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## PHOTOGRAPHIC LENSES

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SOLE AGENT U. S. AND CANADA

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JOS. SCHNEIDER & CO. • OPTICAL WORKS • KREUZNACH (RHLD.) GERMANY



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LENSES FOR PHOTOGRAPHY  
AND CINEMA WORK

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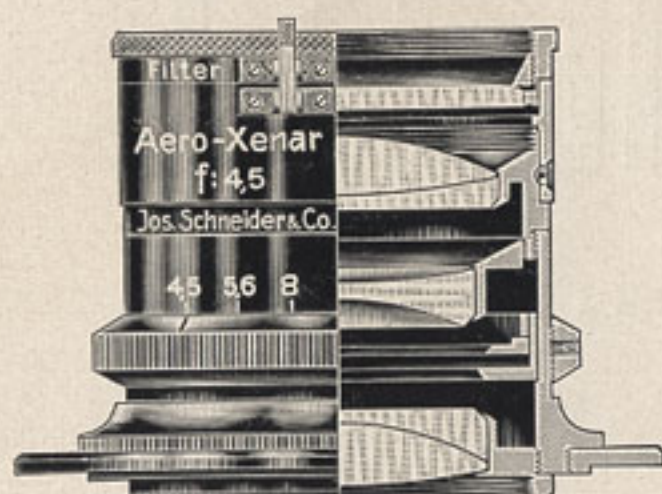
**JOS. SCHNEIDER & CO.**

OPTICAL WORKS · KREUZNACH (RHEINLAND)

GERMANY



# Schneider Aero-Xenar f:4.5



Schneider Aero-Xenar f:4.5 in normal mount

With our **Aero-Xenar f:4.5** we are introducing a lens of a new construction, which on account of its exceedingly fine qualities is specially suitable for aerial photography. The spherical and chromatical aberrations and their zonical differences are reduced to a minimum. Corresponding to this high degree of correction in the axis over the full relative opening, also the aberrations in the oblique rays are exactly corrected, resulting an anastigmatic flattened field over a comparatively large angle, within which in general the aberrations of the sagittal and meridional rays from the ideal focal plane can be kept below about 0.28% of the equivalent focal length of the new objective.

The **Aero-Xenar** lens will be supplied in brass mount or light metal. In both cases the lens is regularly provided with a bayonet flange to take up the corresponding colour filters. Yellow filters of massive Schottglass can be furnished against extra charge. The filters are made of one piece, plano-parallel ground and polished, and sold in the colourings Schott GG2 (Aero-filter A) and Schott GG11 (Aero-filter B).

## Schneider Aero-Xenar f:4.5

Equivalent focal length		Size of plate		Diameter of lens	Size of shutter	Exteriordia-meter of shutter
mm	in.	mm	in.			
250	10	120x160	6 x 4 1/2	2 1/4	IV/10,2	4 3/16
300	11 3/4	130x180	7 x 5	2 13/16	V/12	4 15/16
500	19 3/4	130x300	12 x 5	4 13/32	—	—



»City of Buffalo« Photo taken by Fairchild Aerial Corp. With Schneider Special Xenar 1:4,5 f = 24 cm

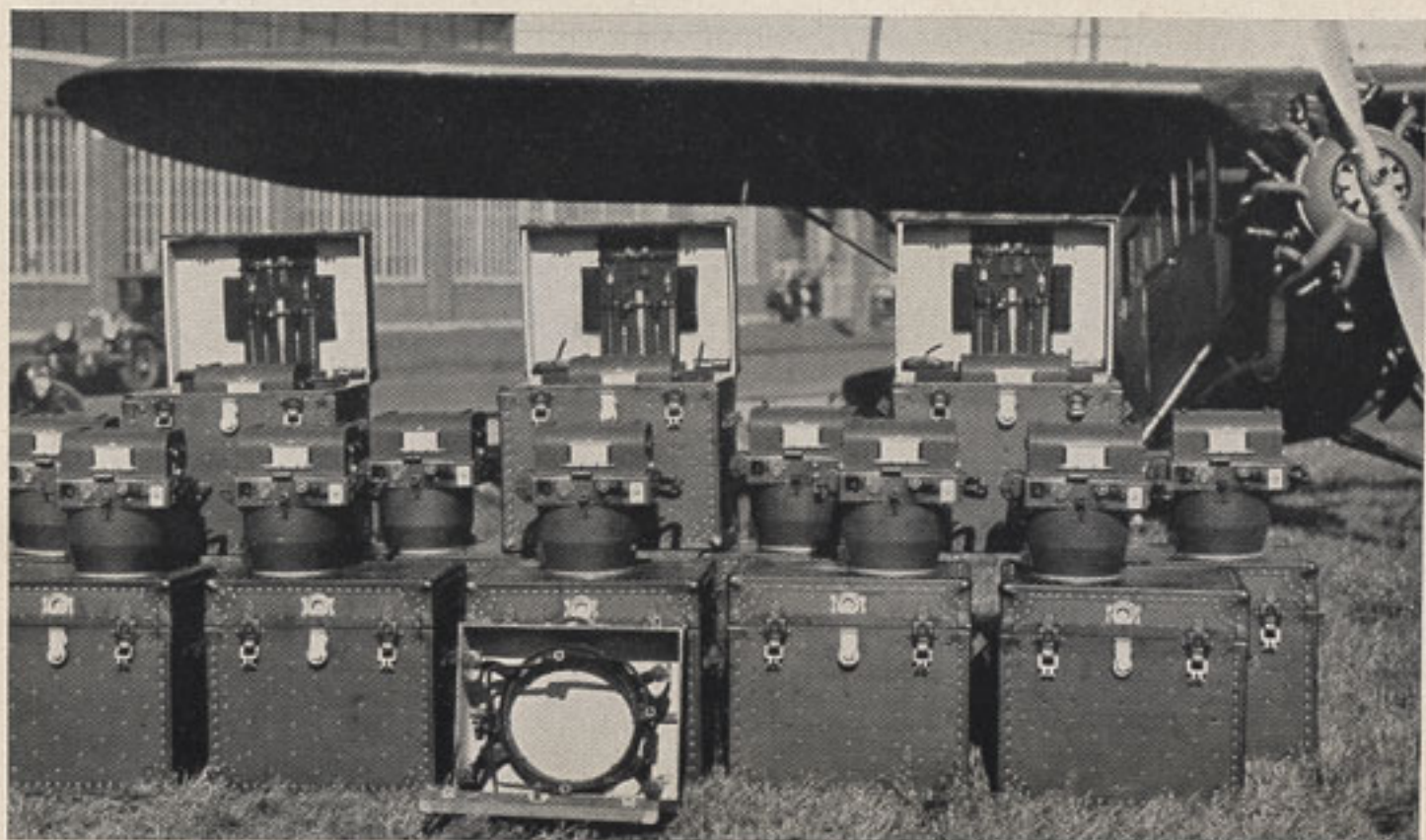


Photo taken by Fairchild Corp. With Schneider Xenar 1:4,5 f = 24 cm. Fairchild aerial cameras K 8 equipped with Schneider Xenar 1:4,5 f = 24 cm



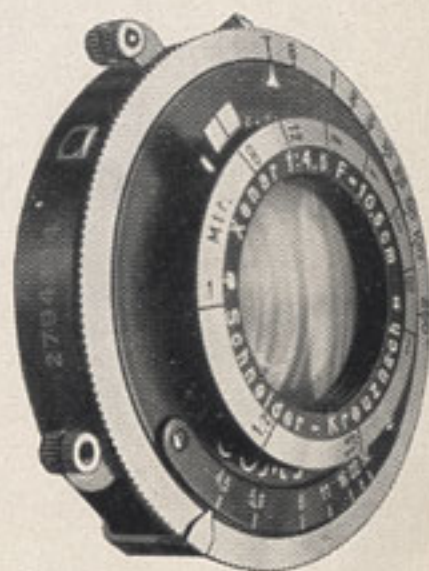
# Schneider Xenar f : 2.9, : 3.5, : 4.5, : 5.5

GERMAN Patent, U. S. A. Patent, JAPAN. Patent

The characteristic features of this lens which produce perfect pictures and can be used for all purposes, are greatest clearness and an elegant mount of wonderful fitness. Being only half cemented this anastigmat is unsymmetrical and remarkably efficient in correcting spherical and chromatical aberrations, astigmatism, and the curvature of the image field, while distortion and coma could be to a large extent eliminated. The result is that all negatives produced by this lens reveal clean-cut definition and high brilliancy in spite of the great rapidity. The rear lens cannot be used alone. Owing to the ex-

cellent qualities mentioned above this lens is indispensable to the portrait photographer and an important auxiliary for reproduction. Through its compact construction it recommends itself not only for general use in hand cameras, but also in mirror reflex and the popular, small Miniature cameras. As the convergency of rays of the **Xenar** has been excellently carried out in every manner possible, it is natural that the small focal lengths in particular produce negatives of great sharpness and surprising brilliancy which later on permit considerable enlargements.

For the special purpose of miniature-photography, we produced the Xenar f/2.9, a four-lens, half-cemented, unsymmetrical anastigmat of remarkable speed. The critical definition of the Xenar f/2.9 meets all the requirements claimed for a lens of this kind. Its spherical, chromatical and astigmatical correction could be obtained in spite of the enormous aperture in connection with absolute freedom from distortion. Our Xenars are usually supplied in standard or sunk mount, in helical movement or in shutter, also in most of the focal lengths, and with the popular front-lens-adjustment.



Schneider Xenar f:4.5 in  
Compur shutter





»Summertime« Photo taken by Dr. P. Wolff, Frankfurt a. M. with Schneider Xenar f:4.5 f:30 cm



**Schneider Xenar f : 2,9** High speed universal lens for specially small picture work

Equivalent Focal Length		Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.				
35	1 <sup>3</sup> / <sub>8</sub>	1 x <sup>3</sup> / <sub>4</sub>	<sup>1</sup> / <sub>2</sub>	00	1 <sup>3</sup> / <sub>4</sub>
50	2	1 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>4</sub>	<sup>3</sup> / <sub>4</sub>	00	1 <sup>3</sup> / <sub>4</sub>
75	3	2 <sup>1</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub>	1	0S	2 <sup>1</sup> / <sub>32</sub>
105	4 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	IS	2 <sup>13</sup> / <sub>16</sub>

**Schneider Xenar f : 3,5** Rapid universal lens suitable for sporting events, portraiture and colour photography.

Equivalent Focal Length		Aperture f / :	Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.					
35	1 <sup>3</sup> / <sub>8</sub>	3.5	1 x <sup>3</sup> / <sub>4</sub>	<sup>13</sup> / <sub>32</sub>	00	1 <sup>3</sup> / <sub>4</sub>
50	2	3.5	1 x <sup>3</sup> / <sub>4</sub>	<sup>8</sup> / <sub>16</sub>	00	1 <sup>3</sup> / <sub>4</sub>
70	2 <sup>3</sup> / <sub>4</sub>	3.5	2 <sup>1</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub>	<sup>13</sup> / <sub>16</sub>	00	1 <sup>3</sup> / <sub>4</sub>
75	3	4.0	2 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub>	<sup>3</sup> / <sub>4</sub>	00	1 <sup>3</sup> / <sub>4</sub>
75	3	3.5	2 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub>	<sup>7</sup> / <sub>8</sub>	0S	2 <sup>9</sup> / <sub>32</sub>
105	4 <sup>1</sup> / <sub>8</sub>	3.8	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>32</sub>	0S	2 <sup>9</sup> / <sub>32</sub>
105	4 <sup>1</sup> / <sub>8</sub>	3.5	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
120	4 <sup>3</sup> / <sub>4</sub>	3.5	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
135	5 <sup>1</sup> / <sub>4</sub>	3.8	4 <sup>1</sup> / <sub>4</sub> x 3 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>32</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
135	5 <sup>1</sup> / <sub>4</sub>	3.5	3 <sup>3</sup> / <sub>4</sub> x 2 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	II 4/2	3 <sup>1</sup> / <sub>16</sub>
150	6	3.5	4 <sup>1</sup> / <sub>4</sub> x 3 <sup>1</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>16</sub>	I' 5	3 <sup>1</sup> / <sub>16</sub>
165	6 <sup>1</sup> / <sub>2</sub>	3.5	6 x 4	1 <sup>13</sup> / <sub>16</sub>	III 7	3 <sup>7</sup> / <sub>16</sub>
180	7 <sup>1</sup> / <sub>8</sub>	3.5	6 x 4	2 <sup>1</sup> / <sub>32</sub>	III 7	3 <sup>7</sup> / <sub>16</sub>
210	8 <sup>1</sup> / <sub>4</sub>	3.5	8 x 5	2 <sup>7</sup> / <sub>16</sub>	IV 10/2	4 <sup>3</sup> / <sub>16</sub>
240	9 <sup>1</sup> / <sub>2</sub>	3.5	8 <sup>1</sup> / <sub>2</sub> x 6 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	V 12	4 <sup>15</sup> / <sub>16</sub>
300	11 <sup>3</sup> / <sub>4</sub>	3.5	10 x 8	3 <sup>3</sup> / <sub>8</sub>	—	—

Also supplied in half sunk mount at the price of normal mount for Graflex cameras. The speeds correspond with the relative apertures as follows:

relative aperture	3.5	4.5	5.5	6.3
speed	1.65	1	0.67	0.50
time of exposure	2	3	5	6

Example: Time exposure with a lens f: 6.3, 1/25 second is reduced with XENAR f: 3.5 to 1/75 sec., or with XENAR f: 4.5 to 1/50 sec.



### Schneider-Xenar f:4.5

Very rapid universal lens for amateurs and professionals.

Equivalent Focal Length		Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.				
55	2 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	00	1 <sup>3</sup> / <sub>4</sub>
65	2 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub>	9 <sup>9</sup> / <sub>16</sub>	00	1 <sup>3</sup> / <sub>4</sub>
75	3	2 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	00	1 <sup>3</sup> / <sub>4</sub>
90	3 <sup>1</sup> / <sub>2</sub>	3 x 2	3 <sup>3</sup> / <sub>4</sub>	0S	2 <sup>9</sup> / <sub>32</sub>
105	4 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub>	15 <sup>15</sup> / <sub>16</sub>	0S	2 <sup>9</sup> / <sub>32</sub>
120	4 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub> x 3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	0S	2 <sup>9</sup> / <sub>32</sub>
135	5 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
150	6	5 x 4	1 <sup>5</sup> / <sub>16</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
165	6 <sup>1</sup> / <sub>2</sub>	5 x 4	1 <sup>7</sup> / <sub>16</sub>	IIS	3 <sup>1</sup> / <sub>16</sub>
180	7 <sup>1</sup> / <sub>8</sub>	6 x 4	1 <sup>9</sup> / <sub>16</sub>	II <sup>6</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>64</sub>
195	7 <sup>5</sup> / <sub>8</sub>	7 x 5	1 <sup>11</sup> / <sub>16</sub>	III/7	3 <sup>7</sup> / <sub>16</sub>
210	8 <sup>1</sup> / <sub>4</sub>	8 x 5	1 <sup>13</sup> / <sub>16</sub>	III/7	3 <sup>7</sup> / <sub>16</sub>
240	9 <sup>1</sup> / <sub>2</sub>	8 x 5	2 <sup>5</sup> / <sub>32</sub>	IV/10/2	4 <sup>3</sup> / <sub>16</sub>
270	10 <sup>5</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> x 6 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>16</sub>	IV/10/2	4 <sup>3</sup> / <sub>16</sub>
300	11 <sup>3</sup> / <sub>4</sub>	10 x 8	2 <sup>13</sup> / <sub>16</sub>	V/12	4 <sup>15</sup> / <sub>16</sub>
360	14 <sup>1</sup> / <sub>4</sub>	12 x 10	2 <sup>1</sup> / <sub>8</sub>	—	
420	16 <sup>1</sup> / <sub>2</sub>	14 x 11	3 <sup>11</sup> / <sub>16</sub>	—	
480	18 <sup>7</sup> / <sub>8</sub>	17 x 14	4 <sup>3</sup> / <sub>16</sub>	—	

### Schneider-Xenar f:5.5

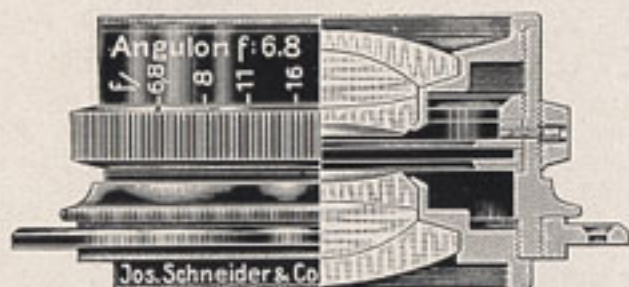
the lens most suitable for cameras with small stirrup fronts.

Equivalent Focal Length		Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.				
45	3	2 <sup>1</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	00	1 <sup>3</sup> / <sub>4</sub>
90	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub> x 2 <sup>1</sup> / <sub>4</sub>	23 <sup>23</sup> / <sub>32</sub>	00+0	2 <sup>1</sup> / <sub>3</sub> u. 1 <sup>3</sup> / <sub>4</sub>
105	4 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub>	13 <sup>13</sup> / <sub>16</sub>	0	2 <sup>9</sup> / <sub>32</sub>
120	4 <sup>3</sup> / <sub>4</sub>	4 x 3	15 <sup>15</sup> / <sub>16</sub>	0	2 <sup>9</sup> / <sub>32</sub>
135	5 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub> x 3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>32</sub>	0	2 <sup>9</sup> / <sub>32</sub>
150	6	5 x 4	1 <sup>5</sup> / <sub>32</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
165	6 <sup>1</sup> / <sub>2</sub>	6 x 4	1 <sup>1</sup> / <sub>4</sub>	IS	2 <sup>13</sup> / <sub>16</sub>
180	7 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub> x 4 <sup>3</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>32</sub>	II/S	3 <sup>1</sup> / <sub>16</sub>
195	7 <sup>5</sup> / <sub>8</sub>	7 x 5	1 <sup>15</sup> / <sub>32</sub>	II <sup>6</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>64</sub>
210	8 <sup>1</sup> / <sub>4</sub>	7 x 5	1 <sup>19</sup> / <sub>32</sub>	II <sup>6</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>64</sub>



# Schneider Angulon f:6.8 German Patent, U. S. A. Patent

Universal Wide-Angle Anastigmat working at large aperture.



Schneider Angulon f:6.8 in normal mount

Our **Angulon f:6.8** is now a Wide-Angle Anastigmat which embodies all the latest improvements and many advantages found in no other lens of this kind. It is a fully cemented six-lens double anastigmat with a total angle of ca. 105 degrees.

This new type is characterized by its maximum aperture of f:6.8 not attained hitherto in wide-angle anastigmats, and by its corresponding large lens diameter. Apart from its high speed, the **Angulon F: 6.8** offers many distinctive features. It is absolutely free from ghost and flare, so that it is adapted for taking strong against-the-light subjects, yielding negatives of splendid contrast. Astigmatism, coma, spherical and chromatical aberrations are eliminated to the widest extent. **Angulon** is producing pictures of unequalled quality, sharp and brilliant, and extending over a large angle of view. It is a hemisymmetrical lens, free from distortion, and the photographs taken therewith are quite true to nature. In creating the **Angulon f: 6.8** we can place at the disposal of all photographers the first wide-angle anastigmat, the components of which can be used separately and give two different foci. It will therefore be superfluous to purchase a special set of lenses for the different scopes of universal photography. According to the annexed table the focal lengths are nearly in proportion to 1:1.5:2, therefore the owner of our **Angulon** can dispose of three practically graduated foci. The complete lens is particularly designed for taking views of interiors, architectural buildings and mountain scenery while



the long focus components can be used for landscapes, groups and portraits. In one word, the **Angulon f: 6.8** is an instrument of universal application.

The **Angulon f: 6.8** on account of its favourable dimensions, permits to be fitted to the well known Compur Shutter without causing any loss of efficiency. The new lens is made in four focal lengths which together with the size of plates to be covered at full aperture and stopping down are specified in the following table:

**Schneider Angulon f: 6.8** Total-Angle of view ca. 105 degrees

Equivalent Focal Length		Size of plates covered at			Size of Shutter	Exterior diam. of shutter in.
mm	in.	f: 6.8	f: 11	f: 22		
90	3 1/2	4 1/4 x 3 1/4	5 x 4	6 1/2 x 4 3/4	OS	2 9/32
120	4 3/4	5 x 4	7 x 5	8 1/2 x 6 1/2	IS	2 13/16
165	6 1/2	8 1/2 x 6 1/2	10 x 8	12 x 10	II	3 1/8
210	8 1/4	10 x 8	12 x 10	15 x 12	III/7	3 7/16

Equivalent Focal Length		Front element					Rear element				
		Focal Length		Factor of exposure	Applica-tion	Size in.	Focal Length		Factor of exposure	Applica-tion	Size in.
mm	in.	mm	in.				mm	in.			
90	3 1/2	185	7 1/8	4x	Por-traits	5x4	140	5 1/2	2x	Groups Land-scapes	5x4
120	4 3/4	250	10	4x	"	7x5	185	7 1/8	2x	"	7x5
165	6 1/2	345	13 1/2	4x	"	10x8	260	10 1/4	2x	"	10x8
210	8 1/4	430	17	4x	"	12x10	330	13	2x	"	12x10

Prospectus with full particulars of the Angulon are sent free of charge on request.





»Diana Court« Photo taken by Fred G. Korth, Chicago with Schneider Angulon 1:6.8 f=9 cm



Photo taken by  
Fred G. Korth, Chicago  
with Schneider Angulon  
1:6,8 f=9 cm



Photo taken by Dr. Otto  
Croy, Berlin-Charlotten-  
burg with Schneider An-  
gulon 1:6,8 f=12 cm





# Schneider Symmar f:6.8

Double Anastigmat View Angle 80°



Symmar f:6.8 in normal mount

The **Symmar f:6.8** is a six-element cemented lens after an old and most popular formula for covering power and definition. In a lens of this speed the convertible feature is most successfully used. The front or rear elements will work alone, if desired, giving almost twice the focal length. This feature with **Symmar** sharpness and covering power, and remarkably low price, makes them the most popular general purpose lens on the market.

The extraordinary covering power of the **Symmar** makes it possible to use them stopped down on much larger plates, with plenty of light for focussing. In this manner they make a most efficient wide angle lens. The 7. 1/8 in. lens stopped down will cover 8x10 or even the 6. 1/2 in. when used central.

**Symmar** cannot be excelled where speed is not essential. Many are used, however, with fast plates and focal plane shutters, to give increased depth. It is the lens the professional and advanced amateur will select, because of universal application.

Its needle sharp definition allows the making of negatives which can be greatly enlarged, and its flat field and superb corrections make in the natural selection for the enlarging lens itself.

It is a group lens and suitable for standing figures as well. For banquet photographs on 8x20 or 12x20, a 14 1/4 in. lens will serve, and 11 3/4 in. on 7x17. Longer focus lenses should be used if possible.



In commercial photography, the **Symmar** price brings this type of lens within the reach of every one. It is ordinarily supplied in shutter. A 12 in. for 8x10 is most useful for ordinary landscape and architectural work, and for automobiles and the varied studio demands, the single combination of nearly double the focal length will find many applications.

### Schneider Symmar f:6.8

Equivalent Focal Length		Size of plate covered at		Diameter of lens in.	Size of shutter	Exterior diameter of shutter in.
mm	in.	Stop f: 6.8 in.	Small Stop in.			
60	$2\frac{3}{8}$	$2\frac{1}{2} \times 1\frac{5}{8}$	4 x 3	$\frac{11}{32}$	00	$1\frac{3}{4}$
75	3	$2\frac{3}{4} \times 2\frac{3}{4}$	$4\frac{1}{4} \times 3\frac{1}{4}$	$\frac{7}{16}$	00	$1\frac{2}{4}$
90	$3\frac{1}{2}$	3 x 3	5 x 4	$\frac{1}{2}$	0S	$2\frac{9}{32}$
105	$4\frac{1}{8}$	4 x 3	$5\frac{1}{2} \times 4\frac{1}{4}$	$\frac{5}{8}$	0S	$2\frac{9}{32}$
120	$4\frac{3}{4}$	$4\frac{1}{4} \times 3\frac{1}{4}$	7 x 5	$\frac{11}{16}$	0S	$2\frac{9}{32}$
135	$5\frac{1}{8}$	$4\frac{1}{2} \times 3\frac{1}{2}$	8 x 5	$\frac{3}{4}$	0S	$2\frac{9}{32}$
150	6	5 x 4	$8\frac{1}{2} \times 6\frac{1}{3}$	$\frac{7}{8}$	1S	$2\frac{13}{16}$
165	$6\frac{1}{2}$	$5\frac{1}{2} \times 4\frac{1}{4}$	$8\frac{1}{2} \times 6\frac{1}{2}$	$\frac{15}{16}$	1S	$2\frac{13}{16}$
180	$7\frac{1}{8}$	7 x 5	10 x 8	$1\frac{1}{16}$	1S	$2\frac{13}{16}$
195	$7\frac{5}{8}$	$7\frac{1}{2} \times 5\frac{1}{2}$	11 x 9	$1\frac{1}{8}$	1S	$2\frac{13}{16}$
210	$8\frac{1}{4}$	8 x 5	12 x 10	$1\frac{7}{32}$	II 4/2	$3\frac{1}{16}$
240	$9\frac{1}{2}$	$8\frac{1}{2} \times 6\frac{1}{2}$	14 x 11	$1\frac{3}{8}$	II 6/1	$3\frac{1}{16}$
270	$10\frac{3}{4}$	10 x 8	16 x 14	$1\frac{9}{16}$	II 6/1	$3\frac{1}{16}$
300	12	12 x 10	18 x 16	$1\frac{3}{4}$	III 8	$3\frac{7}{16}$
360	$14\frac{1}{4}$	14 x 11	20 x 16	$2\frac{3}{16}$	IV 10/2	$4\frac{15}{16}$



# Schneider Radionar f: 2.9, : 3.5, : 4.5, : 6.3

German-Patent, U. S. A.-Patent

The **Radionar** is a lens of three glasses made by us of the following apertures: f/2.9, 3.5, 4.5, 6.3, and of all the usual focal lengths. It is supplied either tightly in mount-rings or with the popular front-lens-adjustment, by which sharp focussing is effected in displacing the frontlens, its mount being provided with engravings for distances. In the construction of the **Radionar f/2.9-3.5**, we set a great value upon the right suitable components to avoid as much as possible the loss of picture-quality occurring generally when working at high speed and focussing for near objects by means of the frontlens. This object could be attained to its full extent. Our Radionar f/2.9-3.5, the construction of which is protected by patent, is producing, not only when focussing on distant scenery, but also on near objects, irreproachable brilliant and above all negatives capable of being strongly enlarged, owing to its splendid spherical, chromatic astigmatic and comatic correction. Therefore the **Radionar** of the high speed of f/2.9-3.5, is very well adaptable for all purposes connected with miniature-photography. A similar picture-quality can only be obtained by a four-lens anastigmat of standard construction. For a still sharper definition, there must be applied to our patented Xenar lenses.

In constructing the **Radionar f/4.5** we undertook to remove the defects still connected with this lens type, and to give it such a compact form that it fits to any camera with broad "stirrup" front. This problem can be considered completely solved. The defects are eliminated as much as possible: the pictures show in centre and right up to the margin a noteworthy quality, they are also brilliant owing to the removal of the coma and avoidance of disturbing reflections.

In bringing out our **Radionar f/6.3** we offer a high grade anastigmat with a rapidity sufficient for most snapshots, an excellent instrument for amateurs at a low price, which can be easily fitted to shutters and hand cameras.



Schneider Radionar  
f: 4.5 in Pronto shutter



### Schneider Radionar f: 2.9. High speed universal lens for small cameras.

Equivalent Focal Length		Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.				
50	2	1 3/4 x 1 1/4	3/4	00	1 3/4
75	3	2 1/4 x 2 1/2	1	05	2 9/16

### Schneider Radionar f: 3.5 - 3.8

Rapid universal lens suitable for operating events and portraiture.

Equivalent Focal Length		Aperture f:	Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.					
50	2	3.5	1 x 3/4	9/16	00	1 3/4
70	2 3/4	3.5	2 1/2 x 1 3/4	13/16	00	1 3/4
70	2 3/4	3.8	2 1/2 x 1 3/4	13/16	00	1 3/4
75	3	3.5	2 1/2 x 1 3/4	2/4	05	2 9/32
75	3	3.8	2 1/2 x	3/4	00	1 3/4

### Schneider Radionar f: 4.5

Best lens recom. in connection with rollfilm cameras of amateur photography.

Equivalent Focal Length		Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.				
50	2	1 5/8 x 1 1/4	1/2	00	1 3/4
70	2 3/4	2 1/2 x 1 3/4	5/8	00	1 3/4
75 x	3	2 1/2 x 1 3/4	5/8	00	1 3/4
90	3 1/2	3 1/2 x 2	7/8	00	1 3/4
105 x	4 1/8	3 1/2 x 2 1/2	1	05	2 9/32
120 x	4 3/4	4 1/4 x 2 1/2	1 7/16	05	2 9/32
135	5 1/4	4 7/8 x 3 3/4	1 1/4	15	2 13/16

x are also made in special mount for all purposes of enlargement

### Schneider Radionar f: 6.3

The ideal lens for amateurs with a speed sufficient for most snapshots.

Equivalent Focal Length		Size of plate covered in.	Diameter of lens in.	Size of shutter	Exterior diam. of shutter in.
mm	in.				
75	3	2 1/4 x 2	7/16	00	1 3/4
90	3 1/2	3 x 2	9/16	00	1 3/4
105	4 1/8	3 1/2 x 2 1/2	5/8	00—05	1 3/4 — 2 9/32
120	4 2/4	4 1/4 x 3 1/4	3/4	05	2 9/32
135	5 1/4	5 x 4	7/8	05	2 9/32
150	6	6 x 4	15/16	05	2 9/32
165	6 1/2	6 x 4	1 1/16	15	2 13/16
180	7 1/8	6 1/4 x 4 3/4	1 1/8	15	2 13/16
195	7 5/8	8 1/2 x 6 1/2	1 7/32	15	2 13/16
210	8 1/4	10 x 8	1 5/16	15	2 13/16





Photo taken by Dr. P. Wolff, Frankfurt a. M. with Schneider Xenar 1:4.5 f=30 cm





Photo taken by Christof Häberlein, Nürnberg with Schneider Xenar 1:4.5 f—15 cm



Photo taken by Hugo Krug, Ulm, with Schneider Xenar 1:4.5 f—21 cm

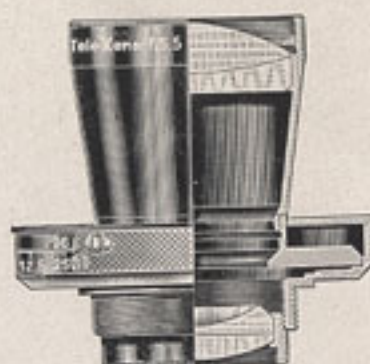




Photo taken by Karl Stöldken, Hamburg, with Schneider Tele Xenar 1:5.5 f=27 cm



## Schneider Tele-Xenar f:5.5



Schneider Tele-Xenar f:5.5 in Compur shutter

The **Tele-Xenar** is of the fixed magnification type, beautifully corrected over a large field and with a speed which makes practical its extensive use, even under bad light conditions.

The press man can use it for baseball and football and tennis shots at a distance. The amateur will find it a wonderful lens, for snapshots, where subjects are unaware of picture taking. The naturalist and bird photographer who cannot get close up can secure remarkable shots. One of its novel features is its use as a portrait lens giving long focus perspective on a short bellows camera.

The **Tele-Xenar** cells will interchange with the regular **Xenar** of the same approximate extension. Simply unscrew the cells and replace them by **Tele-Xenar**. The picture obtained is twice as big in linear size, and you expose just like any other anastigmat. Supplied in special half-sunk mount for Graflex-cameras. The 11 $\frac{3}{4}$ " **Tele-Xenar f: 5.5** in half-sunk mount is suitable for 3"x4" Graflex-cameras. The 14 $\frac{1}{4}$ " size for the 4x5" size.

### Schneider Tele-Xenar f: 5.5

Equivalent Focal Length		Xenar 3.5	Xenar 3.8	Xenar 4.5 Isconar 4.5 Radionar 4.5	Size of shutter	Exterior diam. of shutter in.
mm	in.					
180	7 $\frac{1}{8}$	75 mm	105 mm	105 mm 120 mm	OS	2 $\frac{9}{32}$
240	9 $\frac{1}{2}$	105 mm 120 mm	135 mm	135 mm	IS	2 $\frac{13}{16}$
270	10 $\frac{5}{8}$	135 mm 150 mm		150 mm 165 mm	II 4/2 & II 5	3 $\frac{1}{16}$
300	11 $\frac{3}{4}$			180 mm	II 6/2	3 $\frac{5}{8}$
360	14 $\frac{1}{4}$	165 mm		195 mm 210 mm	III 7	3 $\frac{9}{16}$





Taken with Schneider Xenar f:3.5  
6 in. without supplementary lens

Taken with Schneider Xenar f:3.5  
6 in. and supplementary lens B

The cathedral in Frankfurt a. M. Cuts selected from 4 comparative pictures.





Taken with Schneider Tele-Xenar f:5.5  
12 in. without supplementary lens

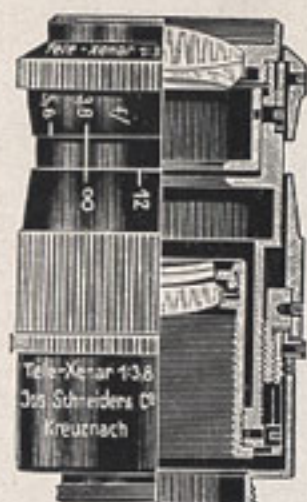
Taken with Schneider Tele-Xenar f:5.5,  
12 in. and Tele-Xenar supplementary  
lens II

Photos taken from the same standpoint by Dr. P. Wolff, Frankfurt a. M.

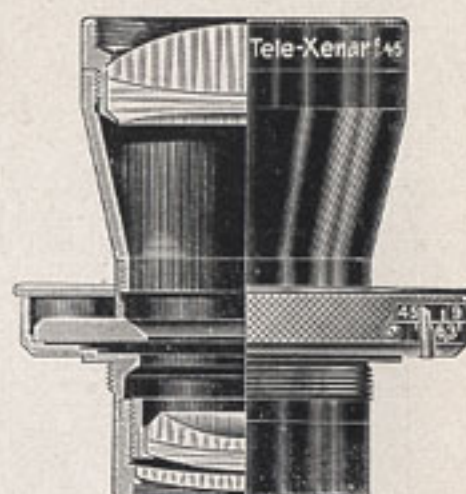


# Schneider Tele-Xenar f:3.8,:4.5

German Patent No. 471565



Tele-Xenar f:3.8,  
German Patent, in special mount



Tele-Xenar f:4.5,  
German Patent, in Compur shutter

The **Tele-Xenar f:3.8,:4.5** is quite a recent creation in the range of fixed focus telephoto anastigmats. In the above figures, this new lens is represented in cross-section, mounted in shutter, and ready for being built into hand cameras. It will be seen, the **Tele-Xenar f:3.8,:4.5** is a five-lens, half-cemented, unsymmetrical telephoto anastigmat, the back lens of which does not form a visible picture on the ground glass, owing to its focal length being negative, while the front lens with small stop can be used for some special purposes, for instance for taking pictures of very small objects on the same or moderately enlarged scale. The quality of photos resulting from the **Tele-Xenar f:3.8,:4.5** is excellent in every respect. Distortion generally adherent to tele-anastigmats is entirely eliminated. The **Tele-Xenar f:3.8 75 and 100 mm** is specially suitable for movie-work securing results beyond competition.

## Schneider Tele-Xenar f:3.8,:4.5

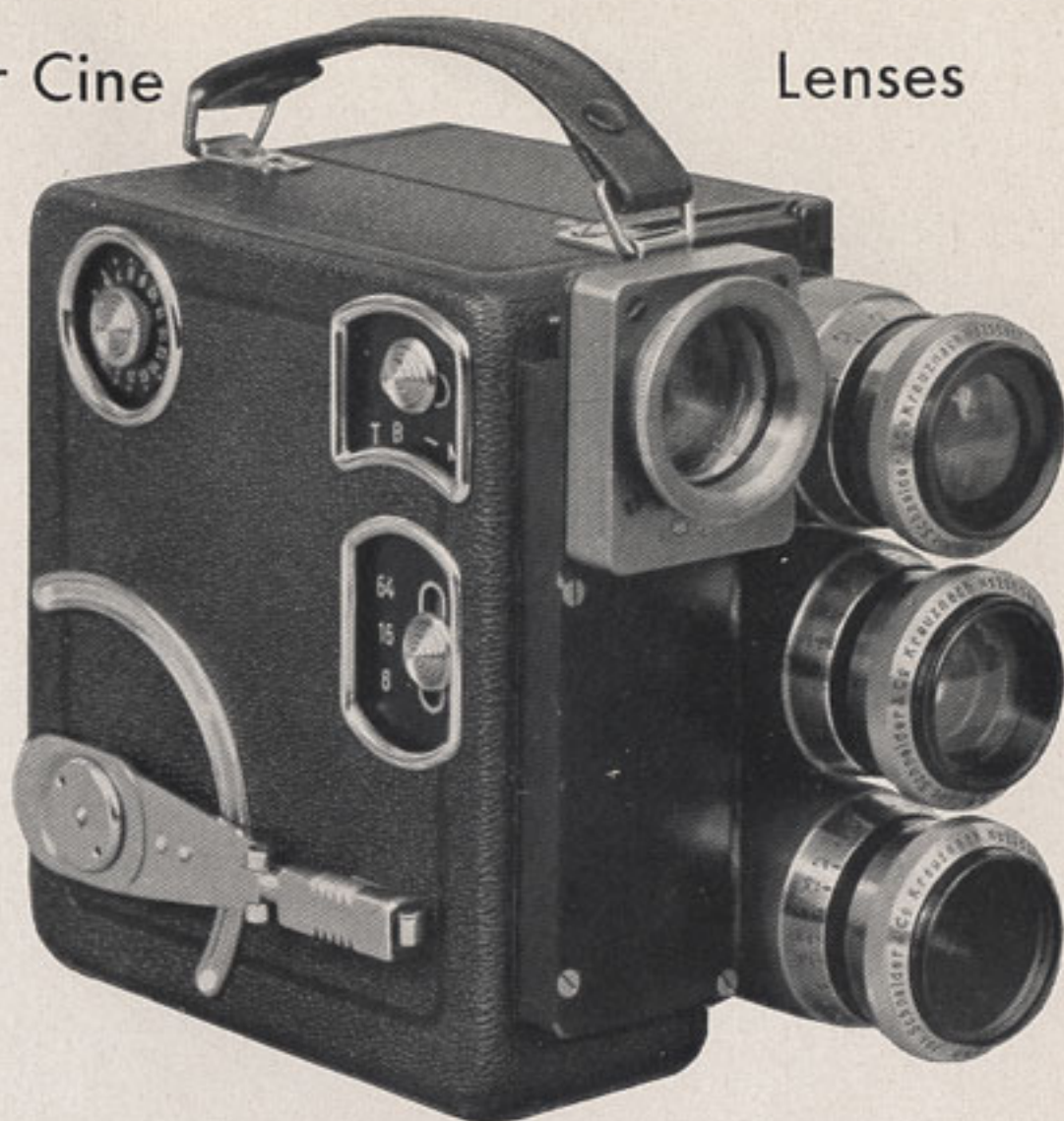
Equivalent Focal Length		Aperture $f/...$	Interchangeable to fit Xenar f:3.5 mm	Size of plate covered in.	Size of shutter in.	Exterior Diameter of shutter in.
mm	in.					
75	3	3.8	—	16 mm sub- standard-film	special	—
100	4	3.8	—		special	—
180	$7\frac{1}{8}$	4.5	105 and 120	$3\frac{1}{2} \times 2\frac{1}{2}$	I/S	$2\frac{13}{16}$
240	$9\frac{1}{2}$	4.5	150	$4\frac{3}{4} \times 3\frac{3}{4}$	II/5	$3\frac{1}{16}$



# Schneider Cine

# Lenses

**Schneider Xenon**  
**f:1.3:1.5:2.0**  
**Schneider**  
**Tele-Xenar f:3.8**



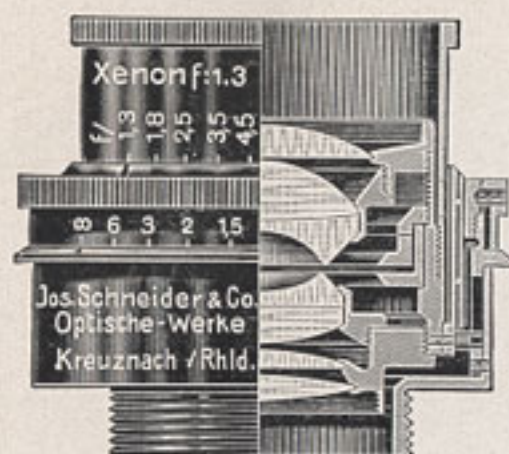
Cine Camera  
[Siemens & Halske, Berlin Type D] equipped with Schneider Xenon and Tele-Xenar Lenses.

The universality of application which the movie maker is requiring from a modern substandard cine equipment, made it necessary to improve more and more the optical systems of this camera. The movie maker must have films of highest definition to effect a large projection on the white screen, all that to derive profit as much as possible from the increased intensity of brightness of the modern cine projectors. Our super-speed cine lenses Xenon and Tele-Xenar are already giving at full aperture a maximum of definition, so it is not necessary to work with small apertures if pictures of brilliancy and sharpness are desired. With Schneider lenses good pictures can be obtained, even under unfavorable light conditions. — The Schneider Cine-Lenses Xenon and Tele-Xenar with their five, six and still more glasses represent complicated optical systems giving pictures of unrivalled quality. The negatives are sharp right up to the margin, of high brilliancy and abundance of details.



# Schneider Xenon f:1.3, :1.5

Patent appld.



Xenon f:1.3 in special focussing mount

The **Xenon f:1.3** is a fine seven-lens, half-cemented and unsymmetrical Anastigmat which within the reach of its serviceable angle of view yields negatives sharp as a needle right up to the corners, so that enlargements can be made on a very large scale.

Particular attention is paid to the elimination of spherical and chromatical, aberrations and zones. Astigmatism, curvature of field and coma are nearly not at all existent.

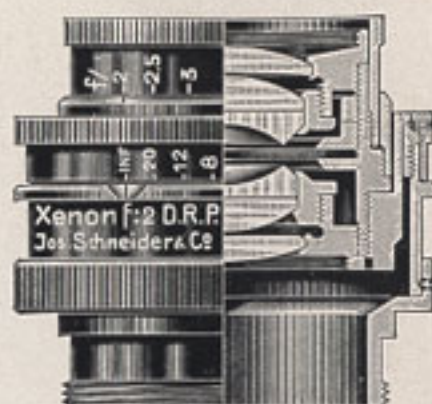
Owing to its splendid correction, the **Xenon f:1.3** is useful not only for black moving picture taking, but also for obtaining very clear and brilliant color films after the Kodacolor and Vitacolor method.

Schneider **Xenon f:1.3, :1.5** is made in the following focal lengths.

Equivalent Focal Length		Aperture f/...	For the sub-standard film
mm	in.		
25	1	1.3	16 mm sub-standard film
25	1	1.3	16 mm sub-standard film
50	2	1.5	35 mm Normal standard film



## Schneider Xenon f:2



Schneider Xenon f:2 in special focussing mount

For some years past, the **Xenon f: 2** (German Patent Nr. 439556) is considered as a standard amongst anastigmats for movie-work. It is already used by a great many of amateur and professional operators with noteworthy success. **Xenon f: 2** is known and appreciated by all experts as cine picture taking lens of high value, owing to its large aperture and the splendid picture quality it is yielding. Renowned running films of German and American origin are made with the **Xenon**.

Amongst the short focus lenses, the **Xenon f:2** is, besides the **Xenon f:1.3**, **f:1.5** the very best lens for taking moving pictures on the 16 mm sub-standard film. On account of its extraordinary efficiency, it enjoys a great favor of all those who are fond of working with sub-standard films. Leading manufacturers of M. P. cameras use the **Xenon** constantly and carry it in stock. The figure shows the **Xenon f:2**, 25 mm, in standard micrometer mount.

**Schneider Xenof: 2** is made of the following focal lengths and apertures:

Equivalent focal Length		Aperture	Plate sharply covered at full aperture
mm	in.	f/ . .	in.
20	$\frac{25}{32}$	2.0	Sub-standard film Pathé-Baby
25	1	2.0	16 mm sub-standard film
35	$1\frac{3}{8}$	2.0	35 mm standard films
45	$1\frac{3}{4}$	2.0	$1\frac{9}{16} \times 1\frac{3}{16}$
50	2	2.3	$1\frac{9}{16} \times 1\frac{3}{16}$
50	2	2.0	$1\frac{9}{16} \times 1\frac{3}{16}$





Photo taken by Magnus Iken, Bremen with Schneider Xenon 1:2.0 f=4.5 cm





Photo taken by Dr. W. Kross, Berlin with Schneider Xenon 1:2.0  $f=4.5$  cm



# Schneider Supplementary Lenses »ISCO« for Xenar and Radionar.



Focal Length without Supplementary Lens		These lenses lengthen the focus and produce enlarged images of						These lenses shorten the focus and give reduced images of			
		x 1.35		x 1.7		x 1.9		x 0.8		x 0.7	
		New focal length obtained									
		A		B		C		D		E	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
75	3	105	4	125	4 <sup>3</sup> / <sub>4</sub>	—	—	60	2 <sup>3</sup> / <sub>8</sub>	—	—
90	3 <sup>1</sup> / <sub>2</sub>	120	4 <sup>3</sup> / <sub>4</sub>	150	6	175	6 <sup>3</sup> / <sub>4</sub>	75	2 <sup>3</sup> / <sub>4</sub>	—	—
105	4 <sup>1</sup> / <sub>8</sub>	135	5 <sup>1</sup> / <sub>3</sub>	170	6 <sup>3</sup> / <sub>4</sub>	200	7 <sup>3</sup> / <sub>4</sub>	90	3 <sup>1</sup> / <sub>2</sub>	—	—
120	4 <sup>3</sup> / <sub>4</sub>	165	6 <sup>1</sup> / <sub>4</sub>	200	7 <sup>3</sup> / <sub>4</sub>	220	9	100	4	—	—
135	5 <sup>1</sup> / <sub>4</sub>	180	7 <sup>1</sup> / <sub>4</sub>	230	9	265	10			110	4
150	6	205	8	260	10 <sup>1</sup> / <sub>4</sub>	290	11 <sup>1</sup> / <sub>2</sub>			120	4 <sup>3</sup> / <sub>4</sub>
165	6 <sup>1</sup> / <sub>2</sub>	220	8 <sup>1</sup> / <sub>2</sub>	280	11	320	12 <sup>5</sup> / <sub>8</sub>			120	4 <sup>3</sup> / <sub>4</sub>
180	7 <sup>1</sup> / <sub>8</sub>	240	9 <sup>1</sup> / <sub>2</sub>	300	11 <sup>3</sup> / <sub>4</sub>	340	13 <sup>3</sup> / <sub>8</sub>			130	5
195	7 <sup>5</sup> / <sub>8</sub>	260	10 <sup>1</sup> / <sub>4</sub>	330	13	370	14 <sup>1</sup> / <sub>2</sub>			140	5 <sup>1</sup> / <sub>2</sub>
210	8 <sup>1</sup> / <sub>4</sub>	280	11	360	14 <sup>1</sup> / <sub>4</sub>	400	15 <sup>3</sup> / <sub>4</sub>			150	6
Expos. Factor		x 2		x 3		x 3.5		x 0.6		x 0.5	

For use, the supplementary lenses are put upon the front part of the lens mount until the catch is reached. Then it must be stopped down for views at long distance to f:8 up to f:16.0, for views at short distance to f:16 up to f:22. After having set the stop, focussing and exposure take place. The exposure times are ascertained as follows: The exposure time for the lens without supplementary lens, but with the stop adjusted, is multiplied by the exposure factor set forth in the above table for the corresponding supplementary lens. When ordering Schneider Supplementary Lenses, it is absolutely necessary to give not only particulars as to the desired lens, but also to indicate the lens number and the exact diameter of the front lens. D and E types cannot be recommended for lenses faster than f:4.5.





"Matterhorn" Photo taken by Dr. P. Wolff, Frankfurt a. M. with Schneider Xenar 1:4.5  $f=30$  cm and Supplementary Lens B equivalent focal length of the combination 20 inch. 50 cm.



# Schneider Supplementary lenses

for Portraiture

Yielding wonderfully soft negatives with increased depth of focus and a very good perspective **for Schneider Xenar f: 4.5.**

Focal Length without Supplementary Lens		Image Enlargement					
		$\times 1.35$		$\times 1.7$		$\times 1.9$	
		Focal length obtained					
		A		B		C	
mm	in.	mm	in.	mm	in.	mm	in.
240	9 <sup>1</sup> / <sub>2</sub>	310	12	400	15 <sup>3</sup> / <sub>4</sub>	450	17 <sup>3</sup> / <sub>4</sub>
270	10 <sup>5</sup> / <sub>8</sub>	360	14 <sup>1</sup> / <sub>4</sub>	460	18	500	20
300	11 <sup>3</sup> / <sub>4</sub>	400	15 <sup>3</sup> / <sub>4</sub>	500	20	550	21 <sup>5</sup> / <sub>8</sub>
Factor of exposure		$\times 2$		$\times 3$		$\times 3.5$	

## Schneider-Schott Yellow Filters Schneider Autochrome Filters

We carry in stock Yellow Filters in three densities: light, medium, dark, made of the specially tested Jena Glass, which offers the advantage that the adsorption of light is passing to the blue up to the ultra violet part, hence resulting shorter times of exposure. For natural colour photography on Lumière autochrome plates, specially graduated Autochrome Filters are indispensable, which also can be had from us. The prices for the different sizes are given in our price-list.

Failures in picture-taking discourage every photographer. The use of the **Isco exposure table** will save mistakes and discouragement.



## Try out a Schneider Lens

We will make any reasonable arrangement to promote a fair trial of the lenses. The lens stands on its own merits. Your dealer can get the lens for you.

## General Information

Schneider Lenses are furnished in barrel for reflex cameras, or in shutters, as listed. They may be fitted to practically any make of shutter. Compact sunk mounts are listed. Precise focusing mounts are also offered for cameras with fixed extensions, or to accomplish special tasks or fittings.

For stereo work, lenses may be secured in accurately matched pairs at a small extra cost.

Supplementary lenses to lengthen or shorten focal lengths of **Xenar** or **Radionar** are listed. They give convertibility, convenience and quality, at prices far below convertible types.

To order a filter, a supplementary or a cap, it saves time to give the exact diameter of the lens cell to be fitted. Also, state what lens, and say whether in barrel, shutter, or sunk mount. With filter orders, give density number you want.

To order extra flanges, specify the series name and focus, and state whether you mean flange for barrel, sunk mount, or the shutter flange. A tracing of inside and outside diameter made carefully will avoid delay and confusion.

**TRY OUT A SCHNEIDER LENS BEFORE YOU BUY**





Photos taken with **Miniature Cameras** and **Schneider Small-Picture Lenses** giving pictures of unrivalled quality. The negatives are sharp right up to the margin, of high brilliancy and abundance of details.



Photo 1: Taken by Ing. Willy Göpel, Stockholm Sweden with Schneider Xenar 1 : 2, 9 f = 5 cm.

Photo 2: Taken by Dr. P. Wolf, Frankfurt, Germany with Schneider Xenon 1 : 2, 0 f = 4,5 cm

Photo 3: Taken by Dr. P. Wolff, Frankfurt, Germany with Schneider Xenon 1 : 2, 0 f = 4,5 cm.



Photo 4: Taken by Dr. K. M. Pokorny, Oskusz, Poland with Schneider Xenon 1 : 2, 0 f = 4,5 cm.

Photo 5: Taken by Ing. Willy Göpel, Stockholm, Sweden with Schneider Xenar 1 : 2, 9 f = 5 cm.

