



Houston Fearless 76

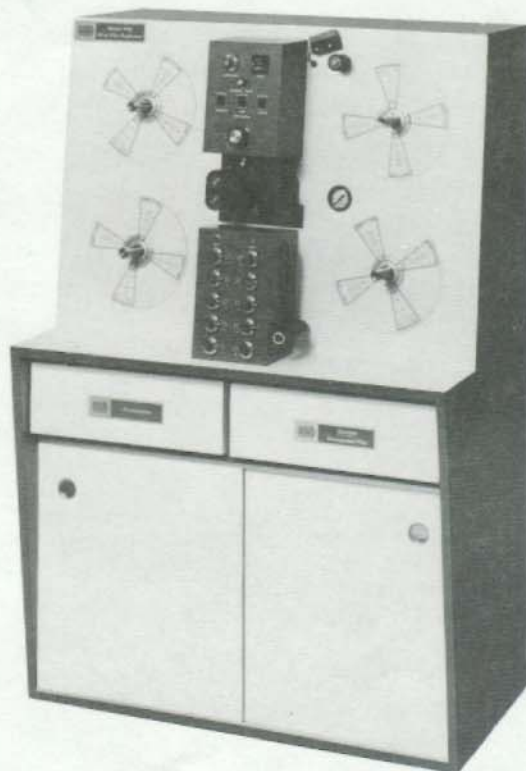
50 YEARS OF ACHIEVEMENTS

SILVER FILM DUPLICATORS

MODEL 3100
MODEL 3150

EXTEK offers two roll-to-roll silver film duplicators. The Model 3100 is for 16 mm and 35 mm film; the Model 3150 handles 16 mm through 105 mm film. Both employ Extek's patented vacuum registration method to insure high quality copies free from optical distortions and film slippage.

These duplicators have proved themselves in extensive use in microfilm centers throughout the world. Design simplicity and quality manufacture account for the excellent reliability experience enjoyed by users of these equipments.



MODEL 3150 WITH COUNTER, SEQUENTIAL DENSITY PROGRAMMER AND 105 mm VACUUM HEAD.



MODEL 3100 WITH 16 mm VACUUM HEAD.

The Model 3100 and Model 3150 are free standing units, caster mounted for mobility and ease of maintenance. Both have two storage drawers, one of which is light-tight for storing unexposed film. A large storage space is beneath.

Optional features and accessories extend the utility of the basic units. These include a variety of loop modules, a counter, a sequential density programmer, and different spindle sizes. A table top mounting unit is available. All models can be configured to operate from foreign power sources.

VACUUM HEADS

A vacuum head is required for each film size to be duplicated. Heads are operator changeable. Standard sizes are:

Head (Film) Size	For Use With
16 mm	Model 3100 & 3150
35 mm	Model 3100 & 3150
70 mm	Model 3150
3/4 in (82.5 mm)	Model 3150
105 mm	Model 3150

Other sizes available on special order.

LOOP MODULES

With a loop module the master film may be formed into a closed loop and multiple copies made.

Model	Film Size	Max. Loop Length	Crated Wt.
3101	16 mm, 35 mm	102 ft (31 m)	120 lb (54 kg)
3102	16 mm, 35 mm	220 ft (67 m)	180 lb (82 kg)
3151	105 mm	44 ft (13 m)	120 lb (54 kg)
3152	16 mm, 35 mm 105 mm	102 ft (31 m) 44 ft (13 m)	120 lb (54 kg)

Minimum loop length is 8 ft (2.4 m) for all models and film sizes. Height above duplicator is 42 in (107 cm).

OPTIONAL FEATURES

Counter

Halts operation of duplicator after a preset number of counts. Operator preset to desired number of copies of a looped master. May also be used to select a predetermined film segment for duplication. Actuated by reflective markers placed on master film.

Sequential Density Programmer

Allows production of duplicates having uniform density from a master having up to eleven segments each of which has a different density. Correction is made on a segment-to-segment basis (not frame-to-frame).

50Hz Configuration

Allows operation from a 50Hz electrical power source. Input voltage required is 100 to 130 volts (115 nominal). For operation of the duplicator from 220 volts, 230 volts, or 240 volts 50Hz an external transformer (available as an accessory item) is required, in addition to this optional configuration.

ACCESSORIES

Spare Parts Kit

Contains an assortment of replaceable parts.

Spindles

One-inch and 5/16-inch diameter spindles are available individually. Spindles are readily interchanged. The 5/16-inch spindles may be used on the Model 3150, but are not suitable for 105mm film.

220/230 Volt to 115 Volt Transformer

Allows the duplicator to be operated from a 220 volt, 230 volt, or 240 volt (single phase) electrical power source. (For use with equipment having the 50Hz configuration option.)

Covered by U.S. Patent No. 3,468,606 and others, U.S. and foreign.

Specifications subject to change without notice.

SPECIFICATIONS

Film Size:

Model	Width	Thickness
3100	16 mm, 35 mm	1.5 to 8 mil
3150	16 mm through 105 mm	1.5 to 8 mil

Master and duplicate films may be different thicknesses.

Film Type:

Master Silver Halide, Diazo or Vesicular.

Duplicate Silver Halide—Print film (image reversed);

—Direct Duplicating film (image not reversed).

16mm and 35mm films may have sprocket holes; however, sprocket hole registration is not maintained.

Film Capacity (Supply Spindles):

Spindle (Core) Dia.	Max. Roll Dia.	5.4 mil	2.5 mil
1-in [3-in]	10 in (25 cm)	1100 ft (335 m)	2400 ft (730 m)
5/16-in [1-in]	5 in (13 cm)	300 ft (91 m)	600 ft (183 m)

Diameter of full roll must not be greater than 5 times the core diameter.

For take-up spindles the maximum roll diameter for all spindle and core sizes is 10 in (25 cm)

Duplicating Speed:

325 ft per minute (170 cm per second), maximum.

Exposure Lamp:

250 watt quartz-halide. 1,000 hours life at rated output.

Electrical:

100 to 130 volts (115 volts nominal), 60Hz, single phase. Less than 0.5 amps in standby, 15 amps maximum when duplicating. Dedicated line not required.

Environmental:

Darkroom operation; allowable light level depends on duplicating film used.

Recommended relative humidity range is 60 to 85%.

Heat load is less than 200 BTU per hr (60 watts) in standby, 5900 BTU per hr (1725 watts) maximum when duplicating.

Spindle Configuration (Standard):

Location	Model 3100	Model 3150
Master Supply	5/16-in	1-in
Duplicate Supply	1-in	1-in
Master Take-up	5/16-in	1-in
Duplicate Take-up	5/16-in	1-in

5/16-in (8 mm) diameter spindles accept standard camera-type reels.

One-inch (25 mm) diameter spindles accept standard plastic film cores.

The Model 3150 is supplied with adapter hubs for use with paper cores.

Size:

Model	Height	Width	Depth
3100 & 3150	65 in (165 cm)	41 in (104 cm)	24 in (61 cm)
3100T & 3150T	31 in (77 cm)	41 in (104 cm)	24 in (61 cm)

Weight:

Model	Basic Unit Wt.	Crated Wt.
3100 & 3150	360 lbs (163 kg)	600 lbs (272 kg)
3100T & 3150T	250 lbs (113 kg)	365 lbs (166 kg)

Crated weight may vary, depending on intended shipping method.



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