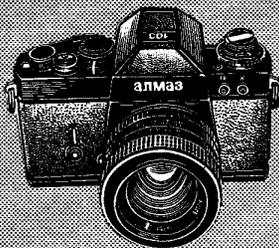
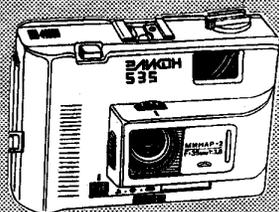
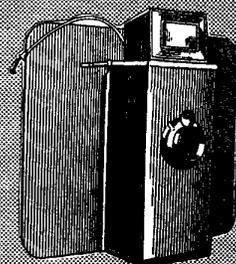
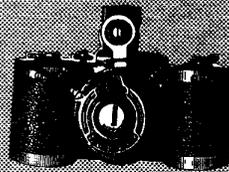


**RUSSIAN  
AND  
SOVIET**



**CAMERAS  
(1840–1991)**

**CATALOGUE**

**RUSSIAN AND SOVIET  
CAMERAS  
(1840-1991)**

**CATALOGUE**

**ISKUSSTVO • ROSTOV-ON-DON**

**1993**

Russian and Soviet Cameras (1840-1991)  
edited and designed by "Iskusstvo" Firm,  
a/box 2704, Rostov-on-Don, 344082 RUSSIA

Author-compiler: **Yuri Ryshkov**  
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This edition is a first attempt to give the collectors a brief historical and technical information about the Russian and Soviet cameras, the history of their manufacturing and the volume of production. The book comprises the period of 1840 - 1991.

This reference book is based on the works of Y.Ryshkov "The Brief History of Soviet Cameras" (1929 - 1991) and A.Syrov "The Camera's Way".

The first part of the book is devoted to cameras constructed by Russian businessmen and engineers in 1840 - 1914 (Russian period); the second part is about the cameras manufactured by the Soviet enterprises in 1929 - 1991 (Soviet period).

The author of the present reference book devotes this work to A.Syrov, the only man in this country who has devoted the years of his life to studying the history of Russian camera construction business.

***Y.Ryshkov***

*P.S.* Prices for Soviet cameras in this catalogue are taken from "McKEOWN'S CAMERAS 1992-1993" (USA) and "THE JESSOP INTERNATIONAL BLUE BOOK 1989-1990" (UK). Unfortunately, some others Russian and Soviet cameras nearly are known and therefore the prices for them are not specified.

# ABBREVIATIONS

**Abbreviations used in the present catalogue  
are as follows:**

**C:** year of manufacture. Dates are often approximate.

**cfps:** cloth focal-plane shutter.

**mfps:** metal focal-plane shutter.

**crf:** coupled rangefinder.

**Qty:** total volume of production.

**s:** seconds.

**exp:** exposure.

**mfg:** manufactured.

**rfr:** rangefinder.

**vfr:** viewfinder.

# I. RUSSIAN CAMERAS

*There was no such sphere of industry as optics and mechanics in the Tsarist Russia. All spares - lenses, shutters, cameras were imported from abroad. Within the period of 1890 - 1914 about half a million of cameras were brought to Russia, which means about 25000 per year.*

*However the Russian businessmen and engineers created a lot of original constructions of shutters, lenses and cameras having considerably influenced the camera construction business.*

*The dates of manufacturing of cameras are not always indicated precisely as far as often they are relative and correspond to the dates of the first mentioning in the press, date of patent, date of a claim to the fifth Dept. of the Russian Techniques Society, date of exhibition, etc.*

## Common Purpose Cameras

### **A.F.Grekov's Camera.**

C 1840. The first Russian camera. Box-type. Monocular lens. Consisted of two boxes, one coming into another for focusing. Daguerreotype developing is envisaged. The two more boxes are added for iodizing and developing in mercury steam. Some dozens of such cameras were manufactured in workshops of A.F.Grekov to photographers' orders.

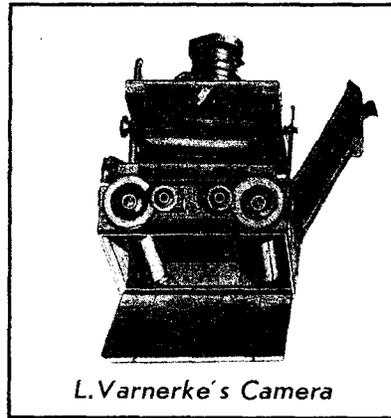
### **S.L.Levitsky's Camera.**

C 1847. Box-type camera. Bellows are used for focusing for the thirist time.

### **I.F.Alexandrovsky's Camera.**

C 1854. An attempt of stereo camera design. Two boxes, one going in another. Ground glass

focusing. A wooden partition inside. Two lenses screwed into rings. Variable distance between lenses by planks .



*L.Varnerke's Camera*

### **L.Varnerke's Camera.**

C 1877. Bellows-type camera.

The lens and bellows are inside the drum. The front board with the lens is movable for focusing by the bolt. The drum has covers. The block revolves on the axis with a handle. Inside the block there are two boxes: for a reserve of plates (up to 70), and for exposed plates. Adjustable speed shutter (by spring tense). Plate counter. Double-exposure block system.

**V.I.Sreznevsky's Stereo Camera.**

C 1883. A compact type camera. The capacity - 30 plates 3" x 2<sup>1</sup>/<sub>4</sub>". Ground glass through lens focusing. Total weight with plates - 30 pounds. The camera was used during the expedition of N.M.Przewalsky in Central Asia.

**V.I.Sreznevsky's Snap-Shot Camera.**

C 1884. The mechanism of exact focusing is used. Additional sight-vfr. Scale of distances. Roll negative paper cassette with exp counter.

**Y.I.Sreznevsky's Special Marine-Shooting Camera.**

C 1886.

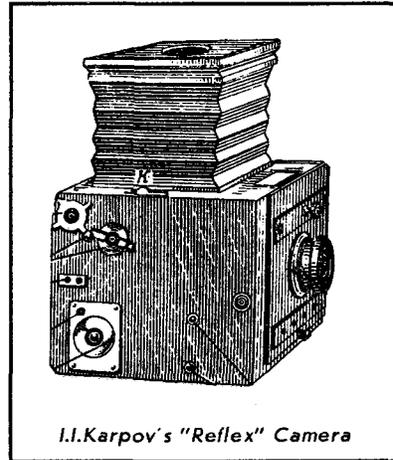
**Y.P.Sabaneyev's Stereo Camera.**

C 1883. A common two-lens bellows construction. Ground glass through lens focusing.

**K.Brandel's Hand Camera.**

C 1889. Voyage-aimed revolver type camera. Negative paper

removable cartridge (carton box). The paper is stretched upon metal frames. Capacity of cartridge is 25 frames. Complete with a light-proof.



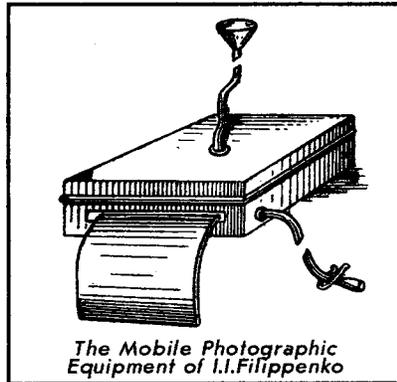
**I.I.Karpov's "Reflex" Camera.**

C 1896. One-lens reflex camera, 9x12 cm or 13x18 cm plates. Capacity - 12 plates. Decentering of the lens is possible. Curtain shutter with variable speed. Numeric codes are used to indicate the shutter speed. In the 90's the camera was manufactured by Reis's and Karpov's workshops in Petersburg.

**I.I.Karpov's "Rossia" (Russia) Photobinocular.**

C 1896. Stereo camera on the base of "Reflex" camera (see above). Capacity - 36 plates 4.5x6 cm. Two equal-focus anastigmatic lenses. Plates counter. Lens

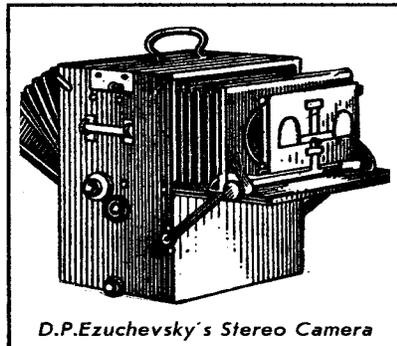
peculiarity is a cassette for sensible roll paper.



*The Mobile Photographic Equipment of I.I.Filippenko*

**The Mobile Photographic Equipment of I.I.Filippenko.**

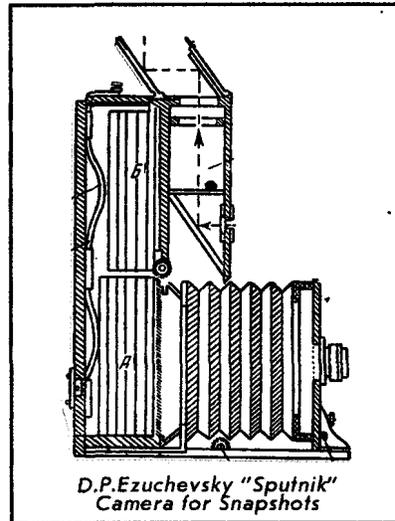
C1885. Box-type. The bags used instead of cassettes allow to move the exposed plates to a special equipment for developing. Disc clock-work spring shutter M and B. The M speed depends on the tense of the spring.



*D.P.Ezucevsky's Stereo Camera*

**D.P.Ezucevsky's Stereo Camera ("Expedition Outfit").**

C 1875 - 1879. The bronze medal of Paris exhibition, 1878. Box-type. 12 plates 170x85mm. Automatic change-of-plate mechanism. Ground glass focusing. Interchangeable lenses.



*D.P.Ezucevsky "Sputnik" Camera for Snapshots*

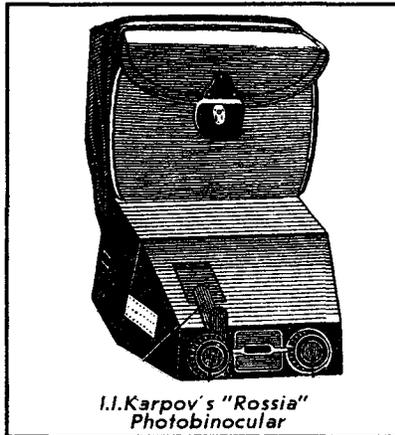
**D.P.Ezucevsky's "Sputnik" Camera for Snapshots.**

C 1896. Bellows-type. The reserve of plates: 8 in A box, 7 in B box. The change of plates is achieved by special turns and inclines of the camera. Interchangeable lenses. Mirror and direct vfrs. The clock-work spring shutter with winding head allows to expose the landscape twice as long as the sky. Shutter release button.

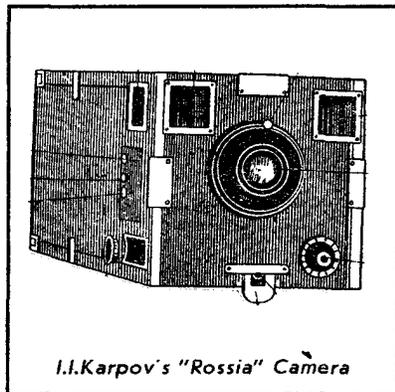
**Izmailov's Camera.**

C 1880. Circular cartridge drum camera with vfr

Mono-speed curtain shutter. Adjustable aperture. Mfg by Reis's and Karpov's workshops.



*I.I. Karpov's "Rossia" Photobinocular*



*I.I. Karpov's "Rossia" Camera*

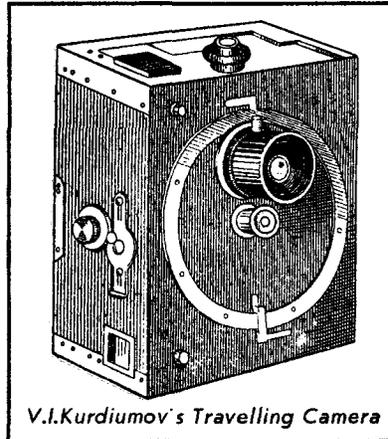
**I.I. Karpov's "Rossia" Camera.**

C 1896. Based on the "Reflex" camera (see above). Capacity - 48 plates 9x12 cm (or framed film 9x12 cm). Curtain shutter with variable speed. Numeric codes are used to indicate the speed. Mfg by

Reis's and Karpov's workshops.

**I.I. Karpov's Tripod Camera.**

Bellows type cameras for studio shooting. Mfg by Reis's and Karpov's workshops.



*V.I. Kurdiumov's Travelling Camera*

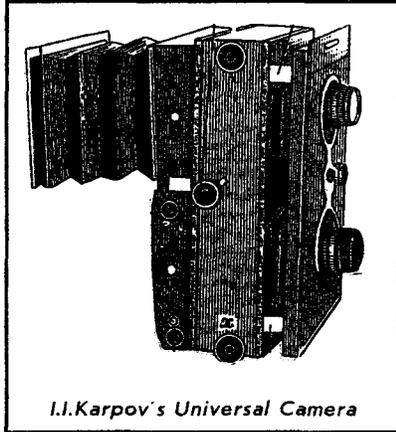
**V.I. Kurdiumov's Travelling Camera.**

C 1891. Box type. Movable lens combined with shutter-cocking mechanism which allows to take two 6x9 cm or four 4.5x6 cm exp on a 9x12 cm plate. Two vfr's. F8.5 cm lens. Science- and voyage-aimed camera. Mfg by I.I. Karpov's workshop.

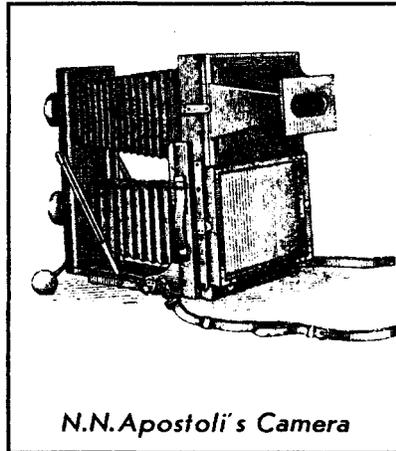
**I.I. Karpov's Universal Camera.**

C 1896. Two gold awards at the All-Russia exhibition in 1896 (One for each format). Twin-lens double-box bellows camera. Synchro decentering of the lenses. Swing back side with a plate and vfr. Curtain shutter. Variable shutter speed (No.1-6). Two

modifications: 9x12 cm and 12x16.5 cm. The 9x12 cm model could be used as a stereo camera (the upper lens used for shooting). Were complete with 6 album double cassettes. Mfg by I.I.Karpov's and I.S.Aksakov's workshops.



*I.I.Karpov's Universal Camera*



*N.N.Apostoli's Camera*

#### **N.N.Apostoli's Camera.**

C 1890. Twin-lens double-box type. Two identical lenses, the upper is for sighting. Mfg by I.I.Karpov's and I.S.Aksakov's workshops.

#### **"Liubifel" (Russ. "amateur") Camera.**

Twin-lens double-box camera, analog of Apostoli's Camera (see above).

#### **A.P.Ivashentsev's Camera.**

Double-box type. Specialized for sport events shooting.

#### **I.Polyakov's Camera.**

C 1899. The photocell construction is used for the first time to define the shutter speed. The shutter is connected with selenium resistance. The photocell slide-valve is synchronized with the shutter and is held opened by solenoid while the selenium cell is electroconductive. The current is interrupted when photosensitive plate becomes dark under the influence of light, and selenium loses its electroconductivity. The slide-valve closes the photocell together with the shutter. The plate brightens in the darkness, and the mechanism is ready for the next exp. The working model of Polyakov's Camera is unknown, but his invention was used dozens of years later.

**E.Kozlovsky's Colour Shooting Camera** (Three-Shot Camera).

C 1889 (patent) -1901 (working sample). The construction is based on the principle of colours subtraction and is executed subsequently by two mirrors: which reflects  $\frac{1}{3}$  and  $\frac{1}{2}$  of the light beam. The developed three pencils of rays

are projected to three plates through three filters. All three images are focussed simultaneously by three bellows on three sides of the camera. In another modification of Kozlovsky's camera the tree mirrors were placed inside the lens which resulted in smaller size of the camera.

## Special Cameras

**I.Yanovsky's Chrono Camera.**

C 1894. Capacity - 10 plates 30x30mm in metal frames, a wooden plank-shutter moved the plates up the camera's 1 m long body. Was used for research shooting of moving objects (e.g. racing horses).

**I.Yanovsky 's Stereokinograph.**

The design and purpose is the same as of Chrono camera (see above). A Stereokinoscope (combination of stereoscope and stroboscope) was designed by I.Yanovsky specially to watch the pictures made with the stereokinograph.

**V.Dubok's Electrotachyscope.**

C 1891. Camera with an original shutter designed specially for shooting racing horses.

**Y.D.Mendeleyev's Marine Shooting Camera.**

C 1888 (designed). Box type. Long-focus lens. Shutter. Sight-vfr. Designed for large-scale shooting of military vessels. A working sample is unknown.

**"Razvedchik" (Russ. "scout") Camera.**

C the 90's. Designed by V.F.Gelgar. Box type. Sight-vfr. Common lens or through the binocular shooting. Capacity of a cassette - 69x12 cm plates. Developing camera. Adjustable shutter speed. Compass and special scale for panoramic shooting. A compact dark-room was included in the complete set allowing to receive ready prints within 10 minutes. Was used for military purposes.

**"Model G-2 Aeronautic" Camera.**

The modification of V.F.Gelgar's "Razvedchic" camera designed specially for shooting from balloons

and air planes. Was used for military purposes in 1908, 1910 and 1912. In the latest model the time of exp, compass arrow, flight level and angle of slope the to horizon are fixed on the print.

**S.A.Ulianin's Reconnoitring Camera.**

C 1995. Was used for shooting from a kite in military purposes. A special cart with the camera moves up the cord with a help of a sail to the given hight where the shutter opens with electromagnet. The sail automatically closes and the cart goes down. The period between two exp is 2-3 minutes.

**S.Nezhdanovsky's Photo grammetric Camera.**

C 1905. The analog of S.A.Ulianin's camera (see above). Original shutter. True picture of the landscape was provided.

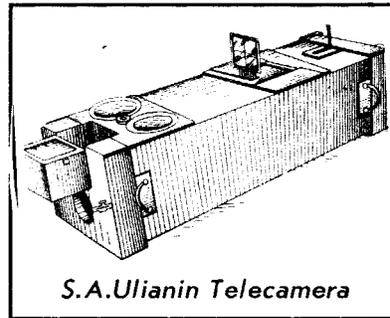
**R.Y.Tile's Polylens Camera (Panoramograph).**

C 1898. The block of seven cameras central is horisontal, others are in circle at an angle of 30 degrees to the horizon. Print size is 14x14 cm. Synchronised shutters of the cameras working from batteries. Designed for shooting from kites and ballons for railway engineering works.

**R.Y.Tile's Stereo Panoramograph.**

Two synchronized .Polylens

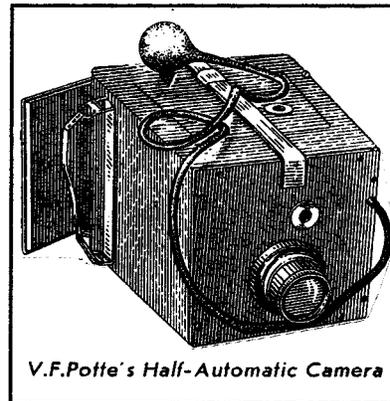
Cameras (see above) placed on a frame with 3 meters distance. Was used to make up topographic plans and maps.



*S.A.Ulianin Telecamera*

**S.A.Ulianin Telecamera.**

Box type. F100 cm lens. 24x30 cm plates. Equipped with altimeter- aneroid, slope to the horizon angles scale readings of which were made by additional lenses. The additional camera was used for shooting the horizon line. The camera was used for shooting form balloons during the Russian-Japanese War of 1904-1905. Patent of 1909.



*V.F.Potte's Half-Automatic Camera*

**V.F.Potte's Half-Automatic Camera.**

C 1896. Patent of 1912. Box type. 13x18 cm format, 50-exp film cassette. Lens 4.5/210 mm. Disk shutter 1/60 s. Was used in military purposes for shooting from

balloons and airplanes. The shooting was synchronised with movement of a balloon or a plane. Mfg by V.F.Potte's workshops in Kiev. Was used in the army till 1930.

## Photo Optics

*Accessory Lenses - were first used by a creative photographer A.O.Karelin in 1870.*

**I.V.Boldyrev's Wide-Angle Lens.**

C 1878. No description or drawings, though there are several pictures made with it.

The aperture and the framework of a ground glass are in the front board. Slit shutter.

**A.A.Popovitsky's Camera.**

C 1902 (patent of 1904). Box type with bellows. The concave mirror (B) is first used instead of a lens.

**A.A.Popovitsky's Mirror Lenses** - were constructed as a development of the camera with the inner concave mirror. Could be used with ordinary cameras.

## Shutters

**S.A.Yurkovsky's Snap-Shot Shutter.**

C 1882. The main elements are two curtains opening and closing the lens aperture in turn. The curtains are moved with a help of a system of levers and a gear with a toothsegment connected with springs. The tense of the springs is adjustable by raising a plate with a help of bolts. The shutter is controlled by the key and two hooks, holding a lever. The shutter speed is indicated with the numbers

(1,2,3,4) in the scale. Yurkovsky's shutters were not manufactured in Russia.

**S.A.Yurkovsky's Snap-Shot Plate Shutter.**

C 1883. The first curtain-slit shutter. Was not manufactured in Russia.

**Yanovsky's Shutter.**

Two moving shutters are moveable with a help of a rubber cord.

**Ashikhin's Shutter.**

C 1883. Like of Yanovsky's Shutter (see above).

**Boldyrev's Shutter.**

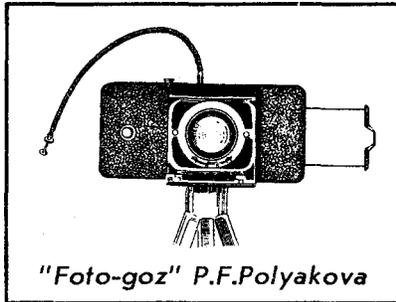
Two shutters working with a help of rubber pipe and rubber pear. Mfg by Serebryakov's and Aksakov's workshops.

**Sabaneyev's Shutter.**

C 1880. Two plates moving inside a wooden frame with a help of special tapes. Mfg by Serebryakov's and Aksakov's workshops

## II. SOVIET CAMERAS

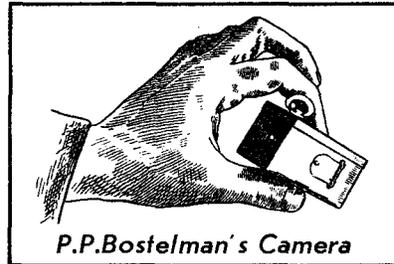
The beginning of the Soviet period in cameras production is considered 1929-1930 when the first serial model "EFTE" was manufactured. The period of 1918 (the date of establishing of State Institute of Optics) through 1928 can be called the one of creation of optical and mechanical industry in the Soviet Russia. The number of original constructions were worked out during the period, and, though not industrially, small lots and some samples of cameras were manufactured.



**"Foto-goz" P.F.Polyakova.**

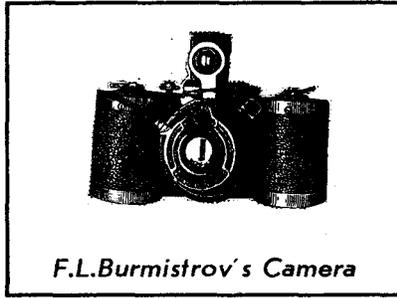
Worked out by P.F.Polyakov. C 1925. Mfg by State Optics Factory in Leningrad, 35mm camera. 52 exp 18x24 mm on a roll film (1 m long) in cassette. F 2/6 cm lens with two correction lenses. Curtain shutter 1/100. Ground glass focusing. Double-length bellows.

The cassette with film is set instead of a ground glass after focusing.



**P.P.Bosteiman's Camera.**

C 1927 (patent). Box type. Size:38x40x80 mm. Was exhibited in 1927 and 1928. 35mm camera. 50 exp 18x24mm on a roll film (2m long). No cassette. Pin marker, ff used with a special lamp could work as an enlarger.



*F.L. Burmistrov's Camera*

**F.L. Burmistrov's Camera.**

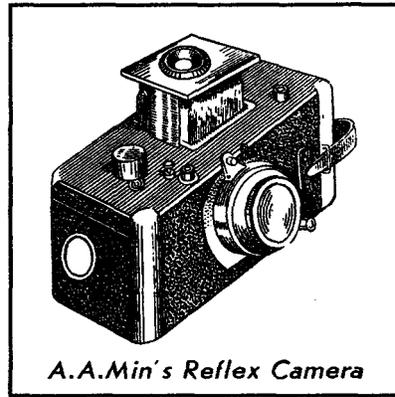
C 1929. Box type. 35mm reproduction aimed camera. 100 exp 24x36mm or 200 exp 18x24mm on a roll film. No cassette. Complete with 3 interchangeable lenses and copying equipment.



*E.O. Liubimov's Reflex Multiplier*

**E.O. Liubimov's Reflex Multiplier.**

C 1930's, 13x18 cm plates. F 3.5/10.5 cm lense. "GOMZ" 1/25 to 1/100, K, D shutter. Cassette with a plate could be moved allowing to make up to 15 exp 3x3.5 cm.



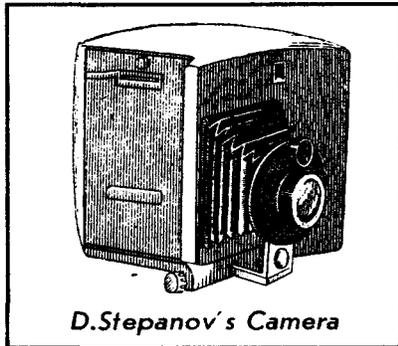
*A.A. Min's Reflex Camera*

**A.A. Mill's Reflex Camera.**

C 1929. 35 mm camera. 75 exp 24x32 mm on a roll film in cassette, or 100 exp without cassette, f 3.5/5 cm anastigmatic lens "VOOMP". Four-slit curtain 8-speed shutter. Ground glass focusing. Exp counter. Double exp blocking system. Complete with enlarging equipment.

## Colour Cameras

The colour cameras were based on E.Kozlovsky's Three-Shot Camera. In 1939 such cameras were worked out by A.Kazmin and I.Ivanov in Leningrad and D.Stepanov in Moscow. A working sample of D.Stepanov's model was prepared for industrial production by the "Geodezia" factory. However, the camera was not manufactured because of the World War 2.

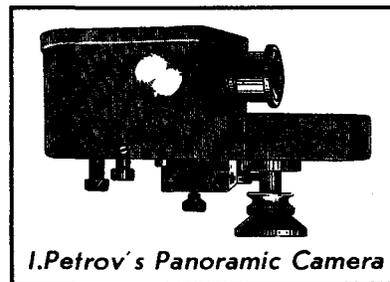
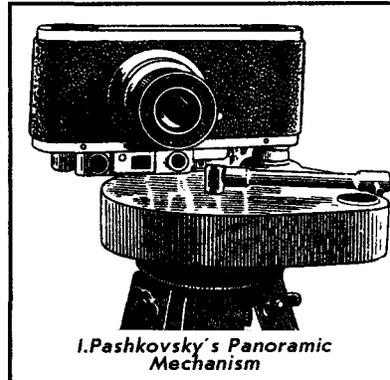


### **D.Stepanov's Camera.**

6.5x9 cm plates. "Ortagoz" f 4.5/13.5 cm lens. Scale focusing. Optical vfr. The camera was equipped with original film mirrors and gelatine colour filters.

### **I.Pashkovsky's Panoramic Mechanism**

C 1938. Based on the "Fed" camera. Three 360 deg panoramas are available. Turning of camera on a tripod with a spring is synchronized with film transport. The film is exposed through slit. The exposition is adjustable by changing slit size (1-5 mm) and speed of turning (three speeds).



### **I.Petrov's Panoramic Camera.**

Like to I.Pashkovsky's Mechanism (see above). 300 deg panorama is available. "FED" f 5cm lens.

*The above models should be considered as experimental. Only a few samples of each were manufactured. In 1929 a small lot of a box type cameras for 6.5x9 plates was manufactured at the "GOMZ" factory.*

*The industrial production of cameras in 1929 - 1991 was held by the following enterprises.*

*1. "EFTE" factory of Moscow workshops "Fototrud" (Photo labour). Established in 1929. Since 1933 - "ARFO" ("Artel Fofo" - photo workshops). Since 1939 - "20 years of October" factory. In 1940 the production of cameras was stopped.*

*2. "GOMZ" (Russian abbr.: The State Optical and Mechanical Factory) factory in Leningrad. Established in 1930. In 1930-1931 a member of "TOMP" (The Optical and Mechanical Production Trust), which later became all-union ("VTOMP") and was renamed "VOOMP" (The All-Union Optical and Mechanical Enterprises Union) in 1932. The production of cameras was stopped due to the WW2 in 1941, and resumed in 1946. Since 1962 - "LOOMP" (Leningrad Optical and Mechanical Enterprises Union). Since 1966 - "LOMO" (Leningrad Optical and Mechanical Union).*

*3. Kharkov plant "FED" (abbr.: F.E.Dserschinski). Established in 1934. Started as F.E.Dserschinski Children's Commune manufacturing Leica type cameras. Since December 30, 1938 - Kharkov F.E.Dserschinski Intergrated Works. During the WW2 the camera production was stopped and the plant was evacuated to Berdsk. In 1946 about one thousand cameras were produced by the plant in Berdsk. Moved back to Kharkov in 1948. After disintergration of the USSR in 1991 the plant became an Ukraine enterprise.*

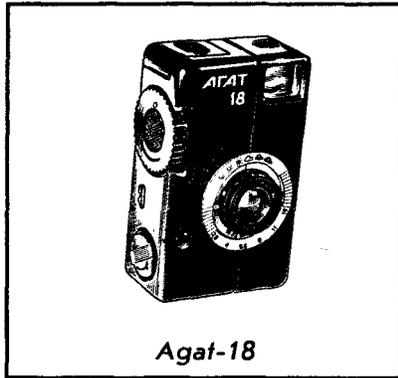
*4. "S.A.Zverev KMZ" (abbr.: Krasnogorsk Mechanical Plant), Moscow region. Production of cameras since 1946.*

*5. "V.I.Lenin Arsenal' Plant", Kiev. Production of cameras since 1947. Nowadays - "The Arsenal Factory Union". Affiliates: "The Progress" factory in Nezhin and "Vega" factory in Uman. Since 1991 the Ukrainian enterprise.*

*6. "S.I.Vavilov MMZ" (abbr.: Minsk Mechanical Plant). Production of cameras since 1957. Nowadays - BelOMO (Belorussian Optical and Mechanical Union). Affiliate: "Zenit" factory in Vileika. Since 1991 is a Belorussian enterprise.*

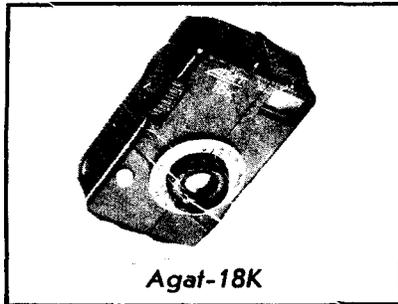
7. Leningrad factory "Novaya Shkola" (New School) -1935-1940.
8. Leningrad factory "Lengorso UPT Metalocombinat" -late 1930 s.
9. Leningrad "Fototechnicum" - 1930.
10. Leningrad "Kubuch" workshops - 1930.
11. Kharkov Photo Factory. Established in 1969. Since 1973 - "Orgtechnica" plant. In 1987 the cameras production was stopped.
12. Moscow Workshop "Coop-Igrushka" (abbr.: cooperative toy)- 1934-1937.
13. Moscow Affiliate of Gorbunov Plant - 1938-1941.
14. Moscow Plant "Geodezia" - 1935.
15. Leningrad Experimental Plant "VOOMP" - 1934-1935.
16. Kiev Factory "FOKHT" - late 1930's.
17. Moscow Joint Venture "Svetozor" - since 1990.
18. "GOI" Workshops - 1948-1949.

# A



*Agat-18*

**Agat-18** (Russ. "Agate").  
35 mm scale camera. 18x24mm.  
"Industar-104" f 2.8/28 screw mount  
lens. Central aperture shutter 1/60  
to 1/250 s. 2.8-16 aperture. Flash  
contact. Plastic separable case.  
Half-hidden film advance head. Mfg  
BelOMO. C 1984-1989.

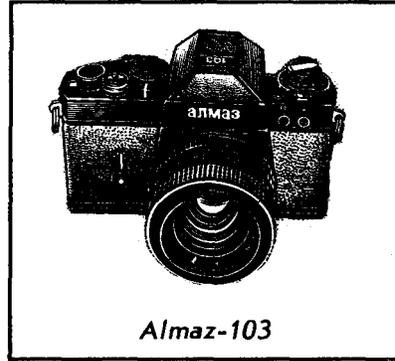


*Agat-18K*

**Agat-18K.**  
Like Agat 18 (see above), but with  
double- cassette film loading. C  
since 1988

**Almaz-101** (Russ. "Diamond").  
See "Almaz-103". Automatic shutter  
speed control.

**Almaz-102.**  
See "Almaz-103". Half-automatic  
shutter speed control.



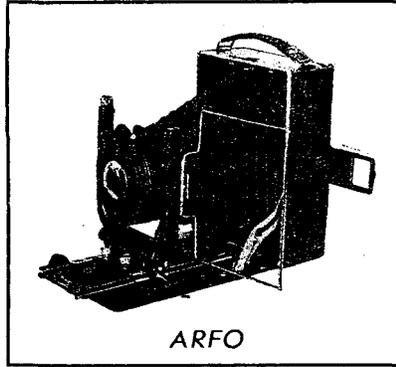
*Almaz-103*

**Almaz-103.**  
35 mm reflex camera. 24x36mm.  
"Volna" f 1.8/50 bayonet "K" lens.  
Mfps 1 to 1/1000 s. Removable  
pentaprism. C 1982 - 1987. Mfg  
LOMO. Almaz-104 See "Almaz-  
103". Experimental model. Qty 6.

**ARFO.**  
Bellows type. 9x12 cm plates.  
Anastigmat ARFO f 4.5/13.5 cm  
lens. Central shutter 1/25 to 1/100  
s. Double-length bellows. Lens  
decentering mechanism. Qty  
130,000. Mfg EFTE - ARFO. C  
1933-1938.

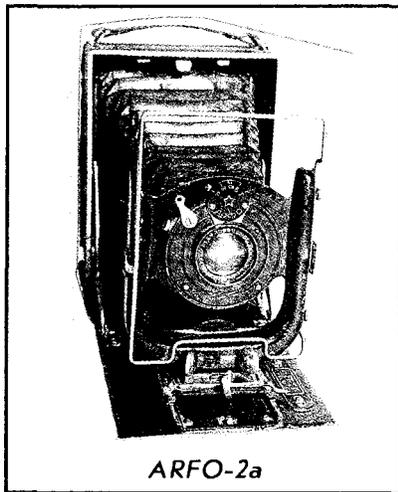
**ARFO-2.**  
Similar to "ARFO". No double-length  
bellows and lens

decentering mechanism.



**ARFO-2a.**

Similar to "ARFO-2". Anastigmat 6.3/13.5 cm lens.

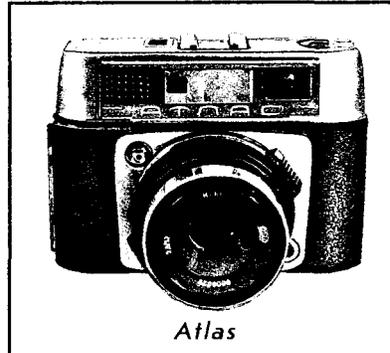


**ARFO-3.**

Like "ARFO", except with the different lens and shutter are used. C 1938.

**ARFO-4.**

Bellows type. 6.5x9 cm plates. Anastigmat f 4.5/12 cm and f 4.5/10.5 cm lens. Central "ARFO" shutter 1/25 to 1/100 s, B, T. Double-length bellows. Lens decentering mechanism.



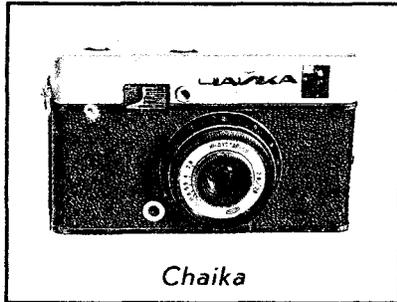
**Atlas (FED-11).**

35mm camera, 24x36mm. Similar to "FED-10" camera, "Industar-61" f 2.8/52 mm bayonet lens. Central shutter 1 to 1/125 s, B. Flash synch.

Lever film advance mechanism.

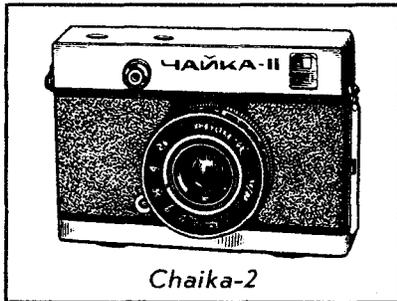
Removable back side. Crf. Half-automatic shutter speed control; built-in selenium exposure meter (indicator scale on the upper side and in vfr screen).- Two modifications are known with self timer (C 1967 -1968, Qty 1296) and with no self timer (C 1967 -1971, Qty 21509). Mfg FED plant.

# C



*Chaika*

**Chaika** (Russ. "sea-gull").  
35 mm camera, 18x24 mm.  
"Industar-69" f 2.8/28 mm lens.  
Central mfps 1/30 to 1/250 s and B.  
Optical vfr. Synch. Lever wind.  
Flexible back. C 1965 - 1974. Mfg  
BelOMO. Qty 171400.



*Chaika-2*

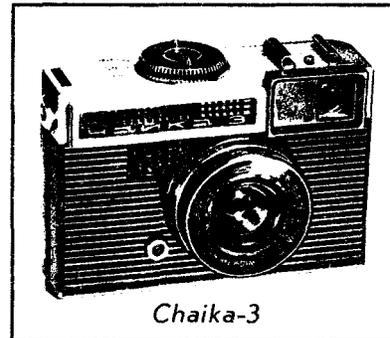
**Chaika-2.**  
Modified "Chaika". Removable  
screw mount lens. C 1967 - 1972.  
Mfg BelOMO. Qty about 1.25 mln. \$  
30-40.

**Chaika-2M.**  
Like "Chaika-2", modified body and

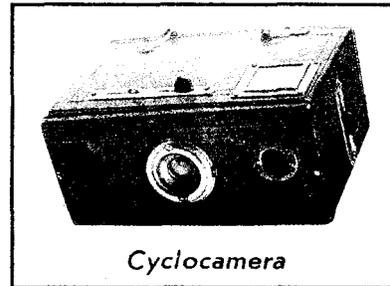
the film advance lever on the lower  
side. C 1972 - 1974. Mfg BelOMO,  
Qty 351000.



*Chaika-2M*



*Chaika-3*



*Cyclocamera*

**Chaika-3.**  
Like "Chaika-2", modified body, film  
advance lever (or head, in some

cameras) on the lower side, automatic shutter speed control and selenium exposure meter, no B speed. C 1971 - 1973. Mfg BelOMO. Qty over 600000.

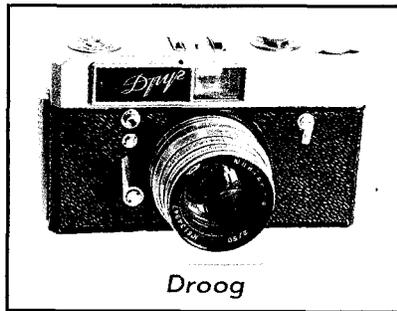
**Cosmic-35.**

See "Smena-8"

**Cyclocamera.**

35 mm box type camera, 24x24 mm. Wooden body. Monocular lens 9/38 mm. No focusing. Sector shutter 1/30 s and B. Reflex vfr. Only dark-room film loading. Special film advance mechanism. C 1937 - 1939. Mfg "Novaya Shkola".

**D**

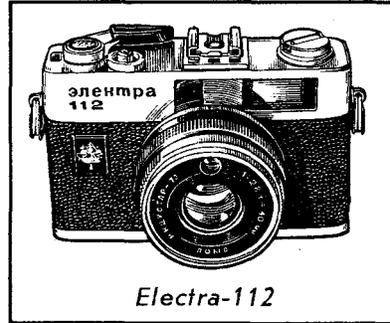


**Droog** (Russ. "fiend").  
35 mm camera, 24x36 mm. "Jupiter-8" f 2/52 mm screw mount M39x1 lens. Curtain shutter 1/2 to 1/1000 s, B. Two flash synch. Self timer. Lever wind on the bottom side. C 1960 -1962. Mfg KMZ. Qty 23702. \$ 80-120.

**Droog-2.**

Like "Droog", but with selenium exposure meter. Was not produced at full scale.

**E**



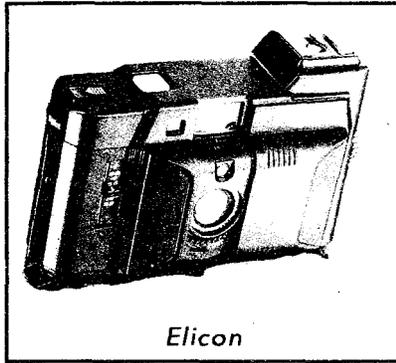
**Electra-112.**  
35 mm camera. "Industar-73" f 2.8/40 mm lens. Central electronically controlled mfps 2 to 1/500 s. Rfr/vfr. Hot-shoe flash contact. Lever wind. C 1980 -1986. Mfg LOMO.

**Elicon.**

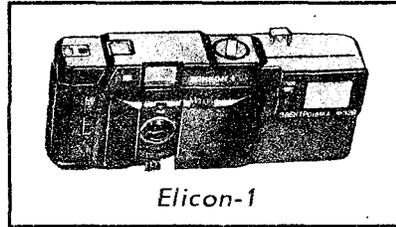
35 mm camera, 24x36 mm. "Minitar-2" f 2.8/35 mm lens. Central electronically controlled central mfps shutter 1/10 to 1/500 s. Electronically controlled self timer. Half-hidden film advance head. Attachable flash holder with synch. C since 1988. Mfg BelOMO.

**Elicon-1.**

Like "Elicon"; a flash synch for "FE-29" flash, no flash holder. Mfg BelOMO.



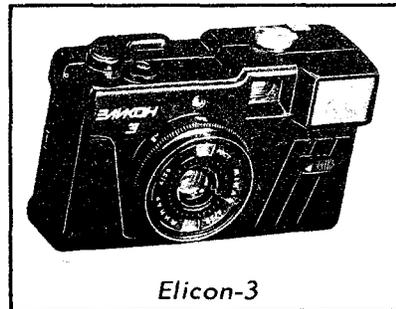
*Elicon*



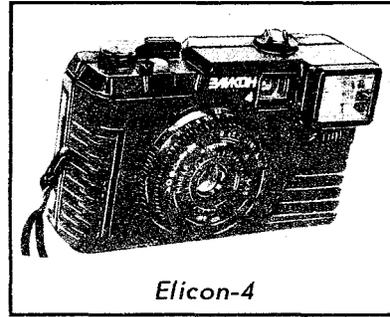
*Elicon-1*

**Eiicon-3.**

35 mm camera based on "Elicon". "Minar" f 4/35 mm lens. Central shutter 1/125s. indication of signal to switch a flash and readiness of the camera. Lever wind. Aperture determination scale. C 1986 - 1987. Mfg BelOMO.



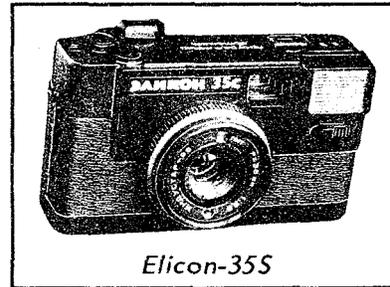
*Elicon-3*



*Elicon-4*

**Elicon-4.**

Like "Elicon-3", but with weather symbols ring instead of aperture determination scale. Lenses: "Minar" f 4/35 mm or "MS Industar-92-02" f 4/38 mm. C since 1988. Mfg BelOMO.



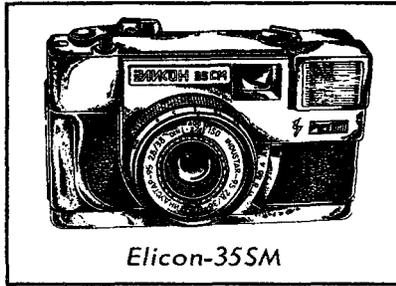
*Elicon-35S*

**Eiicon-35S.**

35 mm camera based on "Elicon". "Industar-95" f 2.8/38 mm lens. Central electronically controlled mfps-aperture 1/8 to 1/500 s. Built-in flash. Indication of signal to switch a flash, readiness of the camera and battery power. Lever wind. C 1983 - 1990. Mfg BelOMO.

**Elicon-35SM.**

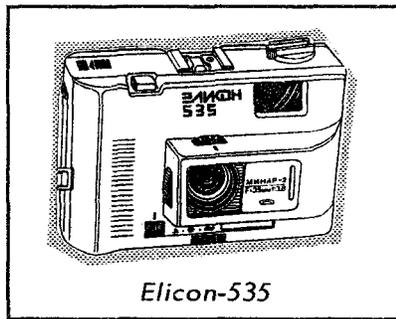
Like "Eiicon-35S", but with manual mode. C 1989. Mfg BelOMO.



*Elicon-35SM*

**Elicon-535.**

35 mm camera, 24x36mm. "Minar-2" f 3.8/35 mm lens. Central mfps-aperture 1/90 to 1/500 s. Scale focusing. No case. Hidden wind head. Hot-shoe flash contact. C since 1990. Mfg BelOMO.



*Elicon-535*

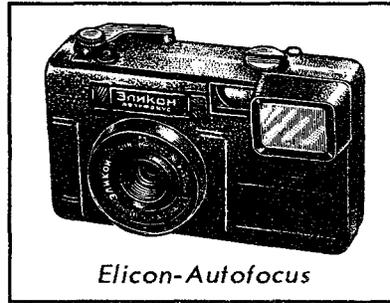
**Elicon-Autofocus.**

Like "Elicon-35S", but with autofocus. C since 1986. Mfg BelOMO.

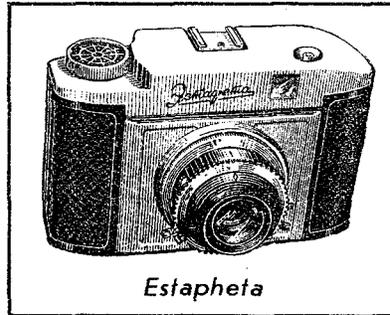
**Estapheta** (Russ. "relay-race").

120 roll film camera, 6x6 cm. "Triplet-35" f 4/75 mm lens. Central mfps 1/8 to 1/250 s and B. Metal body. Removable back side. Self timer. Modification "Vympel" with rfr, which however was not

produced at full scale. C 1959 - 1961. Mfg BelOMO. Qty about 9000.



*Elicon-Autofocus*



*Estapheta*

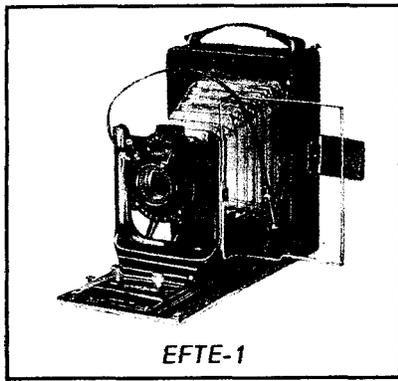
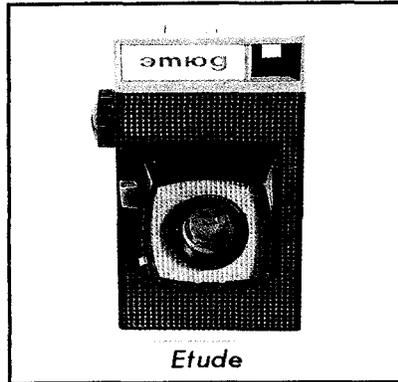
**Etude.**

120 roll film camera 4.5x6 cm. Monocular lens f 11/60 mm. No focusing. Sector shutter M and B. Plastic body. Removable back side. C 1969 - 1984. Mfg BelOMO. Qty over 1.5 mln.

**EFTE (EFTE-1).**

Bellows 9x12 cm plates camera. Anastigmat Kengott's 1:6.3 cm lens. "Vario" central shutter 1/25 to 1/100, B and T. Ground glass focusing. No lens decentering mechanism.

Frame vfr with monochrome (blue) filter. C early 1930's. Mfg EFTE.

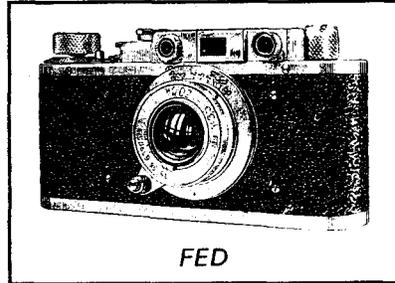


**EFTE-2.**  
Like "EFTE", but with "Periscope" f 11/13.5 cm lens and natively manufactured central shutter 1/25 to 1/100, B and T. C 1931 - 1933. Mfg EFTE.

## F

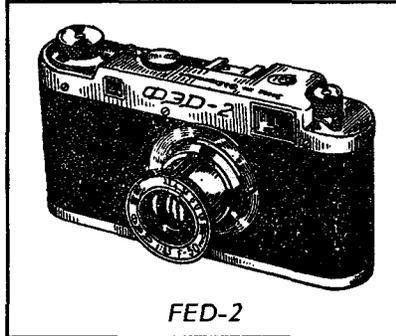
### **FAG.**

A copy of "FED". No flash synch. C 1935. Mfg "Geodezia" Qty 100.



**FED (FED-1).** A copy of Leica II camera. "FED" f 3.5/50 mm telescopic M 39x1 screw mount lens. Curtain horizontal cfps 1/20 to 1/500 s, Z (B), since 1952 - 1/25 to 1/500 s. Crf. Removable lower side. In 1933: 30 cameras with no rfr (copies of Leica I camera). In 1934 - 1935: no attachment shoe. In 1938 - 1941: 20000 cameras equipped with "FED" f 2/50 mm lens and additional shutter speed 1/1000 s (FED-C). In 1941: "FED-B" was worked out (a copy of Leica III camera) with an additional shutter speeds head (1 to 1/20 s) and "FED" f 2/50 mm lens. However, was not produced full scale. In 1947: 900 cameras were manufactured in Berdsk,

where the factory was evacuated. Since 1952: the shutter release button is adopted for cable release. The camera is used as the basic model for FED, Pioneer, FAG, and Zorky cameras. See also SUPPLEMENT 1 - 5. \$ 80.



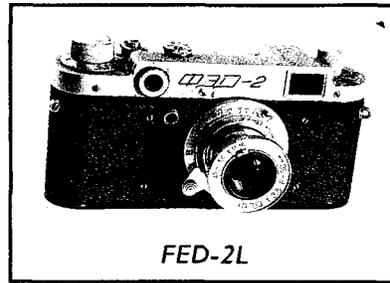
FED-2

**FED-2.**

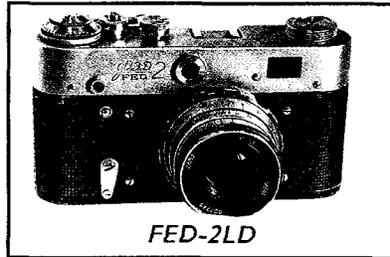
Like "FED", except correction vfr lens. Lever (first 18000 cameras) and later ring shutter switch. Rectangle rfr. Since 1956 - flash synch. Since 1957 - non-telescopic screw mount "Industar-26M" f 2.8/50 mm lens. Since 1958 - shutter speeds: 1/30 to 1/500 and B. Since 1963 - "Industar-61" f 2.8/52 mm lens. Since 1969 - lever wind. Since - 1969 double exp blocking system. In 1959 "Zarya" modification of the camera with no rfr and self timer. C 1955 - 1970. Mfg FED. Qty 1632600. \$ 100.

**FED-2L**

Like "FED-2" with lever wind and "Industar-61 L" f 2.8/52 mm Lanthanum glass lens. \$ 80.



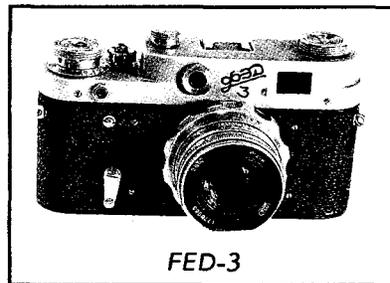
FED-2L



FED-2LD

**FED-2LD.**

"FED-2" with lever wind and "Industar-61 LD" lens.



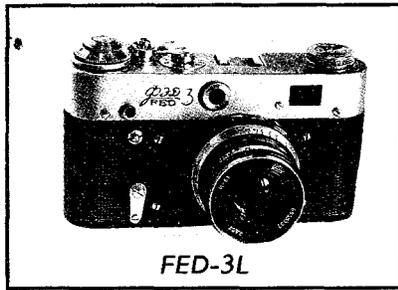
FED-3

**FED-3.**

Modified "FED-2" of 1959 with additional 1 to 1/15 s shutter speeds. Since 1966 - lever wind. C 1961 -1979. Mfg FED. Qty 2086825. \$ 80.

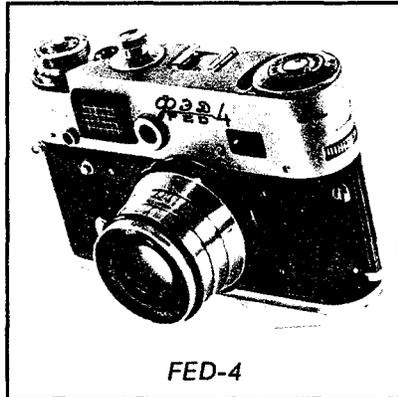
**FED-3L.**

The same type as "FED-2L".

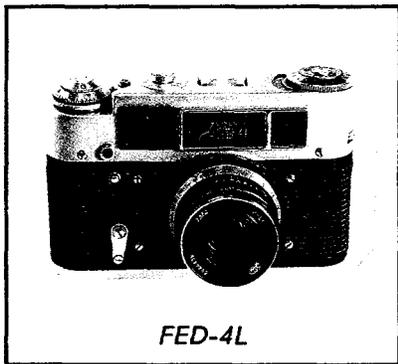


FED-3L

**FED-3LD.**  
The same modifications as "FED-2LD".



FED-4

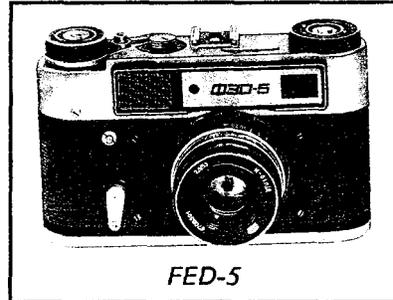


FED-4L

**FED-4.**  
Like "FED-3" with built-in selenium exposure meter, "Industar-61" f 2.8/52 mm lens. \$ 65.

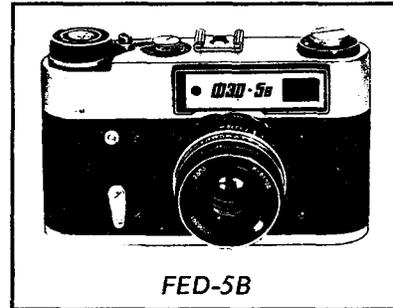
**FED-4L.**  
The same type as "FED-2L".

**FED-4LD.**  
The same type as "FED-2LD".



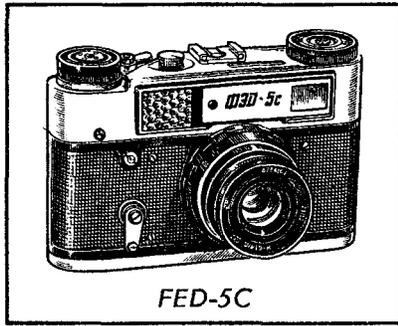
FED-5

**FED-5.**  
Like FED-4, with modified exposure meter. Since 1985 - hot-shoe flash contact. C since 1975. Mfg FED. Qty over 700000. \$ 65.



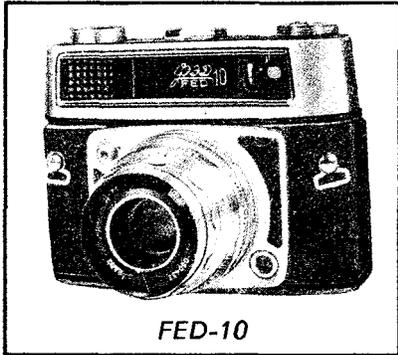
FED-5B

**FED-5B.**  
Similar to "FED-3". C since 1977. Qty over 1.5 mln. \$ 65.



FED-5C

**FED-5C.**  
Similar to "FED-5". C since 1977.  
Qty over 300000. \$65.



FED-10

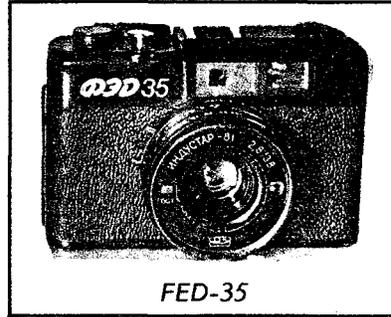
**FED-10.**  
Half automatic shutter speed control  
based on selenium exposure meter.  
Central mfps 1 to 1/250 s and B.  
"Industar-61" f 28/52 mm bayonet  
lens: C 1964 - 1967. Qty 23911.

**FED-11.** See "Atlas".

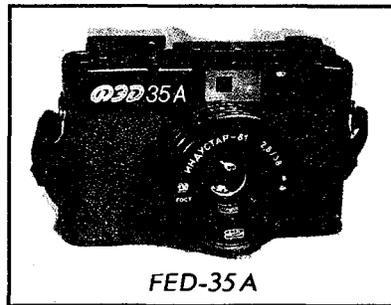
**FED-30.** See "FED-Micron".

**FED-35.**  
Like "Micron-2" camera, except 1/4  
to 1/300 s and B shutter speeds.

Automatic shutter speed control  
(1/60 to 1/300 s), half automatic  
control (1/4 to 1/125 s) and manual  
control 1/4 to 1/125 s and B. C 1985  
- 1986. Qty 6868.



FED-35

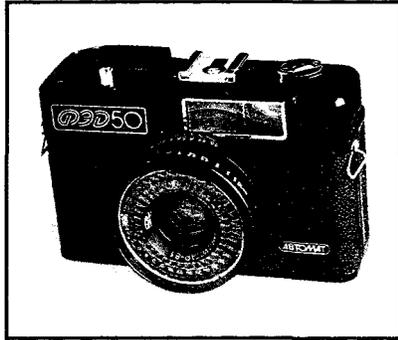


FED-35 A

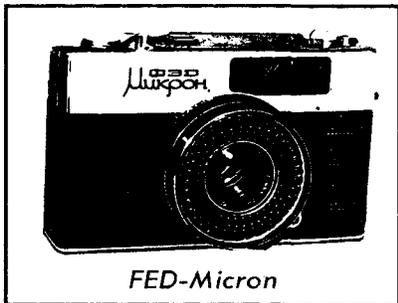
**FED-35A.**  
Like "FED-35", with two modes:  
automatic (shutter speeds 1/60 to  
1/300 s) and manual (1/4 to 1/60 s  
and B). C 1987 - 1990. Qty 24634.

**FED-50.** "Industar-81" f 2.8/38 mm  
built-in lens. Automatic shutter  
speed control. Selenium exposure  
meter. Central mfps-aperture 1/30  
to 1/650 s (automatic mode), 1/30 s

and B (manual mode). Synch. Folding back side. Lever wind. C since 1986. Qty 107530 by the end of 1991.

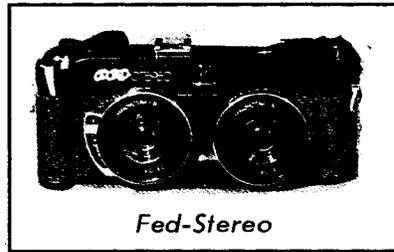


**FED-B.** See "FED". \$ 1000.



**FED-Micron.**  
"Helios-89" f 1.9/30 mm built-in lens. Central mfps- aperture 1/30 to 1/800 s (automatic), 1/30 and B (manual mode). Synch. Lever wind. Removable or in some cameras flexible back side. C 1968 - 1985. Qty about 110000.

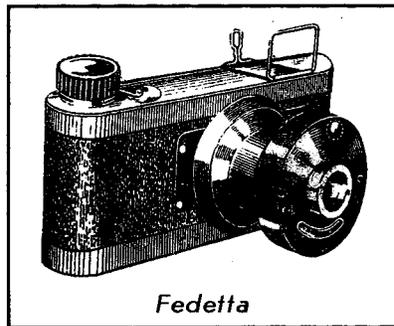
**FED-Micron-2.** See "Micron-2".



*Fed-Stereo*

**FED-C.** See "FED". \$ 250.

**FED-Stereo.**  
35 mm stereo camera, "Industar-81" f 2.8/38 lenses. Electronically controlled central mfps-aperture like in "FED-Micron". C since 1988. Qty 918 by the end of 1991. The special slide-projector Etude-Stereo is manufactured by the FED factory to project the ready slides made with FED-Stereo camera.

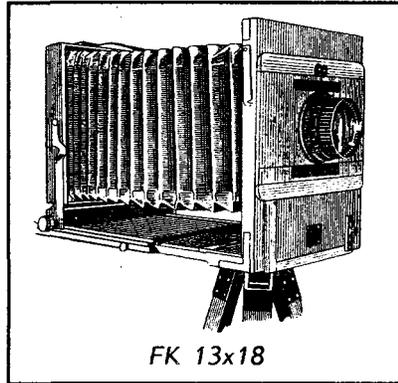


*Fedetta*

**Fedetta.** See "Yura".

**FK 13x18.**  
Studio folding wooden camera of a box type. Plates 13x18cm. "Industar-4" f 4.5/21 cm or "Industar-51" f 4.5/21 cm screw

mount lens. Double length bellows. Ground glass focusing. Swinging back and front side. Decentering of the lens. Complete with tripod. C 1931, mfg "Kubuch"; c 1931 -1941, 1946 -1965, mfg GOMZ; c 1965 - 1968, mfg in Moscow; c 1969 - 1987, mfg "Orgtechnica". In 1969 - 1987 "FKD 13x18".



FK 13x18

**FK 18x24.**

The construction similar to "FK 13x18", except for format. Lenses: "Industar-13" f 4.5/30 cm or "Industar-37" f 4.5/30 cm. In 1969 - 1987 "FKD 18x24". C 1931 -1941, mfg GOMZ; c 1946 -1965, mfg in Moscow; c 1969 - 1987, mfg "Orgtechnica".

**FKD 13x18.** See "FK 13x18".

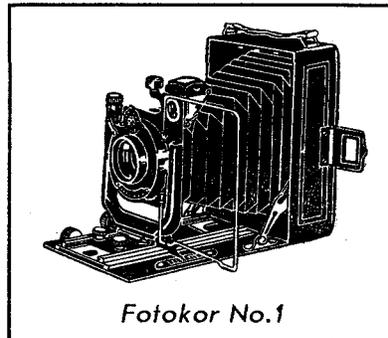
**FKD 18x24.** See "FK 18x24".

**FKP 18x24.**

Stationar modification of "FK 18x24". C 1969 - 1987. Mfg "Orgtechnica".

**Fotokor No.1**

(Russ abbr. "photo correspondent"). Folding camera, plates 9x12 cm. "Ortagoz" f 4.5/13,5cm or "Industar-2" f 4.5/13,5 cm lens (rarer). Central mfps "Compur" 1 to 1/200 s , B and T (1930 - 1931); "Vario" 1/25 to 1/100 s B and T (1930); "GOMZ" 1/25 to 1/100 s, K and D (since 1932); "Temp" 1 to 1/200 s, K and D (1939 - 1941). Ground glass focusing. Reflex vfr and frame vfr. C 1930 - 1941. Mfg GOMZ. Qty over 1 mln. \$ 50-75



Fotokor No.1

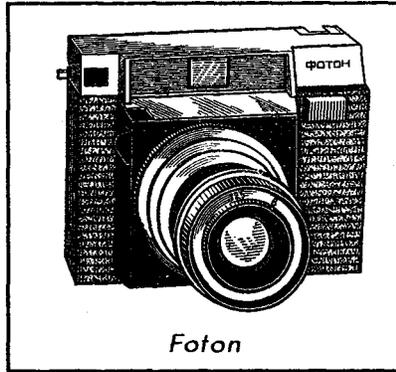
**Fotokor No.3.**

Similar to "Fotokor No.1", but 6.5x9 format, "Industar-7" f 3.5/105 mm lens. Central "Temp" mfps 1 to 1/200 s , K, D. Was not produced at full scale. C 1938, worked out GMZ.

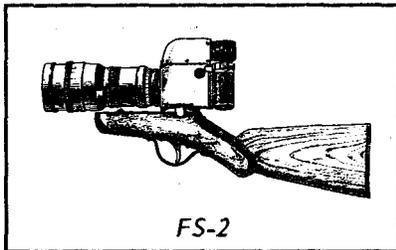
**Foton.**

Developing "Polaroid" type camera for one-stage developing, 73x96 mm. "Industar-77" f 4.8/120 mm lens. Central mfps 1/30 to 1/125 s and B. C 1969 - 1972,

1974 - 1976. Qty 1839. Mfg KMZ.



*Foton*



*FS-2*

**Foton-Super.**

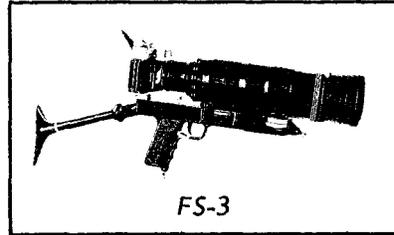
Similar to "Foton". Worked out GOMZ. Was not produced at full scale.

**FS-2 (Photosnyper).**

"FED" camera with a reflex attachment. "Industar" f 4.5/300 mm lens. Rifle grip. C 1948 - 1949. Mfg GOI.

**FS-3.**

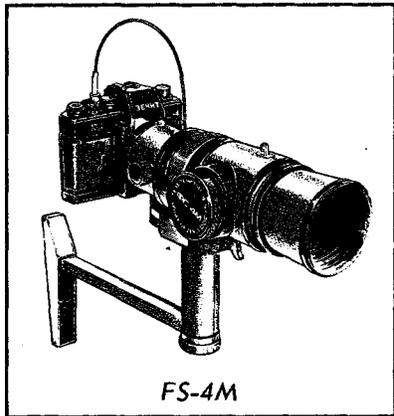
"Zenit-E", or "Zenit-EC" camera combined with rifle grip. "Tair-3FC" f 4.5/300 mm or "Helios-44-2" f 2/58 mm screw mount lens. C 1965 - 1982. Mfg KMZ. Qty 97938.



*FS-3*

**FS-4M.**

"Zenit-19" camera combined with rifle grip. "Telezenitar-FS-M" f 4.5/300 mm and "Zenitar-M" f 1.7/50 mm screw mount lenses. C 1981. Mfg KMZ. Qty 20.

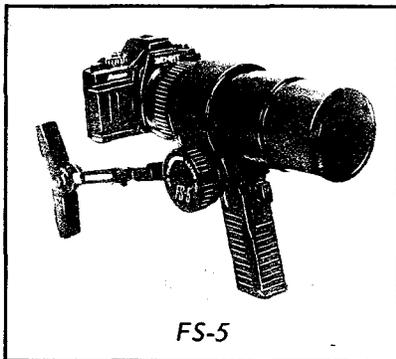


*FS-4M*

**FS-5.**

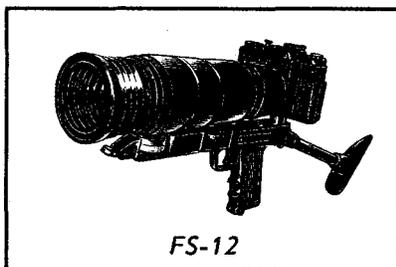
"Zenit-Automat" or "Zenit-14" camera combined with rifle grip. "MS-Telezenitar-K" f 4.5/300 mm and "Helios-44K-4" f 2/58

mm screw mount lenses. Mfg KMZ.



**FS-12.**

"Zenit-12S" ("Zenit-TTL") camera or "Zenit-12SDS" ("Zenit-12SD") with electronic aperture setting. Lenses: "Tair-3C" ("MS Tair-3S") f 4.5/300 mm and "Helios-44M" ("MS Helios-44M") f 2/58 mm lens. C since 1982. Mfg KMZ. Qty about 150000.

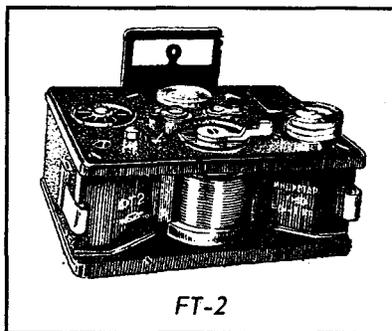


**FS-12-2.**

"FS-12" with "Zenit-12SDS" and regular lenses.

**FS-12-3.**

"Zenit-12SDS" with "MS" lenses.



**FT-2.**

Panoramic 35 mm camera, 24x110 mm. "Industar-50" f 5/52 mm lens with non-changeable aperture. Shutter speeds correspond to turning speed of the lens: 1/100, 1/200, 1/400 s. Frame vfr. Double-cassette loading. No rewind. C 1958 - 1965. Mfg KMZ. Qty 16662. \$ 300-375.

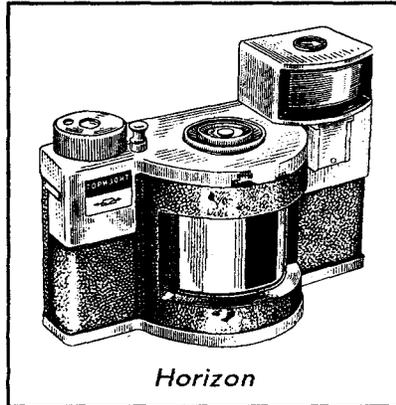
**FT-3.**

Panoramic 35 mm camera, 24x96 mm. "Industar-22" f 3.5/52 mm lens with changeable aperture and scale focusing. Shutter speed corresponds to the slit width: 1/25 to 1/150 s. Optical removable vfr.

**G**

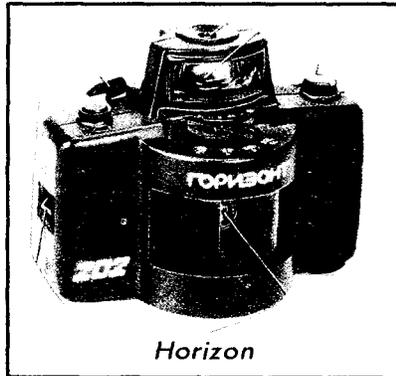
**Gelveta.** See "Sport".

## H



*Horizon*

**Horizon.**  
Panoramic 35 mm camera, 24x58 mm. "OF-28P" f 2.8/28 mm lens. Slit shutter 1/30 to 1/250 s. Removable vfr. Metal body. C 1967-1973. Mfg KMZ. Qty 49849. \$ 350-500.

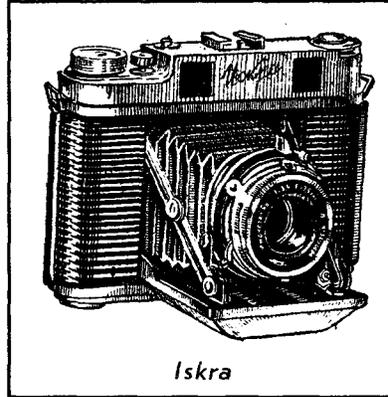


*Horizon*

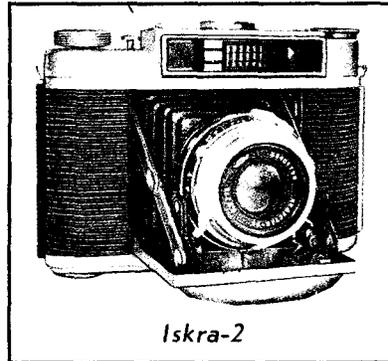
**Horizon-202.**  
Like "Horizon" except slit shutter 1/2

1/250 s, non-removable vfr, lever film advance, and plastic body. C since 1990.

## I



*Iskra*



*Iskra-2*

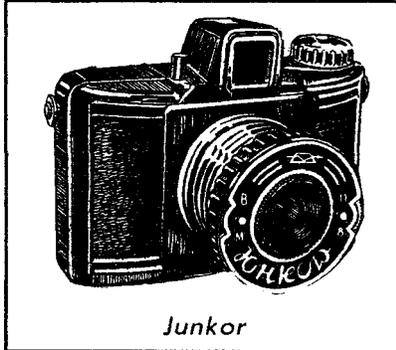
**Iskra**  
(Russ. "spark"). 120 roll film folding camera, 6x6 cm. "Industar-58" f 3.5/75 mm built-in lens. Central mfps 1 to 1/500 s and B. Flash synch, self-timer. Removable back

side. automatic exp counter. C 1960 - 1963. Mfg KMZ. Qty 38722. \$ 125-175.

#### Iskra-2.

Like "Iskra", but with built-in selenium exposure meter. C 1961 - 1964. Mfg KMZ. Qty 6118.

## J



*Junkor*

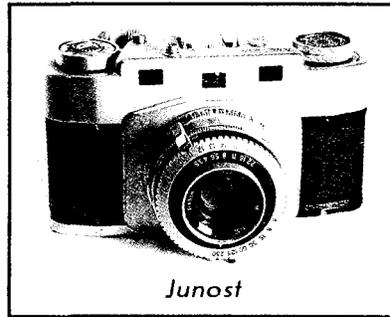
**Junkor** (Russ. abbr. "young correspondent")

120 roll film camera, 6x6 cm and 4.5x6 cm (with a mounting frame). "Periscope" f 8/65 mm lens. No focusing. Sector shutter 1/60 s and B. Plastic body. Removable back side. C 1959 - 1962. Mfg KMZ. Qty 168836.

**Junost** (Russ. "youth").

35 mm camera, 24x36 mm. "Triplet-32" f 3.5/45 mm lens. Central mfps 1/8 to 1/250 s and B. Self timer, flash synch. Lever film

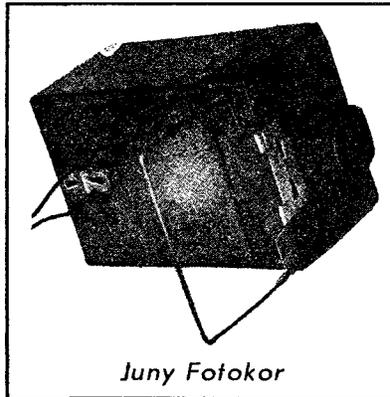
advance mechanism. Removable back side. C 1957 - 1961. Mfg LOMO. Qty 52500. \$ 250-325.



*Junost*

**Juny Fotokor** (Russ. "young photo correspondent").

4.5x6 cm plate camera. Monocular lens 12.5/90 mm. No focusing. No aperture. No shutter. One exp loading. Frame vfr. C 1934 - 1936. Mfg "Coop-Igrushka".

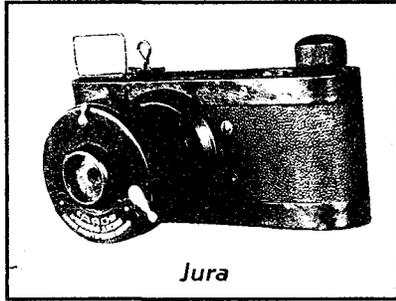


*Juny Fotokor*

**Jura.**

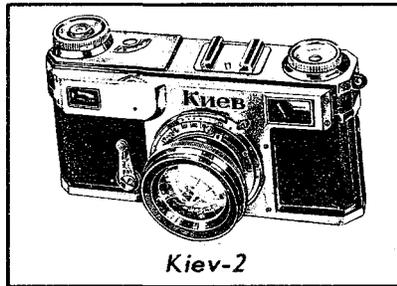
35 mm camera, 24x36 mm. Monocular lens 12.5/75 mm. Sector shutter 1/30 (M) and T (B).

Film advance indicator. No cassette. Frame vfr. Wooden body. C 1935 -1937. Mfg "Coop-lgrushka". In 1938 - 1941 mfg at Gorbunov plant in metal body as "Fedetta".



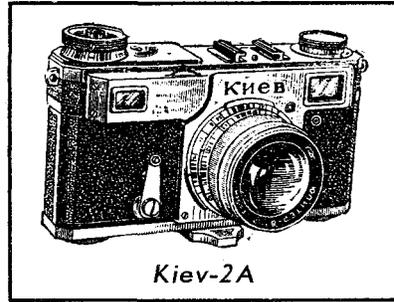
*Jura*

## K



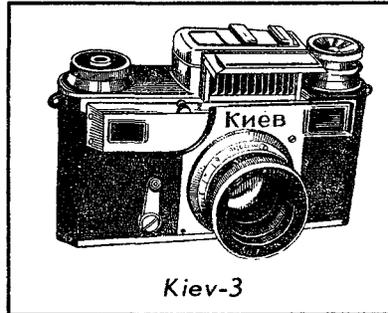
*Kiev-2*

**Kiev-2.**  
35 mm camera, 24x36 mm. A copy of Contax II camera. "3K" f 2/50 mm baynet Leica type lens. Since 1950 - "Jupiter-8" f 2/52 mm lens. Vertical cfps 1/2 to 1/1250 s and B. Self timer Removable back side. Crf. C 1947 - 1955. Mfg "Arsenal". \$ 60-90.



*Kiev-2A*

**Kiev-2A.** Like "Kiev-2", but with flash synch. C 1956 -1958. Mfg "Arsenal". \$ 60-90.



*Kiev-3*



*Kiev-3A*

**Kiev-3.**  
Like "Kiev-2", but with built-in selenium exposure meter.

A copy of Contax-111 camera. C 1952 - 1955. Mfg "Arsenal". \$ 125-175.

**Kiev-3A.**

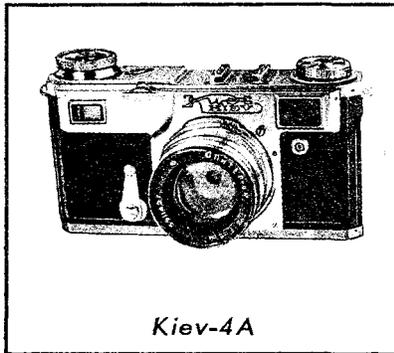
Like "Kiev-3", but with flash synch. C 1956 -1958. Mfg "Arsenal". \$ 75-100.



*Kiev-4*

**Kiev-4.**

Like "Kiev-3A", but with tripod socket, built-in exposure meter. "Jupiter-SM" f 2/52 mm screw mount lens. C 1957 - 1979. Mfg "Arsenal". \$ 50-90.



*Kiev-4A*

**Kiev-4A .**

Like "Kiev-2A", but with back side locks and tripod socket.

"Jupiter-SM" f 2/52 mm screw mount lens. C 1958 - 1980. Mfg "Arsenal". \$ 65-100.



*Kiev-4AM*

**Kiev-4AM.** Like "Kiev-4A", but with film advance and rewind heads and film loading. Cfps 1/2 to 1/1000 and B. "Jupiter-8M" f 2/52 mm or "Helios-103 f 1.8/53 mm screw mount lens. C 1980 - 1985. Mfg "Arsenal".



*Kiev-4M*

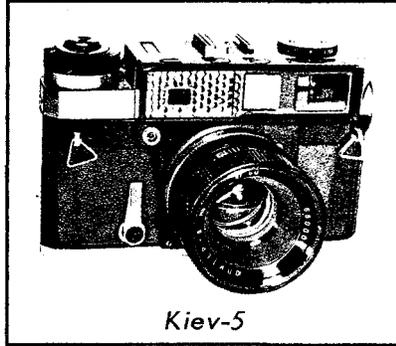
**Kiev-4M.**

Similar to "Kiev-4", except film advance and rewind heads and film loading. C 1977 - 1985. Mfg "Arsenal".

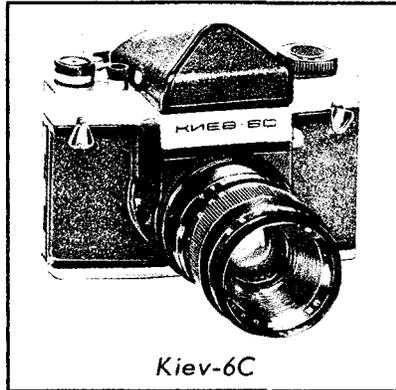
**Kiev-5.**

Like "Kiev-4", except lever wind, rewind head. "Jupiter-SNB"

f 2/58 mm screw mount lens.



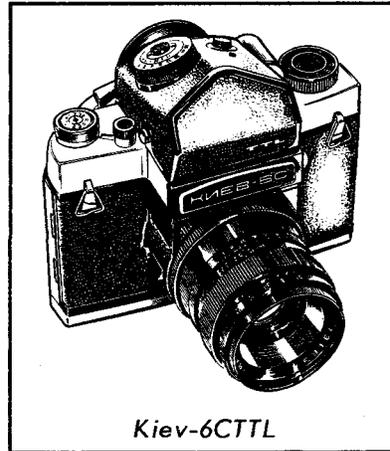
*Kiev-5*



*Kiev-6C*

**Kiev-6C.**

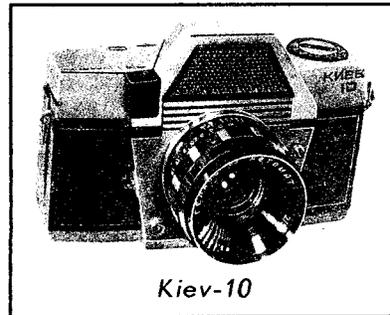
Reflex 120 roll film camera, 6x6 cm. "Vega-128" f 2.8/90 bayonet "Pentakon-Six" type lens. Cfps 1/2 to 1/1000 and B. Lever wind. Shutter release button on the left side. 12 and 24-frames counter. Interchangeable vfr hood / pentaprism. The basic model for reflex 6x6 cm "Kiev" cameras. C 1971 -1980. Mfg "Arsenal".



*Kiev-6CTTL*

**Kiev-6CTTL.**

"Kiev-6C" camera, complete with "TTL" interchangeable pentaprism vfr. C 1978 - 1985. Mfg "Arsenal".



*Kiev-10*

**Kiev-10.**

35 mm reflex camera, 24x36. "Helios-65" f 2/50 mm, and later "Helios-81" f 2/53 mm bayonet lens. Central mfps 1/2 to 1/1000 s and B. Automatic aperture control. Selenium exposure meter with needle indication. Complete with an adapter ring M39x1.

C 1965 - 1974. Mfg "Arsenal".



*Kiev-15TEE*

**Kiev-15TEE.**

Similar to "Kiev-10". Photoresistor through-the-lens exposure meter. Two-range automatics. C 1974 - 1980. Mfg "Arsenal".



*Kiev-15TTL*

**Kiev-15TTL.** Like "Kiev-15TEE", but with one-range automatics. C 1980. Mfg "Arsenal".

**Kiev-17.**

Reflex 35 mm camera, 24x36 mm. "Helios-81 N" f 2/53 mm or "Volna-4N" f 1.4/50 mm "Nikon"

type bayonet lens. Vertical curtain mfps 1 to 1/1000 s and B. Shutter speed head on the front side. Self timer. C 1978 - 1984. Mfg "Arsenal".



*Kiev-17*



*Kiev-17M*

**Kiev-17M (Kiev-20)**

Like "Kiev-17", but with half-automatic TTL type shutter speed control. Built-in exposure meter. C 1978 - 1984. Mfg "Arsenal".

**Kiev-18.**

Like "Kiev-17", except electronic shutter speed control 1 - 1/1000 s. "Volna-4N" f 1.4/50 mm lens.

Electronic self timer. C since 1981.  
Mfg "Arsenal".



*Kiev-18*



*Kiev-19*

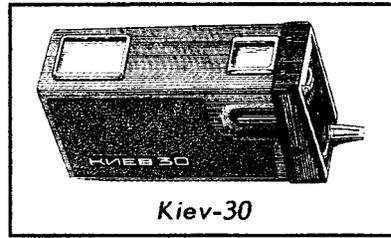
**Kiev-19.**

Like "Kiev-17", except half-automatic shutter speed control: 1/2 to 1/500 and B, no self timer. C since 1985. Mfg "Arsenal".

**Kiev-20.** See "Kiev-17M".

**Kiev-30.**

110 cartridge subminiature camera, 13x17 mm. Similar to "Vega-2". Flash synch. C 1975 - 1987. Mfg "Arsenal". \$ 40-60.



*Kiev-30*



*Kiev-30M*

**Kiev-30M.**

Like "Kiev-30, except no flash synch. C since 1975. Mfg "Arsenal". \$ 40-60.



*Kiev-35A*

**Kiev-35A**

35 mm scale camera, 24x36 mm. "MS Korsar" f 2.8/35 lens. Central automatic mfps 4 to 1/500 s. Exposure meter with needle indication. Plastic body. folding front side. C since 1985. Mfg "Arsenal".



*Kiev-35AM*

**Kiev-35AM.**

Like "Kiev-35A", except self timer. C since 1991. Mfg "Arsenal".

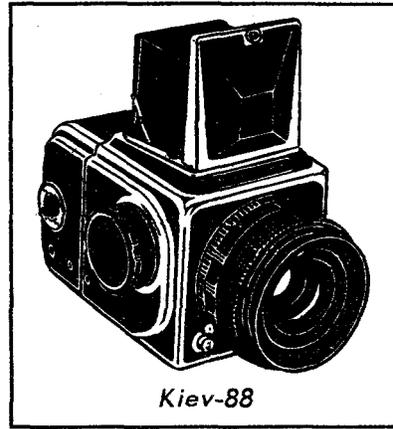


*Kiev-60TTL*

**Kiev-60TTL.**

Like "Kiev-6CTTL", except the shutter release button on the right side, no 24-frame scale of counter. Flash synch. Complete with flash holder. C since 1984. Mfg "Arsenal".

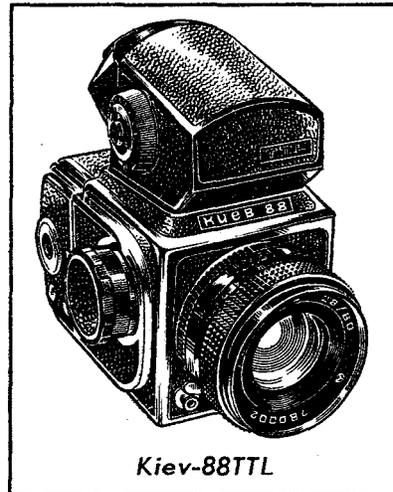
**Kiev-80.** See "Salut-S"



*Kiev-88*

**Kiev-88.**

Like "Salut-S", except hot-shoe flash contact and split-image vfr. C since 1983. Mfg "Arsenal".



*Kiev-88TTL*

**Kiev-88TTL.**

Like "Salut-S", except hot-shoe

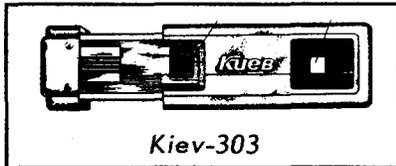
flash contact and split-image vfr. C since 1983. Mfg "Arsenal".



*Kiev-90*

**Kiev-90.**

Reflex 120 rollfilm camera, 4,5x6 cm. "Volna-3" f 2.8/80 mm bayonet "Pentakon-Six" type lens. Automatic or halfautomatic curtain cfps 4 to 1/1000 s and B. Exposure meter with indicator in vfr screen. Complete with interchangeable focusing screens, vfr's and cassettes. Mfg "Arsenal". Limited production.



*Kiev-303*

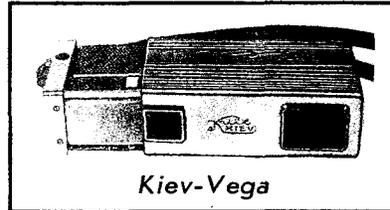
**Kiev-303.**

Like "Kiev-30M", except shutter speeds range: 1/30 to 1/250 s. C since 1990. Mfg "Arsenal".

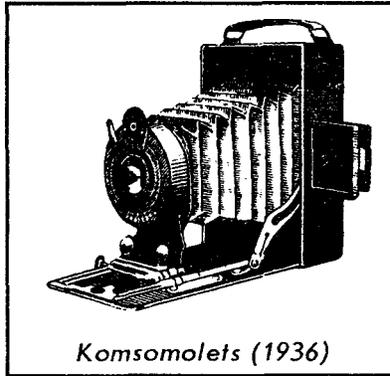
**Kiev-Vega.**

110 cartridge pocket camera, 10x14

mm. "Industar-M" f 3.5/23 mm built-in lens. No focusing, mfps 1/30 to 1/200 s. Flash synch. C 1960 - 1962. Mfg "Arsenal". \$ 60-90.



*Kiev-Vega*



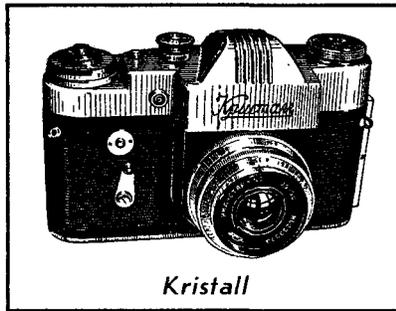
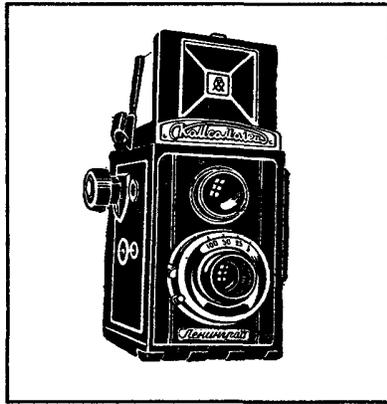
*Komsomolets (1936)*

**Komsomolets.**

Bellows type 6.5x9 cm plates camera. Triplet" f 6.3/10.5 cm anastigmatic lens. Central shutter 1/25 to 1/100 s, K, D. Frame folding vfr. C 1936 -1940. Mfg ARFO.

**Komsomolets.**

120 rollfilm scale camera, 6x6 cm. "Triplet-21" f 6.3/80 mm lens. Central shutter 1/25 to 1/10, B. Reflex folding vfr hood. two modifications with and without exp counter. C 1946 - 1950. Mfg GOMZ. Qty 28000. \$ 60-100.

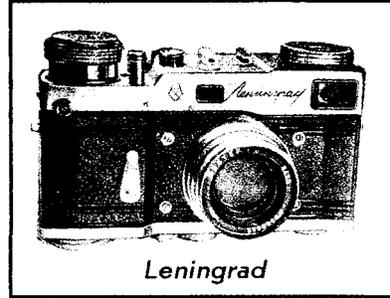


**Kristall.**  
Like "Zenit-3M", complete with interchangeable focusing screens. Mfg KMZ. C 1961-1962. Qty 65433.

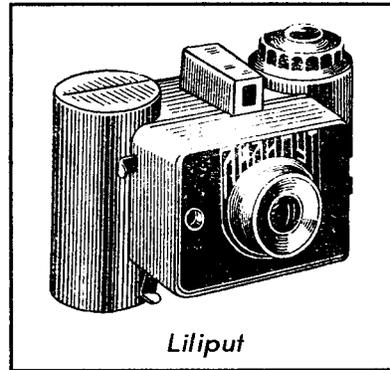
## L

**Leningrad.**  
35 mm camera, 24x36 mm. "Jupiter-8" f 2/52 mm M39x1 screw mount lens. Cfps 1 to 1000 s and B. Self timer, flash synch. Crf. Removable back side. C 1956 -

1966. Mfg LOMO. Qty 70700. \$ 200-325.



**Liliput.**  
35 mm camera 24x24 mm. "Monocular" f 9/38 mm lens. No focusing. Mfps 1/30 s and B. Plastic body. C 1937 - 1940. Mfg GOMZ.

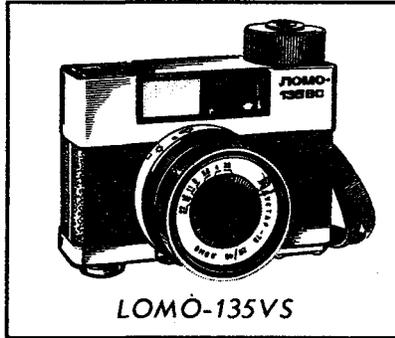


**LC-A.** See "LOMO-Compact-Automat".

**LOMO-1 BOA.** See "Sokol".

**LOMO-135VS.**  
35 mm scale camera 24x36 mm. "Industar-73" f 2.8/40 mm lens. Central mfps 1/15 to 1/250 s and B. Spring 8-frame drive. C 1975 -

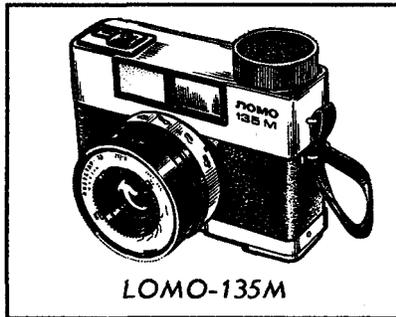
1981. Mfg LOMO.



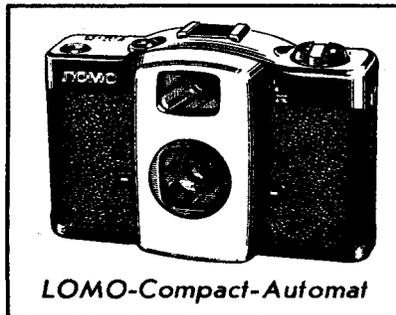
*LOMO-135VS*

**LOMO-135M.**

Same as LOMO-135VS. C 1981 - 1988.



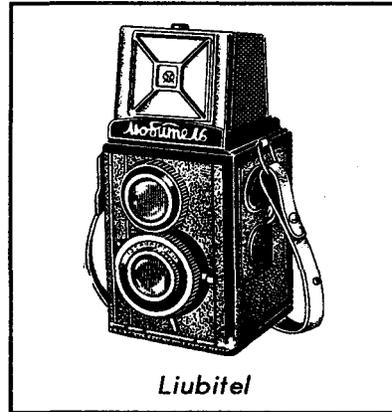
*LOMO-135M*



*LOMO-Compact-Automat*

**LOMO-Compact-Automat.**

35 mm camera 24x36 mm. "Minitar-1" f 2.8/32 mm lens. Electronic central mfps 2 to 1/500 s. C since 1983. Mfg LOMO.



*Liubitel*

**Liubitel** (Russ. "amateur").

120 roll film twin lens reflex camera, 6x6 cm. Based on "Komsomolets" camera (1946 - 1950) "Triplet-22" f 4.5/75 mm lens. Central mfps 1/10 to 1/200 s and B. Reflex view, ground glass focusing. Plastic body. Folding back side. C 1950 - 1956. Mfg LOMO. Qty 1334600. \$ 20-30.

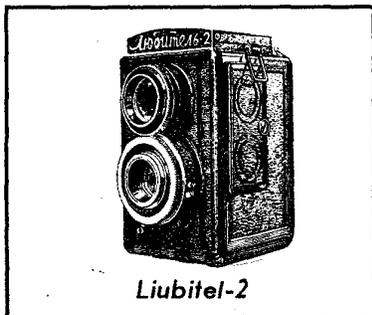
**Liubitel-2.**

Like "Liubitel", but with flash synch and self timer. Since 1959 shutter speed range: 1/15 to 1/250 s and B. C 1955 - 1977. Mfg LOMO. Qty 2158500. \$ 20-30.

**Liubitel-166.**

Similar to "Liubitel-2". Exp counter and hot-shoe contact. No self

timer. C 1977 - 1980. Mfg LOMO.



*Liubitel-2*



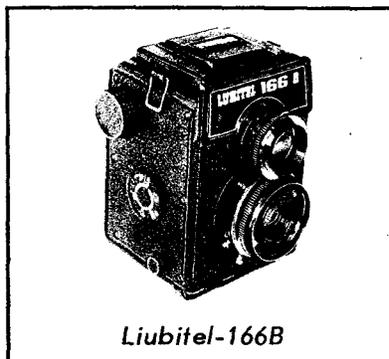
*Liubitel-166*

**Liubitel-166B.**

Like "Liubitel-166", except no exp counter. Self timer. C since 1980. Mfg LOMO.

**Liubitel-166 Universal.**

"Liubitel-166B" camera complete with 4.5x6 cm mounting frame. C since 1984. Mfg LOMO.



*Liubitel-166B*



*Liubitel-166 Universal*

**M**

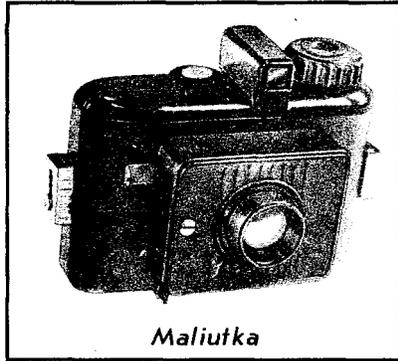
**Maliutka** (Russ. "small").

"Liliput" camera with film advance indicator. Only dark room loading is possible. C 1940 - 1941. Mfg GOMZ.

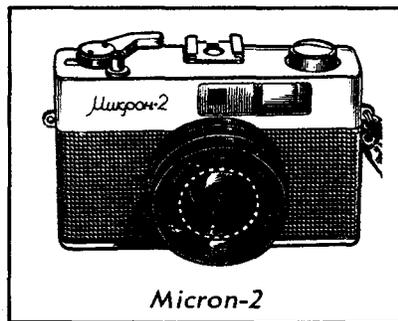
**Micron-2.**

35 mm camera, 24x36 mm based on "FED-Micron" camera. Electronic

shutter 1/30 - 1/650 s and B.  
"Industar-81" f 2.8/38 mm screw  
mount lens. C 1978 -1986. Mfg  
FED.



*Maliutka*



*Micron-2*

**Minsk.**

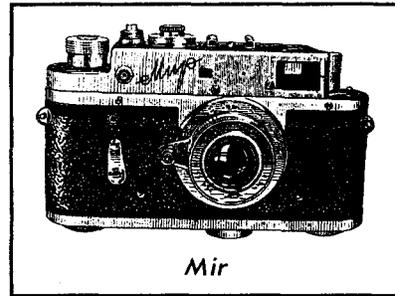
35 mm camera, 24x36. Autofocus.  
F 2.8/35 mm lens. Central mfps 1/8  
to 1/500 s. Self timer, built-in flash.  
Motor drive. Mfg BelOMO.

**Minsk-2.**

Like "Minsk", except bifocal lens f  
3,5 (6.0)/38 mm (65mm). Shutter  
speed range: 1/6 to 1/500 s. Mfg  
BelOMO.

**Minsk-3.**

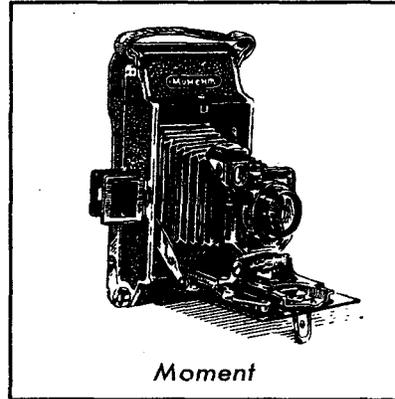
Like "Minsk", except shutter  
speeds: 1/30 to 1/500 s. Mfg  
BelOMO.



*Mir*

**Mir (Russ. "peace").**

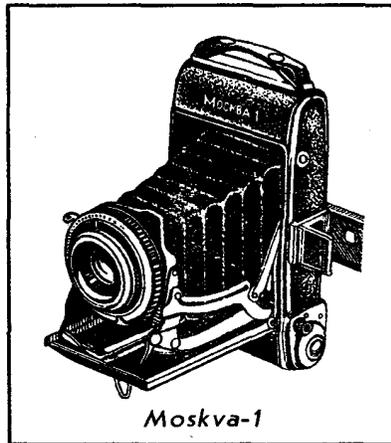
Like "Zorky-4", except shutter  
speeds: 1/30 to 1/500 and B. C  
1959 - 1961. Mfg KMZ. Qty 156229.  
\$ 55-80.



*Moment*

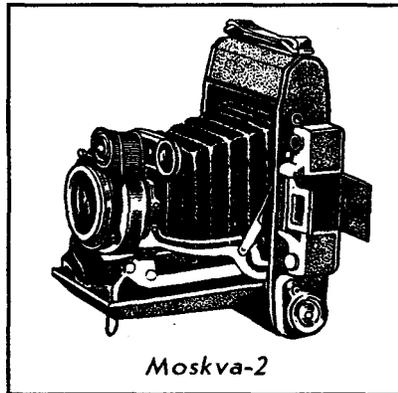
**Moment.**

Folding camera complete with  
developing equipment (one-stage  
developing), 8x10.5cm. "Triplet-26"  
6.8/13 cm lens. Central mfps 1/10  
to 1/200 s and B. C 1952 - 1954.  
Mfg LOMO. \$ 200-300.



*Moskva-1*

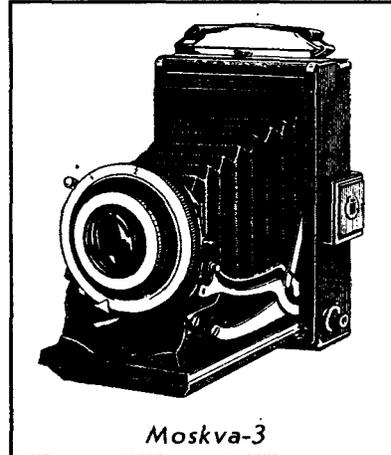
**Moskva-1** (Moscow).  
 Folding 120 roll film camera, 6x9 cm, a copy of "Ikonta". "Industar-23" f 4.5/110 mm lens. "Moment-1" central mfps 1 to 1/250 s and B. In some models of 1946 - 1947 "Compur" and "Compur-Rapid" shutters were used. C 1946 - 1949. Mfg KMZ. Qty 31632. \$ 75-125.



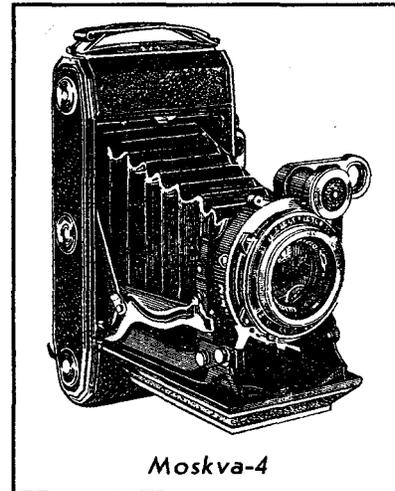
*Moskva-2*

**Moskva-2.**

Like "Moskva-1", except rfr. A copy of "Ikonta-Super". C 1947 - 1956. Mfg KMZ. Qty 197640. \$ 75-125.



*Moskva-3*



*Moskva-4*

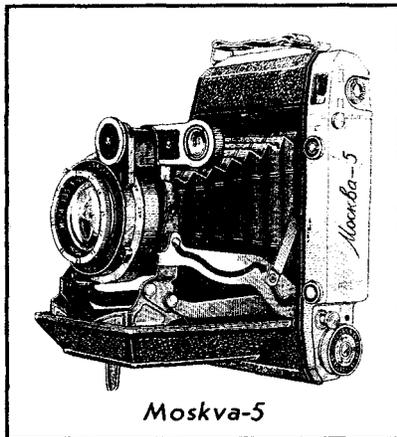
**Moskva-3.**

Folding 6.5x9 cm plate camera. Plates in removable magazines.

"Industar-23 f 4.5/110 mm lens. Ground glass focusing. Central mfps "Moment-5" 1 to 1/250 s, B, D. C 1950 -1951. Mfg KMZ. Qty 11385. \$ 75-125.

**Moskva-4.**

Like "Moskva-2", except flash synch, 6x6 cm mounting frame. Mfps "Moment-23C" 1 to 1/250 s, B. Punched or moulded body. C 1955 - 1958. Mfg KMZ. Qty 62632. \$ 75-125.

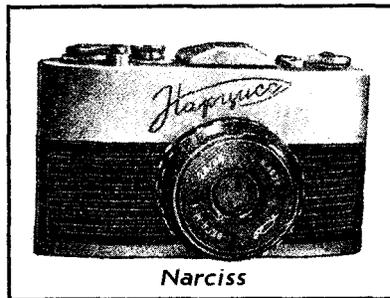


*Moskva-5*

**Moskva-5.**

Like "Moskva-4" (with moulded body), except "Industar-24" f 3.5/105 mm lens, "Moment-24C" mfps 1 to 1/250 s and B, self timer and flash synch. C 1956 - 1960. Mfg KMZ. Qty 216457. \$ 75-125.

**N**



*Narciss*

**Narciss.**

Reflex 16mm subminiature camera, 14x21 mm. "Industar-60" f 2.8/35 mm or "Vega-Mi" f 2.8/35 mm M 24x1 screw mount lens. Curtain cfps 1/2 to 1/500 s and B. Removable pentaprism. Lever wind. Two flash synchs. C 1961 - 1965. Mfg KMZ. Qty 10939. \$ 500-700.

**O**



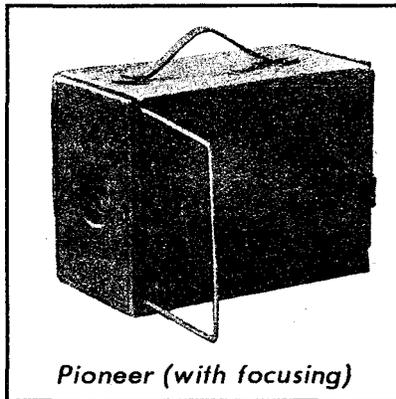
*Orion-EE*

**Orion-EE (Vilia-EE).**

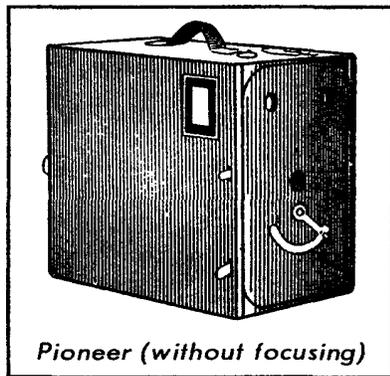
Like "Vilia", except half automatic

aperture. C 1977 - 1983. Mfg  
BelOMO. Qty about 700000.

## P



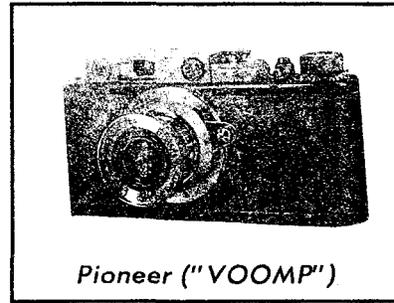
*Pioneer (with focusing)*



*Pioneer (without focusing)*

**Pioneer.**  
Box type. Plates 6.5x9 cm.  
"Periscope" 1:11 lens. Mfps 1/25 s  
(M) and B. Ground glass focusing  
and frame vfr, or no focusing and

two reflex vfr's. C late 1930's. Mfg  
ARFO and FOKHT.



*Pioneer ("VOOMP")*

**Pioneer.**  
Similar to "FED". "VOOMP" f 3.5/5  
cm lens. C 1934 - 1935. Mfg  
VOOMP. Qty about 500.

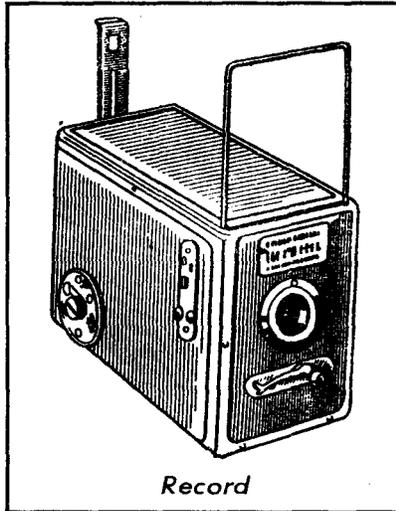
**Polaroid-635CL.**  
Produced under license of  
"Polaroid". C' since 1990. Mfg  
"Svetozor".

## R

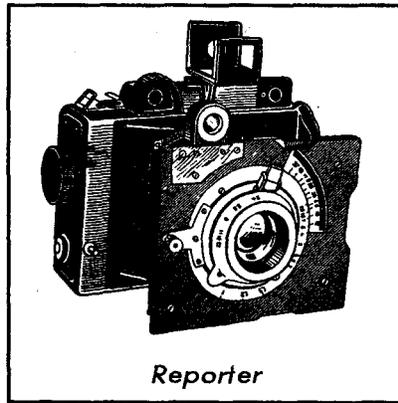
**Record.**  
Box type. 4.5x6 cm plates in special  
magazine equipped with change-of-  
plates mechanism. "Periscope" 1:10  
lens. No focusing. Mfps 1/30 s (M)  
and B. C late 1930's. Mfg "Lengorso  
UPT Metalcombinat"

**Reporter.**  
Plate camera 6.5x9 cm. "Industar-7"  
f 3.5/105 mm bayonet lens. Curtain  
cfps 1/5 to 1/1 OOs, K, D.  
Complete with interchangeable

lenses, film adapter and plate cassettes. C 1939 - 1941. Mfg GOMZ.

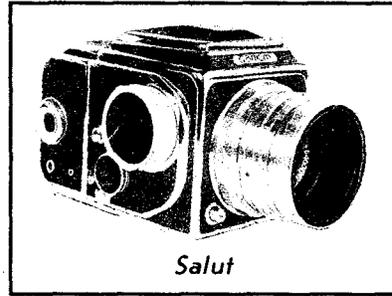


*Record*

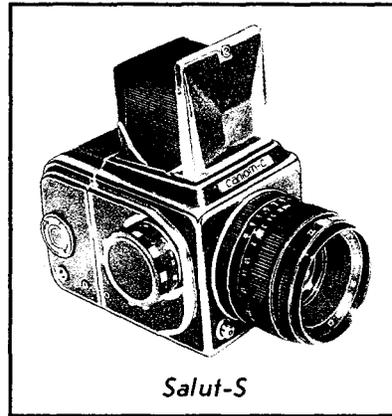


*Reporter*

## S



*Salut*



*Salut-S*

### Salut.

Reflex 120 roll film camera, "Industar-29" f 2.8/80 bayonet lens with spring aperture. Curtain mfps 1/2 to 1/1500 s and B. Flash synch. Self timer. Removable vfr hood. Split image rfr. Special "Hasselblad" type 120 rollfilm removable magazine. Modifications: one shutter release button; two separate

shutter release buttons (one of which for self timer); no self timer and wedges focusing, shutter speeds: 1/2 to 1/1000 s and B. C 1957 to 1974. Mfg "Arsenal". Qty about 50000. \$ 225-300.

**Salut-S** (Kiev-80, Zenit-80).

Like "Salut" except "Vega-12B" f 2.8/90 mm lens with instant-return aperture. C 1972 - 1980. Mfg "Arsenal". Qty about 30000. \$ 250-300.



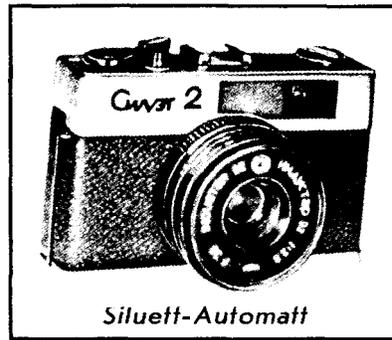
*Shkolnik*

**Shkolnik** (Russ. "student").

120 roll film camera, 6x6 cm. Monocular f 8/75 mm lens. No focusing. Central mfps shutter M and B. Optical vfr. Plastic body. Removable back. C 1962 - 1969. Mfg MMZ. Qty over 550000.

**Siluet-Automat** (Siluett-2).

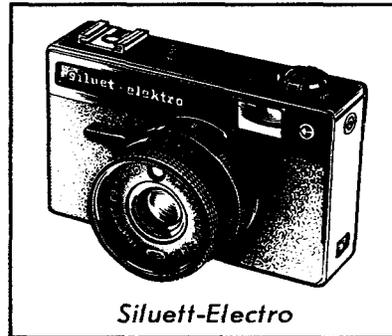
35mm scale camera, 24x36 mm. "Industar-92" f 2.8/38 mm lens. Central electronically controlled mfps 1/8 to 1/500 s. C 1979 -1984. Mfg BelOMO.



*Siluett-Automatt*

**Siluett-Electro** (Vilia-Electro).

Like "Siluett-Automat", except "Triplet-69-3" f 4/40 mm lens. C 1975 - 1981. Mfg BelOMO.



*Siluett-Electro*

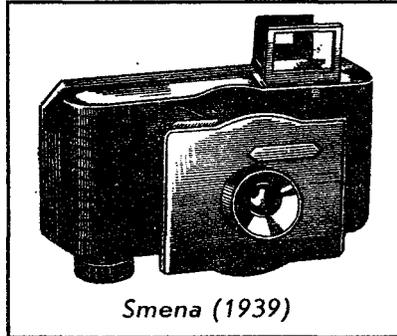
**Smena** (Russ. "Young generation").

Scale 35 mm camera, 24x36 mm. "Triplet" f 6.8/50 mm lens. Mfps 1/50 (M) and B, or central mfps 1/25 to 1/100 s and B. C 1939 - 1941. Mfg GOMZ.

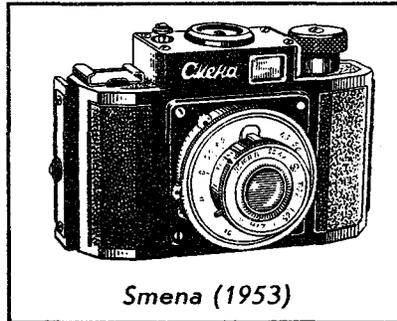
**Smena.**

Scale 35mm camera. "Triplet-22" f 4.5/40 mm lens. Central mfps 1/10 to 1/200 s and B. Exp counter

button separate from shutter release. Since 1959 combined exp counter and shutter release button. Some cameras are with flash synch. Two cassettes loading with no rewind. Plastic body. Removable back side. C 1953 - 1960. Mfg GOMZ, MMZ (1958). Qty over 50 mln. \$ 15-20.



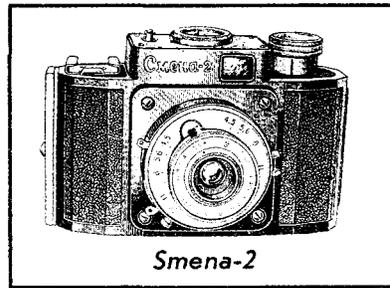
*Smena (1939)*



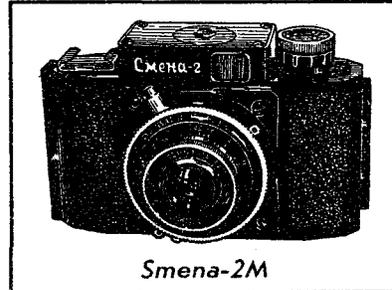
*Smena (1953)*

**Smena-2.**

Like "Smena", except self timer and flash synch. Since 1959 combined exp counter and shutter release button. C 1955 - 1961, mfg GOMZ; c 1957 - 1961, mfg MMZ.



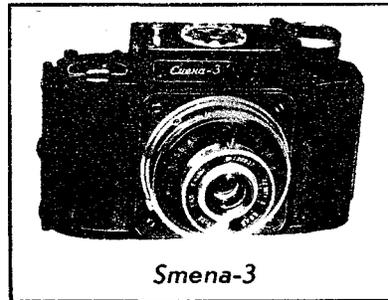
*Smena-2*



*Smena-2M*

**Smena-2M.**

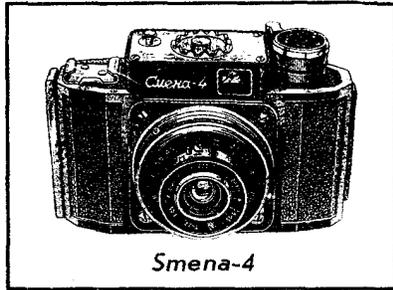
Like "Smena-2", except shutter speeds: 1/8 to 1/350 s and B. C 1961. Mfg MMZ.



*Smena-3*

**Smena-3.**

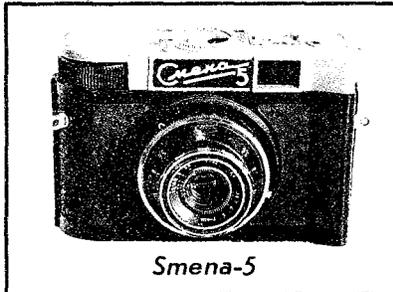
Like "Smena" except lever wind. C 1958 - 1960. Mfg GOMZ.



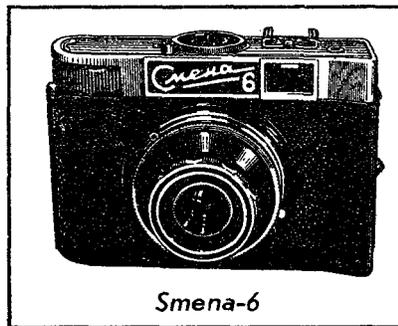
*Smena-4*

**Smena-4.**

Like "Smena-3", except flash synch and self timer. C 1961 - 1962. Mfg GOMZ.



*Smena-5*



*Smena-6*

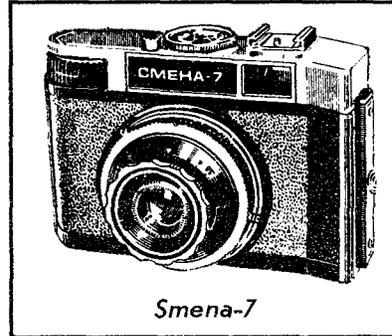
**Smena-5.**

Like "Smena". Modified body. "T-42" (Triplet) f 5.6/40 mm lens.

Shutter speeds: 1/30 to 1/250 s and B. Flash synch. C 1961 -1962. Mfg GOMZ.

**Smena-6.**

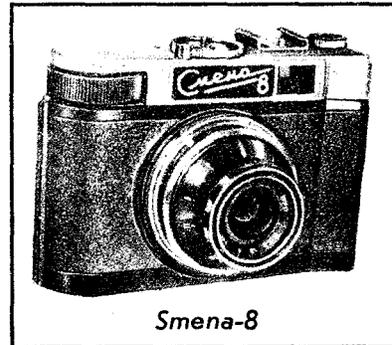
Like "Smena-2", with modified body, "T-43" (Triplet) f 4/40 mm lens. Shutter speeds: 1/15 to 1/250 s and B. Flash synch. Self timer. C 1961 - 1962. Mfg GOMZ, LOMO.



*Smena-7*

**Smena-7.**

Like "Smena-6", except no self timer. C 1969 -1971. Mfg LOMO.

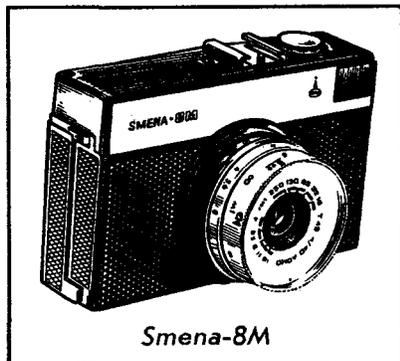


*Smena-8*

**Smena-8 (Cosmic-35).**

Like "Smena-6" with rewind and

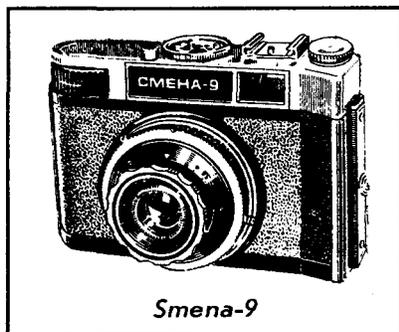
film advance blocking system. C 1963 - 1971. Mfg LOMO.



*Smena-8M*

**Smena-8M.**

Similar to "Smena-8". Modified body. Folding back side. No self timer. C since 1970. Mfg LOMO.



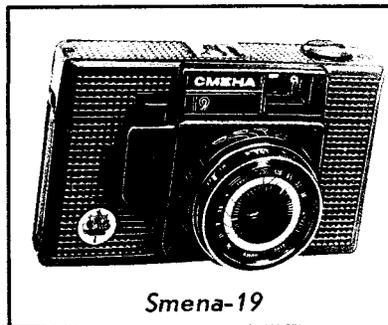
*Smena-9*

**Smena-9.**

Like "Smena-8", except no self timer. C 1969 - 1971. Mfg LOMO.

**Smena-19.**

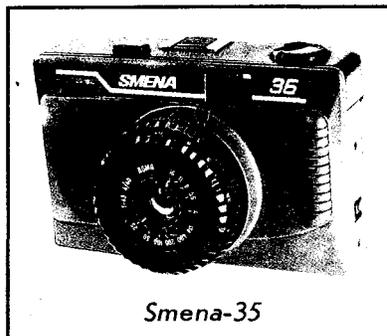
Like "Smena-Symbol" with modified body. C 1969 - 1971. Mfg LOMO.



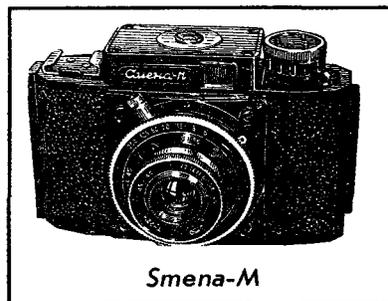
*Smena-19*

**Smena-35.**

Like "Smena-8M" with smaller modified body. Hot-shoe flash contact. C since 1990. Mfg LOMO.



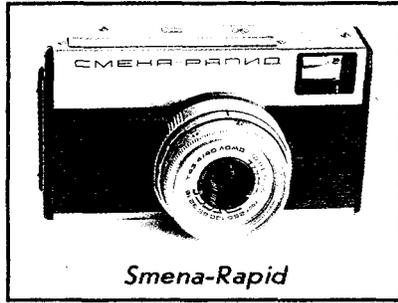
*Smena-35*



*Smena-M*

**Smena-M.**

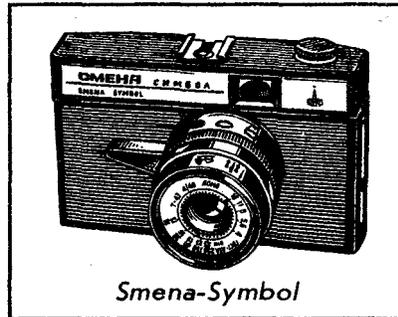
Like "Smena-2M" but no self timer.



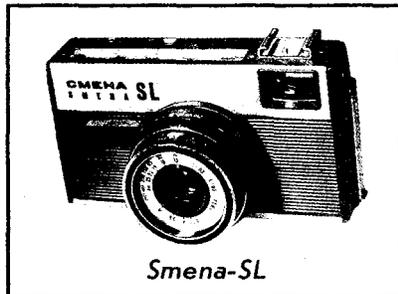
*Smena-Rapid*

**Smena-Rapid.**

Like "Smena-8M", except "Raped" system film loading. Lever wind. No flash synch. C 1968 - 1977. Mfg LOMO.



*Smena-Symbol*



*Smena-SL*

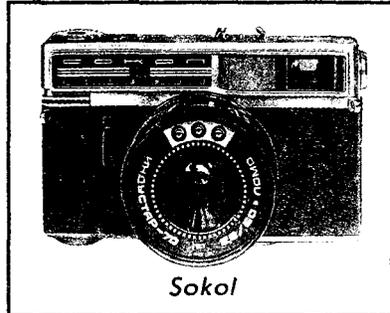
**Smena-Symbol.**

Similar to "Smena-8M". Modified

body. Lever wind. Exp counter. C 1971 - 1991. Mfg LOMO. \$ 12-18.

**Smena-SL.**

Like "Smena-Symbol", except flash synch. C 1968 - 1977. Mfg LOMO. \$ 10-20.



*Sokol*

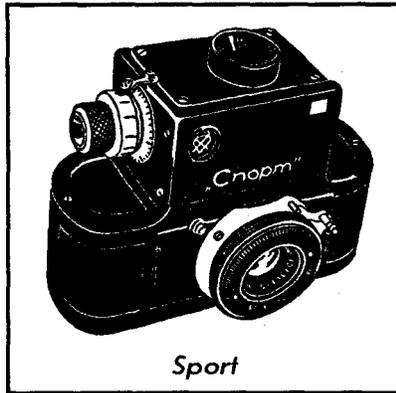


*Sokol-2*

**Sokol (Russ. "falcon").**

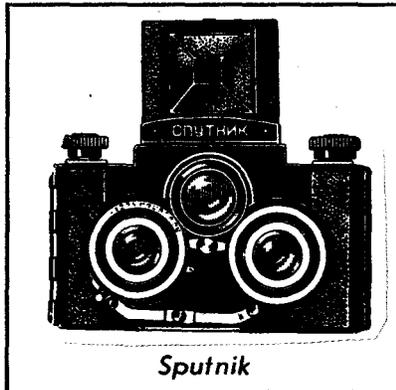
35 mm camera, 24x36 mm. "Industar-70" f 2.8/50 mm lens. Central five-program automatic mfps 1/30 to 1/500 and B. Crf. Lever wind,. X and M flash synch. Metal body with folding back side. In 1974 - 1975 was produced as "LOMO-130A" with one flash synch, c 1966 - 1978. Mfg LOMO.

**Sokol-2** (LOMO-130A.). See "Sokol".



*Sport*

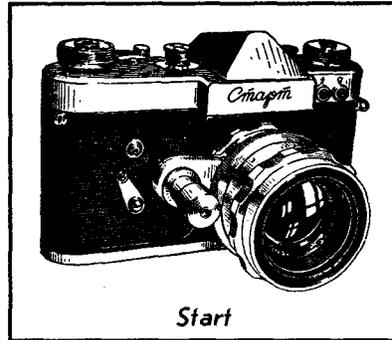
**Sport** (Gelveta).  
35mm reflex camera, 24x36mm. "Industar-10" f 3.5/50 mm bayonet lens. Curtain vertical mfps 1/25 to 1/500 s and B. Additional through-the-lens vfr. Double-cassette loading. C 1935 - 1940. Mfg GOMZ. \$ 500-800.



*Sputnik*

**Sputnik.**  
Reflex stereo camera based on

duplicated "Liubitel" camera. Shutter speeds: 1/10 to 1/20 and B, or 1/15 to 1/250 and B. C 1955 - 1973. Mfg GOMZ, LOMO. Qty 84300. \$ 300-475.



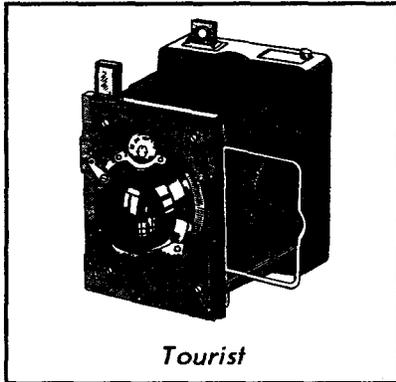
*Start*

**Start.**  
Reflex 35 mm camera, 24x36 mm. "Helios-44" f 2/58 mm bayonet lens with aperture button. Cfps 1 to 1/1000 s and B. Lever wind. self timer. Two synchs. Removable back side. Interchangeable vfr hood and pentaprism. Split image focusing. Built-in film cutter. Complete with adapter ring M39x1. Since 1959 - lensed exp counter. Since 1961 modified film advance lever mechanism. C 1958 - 1964. Mfg KMZ. Qty 76503. \$ 250-325.

**Start-2.**  
"Start" with modified shutter release. Was not produced full scale.

**Start-3.**  
"Start" with modified shutter release. Was not produced at full scale.

## T



*Tourist*

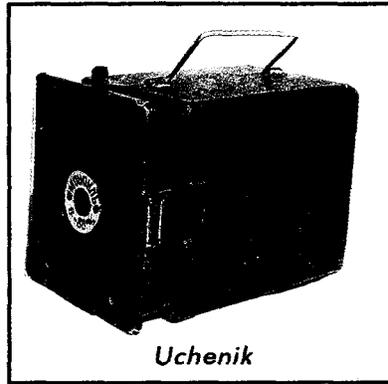
### **Tourist.**

Folding 6.5x9 cm plates camera, "Industar-7" f 3.5/105 lens. Central mfps "GOMZ" 1/25 to 1/100 s, K and D. Optical and frame vfr's. Removable plate magazine. C 1934 - 1941. Mfg GOMZ. Qty about 200000. \$ 90-175.

## U

### **Uchenik** (Russ. "student").

Double-box extension camera. Plates 4.5x6cm. Monocular lens, f 80 mm. Guillotine shutter. Ground glass focusing. C 1935. Mfg "Novaya Shkola".



*Uchenik*

## V



*Vega-2*

### **Vega-2.**

Scale 110 cartridge subminiature camera, 10x14 mm. Shutter 1/30 to 1/200 s, flash synch. "Industar-M" f 3,5/23 mm screw mount lens. The late model of "Kiev-Vega" with lens focusing. C 1961 - 1964. Mfg "Arsenal".

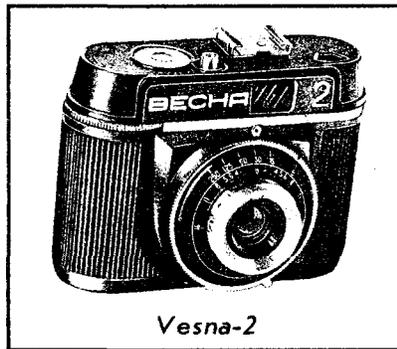
### **Vesna** (Russ. "spring").

Scale 35 mm camera, 24x32 mm. "T-22" f 4.5/40 mm lens. Central shutter 1/8 to 1/250 s, B. Half-hidden film-advance head.

Flash synch. C 1962 1964. Mfg BelOMO.



*Vesna*



*Vesna-2*

**Vesna-2.**

Like "Vesna", except the shutter 1/15 to 1/250, B. C 1964 - 1966. Mfg BelOMO.

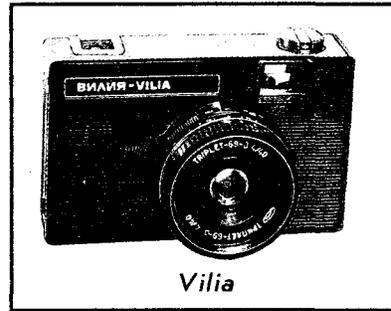
**Visit.**

Like "Zenit-14", but with mechanical shutter. Was not produced full-scale. Mfg BelOMO.

**Vilia.**

Scale 35 mm camera, 24x36mm. "Triplet-69-3" f 4/40 mm lens. Central shutter 1/30 to 1/250, B.

Lever wind. F and X flash synch. C since 1974. Mfg BelOMO. Qty about 2.5 mln. \$ 12-18.



*Vilia*



*Vilia-Auto*

**Vilia-Auto.**

Based on "Vilia". Selenium exposure meter. Mfg BelOMO. C 1973 - 1985. Qty about 3 mln. \$ 15-20.

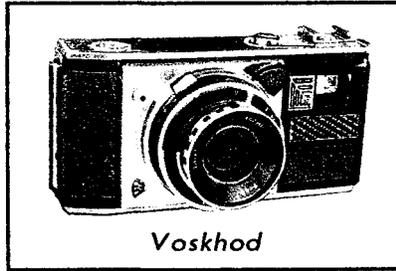
**Vilia-EE.** See "Orion-EE".

**Vilia-Electro.** See "Siluet-Electro".

**Voskhod** (Russ. "Sunrise").

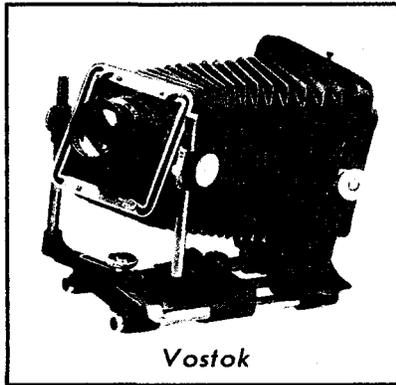
Scale 35 mm camera, 24x36 mm. "T-48 f 2.8/45 mm lens. Central half automatic shutter 1 to 1/250 s, B. Flash synch. Original lever wind. Selenium exposure meter with

indicator scales in vfr screen. C 1964 -1968. Mfg LOMO. Qty 58000. \$ 75-125.



*Voskhod*

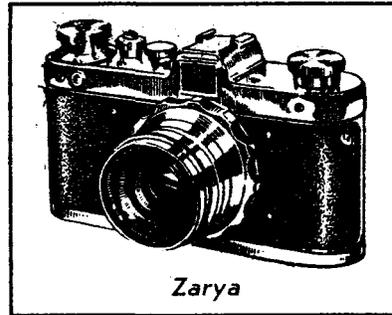
**Vostok** (Russ. "East"). Studio box camera, 9x12 plates. Triple-length bellows. "Industar-51" f 4.5/21 cm screw mount lens. Swinging front and back sides. Manufacturer is unknown. C 1949.



*Vostok*

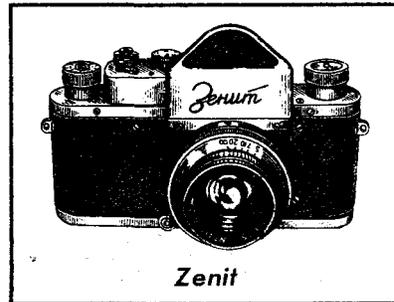
**Vympel** (Russ. "Pennant"). See "Estafeta".

## Z



*Zarya*

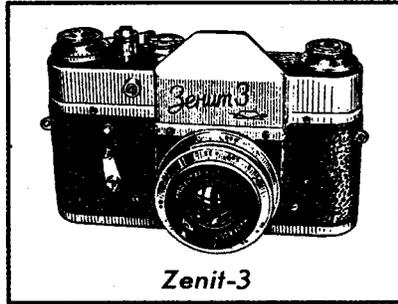
**Zarya** (Russ. "Dawn"). Like FED-2, C 1959. Scale 35 mm camera, 34x36 mm. "Industar-36M" f 2.8/50 mm screw mount M 39x1 lens. Crf. Curtain shutter 1/30 to 1/500 s, B. Flash synch. C 1959 - 1961. Mfg FED. Qty 141228.



*Zenit*

**Zenit** (Russ. "Zenith"). Reflex 35 mm camera, 24x36 mm. "Industar-22" f 3.5/52 mm, "Industar-50" f 3.5/52 mm or Helios-44 f 2/58 mm screw mount M 39x1 lenses. Curtain shutter 1/20 to

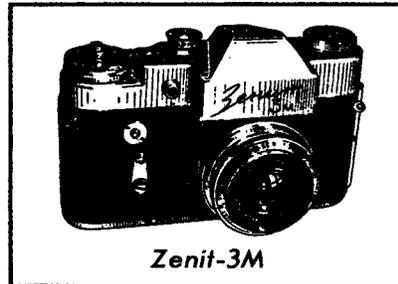
1/500 s, B (since 1954 - 1/25 to 1/500 s and B). Based on "Zorky" camera (see). The first camera in "Zenit" reflex cameras family. C 1952 - 1956. Mfg KMZ. Qty 39019. \$ 45-70.



**Zenit-3**

**Zenit-3.**

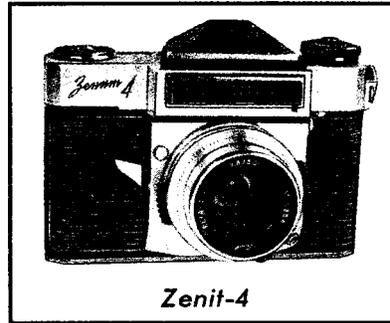
Like "Zenit", except flash synch, self timer, lever wind, curtain shutter 1/30 to 1/500 s, B. Lenses: "Industar-50" f 3.5/52 mm, "Helios-44" f 2/58 mm. C 1960 - 1962. Mfg KMZ. Qty 81776. \$ 25-40



**Zenit-3M**

**Zenit-3M.**

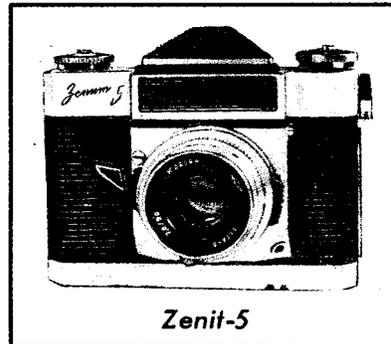
Like "Zenit-3", except folding back side. C 1962 - 1970. Mfg KMZ. Qty 7811678. '\$ 25-40.



**Zenit-4**

**Zenit-4.**

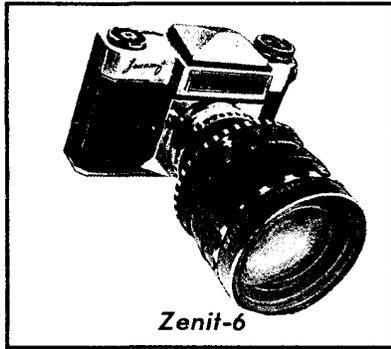
Reflex 35 mm camera based on "Zenit" (see) "Vega-3" f 2.8/50 mm bayonet lens. Instant-return aperture. Central shutter 1 - 1/50 s, B. Lever film advance. Self timer. Flash synch. Built-in selenium exposure meter with indicator scale in the vfr screen. Removable pentaprism. C 1964 - 1968. Mfg KMZ. Qty 19740.



**Zenit-5**

**Zenit-5.**

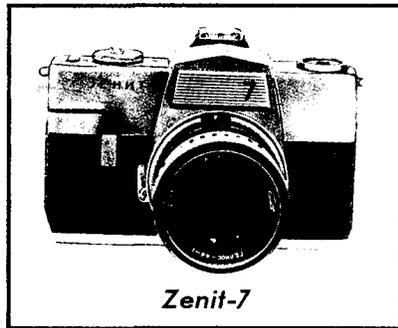
Like "Zenit-4", except motor film drive. C 1964 - 1968. Mfg KMZ. Qty 11616.



*Zenit-6*

**Zenit-6.**

Like "Zenit-4" except "Rubin-1" zoom lens, f 2.8/37 to 80 mm. C 1964 -1968. Mfg KMZ. Qty 8930.



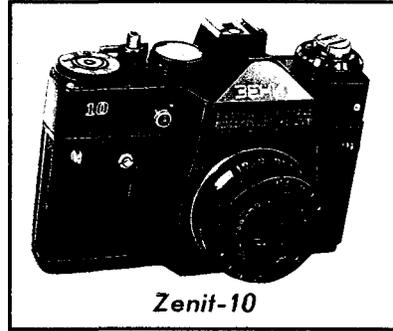
*Zenit-7*

**Zenit-7.**

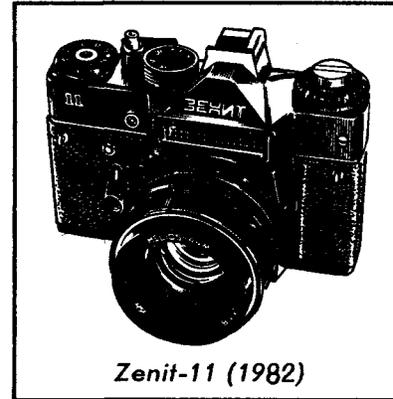
Like "Zenit-3". "Helios-44-7" f 2/58 mm screw mount M 39x1 or M 42x1 lens. Curtain shutter 1 -1/1 OOs, B. Lever wind. Two models are known: with self timer and two flash synch contacts, and with no self timer and one flash contact. C 1968 - 1971. Mfg KMZ. Qty 3042.

**Zenit-9.**

Like "Zenit-7", except half automatic shutter speed ' control. Was not produced full scale.



*Zenit-10*



*Zenit-11 (1982)*

**Zenit-10.**

Like "Zenit-E", except non-rotating speed head, hidden back side lock, flash synch, central tripod socket. Two models are known - with all-matt focusing screen and with microprism spot in a ground glass focusing screen. C 1981 - 1982. Mfg KMZ. Qty 19865.

**Zenit-11.**

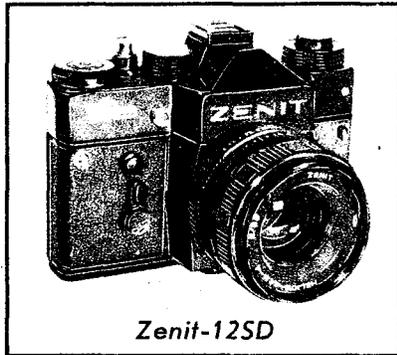
Like "Zenit-4" except no exposure meter. Was not produced full scale.

**Zenit-11.**

Like "Zenit-10", except instant-return aperture and microprism spot focusing. Mfg KMZ, qty about 1.5 mln. C 1982 - 1990, and BelOMO, qty unknown. C 1983 - 1984.

**Zenit-12.**

Like "Zenit-TTL", produced for export. C 1983 -1988. Mfg K.MZ. Qty about 80000.



*Zenit-12SD*

**Zenit-12SD.**

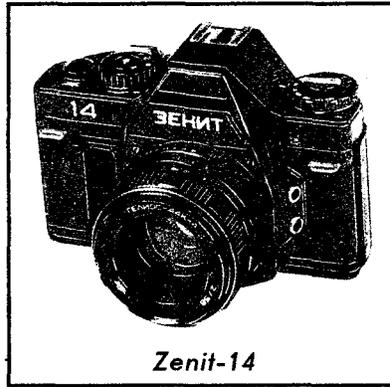
Like "Zenit-TTL", except photo diode exposure indication. An export modification - "Zenit-12XP". C since 1983. Mfg K.MZ and BelOMO (as "Zenit-15"). Qty about 2 min by 1991 (85% of which - "Zenit-12XP").

**Zenit-14.**

Like "Zenit-Automat". Mfg KMZ. C 1987-1988. Qty 123.

**Zenit-15.**

Mfg BelOMO. See "Zenit-12SD". C 1983 - 1985.



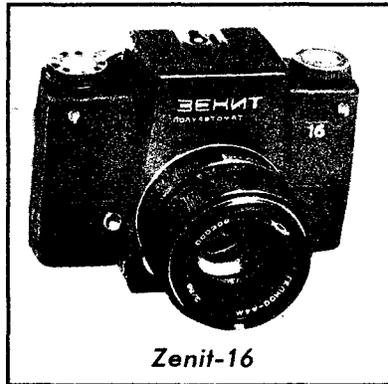
*Zenit-14*

**Zenit-15.**

Mfg KMZ. Like "Zenit-16", except no exposure meter. Was not produced full scale.

**Zenit-ISM.**

Like "Zenit-15", mfg BelOMO, but shutter speed 1 to 1/1000 s and B. Was not produced at full scale.

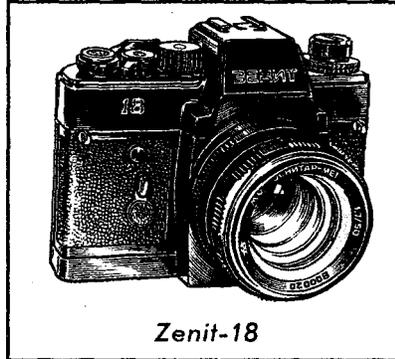


*Zenit-16*

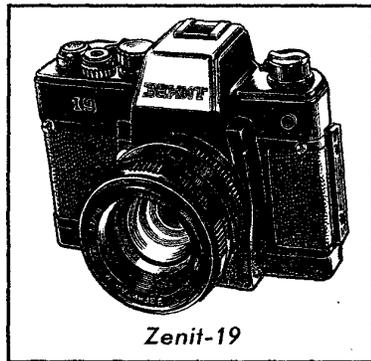
**Zenit-16.**

One of four models having curtain shutter with horizontal slit - "Zenit-15, 16, 18, and 19". "Zenit-18 and 19" were later modified with

central louver shutter. Plastic body. "Helios-44M" f 2/58 mm screw mount lens. Shutter 1/15 to 1/1000 s and B. Folding back side. Shutter release button on the back side. Lever wind. Flash synch. Half automatic shutter speed control.



*Zenit-18*



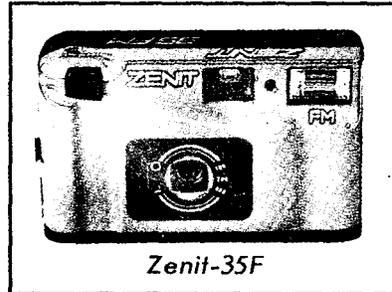
*Zenit-19*

**Zenit-18.**

Like Zenit-16. "Zenitar ME1" f 1.7/50 mm screw mount M 42x1 lens. Electronic mfps 1 to 1/1000 s, B. Self timer. Flash synch. C 1980 - 1987. Mfg KMZ. Qty 7001.

**Zenit-19.**

First version was called "Zenit-T1". Like "Zenit-16". "Zenitar M" f 1.7/50 mm or "Helios-44M" f 2/58 mm screw mount M 42x1 lens. Central electronically controlled mfps 1 to 1/1000 s and B. Two modifications are known - with flash synch 1/60 s and 1/125 s. C 1979 - 1987. Mfg KMZ. Qty 121993.



*Zenit-35F*

**Zenit-35F.**

35 mm camera, 24x36 mm. F 5.6/35 non-focusing lens. Central shutter 1/125. Built-in non-automatic flash. C since 1988. Mfg LOMO.

**Zenit-35F1.**

Like "Zenit 35F", except automatic flash. Mfg LOMO. C since 1992.

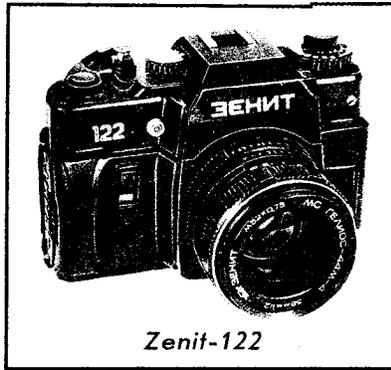
**Zenit-35FM.**

Like "Zenit 35F" except automatic flash and motor drive.

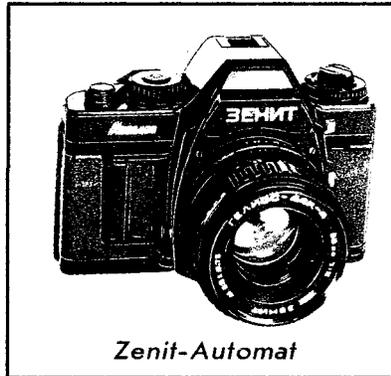
**Zenit-80.** See "Salut-S". \$ 200-300.

**Zenit-122.**

Like "Zenit-12SD",-except automatic exp counter, and split-image rfr,. Interchangeable lenses M 42x1. C 1990. Mfg KMZ.



*Zenit-122*



*Zenit-Automat*

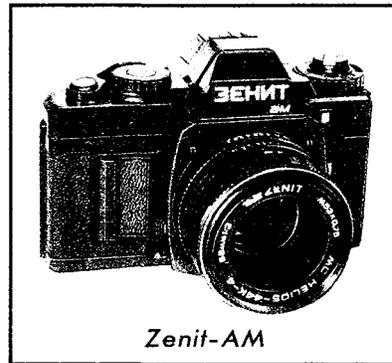
**Zenit-Automat.**

Reflex 35 mm camera, 24x36 mm. Curtain automatic shutter 1 to 1/1000 s and B. "Helios K" interchangeable lenses. Speed indication in vfr screen. Split-image rfr. Electronic self timer. Flash synch. Lever wind. C since 1985. Mfg KMZ. Qty over 100,000 by the end of 1991.

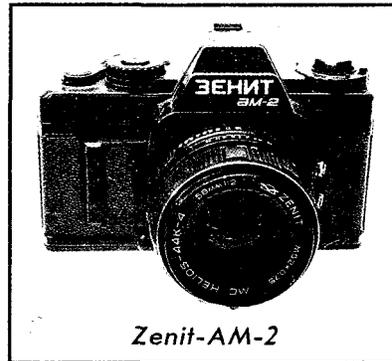
**Zenit-AM.**

Like "Zenit-Automat", except central mfps 1 to 1/1000 s. First version

with speed memory. C since 1989. Mfg KMZ.



*Zenit-AM*



*Zenit-AM-2*

**Zenit-AM-2.**

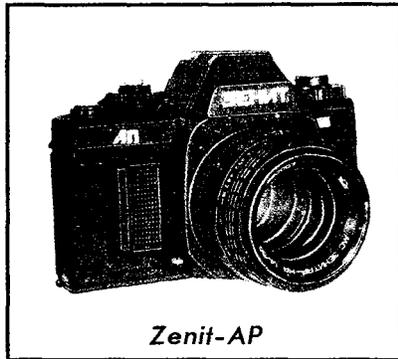
Like "Zenit-AM". Mfg KMZ.

**Zenit-AP.**

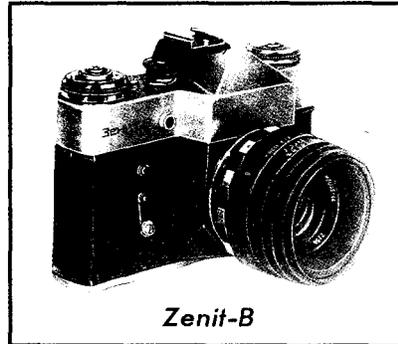
Like "Zenit-Am", except half-automatic shutter speed control with added 1/2000 s speed.

**Zenit-B.**

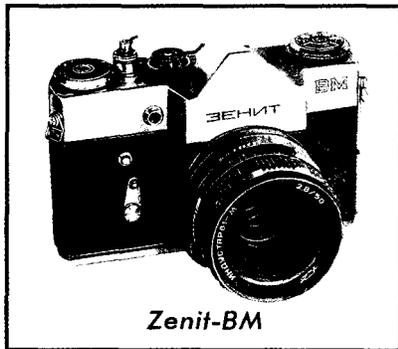
Like "Zenit-3M", except constant sight mirror and M 42x1 lenses. C 1968-1973, 1977, 1978. Mfg KMZ. \$ 25-40.



*Zenit-AP*

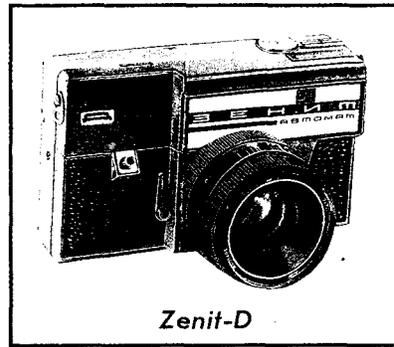


*Zenit-B*



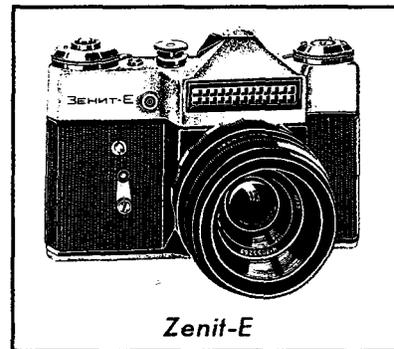
*Zenit-BM*

**Zenit-BM.**  
Like "Zenit-B", except instant-return aperture. C 1972-1973. Qty 1239.



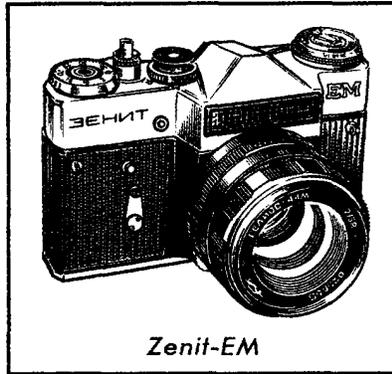
*Zenit-D*

**Zenit-D.**  
Reflex 35 mm camera, 24x36 mm. "Helios-44D" f 2/58 mm bayonet lens. Electronically controlled cfps 1/2 to 1/1000 s and B. Complete with charging equipment. C 1969 - 1970. Qty 63. Mfg KMZ.



*Zenit-E*

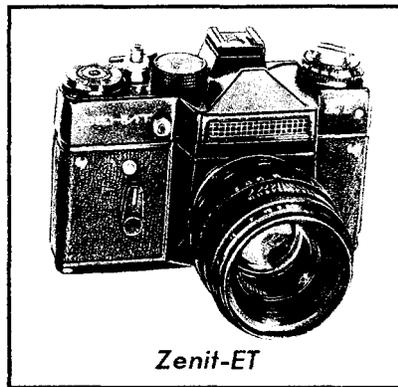
**Zenit-E.**  
Like "Zenit-B", except built-in selenium exposure meter. C 1965 - 1981, mfg KMZ, qty 3334540; C 1975, mfg BelOMO, qty 5 mln. \$ 35-50.



*Zenit-EM*

**Zenit-EM.**

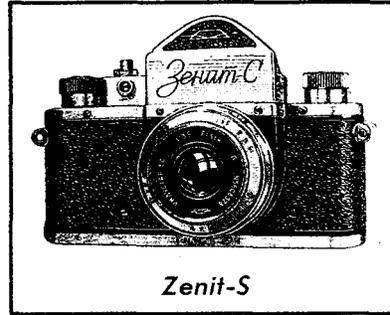
Like "Zenit-E", except instant-return aperture. C 1972 - 1984. Mfg KMZ. Qty 979139. \$ 50.



*Zenit-ET*

**Zenit-ET.**

Like "Zenit-10", without instant-return aperture, or like "Zenit-11", with instant-return aperture. C 1981-1982, mfg KMZ, qty 61069. C since 1982, mfg BelOMO, qty over 3 mln. \$ 40.



*Zenit-S*

**Zenit-S.**

Like "Zenit", except flash synch. Since 1959 shutter speeds are: 1/30 to 1/500 s and B. C 1955 - 1961, mfg KMZ.

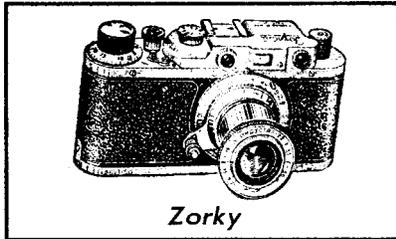
**Zenit-T-1.** See "Zenit-19".



*Zenit-TTL*

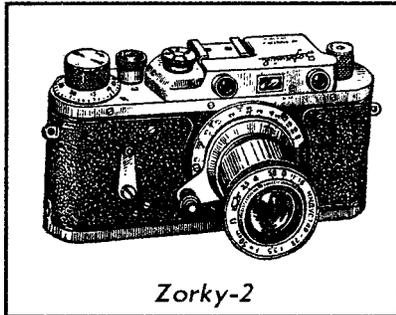
**Zenit-TTL.**

Like "Zenit-EM", except half-automatic shutter speed control. Needle exposure indication. Non-rotating shutter speed head. C 1977 - 1985, mfg KMZ, qty 1632212; C 1977 - 1980, mfg BelOMO, qty about 1 mln.



*Zorky*

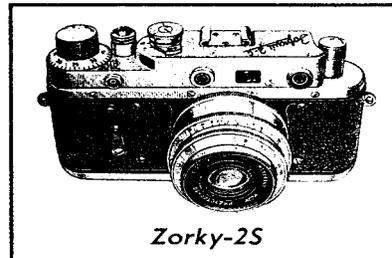
**Zorky** (Russ. "sharp-sighted"). 35 mm Leica II type camera. Analog to FED camera. The first models were called "FED-Zorky". Screw mount M 39x1 lenses: "Industar-22" f 3.5/52 mm, "3K" f 1.5 or 2/50 mm, "Jupiter" 1,5 or 2/52 mm. Crf. Cfps 1/20 to 1/500 , since 1948 to 1/1000, and Z, since 1955 - 1/25 to 1/500 and B. Since 1950 caple release adopted button. C 1948 - 1956, mfg KMZ, qty 835502. \$ 40-85.



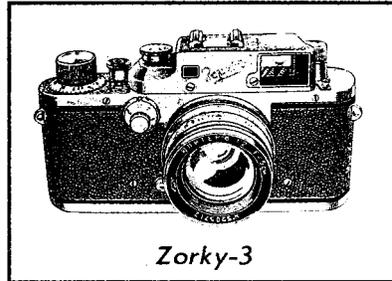
*Zorky-2*

**Zorky-2.** Like "Zorky", but with self timer. C 1954 -1956, mfg KMZ. Qty 10310. \$ 60-90.

**Zorky-2S.** Like "Zorky-2", except but with synch. C 1955-1960. Mfg KMZ. Qty 214903. \$ 50-80.

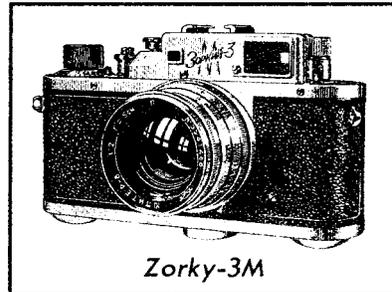


*Zorky-2S*



*Zorky-3*

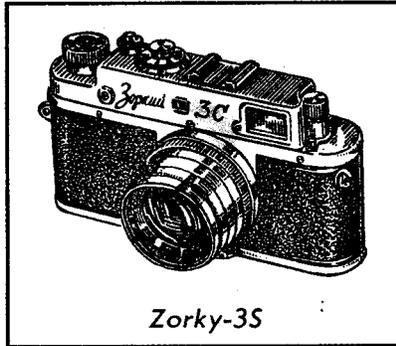
**Zorky-3.** Like "Zorky", but with additional shutter speed head on the front panel 1 - 1/1 OOs and D. Crf. Correction lens. Removable back side. "Jupiter-8" f 2/52 mm screw mount lens. C 1953 - 1956. Mfg KMZ. Qty 87569. \$ 50-75.



*Zorky-3M*

**Zorky-3M.** Like "Zorky-3", but with single

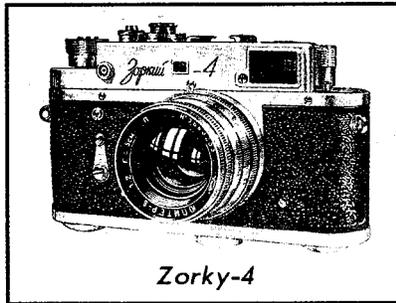
shutter speed head 1 to 1/1000 and  
B. C 1954 - 1955, Mfg KMZ. \$ 75.



*Zorky-3S*

**Zorky-3S.**

Like "Zorky-3M" but with flash  
synch. C 1955 -1956. Mfg KMZ. Qty  
45572. \$ 50-75.



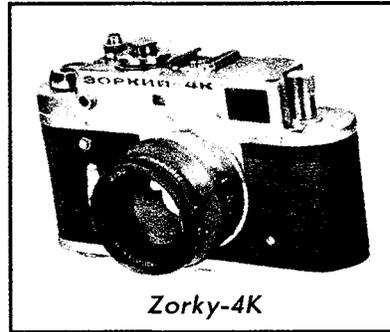
*Zorky-4*

**Zorky-4.**

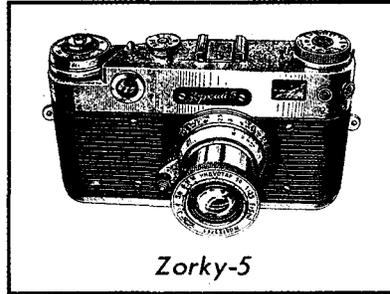
Like "Zorky-3C", but with self timer.  
Also in some cameras "Industar-50"  
f 3.5/52 mm screw mount lens is  
used. C 1956 - 1973. Mfg KMZ. Qty  
1715677. \$ 35-50.

**Zorky-4K.**

Like "Zorky-4", but with lever wind.  
C 1972 -1974, 1980. Mfg KMZ. Qty  
524646. \$ 35-50.



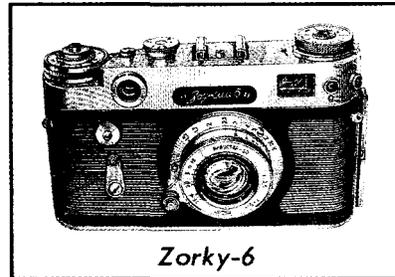
*Zorky-4K*



*Zorky-5*

**Zorky-5.**

Similar to "Zorky-C". Cfps, since  
1959 1/30 to 1/500, B. Crf.  
Correction lens. two flash synch.  
Lever wind. C 1958 - 1959. Mfg  
KMZ. Qty 236501. \$ 50-75.

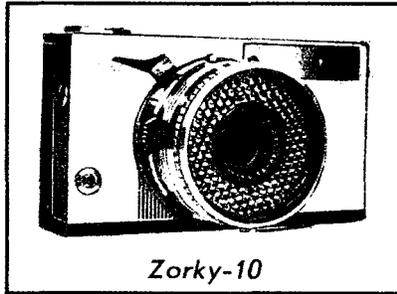


*Zorky-6*

**Zorky-6.**

Like "Zorky-5", but with folding back

side, and self timer. C 1956 - 1966.  
Mfg KMZ. Qty 385207. \$ 45-65.



*Zorky-10*

**Zorky-10.**

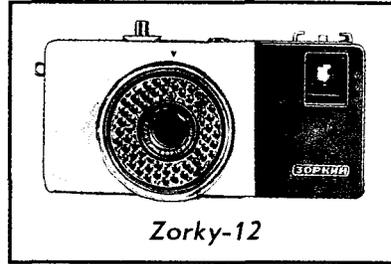
"Industar-63" f 2.8/45 mm built-in lens. Automatic central mfps 1/30 to 1/500 s and B. Selenium exposure meter. Self timer. Flash synch. Lever wind on the bottom side. C 1964 -1978. Mfg KMZ. Qty 332144. \$ 30-40.



*Zorky-11*

**Zorky-11.**

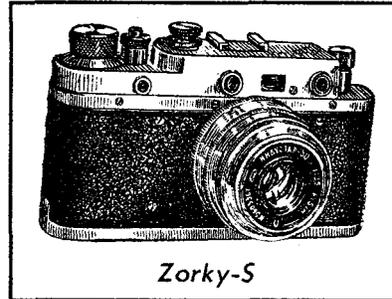
Scale camera. Like "Zorky-10", but without rfr. C 1964 - 1966. Mfg KMZ. Qty 60745. \$ 25-40.



*Zorky-12*

**Zorky-12.**

Scale camera, 35 mm, 18x24 mm. Built-in "Helios-98" f 2.8/28 lens. Central mfps. Automatic aperture at 1/125 s speed or manual aperture at 1/30 s. Selenium exposure meter. 24-frame "Rapid" film loading. C 1967 - 1968. Mfg KMZ. Qty 7200. \$ 40-60.



*Zorky-S*

**Zorky-S.**

Like "Zorky", but with flash synch. C 1955 -1958. Mfg KMZ. Qty 472702. \$ 20-30.

## Appendix 1

### FED and FED-C Cameras Volume of Production

1934:	1800	1946:	885
1935:	15000	1948:	1316
1936:	17000	1949:	10659
1937:	18000	1950:	24310
1938:	30000	1951:	35010
1939:	30000	1952:	46065
1940:	33000	1953:	80000
1941:	16000	1954:	130022
Total:	160650	1955:	148580
(The last known serial is 182292)		Total:	476847

## Appendix 2

### Translation of Engravings of FED and FED-C Cameras (Numbers are indicated approximately)

Seven engraving styles are known:

1. No.1 through 7000: "ФЭД Трудкоммуна им. ФЭДзержинского. Харьков".
2. No.7001 through 100000: "ФЭД Трудкоммуна НКВД-УССР им.ФЭДзержинского. Харьков".
3. No. 100001 through 170000: "ФЭД НКВД-СССР Харьковский комбинат им.ФЭДзержинского".
4. No.170001 through 182292: "ФЭД завод им. ФЭДзержинского. г.Харьков".
5. No.210024 through 400000: "ФЭД завод им. ФЭД зержинского".
6. No.400001 through 540000: "ФЭД".
7. Next cameras were not numbered, having the only "ФЭД" on the upper panel.

## Appendix 3

### FED-2 Cameras Volume of Production

The cameras were engraved with ordinal numbers beginning with No.000001 till approx. 1100000 in 1961, next cameras had cipher engravings.

1955:	1431
1956:	184038
1957:	195332
1958:	221005
1959:	213173
1960:	105030
1961:	171532
1962:	136218
1963:	141129
1964:	12430
1965:	59039
1966:	42702
1967:	47426
1968:	31633
1969:	33342
1970:	37140
Total:	1632600

## Appendix 4

### Zorky Cameras Volume of Production

In 1948 it was engraved: "FED 1948 Zorky". Cameras had ordinal numbers till 1954, later only the year was indicated.

1948:	1636
1949:	15000
1950:	38186
1951:	70501
1952:	128752
1953:	152150
1954:	190500
1955:	204400
1956:	34377
Total:	835502

## Appendix 5

### Zorky-4 Cameras Volume of Production

1956:	15150
1957:	72003
1958:	57150
1959:	25211
1960:	34550
1961:	86502
1962:	99500
1963:	144000
1964:	115666
1965:	69502
1966:	109732
1967:	160310
1968:	168915
1969:	116643
1970:	103400
1971:	124861
1972:	124819
1973:	87863
Total:	1715677