

STATINTL

DESCRIPTION OF EQUIPMENT
 SPAN ENLARGER-PRINTER-PROCESSOR
 MODEL EPP9 - 500
 (Reference Drawing 606601L1)

PURPOSE

The purpose of this equipment is to produce high quality, duplicate positive transparencies or positive prints in any required quantities, from selected 70 m/m, 5 inch or 9½ positive transparencies. The output of the equipment is 9½ inch projection printed reproduction, resulting from a 4:1 enlargement of a 70 m/m transparency, a 2:1 enlargement of a ~~2 1/2~~^{5"} transparency and a 1:1 enlargement of a 9½ inch transparency. The processing techniques used in this equipment is the SPAN process (Simultaneous Positive and Negative), which also produces an intermediary fully developed negative. The processing media is contained in the [REDACTED] Bimat material which ultimately becomes the reproduction. The equipment includes as an accessory, a Bimat Preparation Tank, Model #BP9-500, for imbibing the Bimat material with the processing solution.

DESCRIPTION**DECLASS REVIEW by NIMA/DOD**

The equipment is a ground based console, suitable for installation in military photo-processing or photo-interpretation shelters. It utilizes a [REDACTED] light table complete with microscope and film rewinds. The light table which contains a vacuum platen for maintaining film flatness is mounted on chassis slides for ready insertion into the optical path for printing. Other major components of the equipment are:

1. Quick change lens mounting
2. 9½" x 500 foot negative supply spool
3. Vacuum platen
4. Slack box
5. Bimat Supply spool
6. Processing Drum
7. Negative Takeup

8. Dryer
9. Positive Takeup

OPERATION:

The operation of the equipment is semi-automatic. Bimat material which has been properly saturated in the Bimat Preparation Tank, is threaded through the EPP9-500 together with the negative material, as indicated in the drawing. Intimate contact between the two is maintained on the processing drum. The drum is heated to the proper processing temperature level.

Exposure of the negative and frame advance is accomplished by actuation of a push button switch on the control panel. The negative, is exposed, advanced and stored in the slack box until a quantity has been accumulated. Several additional frames are then added for leader. The processing switch is then actuated and the negative is transported at a continuous speed of 12 inches per minute over the processing drum together with the Bimat material. During this transport period, the chemicals in the saturated Bimat process the negative to completion and simultaneously transfer a positive image to the Bimat. The negative material is then wound up on a takeup spool while the Bimat continues through a drying stage to its takeup spool where it may be removed for immediate viewing.

Document

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A Study of In-Flight Film Processing Techniques

January 1964

Can be obtained from:

Offices of Technical Services

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