

# BOLEX TECHNICAL BULLETIN

PAILLARD Incorporated, 100 Sixth Avenue, New York 13, New York

## CLOSE-UP PHOTOGRAPHY WITH BOLEX 8mm EXTENSION TUBES

8mm lenses are available in fixed focus and focusing mounts. For close-up photography, focusing mount lenses are necessary and allow filming relatively small areas without any additional accessories. The smallest areas that can be covered with the various focusing mount lenses are:

<u>Lens</u>	<u>Area</u>	<u>Distance</u>
Switar 5.5mm	4½" x 3¼"	5"
Lytar ½"	4½" x 3¼"	1'
Yvar, Switar ½"	3" x 2¼"	¾'
Yvar 1"	3" x 2¼"	1 1/2'
Yvar 1½"	2½" x 1 3/4"	1 3/4'

The Bolex 8mm extension tubes extend the focusing range of the above lenses and make it possible to film even smaller areas.

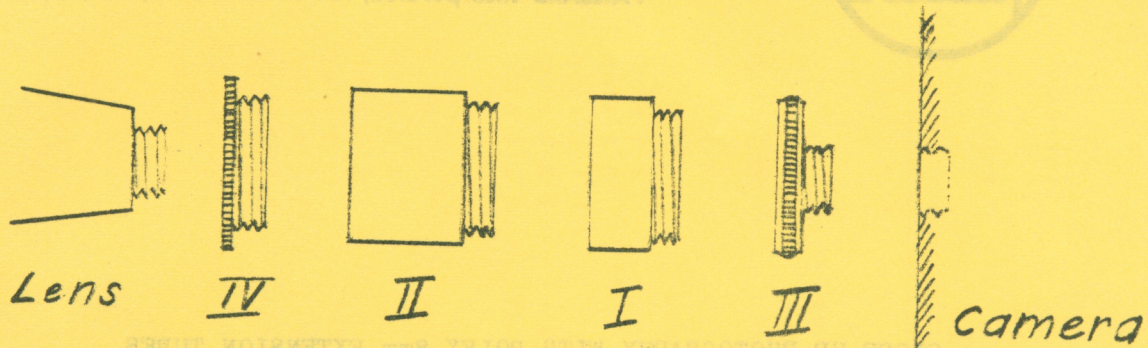
The set of Extension Tubes consists of the following five parts:

- 1) One Extension tube #1
- 2) One Extension tube #2
- 3) One "16 to 8" adapter
- 4) One "8 to 16" adapter
- 6) One "fixed focus" adapter

The fixed focus adapter is actually made to allow filming with fixed focus 1/2" lenses at a distance of 13" (distance on the Bolex 8mm Titler). It can, however, also be used for close-up filming with standard and telephoto lenses in a focusing mount. The adapter is simply mounted between camera and lens like a washer. The distances and areas covered are found in the chart in this bulletin.



Rings 1 to 4 fit together as illustrated:



They are used only with telephoto lenses but a variety of magnifications can be obtained since the rings can be combined in four different ways:

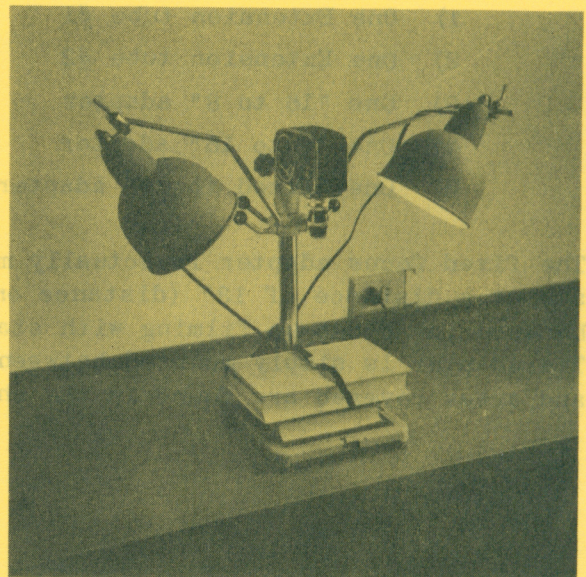
- Rings I, II, III, IV
- Rings I, III, IV
- Rings II, III, and IV
- Rings III and IV

The 8mm extension tubes can be used with all 8mm Bolex and other "D" mount cameras and "D" mount telephoto lenses. It is also possible to use 16mm "C" mount lenses by simply omitting ring #IV. Focusing must be done accurately because of the shallow depth of field. With the Bolex H-8 cameras, groundglass focusing is recommended. With other cameras, the distances should be measured (from the film plane). The last column in the chart gives the increased exposure that is necessary with extension tubes.

Example: Suppose you want to film a stamp 1" wide and 3/4" high. On the 36mm chart we find this area covered when using ring III and IV at a distance of 10 1/2". Open diaphragm one-half stop more than the reading on the exposure meter. The increase in exposure is automatically computed in the Bolex "compumatic" cameras.

Most accurate alignment of Bolex H-8 cameras is obtained with the Bolex prismatic focuser which is inserted in the film gate before loading the camera. Accurate framing with H-8 cameras is also possible with the Bolex Rackover or the Bolex 16mm Titler.

The small Bolex 8mm cameras are most accurately centered on the Bolex 8mm Titler. The normal filming distance on the titler is 13" but shorter distances are obtained by simply laying flat objects such as books between titling frame and camera.





Focal Length of Lens	Size of Area Covered	Distance Camera to Subject	Distance Setting on Lens	Ring	Increase in Exposure
12.5 or 13mm	2 3/4" x 2"	8"	1 1/4'	fixed focus	0
	2 1/4" x 1 1/2"	7"	1'	fixed focus	0
	1 5/8" x 1 1/4"	6"	3/4'	fixed focus	1/4 stop
25mm	2 1/4" x 1 1/2"	14"		fixed focus	0
	3/4" x 9/16"	5 1/2"	1 1/2"	III+IV	3/4 stop
	5/8" x 7/16"	4 3/4"	Inf.	III+IV	3/4 stop
	3/8" x 1/4"	3 3/4"	1 1/2'	I+III+IV	1 1/2 stop
	1/4" x 3/16"	3 1/2"	Inf.	II+III+IV	1 3/4 stop
	3/16" x 1/8"	3 1/2"	Inf.	I+II+III+IV	2 1/4 stop
36mm	2" x 1 1/4"	18"	1 3/4'	fixed focus	0
	1" x 3/4"	10 1/2"	Inf.	III+IV	1/2 stop
	3/4" x 9/16"	8 1/4"	2'	III+IV	1/2 stop
	7/16" x 5/16"	6 1/4"	Inf.	I+III+IV	1 stop
	3/8" x 1/4"	5 3/4"	Inf.	II+III+IV	1 1/4 stop
	1/4" x 3/16"	5 1/4"	Inf.	I+II+III+IV	1 1/2 stop

Set of 8mm Extension Tubes

Price: \$14.00

Code: EXTON

No. 625