Voigtländer

Professional Lenses

HELIAR
UNIVERSAL-HELIAR
APO-LANTHAR
TELOMAR
APO-SKOPAR

Voigtländer

HELIAR 1:4,5

The Lens for the Experts

Good portraiture depends on two factors: the photographer and – his lens. Expert knowledge and an artistic touch are not enough; it also needs a professional lens specially suitable for portraits. Such a lens, widely acclaimed in innummerable studios all over the world, is the HELIAR. The incomparable depth of HELIAR pictures and their famous delicate definition are unique.

Every detail is reproduced, but – and that is important – not with that searing sharpness which shows up every smallest wrinkle and pore.

The HELIAR yields pictures as the customer – and above all the ladies – want them: live, delicate, and just a little flattering. That is why this lens is also popular for fashion and advertising shots.

Photo: Zoltan Glass

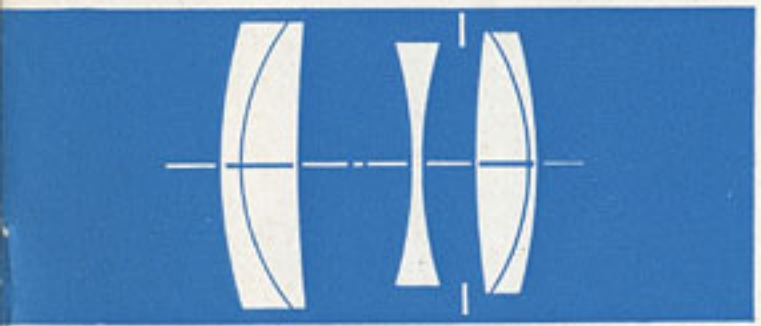
Occasionally you may also want to have a real soft-focus effect. For such occasions we recommend the

UNIVERSAL-HELIAR

with adjustable central component. In the zero position this yields the full definition of the HELIAR. In addition you can however adjust the central component to obtain any desired degree of softness.

Summary of Shutter speeds

Synchro-Compur 0	T, B,	1 to 1/500 second
Synchro-Compur I	T, B,	1 to 1/400 second
X-Compur II	T, B,	1 to 1/200 second
X-Compound III	T, B,	1 to 1/100 second
X-Compound IV	T, B,	1 to 1/75 second
X-Compound V	T, B,	1 to 1/50 second



HELIAR f/4.5

Focal length cm.	Focal length in.	For Picture size in.	Lens Hood dia. (mm).	Standard Mount (SM) or Shutter	Order No.
15	6	3½ x 5½	42	SM	208/51
15	6	3½ x 5½	42	Synchro-Compur I	208/33
18	7⅛	4¾ x 6½	47	SM	210/51
18	7⅛	4¾ x 6½	47	Compur II	210/32
21	8¼	5 x 7	57	SM	211/51
21	8¼	5 x 7	57	Compound III	211/32
24	9½	5 x 8½	70	SM	212/51
24	9½	5 x 8½	70	Compound IV	212/32
30	11¾	6½ x 8½	85	SM	213/51
30	11¾	6½ x 8½	85	Compound V	213/32

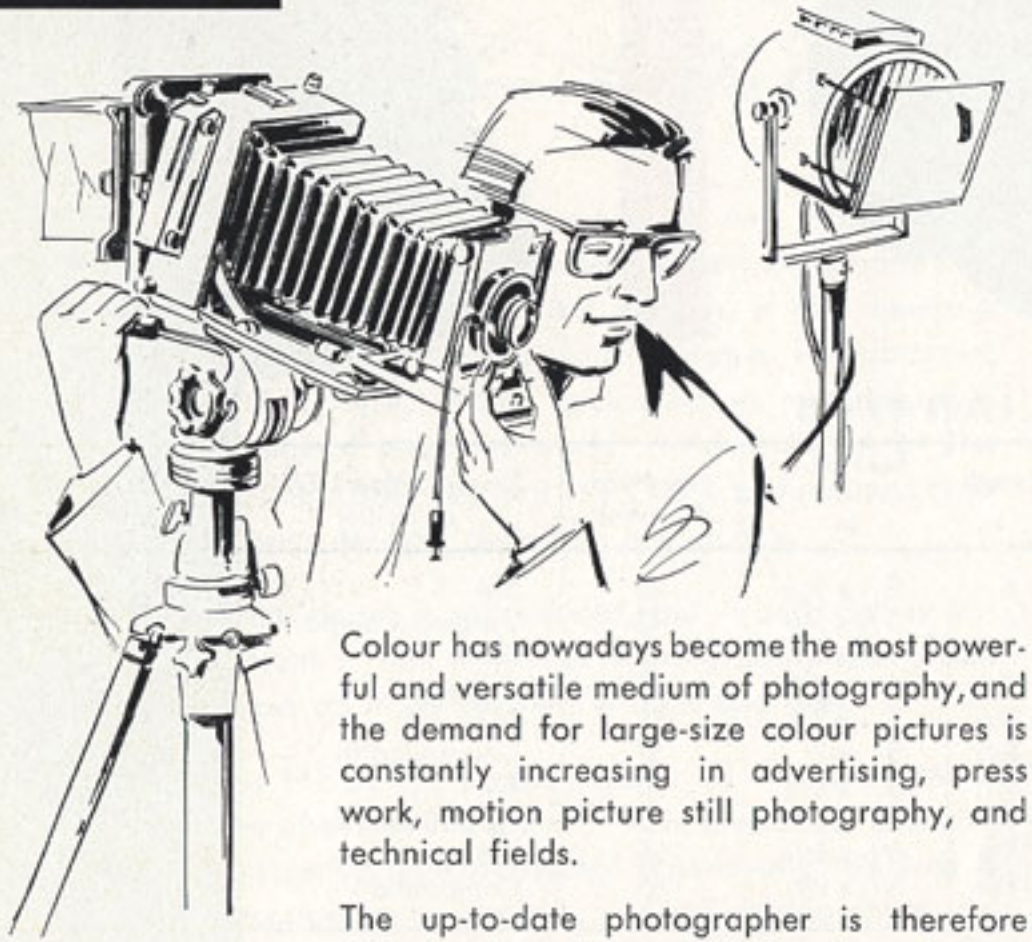
UNIVERSAL-HELIAR f/4.5

Focal length Normal Pos. cm.	Focal length Normal Pos. in.	Focal length Max. Adjust. cm.	Focal length Max. Adjust. in.	For Picture size in.	Lens Hood dia. (mm).	Mount	Order No.
30	11¾	25	10	6½ x 8½	85	SM	213/71
36	14	30	11¾	7 x 9½	98	SM	214/71
42	16½	35	13¾	8½ x 10½	116	SM	215/71

The Top-class Lens for the Colour Specialist

Voigtländer

APO-LANTHAR 1:4,5



Colour has nowadays become the most powerful and versatile medium of photography, and the demand for large-size colour pictures is constantly increasing in advertising, press work, motion picture still photography, and technical fields.

The up-to-date photographer is therefore virtually forced to specialise in colour – often it becomes his main livelihood. In practice that means complete coverage of the subject of colour in all respects – in artistic approach, photographic technique, and above all in the lens.

Photo: L. d'Heureuse

For this versatile field of photography Voigtländer have designed the APO-LANTHAR – a five-element high-class anastigmat lens which is fully corrected for the three main colour bands of the spectrum, yet offers a comparatively large maximum aperture of f/4.5. Its design is based on the principles used in the apochromatic correction of process lenses.

In view of its high speed the APO-LANTHAR is thus eminently suitable for shots of live subjects with short exposure times. It is a universal lens in the best sense of the word, and guarantees perfect definition over the whole image field, together with maximum brilliance and contrast, as well as absolutely faithful colour reproduction.

With large-size pictures such image quality is a special asset for photo-mechanical reproduction. In multi-colour block making it not only relieves the engraver of a great deal of work, but also leads to noticeably higher printing quality.

APO-LANTHAR f/4.5

Focal length cm.	Focal length in.	For Picture size in.	Lens Hood dia. (mm).	Shutter *	Order No.
10.5	4 1/8	2 1/2 x 3 1/2	42	Synchro-Compur 0	282/33
15	6	3 1/2 x 4 3/4	42	Synchro-Compur I	283/33
21	8 1/4	5 x 7	57	X-Compound III	285/32
30	11 3/4	6 1/2 x 8 1/2	90	X-Compound IV	287/32

* For shutter speeds see page 3.

Tele lens

Voigtländer

TELOMAR 1:5,5

PRESS WORK
ANIMALS
TECHNICAL SHOTS
SPORTS

There are many photographic fields which cannot be covered without a long-focus lens. The press man needs it just as much at the race track as the nature photographer for his wild-life shots – it is simply the tool of their trade.

In practice this special lens is therefore required whenever distant subjects have to be reproduced on a large scale, and where it is not possible to approach the subject sufficiently closely. In addition the lens is also ideal when considerations of perspective call for an increased shooting distance.

The ideal lens for this purpose is the TELOMAR, a five-element anastigmat of true telephoto construction, available in focal lengths of 18, 24, und 36 cm. (7 1/8, 9 1/2, and 11 3/4 in.). The novel optical design has resulted in an extensive reduction of all aberrations, and in a significant increase in resolving power and detail contrast over the whole image area.

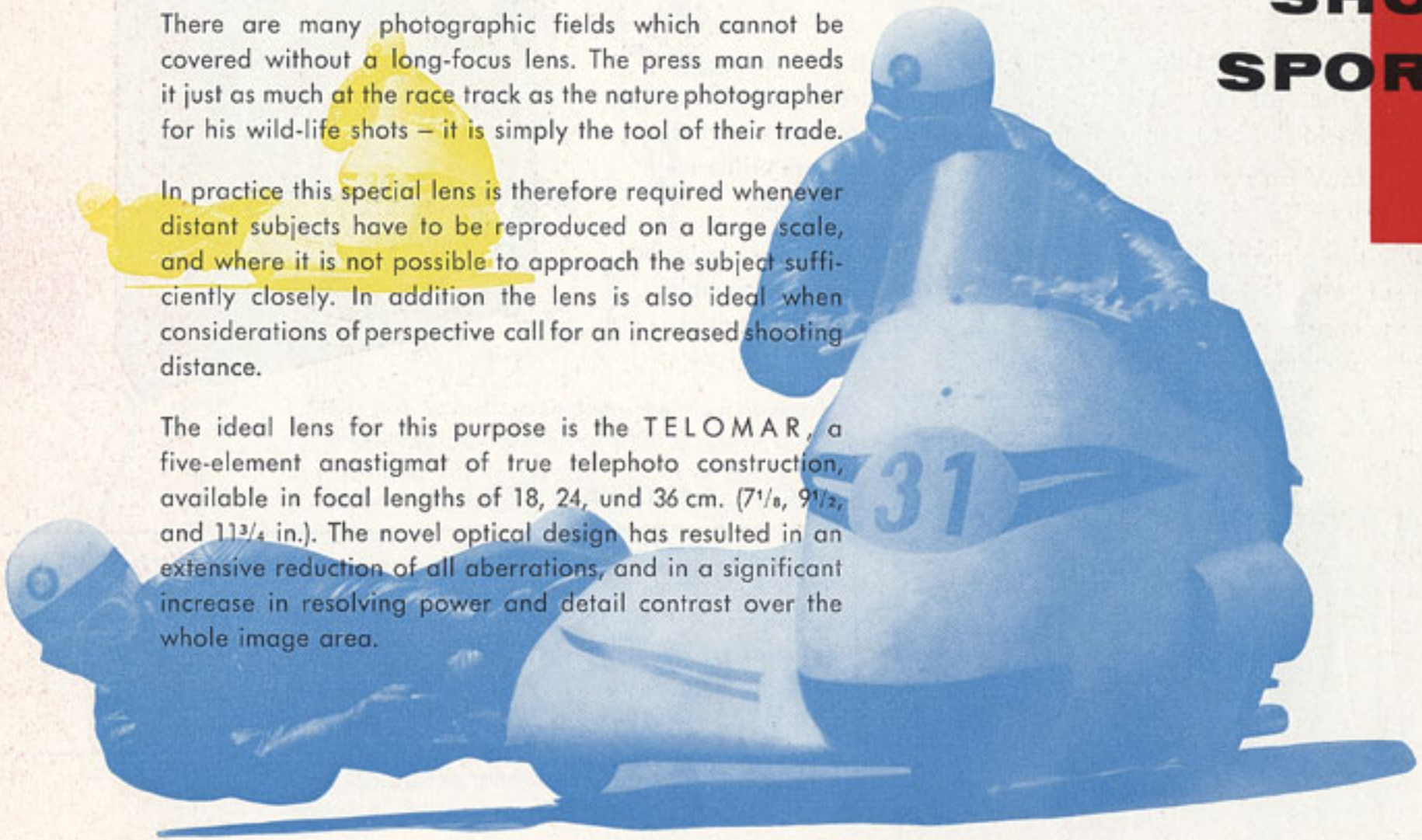
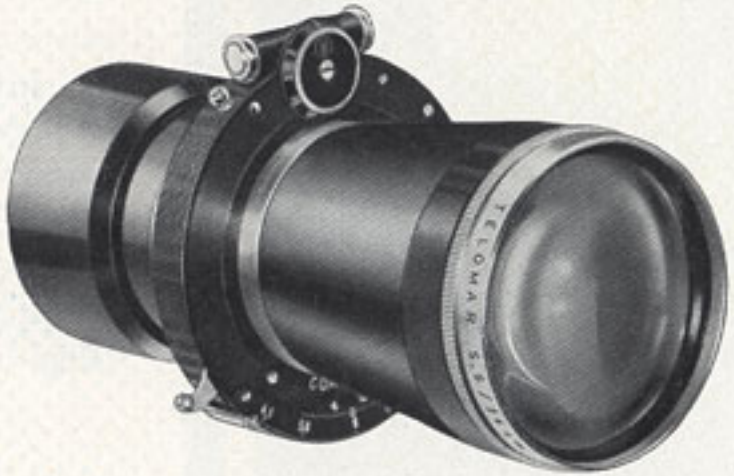


Photo: Schünemann



TELOMAR f/5.5

Focal length cm.	Focal length in.	For Picture size in.	Lens Hood dia. (mm).	Shutter *	Order No.
18	7 1/8	2 1/2 x 3 1/2	42	Synchro-Compur 0	252/33
24	9 1/2	3 1/2 x 4 3/4	51	Synchro-Compur I	253/33
36	11 3/4	3 1/2 x 4 3/4	70	X-Compound III	254/32

* For shutter speeds see page 3.

Process Apochromat

Voigtländer

APO-SKOPAR 1:9

The characteristic qualities of all Voigtländer lenses are found to a special degree in this special process apochromat lens: maximum pin-sharpness over the whole image area.

The APO-SKOPAR is the ideal solution to the involved problems of eliminating the geometric and chromatic aberrations to the greatest extent in the centre of the field as well as at the edge.

The correction is of such a high order, that the lens yields the maximum possible resolution not only in the centre of the field, but throughout an angle of coverage that meets the widest technical requirements. And it does that at the full aperture of f/9. During focusing the brilliant ground glass screen image thus shows exceptional definition and brilliance at full aperture, with a completely undistorted image right into the corners of the field.

By choosing special optical glasses of particularly favourable dispersion characteristics it became possible to eliminate the secondary spectrum and to ensure absolute coincidence of the component colour images over a wide spectral range. Thus colour separations register exactly even for large-size multicolour printing.

The Voigtländer APO-SKOPAR is available either in a standard mount with iris diaphragm, or in a shutter. There is a special provision for introducing filter foils and special stops. The lens mount carries identical screw threads on both sides to permit the lens to be mounted back-to-front on the camera and reversing mirror for enlargements. This is because on copying at a greater scale than same-size the subject-lens distance becomes smaller than the lens-to-film distance (camera extension). In that case the APO-SKOPAR is mounted with the rear facing the original.

Voigtländer

REVERSING MIRRORS

They are an important piece of equipment in process work: they deflect the optical path through 90° and serve mainly for the production of correctly oriented images. Like the APO-SKOPAR lenses, the Voigtländer reversing mirrors are masterpieces of modern optical precision work. They are supported in a rigid cast housing, and are absolutely flat and of high reflective power. The built-in mirror cannot produce any chromatic or astigmatic aberrations whatever, thus preserving the high image quality of the process lens.

The mirror layer is evaporated on to the support in a vacuum, and is protected by an exceptionally thin but glass-hard special layer. This makes the mirror surface resistant to cleaning and tropical climates, as well as to acids and alkalis it is likely to come into contact with in normal use.

The robust cast housing is mounted on the camera with a screw-on ring. An intermediate ring permits rotation of the mirror about the optical axis, and holds it firmly in any position.

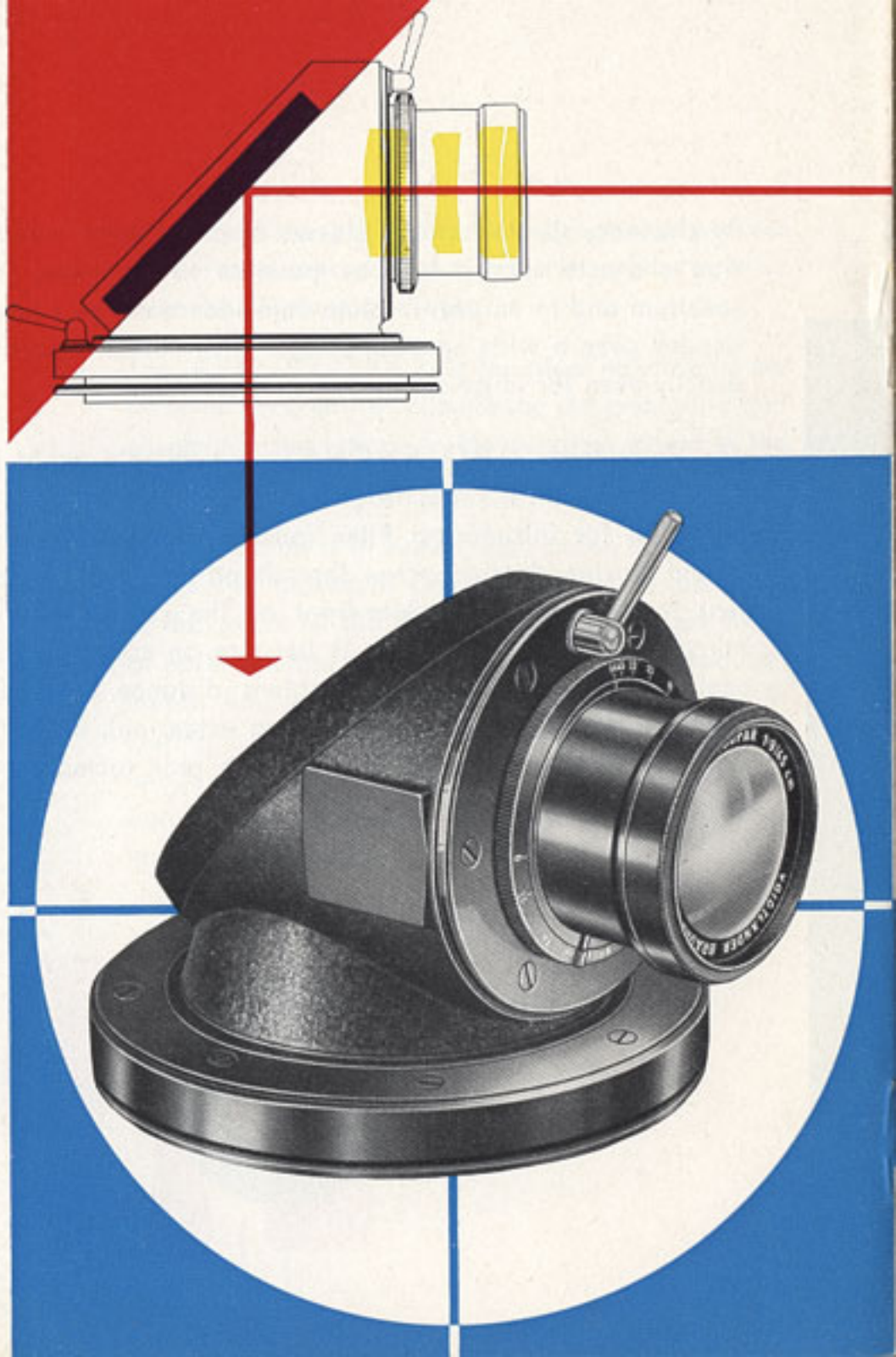


Image Area of APO-SKOPAR Lenses when stopped down f/22

Focal length cm.	Focal length in.	Image area in inches covered for pin-sharp definition at a scale of reproduction of 1 : 1	1 : 2	1 : 3	1 : 5	1 : 10
7.5*	3	3 1/8 x 4 3/4	2 1/2 x 3 1/2	2 1/2 x 3 1/8	2 1/4 x 2 1/4	2 x 2 1/4
15*	6	6 1/2 x 8 1/2	4 3/4 x 6 1/2	4 x 5 1/2	3 1/2 x 4 3/4	3 1/8 x 4
21*	8 1/4	8 1/4 x 10 1/2	6 1/2 x 8	5 1/2 x 6 3/8	4 3/8 x 5 1/2	4 x 5 1/8
21**	8 1/4	8 1/4 x 10 1/2	6 x 7 1/8	5 1/8 x 6	4 x 5 1/2	4 x 4 3/4
30*	11 3/4	11 3/4 x 15 3/4	9 1/2 x 11 3/4	8 1/4 x 10 1/2	7 1/8 x 9 1/2	7 1/8 x 8 1/4
30**	11 3/4	11 3/4 x 15 3/4	8 1/2 x 10 1/2	8 x 9 1/2	6 3/8 x 8 1/2	7 1/8 x 7 1/8
45*	17 3/4	19 1/2 x 23 1/2	13 3/4 x 15 3/4	11 3/4 x 13 3/8	10 1/4 x 13 3/4	9 1/2 x 11 3/4
45**	17 3/4	19 1/2 x 19 1/2	11 3/4 x 15 3/4	11 3/4 x 11 3/4	9 1/2 x 11 3/4	9 1/2 x 9 1/2
60*	23 1/2	27 1/2 x 31 1/2	19 1/2 x 23 1/2	17 3/4 x 19 1/2	15 3/4 x 17 3/4	13 3/4 x 15 3/4
60**	23 1/2	25 1/2 x 25 1/2	17 3/4 x 19 1/2	15 3/4 x 17 3/4	13 1/4 x 15 1/4	11 3/4 x 15 3/4

* Without reversing mirror
** With reversing mirror

Approximate Diameter (inches) of Image Circle Covered at Various Scales

Scale			1 : 1		1 : 2		1 : 3		1 : 5	
Focal length cm.	Focal length in.	Working Stop	W/O M.	W. M.	W/O M.	W. M.	W/O M.	W. M.	W/O M.	W. M.
7.5	3	f/22	6	—	4 3/8	—	3 1/4	—	3 1/8	—
15	6	f/22	10 1/8	—	8	—	6 5/8	—	6	—
21	8 1/4	f/22	13 3/4	13 3/8	10	9 1/2	8 1/4	8	7 1/8	6 5/8
30	11 3/4	f/22	21	19 3/4	15	13 3/4	13 3/8	12 1/4	11 3/4	10 5/8
45	17 3/4	f/22	30 1/2	28 1/4	21	19 3/4	19 3/4	18	17 3/8	15
60	23 1/2	f/22	41 1/4	37	28 1/2	26 1/4	26 1/4	25	23 1/2	20 1/2

W/O M. = without mirror
W. M. = with mirror

APO-SKOPAR f/8

Focal length cm.	Focal length in.	Lens Hood dia. (mm).	Standard Mount (SM) or Shutter *	Order No.
7.5	3	32	SM**	247/51
15	6	32	SM**	248/51
15	6	32	Synchro-Compur 0**	248/33

APO-SKOPAR f/9

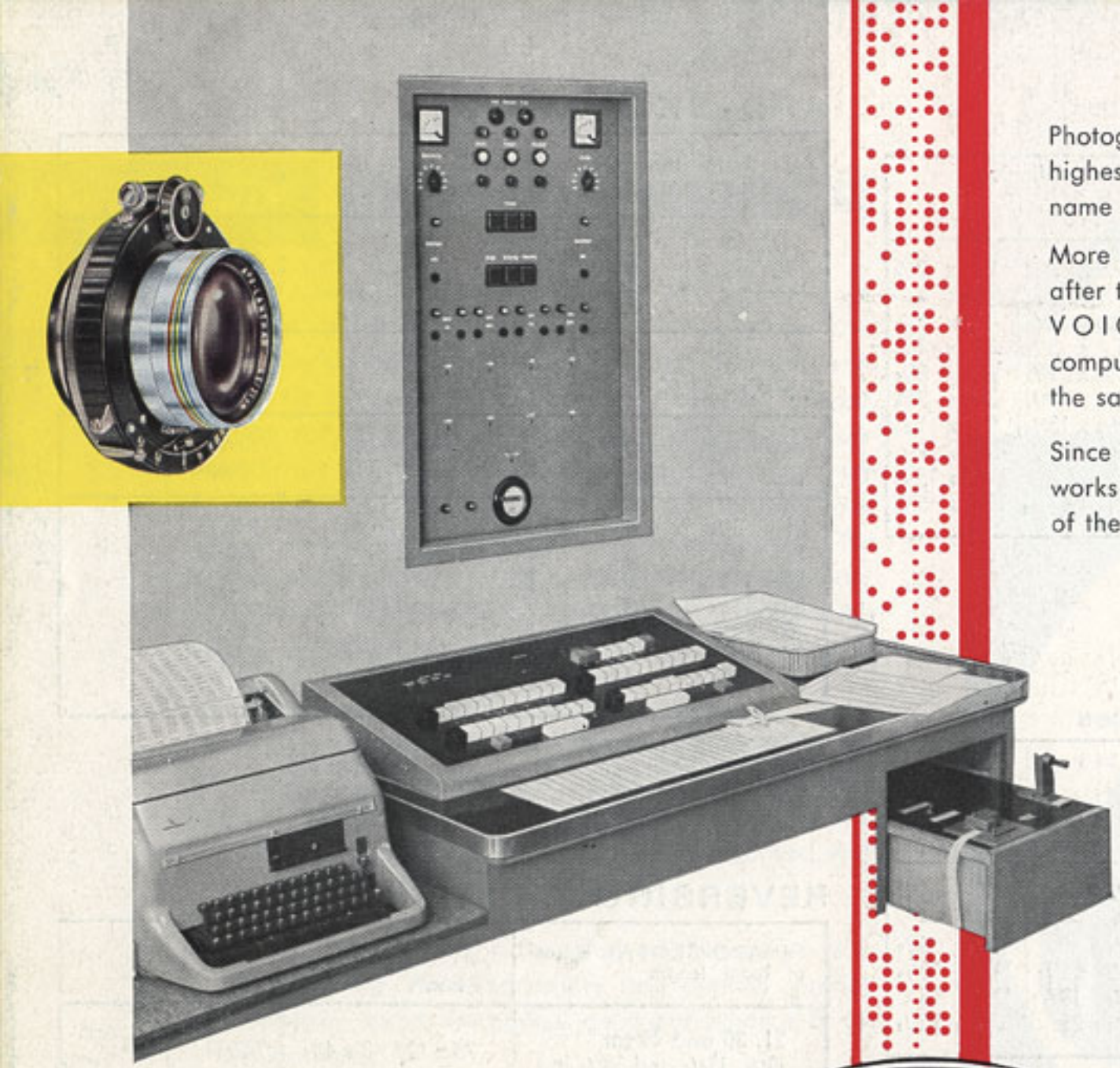
Focal length cm.	Focal length in.	Lens Hood dia. (mm).	Standard Mount (SM) or Shutter *	Order No.
21	8 1/4	55	SM***	240/51
21	8 1/4	55	X-Compound III**	240/32
30	11 3/4	55	SM***	242/51
30	11 3/4	55	X-Compound III**	242/32
45	17 3/4	75	SM***	243/51
45	17 3/4	75	X-Compound IV**	243/32
60	23 1/2	94	SM***	244/51

* For shutter speeds see page 3.
** With iris diaphragm, screw mounting ring, and cap.
*** With iris diaphragm, screw mounting ring, cap, and a set of push-in stops, slotted stop (for colour filters), and wooden storage box.

REVERSING MIRRORS

For APO-SKOPAR lenses of focal length	Size mm.	Size in.	Order No.
21, 30 and 45 cm. (8 1/4, 11 3/4 and 17 3/4 in.)	75 x 120	3 x 4 3/4	243/11
60 cm (23 1/2 in.)	100 x 155	4 x 6 1/8	244/11

Voigtländer reversing mirrors are also supplied for lenses of other makes of similar specifications.



Photographic progress, from its very beginning to the highest present-day level, is firmly tied up with the name VOIGTLÄNDER.

More than a hundred years ago, in 1840 – hardly a year after the invention of photography – PETER FR. W. VOIGTLÄNDER produced the first mathematically computed photographic lens in the world – and at the same time also made the first all-metal camera.

Since then over six million lenses have left the optical works in Brunswick, and found owners in all countries of the world.

Voigtländer high-class lenses have always been – and always will be – the result of extensive theoretical research, carried on nowadays with advanced computing methods and electronic computers. They are made by the most up-to-date production methods and use new types of highly-refractive optical glasses.

Voigtländer high-class lenses incorporate the latest scientific advances and meet famous standards of precision and quality for every imaginable application of photography.

Voigtländer

because the lens is so good

W 3480 - E 1 / 864 ce

Subject to modification
Printed in Germany