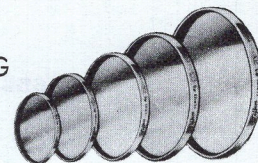
NOTE: If linear (back and forth) zooming lever is desired instead of radial, add 50.00

CLOSE-UP DIOPTER LENSES

EXCLUSIVELY THROUGH CENTURY



NOW AVAILABLE FOR COMMERCIAL AND DOCUMENTARY FILMING
 ← SPLIT FIELD AND FULL FIELD →



CLOSE-UP DIOPTER LENSES.....

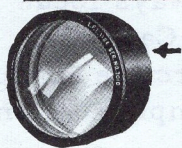
Exclusive Century Precision Special Split Field Diopter lenses are now available which allow CLOSE-focus on one half of your frame and FAR focus on the other half!... Very effective zooms can be made for commercials and documentary, etc. An object can be as close as 10" from the lens on one side of frame, and the opposite side can be in focus to infinity.....!

NOTE: To find working distance (power) divide diopter into 40".
 The Standard and split field series are available in Plus 1/2, (80") Plus 1, (40") Plus 2 (20") Plus 3 (13") Series VII and VIII also available standard, coated Plus 4,5,6 Split or Full field, add \$8.00 ea.

The Achromatic series are available in full field and split field Plus 1, Plus 2 only. (Plus 1/2 Spec. order)
 The Plus 2 size are recommended for all around work with the 12-120mm Zoom lens as they cover 8X10" maximum down to .8"X1.0" minimum. (Excellent for zooming 8X10 photographs)

The standard diopter lenses are for regular close-up work. They are tested for maximum resolving power. Another Century exclusive is the new achromatic close-up lens. These are the ultimate in image quality. For super power extreme zoom close ups, the new Century Compound Diopter Systems are unique in their field. They are mounted in precision cells to thread directly into the zoom lens as are the achromatic lenses.

	<u>Split Field</u>	<u>Full Field</u>
<u>Series VII 2" Dia.</u> (Angenieux 17-68 Zoom, etc). Standard, coated.	24.50	6.50
<u>Series VII 2" Dia.</u> Achromatic, coated.	49.50	29.50
<u>Series VIII 2.5" Dia.</u> (Pan Cinor 17-70, 17-85 etc) Standard, coated	34.50	12.50
Achromatic, coated.	59.50	39.50
<u>Series IX 3" dia.</u> (12-120 Angenieux). Standard, coated.	44.50	22.50
Achromatic, coated.	99.50	79.50
<u>Series IX Special 7 Diopter Compound System</u> for super closeups, in threaded mount. Fantastic zoom shots 5 inches from subject !!		285.00
<u>Series XA 4-1/2" Dia.</u> (25-250 Angenieux and 12-240). Standard.	89.50	55.00
Achromatic	238.00	185.00
<u>Series XA 4-1/2" Dia.</u> Special 7 Diopter compound system for super closeups in threaded mount.		335.00



Achromatic close-up lenses have improved color correction than standard single element diopter lenses. The compound diopter systems have 4 color corrected elements and are capable of very high quality super close-ups. For example, you can zoom from as little as 1/4" up to 5" coverage, depending on the focal range of your zoom lens. Amazing close-ups of tiny subjects are possible, as well as zoom shots of portions of 35mm slides.

EXPLOIT YOUR CREATIVITY WITH CENTURY SPLIT FIELD DIOPTER LENSES

Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif. 91601
 Prices and specifications subject to change without notice

(over)
 Phone (213) 766-3715



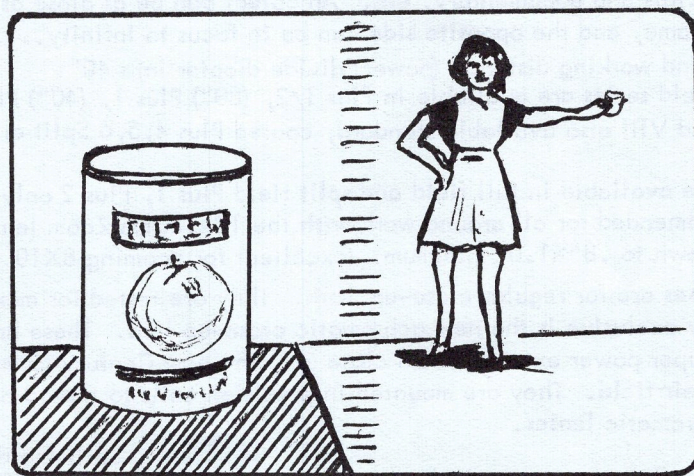
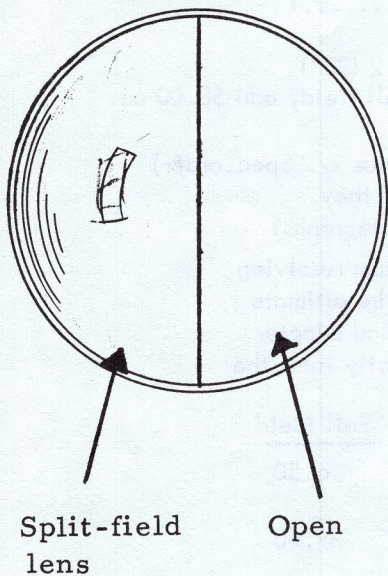
Century PRECISION OPTICS CINE EQUIPMENT

(213) POPLAR 6.3715
PRECISION OPTICS
TELEPHOTO LENSES
ZOOM LENS SPECIALISTS
SALES - SERVICE
MANUFACTURING
INSTRUMENT ENGINEERING
CINE-CAMERA SYSTEMS
TV-ELECTRON-OPTICS

10659-10663 BURBANK BLVD., NORTH HOLLYWOOD, CALIFORNIA 91601

SPLIT FIELD DIOPTRER CLOSE-UP LENSES

For simultaneous close-up and far focus



Split-field Dioptrer lens on this side of lens results in sharp focus of close-up object

Open side of Dioptrer lens allows regular lens focus on opposite side of frame.

To minimize dividing line between Split-field Dioptrer and open side of lens, the background should preferably be plain or limbo.

When using the Split-field Dioptrer with zoom lenses, always focus with the focal length setting at the longest focal length. Carefully examine image on your ground glass viewfinder to determine sharpest focus setting. You will then be able to go through a complete zoom and still maintain focus on both sides of the frame.

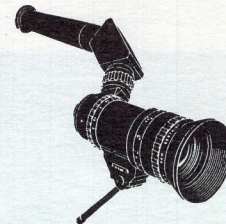
The arrow on the edge of the Split-field lens should point toward the subject.

Many unusual and creative possibilities exist for TV, special effects and pictorial scenes.

(over)

PAN-CINOR

zoom lens services



PRICES AND ACCESSORIES

CENTURY PRECISION OPTICS Div. is experienced in servicing all types of zoom lenses. Many types of hard-to-find accessories and parts are stocked. Since 1950 we have supplied the zoom lens needs of thousands of professional film producers, studios and advanced amateurs. Among our services, we offer exclusive CENTURY "OPTIMIZING" a process of precision optical adjustment of zoom lenses to improve performance, especially to increase sharpness at all zooming positions. Order the following items and services direct from our North Hollywood plant only.

CLOSE-UP LENSES:	NET PRICE
For Pan Cinor 17-70, 17-85 f/2, 25-100 and others taking 2.5" diameter	
Plus 1 (40") Plus 2 (20") Plus 3 (13").....each	14.50
Plus 4 (10") Plus 5 (8") Plus 6 (6.5").....each	19.00
(For Pan Cinor Compact 17-85 f/3.8 Zoom, above are priced at 8.95 and 12.00)	
FILTERS: (Selected optical Grade AA)	
For Pan Cinor lenses 17-70, 17-85 f/2, 25-100 and others accepting 2.5" size...Specify color. each.....	13.95
For Compact Pan Cinor 17-85 f/3.8 and others accepting 2" size. Specify color..... each	5.50

CONVERSIONS AND ADAPTIONS (All conversions include Century Optimizing)	
Conversion of Pan Cinor 17-70 to Arriflex 16 mount. (Viewfinder removed and traded-in).....	68.00
Conversion of late model 17-70 from C mount to Kodak S mount (serial number by zoom lever).....	97.50
Conversion of 17-85 f/2 S mount to Arri 16 (Viewfinder removed and traded-in).....	97.50
Conversion of 17-85 f/2 from C mount to Kodak S mount	88.00
Conversion of 17-85 f/2 from Kodak S mount to Arri 16 (Viewfinder not removed) C use possible.....	135.00
Adapter to use Arri mounted lenses on C mount cameras (easily removable).....	18.50
Special conversion of 17-85 f/2 Model I range-finder to operate when viewfinder horiz. Auricon etc.	
Split-image range-finder will then be clear and operate on any diagonal line at image plane.....	36.00
Conversion of Pan Cinor 16mm Zoom lenses to work with Bolex H-8 REX Reflex.....	21.50
Installation of TV or 8mm mask in Pan Cinor Viewfinder. (Send entire lens for alignment).....	19.00
Installation of rubber eye-cup and coupler on 17-70 or 25-100 Pan Cinor.....	9.50
Conversion of 17-70 Pan Cinor to 35-140 f/4.5 C mount only.....	155.00

NOTE: All CONVERSIONS listed above are permanent, not removable. Prices include trade-in of removed parts.

SERVICES

General overhaul, cleaning and precision optical collimation (includes optical bench test).....	27.50 to 65.00
Same as above but includes Century Precision OPTIMIZING.....	37.50 to 75.00
Re-cementing optical beam splitter 17-70 or 25-100. Includes installation, alignment, collimation.....	38.00
Re-cementing optical beam splitter 17-85 Includes installation, alignment, collimation.....	44.00
Re-Polish front element to remove light scratches, using precision test plate.....	43.50
Calibrate and mark T stops adjacent to present f stops. Marked with red dots.....	10.00
Re-align prisms for correct framing on 17-70 Pan Cinor viewfinder... 22.00 for 17-85 Pan Cinor.....	26.00

Prices for re-polishing to remove fungus growth, re-cementing lens elements, repairs etc, quoted upon request

PAN CINOR ZOOM LENS PRICES (Optical Bench-Tested and certified by Century Precision)

Note: All zoom lenses we sell are Century Optimized to render maximum sharpness during entire zoom.	
17-85 f/2 Pan Cinor with built-in viewfinder and range-finder... Includes lens shade, filter adapter.....	460.00
17-85 f/2 Pan Cinor without viewfinder, for C mount reflex type 16mm cameras, lens shade, filter adapter..	385.00
17-85 f/2 Pan Cinor II with coincident range-finder, converted to operate on Auricon Cine Voice.....	460.00
17-85 f/3.8 Pan Cinor Compact Zoom. Very small in size. Fits all turret 16mm cameras, C mount, without interference. With reflex viewfinder and full frame coincident range-finder, lens shade, filter adapter.....	299.50
17-85 f/3.8 Pan Cinor Compact Zoom. For all 16mm reflex type cameras. Fits turret without interfering with the use of other lenses on the camera. Price includes lens shade and filter adapter.....	249.50

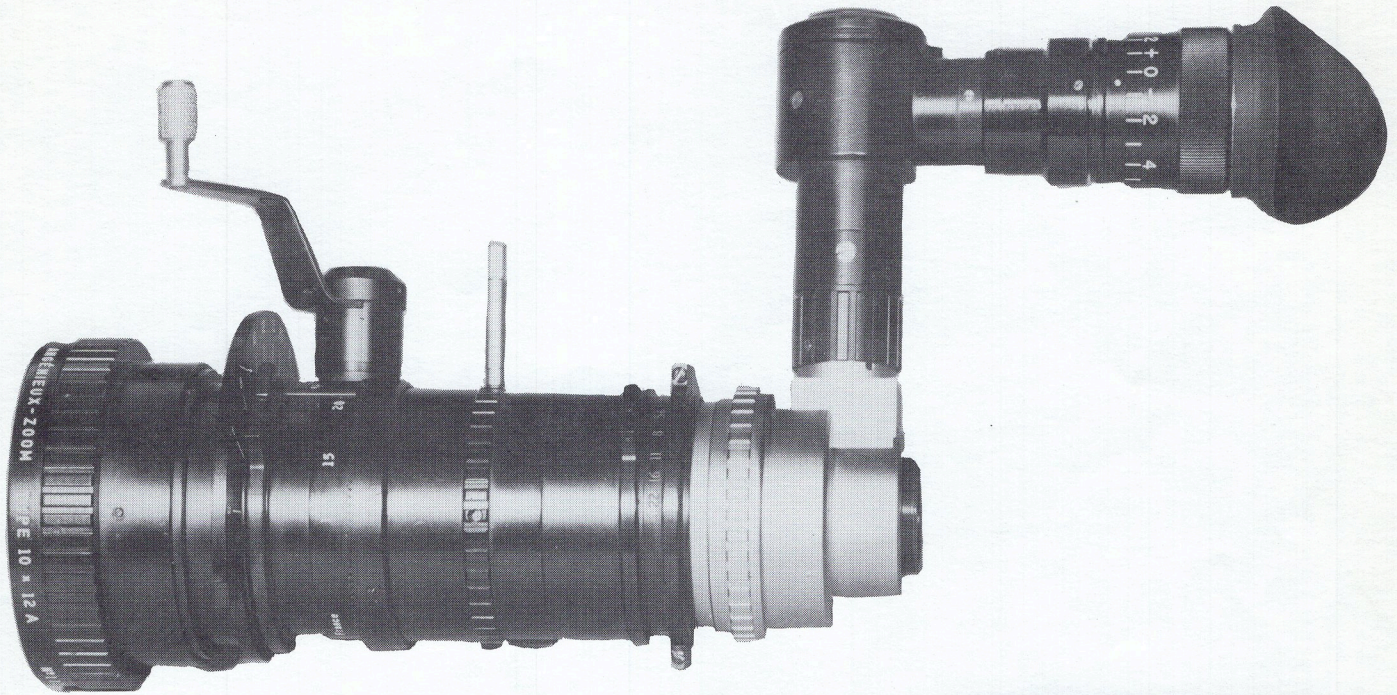
ACCESSORIES

Long Zoom handle for 17-70, 17-85 f/2, 25-100. ... 8.50	Standard Zoom Handle .. 6.50
Alluminum case for above Pan Cinor lenses. Lined with formed plastic foam. Lid seals tight. (Recommended) .	38.50
Front lens cap....	5.50

TRADE-INS ACCEPTED. All types of lenses, zoom or non-zoom. Send well packed for prompt trade-in appraisal. See separate sheet for Angenieux and other zoom lenses. Prices and specifications subject to change without notice.

ANNOUNCEMENT!

ATTENTION NEWSREEL AND DOCUMENTARY FILMERS



Precision
OPTICS

CENTURY SHORT REFLEX VIEWFINDER FOR 12-120mm f/2.2 ANGENIEUX ZOOM LENS

Our optical engineering and research department has developed a special shortened reflex viewfinder installation for this fine Zoom lens. This unit is ideal for shoulder carried news and documentary filming. The image is clear, bright, and easy to focus.

This installation replaces the present long finder on the lens and becomes a permanent part of the lens. The short viewfinder swivels 180°. It is far more rigid than the long viewfinder and less apt to be damaged.

The eye-piece is adjustable and calibrated for individual eyesight.

Price of short viewfinder and installation, including trade-in of your long viewfinder parts... Net
250.00

Made in U.S.A. Distributed only by

Century

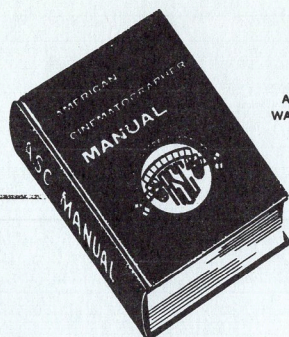
PRECISION OPTICS
ZOOM LENS DIV.

Phone (213) 7663715

10659 Burbank Blvd., North Hollywood, Calif. 91601

FOR FAST ACTION NEWS AND DOCUMENTARY SHOOTING, MAXIMUM PORTABILITY, BETTER QUALITY COMPOSITION AND MAXIMUM SAFETY.....THE MODERN WAY TO SHOOT !!

**AMERICAN
CINEMATOGRAPHER MANUAL**



BOX 2230 • HOLLYWOOD 28, CALIF. • HOLLYWOOD 7-2135

JUNE 6, 1963

Mr. Chris Condon
CENTURY PRECISION OPTICS
10659 Burbank Blvd.
North Hollywood, California

Dear Mr. Condon:

I wish to compliment you on the excellent job you did in fitting an Arriflex mount to the Angenieux 12mm to 120mm Zoom lens which I recently purchased from you.

Your adjustment of this lens is absolutely fantastic! There is no focus shift whatsoever and it is sharp as a needle from wide-angle to telephoto position even wide open. I have two other Angenieux lenses which I rented and they are nowhere near as sharp as your lens. I never realized how sharp a zoom lens could be until I actually filmed scenes with this lens. And to think that a zoom lens could be so sharp over a 1 to 10 ratio is more than I could ever dream! I have shown tests made with this lens to other cameramen and they marveled at the sharpness which they didn't deem possible.

I would like to inquire into the possibility of acquiring another 12 to 120 lens and I would also like you to give me complete data, prices, availability, etc. of the 25 to 250mm lens for 35mm cameras, in both the Mitchell and Arri mount.

I want to thank you for the speed and efficiency with which you handled this matter.

Yours sincerely,

Joseph V. Mascelli
Joseph V. Mascelli

Editor
JOSEPH V. MASCELLI
Advisory Board
ARTHUR MILLER, A.S.C.
WALTER STRENGE, A.S.C.

TECH-CAMERA RENTALS, INC.

EQUIPMENT RENTALS AND PHOTOGRAPHIC SERVICES

6450 Santa Monica Boulevard

Hollywood 38, California

HOLLYWOOD 6-5391

26 June 1963

Century Precision Photographic Equipment
10659 Burbank Blvd.
North Hollywood, California

Dear Mr. Condon:

We would like to add our compliments to the compliments we have received from our rental customers on the superb sharpness and overall optical qualities possessed by the 12 to 120 f/2.2 Angenieux Zoom lens which you recently mounted for us.

Our rental customers have been using the 12 to 120 Angenieux Zoom as supplied from other sources. They were satisfied with the results until we furnished the lens that you mounted and calibrated for us. They can not understand how the "same" zoom lens can differ so much in quality.

Compliments such as these are very gratifying to us because we are not number one in volume but we try very hard to be number one in service and dependability and we assure you that in this case your efforts have not gone unnoticed. Your excellent workmanship has helped us to maintain our high standard of quality in optical lenses and accessories.

Please accept our heartfelt thanks and be assured that your efforts on our behalf are greatly appreciated.

Yours sincerely,
TECH-CAMERA RENTALS, INC.

George W. Sutphin
George W. Sutphin, President



WHAT IS "OPTIMIZING"?

OPTIMIZING

Optimizing is a special optical adjustment process exclusive with CENTURY which can increase the RESOLVING POWER (acuity or sharpness) of a camera lens an average of 25 PERCENT! This process took in excess of 15 years to develop.

CUSTOM LENS ADJUSTMENT

Each lens is custom adjusted. Experienced Century optical technicians using special test equipment painstakingly adjust each optical component to its most critical position. This delicate adjustment often takes many hours. Then the unit is given a further final test on a massive optical test bench. Far more demanding than the usual production methods used by most optical manufacturers, this exclusive process results in noticeably improved optical performance, sometimes better than 50% more lines per millimeter resolved at maximum aperture! In addition, focus shift of zoom lenses is virtually eliminated and sharpness at wide-angle and telephoto positions improved.

CENTURY EXCLUSIVE

Century Precision Optics Div. offers this service on all its lenses. Zoom lenses, because of their complex design, are far more critical in adjustment and receive maximum benefit from OPTIMIZING. Because of this, many Hollywood film production companies have designated CENTURY for their zoom lens servicing and purchasing.

MANUFACTURER'S TOLERANCES EXCEEDED

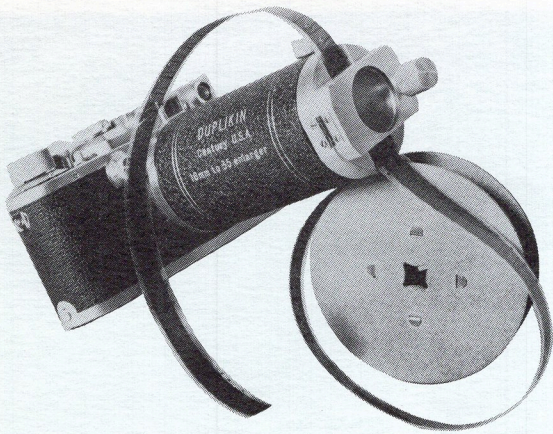
When you purchase a lens from Century, you can be certain it is performing at its maximum sharpness and that it has been precision-collimated for your specific camera within 0.0005" (five ten-thousandths of an inch)! Every lens sold must pass this test before shipment. Usual manufacturer's tolerance is 50% less stringent!

FREE SERVICE GUARANTEE

All this means that you will actually SAVE MONEY when you buy your lenses from Century. You will eliminate wasted time, wasted film, shipping expenses and reshooting which can add up to far greater expense. In addition, every lens we sell carries a free 3-year guarantee. Your technical questions will be gladly answered. For top quality photographic and filming results, purchase your lens from Century Precision Optics, CAMERA LENS SPECIALISTS. Your order is sincerely appreciated and will receive careful attention.

Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice



Models to fit all 35mm focal plane SLR cameras or can be supplied in T mount. Also for Leica.

\$99⁵⁰

Complete with instructions

This is the only Precision Made Optical device for enlarging frames of uncut 16mm movie film onto 35mm film. It enables you to make color slides or black and white snapshots from your favorite 16mm movie scenes.

The Duplikin has its own coated optical system; you can expect to capture all the sharpness on your 16mm frame. By varying exposures, it is possible to improve the density over the original. Filters can be used to change the color balance, if desired. Many interesting possibilities!

In the past, several firms have marketed cheaply made devices for copying 16mm films. Because they used plastic construction and simple lenses, the results did not satisfy many discriminating photographers who wanted to faithfully copy every detail and color in the original 16mm frame. Without precision optics and construction, it was impossible.

The Duplikin is entirely different. It is assembled from carefully machined parts and employs an optical system that is color corrected and coated. It is a precision instrument to match your camera. 100% made in U.S.A. and is fully guaranteed for 3 years.

Price includes Bausch and Lomb 25mm hi-resolution micro-copy lens.

- Use the slides to analyze your 16mm filming technique and improve your movies.
- Make beautiful color slides from those extra special movie scenes.
- Use slides made from movie scenes to complete a sequence.
- Television stations, lecturers, scientists and professionals are using the prints for advertising their films.

The Duplikin is very easy to use. Models are made to fit Leica, Exakta, Contax, Pentacon, Practika, Canon, etc. No special processing is needed. Simply expose your favorite frames just like snapshots, then send the film to your processor as usual. No extra charges involved, and you can make copies anywhere on the roll. Make one print or 36. The unit fits camera just like your lens.

Carrying case.....8.95

AT LAST....

A QUALITY PRECISION INSTRUMENT FOR COPYING 16MM MOVIE FRAMES WITH YOUR 35MM CAMERA!

**THE
CENTURY
DUPLIKIN 16**

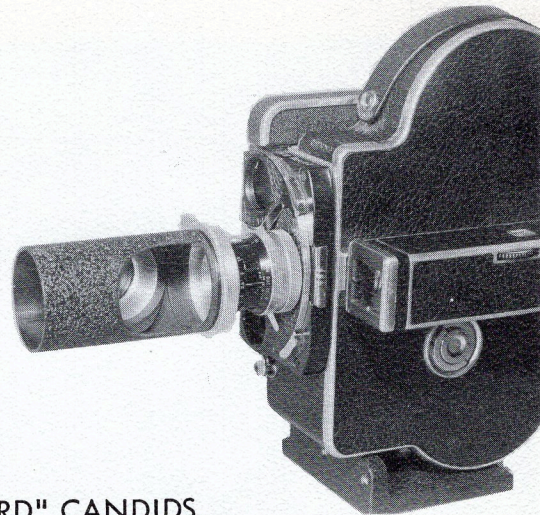
- **Make 35mm Color Slides from 16mm color movies.**
- **Make black and white album prints from color or black and white movies.**

Century **PRECISION OPTICS**

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice

CENTURY

"FLEXARON" M 90° camera periscope



for 16mm and 8mm motion picture cameras

NOW YOU CAN SHOOT PRICELESS "OFF-GUARD" CANDIDS,

DOCUMENTARIES AND RESEARCH FILMS 90° OFF AXIS OF TAKING LENS!!

Ideal for Bolex Reflex, Pathe, Beaulieu, Cine Kodak, Special Reflex, Arriflex, etc. - any reflex type motion picture camera that accepts a Series VI filter retainer ring. Use any 16mm or 8mm camera that has reflex viewing. The Century "FLEXARON" right-angle periscope allows you to take shots right, left, up or down! Use in normal or telephoto lenses. Subject thinks you are taking a picture of something in front of the camera. Resembles a telephoto lens. Research has shown that completely natural and far more professional quality pictures can be taken if the subject does not realize he is being photographed. Also useful for wildlife photography or surveillance work.

PRECISION QUALITY CONSTRUCTION

This beautifully machined unit uses a special hooded 1/4 wave F/S quartz o/c ultra precision optical reflector and fits all Series VI filter adapters. Has locking ring to secure radial position. Absolutely no distortion or loss of sharpness (as is the case with standard mirrors.) Built-in sunshade. Not a toy. Black anodized. Can also shoot around corners to protect the camera from heat, blast, sand blast, etc. (Yes, even bullets and rocks!) You'll say it's the best \$39.50 investment you ever made! Deluxe carrying case only \$8.95. (Step-down rings available everywhere for Series VI, V, etc.)

A VALUABLE NEW FILMING TECHNIQUE

When you receive your Flexaron Camera Periscope, try this experiment. Shoot a scene of someone without the Periscope. Then install the unit on your camera and shoot the same person with the Flexaron, your camera facing 90° away. You will be amazed at the improved natural expression! Ideal for travelers, documentarians, scientists, etc.

An excellent gift for the "man who has everything". Order direct from our plant. Postpaid. Satisfaction guaranteed or money refunded. Made in U. S. A. Patent rights reserved.

ALL CENTURY FLEXARON CAMERA PERISCOPES ARE PRECISION MACHINED FROM FINEST LIGHTWEIGHT DURAL 24ST AIRCRAFT ALLOY, ARE FULLY GUARANTEED AND SHOULD LAST A LIFETIME

ORDER YOUR FLEXARON TODAY FOR FUN AND PROFIT

Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.

Century

PRECISION and QUALITY

LIGHTWEIGHT MAGNESIUM BLIMP FOR ARRI 16

THE FIRST STUDIO TYPE SOUND BLIMP THAT IS LIGHT ENOUGH TO BE HAND-HELD!

YET IS FAR MORE QUIET THAN PLASTIC BLIMPS
.... ONLY 24 DBS AT 36" !!!



HALF THE SIZE, WEIGHT AND COST*

COMPLETE WITH SPECIAL 8X REFLEX VIEWFINDER SYSTEM.
ONLY 27.5 lb. WEIGHT. PRECISION - BUILT. User net 985.00

SEE REVERSE SIDE FOR FURTHER DETAILS

Made in U.S.A. Distributed only by

Century

PRECISION

Cine Equipment

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice

* Approximate

NEW FLUID DAMPENED

SOUND BLIMP

FOR ARRI 16

The all new HYDRO-SEAL SOUND BLIMP for ARRI 16 cameras represents the culmination of more than two years of intensive development by the CENTURY engineering staff. More than a hundred working cinematographers were consulted at every phase of the planning design and development. As a result the professional cameraman will now have at his disposal an instrument as flexible and functional as the matchless ARRIFLEX camera with which it is used. This superb sound blimp is precision made with beautiful workmanship throughout. IT IS FAR MORE QUIET THAN PLASTIC BLIMPS.

A MINIMUM OF WEIGHT . . .

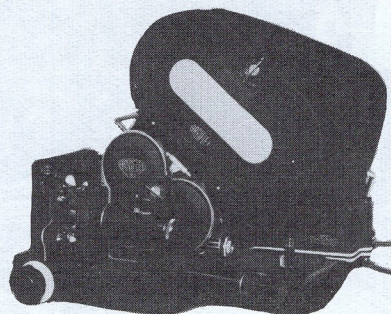
Weighs only 27 lbs. This is more than 50% lighter than the factory supplied unit.

A MINIMUM OF BULK . . .

The new CENTURY blimp is 40% smaller than than the factory supplied unit.

A MINIMUM OF NOISE . . .

Make no mistake about it...HYDRO-SEAL sound isolation is second to none in its sound dampening ability. The conventional approach is almost primitive by comparison. HYDRO-SEAL has overcome the need for layer upon layer of lead. Frankly, we think the cameraman deserves a break! That's the whole ideal of HYDRO-SEAL. The entire 7 layer (3 lbs) lining system, (and it is a system) does the work of 15lbs of lead. The resulting unit is so effective, we've provided a running light to let you know when the camera is turning.



A MAXIMUM OF FLEXIBILITY . . .

No more groping through doors with a flashlight! The CENTURY HYDRO-SEAL BLIMP gives you 360 degree access for loading. All remote controls have been human engineered, based on the experience of the cameramen consulted. The ring gear follow focus is provided with an external calibration disk. Sound proof windows are located for optimum visibility to the lighted blimp interior. A zoom lens adapter can be fitted in seconds, as can a complete range of filters and accessories.

And yet with all this there's a MINIMUM OF COST.... You can do top quality professional double system sound filming with this unit and any appropriate tape recorder.

MINIMUM OF COST . . . ABOUT 50% LESS THAN THE FACTORY UNIT

CENTURY MAGNESIUM HYDRO-SEAL BLIMP for use with Arri S: (400' Magazine Recommended)	PRICE
Includes follow focus, matt-box, 8X optical reflex finder, interior lights,	
sync output wiring, provisions to fit all motors, 27.5 weight.....	985.00
BLIMPED ADAPTER FOR 12 to 120 ANGENIEUX ZOOM (manual control).....	335.00
AUTOMATIC SLATE LIGHT AND CIRCUIT.....	85.00
115 AC MINIATURE SYNC MOTOR, fits into present camera socket and has	
8V transformer for driving magazine.....	385.00

YOUR PROFESSIONAL FILMING CAN NOW BE EASILY PORTABLE WITH TOP QUALITY SOUND

Made in U.S.A. Distributed only by

Century

**PRECISION
Cine Equipment**

10659 Burbank Blvd., North Hollywood, Calif. 91601
Prices and specifications subject to change without notice

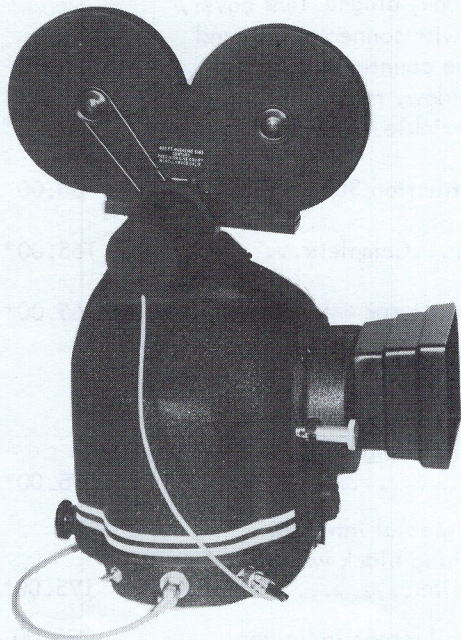
Phone (213) 766 3715

NEW FLUID DAMPENED

SOUND BLIMP

and 400' Magazine Conv. for BOLEX

A COMPONENT SYSTEM



The BOLEX REFLEX becomes a professional 16mm SOUND CAMERA, when used with the new CENTURY BLIMP, SYNC MOTOR, MAGAZINE, and OPTIONAL 1/4" HALF TRACK SYNC TAPE RECORDER.

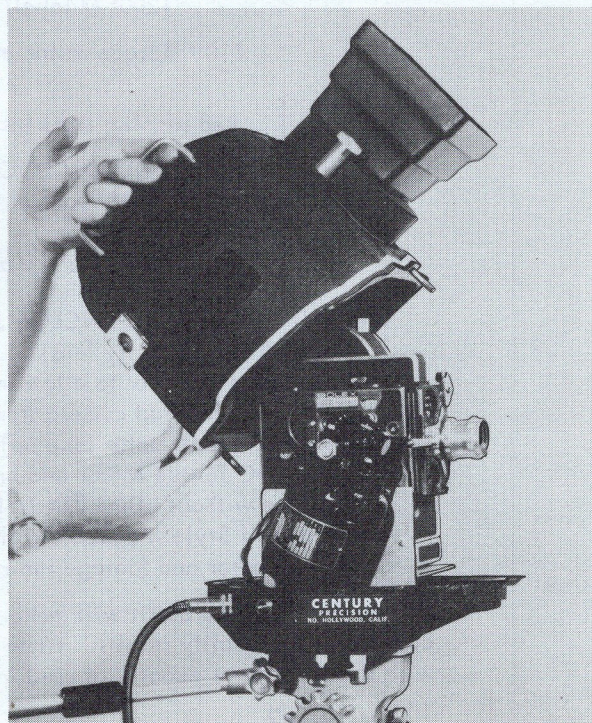
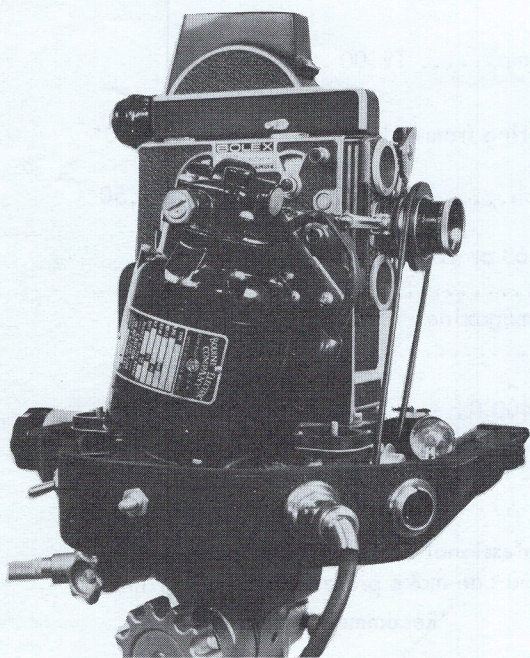
FEATURES ILLUSTRATED:

- 1) Main body of the blimp with 6 layer lining.
- 2) Self blimped torque motor for magazine.
- 3) 200', 400', or 1200' magazines may be used.
- 4) Matt-box and hinged lens cover.
- 5) Magazine mount on blimp.
- 6) Hand knob for removing main body from base.
- 7) On - Off switch.
- 8) Reflex eyepiece.
- 9) Side threading door.
- 10) Follow focus knob.
- 11) Follow focus ring and belt to pulley.
- 12) Magazine block on converted camera.

Luxurious red plush lining

(See PRICE LIST on REVERSE SIDE)

Furnished with complete instructions to help you make professional MONEY MAKING 16mm sound films.



Century **PRECISION**
Cine Equipment

10659 Burbank Blvd., North Hollywood, Calif.

Prices and specifications subject to change without notice

precision **SOUND BLIMP** and 400' Magazine Conv. for **BOLEX**

COMPLETE PRICE LIST

	NET PRICE
BASIC SEMI-PRO BLIMP: (not a Hydro Seal type, also no front door. An Virtually silent, yet economy model capable of excellent results)..... weighs only 17 lbs.	199.50
BASIC HYDRO-SEAL SOUND BLIMP: Includes cast aluminum fluid-dampened blimp with matte box, hinged lens cover, (A complete professional, precision made unit. Hundreds in use in all parts of the world. <u>ULTRA SILENT</u>) power cord with twist connector, on and off switch, footage counter window, reflex viewing window, removable top, finished in black wrinkle enamel.....	299.50*
Weights only 12 lbs ! Optional magnesium construction 30% lighter. Add..	80.00*
110 AC SYNC MOTOR with special mount.....Complete.....	165.00*
400' CONVERSION: Modification of camera body to accept our external film feed..	65.00*
Modification of blimp to fit Mitchell style 400' magazines. Includes the addition of a left-side door, extra twist type connectors for magazine takeup motor, fitting on top of blimp, fitting cover, and a light-tight bridge between magazine and camera.....	195.00*
NEW SPECIAL ITEM: Mitchell style 400' magazine with special internal footage counter. Finished in matching black wrinkle enamel. Holds 400' spools or bulk film.....	195.00*
1200' Mitchell style magazine with footage indicator.....	295.00
110V Torque motor (required)with silencing shroud, fitted to blimp..	99.50*
ACCESSORIES: Red running light installed on front of blimp.....	19.00
REMOTE FOLLOW FOCUS CONTROLS: Remote knob control for changing lens setting from exterior of blimp..	54.50*
INTERIOR LIGHT: Neon 110 volt with switch.....	29.50*
BLIMPED ZOOM LENS ENCLOSURE: Made to fit 17-68 or 12-120 Zoom (Please specify lens).....	285.00
400' Magazine Adapter to allow use of Mitchell style magazine direct on converted camera (for use without blimp).....	45.00
(Requires torque motor take up).	
20 to 30V DC Torque Motor and bracket for operating 400 ft. magazine without blimp (fits Mitchell adapter)	99.50
400' Mitchell Style Magazine with built-in 20-30V DC torque take-up motor and footage indicator. (SILENCED)	285.00

The above described outfit will make your Bolex into a professional double system sound camera capable of top quality results. Write for details on how you can make professional sound films with this equipment exactly as used in major studios.

*Recommended outfit

Century

**PRECISION
Cine Equipment** 91601

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice

Phones (213) 766-3715
(213) 877-3762

Exciting News!

NEW LOW COST Magazine Conv. for **BOLEX** *

A complete system, offering 6 types of magazines, AC, DC or low cost non-electric drive. As little as 151.50 provides conversion, magazine, footage counter and drive, doubling the capacity of the Bolex.

SAVE TIME AND MONEY !

Now you can concentrate on your filming instead of annoying re-loading and possible loss of an important shot.

ILLUSTRATED 400 ft. Magazine allows up to 11 minutes of uninterrupted filming with your BOLEX at 24 FPS. Uses 400 ft day load spools or bulk loads. Quickly converts back to regular 100 ft camera.

MAGAZINE CONVERSION

Available in kit form. Can be installed in two hours on your camera using simple hand tools. Illustrated instructions with full details.

Package includes: Beautifully finished black anodized conversion block with polished cover, internal roller assembly, gaskets and screws.

Please include model and serial no. of your Bolex camera.



Made in U.S.A. Distributed only by

Century

**PRECISION
Cine Equipment Co.**

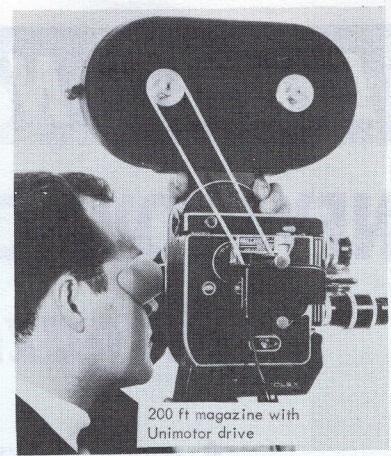
10659 Burbank Blvd., North Hollywood, Calif.

Prices and specifications subject to change without notice

AT LAST

A MAGAZINE DESIGNED ESPECIALLY FOR BOLEX

The all new series of CENTURY magazines for Bolex succeeds in providing a better balance with the camera.



The magazine conversion fits top of camera and is provided with a cover so camera can also be used with 100 ft. loads. Special removeable guide roller installation in camera guards against scratching.

For maximum portability, the new 200' DAYLIGHT LOADING MAGAZINE is recommended. This allows you to work with a single magazine, and load in the field. You carry only a supply of 200' spools. The magazine may be removed in seconds for 100' spring drive or fitting the larger 400' unit. Two versions are available: one with an internal blimped torque motor, and one for remote drive. The CENTURY SPRING DRIVE CONVERTOR allows the 200 ft. magazine to operate directly from the camera's internal spring motor.

The 400' MAGAZINE is a conventional two chamber Mitchell style. As a result, the Bolex balances well despite the increase in film length and weight. A MITCHELL 400' or 1200' may be used on the CENTURY CONVERSION MOUNT if an adapter is used. Torque take-up motors are required to drive these larger magazines. Each magazine is film-tested. These 400 ft. magazines accept the new 400 ft. day-load camera spools or std. lab pack on cores. A full range of motors is available to drive the magazines. The CENTURY 115 AC SYNC MOTOR will drive the camera and the 200', 400' or 1200' magazines.

	NET PRICE
<u>Basic Magazine Conversion</u> - We install.....	65.00
Conversion in Kit Form - You install.....	50.00
200' Remote Drive Daylight Load Magazines, magnesium alloy, 2.1 lbs. counter..	119.50
200' Blimped Internal Motor Daylight Load Magazine. Auto-setting footage counter	185.00
400' Remote Drive Mitchell Style Magazine - Auto-setting footage counter 3.4 lbs.	195.00
200' Remote drive day load magazine, alluminum alloy, footage counter. 3 lbs..	89.50
400' Blimped Internal Motor Magazine with footage counter, Super silent.....	335.00
Mitchell Adapter. Fits Century or Sonex Conversion.....	45.00
Conversion Spacer parts: to allow use of Bolex Unimotor for Driving 200' mag...	29.50
Optional AC or DC Torque Motors - mounted in silencing housing. (fits camera)*.	99.50
CENTURY Spring Drive Convertor - no motors required. For 200' mag. only.....	12.00
CENTURY 115V AC Synchronous Motor for Bolex 16, with base... ..	165.00
CENTURY 115V AC Synchronous Motor for Bolex H-8, with base.....	249.50

Note: A take-up torque motor must be used with all magazines except the 200' size.
 * Mounts on conversion block. 24 V DC

Made in U.S.A. Distributed only by

10659 Burbank Blvd., North Hollywood, Calif.
 Prices and specifications subject to change without notice

91601

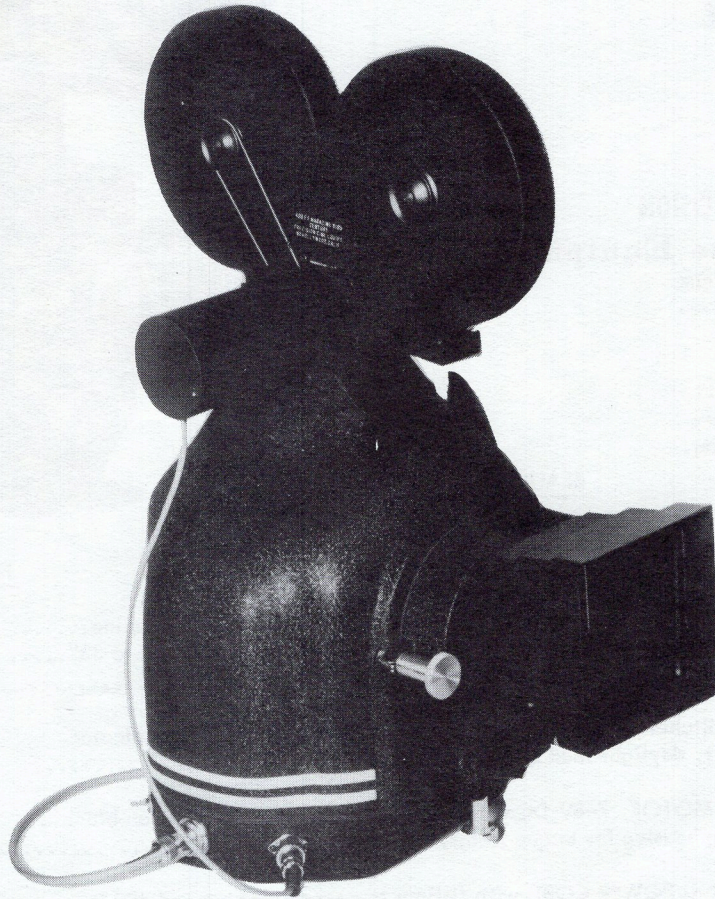
Century **PRECISION
CINE EQUIPMENT**

Phones (213) 766-3715
 (213) 877-3762

NEW FLUID DAMPENED

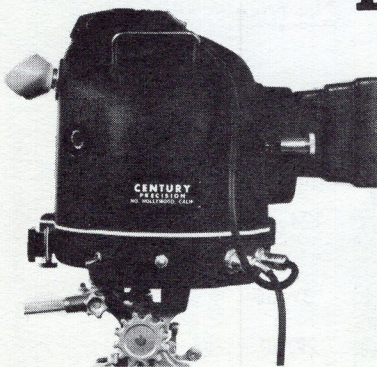
Beaulieu

SOUND BLIMP



LIGHTWEIGHT MAGNESIUM

SOUND BLIMP FOR BEAULIEU 16



SUPER SILENT (less than 18DB at 36") Lightweight (12 lbs) magnesium SOUND BLIMP. Makes the versatile Beaulieu 16 a PROFESSIONAL SOUND CAMERA for superb double system lip sync filming. This blimp is beautifully hand made, with precision components, carefully fitted, lined with multi-layer scientifically engineered special sound absorbing material. The final layer is attractive red plush fabric. The finished unit is light enough to be hand held. This is a distinct advantage for documentary filming as the camera is so SILENT that your subject will be unaware that filming is actually taking place. The fact that your camera operation can now be completely inobtrusive means that filming can be far more natural and in many cases, the subject will not object, due to COMPLETE LACK OF CAMERA NOISE. You retain all the distinct advantages of the Beaulieu such as full reflex, light metering, low cost, etc.

Made in U.S.A. Distributed only by

ILLUSTRATED ABOVE WITH 400 FT. MAG. INSTALLED WITH SILENCED TORQUE MOTOR.

Century PRECISION OPTICS
Cine Equipment

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice

See reverse side for further details

AT LAST

400' Magazine Conv.

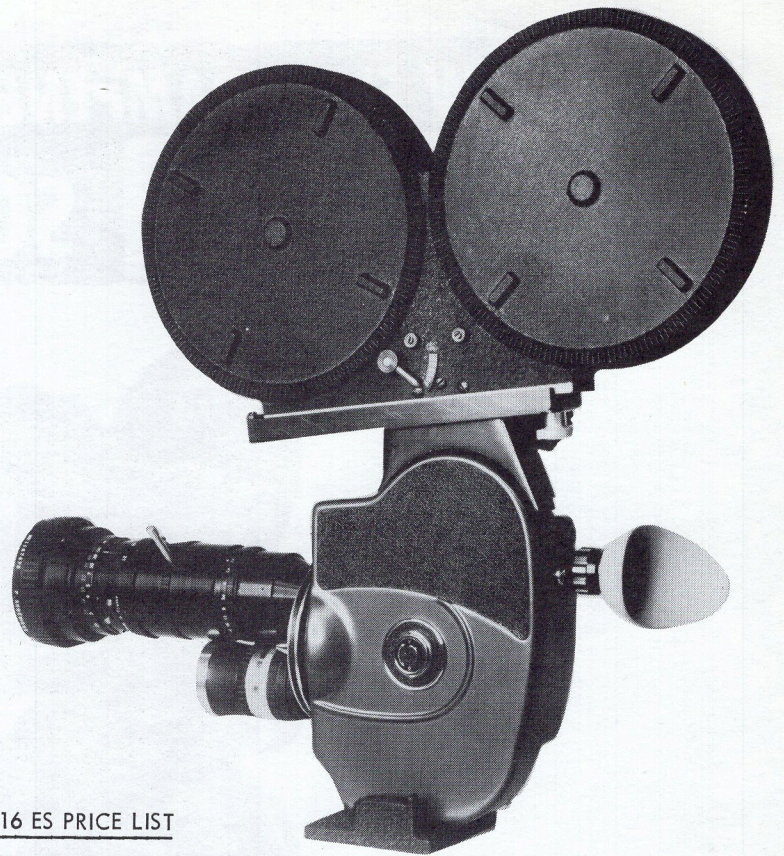
DESIGNED ESPECIALLY FOR

Beaulieu

Made in U.S.A. Distributed only by

Century **PRECISION
Cine Equipment**

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice



UP TO 11 MINUTES of continuous filming! Now you can save time and money by concentrating on your composition instead of annoying re-loading.

BEAULIEU R-16 ES PRICE LIST

CAMERAS, MAGAZINES, and ACCESSORIES

Complete with instructions	<u>Net Price</u>
New BEAULIEU R-16 ES CAMERA BODY, converted to accept 400 ft. magazine.....	995.00
CENTURY 12-100mm f/2.8 Compact ZOOM LENS for Beaulieu, focus to 33".....	477.00
Century MAGAZINE CONVERSION only. (For Mitchell style magazines).....	140.00
<u>400 ft. CENTURY Mitchell style MAGAZINE with Auto-Setting footage indicator.</u> Loads with 400 ft. daylight load spools or lab pack film. 3.4 lbs	195.00
Magazine TORQUE MOTOR, 7-8V DC fitted to camera magazine conversion block....	99.50
Special silencing housing for torque motor, add.....	25.00
SPECIAL SWITCH AND POWER CORD with fittings to operate camera and 400 ft. magazine torque motor simultaneously.....	39.50
<u>200 ft. CENTURY SILENCED MAGAZINE with built-in 8V DC torque motor. Auto-</u> Setting footage indicator. This magazine fits directly on camera conversion block without Mitchell adapter. 3.6 lbs w/motor	185.00

BLIMP PRICES

	<u>Net Price</u>
BASIC CENTURY BEAULIEU 16 precision made magnesium SOUND BLIMP. Front door opens to set lenses. Side door. Heavy duty electric fittings and wiring . Matte box shade. Power cord, viewing windows, luxurious red plush lining	395.00
Magazine adaption, fitted to blimp. Accepts Mitchell magazine adapter.....	38.00
Above requires camera magazine conversion listed above. Mitchell mag. adapter fits blimp.	
SILENCED 7-8V DC magazine TORQUE MOTOR installed on blimp.....	124.50
SPECIAL SWITCH installed in blimp to allow simultaneous operation of camera and magazine torque motor, with fittings.....	39.50
INTERIOR LIGHTS for blimp, with battery holder and switch.....	29.50
External FOLLOW FOCUS CONTROLS for w/a, normal and short tele-lenses..... (specify make and focal length).	54.50
ELECTRIC FITTING FOR camera sync generator, with socket in blimp.....	15.00
BLIMPED ZOOM LENS ENCLOSURE with external controls. For 17-68, 12-120 Angenieux or Century 12-100 Zoom lenses only (specify).....	285.00

(Continued from other side)

ZOOM LENSES

Their Care and Use

By

N. ARCHIMEDES and C. J. CONDON of Century Precision Optics Div.
North Hollywood, Calif.

(Reprinted in part from "American Cinematographer Manual, Second Edition, Published
by American Society of Cinematographers, Edited by Joseph V. Mascelli, ASC)

GENERAL RULES FOR ZOOM LENSES.....

1. Before mounting lens on cameras, be sure that rear element or optical surface is clean. Never loosen any screws or attempt to adjust a zoom lens. Special instruments are required for proper collimation. Tampering can result in a costlier repair.
2. The lens seating surface must be clean, without grit or foreign matter.
3. Check rear assembly to see if it is loose. If there is a locking collar, be sure it is drawn up tightly. This is especially critical with angenieux Zoom lenses having built-in reflex viewfinders separate from "C" mount assembly. Be sure "C" assembly is correctly fitted to camera, with no clearance between face of camera and mount. If the zoom lens is carried in a box which is not well cushioned, do not force the cover down so that zoom crank assembly or viewfinder are tightly wedged as this can cause internal damage to the zoom mechanism.
4. Fit lens to camera carefully and be sure that lens or adapter is firmly seated against face of camera. On Arriflex, the lens must be pushed into turret as far as it will go. It must seat flush against face of turret with no clearance. Some lenses may fit snugly and may seem to be seated even though there may be 2 or 3 mils clearance. This can ruin the performance of the finest lens. A zoom lens support is recommended for Arriflex. Properly fitted, this will keep the lens firmly seated against the face of the camera.
5. When focusing, set the zoom position at its maximum focal length and the lens diaphragm at its widest opening. After the lens is focused the zoom lever may be positioned anywhere in the zoom range. If the camera is panned or tilted to another subject at a different distance, follow-focus to maintain sharpness throughout the scene.
6. Most common errors are zooming too fast and too often! Slow zooms are generally most effective. Fast zooms should be used only when dramatic emphasis should be switched to a particular subject instantly! Slight panning may be required when zooming to telephoto position because of subject drift, due to the zoom lens' inherent lack of optical centering.
7. Never force twist a zoom lens when fitting to or removing from a camera. This can damage the delicate internal components. If a zoom lens appears difficult to remove from the camera or adapter mount, try gripping it in several different places with one hand on the mount and the other on the stationary portion of the lens barrel. Sometimes a careful sideways "jiggle" while pulling forward will release the lens gradually.
8. It should not be necessary to stress that best zoom shots require that the camera be mounted on a rigid tripod, particularly when zooming to long focal lengths. If the camera must be hand-held for newsreel or documentary shots, a shorter range of focal lengths should be employed to minimize camera shake.

Century **PRECISION OPTICS**
ZOOM LENS DIVISION

10659 Burbank Blvd., North Hollywood, Calif.

91601

Phone (213) 7663715

ZOOM LENSES (continued)

INTRODUCTION

Zoom (variable focal length) lenses are the most useful optical development for motion pictures in recent years. Though zoom lenses were known 35 years ago, it is only during the past 15 years that they have been sufficiently corrected for top-quality motion picture photography.

Recent zoom lenses are particularly well corrected optically and display excellent sharpness throughout the zoom range. They meet professional cinematography requirements and compare favorably with conventional fixed focal length lenses. They have found their place in non-theatrical and television filming and are increasingly employed in theatrical motion pictures. Even anamorphic zoom lenses are available for 35mm and 65mm "squeezed" cinematography. Many industrial, education, military, scientific, travelog and documentary films are making increased use of the zoom lens. Television newsreels, documentaries and commercials are photographed almost entirely with zoom lenses. Leaving out the aesthetic value of the zoom lens and the pros and cons regarding its single viewpoint, gradual compression of foreground subject and background, and other pictorial disadvantages - there is no doubt that the zoom lens is here to stay!

The ability of the zoom lens to continuously vary the area photographed simplifies certain aspects of filming. The cinematographer can instantly choose the field of view he wishes, set his focus and aperture, and then concentrate on framing and composing the scene as it progresses.

Zoom lenses may be employed in exactly the same way as standard lenses, with the exception that extension tubes cannot be used because they eliminate the maintenance of focus during zooming. Close-ups plus diopter, and split-field diopter, supplementary lenses may be employed, however, and are especially valuable for filming ultra-close-ups for television commercials, industrial films and scientific documentaries. Positioning a plus diopter lens in front of a zoom lens and zooming to the extreme telephoto position permits shooting fantastically small areas. The plus diopters have a further advantage over an extension tube in that they require no increase in exposure.

ZOOM LENS FOCUSING

A zoom lens should always be focused wide open at the longest focal length, regardless of the focal lengths used for filming the scene. This optical characteristic has resulted in much spoiled footage. Any attempt to visually focus the lens at less than maximum focal length will result in the image going out of focus when zoomed to a longer focal length. Because zoom lenses often incorporate very long maximum focal lengths (generally useful primarily for focusing) many cinematographers are not accustomed to the highly restricted depth of field at the telephoto end. Panning or tilting the camera to film a subject in a different plane generally requires follow-focusing, unless the subject falls within the depth of field of the particular lens aperture being used. Best results will be obtained by using the longest focal length for focusing only, and dropping back to a slightly shorter focal length for shooting. This will insure maximum sharpness. For assistant follow-focus at maximum zoom, it is recommended that the lens be individually calibrated and indexes marked. Some zoom lenses have their footage scales calibrated so that distance from the subject must be measured from the front of the lens, rather than from the film plane. In the case of long zoom lenses designed for 35mm cameras, this may vary as much as a foot at the closest working distance - This may be checked by visually focusing the lens on a close subject and measuring the distance - to find out where it falls.

Century

PRECISION OPTICS
ZOOM LENS DIV.

ZOOM LENSES (continued) Some zoom lenses having built-in reflex focusing viewfinders use a ground glass spot in the center of the field. The eyepiece must be set for the user's eyesight so that the graininess of the ground spot is as distinct as possible. Once this is set, lock eyepiece. Some zoom lenses use a split image circle rangefinder image in the center of the field. A line in the subject must intersect the rangefinder split at a **ACUTE** angle, like a thin letter X, not at a right (90°) angle. Other lenses use a superimposed image rangefinder. The latter two types usually have focusing eyepieces. To set same for your eye, set zoom lens at longest focal length, footage ring at infinity and adjust eyepiece so a distant object is clear. Leave eyepiece set there. If a zoom lens will not maintain sharp focus throughout the zooming range, it cannot be compensated during the zoom by refocusing. A zoom lens in this condition requires adjustment by a specialist. In emergencies, however, it may be possible to use the lens at the longer focal lengths as a non-zoom fixed focal length telephoto lens. Focus should be checked through the camera focusing tube or the zoom lens reflex focusing tube, if such is available.

Ultra-precise centering of the subject during the zooming operation has proven to be virtually impossible to build into zoom lenses. Slight side-drift of the subject as the lens is zoomed toward telephoto position may often require slight panning during the zoom to compensate.

Zoom lenses should always be calibrated in "T" stops because they contain so many optical elements. Light losses usually equal one-half to two-thirds of a stop. If the lens is calibrated in both f/stops and T-stops the f/stops should be used to calculate depth of field and the T-stops should always be used for setting exposure.

OPTICAL ATTACHMENTS & ACCESSORIES

Special telephoto-extendors (multi-lens converters which increase focal length) may be used on some zoom lenses. However, these optical devices require a substantial increase in exposure, depending on the power of the unit. A tele-extender with a 1.5X magnification requires one full stop additional exposure, while a 2X unit requires two full stops. Generally speaking, zoom tele-extendors should be used at relatively small apertures and longer focal lengths for best results.

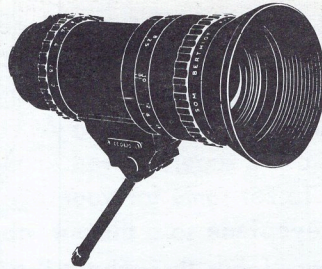
Certain zoom lenses having relatively small front element diameters (approximately two inches) can be fitted with retro-focus wide-angle optical attachments which allow short focal length zoom ranges. A normal range of 35mm to 140mm for instance, may be widened to 22mm to 90mm. These retro-zoom optical devices are fitted with their own footage calibration rings. They are generally satisfactory, with only a slight light loss. Some zoom lenses can be adjusted to work on more than one type of camera. Century Precision Optics can expertly convert the mount on some zoom lenses. Among other useful accessories for zoom lenses are special large lens shades, rear view focus control and diaphragm control rings, special protective housing and plus diopter and split-field diopter close-up supplementary lenses (also available in more highly corrected custom made compound lenses). Split field diopter lenses (made by Century Precision Optics) allow ultra close-focus on one side of the scene while simultaneously allowing far focus on the other side. There is a slightly discernible dividing line between the near and far section, but this usually does not interfere with the effect.

MOTORS

Small D.C. motors may be attached to zoom lenses to provide evenly controlled zooming, or accelerated or decelerated zooming. This feature eliminates "chattering" and uneven zooming, which often results when a lens is manually zoomed. The zoom may seem smooth through the viewfinder but result in jerky, hesitant or uneven zooming when screened. Motors may also be programmed to start and stop at precise positions in the zooming range. Starts are gradual and stops are cushioned for smoothest pictorial effects. Follow-focusing may also be motorized for remote control. This feature is generally found on live television cameras but is becoming popular for motion picture filming.

Century **PRECISION OPTICS**
ZOOM LENS DIVISION

ZOOM LENSES (continued)



FOLLOW FOCUSING.....

Due to the inherent critical focus of zoom lenses at their longest focal lengths, most manufacturers do not use index lines on the footage scales. Accurate follow focusing by scale (not visual through-the-lens) is nearly impossible. The lens would have to be individually calibrated and marked with each footage precisely indexed.

TV ZOOM LENSES....

Zoom lenses used for TV Cameras have the same characteristics as those used for motion pictures. However, installing the lens in the TV camera may require adjustment of the Vidicon or Orthicon (imaging) tube. The proper procedure is as follows:

- 1). Fit lens to TV camera.
- 2). Open iris. Set lens focus at Inf (∞).
- 3). Set zoom at shortest focal length.
- 4). Point camera at a subject at least 100 ft distant.
- 5). Position imaging tube to obtain sharpest image on monitor.
- 6). Set zoom at longest focal length to do all focusing.

Subject should remain in focus during entire zoom. If not, lens requires repair. Ship well packed to our ZOOM LENS SERVICE DEPARTMENT. Stop iris down as far as light conditions will allow to obtain maximum depth of field.

STORAGE AND TRANSPORTATION.....

Zoom lenses require extreme care in handling because of their complex construction. They are considerably more fragile than conventional lenses and necessarily quite bulky. Zoom lenses should always be stored and transported in specially padded protective carrying cases, preferably lined with polyester foam. A note of caution regarding use of manufacturers display boxes for carrying or shipping zoom lenses. These boxes were not intended for this purpose and are not sufficiently padded. An investment of a few dollars in a well constructed zoom carrying case will invariably pay for itself in savings on repairs. Repair or servicing should only be done by properly trained specialists equipped with the required tools. It is often possible to improve the optical performance of a zoom lens by a very precise adjustment process called Optimizing and sometimes this becomes necessary after the zooming mechanism cam slots have become "worn in".

For any servicing, sales or technical problem, contact Chris Condon in our zoom lens division. Write or phone (213) 766-3715. We stock a complete line of zoom lens accessories, such as close-up lenses, data rings, filters, split field diopters, zoom motors and are fully experienced and have the equipment to repair or service all types of professional zoom lenses. Special TV zoom lenses made to order.

Century **PRECISION OPTICS**
ZOOM LENS DIVISION

10659 Burbank Blvd., North Hollywood, Calif. 91601

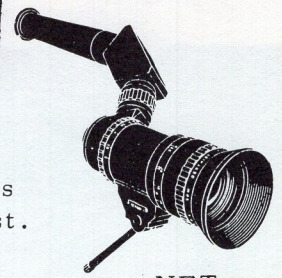
CENTURY

PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.

zoom lens services

PRICE LIST



PO-plar 1-2927

All work is performed by experienced technicians using factory tools and gages in our own North Hollywood plant. Rush service on request.

35mm PAN-CINOR SERVICES

	<u>NET</u>
General overhaul, cleaning & recollimation. Includes optical bench test	35.00 to 75.00
Recementing of beam-splitter prism, installation & alignment. Includes collimation test ...	42.50
Adaption of Mitchell NC mounted lens to Arriflex. Adapters will be interchangeable	77.50
Adaption of 38-152mm Pan-Cinor lens to Mitchell NC. Adapters will be interchangeable ...	84.00
Adaption of 38-152mm lens to Mitchell R-35. Adapters will be interchangeable.....	98.00
Special lens support bracket for Pan-Cinor 35. Specify camera	55.00 to 150.00

16mm PAN-CINOR SERVICES

	<u>NET</u>
General overhaul, cleaning & precision collimation. Includes optical bench test ...	27.50 to 65.00
Recementing of beam-splitter, installation & alignment. Includes collimation test	38.00
Conversion of Pan-Cinor 70 from "C" to Arriflex mount	68.00
Conversion of Pan-Cinor 70 (later models) from "C" to Eastman Kodak "S" mount	77.50
Conversion of Pan-Cinor 70 from Eastman Kodak "S" mount to Arriflex mount	68.00
Conversion of Pan-Cinor 70 from Cine Kodak "S" mount to "C" mount	58.00
"T"-stop calibration of Pan-Cinor 70. "T"-stop settings will be marked by red dot	15.00
Machine engraving of "T"-stop calibrations on diaphragm ring. (Calibration extra)	8.50
Installation of TV or 8mm mask in Reflex Viewfinder (send entire lens for alignment).....	23.50
Installation of rubber eyecup & coupler on Model 70 viewfinder tube	14.00
Collimation for precise focus only. Usually eliminates excessive focus shift during zoom ..	26.50
Viewfinder clearance conversion of Pan-Cinor 85 to fit Mitchell 16 (moves VF forward)....	62.00
Conversion of Pan-Cinor 70 to fit Bolex H-8 Reflex. Includes optical bench test	21.50
Conversion of Pan-Cinor 85 to fit Bolex H-8 Reflex. Includes optical bench test	28.00

35mm/16mm ANGENIEUX ZOOM SERVICES

	<u>NET</u>
General overhaul, cleaning & recollimation. Includes optical bench test	27.50 to 65.00
Conversion of 17-68 Zoom viewfinder to clear Auricon, etc. door (includes optics for relay)..	96.00
Installation of TV or 8mm mask in viewfinder (17-68 & 20-80 viewfinders only)	23.50
Adaption of 35-150 Zoom lens to Arriflex mount(reversible for f- or T-stops)	62.75
Adaption of 35-150 Zoom lens to Mitchell R-35 Reflex 1 or 11 models	78.00
Conversion of 12-120 Zoom lens from "C" mount to Arriflex mount.....	84.50
Conversion of 12-120 Zoom lens from 16mm "C" mount to Bolex H-8 Reflex	21.50

ZOOMAR (VOIGTLANDER) SERVICES

	<u>NET</u>
Adaption of 36-82 Zoom lens to Arriflex 35 or 16. Includes optical bench test	73.50
Adaption of 36-82 Zoom lens to Eyemo 35. Includes optical bench test	68.00

NIKON ZOOM LENS SERVICES

	<u>NET</u>
85-250 General overhaul, cleaning & recollimation. Includes optical bench test ...	30.00 to 60.00
Conversion of Nikon F mount to fit Century 16mm RF410 Reflex Focuser(250/600mm models..)	162.00
16mm RF410 Reflex Focus-Finder with 90° viewfinder (specify ground glass focus screen or clear glass image). Price does not include conversion of lens (see above)	196.00
Conversion of 85-250 Nikon Zoom lens to Arriflex mount w/removal of auto diaphragm	192.00
Conversion of 85-250 Nikon Zoom lens to Mitchell R-35 mount w/removal of auto diaphragm.	230.00
Conversion of 85-250 Nikon Zoom lens to Eyemo mount w/removal of auto diaphragm	182.00
Conversion of 85-250 Nikon to other cameras	(Price on Request)
Conversion of 85-250 Nikon Zoom fitted to Bell & Howell 16mm magazine load camera, with Reflex Focus-Finder installed & support bracket. Ideal for insurance investigation work and police surveillance. Price includes Nikon 85-250 lens, B&H Auto-load 16mm mag- azine camera and RF410 Reflex Focus-Finder, complete outfit	895.00
Above outfit, fitted to your camera	789.50
NOTE: All conversions listed above are permanent, not removable. Most adaptions removable.	
Conversion of 85-250 Nikon Zoom lens to Leica short or Kilfitt mount (accepts adapters) ..	182.00

CENTURY

PRECISION PHOTOGRAPHIC EQUIPMENT
10659 Burbank Blvd., NORTH HOLLYWOOD, CALIF.

TELE-ATHENAR

Success Story...

The high quality and unsurpassed performance of Century Tele-Athenar and Century Athenar lenses is verified through wide acceptance by such first-line users as the following, to name but a few:

National Broadcasting Co. TV-News

Borden Productions, Inc.

Walt Disney Productions, True-Life
Adventure Films

The University of California

State of California, Welfare Department

National Advisory Committee for Aeronautics

Movietone Newsreels

The Douglas Aircraft Co.

MISSILE TEST PROJECT
PATRICK AIR FORCE BASE, FLORIDA

The Santa Fe Railroad Co. Investigation
Department

Audio Productions, Inc.

University of Notre Dame

The Netherlands Government

The National Audubon Society

The University of Minnesota

BOEING AIRPLANE COMPANY

REPUBLIC AVIATION CORPORATION

Chicago Natural History Museum

The Province of British Columbia

The United States Navy (many Korean
action shots)

The Federal Bureau of Investigation

UNITED STATES AIR FORCE

The Columbia Broadcasting Co.
CBS-TV News

Popular Mechanics Magazine

Allied Investigation Bureau

Buffalo Museum of Science

RADIO CORPORATION OF AMERICA

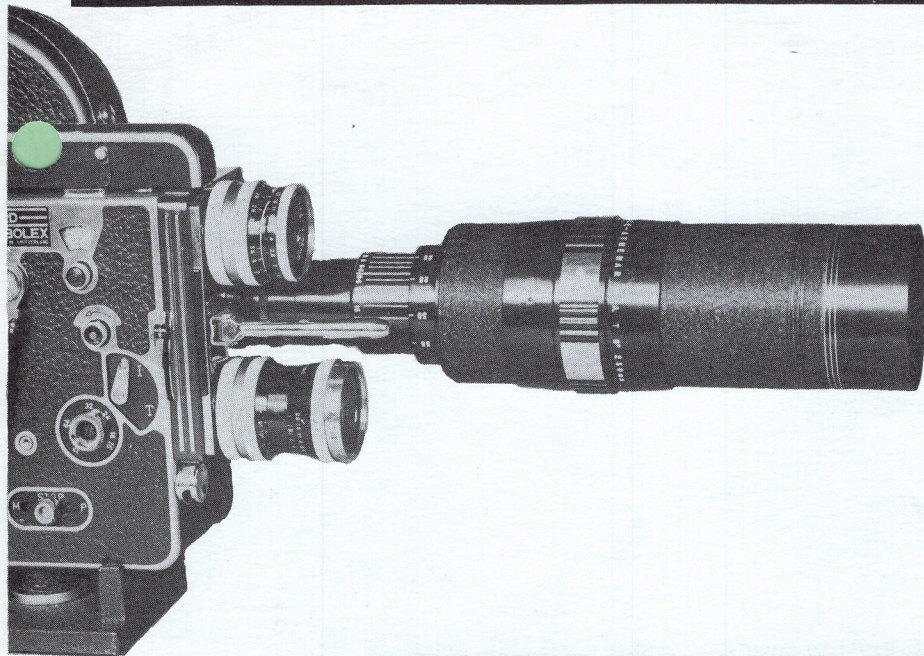
GENERAL MOTORS CORPORATION

Plus hundreds of other discriminating photographers for leading studios, universities, insurance companies, police departments, nature photographers, etc.

SOLD WITH A MONEY BACK GUARANTEE

30-DAY TRIAL

A POWERFUL 16MM TELE-LENS OF SUPERIOR QUALITY



TELE-ATHENAR

9" 230MM f/3.8

\$169⁵⁰

STOCK BL550 A

- A \$312 VALUE!
- TRUE NINE POWER!
- FULLY CORRECTED FOR COLOR!
- LIGHT WEIGHT, NO SUPPORT NEEDED!
- SHARPEST 9" CINE LENS MADE!

PHOTOGRAPH YOUR SUBJECT UNAWARES...FROM A DISTANCE!

The 9" f/3.8 Tele-Athenar passes more light than any comparable lens! Perfect color movies are possible under lighting conditions where slower lenses would fail completely. Critical sharpness, even at f/3.8!

These lenses helped make possible some of the world's finest scientific and wild-life movies! They have been used to make superb animal and bird scenes that you may have seen on your local screen. You can make those exciting movies too! Excellent for sports, scenics, candid, insurance surveillance, documentary and scientific films.

We guarantee these lenses to be much sharper than comparable still camera lenses which are sometimes adapted to movie cameras.

This is because our lenses are designed for 16mm cameras *only*. Still camera lenses are designed to spread their image over a larger area, cannot do a professional quality job on 16mm film which will be projected hundreds of diameters!

The iris diaphragm stops down to f/22. All glass-air surfaces are hard coated. The precision focusing mounts focus as close as 15 feet. The lenses are supplied in our standard type "C" black Dural mount for Bolex, Beaulieu, Bell & Howell, Auricon, Pathe, etc., and also in Kodak type mount.

ACCESSORIES AVAILABLE:

Special Arriflex, Kodak "S," or AK-16 mount installation	\$24.50
Custom Engraved depth-of-field scale	9.00
Combination sunshade & filter adapter, Series V11	9.95
Long 2½" sunshade	7.95
Tested optical glass filter, all colors, Series V11	5.50
Custom tubular carrying case	12.50
9" Mask for late Bolex Octameter viewfinder	3.50
9" Positive viewfinder for Bell & Howell	22.00
9" Viewfinder for K-100	39.50

When ordering, please specify camera make, model, etc.

Special model available for Bolex RX (Specify)

Made in U.S.A. Distributed only by

Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.

Prices and specifications subject to change without notice

SOLD WITH A 30-DAY TRIAL PERIOD AND MONEY BACK GUARANTEE

** Outperforms Any*

CENTURY
PRECISION PHOTOGRAPHIC EQUIPMENT
10659 Burbank Blvd., NORTH HOLLYWOOD, CALIF.



HERE ARE A FEW UNSOLICITED COMMENTS BY OWNERS OF
9" (230mm) f/3.8 CENTURY TELE-ATHENAR LENSES

Original letters are in our files. Names furnished on request.

FROM L.L.R., Columbia, N.J.: "Amazed at the sharpness, no crisper pictures taken with any of my other lenses."

From H.C.S., Rochester, N.Y.: "A few months ago I purchased from you a 9" 230mm f/3.8 Tele-Athenar for my Bolex. I have nothing but admiration for the sharpness and resolving power."

FROM T.H., Alberta, Canada: "I've used the 230mm (Century) model for some time now as a photographer for Walt Disney Productions ... found it superior."

From H.S., Pontiac, Mich.: "... 9" lens purchased last Spring ... terrific! ... elk shots so far away ... could hardly be seen, yet the film is perfect ..."

FROM Dr. H.A.W., Ashland, Ore.: Re 9" (230mm) f/3.8 Tele-Athenar: "Just received my test films back from processing laboratory and am very well satisfied."

From D.H., Tanganyika, Africa: "... Just received a report on 4,200 Ft. of 16mm color film I shot recently ... most of it with (Century) 9-incher ... images are crystal clear."

FROM A.J.W., San Jose, Calif.: "... talking with photographers in many cities (while on film tour) I heard only glowing reports on your Century lenses."

FROM E.B.K., Djakarta, Indonesia: "... bought a 9" Tele-Athenar ... and don't mind to tell you how happy I am with this purchase..."

FROM L.W.O., St. Paul, Minn.: "I have found my Century Tele-Athenar lens a very valuable part of my cinematography. The quality of pictures obtained ... is tremendous."

From Dr. E.B., Caledon, South Africa: "I have come back from my 6 weeks' holiday game-shooting (with camera) in northern Rhodesia and accompanied by your 9" (Tele-Athenar) tele-lens. Thank you for a superb product. My best pictures were taken with your lens."

FROM J.B., Wellsville, N.Y.: "I have enjoyed using my 9" lens and have taken pictures that would have been impossible with any lens of lesser power."

FROM B.N., Drayton Plains, Mich.: "I think you have an exceptionally fine lens, sharp and color perfect. I have nothing but the highest praise as to the results with your 9" lens."

FROM K. & S. Co., San Francisco, Calif.: "This is the third of these lenses we have purchased from you ... We are considering purchasing several more of these 9" lenses within the next few months..."

FROM E.G.R., Detroit, Mich.: "I might add that the 9" f/3.8 Tele-Athenar ... has performed very nicely and it is a joy to use..."

FROM R.E.V., Albany, Ore: "During my stay in Alaska, I used the 9" Tele-Athenar quite extensively and am certainly satisfied and proud of the results achieved even on cloudy days and the lens opened to f/3.8. My other lenses were almost excess baggage."

We sincerely appreciate these comments. Many others like these in our files.

JACK DOUGLAS
presents
AMERICA!
ON TELEVISION

Century Precision Photographic Equipment
16659 Burbank Boulevard
North Hollywood, California

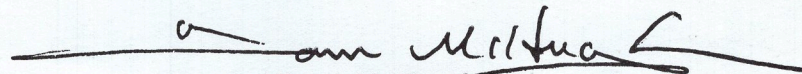
Gentlemen:

I first learned of your 230mm f/3.8 Tele-Athenar lens while working for Walt Disney Productions on their film WHITE WILDERNESS. At that time, the Disney technicians tested your lens and found it superior for resolution and color correction. Their standards are considerably above the normal, since all of the Disney film must have exceptional quality to permit blow-ups from 16mm original to 35mm theatrical release prints. I think that this is sufficient proof that a reasonably priced lens can be better than many other more expensively priced ones.

Since first acquiring this lens through Disney, I have been using it on many other productions. In all of these, the same critically sharp results have been most evident.

Please keep me informed of your new product developments as they become available.

Sincerely,



Tom McHugh
Director of Photography

TM:ee

SOME QUESTIONS AND ANSWERS ABOUT CENTURY TELE-ATHENAR LENSES

QUESTION: Are Century Tele-Athenar lenses made overseas?

ANSWER: No, they are made in the U. S. A.

QUESTION: Are plastic parts used in the manufacture of Century lenses?

ANSWER: Absolutely no plastic parts are used in Century lenses. The mounts are assembled from the finest Dural alloy and beautifully machined to precision tolerances. All optical components are made of the finest and latest optical glasses and hard-coated for dependable service.

QUESTION: Are Century Tele-Athenar lenses government surplus?

ANSWER: No, they are brand new in every respect. War surplus lenses are often offered uncoated and manufactured many years ago, mainly for aerial camera use, to out-dated specifications with older types of optical glass.

QUESTION: Why are Century Tele-Athenars priced lower than comparable lenses?

ANSWER: Prices are lower because of a direct distribution policy and because Century lenses are specifically designed for maximum performance on small film. No expensive or cumbersome components are needed. Lenses designed for larger film sizes and adapted for the smaller usually produce "soft" results.

QUESTION: Are Century Tele-Athenar lenses optical-bench tested?

ANSWER: All Century Tele-Athenar lenses are thoroughly tested on a massive precision optical test bench similar in design to the type used at the U. S. National Bureau of Standards Laboratory. This test is far more sensitive than any photographic test.

QUESTION: Are Century lenses exported to foreign countries?

ANSWER: Yes. Century lenses have been exported to customers in 26 foreign countries. This is an excellent indication of their superior quality, since Century Precision Photographic Equipment Co. is competing with firms which can sell their lenses at lower prices due to the difference in labor costs.

QUESTION: Why are Century lenses so much lighter in weight than others of comparable speed and focal length?

ANSWER: Century lenses are designed by experienced photo-optics experts who understand the problem of lens weight reduction. Only the latest manufacturing processes and engineering make possible the solution of this problem. By using strong, lightweight alloys and thin, high-index optical glass, this has been accomplished with great success.

QUESTION: Why do Century lenses have higher resolving power and color correction than others of comparable speed and focal length?

ANSWER: Again, because of their special optical design for small film size. This is another example of specialization resulting in a superior product.

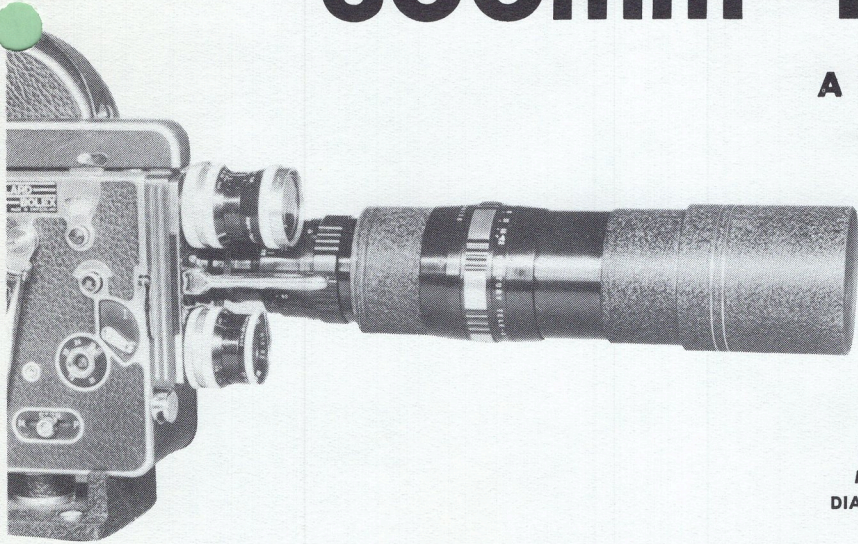
Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice

A POWERFUL 16MM TELE-LENS OF SUPERIOR QUALITY

300mm 12" f/4.5

**A SUPERB TELEPHOTO LENS
CENTURY TELE-ATHENAR**



ONLY
\$189⁵⁰

STOCK BL-1245

A \$259.50 VALUE!

PRECISION MOUNTED IN LIGHT-WEIGHT FOCUSING MOUNTS THAT FOCUS AS CLOSE AS 20 FEET. THE IRIS DIAPHRAGM STOPS DOWN TO f/32. BEAUTIFULLY STYLED.

- **RAZOR SHARPNESS, EVEN WIDE OPEN!**
- **TRUE 12 POWER!**
- **FULLY COLOR-CORRECTED**
- **MADE IN THE U.S.A.!**
- **RESOLVES SHARPER THAN IMPORTED f/5.6 LENSES!**
- **VERY LIGHTWEIGHT—24 OUNCES!**
- **ANTI-REFLECTION COATED OPTICS! 5 ELEMENTS!**

Here is the only 300mm f/4.5 telephoto lens designed for high resolving power on small film sizes. The sharpest by far!

This powerful tele-lens will bring you 12 times closer to your subject. An object 240 feet away will appear to be only 20 feet away! Imagine the exciting wild-life and sports scenes that you can make with it. Scenes that have real human interest value, that will amaze your audience!

Special 12" f/4.5 Super-Athenar lens with built-in RF 310 Reflex Focus Finder, allowing viewing and focusing through the lens while camera is operating. Recommended for Bell & Howell, K-100, etc., 99.50 extra.

ACCESSORIES AVAILABLE

COMBINATION SUNSHADE AND FILTER ADAPTER FOR SERIES VIII FILTERS.....	18.50
Sunshade	12.50
Tested Optical Glass Filters, Selected, (Superior to commercial grade filters).....Each.....	12.50
DELUXE CUSTOM CASE.....	14.50
Special Tele-Lens Support for Bolex, B&H, Cine-Special, Pathe, etc. (specify).....	29.50
This lens available for Arriflex (extra)... (Also AK-16)	16.50
12" Positive Finder for Bell & Howell. (Use with door viewfinder spacer).....	29.50
12" Viewfinder Objective for K-100.....	37.50

This lens is highly recommended for the Bolex Reflex. Please specify.

CENTURY

PRECISION PHOTOGRAPHIC EQUIPMENT
10659 Burbank Blvd., NORTH HOLLYWOOD, CALIF.

Notice: A lens support is not absolutely necessary on cameras having a turret lock such as the Bolex Reflex.

In special double-helical, non-rotating focusing mount, infinity to 12 feet.....219.50

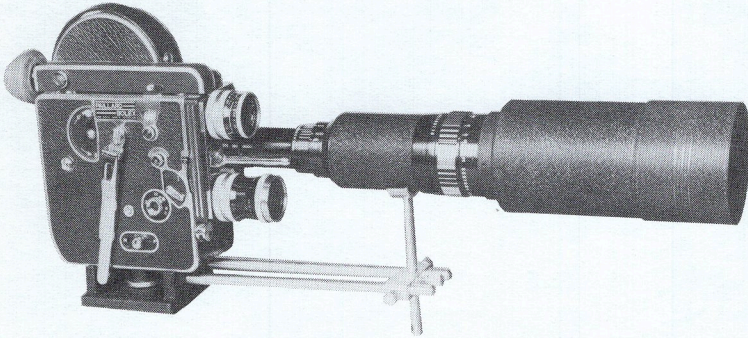
MAKE DRAMATIC 16mm CLOSE-UPS OF WILD-LIFE WITH THE

CENTURY TELE-ATHENAR

15" (385MM) f/4.5

259⁵⁰

STOCK BL1545A



- A \$370 VALUE!
- TRUE **15** POWER!
- UNMATCHED CRITICAL SHARPNESS!
- FULLY CORRECTED FOR COLOR!
- WORLD'S FINEST OPTICS! COATED!
- EXTREMELY LIGHT-WEIGHT!

PHOTOGRAPH YOUR WILD-LIFE SUBJECTS UNAWARES...FROM A DISTANCE!

The world's only lens of this power designed especially for 16mm cameras. It is not an adapted lens. The resolving power and color correction of this lens are far better than any 10", 12", 14", 15", or 16" lens that we know of. This is because the 15" f/4.5 Athenar concentrates all its resolving power into a small area! Yes, we guarantee these lenses to be much sharper than comparable still camera lenses which are sometimes adapted to movie cameras. They have been proven superior by hundreds of motion picture cameramen in all parts of the world. Superb wild-life scenes now being shown. Audiences really sit up and take notice when they see those close-ups!

**PRECISION MOUNTED IN LIGHT-WEIGHT FOCUSING
MOUNTS THAT FOCUS AS CLOSE AS 30 FEET. THE IRIS
DIAPHRAGM STOPS DOWN TO f/32 BEAUTIFULLY STYLED.**

TOTAL WEIGHT IS ONLY 38 OUNCES! (HALF THE WEIGHT OF OTHERS!)

They fit all standard "C" mount 16mm cameras, such as Bolex, Bell & Howell, Pathe, Auricon, Revere, K-100, Keystone, and can also be supplied in Kodak type "S" mount and others. Each lens is carefully inspected and carries a 3-year guarantee. *Furnished in mat black anodized mount with chrome trim.*

Special 15" f/4.5 Super-Athenar lens with built-in Reflex Focus Finder, allowing viewing and focusing through the lens while camera is operating (RF-410) recommended for Auricon, Bell & Howell, etc \$29.50 extra.

ACCESSORIES

Special Tele-Lens Support for Bolex, B&H, Cine-Special, Pathe, etc. (specify)	\$44.50
Built-in Filter Slot and Template for Eastman Gel Filters	17.00
Custom made Plush Lined Hard Carrying Case for 15" f/4.5 Tele-Lens and Support (recommended to protect the accuracy of the optical system)	39.50
Depth of Field Scale Engraved, if desired	12.00
This lens available for Arriflex (extra)... (also Eastman "S" Mount)	24.50
*15" Positive Finder for Bell & Howell	39.50
Long Lens Shade	14.50
Combination Long Lens Shade and Filter Adapter	28.50

These lenses are highly recommended for the new Bolex Reflex. Please specify.

Made in U.S.A. Distributed only by

Century

PRECISION OPTICS

* Use with camera door viewfinder spacer.

10659 Burbank Blvd., NORTH HOLLYWOOD, CALIF.
Complete instructions and guarantee with each lens. Free consultation service.

In special double-helical, non-rotating focusing mount, infinity to 15 feet 299.50

**Outperforms Any*

CENTURY TELE-ATHENAR

15" (385MM) f/4.5

HERE ARE A FEW UNSOLICITED COMMENTS BY OWNERS OF
15" (385mm) f/4.5 CENTURY TELE-ATHENAR LENSES

Original letters are in our files. Names furnished on request.

FROM Dr. J.P., Des Moines, Ia.: "About a year ago we purchased from you the 15 inch Tele-Athenar, previous to an extended trip into northern Manitoba. The pictures made with it were wonderful beyond belief. Many of our professional friends cannot believe it yet. I am sold on it for keeps."

FROM C.F.B., Jr., Seattle, Wash.: "I have one of your f/4.5 385mm lenses for my Exakta and am very pleased with it...my experiences with your lenses have all been more than satisfactory."

FROM D.L.K., North Chili, N.Y.: "The 15" has taken the best wild life pictures I have. In fact, by far the best lens I own and I have several of the most popular name brands."

FROM J.C.G., Brooklyn, N.Y.: "I shot 300 pictures at f/4.5 (with your 385mm lens) and all came out quite well."

FROM E.L.E., North Hollywood, Calif.: "...the outstanding advantages which your lenses offer to the travel photographer because of their lightweight construction...specifically recommend your 385mm Tele-Athenar lens, and any of your other lenses of equal quality, as ideal lenses for travel photography."

FROM E.C.S., San Antonio, Tex.: "I purchased one of your 15 inch Tele-Athenar lenses with built-in reflex and I am certainly well pleased with same."

FROM J.W.K., San Francisco, Calif. "Am happy to report the first results with your (15") lens were excellent...For its high magnification it is unusually light in weight."

FROM S.C.I., Houston, Tex.: "The lens (15") operates perfectly. Our clients are amazed with the results."

FROM I.L.M., Mountain View, Alaska: "While showing our bear film...was amazed with the work we produced with your 15" telephoto lens."

FROM K.F., San Diego, Calif.: "I have had occasion to take about 50 color slides with the (15" Century Tele-Athenar) lens and am pleased with the color rendition and sharpness."

FROM G.F., Clallam Bay, Wash.: "I might add that I am very glad that I bought this set of lenses(6", 9", 15" Century Tele-Athenars) from you...These lenses are the best thing in the world for nature work."

FROM R.D.S., Brainerd, Minn.: "I have found that the 15 inch lens you sent me is also of good quality and I have obtained some excellent footage with it."

EXTREMELY LIGHT-WEIGHT!

We sincerely appreciate these comments. Many others like these in our files.

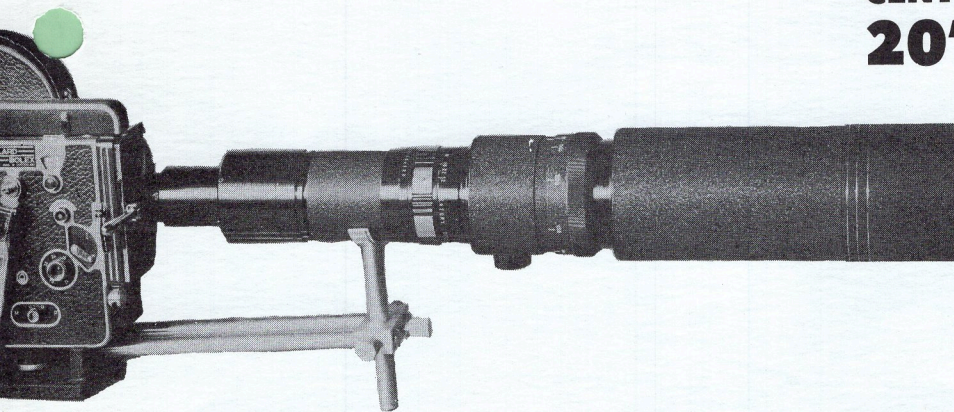
MAKE DRAMATIC 16mm SUPER CLOSE-UPS WITH THE

CENTURY SUPER TELE-ATHENAR 20" (500MM) f/5.6

\$289⁵⁰

STOCK BL2056A

- A \$495 VALUE!
- TRUE **20** POWER!
- UNMATCHED CRITICAL SHARPNESS!
- FULLY CORRECTED FOR COLOR!
- WORLD'S FINEST OPTICS! COATED!
- EXTREMELY LIGHT-WEIGHT!



PHOTOGRAPH YOUR SUBJECTS UNAWARES . . . FROM A DISTANCE! WILD-LIFE, SURFING, INSURANCE INVESTIGATION, DOCUMENTARY!

The world's only lens of this power designed especially for 16mm cameras. It is not an adapted surplus or still camera lens. The resolving power and color correction of this lens are far better than any 16" lens that we know of. This is because the 20" f/5.6 Super-Tele-Athenar concentrates all its resolving power into the small 16mm area! Yes, we guarantee these lenses to be much sharper than comparable still camera lenses which are sometimes adapted to movie cameras. They have been proven superior by hundreds of motion picture cameramen in all parts of the world. Superb wild-life, surfing, surveillance, and documentary scenes now being shown. Audiences really sit up and take notice when they see those superb close-ups!

**PRECISION MOUNTED IN LIGHT-WEIGHT FOCUSING
MOUNTS THAT FOCUS AS CLOSE AS 50 FEET. THE IRIS
DIAPHRAGM STOPS DOWN TO f/32 BEAUTIFULLY STYLED.**

TOTAL WEIGHT IS ONLY 58 OUNCES! (HALF THE WEIGHT OF OTHERS!)

They fit all standard "C" mount 16mm cameras, such as Bolex, Beaulieu, Bell & Howell, Pathe, Auricon, Revere, K-100, and can also be supplied in Arriflex, Kodak type "S" mount and others. Each lens is carefully inspected and carries a 3-year guarantee. *Furnished in precision mat black anodized micrometer focusing mount with chrome trim.* If desired, can be supplied in type K mount to accept Killfit adapters, type L to accept Leica adapters, T mount and O mount to accept Omnicar adapters.

ACCESSORIES

Special Tele-Lens Support for Bolex, B&H, Cine-Special, Beaulieu, Pathe, etc. (specify)	\$44.50
Built-in Filter Slot and Template for Eastman Gel Filters (Gelatin Filters are recommended)	27.00
Long Lens Shade	14.50
Long Lens Shade and Series IX Filter Adapter	24.50
Series IX Special Certified Filters, all colors	18.50
(DO NOT USE NON-CERTIFIED FILTERS WITH THIS LENS)	
Custom made Plush Lined Hard Carrying Case for 20" f/5.6 Tele-Lens and Support (recommended to protect the accuracy of the optical system)	39.50
Depth of Field Scale Engraved, if desired (No extra charge)	
This lens available for Arriflex, AK-16, Kodak "S" Mount (extra)	24.50

Special mounts for other 16mm and 35mm motion picture cameras available. Write for prices.
Complete instructions and guarantee with each lens. Free consultation service.

These lenses are highly recommended for the Bolex Reflex. Please specify RX.

These lenses are highly recommended for the Bolex Reflex. Please specify RX.

This lens is GUARANTEED to have higher resolving power than ANY OTHER 500mm LENS, regardless of price.

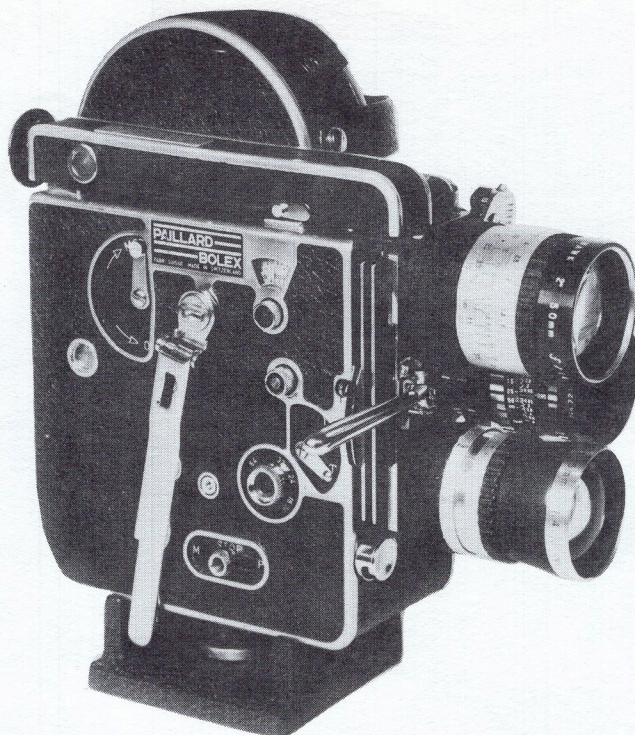
Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif.
Prices and specifications subject to change without notice

SOLD WITH A 30-DAY TRIAL PERIOD AND MONEY BACK GUARANTEE

NIGHT-HAWK

50mm f 1.4 Telephoto Lens



for all
16mm
Cameras
in 'C' Mount

THE 2" (50mm) f/1.4 NIGHT-HAWK 16mm telephoto lens is an outstanding value because never has a 50mm lens of this quality been offered for less than 150.00. PREVIOUSLY NON-ATTAINABLE SHOTS NOW POSSIBLE !!!!

If your present 2" lens is rated at f/2.5, f/2.8 or even f/1.9, you can probably recall many valuable scenes you could not shoot because of lack of available light. Now even dimly lit interiors, shaded wildlife subjects, night surveillance, theatrical shots and night sports can be photographed successfully in color!

THE SHARPNESS OF THIS FINE LENS EVEN AT f/1.4 IS OUTSTANDING. Crisp, brilliant color results usually associated with professional films are assured with the Night-Hawk because it is made by one of the world's leading optical companies, using the latest rare element glass, polished to ultra-close tolerances and mounted in a beautifully machined focusing mount. All optical surfaces coated with latest amber magnesium fluoride for maximum light transmission.

TOP QUALITY FEATURES

Engraved Depth-of-field Scale
Orienting "C" Thread

Click Stops
Sunshade

ONLY
129.50
COMPLETE

The 50mm f/1.4 NIGHT-HAWK is available in 16mm "C" mount, in Bolex 16mm RX mount, in 8mm Bolex REX mount and in 8mm "D" mount (4-power on 8mm cameras). It can be used on the 16mm Bolex turret without physical or optical interference with a normal 1" (25mm) or a 15mm wide-angle lens if the upper and lower turret holes are used. With B&H or other compact turret cameras, it can be used with other lenses under 1.500" diameter to avoid interference in field of other lenses.

TURRET CAMERAS such as Cine-Kodak K-100, Auricon, Bell & Howell Auto-Master, Spider Turret and Revere 38 will accept this lens without any optical or mechanical interference with other lenses mounted on the turret. When ordering please specify type of camera this lens is to be used with.

IMPORTED, TESTED and
GUARANTEED by

Century PRECISION OPTICS

10659 Burbank Blvd., North Hollywood, Calif. 91601

**PRECISION
OPTICAL EQUIPMENT**

Phone (213) 766 3715

BULLETIN

VALUABLE BOOKLET

ATTENTION ALL 16mm CAMERA OWNERS!

MAKE MONEY WITH YOUR CAMERA BY SELLING
YOUR 16mm FOOTAGE!

VALUABLE INFORMATION!

EXCLUSIVE!

To buyers of our 16mm Century Tele-Athenar lenses, we will supply, FREE, the following valuable information, compiled by us to assist our customers in realizing greater profits from their 16mm filming activities:

LARGE 8-1/2 X 11" BOOKLET

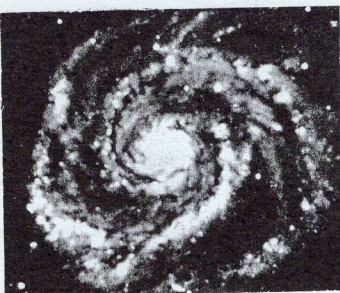
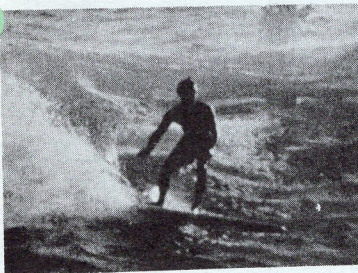
1. List of commercial buyers of 16mm wildlife footage.
2. Names of television program directors who are interested in wildlife, adventure and general interest 16mm footage for purchase or rental.
3. A special treatise on 16mm tele-cinematography, compiled after years of experience and consultation with leading professionals. How to take money-making wildlife and other long-range shots that are now in popular demand.
4. Tips on how to take more saleable films. Little known facts on how to sell your footage. Will save you time and money. Read how Century tele-lens owners have made thousands of dollars.
5. Common errors in filming and how to avoid them. How to take 16mm shots that will bring praise from your audience.
6. Booking agents to contact for lecture tours,
7. Free consultation service. Write to us for equipment recommendations, evaluation, etc. advice on motion picture problems. Our staff is experienced.

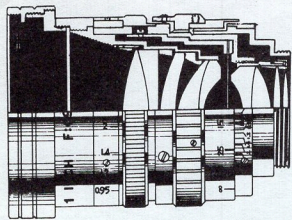
(This 8-1/2 x 11 booklet is available upon request only to purchasers of our lenses.)

CENTURY

Precision Photo Equipment

10659 Burbank Blvd., North Hollywood, Calif.





Century

Precision Photo Equipment
10659 Burbank Blvd., North Hollywood, Calif.
91601

POplar 6-3715 Area Code 213

EXCLUSIVE LENSES FOR MILITARY CAMERAS,
MOTION PICTURE CAMERAS, AND PHOTO INSTRUMENTATION

16mm ACCESSORY PRODUCTS

CENTURY 16mm AND 35mm HIGH RESOLUTION TELEPHOTO LENSES

MIL-TEL TYPE V

For Arriflex, Bolex Reflex, Beaulieu, Pathe, Milliken, Cine Special, Bell & Howell, Auricon, K-100, etc. Many also for closed circuit television cameras.

Ruggedized heavy duty mounts. Many also available in Mitchell, Photosonics, Arriflex, Fastax, Fastair, etc. mounts. Special mounts also made to order.

CENTURY MIL-TEL TELEPHOTO LENSES are of superb professional quality. For example, resolving power of over 200 lines per/mm for the 25mm f/0.95 Night-Hawk wide open! The Mil-Tel series are made in the U.S.A. The NIGHT-HAWK series are made to our specifications and are imported from Germany, France, and Japan. Each lens is optical bench tested and "Optimized" in our own lab to insure top quality. All lenses are hard-coated and in focusing mounts. Sold with a 3-year service guarantee. Complete servicing available promptly in our North Hollywood plant. Custom mounts are available on special order. Razor-sharp results of distant subjects guaranteed.

CINE TELEPHOTO LENSES

NET PRICE

50mm f/1.2 Night-Hawk, "C" mount.....	219.00
2" 50mm f/1.4 Night-Hawk, "C" mount or RX.....	129.50
2" 50mm f/1.9 Night-Hawk, "C" mount or RX.....	79.50
3" 75mm f/1.4 Night-Hawk, "C" mount or RX.....	139.50
75mm f/1.4 Mil-Tel for Arriflex.....	585.00
3" 75mm f/1.9 Night-Hawk, "C" mount or RX.....	99.50
4" 100mm f/1.8 Mil-Tel, "C" mount ^x	269.50
6" 150mm f/2.2 Mil-Tel, "C" mount ^x	299.50
9" 230mm f/2.8 Mil-Tel, "C" mount ^x	299.50
10" 250mm f/3.5 Mil-Tel, "C" mount ^x	299.50
12" 300mm f/3.2 Mil-Tel, "C" mount ^x	399.50
12" 300mm f/4.5 Mil-Tel, "C" mount ^x	219.50

SUPER CINE TELEPHOTO LENSES

15" 385mm f/4.7 Mil-Tel, "C" mount ^x	369.50
20" 500mm f/5.6 Mil-Tel, "C" mount ^x	399.50
20" 500mm f/4.2 Mil-Tel, "C" mount ^x	685.00
20" 500mm f/3.5 Mil-Tel, "C" mount ^x	885.00
24" 600mm f/4.8 Mil-Tel, "C" mount ^x	685.00
30" 750mm f/5 Mil-Tel, "C" mount ^x	775.00
32" 800mm f/5.6 Mil-Tel, "C" mount ^x	795.00
40" 1000mm f/6.0 Mil-Tel, "C" mount ^x	995.00
48" 1200mm f/7.7 Mil-Tel.....	1385.00

x - Available for Arriflex or Kodak..... 24.50 extra

x* - Available in double-helical rotating mount..... 30.00 extra

For Fastax, Photosonics, Mitchell R-35 add..... 48.00

Special mount for other camera quoted on request

NORMAL AND WIDE-ANGLE LENSES

Also available for Bolex RX

5.7mm f/1.8 Tegea Night-Hawk Extreme wide-angle, fixed "C" mount or Arri-16.....	549.00
6.5mm f/1.8 Vidigon, "C" mount or RX.....	385.00
10mm f/1.8 Night-Hawk wide-angle, "C" mount.....	139.50
10mm f/1.6, fixed focus, "C" 119.50 RX.....	Focusing mt. 169.50
12.5 f/1.4 Night-Hawk wide-angle lens in focusing "C" mount.....	129.50
25mm f/1.4 Night-Hawk normal lens in focusing "C" mount.....	99.50
25mm f/0.95 Super Night-Hawk in focusing "C" mount.....	149.50

Precision "FLEXARON" 90° Camera Periscope. Fits all Series VII lens adapters. Shoot stills or movies to side of camera without subject being aware. Protects camera from blast, sand blast, combat hazards, etc. Shoot around corners..... 59.50
FLEXARON series VI..39.50 Case..... 12.50

See pages 204 and 222, AMERICAN CINEMATOGRAPHER MANUAL, 2nd edition

Available from CENTURY at 12.50 per copy

Also available "The Five C's of Cinematography" Probably the finest book ever written on all phases of motion picture technique. Large, easy to read. Profusely illustrated. Highly recommended. Price 12.50 well spent.

Precision Photo Equipment
10659 Burbank Blvd., North Hollywood, Calif.
91601

POplar 6-3715 Area Code 213

EXCLUSIVE LENSES FOR MILITARY CAMERAS,
MOTION PICTURE CAMERAS, AND PHOTO INSTRUMENTATION

16mm ACCESSORY PRODUCTS

RF 410 16mm Reflex Focus-Finder with solid Beam-Splitter, "C" mount..... 129.50
(extreme closeups only)

(Reflex Focusers can also be fitted to many Century 16mm tele-lenses for work from infinity to closeup. Write for details)

90° Viewing Tube with focusing eyepiece. Will focus to infinity with shortened tele-lens..... 69.50

Duplikin II 16mm to 35mm enlarging device for use with 35mm SLR cameras, B & L 25mm f/2.7 for enlarging 16mm movie frames to 35mm slides or B&W photos (Specify camera)..... 99.50

Medium Duty lens Support Brackets for 16mm Bolex, B&H 70, K-100 and Cine Special. For lenses up to 4 lbs..... 44.50

Heavy Duty Lens Support Brackets for 16mm Arri, Bolex, B&H, Pathe, Beaulieu, etc. Prices Start at..... 99.50

Professional Lens Support Brackets for lenses over 16" or over 5 lbs. - 12 lbs. ... 199.50

16mm POSITIVE VIEWFINDERS

For Bell & Howell Cameras

For K-100 Cameras

For 10mm lens.....	15.95	For 10mm lens.....	39.50
12mm lens.....	14.50	12mm lens.....	29.50
3" lens.....	14.50	9" lens.....	39.50
6" lens.....	18.50	12" lens.....	39.50
8" lens.....	22.00		
9" lens.....	22.00		
10" lens.....	24.50		
12" lens.....	29.50		
15" lens.....	32.50		
16" lens.....	39.50		

Amazing Angenieux 12 to 120mm f/2.2 Zoom lens. Available in various mounts. Also 20 to 200mm f/3.5 Zoom lens. Lowest Prices. Service guarantee. Optimized. Write today for complete specifications.

16mm EXTENSION TUBES

16mm "C" mount tubes. Black anodized set of four (1/4", 1/2", 1", 1-1/2", and with 1/16" shim)..... 24.50

Available singly, per tube..... 6.50
1/16" shim..... .75

OPTIMIZED ZOOM LENSES

12-120mm f/2.2 Angenieux 16mm Zoom, "C" Mount.....	765.00
12-120mm f/2.2 Angenieux 16mm Zoom, RX mount.....	765.00
12-120mm f/2.2 Angenieux Zoom lens for Arriflex.....	795.00
12-120mm f/2.2 Angenieux Zoom with reflex focus viewer.....	925.00
20-200mm f/3.5 Angenieux Century Zoom, "C" or RX mount.....	990.00
20-200mm f/3.5 Angenieux Century Zoom, with reflex finder.....	1250.00
35-170mm f/4 Pan-Cinor Century conv. Zoom, "C" or RX mount. (Without finder).....	565.00
35-170mm f/4 Pan-Cinor Century conv. Zoom, with reflex finder, full frame range finder.....	695.00
22.5-90mm f/1.5 Night-Hawk Zoom, "C" mount or RX mount..	395.00

CASES, FILTER ADAPTERS, FILTERS AND OTHER ACCESSORIES ARE AVAILABLE. CUSTOM LENS MOUNTS, OPTICAL SERVICES, LENS REPAIRS, REPOLISHING, ETC. WE ARE ZOOM LENS SPECIALISTS.

Write for prices, specifications, literature on any items.

Trade-ins accepted. Send description of equipment or ship for appraisal.

STATE YOUR NEEDS. Technical inquiries promptly answered.

All prices subject to change without notice.