

532 0064/62

PN AAM 607

REPORT ON THE DEVELOPMENT OF CENTRALIZED
PRINTING AND EDUCATIONAL MATERIAL
PRODUCTION IN THE MINISTRY OF HEALTH

FOR THE

USAID/JAMAICA HEALTH AND NUTRITION
DEVELOPMENT PROJECT

Prepared by:

Joseph H. Burchette, M.P.H.
International Program Consultant
Institute for Services to Education, Inc.
Washington, D.C.

November 14-28, 1979

Under I.Q.C.
AID/SOE/PDC-C-0194
Work Order 1, Date 9/28/79
Ref. PIOT No. 90038

PDC-0000-7-01-0106-00

The Development of Centralized
Printing and Educational
Material Production in the
Ministry of Health

I.	INTRODUCTION	Page
	A. Background	1
	B. Duration of On-Site Activities Assessment	2
	C. Approach - Modified Application of Project Paper Format	2
II.	STATEMENT OF WORK	
	A. Objective	2
	B. Contract Activities	3
III.	FINDINGS IN RESPECT TO PRESENT BUREAU OF HEALTH EDUCATION'S EDUCATIONAL MATERIALS PRODUCTION ACTIVITIES	
	A. Staffing	4
	B. Equipment	6
	C. Physical Layout	7
	D. Production Flow Patterns	8
IV.	ASSESSMENT, CONSULTATION AND COLLABORATION WITH OTHER GOVERNMENT AGENCIES	
	A. Ministry of Education	14
	B. JAMAL Foundation	15
	C. Government Printing	16

V.

RECOMMENDATIONS FOR THE PROGRAMMED DEVELOPMENT
OF THE MINISTRY OF HEALTH'S CENTRALIZED PRINT-
ING AND EDUCATIONAL MATERIALS PRODUCTION

A.	Administrative Organization	17
B.	Necessary Program Support	18
1.	Personnel (Staffing)	20
2.	Staff Training	22
3.	Equipment and Supplies	24
4.	Space Requirements	63
C.	Mechanism for Clearance on All Printing Required by the Ministry of Health	64
D.	Survey of Ministry of Health and Related Agencies for Documentation of Printing Requirements	65
E.	Materials Production Workshops	66
F.	Detailed Production Flow	68
G.	Physical Layout Design	69

I.

INTRODUCTION

A. Background

The involvement of the Institute for Services to Education, 2001 S Street, N. W., Washington, D. C. 20009, in the completion of work performed under this contract was in response to a request for proposal from the Office of Development Resources Bureau of Latin America and the Caribbean of the Agency for International Development, Department of State.

USAID/Jamaica is currently developing components of a project paper for a loan to the Government of Jamaica for Health/Nutrition Sector Development.

This short-term technical services contract represents inputs necessary to result in the overhaul and expansion of centralized printing and educational materials production within the Ministry of Health.

Overhaul and expansion are both vitally necessary in order:

- o that existing levels of printing and educational materials production of the Bureau of Health Education, which have been in various stages of development for over fifteen years, may be maintained; and
- o that future levels of printing, which will follow the developmental activities subsequent to the centralization and planned program requirements for printing and educational materials support, may be comfortably absorbed into the system.

Centralized printing and educational materials production is a subcomponent of the major project component, Health Education.

B. Duration of On-Site Activities

The on-site technical services provided under this contract were for the period of November 14 through 30, 1979.

C. Approach - Modified Application of Project Paper Format

The approach used in this undertaking can best be described as a modified application of the project paper format.

The guiding frame of reference was a concern to deal with and, hopefully, offset some of the recurring problems that often plague the project managers charged with the design and implementation of capital and technical assistance projects, both loan and grants.

It was also felt that this approach would ensure maximum utilization of the findings and recommendations by making these recommendations much easier to incorporate into the final project paper.

II. STATEMENT OF WORK

A. Objective

The objective of this technical service contract was to "assist the Bureau of Health Education (BHE) in reviewing their educational materials projection operation."

The task performed was undertaken in such close collaboration with senior staff of the Ministry of Health and senior staff of the Bureau of Health Education that the findings and subsequent recommendations truly represent a consensus of opinion.

The staff of USAID/Jamaica and the Jamaica project coordinator were involved throughout this consultation.

B. Contract Activities

The specific contract activities covered under this contract were:

o The review of present Bureau of Health Education operations with respect to:

- equipment
- staffing
- physical layout design
- production flow patterns

o The development, in consultation with Bureau of Health Education, of recommendations with respect to:

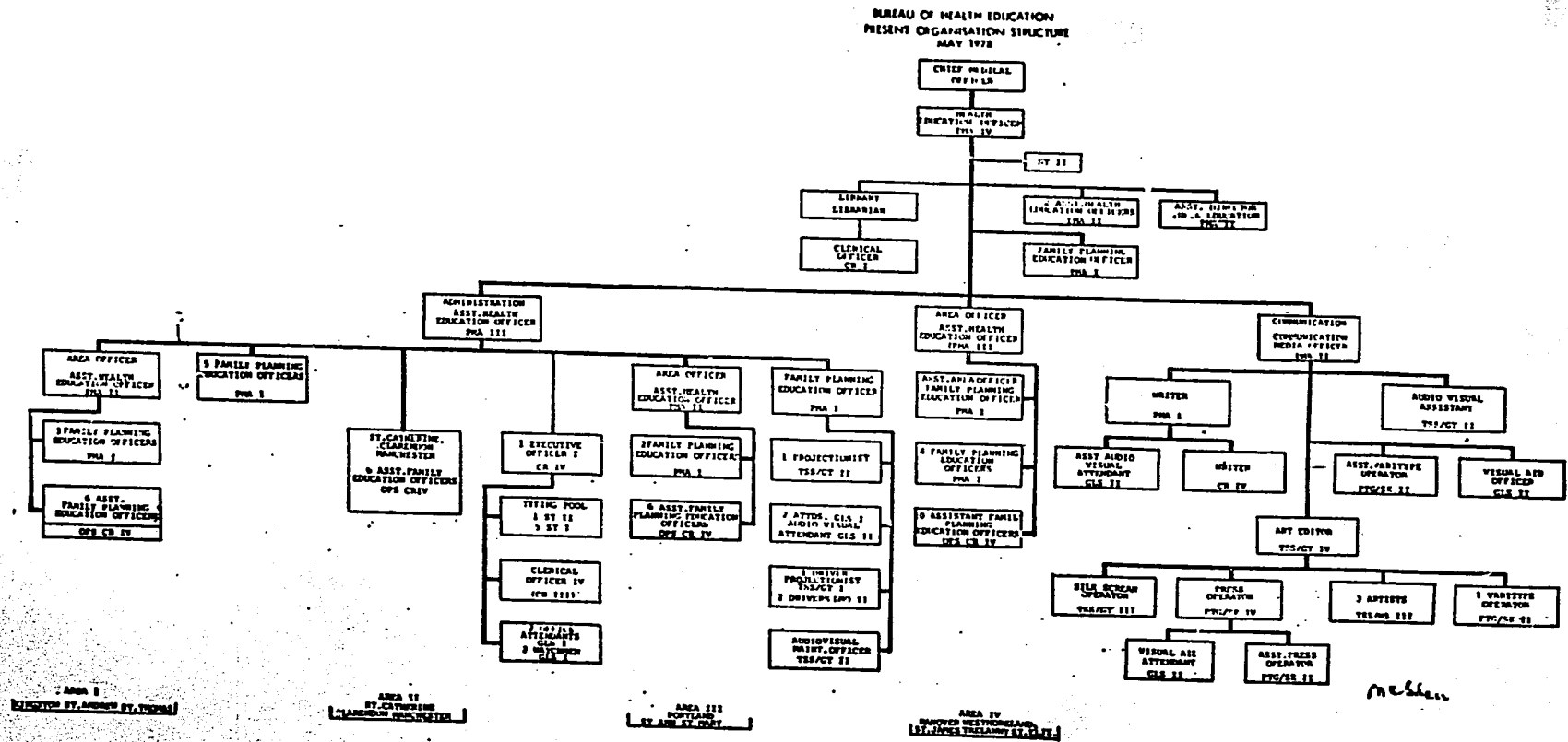
- administrative organization
- equipment, staffing needs
- staff training needs
- physical layout of various component operations

o Assisted Government of Jamaica counterparts in developing an implementation plan to carry out recommendations and related project activities.

o Submitted a preliminary report to the Acting Chief of Health Nutrition/Population Division of USAID/Jamaica.

II. FINDINGS IN RESPECT TO PRESENT BUREAU OF HEALTH EDUCATION'S EDUCATIONAL MATERIALS PRODUCTION ACTIVITIES

A. Staffing



This organizational chart is presented to show the administrative lines of communication and control within the Communication Section, as well as to present the Communication Section in the context of the Bureau of Health Education.

ABOUT THE SECTION

The Communication Section is responsible for the development production and distribution of Health Education Materials and Audio-Visual Aids for the Bureau of Health Education of the

4

4

Ministry of Health and other related agencies.

To accomplish the broad objective of assisting the Bureau of Health Education in the accomplishment of the role of educating the population in all health related matters, the Communication Section performs the following functional activities:

- o plans communication media programs;
- o provides supporting background research for the preparation of Health Education literature;
- o designs, develops, produces and distributes posters, video-tapes, booklets, pamphlets, and exhibits on health education and related areas;
- o provides evaluation and pretesting of proposed educational materials; and
- o conducts training in all aspects of communication and its related fields.

PROBLEM AREAS

The problem areas of the Communication Section, which directly affect the printing and production of educational materials, are:

1. Inadequate Space
2. Low staff morale

*The prime contributors to low staff morale are the lack of acceptance of line of administrative control, the overcrowded conditions, concerns for upward mobility, desire for additional training.

3. Need for additional training machine maintenance.
4. Need for training in color separation techniques.

5. Difficulty in filling vacant posts.

*Of special concern are the vacancies for research writers, these vacancies place an additional burden on the Head of the Section, who has to assume these functions. This additional responsibility tends to distract from other administrative duties of this officer.

6. Lack of clear lines of administrative control.

*The present state of administrative controls for the Communication Section as reported in this section of the report, are those which were reflected in the report of the Management Service Division of the Ministry of Public Service, July, 1978.

*The inability of the Bureau to fully affect the reorganization as recommended by the Ministry of Public Service report has placed things in a kind of "limbo."

B. Equipment

An inventory was conducted of the equipment used in the Communication Section for the design and production of educational materials and other printing.

A set of Polaroid pictures was taken to provide visual record of the present facility and the conditions for work.

The Multilith 1250W represents the backbone of the present printing capacity. This machine is also the most dependable of the two existing presses. The other press is a Multilith 1850, which has more "down-time" than "in-use" time. The Multilith 1850 is presently out of service.

First line preventative maintenance is not a part of present policy and procedure within the printing section.

Maintenance is provided by private sector firms. These firms have had difficulty getting the necessary parts to provide complete servicing for the machines.

The varitype machine is outdated, and inoperable. At present, composition work is done on an IBM Selectric typewriter, which is inadequate to provide the range needed for good composition and layout work.

The following is a list of other major pieces of equipment, with reference to their location and condition.

Equipment now at Art Department:

- 1-Varityper Machine - Model ST. 230 - obsolete
- 1-AM Varityper Headliner - Model 820 - obsolete
- 2-Light Tables - NuArc Jetline 58 & NuArc - Model VLT 23F
- 1-IBM Selectric Typewriter - obsolete
- 1-Guillotine - Paper cutter - obsolete

Equipment now at Printing Department:

- 1-1850 Multilith Press #010363 7 years old - out of use
- 1-1250W Multilith Press #964829 13 years old - good
- 1-Michael Miracle Guillotine #6182 - out of use
- 1-Robertson Camera Model #MTV - 13 years old
- 1-NuArc Flip Top Plate Maker - Model #FT18A-25
- 1-NuArc Stripping Table - Model #VLT42X-25
- 1-NuArc Camera - Model #SST1418-25

C. Physical Layout

The equipment referred to here is located in two separate buildings. Building design does not assist or facilitate a smooth production flow. Due in major part to the basic design

problems, even extensive alterations and renovations would not accomplish marked increase in the production flow pattern.

In addition to the problems in building design and plant layout there are also several other factors which interfere with production flow patterns, namely:

- the lack of adequate space to store paper stocks;
- the lack of adequate bench space to hold multicolor runs;
- the lack of storage space for paper stocks.

Major renovation of other buildings in the compound at 21 Slipe Pen Road, could possibly provide more adequate space. It must be re-emphasized that the renovations would have to be major in order to provide the necessary reinforcement to support the presses and to provide security and protection for supplies and equipment.

This would not offset the existing morale factor of the threat to personal security of the staff. Several people have been robbed or threatened in this area.

D. Production Flow

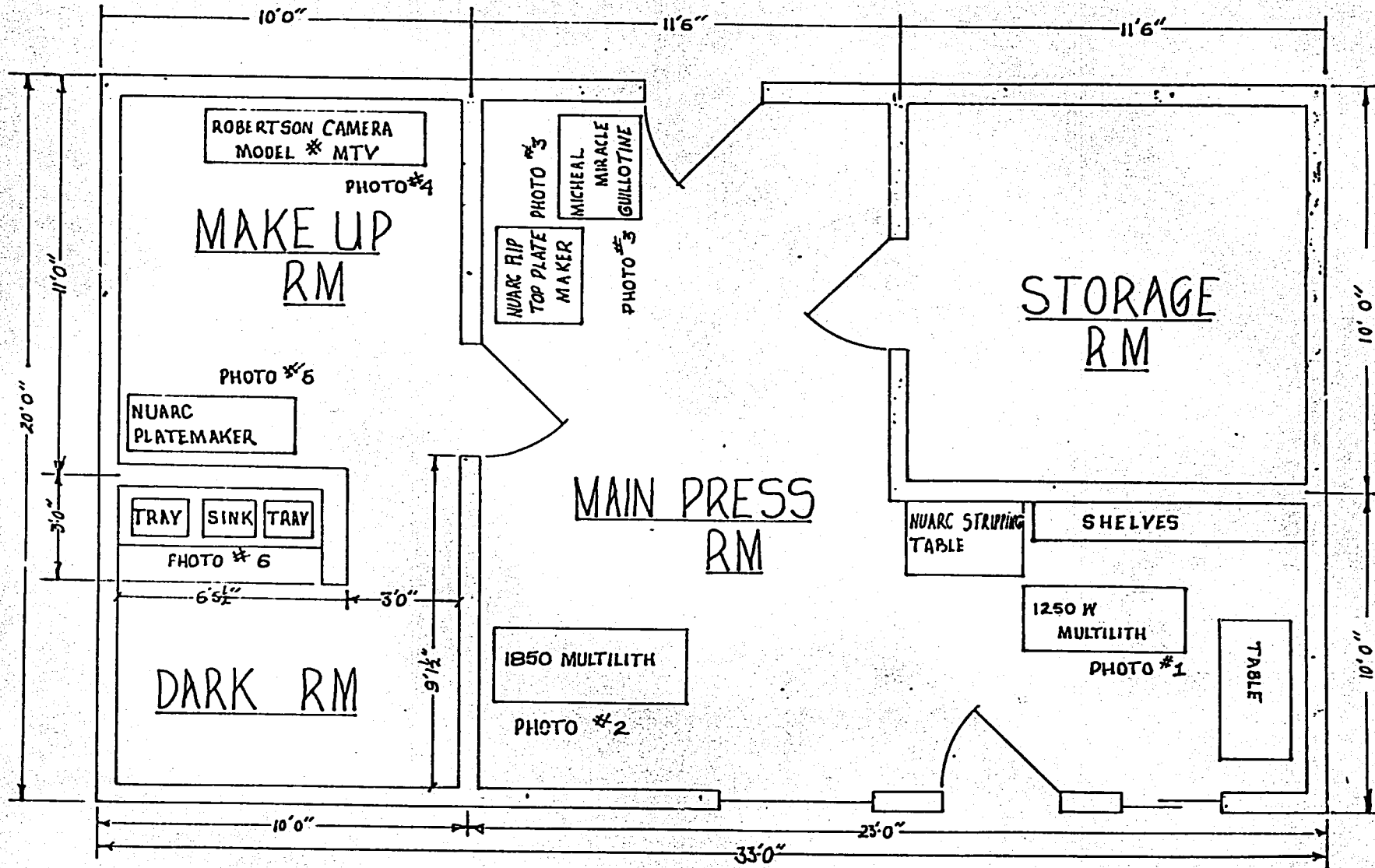
The production flow at present is not being implemented as is defined in the administrative policies and procedures of the section.

To summarize the existing flow:

1. Request may be generated by any component of the MOH or related agencies.
2. While it is not administratively sanctioned by the head of the Communication Section, request, at present, may enter the Communication Section at any point equal to the number of people in the section.

The most occurent entry points are:

- a. Head of Communication Office
 - b. Art Department
 - c. Printery
3. The administrative procedure does exist that would ensure the necessary refinement, appropriate editorialization, evaluation and pre-testing of all material requested. However, this process is often circumvented by the lack of controlled entry.
 4. No pre-planned work schedules exist in either the Art Department or the Printing Department.
 5. Evaluation and research are not applied to all cases even though warranted.
 6. Job records to ensure smooth flow, quality control and cost documentation, are not kept on a regular per job basis. Therefore, very little documentation exists of the number of units operation, machine use time, etc.
 7. No routine distribution systems seems to exist. No standard forms for requesting educational materials are uniformly used.
 8. Close adherence to a routine process of clearance at the various stages of production is not always adhered to because of the "crisis response" nature of the present printing and materials production operations.
 9. Storage of materials produced do not provide the kind of security that would prevent damage from unnecessary handling, weather or theft.



SCALE $\frac{3}{8}'' = 1'$

NOTE: ALL DOORS 3'0"

PRESENT LAYOUT OF PRINTING PLANT

PHOTOGRAPHS OF THE PRESENT PRINTING FACILITIES



PHOTO #1
1250 W Multilith Press
#964829 - 13 Years Old
Good Condition

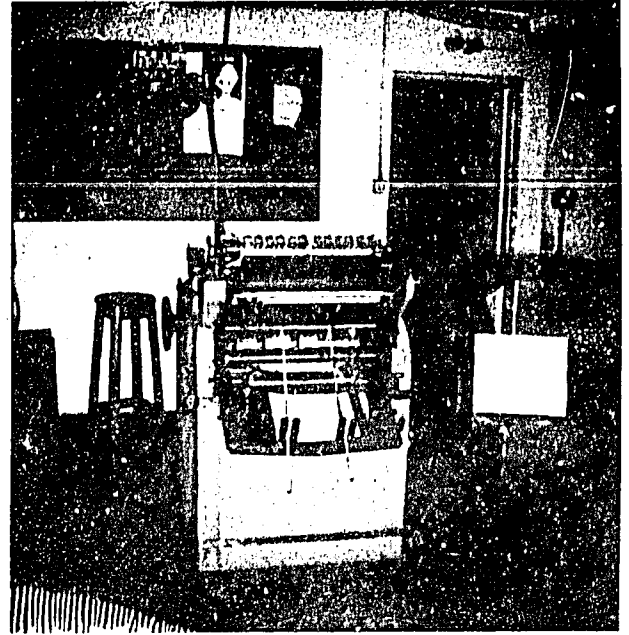


PHOTO #2
1850 Multilith Press
#010363 - 7 Years Old
Out Of Service

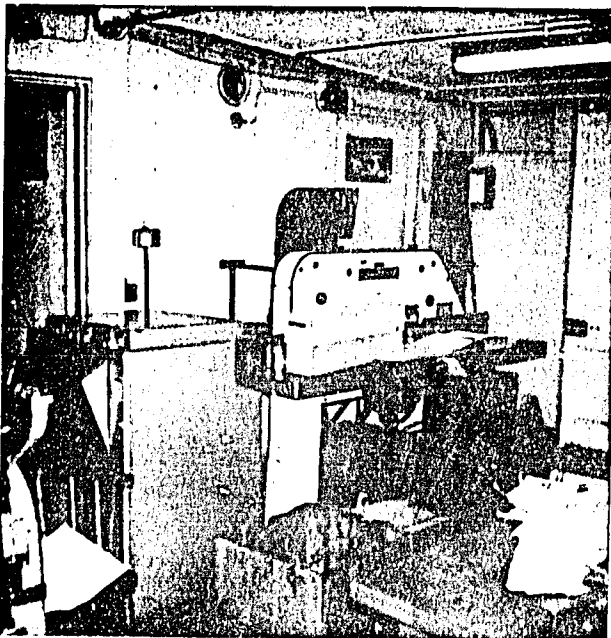


PHOTO #3
Left: NuArc Flip Top Platemaker - Model
#FT 18A - 25
Right: Michael Miracle Guillotine Model #6182
Out Of Service

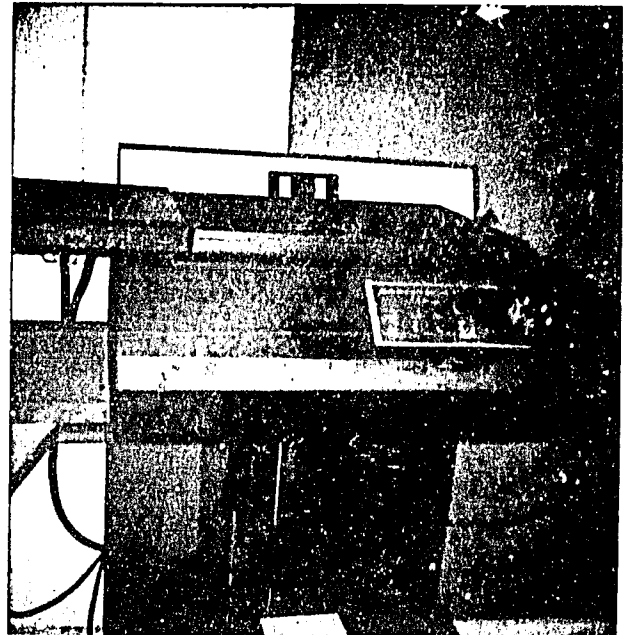


PHOTO #4
Robertson Camera #MTV-13 Years Old
Fair Condition

PHOTOGRAPHS OF THE PRESENT PRINTING FACILITIES



PHOTO #5
NuArc Platemaker

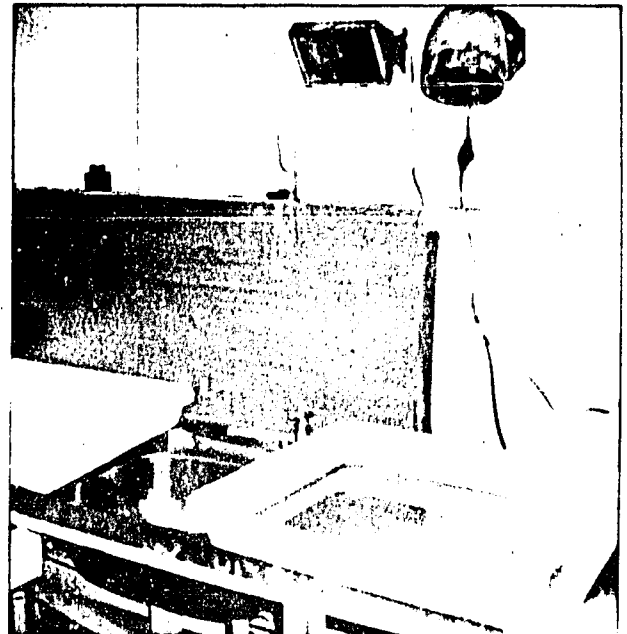


PHOTO #6
Sink, Developing Trays



PHOTO #7
Adjacent Storage Area
NuArc Vertical Storage Camera
Paper Cutter - Obsolete

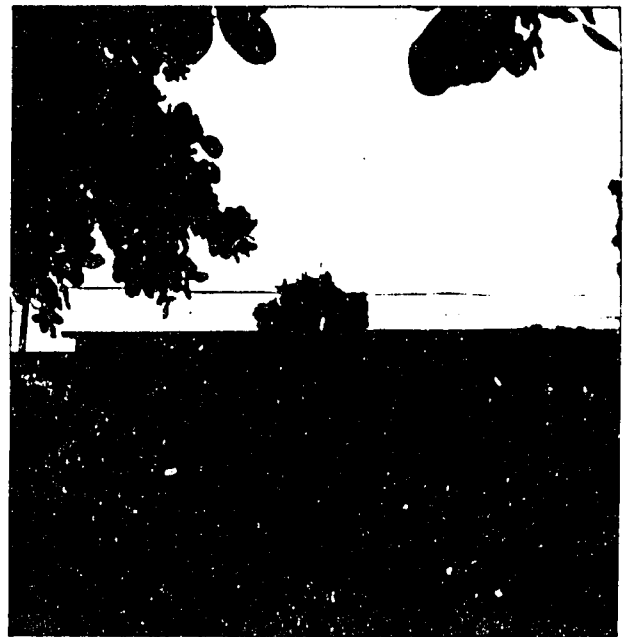


PHOTO #8
Outside View of Printing Building
Shade Type Building
Approx. 20 Ft. x 30 Ft.

12

MINISTRY OF HEALTH

Maternal and Child Health

Family Life

Chronic Diseases

Environmental Control

Primary Health

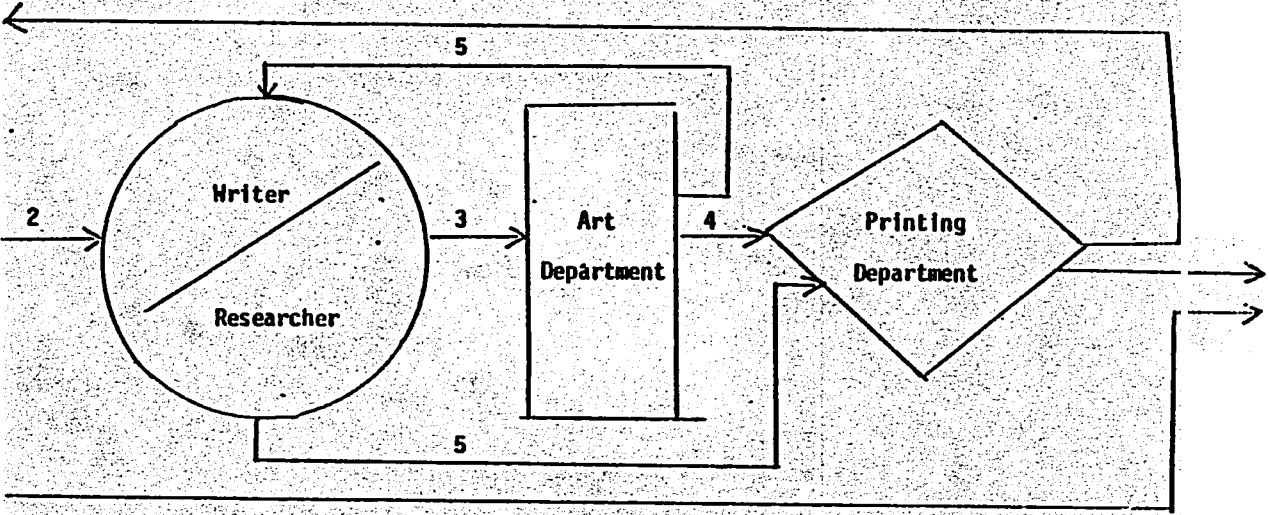
Other MOH Programs

RELATED AGENCIES

Red Cross

C
O
M
M
U
N
I
C
A
T
I
O
N
O
F
F
I
C
E

PRESENT PRODUCTION FLOW



D
I
S
T
R
I
B
U
T
I
O
N

IV. ASSESSMENT, CONSULTATION AND COLLABORATION WITH OTHER GOVERNMENT AGENCIES

The activities undertaken and reported in this section of the report were primarily aimed at addressing questions often raised by the Office of Finance of developing countries and by AID/Washington review committees.

The main questions addressed were:

1. Does this project component represent an unnecessary duplication of other already existing Government of Jamaica resources?
2. Could this service be provided by other existing services that are presently under-utilized?
3. What mutually beneficial areas of interagency collaboration could be encouraged by this project component?

A. Ministry of Education

USAID/Jamaica staff raised the question: "Could the Media Center of the Ministry of Education provide this service to the Ministry of Health?"

Discussions were held with the Director of Materials Production and a senior printer in the Media Center of the Ministry of Education. The discussions revealed that:

- o Materials Production and Printing are two separate departments in the Media Center organization scheme.
- o The Materials Production Section functions mainly to develop, produce, and distribute all the books required in grades 1-4 of the Government of Jamaica School System.
- o The Materials Production Section researches, writes and pre-tests subject matter for their books. However, all of the

o printing of these books is done by the "private sector."

The Media Center, Materials Production Section, spends well over five hundred thousand dollars a year for printing by the private sector. The Printing Service of the Media Center does not provide any printing service to the Materials Production Section of the Media Center.

o The Printing Service of the Media Center is primarily intended to support the Correspondence Section of the Ministry of Education. This section is to provide the printing of T.V. Study Guides. At present, the Printing Section is about eight months behind schedule. The space for printing is very adequate. More importantly, this section appears to be under equipped to perform the required task.

o The conclusion was that they were not able and they would not be able in the foreseeable future to provide any service in printing to any other agency.

B. JAMAL Foundation

Discussions were held with the Deputy Director for Administration, the Deputy Assistant Director for Technical Services, the Administrative Assistant, and the Printing Supervisor.

JAMAL has a very large printing section with the capacity to turn out hundreds of thousands of unit pieces per day. At present, they have four, one color Hiedelberg presses in operation. A most recent acquisition was a two color Hiedelberg press. This press is on the floor but has not been put into operation.

Production and printing schedules are prepared on an annual basis to respond to an end of the year "Survey of Class Materials."

Priorities are set by the Director based on overall Foundation and National consideration.

JAMAL - develops printed materials to supply the entire nation with educational material for four levels of functional literacy. Functional literacy enables the individual to make practical application of information acquired through the JAMAL program to the solution of day-to-day problems. (Level four is equivalent to the sixth grade in the formal education system.)

Slack time in the annually planned printing schedule is used to replenish stocks of materials that have to be repeated to different groups each year.

* Therefore, JAMAL does not have any press time to assist other agencies.

JAMAL would collaborate with the MOH by incorporating health content into their teaching program.

C. Government Printing

Discussions with Mr. Harding, Chief Printer of the Government Printing Office.

Mr. Harding did not view the printing operation in the MOH or the proposed expansion to be governed under this health/nutrition project as a duplication of effort. He supported the idea that it was a small operation that was best suited to handle the specific needs of the Ministry of Health. He viewed this capacity as a complement to the total Government of Jamaica printing capacity.

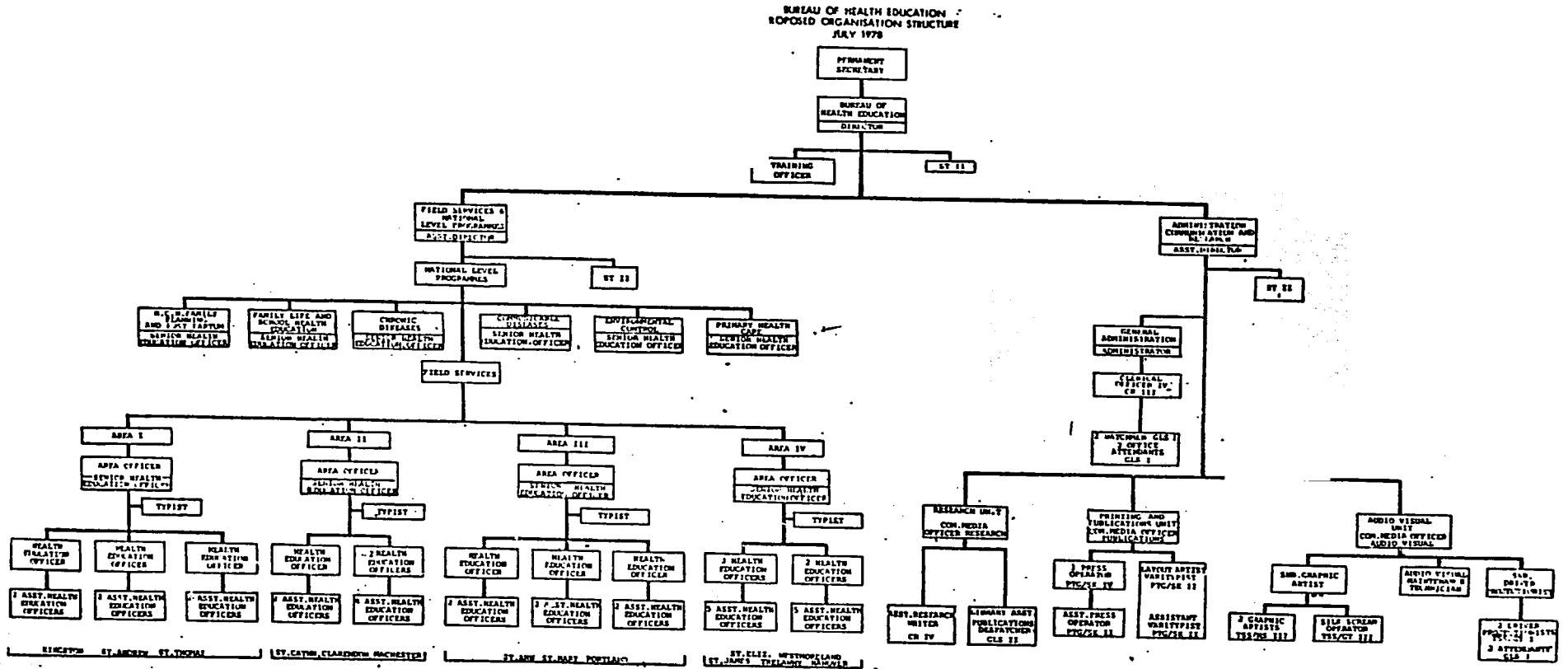
Mr. Harding's views and recommendations in reference to staff training in management, printing, and publication will be discussed later in this report.

In Summary these findings support strong justification for the development of this sub-component of the project.

A. Administrative Organization

1. Proposed Organization Chart

17



17

A. The administrative organization and structure that is recommended herein very closely complies with the organization structure that is recommended in the July 1978, Report of the Management Services Division, for the reorganization of the Bureau of Health Education. The organizational structure proposed by the above referenced report reflects the corrective actions necessary to alleviate the administrative and management problems that have heretofore plagued the communication section.

Full implementation of the proposed organizational structure will bring about:

- ° a more manageable span of administrative control
- ° the clear delineation of related functional activities;
- ° more effective personnel direction of supervision;
- ° a more organized and systematized production flow;
- ° increase in the quality and quantity of materials produced;
- ° a shift away from the "reactive response" that presently exists in materials production to a "programmed response" approach, posed on annual planning. This annual planning will be based on the input requirements of the various components of the Ministry of Health.

It is also envisioned that there will be an outstanding improvement in the overall morale of communication section personnel.

The present grossly inadequate facilities must be viewed as a prime factor

that contributes to the overall problems of the communication section.

Immediate attention should be given to the acquisition of an appropriate facility that will provide space for administrative offices and production. (A more detailed discussion follows in the section of this report on space requirements.)

The management, functional, and supervisory breakout of the communication section should be as follows:

- °Administration
- °Research Unit
- °Printing and Publication Unit
- °Audio-Visual Unit

ADMINISTRATION

The Administration component of the communication section should be headed by an Assistant Director, for administration, communication and research. This officer will have the overall responsibility for the general administrative functions of the Bureau of Health Education and the specific administrative functions of the communication media section.

The office will provide the overall policy and administrative framework that will direct the functions of the Research Unit, the Printing and Publications Unit and the Audio-Visual Unit.

STAFF COMPLEMENT

- Assistant Director
- Administrator
- Stenographer/Typist
- Clerical Officer
- Watchmen (2)
- Attendants (2)

RESEARCH UNIT

The Research Unit will be responsible for providing the research protocol and carrying out those functions necessary to provide a research supported basis for the development of Health Education scripts, posters, pamphlets and other media materials. This section is also to absorb the responsibility for the distribution of materials and the operation of library services.

STAFF COMPLEMENT

- Communication Media Officer/Research Writer
- Assistant Research Writer
- Library Assistant
- Publication Dispatcher
- Research Writer Training Consultant*(explained in Note section.)

PRINTING AND PUBLICATION UNIT

The printing and publication unit will have the functional responsibility for printing all materials produced by the Communication Section. The silkscreening operation should be transferred to this unit.

STAFF COMPLEMENT

- Communication Media Officer/Publications
- Press Operator
- Assistant Press Operator
- Layout Artist
- Assistant Layout Artist
- Silkscreen Operator

AUDIO-VISUAL UNIT

The Audio-Visual Unit will have the functional responsibility for transforming the health education concepts, and health messages into visual symbols. This responsibility will extend to the preparation of "copy ready" layout that can be readily prepared for printing.

The silkscreening operations which is presently a part of the audio-visual unit should be transferred to the Printing and Publication Unit. This recommendation is based on the need to group similar functional activities together.

The Audio-Visual Unit will have the functional responsibility for the maintenance of all audio-visual equipment of the Communication Section.

STAFF COMPLEMENT

- Communication Media Officer/Audio-Visual
- Senior Graphic Artists
- Graphic Artist - (2)
- Audio-Visual Maintenance Technician
- Senior Driver Projectionist

-Driver Projectionist (2)

-Attendants (2)

NOTE:

After reviewing the functional responsibilities and the required activities of the communication section this writer was prepared to recommend a different organizational structure. However, after weighing all factors against the fact that the structure, as proposed by the Management Services Division for the reorganization of the Bureau of Health Education, had already been accepted by the Ministry of Public Service this writer decided that only minor changes should be recommended. It is felt that this will lead to a more expeditious acquisition of the full staff complement as proposed by the report.

Any new proposal for a vastly different organizational structure would have to go through a required review and approval process that could stretch into years.

STAFF TRAINING

The recommendation for training is intended to provide the opportunity for specialized training to meet the unique requirements of the communication section.

AREA OF NEED

-Administration and Management

-Observational Tours -(Material Production)

- Machine Maintenance
- Color Separation Techniques
- Research Writing and Evaluation
- Photography and Dark Room Techniques

ADMINISTRATION AND MANAGEMENT

The Assistant Director/Administration, Communications and Research, the Communication Media Officer/Research, the Communication Media Officer/Publication, and the Communication Media Officer/Audio Visual should receive as is appropriate training in administration, management and personnel supervision. The overall benefit of this training will be a more productive and smoothly running section. Low morale problems will become non-existent.

In view of the fact that the backgrounds of the key administrative staff is as varied as the individuals involved, the training should be tailored to meet individual needs. To best accomplish this, it is recommended that a performance analysis be conducted of the entire Communication Section. Based on the findings of the assessment, the identified performance discrepancies will serve as the bases for individual training.

This section needs more detailed planning. The planning should begin in the early stages of the project.

EQUIPMENT AND SUPPLIES

In discussion with the Head of the Communication Section and the other members of the Communication Section most directly responsible for materials production, the consensus of opinion was that the following equipment should be purchased in order to give the Printing and Publication Component the capability to provide the necessary support to the Ministry of Health and other related agencies:

- Typesetter
- Headliner
- Art Waxer
- Camera
- Sink
- Safe lights
- Film Dryer
- Film Cutter
- Plate Burner
- Plate making sink
- Offset Printing Press 32" to 36"
- Guillotine
- Folder
- Book Stitcher
- Padding Press
- Numbering and Perforating machine
- Pallet Truck
- Light Table
- Line Up Table
- Sundry accessories for the above mentioned
- Silk Screening equipment

In any printing and publications operation the press is the center of consideration.

The first recommendation as reflected in the preceding list of equipment centered around the securing of a press with a 32" to 36" printing capacity. This writer was aware at the time of the initial recommendation that he did not know of an American manufacturer of a press of this size. This writer hoped that an exhaustive check of manufacturers would provide a source. To date no such source has been identified.

The selection of this size of printing press was primarily based on the opinion that this size press would be the maximum capacity that the Printing and

and Publication Section would require for the foreseeable future.

At the time of this report this writer is recommending that the press size should be a 19 x 25 single color offset.

The primary considerations for this position are:

Cost - 19 x 25 Press Cost \$41,000.00

as compared to \$90,000.00 - \$105,000.00

for the next size of 24" x 36"

GSA - The 19 x 25 Press is available under the

Government Service Schedule FSC Group 36

Part II, Sec. A & B through June 30, 1980

at an eight percent discount. This would make

the net price \$37,720.00. The saving of a

purchase through GSA of \$3,280 will more than

cover packing and shipping cost.

Lack of Documented Printing Requirements.

The absence of documentation of the true level

of printing required makes it impossible to

project hardware requirements.

Space Requirement

Lack of an existing space or an identified space

Purchase of American Products

Every consideration was made to purchase U.S.A.

manufactured equipment wherever possible.

RECOMMENDED EQUIPMENT:

Note: The equipment recommended in this section is not intended to advocate a brand name or a particular manufacturer. Any reference

to brand names or manufacturers is merely to serve as a frame of reference in order to establish budgetary estimates in accordance with suggested specifications.

1-Mergenthaler Linoterm Phototypesetter Headlines up to 36 points.	\$24,000.00
1-P-24 Automatic Processor	2,707.00
Water Recirculator Unit.	142.50
Graphic Loader	213.75
Stand.	313.50
1-NuArc 2024V Vertical 20" x 24" Camera.	5,395.00*
Export Crating	185.00
1-NuArc PS 48 Plate Developing Sink	
1-NuArc FDSV 24 Darkroom Film Developing Sink.	1,521.00
Export Crating	222.00
1-NuArc Accessory Developing Trays VH2024 Set of 3	67.00
Export Crating	25.00
1-NuArc PS 48 Plate Developing Sink.	625.00
Export Crating	120.00
1-NuArc FT46UPNS Flip Top Platemaker	5,395.00
Export Crating	186.00
1-NuArc Film Storage Cabinet with Cutter	616.00
Export Crating	53.00
1-NuArc RR41F Line-Up and Opaque 31 x 41"	2,425.00
Export Crating	159.00
1-NuArc VTL 42x Light Tables	418.00
Export Crating	60.00
1-NuArc DLB 1325 Safelight	167.00*
1-NuArc sets of Squares for Light Tables	120.00*
1-Waxer.	500.00
1-Padding Press	200.00
1-Pallet Truck, 4,000 lb. capacity	450.00
1-Rosback Binder Equipment 6-Pocket System (\$36,000) Auto-Stitcher Model 203.	10,000.00

1-Robert & Porter (Harris) 125 19" x 25" Single Color Offset.	\$37,720.00
1-Robert & Porter Power Backgauge Cutter 40-1/2 inches Model #P40	19,780.00
1-Rollem Auto 5, Number, Perforating, Creasing and Slitting	7,000.00
1-GBC O & M Folder #2029.	12,000.00

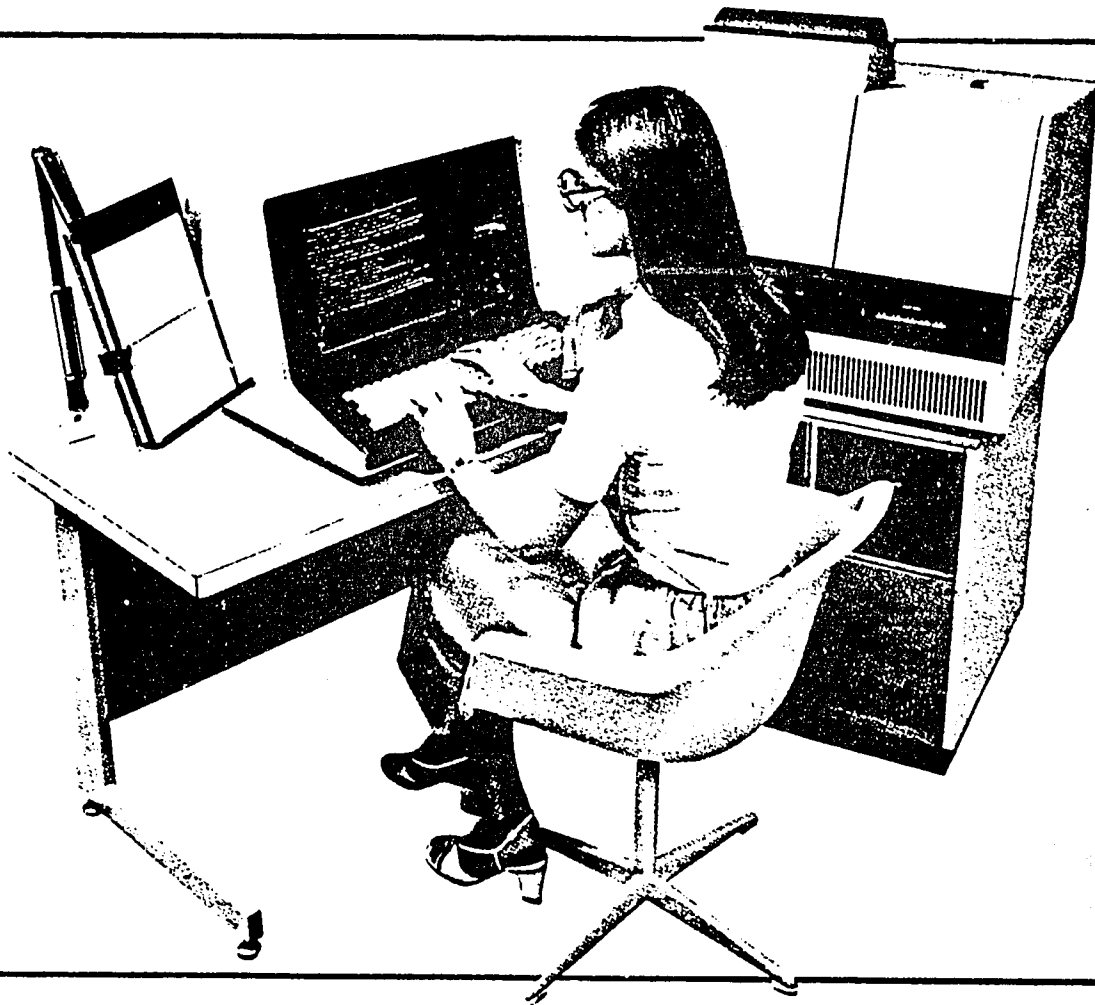
Linoterm Typesetting Systems

The Linoterm phototypesetters from Mergenthaler Linotype feature the most powerful text processing terminal in small-system typesetting. No comparably priced system combines so many productivity boosters. Including 16 programmable keys to customize your Linoterm and to eliminate time

consuming rekeying. Plus true multi-mode operation so you can input and edit one job while you typeset another with completely different typefaces. And the most informative screen with 23 working lines and the only split screen display to simplify complex editing and copy merging.

Linoterm now offers a choice of photounits. A low cost model justifies copy three ways and mixes any four typefaces and five point sizes. And a high speed model adds automatic hyphenation and accelerates Linoterm's setting speed to 50 lines per minute.

**Mergenthaler
Linotype**



- Sets quality type in 14 sizes from 6 to 36 point with any 4 faces and 5 sizes on-line
- 14-inch screen displays 1,840 characters in choice of 3 formats: single column, dual column, or split screen
- Operator is free to reprogram displayed character set or keyboard layout
- 16 programmable keys to store repetitive copy or formats and to eliminate rekeying
- Each diskette holds up to 290,000 characters and indexes up to 209 files
- Automatic indent program and 20 tab columns

- Over 600 typefaces available including every text face licensed by International Typeface Corp. (ITC)
- Hyphenation program eliminates widows, displays overset values, and enables one-pass tabulation. Standard on high speed Linoterm, optional on low speed model
- Options include second disk drive, additional 4K refresh memory, paper tape reader, exception word dictionary, and Get Set tutorial package
- MVP/2 terminals, identical to Linoterm without the photounit, provide additional input/editing stations

Linoterm Typesetting Systems

DISPLAY

Screen Size

14-inch diagonal

Screen Capacity

24 lines (including the control line) of up to 80 characters

Display Formats

- (1) Single column, 23 lines of 80 characters
- (2) Dual column, 48 lines of 40 characters
- (3) Split screen, 23 lines of 40 characters for each side

Character Set

128 characters and symbols, programmable by the operator

Character Size

Approximately 14 points constructed on a 7 x 12 dot matrix

File Index

Displays up to 209 files per diskette on screen

Display (Refresh) Memory

3,200 displayable characters in standard 4K memory, 7,040 characters optional for additional scrolling area

Typesetting Parameters

Displayed in control line

CONTROL AND EDITING FUNCTIONS

Cursor

Left, right, up, down, home, new line, control, text, text right (for split screen)

Edit Blocks

Define start, define end, character, word, sentence, define edit blocks to be deleted, moved, copied, output

Delete

Single keystroke deletes edit block

Insert

Opens a single space within a line

Open

Opens text for additional insertions

Close

Closes text with word wrap-around

Move

Any defined copy moved by single keystroke to new location defined by cursor

Copy

Same as move, except copy is not deleted

Cancel Edit

Cancels any existing edit block

Search

Automatic memory search for a string of characters (up to 40), which matches the first string in the control line. Virtual scrolling and global search are standard features

Replace

Replaces edit block with the second string (up to 39 characters minus search string)

Scrolling

Through active job

Store and Recall

Any data or control and editing functions may be stored in up to 16 "format" areas and recalled by a single keystroke. 700 codes are standard. Additional codes available through operator reprogramming. Format segments any length up to total memory capacity. Formats can be stored on diskette and recalled by a file name

JUSTIFICATION/HYPHENATION

Justification

3 modes: manual, semi-automatic, automatic

Hyphenation

Standard on high speed, optional on low speed. Loads automatically with rest of program. Does not hyphenate last word in paragraph to prevent widows. Displays overset quantities on control line. Tab column and overset displays make one-pass tabulation possible

Exception Word Dictionary

3,500-character dictionary of correctly hyphenated words available as an option

INPUT/OUTPUT

Input

Keyboard or floppy diskette. Each diskette stores 290,000 characters, up to 209 files

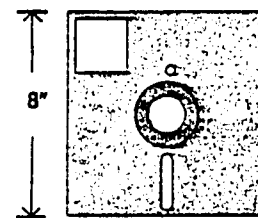
Output

4 faces and 5 sizes from 6 to 36 point on-line. 14 sizes available. 45-pica line length

Simultaneous Input/Output

Input and edit one job and typeset a different job at the same time

Diskettes are perfect in an office environment. They're stored like file folders. The problems of labelling and storing rolls of paper tape are neatly eliminated.



290,000 keystrokes

A single, eight-inch diskette stores 290,000 keystrokes. This is equivalent to almost one-half mile of paper tape.

Programmable Memory

- (1) Program Memory: 8,192 locations, (accessible and operator programmable)
- (2) Data Memory: 4,096 RAM (accessible and operator programmable) including format and buffer memory

Optional

- (1) Second floppy diskette drive
- (2) Additional 4K refresh memory
- (3) Exception word dictionary
- (4) Paper tape reader
- (5) Copy holder
- (6) Get Set tutorial package

Miscellaneous

Controller: Proprietary Mergenthaler microprocessor
Electrical Requirements: 117 Vac, 50-60 Hz, 15 amps or 220 Vac, 50-60 Hz, 8 amps
Size/Weight: Keyboard/terminal — 22"W 21½"D 16¼"H; 55 lbs.
Size/Weight: Console — 22"W 25¼"D 24"H; 175 lbs.
Size/Weight: Typesetter — 25"W 23"D 23"H; 175 lbs.

Environmental Requirements

Temperature: 65-75°F
Humidity: 25-85% RH (non-condensing)

These specifications are subject to change without notice.

Mergenthaler Linotype

Mergenthaler Linotype Company
201 Old Country Road
Melville, New York 11747
(516) 673-4197

Atlanta
Presidential Park
3805 N.E. Expressway, Suite 210
Atlanta, Georgia 30340
(404) 455-1154

Midwest
560 Lively Boulevard
Elk Grove Village, Illinois 60007
(312) 439-9800

New York
One Penn Plaza
250 West 34 Street
New York, New York 10001
(212) 594-7320

Dallas
2880 Walnut Hill Lane
Dallas, Texas 75229
(214) 352-2651

New England
393 Totten Pond Road
Waltham, Massachusetts 02154
(617) 890-0700

Los Angeles
1930 Wilshire Blvd., Suite 820
Los Angeles, California 90057
(213) 484-8310

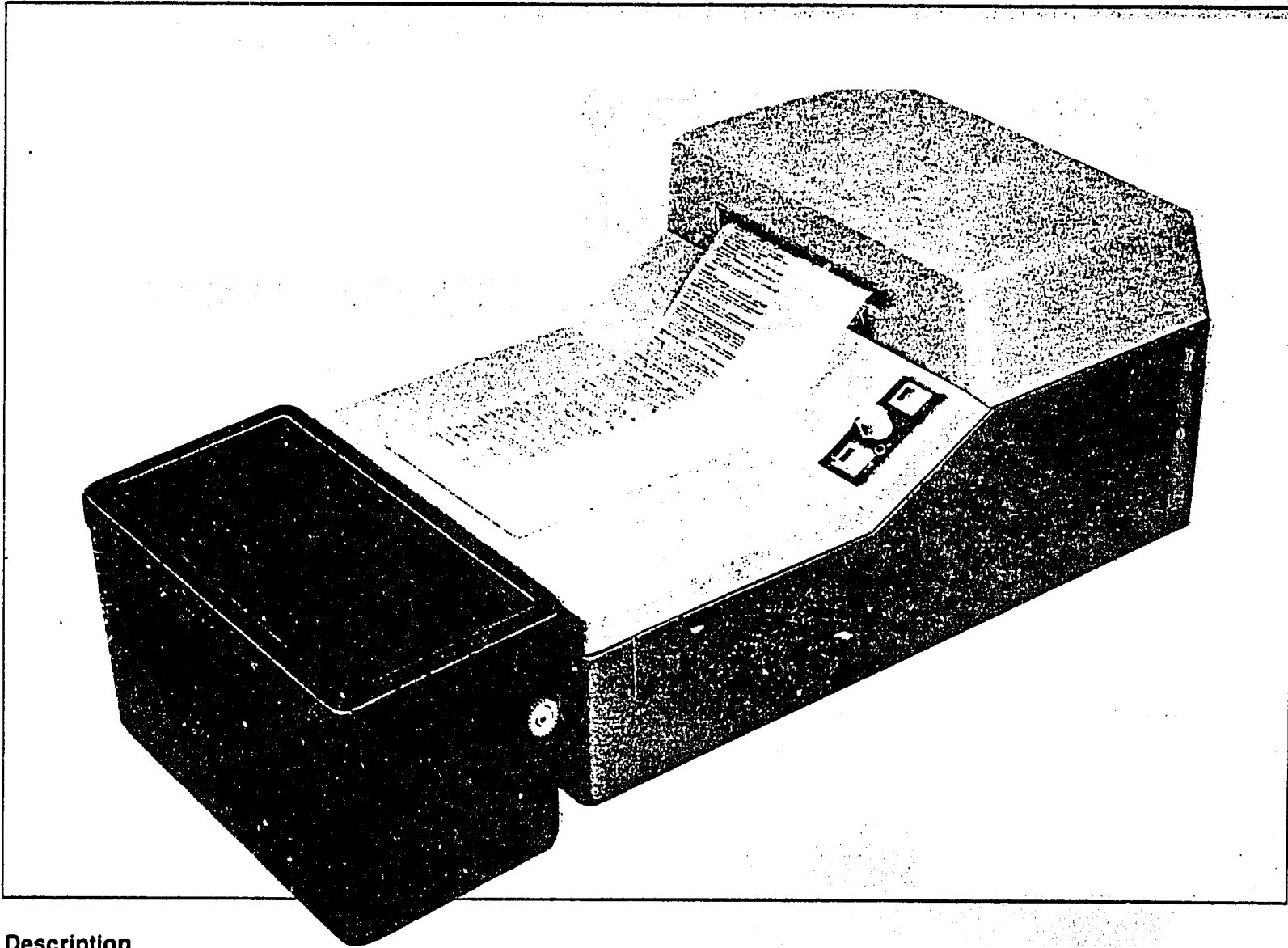
San Francisco
3521 Investment Boulevard, Suite 1
Hayward, California 94545
(415) 785-9100

Canada's
Linotype Canada
Toronto/Montreal
Winnipeg/Vancouver
(416) 255-8141

LINOTERM

	GSA Purchase Price Item 132-6	GSA Rental per Month Item 132-1	GSA Maintenance per month Item 132-1 & 132-11
Linoterm Typesetting Package	13,252.50	662.63	132.53
Consists of Linoscreen Video Display Terminal, Spare Parts Kit, MVP controller with single disk drive, Phototypesetter unit, 2 Cassettes, 3 Floppy Diskettes, 5 lenses, and 4 Helvetica 12 pt fonts			
SPARE PARTS KITS			
Basic	1,779.35	88.97	17.79
Expanded I	3,405.75	170.29	34.06
Expanded II	6,505.60	325.28	65.06
SOFTWARE			
Logic Hyphenation Program	332.50	16.63	3.33
Exception Word Dictionary (Requires add'l 4K memory- 28-2054-01)	237.50	11.88	2.38
Linoterm Classified Ad System Program Package on Disk (Requires 16K and DD)	475.00	23.75	4.75
Disk Utility Program On Diskette	237.50	11.88	2.38
LENSES			
All lenses:			
6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 24, 30, 36 point	152.95	7.65	1.53
High Speed Linoterm	14,202.50	710.13	142.03
Consists of Linoscreen Video Display Terminal, Spares Kit (30-4130-01), MVP Controller with single disk drive, Phototypesetter unit, 2 Cassettes, 3 Floppy Diskettes, 5 lenses, Logic Hyphenation Program and 4 Helvetica 12 pt. fonts.			
SPARE PARTS KIT			
Basic	2,151.75	107.59	21.52
Expanded I	2,624.85	131.24	26.25
Expanded II	4,777.55	238.88	47.78

P-24 Automatic Processor for RC paper and films



Description

The simplest, most dependable RC paper processor available today is the P-24. It can be installed virtually anywhere in less than 30 minutes . . . and operated by anyone with minimal instruction. It can be used with or without permanent plumbing, with or without a darkroom.

The Graphics Loader and optional Water Recirculator make the P-24 the "anywhere" phototypesetting processor.

Now, RC quality processing is available for the smaller shop at minimal cost. For the high production shop, the economically-priced P-24 makes it practical to provide a processor for each photo composer.

- For RC and S type paper and phototypesetting film.
- Materials 35 mm to 8" wide
- No leader required
- Continuous fresh water washing
- Materials delivered dry with white background
- Completely modular for easy maintenance
- All maintenance from the top
- Clean-up maintenance with plain water
- Requires no algicides or detergents
- All parts guaranteed for six months

Mergenthaler Linotype

P-24 Automatic Processor for RC paper and films

Features

Topside Delivery: Materials are inserted in the front input slot and delivered dry to the top surface of the Processor. Front loading and return reduces space requirements and insures safe, loss-free delivery.

Contemporary Styling: Clean exterior lines complement the ease of access designed into the P-24 modular working components. Its contemporary styling is compatible with any decor.

Solution Covers: Vacuum-formed solution covers protect solutions from contamination and minimize loss due to evaporation.

Transport Modules: All drive chains and torque-bearing gears are stainless steel. Developer and fixer transports are interchangeable and self-cleaning. Transports are specially designed for jam-proof, loss-proof delivery.

Washer/Dryer Module: The patented washing system contains 4 pairs of opposed washing sprays to remove any residual chemicals from the processed material. A removable Heater/Fan assembly for drying is incorporated in this module.

Solution Trays: Stainless steel solution trays drain in position and lift out for rinsing. Maintenance is clean, simple, and fast.

Thermostatically Controlled Temperatures: Monitored by the solid-state thermocouple temperature sensor, the electrical heating blanket automatically maintains solution temperatures throughout the day. Drying module temperature is maintained by dual thermostats.

Variable Speed Control: Provides choice of processing times between 2 - 4 minutes at 80° or 93° F. (28° or 34° C.).

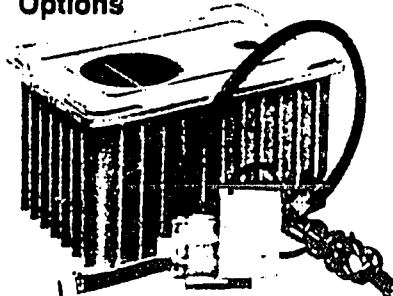
Process and Standby Switches: Simply by turning the Standby switch on in the morning and allowing 20 minutes for the solution to reach optimal operating temperature, the Processor is ready. Solution temperatures are maintained throughout the day and the P-24 is ready to process instantly from standby. Full power and water are only used while processing.

Material Input Slot: Allows continuous feeding of any combination of phototypesetting materials up to 8" wide.

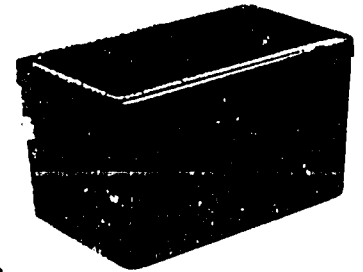
Compact Size: The compact P-24 weighs only 68 pounds and can be positioned on countertop, table, or optionally-available stand.

U.L. Listed
U.S. Patent 3,728,954.

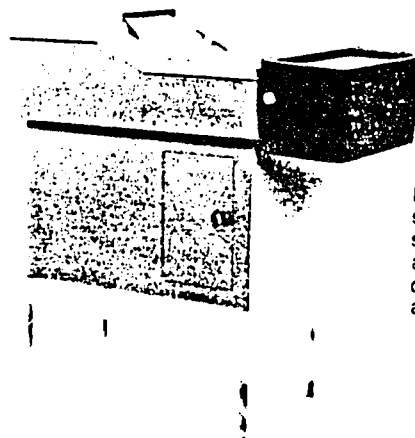
Options



Water Recirculator Unit: This optional system is designed to provide wash water when it is impractical to connect the P-24 to permanent plumbing. It consists of a submersible pump with line cord, hose for connecting to the Processor, and a plastic water container with cover.



Graphics Loader: The Graphics Loader accommodates materials up to 8" wide. It includes a Cassette Holder for RC or S type paper or phototypesetting film. An opaque cover facilitating use of the P-24 in a normally lighted room is also supplied. A transport indicator turns while material is entering the Processor. When the indicator stops, the cassette may be removed.



Processor Stand: Designed specifically for P-24 Processor, the stand requires minimal floor space and incorporates a storage compartment for chemistry supplies and Recirculator, if used.

Specifications

Dimensions: 30½" L x 17" W x 14½" H
Weight: 68 lbs. net.

Power Requirements: 110-120 Volts, 50/60 Hz, 15 amps. Also available: 220-230 Volts, 50 Hz.

Water Requirements: 1½ gal./min., when processing

Wash Water Temp.: 60° - 90° F.

Tank Capacities: 3 quarts each developer & fixer

Plumbing Requirements: Open cup-type drain and standard garden hose faucet with external threading

Processing Time: 2 - 4 min. at 80° or 93°F. (27° or 34° C.)

Chemistry, Film, and Paper: Phototypesetting Developer, Rapid Processor Fixer, RC and S type paper, Phototypesetting Film

Material Size: Up to 8" wide

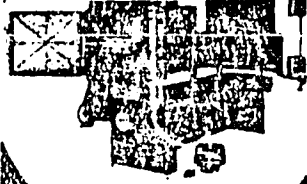
Included: Line Cord: 8', 3-wire, grounded plug. Drain Hose: 1¼" O.D. x 3' with fitting. Water Hose: 4' with solenoid & restrictor valve.

These specifications are subject to change without notice.

Mergenthaler Linotype

Mergenthaler Linotype Company
Mergenthaler Drive
Plainview, New York 11803
(516) 752-4197

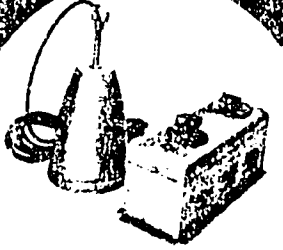
32



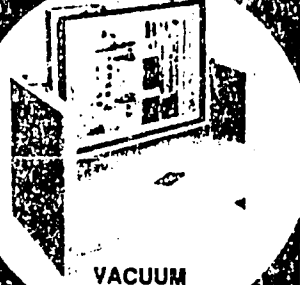
PROCESS CAMERAS



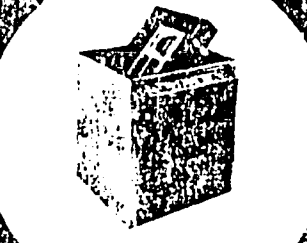
STRIPPING TABLES



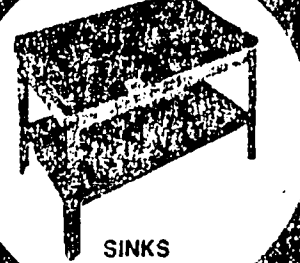
DARKROOM EQUIPMENT



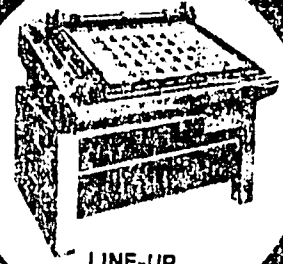
VACUUM FRAMES



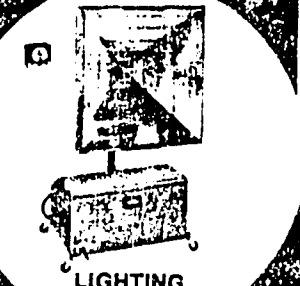
PLATEMAKING EQUIPMENT



SINKS



LINE-UP TABLES



LIGHTING EQUIPMENT

'79-'80

3611

AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST

FSC Group 36 Part II - Printing, Duplicating and Bookbinding. Items Nos. 51-1, 51-2, 51-3, 51-16, 51-146

CONTRACT NO. GS-00S-66079

PERIOD: 7/1/79 through 6/30/80

CONTRACTOR: nuArc company, inc. or to nuArc company, inc. c/o Authorized Dealer.

Contractor's Payment Address: 4100 West Grand Ave., Chicago, Illinois 60651.

Delivery: 10 to 30 days as listed in Price List.

Terms: 1%, 20 Days. Net 30.

General Services Administration Federal Supply Service

- All prices quoted are for delivery FOB Destination 48 States & D.C. Net.
Quantity discount: additional 1% where any combination of two or more pieces of equipment is purchased and delivered to the same destination.
- All of the equipment listed in this Federal Supply Schedule is manufactured in Chicago, Illinois.
- EXPORT PACKING**
Recommended Use: For additional protection against salt air, damage from water and ordinary hazards of overseas shipments.
Description: Our standard export packing procedures apply.
Price for export packing for any of the machines purchased is indicated in the price list.
Weights for export packing are nearly 1/2 times heavier than the weights shown here under individual items.
Most nuArc equipment available for operation at either 110 volts 60 Hz or at 110 volts 50 Hz or at 220 volts 60 Hz or at 220 volts 50 Hz all single phase only.
Metric graduations available on vacuum back and ground glass for all nuArc cameras as well as on straight edge supplied on line-up tables instead of American inch system.
- Unless otherwise specified there is no additional charge for crating for domestic shipments.
- RADIO INTERFERENCE**
Machines are not RIF approved.
- GUARANTEE** on equipment includes replacement (free of charge) of such parts as may become defective or broken due to faulty workmanship or material within the one year period after shipment of the machine, within the forty-eight (48) contiguous states, the District of Columbia and Puerto Rico. Machines furnished with three (3) wire grounded conductor plugs in accordance with J-C-175 (UL Approved).

M.O.L.

51-1	\$50,000.00
51-2	\$50,000.00
51-3	\$10,000.00
51-16	\$50,000.00
51-146	\$10,000.00

SCHEDULES INFO CENTER do not remove from

Corporate Headquarters: 4100 West Grand Ave., Chicago, IL 60651, U.S.A. • CABLE: "NUARCO" • 312/278-3300 • TELEX: 25-3084/25-3052

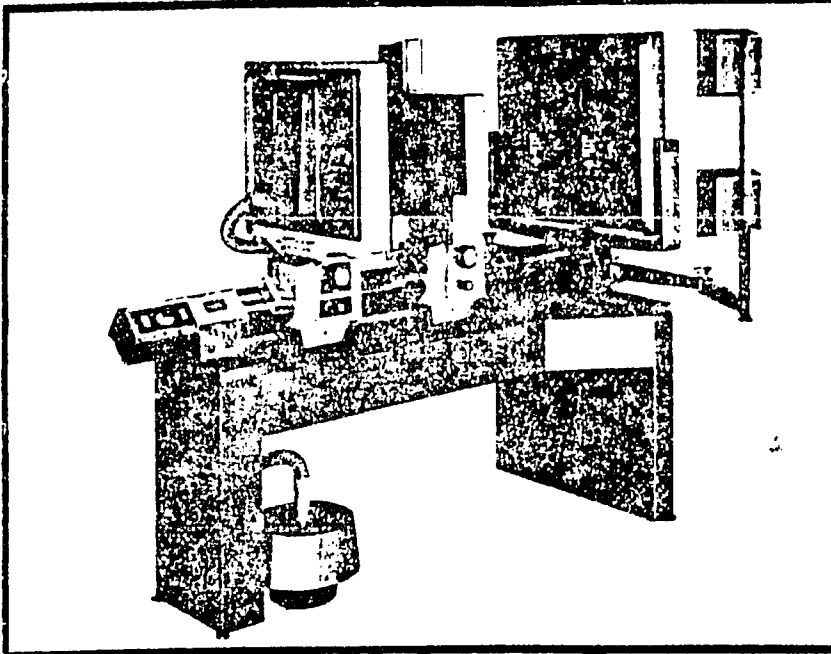
- New York, New York 10014, 175 Varick St., 212/255-7330 • TELEX 12-6583
- Boston, Mass. 02210, 261 Summer St., 617/542-1040 • TELEX 94-0612
- Atlanta, Georgia 30324, 355 Armour Circle N.E., 404/892-4800 • TELEX 54-2432
- Miami, Florida 33169, 1515 N.W. 167th St., 333/3057321-3655 • TELEX 80-7096
- Dallas, Texas 75247, 7209 Envoy Court, 214/637-5710 • TELEX 73-0196
- Los Angeles, Calif. 90015, 1221 S. Maple Ave., 213/746-3702 • TELEX 67-4036
- Seattle, Wash. 98109, 1800 Westlake Ave. North, 206/3057393-9550 • TELEX 32-1071
- Washington, D.C. 20018, 1782 Bladensburg Rd. N.E., 202/412-2110 • TELEX 29-2169

nuArc Company of Canada, Ltd., 256 Malvern Boulevard, Toronto, ONTARIO M9W 5P3, Canada • 416/675-1400 • TELEX 06-992252



International Division, 4100 W. Grand Ave., Chicago, IL 60651, U.S.A. • CABLE: "NUARCO" • 312/278-3300 • TELEX 25-3052/25-3084

FOR THE nuArc DEALER IN YOUR AREA, CALL, WRITE OR TELEX. Prices and specifications subject to change without notice. Prices F.O.B. Chicago, U.S.A.



VIC1418—14" x 18" CAMERA
A VERY IMPORTANT CAMERA FROM nuArc

Works beautifully with diffusion transfer materials, turns out professional quality litho negs—line and fine screen halftones. Takes up less space than a vertical. Incorporates many of the precision features found on the largest nuArc cameras. Color corrected 8 1/4" lens gives sharpness over the entire 14" x 18" film image size. Ideal as a second, or standby camera in big shops; and as the No. 1 in-plant camera.

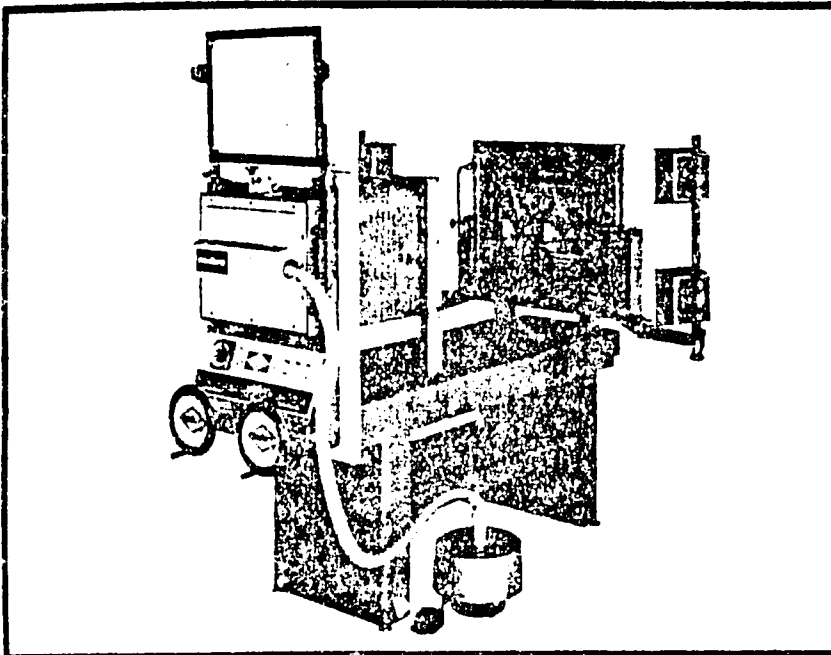
SPECIFICATIONS—VIC1418 CAMERA

- Film Size: 16" x 20" (41 x 51 cm.)
- Image Size: 14" x 18" (36 x 46 cm.)
- Copyboard: 21" x 25" (54 x 64 cm.)
- Lens: 8 1/4" (210 mm.) color corrected
 Enlargement Range: Up to 200% (2X)
 Reduction Range: Down to 33 1/3% (3X)
- Dimensions: 70" x 57" (178 x 145 cm.) with arms extended
- Lighting: four 420 watt quartz iodine lamps in fixed position reflectors
- Electrical Requirements:
 115 volts, 19 amps, 60 Hz. or 115 volts, 19 amps, 50 Hz.
 Also available 220 volts, 12 amps, 60 Hz. or 220 volts, 12 amps, 50 Hz.

Item No. 51-1 MODEL VIC1418—14" x 18" CAMERA

Model VIC1418, 16" x 20" film size, 14" x 18" image size, equipped with vacuum film back, convenient copyboard, color corrected nuArc lens, focusing screen, percentage calibrated scaling tapes.
 Domestic crating—\$150.00 Shipping weight 430 lbs.

	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Item No. 51-1 MODEL VIC1418—14" x 18" CAMERA	\$2195.00	10%	\$1975.00	\$125.00
Item No. 51-2 ACCESSORIES, ATTACHMENTS AND FEATURES	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Transparency opening, 15" x 19"	\$125.00	10%	\$112.00	\$25.00*
Replacement quartz iodine tubes, set of four	\$ 95.00	10%	\$ 85.00	\$25.00*



BUILT JUST LIKE THE BIG ONES—
RUGGED AND READY

Meet the small camera with big camera stability and results. This fast, compact, easy-to-use camera shoots a 14" x 18" image same size, with utmost sharpness. Its 6' bed makes it exactly the right size for the reproduction department. It's so efficient, hundreds use it for halftones exclusively. Use it through the wall or fit it into a small darkroom.

SPECIFICATIONS—SST1418 CAMERA

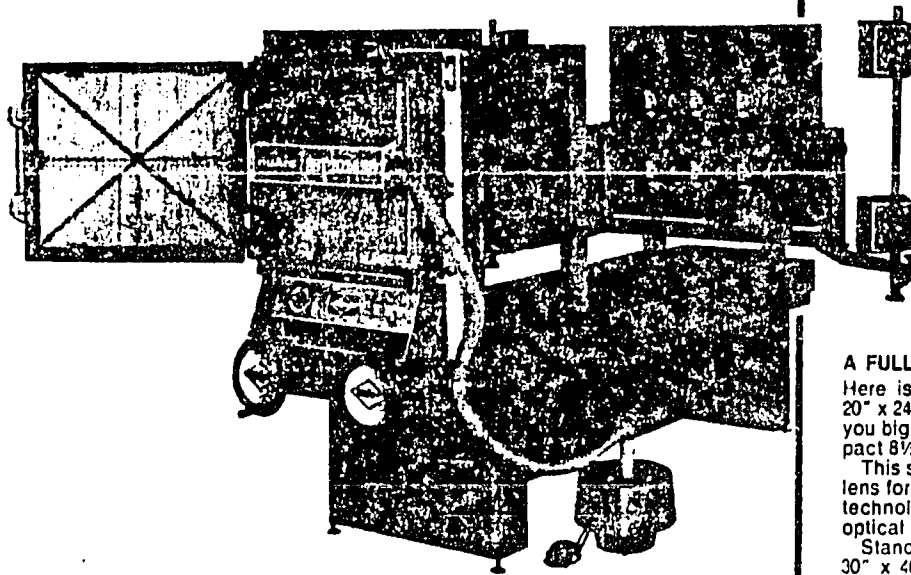
- Film Size: 15" x 19" (39 x 49 cm.)
- Image Size: 14" x 18" (36 x 46 cm.)
- Contact Screen Capacity: 15" x 19" (39 x 49 cm.)
- Copyboard: 21" x 25" (54 x 64 cm.)
- Transparency Opening: 15" x 19" (39 x 49 cm.)
- Lens: 8 1/4" (210 mm.) color corrected
 Enlargement Range: Up to 300% (3X)
 Reduction Range: Down to 20% (5X)
- Bed Size: 2' x 6' (61 x 183 cm.)
- Lighting System: Four nuArc quartz iodine cycle lights, 800 watts each
- Electrics: 220 volts, 60 Hz., 17 amps. Also available 115 volts, 60 Hz., 16.5 amps or 115 volts, 60 Hz., 28 amps

Item No. 51-1 MODEL SST1418—14" x 18" CAMERA

Model SST1418, 15" x 19" film size, 14" x 18" image size, 21" x 25" copyboard, equipped with vacuum pump, foot switch, hinged ground glass, direct reading percentage scaling system on 2" stainless steel focusing tapes, vacuum film back, screw driven lensboard and copyboard, percentage calibrated diaphragm control, transparency opening in copyboard, left or right hand copyboard.
 Domestic Crating—\$150.00. Shipping weight 610 lbs.

	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Item No. 51-1 MODEL SST1418—14" x 18" CAMERA	\$3795.00	10%	\$3415.00	\$175.00
Item No. 51-2 ACCESSORIES, ATTACHMENTS AND FEATURES	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Locks for copyboard and lensboard, Model CL1418	\$195.00	10%	\$176.00	\$25.00*
Replacement quartz iodine tubes, set of four	\$ 95.00	10%	\$ 85.00	\$25.00*

*No export crating charge when ordered with camera.



A FULL 20" x 24" ON AN 8 1/2' BED

Here is the only short track camera that produces a big 20" x 24" image, reduces 5 times, and enlarges 3 times. Gives you big camera production capabilities and features in compact 8 1/2 foot space.

This space-savings is possible because of a special optic lens formula that was developed through nuArc engineering technology in cooperation with some of the world's leading optical experts.

Standard copyboard is 25" x 32". Or you can specify a 30" x 40" board for your larger jobs. Big strong 21" x 25" machined metal vacuum back carries heavy production load with greatest of ease. Camera is solidly built throughout with structural steel and aluminum beam construction. Screw driven lensboard and copyboard ride smooth and easy on linear ball bushings mounted on solid steel machine-ground, case-hardened shafts. No cables to fray and break.

SPECIFICATIONS—SST2024SB CAMERA

- Film Size: 21" x 25" (54 x 64 cm.)
- Image Size: 20" x 24" (51 x 61 cm.)
- Contact Screen Capacity: 21" x 25" (54 x 64 cm.)
- Copyboard: 25" x 32" (64 x 82 cm.)
- Transparency Opening: 19" x 23" (49 x 59 cm.)
- Lens: 12" (305 mm.) color corrected
Reduction Range: Down to 20% (5X)
Enlargement Range: Up to 300% (3X)
- Bed Size: 2 1/2' x 8 1/2' (77 x 260 cm.)
- nuArc Custom Lighting System: Four nuArc quartz iodine cycle lights, 800 watts each
- Darkroom wall mounting kit
- Electrics: 220 volts, 60 Hz., 18.5 amps

FEATURES

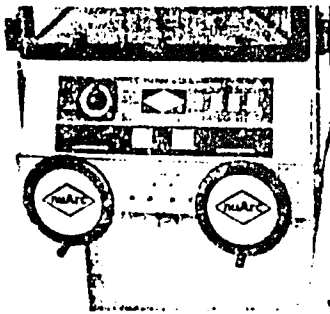
FINGERTIP CONTROL CONSOLE Everything within easy reach: timer; easy-to-read scaling controls (large percentage calibrations are punched into 2" stainless steel tapes and magnified two times); timer/focus switch, tape light switch, and master switch. nuArc puts you in command.

FINEST PRECISION LENS Color corrected lens is custom percentage calibrated for unmatched negative quality. Sharp from edge to edge over the entire 20" x 24" film surface. Percentage calibrated diaphragm control. Electric shutter and filter holder included.

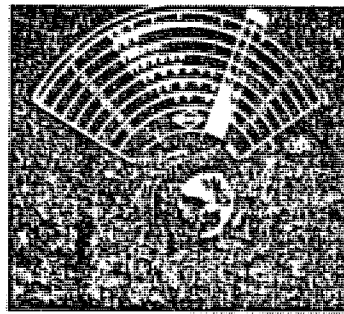
TRANSPARENCY OPENING IS STANDARD Lets you shoot translucent or transparent copy the finest way, with back-lighting.

RUGGED COPYBOARD Specially balanced for easy loading and unloading. Holds copy of varying thickness perfectly flat.

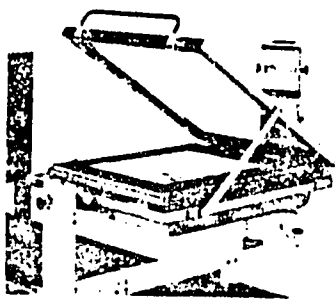
ACCESSORY VACUUM BACK Standard vacuum back opens vertically. Accessory two-way back (above) lets you load film and make flash exposures in the horizontal position—or swing it away on vertical hinges to use ground glass.



FINGERTIP CONTROL CONSOLE



FINEST PRECISION LENS



TRANSPARENCY OPENING IS STANDARD



ACCESSORY VACUUM BACK

Item No. 51-1 MODEL SST2024SB—20" x 24" CAMERA

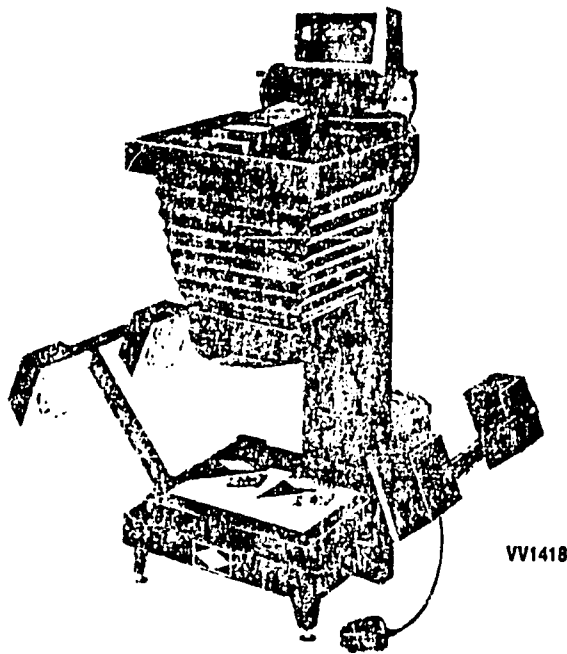
Model SST2024SB, 21" x 25" film size, 20" x 24" image size, equipped with vacuum pump, foot switch, transparency opening in copyboard, hinge-ground glass, direct reading percentage scaling system on 2" stainless steel focusing tapes, vacuum film back, screw driven lensboard and copyboard, percentage calibrated diaphragm control. Choice of left or right hand copyboard and vacuum back. Vertical opening ground glass can be hinged on left or top of camera back.

Domestic Crating-\$250.00 Shipping weight 1250 lbs.

	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Item No. 51-1 MODEL SST2024SB—20" x 24" CAMERA	\$6295.00	10%	\$5665.00	\$295.00
Item No. 51-2 ACCESSORIES, ATTACHMENTS AND FEATURES	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Two-way vacuum back with zone control	\$695.00*	10%	\$625.00	\$25.00**
Two-way vacuum back without zone control	\$595.00*	10%	\$535.00	\$25.00**
Oversize copyboard, 30" x 40"	\$795.00*	10%	\$715.00	\$50.00**
Locks for copyboard and lensboard, Model CL141B	\$195.00	10%	\$176.00	\$25.00**
Replacement quartz iodine tubes, set of four	\$ 95.00	10%	\$ 85.00	\$25.00**

*Only when ordered with camera.

**No export crating charge when ordered with camera.



VV1418

NEW VV1418 VERTICAL CAMERA—ONLY 53" WIDE.
 Here's a smart camera that does everything. A compact 14" x 18" image vertical camera equipped with a high quality color corrected lens, it produces sharp image line dot halftones or line negatives, diffusion transfer prints, film positives . . . serves as a camera/platemaker, proof maker, or stat machine.

VV1418SS SAME SIZE VERTICAL CAMERA
 Has same construction features as VV1418 except copyboard, lensboard, and film board are stationary. Produces same size copy reproduction (1:1).

SPECIFICATIONS—VV1418 & VV1418SS CAMERAS

- Film size: 16" x 20" (41 x 51 cm.)
- Image Size: 14" x 18" (35 x 46 cm.)
- Contact Screen Capacity: 16" x 20" (41 x 51 cm.)
- Copyboard: 16" x 20" (41 x 51 cm.)
- Lens: Color corrected for maximum sharpness and coverage
- Lighting System: Four nuArc quartz iodine lamps, 420 watts each
- Electrics: 115 volts, 60 Hz., 19 amps.
 Also available 220 volts, 60 Hz., 10 amps.

VV1418 ONLY:

- Enlargement Range: Up to 300% (3X)
- Reduction Range: Down to 33-1/3% (3X)
- Dimensions: 53" (135 cm.) wide, 57" (145 cm.) high, 31 1/2" (80 cm.) deep, 43" (110 cm.) maximum working height

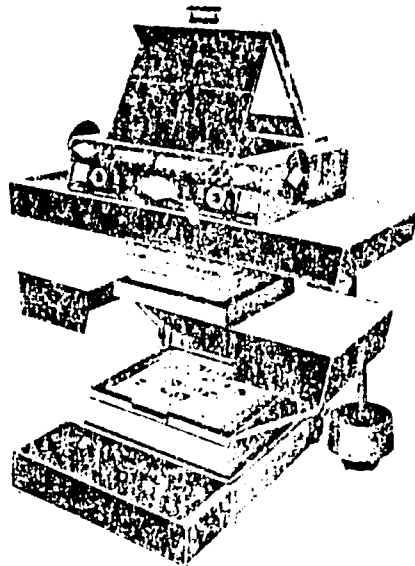
VV1418SS ONLY:

- Dimensions: 53" (135 cm.) wide, 51" (130 cm.) high, 30 1/2" (78 cm.) deep, 43" (110 cm.) working height

Item No. 51-1 MODEL VV1418—14" x 18" VERTICAL CAMERA

Model VV1418, 16" x 20" film size, 14" x 18" image size, 16" x 20" copyboard, equipped with vacuum pump, foot switch, digital readout system on control panel for reduction or enlargement, precision die cast aluminum filmboard and lensboard, ground glass included. Domestic crating—No charge. Shipping weight 320 lbs.

	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Item No. 51-1 MODEL VV1418-2 220 volts, 60 Hz. 10 amps. Shipping weight 320 lbs.	\$2195.00	10%	\$1975.00	\$80.00
Item No. 51-1 MODEL VV1418-2 220 volts, 60 Hz. 10 amps. Shipping weight 320 lbs.	\$2295.00	10%	\$2065.00	\$80.00
Item No. 51-1 MODEL VV1418SS—SAME SIZE 14" x 18" VERTICAL CAMERA Domestic crating—No charge. Shipping weight 300 lbs.	\$1495.00	10%	\$1345.00	\$80.00
Item No. 51-1 MODEL VV1418SS-2 220 volts, 60 Hz., 10 amps. Shipping weight 300 lbs.	\$1595.00	10%	\$1435.00	\$80.00



20" x 24" ROCKET VERTICAL

All sharp from corner to corner. This space-saving, ready-to-go, heavy duty vertical with its precision dual lens system turns out 20" x 24" negatives that are completely sharp and clear, with full sizing flexibility. Turns them out with greater speed, too, because it's so easy and effortless to operate. Fast loading without stretching. Fast setting with its direct reading percentage tapes.

SPECIFICATIONS—2024V CAMERA

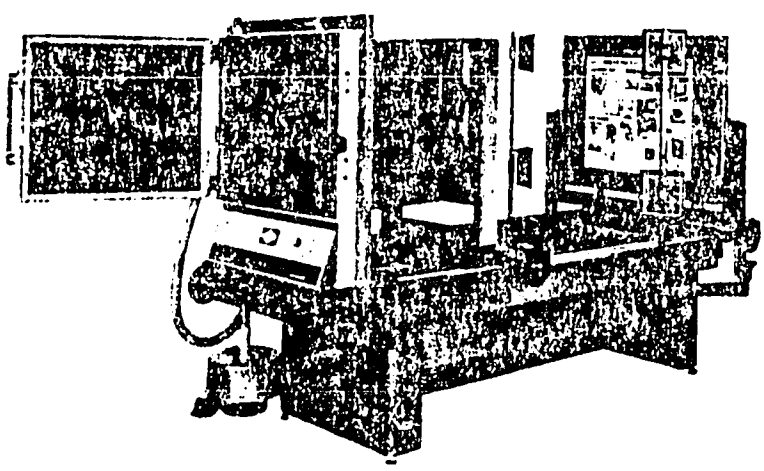
- Film Size: 21" x 25" (54 x 64 cm.)
- Image Size: 20" x 24" (51 x 61 cm.)
- Contact Screen Capacity: 21" x 25" (54 x 64 cm.)
- Copyboard: 21" x 25" (54 x 64 cm.)
- Lens: 10 3/4" (270 mm.) color corrected
 Enlargement Range: Up to 200% (2X)
 Reduction Range: Down to 50% (2X)
- 6 1/2" Lens: (170 mm.) color corrected
 Reduction Range: From 50% (2X) to 20% (5X)
- Opening for backlighting: 19" x 23" (49 x 59 cm.)
- Lighting System: Four nuArc quartz iodine cycle lights, 800 watts each
- Electrics: 220 volts, 60 Hz., 18.5 amps. Also available 115 volts, 60 Hz., 30 amps.

Item No. 51-1 MODEL 2024V ROCKET VERTICAL—20" x 24" CAMERA

Model 2024V Rocket, vertical type camera. 21" x 25" film size, 20" x 24" image size, equipped with vacuum film back and vacuum pump for switch, screw driven lensboard and copyboard, graduated ground glass, direct reading percentage scaling system on 1 1/2" stainless steel tapes. Camera is equipped with two lenses as standard equipment (see specs). Domestic crating—\$200.00 Shipping weight 1000 lbs.

	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Item No. 51-1 MODEL 2024VBL Same as above with back light copyboard.	\$5995.00	10%	\$5395.00	\$185.00
Item No. 51-2 ACCESSORIES, ATTACHMENTS AND FEATURES Replacement quartz iodine tubes, set of four	\$6295.00	10%	\$5665.00	\$165.00
Item No. 51-3 REPAIR PARTS				
Replacement quartz iodine tubes, set of four	\$95.00	10%	\$85.00	\$25.00

List prices for all parts of cameras shown, in effect as of April 9, 1979, less 10%. 37



SST2024SBS

NEW SST2024SBS CAMERA. YOU SELECT THE PRACTICAL ADD-ON ACCESSORIES.

Now you can let your needs—and budget—be your guide. Tell us which of the famous SST line features you want and we'll build a camera to your specifications. The SST2024SBS has most all of the features found on the famous SST line of cameras, plus:

- Convenient scales for easy gallery focusing of lensboard & copyboard
- Mechanical locks on copyboard & lensboard
- Solid steel shafts, precision ground & hardened
- Eight ball bushings

For details on accessories available, such as: Re-registration System • Dual Lens System • Light Integrator • Two-Way Vacuum Back • Back Lighting • Gallery Lighting Control and more, write for Brochure C113.

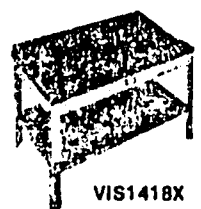
SPECIFICATIONS—SST2024SBS CAMERA

- Film Size: 21" x 25" (54 x 64 cm.)
- Image Size: 20" x 24" (51 x 61 cm.)
- Contact Screen Capacity: 21" x 25" (54 x 64 cm.)
- Copyboard: 25" x 32" (64 x 82 cm.)
- Transparency Opening: 21" x 25" (54 x 64 cm.)
- Lens: 12" (305 mm.) color corrected
Reduction Range: Down to 20% (5X)
Enlargement Range: Up to 300% (3X)
- Bed Size: 2½' x 8½' (77 x 260 cm.)
- Lighting System: Four nuArc quartz iodine cycle lamps, 800 watts each
- Darkroom wall mounting kit
- Electrics: 220 volts, 60 Hz., 18.5 amps

Item No. 51-1 MODEL SST2024SBS — 20" x 24" CAMERA

Model SST2024SBS, 21" x 25" film size, 20" x 24" image size, 25" x 32" copyboard, equipped with transparency opening, convenient scales for gallery focusing of lensboard and copyboard, solid steel shafts, mechanical locks on copyboard and lensboard, and eight ball bushings. Vertical opening ground glass can be hinged on left or top of camera back. Plus many add-on accessories, for details write for Brochure C113. Domestic Crating — \$250.00 Shipping weight 1200 lbs.

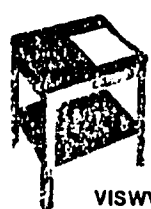
COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
\$6295.00	10%	\$5665.00	\$295.00



VIS1418X

VIS SPACESAVER SINKS

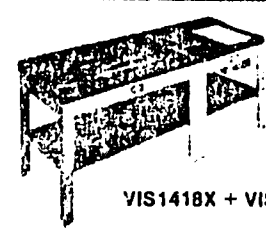
No other sinks give you so much, in so little space. Metal base and shelf smooth, tough, easy-to-maintain plastic top. Removable "lock-in-legs" are easy to assemble. Two sizes available.



VISWV18X

WASHER/VIEWER SINK

Adds washing and viewing capabilities. Has 14" x 18" viewing area right on the plastic top and covered with a ceramic glass. With white and red lights. Has knock-down base with "lock-in-legs"



VIS1418X + VISWV18X

DEVELOPER/WASHER/VIEWER SINK

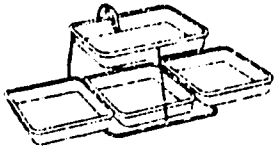
Speed film production by combining a VIS1418X or VIS1114X with a washer/viewer sink. Saves space, increases efficiency, reduces film handling and damage. Darkroom stays neater and cleaner. Combined space only 7-2/3' wide.

Item No. 51-2 VIS SPACESAVER SINKS

MODEL NO.	BASIC FILM SIZE	FLOOR SPACE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
VIS1114X SPACESAVER SINK	11" x 14" or 14" x 18" trays	30" x 50"	70	\$ 445.00	10%	\$ 400.00	\$25.00
VIS1418X SPACESAVER SINK	14" x 18" or 20" x 24" trays	35½" x 61½"	75	\$ 645.00	10%	\$ 580.00	\$25.00
VISWV18X WASHER/VIEWER	14" x 18" viewing area	30" x 37"	80	\$ 645.00	10%	\$ 580.00	\$25.00
VIS1418X, VISWV18X DEVELOPER/WASHER/VIEWER	trays up to 20" x 24", viewing area 14" x 18"	35½" x 98½"	155	\$1290.00	10%	\$1161.00	\$30.00

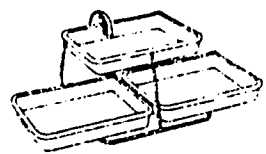
ACCESSORY TRAY KITS FOR VIS1114X SINK

- Kit 1418: 3 — 14" x 18" Trays
Steel Rack, Siphon
- Kit 1114W: 3 — 11" x 14" Trays
1 — 14" x 18" Tray
Steel Rack, Siphon



ACCESSORY TRAY KITS FOR VIS1418X SINK

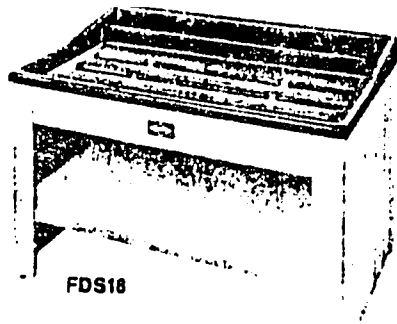
- Kit 1418W: 3 — 14" x 18" Trays
1 — 20" x 24" Tray
Steel Rack, Siphon
- Kit 2024: 3 — 20" x 24" Trays
Steel Rack, Siphon



Item No. 51-2 ACCESSORY TRAY KITS

MODEL NO.	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
KIT 1114W	\$125.00	10%	\$112.00	\$25.00*
KIT 1418	\$125.00	10%	\$112.00	\$25.00*
KIT 1418W	\$165.00	10%	\$140.00	\$25.00*
KIT 2024	\$175.00	10%	\$157.00	\$25.00*

*No export crating charge when shipped with sink.



FDS18



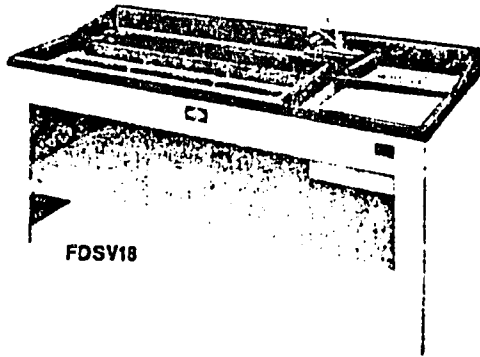
TEMPERATURE CONTROL

DELUXE FILM DEVELOPING SINKS
Maintenance-free ABS top has all the convenience features molded right in, including ribbed bottom for complete water circulation around a flat tray; full length dump trough; overflow. Steel base and storage shelf . . . leg levelling screws.

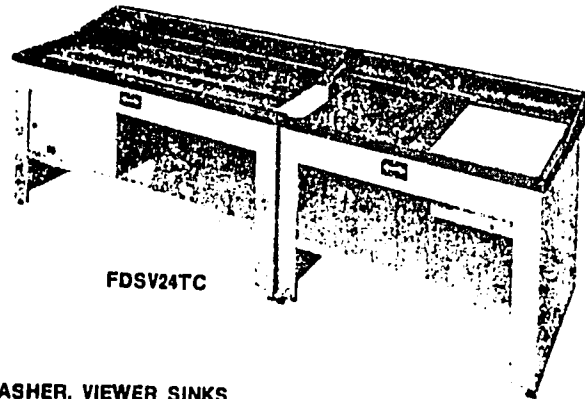
Item No. 51-2 DARKROOM FILM DEVELOPING SINKS

DESCRIPTION	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
MODEL FDS18 Developing Sink (for 14" x 18" trays)	200	\$ 645.00	10%	\$ 580.00	\$ 96.00
MODEL FDS18TC Developing Sink, same as above, with temperature control unit	360	\$1940.00	10%	\$1746.00	\$ 96.00
MODEL FDS24 Developing Sink (for 20" x 24" trays)	330	\$ 745.00	10%	\$ 670.00	\$148.00
MODEL TC24 Temperature Control Unit only	200	\$1295.00	10%	\$1165.00	\$ 25.00*

*No export packing charge if ordered together with and for inclusion with FDS18, FDS18TC, FDSV18, FDSV18TC, also FDS24, FWV24, FDSV24.



FDSV18



FDSV24TC

DELUXE DEVELOPING, WASHER, VIEWER SINKS

Convenient three-in-one sinks feature a built-in viewing area that's actually a clear part of the one-piece top. Won't leak, crack. Easy to clean. Includes white and ortho-safe lights . . . water controls.

Indestructible ABS top, with features for operating efficiency molded in. Model FDSV18 (left) for 14" x 18" trays; Model FDSV24 (right, shown with temperature control unit) for 20" x 24" trays.

Item No. 51-2 DARKROOM FILM DEVELOPING, WASHING, VIEWING SINKS

DESCRIPTION	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
MODEL FDSV18 Developing, Washer, Viewer Sink (for 14" x 18" trays)	400	\$ 945.00	10%	\$ 850.00	\$155.00
MODEL FDSV18TC Developing, Washer, Viewer Sink, same as above, with temperature control unit	550	\$2240.00	10%	\$2018.00	\$155.00
MODEL FDSV24 Developing, Washer, Viewer Sink (for 20" x 24" trays), with crossover	633	\$1690.00	10%	\$1521.00	\$222.00
MODEL FDSV24TC Developing, Washer, Viewer Sink, same as above, with temperature control unit	758	\$2985.00	10%	\$2686.00	\$222.00
MODEL FWV24 Wash and View Sink only	303	\$ 945.00	10%	\$ 850.00	\$ 77.00



ACCESSORY DEVELOPING TRAYS
Made of high impact plastic. Rounded corners, flat bottom, for easy maintenance. Must order 3 each.

Item No. 51-2 ACCESSORY DEVELOPING TRAYS

MODEL	FILM SIZE	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
VH1114	11 x 14"	\$40.00 Set of 3 **	10%	\$36.00 Set of 3	\$25.00**
VH1418	14 x 18"	\$50.00 Set of 3 **	10%	\$45.00 Set of 3	\$25.00**
VH2024	20 x 24"	\$75.00 Set of 3 **	10%	\$67.00 Set of 3	\$25.00**

*No export crating charge if ordered with other equipment.

**Can only be purchased in sets of 3.

Item No. 51-2 HALFTONE SHADOW-DOT FLASHING LIGHT

A complete lamp with bracket for ceiling mounting; six foot cord with on-off switch; special shadow-dot exposure filter; 7½ watt bulb.

MODEL FL75

COMM. PRICE
\$85.00

DISC.
10%

GOVT. PRICE
\$76.00

EXPORT CRATING
\$25.00*

*No export crating charge if ordered with other equipment.

 <p>PS48</p>	<p>PLATE DEVELOPING SINKS New top is molded of one-piece chemically resistant plastic. Extra deep construction keeps chemicals and water from splashing. The full length spray pipe covers the entire plate for fast, even cleaning. Angled drainboard and smooth surface for efficient plate handling. Sturdy all-welded steel base and storage shelf. Models PS36 & PS48.</p>	 <p>PS26X</p>	<p>COMPACT SINK Plastic basin is set in a sturdy aluminum frame. Has full length spray pipe, raised and tilted work area, drain. Disassembled for economical shipment and easy access thru narrow doors. Shelf, legs and top interlock for maximum rigidity. Models PS26X & PS30X.</p>
---	--	---	---

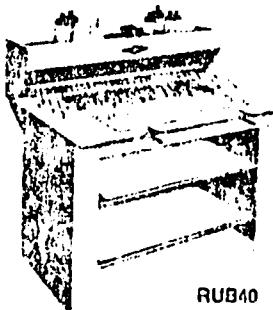




Item No. 51-2 PLATE DEVELOPING SINKS WITH SPRAY PIPE

MODEL	MAX. PLATE SIZE	FLOOR SPACE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
PS36	30½" x 33½"	37" x 41"	235	\$595.00	10%	\$535.00	\$ 68.00
PS48	33½" x 45½"	40" x 53"	270	\$895.00	10%	\$625.00	\$120.00
PS26X	19" x 24"	27" x 31"	50	\$395.00	10%	\$350.00	\$ 50.00
PS30X	26½" x 28½"	34" x 35½"	80	\$495.00	10%	\$445.00	\$ 50.00

Item No. 51-2 ACCESSORIES, ATTACHMENTS AND FEATURES FOR PLATE SINKS

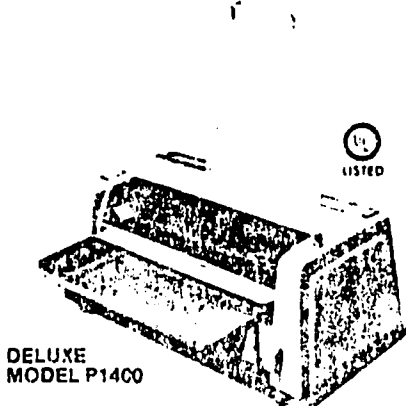
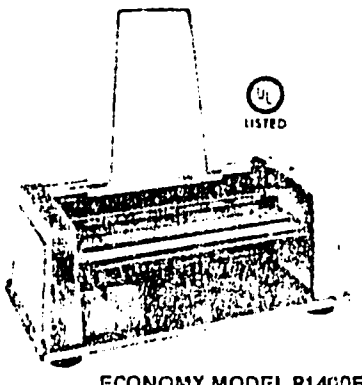
	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
Model CA 24S shelf, 7¼" x 23¼"	\$ 35.00	10%	\$ 32.00	\$25.00*

*No export packing charge if ordered together with and for inclusion with PS36 or PS48 Sinks only.

 <p>RUB40</p>	 <p>1. Pull sheet from roll.</p>	 <p>2. Clamp sheet and plate.</p>	<p>PLATE FINISHING TABLES Every convenience is yours for developing, gumming, finishing, asphaltum coating, rub-up—the ideal table for presensitized and wipe-on plates. nuArc's built-in features promote good work habits and cleanliness—you get dependable plates with fewer make-overs—reduced downtime.</p>
	 <p>3. Finish and air-dry plate.</p>	 <p>4. Remove soiled sheet.</p>	

Item No. 51-148 PLATE FINISHING TABLES 115 VOLTS, FORMICA TOP, PAPER DISPENSER WITH FORCED AIR DRYING SYSTEM

MODEL	WORKING AREA	FLOOR SPACE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
RUB40	28" x 40"	35" x 40"	330	\$795.00	10%	\$715.00	\$ 65.00
RUB54	35" x 54"	42" x 54"	418	\$945.00	10%	\$850.00	\$104.00

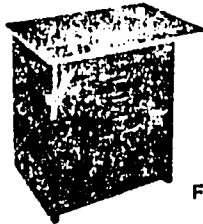
 <p>DELUXE MODEL P1400</p>	 <p>ECONOMY MODEL P1400E</p>	<p>DIFFUSION TRANSFER PROCESSORS—DELUXE MODELS Get superior results with all paper and film diffusion transfer materials, paper plates. Two precision feed rollers feed the material automatically into the chemical tray at a constant speed for uniform processing, accurate register. Equipped with automatic bell timer and timing light. Feed board with adjustable side guide. Metal receiver rack. Models P1400 & P2500.</p> <p>ECONOMY MODEL Your best buy in an economy processor. Same basic construction as deluxe models—except has manual feed, and no bell timer. Has side guide and metal receiver rack. Model P1400E.</p>
---	---	---

Item No. 51-2 DIFFUSION TRANSFER PROCESSORS

120 volts, 1 amp, 50 or 60 Hz. 220 volt model available.

MODEL	CAPACITY MATERIALS	CAPACITY CHEMICALS	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
P1400	14" (36 cm.) wide	1½ qts.	30	\$695.00	10%	\$625.00	\$25.00
P2500	24" (61 cm.) wide	3½ qts.	58	\$995.00	10%	\$895.00	\$25.00
P1400E	14" (36 cm.) wide	1½ qts.	25	\$395.00	10%	\$350.00	\$25.00

FS24C



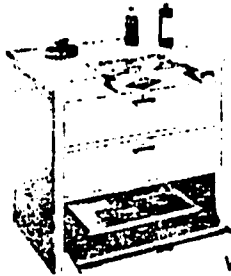
FS24

FILM STORAGE CABINETS

Welded steel drawers: two full sized for 20" x 24" (51 x 61 cm.) film boxes, two divided in half for smaller size film. Plus a large storage area for boxes. Use it with a cutter or with a vacuum frame and contact printing lamp. Cabinet is heavy-gauge steel with baked grey hammertone enamel finish. Top is durable white Formica.

Item No. 51-2 FILM STORAGE CABINETS

MODEL	DESCRIPTION	SIZE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FS24C	with 24" cutter	28" x 40" top	250	\$685.00	10%	\$616.00	\$53.00
FS24	cabinet only	28" x 40" top	220	\$595.00	10%	\$535.00	\$53.00



WT40



WT32X

UTILITY WORK TABLES—DELUXE MODELS

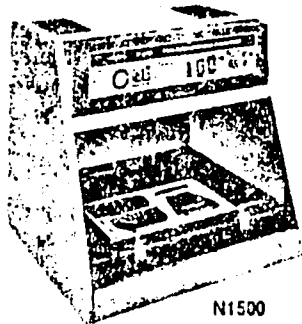
Gives you valuable working/storage space in the darkroom, camera, or press room. Lock up tools, personal equipment. Formica top resists scratches and chemicals. Cabinet is heavy-gauge steel with grey hammertone enamel finish. Models WT40, WT54.

COMPACT MODEL

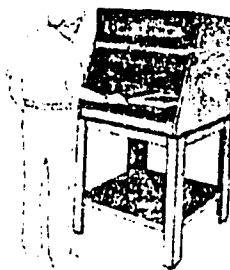
This low-priced utility table has a sturdy Formica top, interlocking shelf, legs and top for maximum rigidity. Unit disassembled for economical shipment and easy access thru narrow doors. Model WT32X only.

Item No. 51-2 UTILITY WORK TABLES

MODEL	SIZE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
WT40	28" x 40"	190	\$495.00	10%	\$445.00	\$50.00
WT54	36" x 54"	335	\$595.00	10%	\$535.00	\$81.00
WT32X	24" x 32"	70	\$225.00	10%	\$202.00	\$25.00



N1500



MODEL NFS
Floor Stand

WITH 1500 WATT PULSED XENON LAMP THE ECONOMY PLATEMAKER

Pulsed xenon light source with a kick—solid state power supply that gives instant starts at full 1500 watt intensity. The result is fast, economical platemaking. Absolutely no warm up and no waiting and no shutter. Instant starts... constant output at full intensity... full color temperature immediately. The tube is consistent during its long life. Spectral distribution approximates that of sunlight—6000° Kelvin. Exposures controlled by automatic reset timer.

FLOOR STAND—NFS

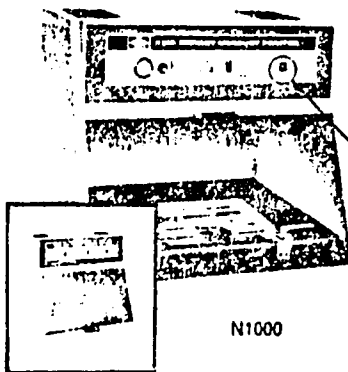
All metal, rugged construction. Full storage shelf for plates and chemicals. For N1000, & N1500.

Item No. 51-16 TABLE TOP PULSED XENON PLATEMAKER

MODEL	INSIDE BEADING	LIGHT SOURCE	LINE VOLTS	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
N1500-1	23" x 27"	1500 Watt	120	200	\$1395.00	10%	\$1255.00	\$48.00
N1500-2	23" x 27"	1500 Watt	220	200	\$1395.00	10%	\$1255.00	\$48.00

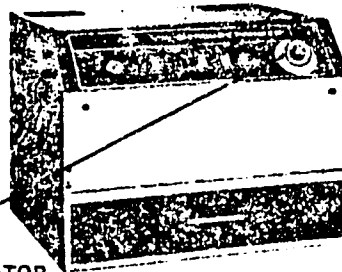
Item No. 51-2 ACCESSORY FLOOR STAND FOR N1000, N1500 UNITS

MODEL	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
NFS	\$165.00	10%	\$148.00	\$25.00



N1000

BUILT-IN LIGHT INTEGRATOR



N750

THE DELUXE PLATEMAKER WITH 1000 WATT INSTANT MERCURY LAMP

Built-in features for speed and economy light integrator—keeps exposures uniform; superior lighting system—full power instantly, 1-yr. lamp guarantee (applicable in U.S.A. and Canada) versatility—for all plates, proofing systems and films.

THE COMPACT PLATEMAKER WITH 750 WATT INSTANT MERCURY LAMP

Has a built-in light integrator, lighting system needs no warm up or shutter, with 1-yr. lamp guarantee (applicable only in U.S.A. and Canada). 750-watt unit features convenient slide-out drawer for easy loading.

Item No. 51-16 TABLE TOP INSTANT MERCURY PLATEMAKER

MODEL	INSIDE BEADING	LIGHT SOURCE	LINE VOLTS	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
N1000-1	23" x 27"	1000 Watt	120	200	\$1595.00	10%	\$1435.00	\$48.00
N1000-2	23" x 27"	1000 Watt	220	200	\$1595.00	10%	\$1435.00	\$48.00
N750-1	17" x 22"	750 Watt	120	175	\$1095.00	10%	\$985.00	\$33.00
N750-2	17" x 22"	750 Watt	220	175	\$1095.00	10%	\$985.00	\$33.00



FT18V



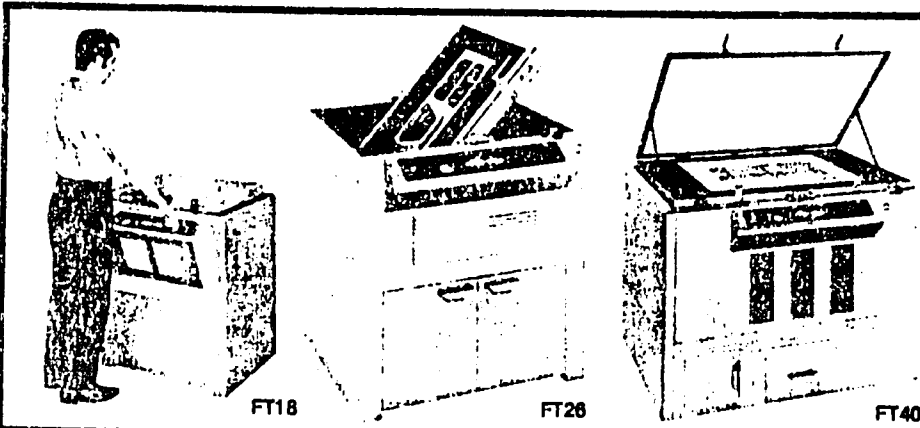
FT28VNS
(NON-STOP)

INSTANT MERCURY FLIP/TOP PLATEMAKERS

Check these exclusive features: instant start, no shutter, automatic light integrator, one year tube guarantee (applicable in U.S.A. and Canada) and versatility for all graphic arts materials. A newly styled and engineered line of Flip/Tops with new instant start Mercury Vapor light source, and nuArc's solid state instant-on technology. It's an unbeatable combination of convenience, speed and economy.

Item No. 51-18 FLIP/TOP PLATEMAKERS WITH INSTANT MERCURY LIGHT SOURCE

MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT18V-1	17" x 22"	1000 Watt	120	285	\$1795.00	10%	\$1615.00	\$57.00
FT18V-2	17" x 22"	1000 Watt	220	285	\$1795.00	10%	\$1615.00	\$57.00
FT26V-1	23" x 27"	1000 Watt	120	335	\$1995.00	10%	\$1795.00	\$65.00
FT26V-2	23" x 27"	1000 Watt	220	335	\$1995.00	10%	\$1795.00	\$65.00
FT26VNS-1	23" x 27"	1000 Watt	120	390	\$2295.00	10%	\$2065.00	\$65.00
FT26VNS-2	23" x 27"	1000 Watt	220	390	\$2295.00	10%	\$2065.00	\$65.00



FLIP/TOP PLATEMAKERS WITH AUTOMATIC ARC CONTROL

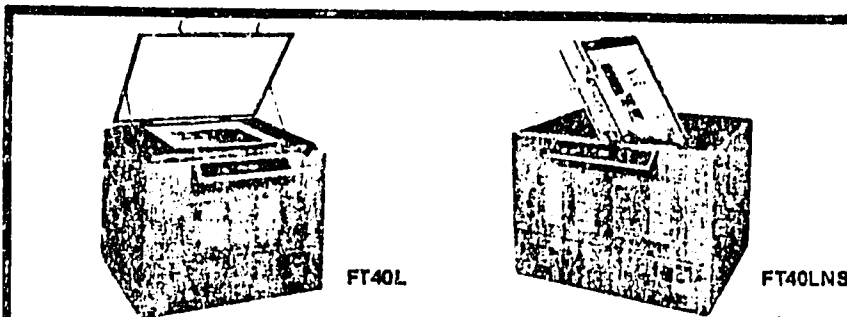
nuArc's most economical "all-in-one" platemaker.

The nuArc way of platemaking combines a powerful high-intensity point light source and vacuum frame in a compact, modern cabinet. Saves floor space, simplifies platemaking. Flip/Tops with automatic arc control are the most economical units in the line.

1. LOAD Register film and plate in vacuum frame.
2. FLIP Turn on vacuum pump and flip the frame.
3. EXPOSE Set the timer. That's all there is to it.

Item No. 51-18 FLIP/TOP PLATEMAKERS WITH AUTOMATIC CARBON FEED

MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT18	17" x 22"	No. 76 Carbon	115	235	\$1395.00	10%	\$1255.00	\$ 57.00
FT26-1	23" x 27"	No. 87 Carbon	115	335	\$1595.00	10%	\$1435.00	\$ 65.00
FT26-2	23" x 27"	No. 87 Carbon	220	335	\$1595.00	10%	\$1435.00	\$ 65.00
FT32	28" x 32"	No. 98 Carbon	220	560	\$2095.00	10%	\$1885.00	\$ 93.00
FT40	30" x 40"	No. 98 Carbon	220	615	\$2295.00	10%	\$2065.00	\$111.00



FLIP/TOP PLATEMAKERS WITH PULSED XENON LIGHT SOURCE

The modern light source. Now nuArc know-how makes it the fastest tube light source. Cleaner operating... long tube life... easier to maintain... no mechanical parts... instant starting at full intensity and color.

Item No. 51-18 FLIP/TOP PLATEMAKERS WITH PULSED XENON LIGHT SOURCE

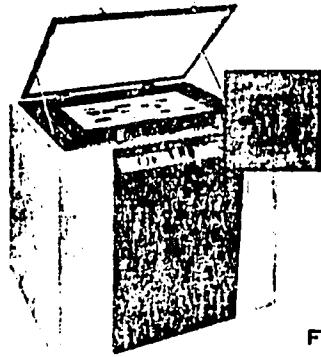
MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT18L-1	17" x 22"	1500 Watt	120	285	\$1695.00	10%	\$1525.00	\$ 57.00
FT18L-2	17" x 22"	1500 Watt	220	285	\$1695.00	10%	\$1525.00	\$ 57.00
FT26L	23" x 27"	2500 Watt	220	420	\$1995.00	10%	\$1795.00	\$ 65.00
FT32L	28" x 32"	4000 Watt	220	665	\$2695.00	10%	\$2425.00	\$ 93.00
FT40L	30" x 40"	4000 Watt	220	740	\$2895.00	10%	\$2605.00	\$111.00
FT48L*	36" x 46"	8000 Watt	220	1200	\$4195.00	10%	\$3775.00	\$161.00
FT52L**	43" x 52"	8000 Watt	220	1300	\$4495.00	10%	\$4045.00	\$203.00
FT40LC	30" x 40"	4000 Watt	220	740	\$2995.00	10%	\$2695.00	\$111.00

Item No. 51-18 NON-STOP FLIP/TOP PLATEMAKERS WITH PULSED XENON LIGHT SOURCE

FT26LNS	23" x 27"	2500 Watt	220	470	\$2595.00	10%	\$2335.00	\$ 66.00
FT32LNS	28" x 32"	4000 Watt	220	770	\$3595.00	10%	\$3235.00	\$ 93.00
FT40LNS	30" x 40"	8000 Watt	220	965	\$3995.00	10%	\$3545.00	\$113.00
FT48LNS*	36" x 46"	8000 Watt	220	1350	\$5195.00	10%	\$4675.00	\$161.00
FT52LNS**	43" x 52"	8000 Watt	220	1490	\$5595.00	10%	\$5035.00	\$203.00

*Domestic Crating - \$175.00

**Domestic Crating - \$200.00



INTEGRATOR
DIGITAL DIAL
ON THE "EASY REACH"
CONTROL CONSOLE

FT40UP

FLIP/TOP PLATEMAKERS WITH ULTRA-PLUS LIGHT SOURCE

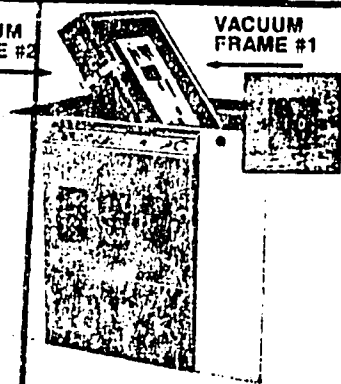
The fastest platemaker for a production plant. A new kind of metal halide tube light source with rare earth additives. Makes plates and proofs in seconds. It's the newest in lighting equipment... incorporating the fastest light source ever developed for the graphic arts.

Item No. 51-18 FLIP/TOP PLATEMAKERS WITH ULTRA-PLUS LIGHT SOURCE

MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT40UP	30" x 40"	4000 Watt	220	875	\$3995.00	10%	\$3545.00	\$118.00
FT40UP*	33" x 41 1/2"	4000 Watt	220	875	\$4295.00	10%	\$3865.00	\$132.00
FT40UP**	36" x 46"	4000 Watt	220	1250	\$4995.00	10%	\$4495.00	\$182.00
FT52UPNS	43" x 52"	4000 Watt	220	1350	\$5595.00	10%	\$5035.00	\$225.00

*Domestic Crating - \$175.00 **Domestic Crating - \$200.00

NEEDS INFO CENTER
 Call 1-800-451-1000
 Dept. 1000
 10000
 10000



INTEGRATOR
DIGITAL DIAL
ON THE "EASY REACH"
CONTROL CONSOLE

FT40UPNS

nuArc NON-STOP FLIP/TOP PLATEMAKERS TWO PLATEMAKERS IN THE FLOOR SPACE OF ONE

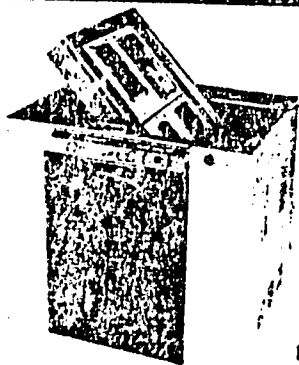
Not just a faster platemaker... a complete platemaking system. Lets you increase proofing and platemaking production without expanding your platemaking department. While you expose one of the vacuum frames, the second can be reloaded for the next exposure. Gives you stand-by exposing capacity. Your choice of light sources.

Two vacuum frames, back-to-back—Dual vacuum systems: 2 vacuum gauges; 2 vacuum switches; 2 vacuum bleed valves; 2 vacuum pumps and motors.

Item No. 51-18 NON-STOP FLIP/TOP PLATEMAKERS WITH ULTRA-PLUS LIGHT SOURCE

MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT40UPNS	30" x 40"	4000 Watt	220	950	\$4995.00	10%	\$4495.00	\$120.00
FT40UPNS*	33" x 41 1/2"	4000 Watt	220	950	\$5495.00	10%	\$4945.00	\$158.00
FT40UPNS**	36" x 46"	4000 Watt	220	1400	\$5995.00	10%	\$5395.00	\$188.00
FT52UPNS**	43" x 52"	4000 Watt	220	1540	\$6595.00	10%	\$5935.00	\$323.00

*Domestic Crating - \$175.00 **Domestic Crating - \$200.00



INTEGRATOR
DIGITAL DIAL
ON THE "EASY REACH"
CONTROL CONSOLE

FT40V2UP

NEW INSTANT START ULTRA-PLUS FLIP/TOP PLATEMAKERS

The fastest platemaker is now even more efficient with nuArc's exclusive *instant start* metal halide light source. Made with rare earth additives, metal halide effectively covers the 3600 to 4500 Angstrom range that's critical for photo polymer and diazo coatings.

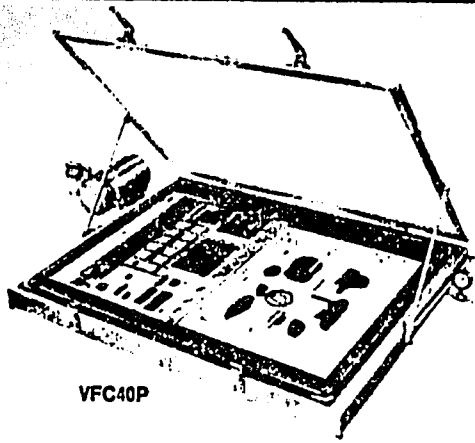
Equipped with the latest solid state technology and features for consistent quality exposures.

Item No. 51-18 FLIP/TOP PLATEMAKERS WITH INSTANT START ULTRA-PLUS LIGHT SOURCE

MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT26V2UP	23" x 27"	2000 Watt	220	350	\$2195.00	10%	\$1975.00	\$132.00
FT32V2UP	28" x 32"	2000 Watt	220	635	\$3195.00	10%	\$2875.00	\$132.00
FT40V2UP	30" x 40"	2000 Watt	220	710	\$3495.00	10%	\$3145.00	\$132.00
FT40-3V2UP	33" x 41 1/2"	2000 Watt	220	710	\$3795.00	10%	\$3415.00	\$132.00

Item No. 51-18 NON-STOP FLIP/TOP PLATEMAKERS WITH INSTANT START ULTRA-PLUS LIGHT SOURCE

MODEL	INSIDE BEADING	LIGHT SOURCE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOVT. PRICE	EXPORT CRATING
FT26V2UPNS	23" x 27"	2000 Watt	220	415	\$2695.00	10%	\$2425.00	\$158.00
FT32V2UPNS	28" x 32"	2000 Watt	220	715	\$3995.00	10%	\$3595.00	\$158.00
FT40V2UPNS	30" x 40"	2000 Watt	220	790	\$4495.00	10%	\$4045.00	\$158.00
FT40-3V2UPNS	33" x 41 1/2"	2000 Watt	220	790	\$4995.00	10%	\$4495.00	\$158.00



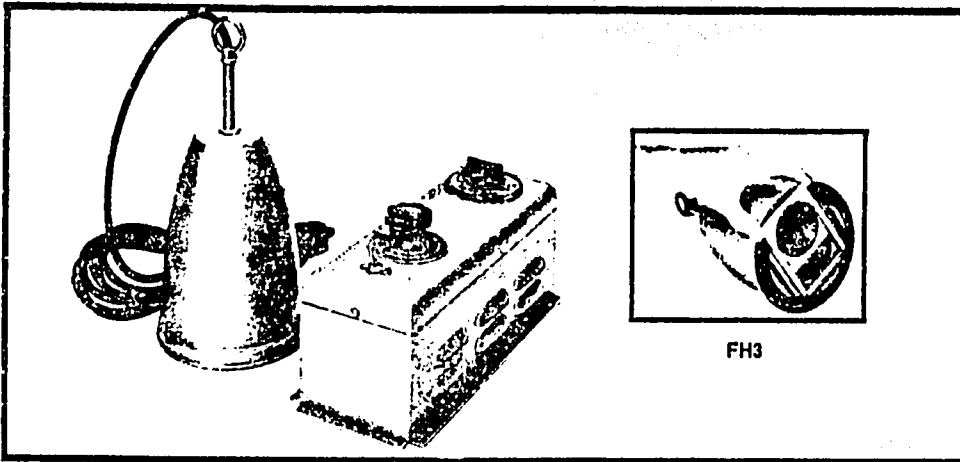
VFC40P

TABLE TOP CONTACT FRAMES WITH VACUUM PUMP AND MOTOR

Has counterbalanced aluminum glass frame, one piece live rubber blanket in a welded steel base, vacuum system with gauge, integral vacuum pump and motor. One piece construction means long life—the beading is molded right in, not glued on as with other blankets.

Item No. 51-16 TABLE MODEL PRINTING FRAMES WITHOUT LIGHT SOURCE

MODEL NO.	INSIDE BEADING	TABLE SPACE	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOV'T. PRICE	EXPORT CRATING
VFC32P	28 x 32	33 x 43	115	150	\$ 545.00	10%	\$ 490.00	\$25.00
VFC40P	30 x 40	35 x 51	115	175	\$ 595.00	10%	\$ 538.00	\$30.00
VFC46P	36 x 46	39 x 57	115	290	\$ 845.00	10%	\$ 760.00	\$44.00
VFC52P	43 x 52	48 x 63	115	385	\$ 995.00	10%	\$ 898.00	\$57.00



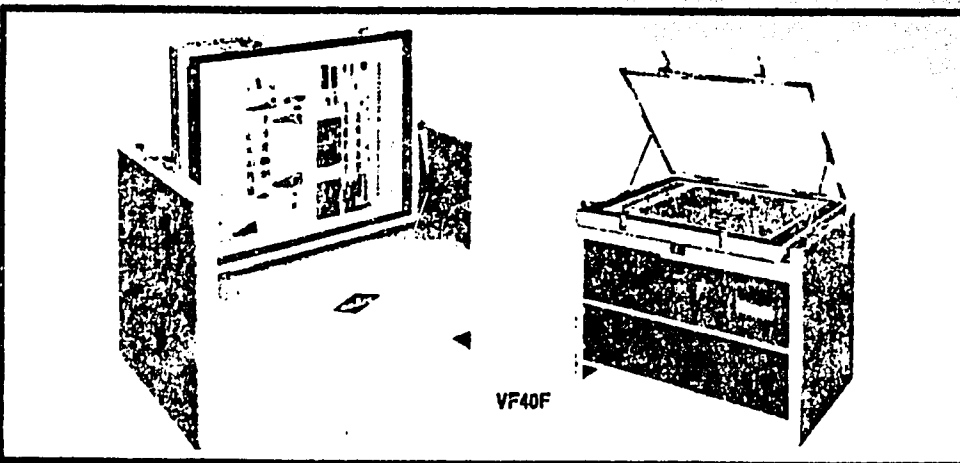
FH3

CONTACT PRINTING LAMP WITH POINT LIGHT SOURCE

Six light intensity selections enable you to cover a wide range of material without neutral density filters. Light beam is adjustable to cover a large or small area effectively. 20 volt, 100 watt point light source. Reset timer assures repeat exposures. Includes reflector and 15' cord.

Item No. 51-2 CONTACT PRINTING LAMPS

MODEL	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOV'T. PRICE	EXPORT CRATING
MODEL CP25	13	\$175.00	10%	\$157.00	\$25.00



VF40F

FLOOR PRINTING FRAMES WITH VACUUM PUMP AND MOTOR

The basic frame construction has been proved in the Flip/Top platemaker:

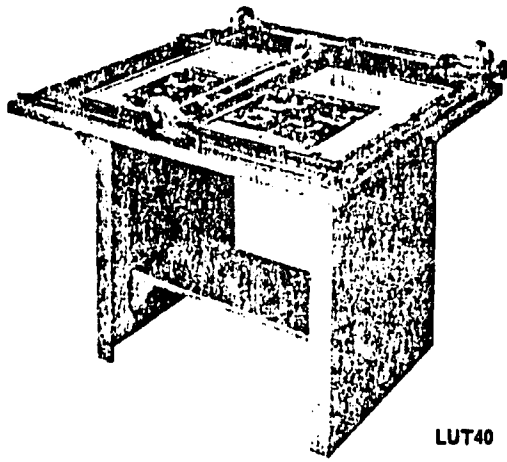
- One-piece molded live rubber blanket.
- Counterbalanced glass frame with positive latches.
- Integral pump and motor.
- On-Off switch, vacuum gauge and bleed valve.
- Frame loads in horizontal position—then pivots to face your light source.

Item No. 51-16 FLOOR MODEL VACUUM FRAME WITHOUT LIGHT SOURCE

MODEL NO.	INSIDE BEADING	VOLTAGE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOV'T. PRICE	EXPORT CRATING
VF40F	30 x 40	115	385	\$1095.00	10%	\$ 985.00	\$ 87.00
VF46F*	36 x 46	115	450	\$1495.00	10%	\$1345.00	\$105.00
VF52F**	43 x 52	115	656	\$1695.00	10%	\$1525.00	\$147.00

*Domestic Crating—\$150.00

**Domestic Crating—\$175.00



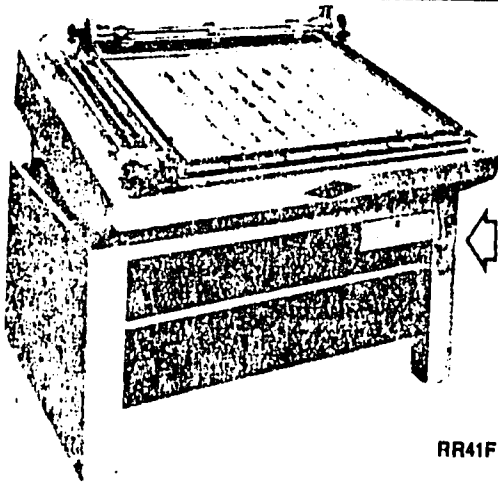
LUT40

ECONOMY LINE-UP TABLE

Here's the perfect table for most of your line-up needs. It's precision from end-to-end for the kind of accuracy you need in your stripping, checking. Start the job right, and it goes through the plant right. Four precision gear tracks guide straight edges accurately. Stainless steel edges calibrated in 32nds.

Item No. 51-146 TABLES, LINE-UP AND OPAQUE

MODEL	GLASS AREA	FLOOR SPACE	LINE-UP TABLES 118 VOLT		DISC.	GOVT. PRICE	EXPORT CRATING
			SHIPPING WEIGHT	COMM. PRICE			
LUT28	22 x 26"	38 x 41"	245	\$1695.00	10%	\$1525.00	\$44.00
LUT40	31 x 41"	56 x 47"	380	\$1795.00	10%	\$1615.00	\$90.00



RR41F

TILT-TOP CONTROL HANDLE

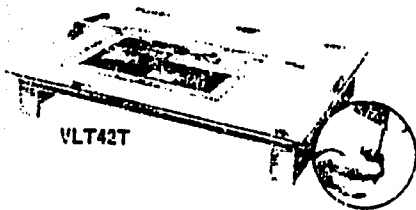
PRECISION LINE-UP TABLES LIKE FIVE TABLES IN ONE

1. For ruling multiple layout sheets
2. For checking positives or proofs
3. For scribing plates for step and repeat register
4. For checking press sheets, ruling bindery sheets
5. For ruling forms

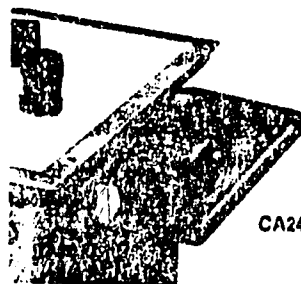
With the addition of a simple, accurate system of adjustable stops, nuArc has transformed the line-up table to a production tool with a dozen prime uses in every plant. You get permanent, repeatable accuracy with gear-guided straight edges.

Item No. 51-146 TABLES, LINE-UP AND OPAQUE

MODEL	GLASS AREA	FLOOR SPACE	LINE-UP TABLES 118 VOLT		DISC.	GOVT. PRICE	EXPORT CRATING
			SHIPPING WEIGHT	COMM. PRICE			
RR31F	24 x 31"	43 x 48"	525	\$2495.00	10%	\$2245.00	\$111.00
RR41F	31 x 41"	50 x 58"	655	\$2695.00	10%	\$2425.00	\$159.00



VLT42T



CA24

TABLE MODELS WITH TILT TOP

Same basic construction features as floor models on page 18. Use several on a long flat table and you'll save considerable floor space. Top tilts 6° with simple adjustment.

Item No. 51-146 TABLE MODEL LIGHT TABLES WITH TILT TOP 118 VOLT

MODEL	GLASS AREA	FLOOR SPACE	VLT TABLE MODEL LIGHT TABLES 118 VOLTS		DISC.	GOVT. PRICE	EXPORT CRATING
			SHIPPING WEIGHT	COMM. PRICE			
VLT18T	18 x 20	21 x 23	47	\$285.00	10%	\$238.00	\$25.00
VLT23T	23 x 20	26 x 31	63	\$295.00	10%	\$265.00	\$25.00
VLT32T	25 x 32	28 x 35	85	\$375.00	10%	\$337.00	\$25.00
VLT42T	33 x 40	33 x 43	120	\$445.00	10%	\$400.00	\$25.00

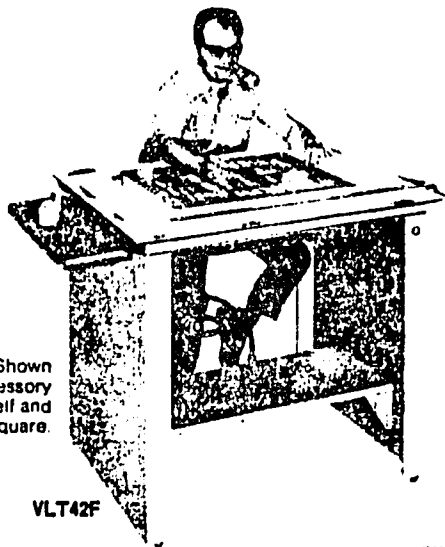
LIGHT TABLE ACCESSORY

Model CA24 CATCH-ALL SHELF

Snaps on. 7 1/4" x 23 1/2". For all nuArc floor model light tables except VLT18F, VLT18X, VLT23X, and VLT32X.

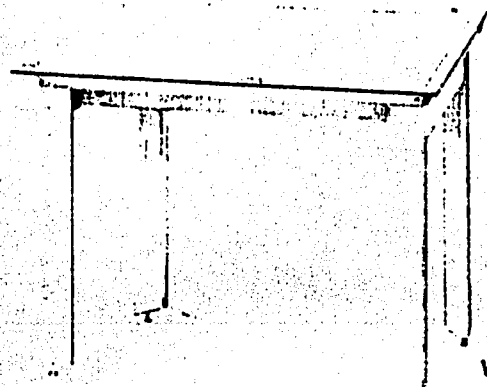
\$35.00	10%	\$32.00	\$25.00*
---------	-----	---------	----------

*No export packing charge if ordered together with and for inclusion with light tables.



Shown with accessory catch-all shelf and T-square.

VLT42F



VLT42X

nuArc PRECISION LIGHT TABLES

REGULAR MODEL*

Thin light box lets you sit closer to your work comfortably . . . 4 chromed, machined steel straight edges . . . reversible clear glass top . . . steel base and foot rest . . . adjustable leg levellers.

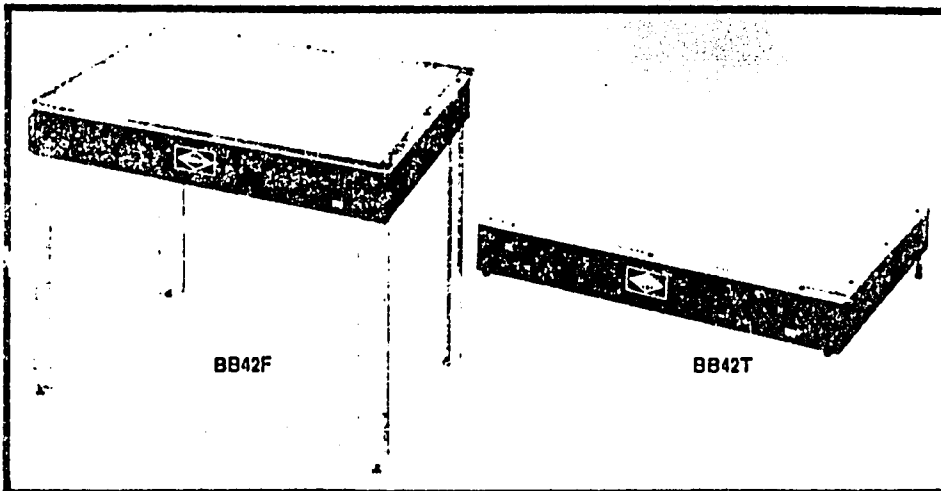
WITH DETACHABLE LEGS

For narrow doorways or for economical export shipment— all floor models are available with detachable legs at no additional cost.

Item No. 51-146 VLT LIGHT TABLES, FLOOR MODEL, WITH CHROME STRAIGHT EDGES 118 VOLTS

REG. MODEL	DETACH. LEGS	GLASS AREA	FLOOR SPACE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOV'T. PRICE	EXPORT CRATING
VLT18F	VLT18X	18 x 20	21 x 23	75	\$295.00	10%	\$265.00	\$ 25.00
VLT23F	VLT23X	23 x 28	26 x 31	130	\$325.00	10%	\$292.00	\$ 36.00
VLT32F	VLT32X	25 x 32	28 x 35	162	\$395.00	10%	\$355.00	\$ 42.00
VLT42F	VLT42X	30 x 40	33 x 43	190	\$465.00	10%	\$418.00	\$ 60.00
VLT51F	VLT51X	38 x 50	39 x 53	347	\$735.00	10%	\$661.00	\$101.00
VLT61F	VLT61X	42 x 62	45 x 65	435	\$885.00	10%	\$796.00	\$138.00

*See page 15 for Catch-All Shelf



BB42F

BB42T

BEST BUY ECONOMY LIGHT TABLES

All the features you need for comfortable viewing, opaquing, and stripping. Straight edges are adjustable on all 4 sides for resquaring. Legs have adjustable leg levellers. Shipped knocked-down, easily assembled.

FLOOR MODELS WITH TILTED-TOP have back legs higher than front legs to provide best working angle.

TABLE MODELS have adjustable tilt top.

Item No. 51-146 BEST BUY ECONOMY LIGHT TABLES, FLOOR MODEL 120 VOLTS, 60 Hz

REG. MODEL	TILTED TOP	GLASS AREA	FLOOR SPACE	SHIPPING WEIGHT	COMM. PRICE	DISC.	GOV'T. PRICE	EXPORT CRATING
BB23F	BQ23A	23" x 28"	26" x 31"	50	\$275.00	10%	\$247.00	\$36.00
BB42F	BB42A	30" x 40"	33" x 43"	80	\$375.00	10%	\$337.00	\$42.00

Item No. 51-146 BEST BUY ECONOMY LIGHT TABLES, TABLE MODEL 120 VOLTS, 60 Hz

BB23T		23" x 28"	26" x 31"	45	\$265.00	10%	\$238.00	\$36.00
BB42T		30" x 40"	33" x 43"	70	\$360.00	10%	\$324.00	\$42.00

All products listed are mined, produced and manufactured 100% in the U.S.A.

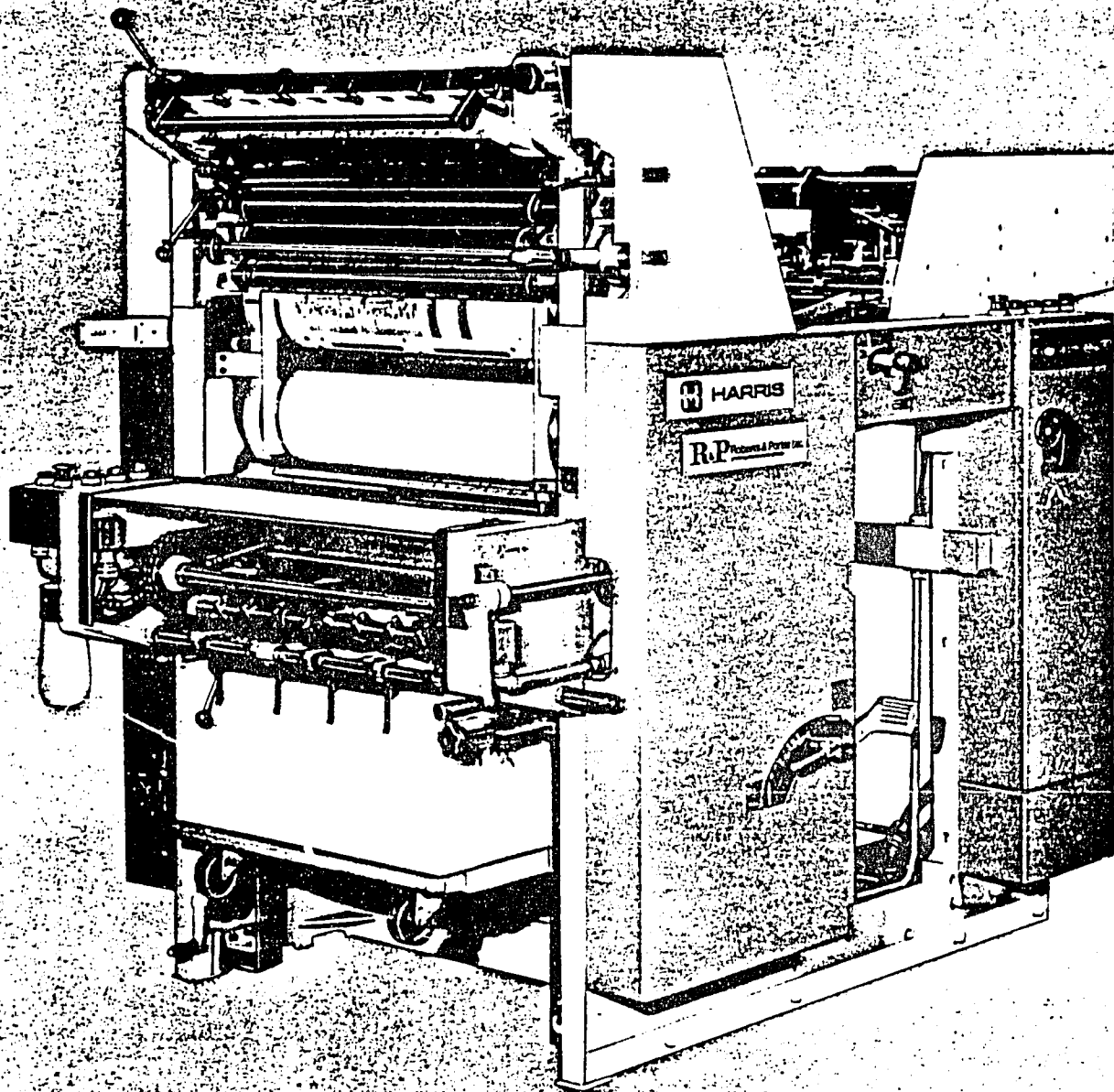
ROBERT AND PORTER HARRIS 125 19" x 25" SINGLE COLOR PRESS

One (1) New R&P 19"x25" single color offset press, Model H-125 complete with all standard attachments, and including the following:

1. One (1) Harris Micro-Flo continuous dampening system
2. Four (4) Harris form roll inker system
3. Copper plated vibrating rollers
4. Oxy-Dry Spray, series 1000
5. Baldwin press washer
6. Fast acting plate clamps
7. Electronic sheet detection system
8. One (1) complete set covered ink rollers
9. 18½" x 25" ink transfer area (9" x 12" 4-up bleed)
10. Harris key register (pins and stops)
11. Completely pre-wired with built-in electrical controller
12. Feeder capacity - 41" preload design
13. Harris stream feed and center separation
14. Adjustable front guides
15. Two (2) pull side guides adjustable on the fly
16. Oil Pan
17. Delivery light
18. F.O.B. rigger, Baltimore, Maryland, not including export crating
19. One year warranty on parts

COMPLETE GSA PRICE-----\$37,720.00
COMPLETE COMMERCIAL PRICE-----\$44,000.00

NOTE: Export crating is additional.



Big press features in the world's best small press.

Micro-Flo® continuous form roller alcohol dampening system—Takes guesswork out of establishing and maintaining optimum ink/water balance. Produces brighter colors, sharper halftones.

Four form roller inker—Assures unsurpassed ink coverage from gripper edge to tail of sheet. No roller covers to make hickies. Instantaneous response to operator adjustment.

Stream feed and center separator—Gives the operator more control, handles all kinds of stock smoothly. Loading and feeding systems designed to save time and effort.

Runs 9" x 12" forms 4-up with bleed—Makes the most of standard, off-the-shelf 19" x 25" stock. No special trimming, no trim waste.

Proven fastest make-ready in the industry—Exclusive Harris "Key Register" system minimizes plate changing and registering time. Stepless ink fountain control and numbered fountain keys make for fast, accurate adjustment of light and heavy areas. Only pin wrench needed for most adjustments.

Conventional press configuration... Operational simplicity—Controls and adjustments are located logically, within easy reach, to save time and steps.

Drop-away ink fountain—Opens wide for fast, thorough wash-up. No roller covers to run in, replace or wash up.

Automatic lubrication system—One push of a plunger in the morning and H-125 is ready to go. Lubrication is automatic while the press is running.

The big benefit of the H-125: More salable sheets per hour.

The H-125 was specifically designed to produce top quality work, quickly. Micro-Flo alcohol dampening, four form roller inker, fast make-ready, operational simplicity, 9" x 12" 4-up capacity, lower paper waste and fast wash-up all combine to increase your press profits... *measurably*.

H-125 sheet-fed offset press SPECIFICATIONS

printing

Stock Size
 19 x 25" maximum
 8½ x 11" minimum
 .024" max. thickness
 Transfer Size
 18¼ x 25" maximum
 Plate Lead Edge to Transfer
 1¼"
 Plate Size
 20¾ x 25¼"
 Plate Thickness
 to .012" (std.)
 Plate Cylinder Undercut
 .015"
 Sheet Gripper Margin
 ¼"
 Blanket Size
 24¾ x 25¼"
 Blanket Thickness
 .062 to .065"
 Blanket Cylinder Undercut
 .075"
 Press Speeds
 to 7500 iph

feeding

Harris Stream Feed,
 Center Separation
 Feeder Capacity
 41"

register

Front Register
 3 point
 Micrometer adjustable front
 guides
 Side Register (Adjustable
 while running)
 Harris pull side-guides
 Trip
 Photo-cell sheet detector
 at register plate; trip control
 at delivery and operating
 positions

dampening

Harris "Micro-Flo"® dampener
 Form Roller
 Same as #1 ink form
 Metering Roller
 3⅛" dia.
 Pan Roller
 2¾" dia.

inking

Form Rollers (covered)
 1—3⅞" dia. at #1 position
 1—1¾" dia. at #2 position
 1—1⅞" dia. at #3 position
 1—2¼" dia. at #4 position
 Distributor Rollers (covered)
 3—2⅝" dia.
 Ductor Roller (covered)
 1—2⅜" dia.
 Vibrating Rollers (copper
 plated)
 4—2⅔" dia.
 Center Friction Roller
 (copper plated)
 1—2⅓" dia.
 Lower Rider Roller
 (copper plated)
 1—1⅞" dia.
 Fountain Roller
 1—2¾" dia. with drop-away
 cleaning

delivery

Gripper Bar Rotating Conveyor
 Pile Control
 Adjustable-jogging,
 auto-receding
 Delivery Capacity
 19"

power required

Drive Motor
 2 H.P.
 Air and Vacuum Pump Motor
 1 H.P.
 Drive
 Adjustable drive equipment
 with fully automatic trip-slow
 Standard electrical equipment

furnished for A.C., 2 or 3 phase,
 50 or 60 cycle. For other types
 of power, consult factory.
 Air requirements—supplied by
 customer

OMC Dry Spray
 1 cfm @ 20 psi (minimum)

general

Net Weight
 (Approx.) 4350 lbs.
 Shipping Weight
 (Approx.) 5050 lbs.

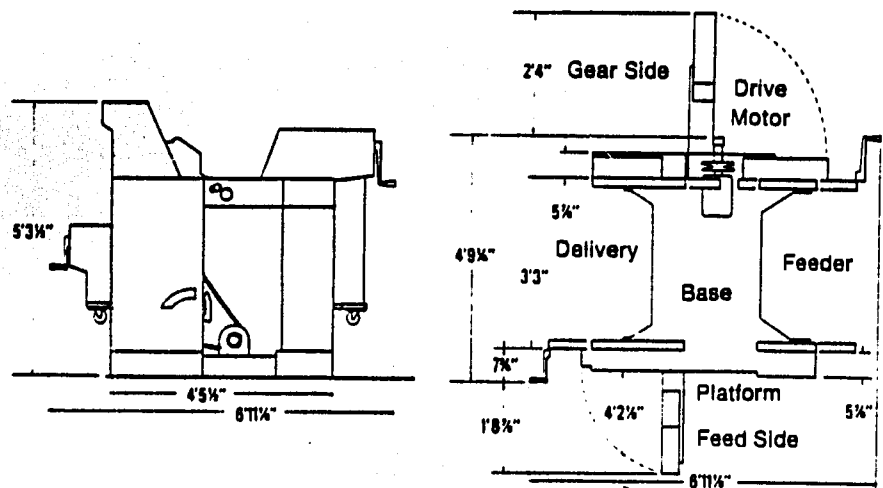
standard equipment

2 sets blanket clamps
 Reverse inch button
 2 paper wedges
 Wash-Up Machine
 2 castered pile boards
 Non-Offset Spray
 Auto lubrication and initial
 lubricants
 1 set of tools
 Press completely pre-wired
 with built-in controller ready
 for mainline power hookup.
 Harris "Key Register"® Pins
 and stops

optional equipment available

Bare Ink or Water Roller Cores
 Extra Covered Ink Rolls
 Ink Fountain Dividers
 Ink Fountain Agitator
 Harris Key Register Punch
 Delivery Light
 Drip Pan for Under Base
 Static Neutralizer

(Specifications subject to change without notice)



Scale ¼" = 1'0"

R & P Roberts & Porter Inc.
 printing machinery group

4140 West Victoria Avenue
 Chicago, IL 60646 (312) 588-3700

Serving the graphic arts industry since 1897.

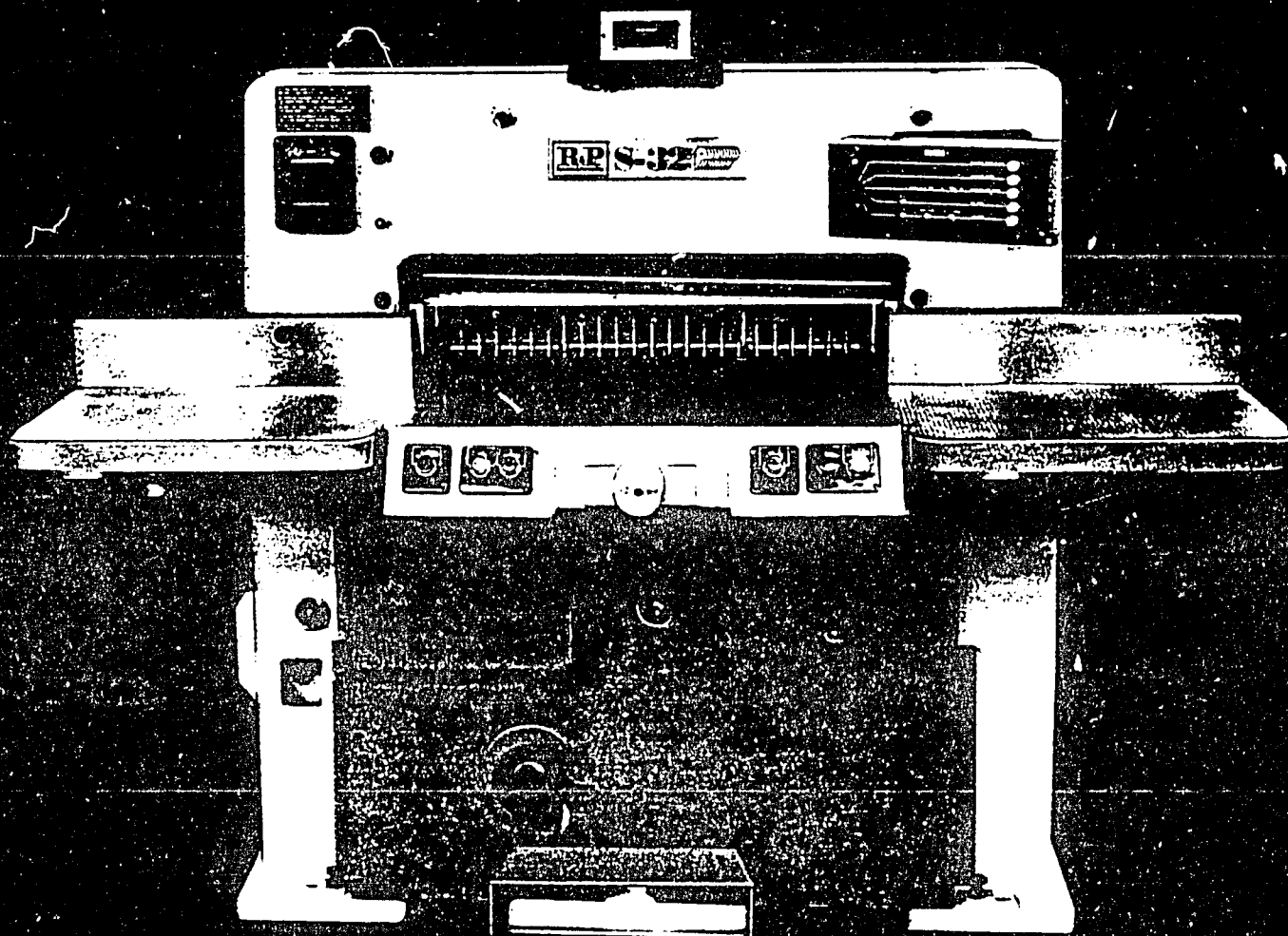
12-CHANNEL PAPER CUTTER

One (1) new R&P 32½" Magnetomatic Auto spacer 12-channel paper cutter, complete with the following equipment:

1. Complete safety system
 - A. Two hand "start", two hand "hold" push button
 - B. Two hand "hold", full pressure, clamp only operation
 - C. Electro mechanical knife safety latch
 - D. Clamp treadle, fully guarded, minimum pressure only
 - E. Main switch "safety" lock
 - F. Complete set of guards
2. Right and left auxiliary tables
3. Mark-while-you-cut spacer set-up
4. Automatic backgauge return
5. Large, illuminated, magnified backgauge position indicator adjustable to operator's eye level
6. Hand wheel dial graduations correct to 1/256"
7. Solid state electronic circuitry
8. Two (2) knives
9. Two (2) plastic cutting sticks
10. One (1) tool kit
11. One shot centralized lubrication, with reservoir
12. F.O.B. Baltimore, Maryland, not including export crating
13. One year warranty on parts

COMPLETE GSA PRICE-----\$18,400.00
COMPLETE COMMERCIAL PRICE-----\$25,000.00

NOTE: Export crating is additional.



Combines accuracy with strength and reliability

Exceptionally compact, rugged and functional, this 32 $\frac{1}{4}$ " R&P cutter sets new standards for reliability and accuracy in paper cutting. Greater strength and stability mean more dependable, trouble-free operation whether you cut a few hours a day or a full shift or more.

Magnetomatic spacer or power backgauge models are available to meet your exact production requirements. Magnetomatic spacer has 12 channels to handle any cutting program you are likely to encounter.

Mark-while-you-cut spacer feature on Magnetomatic spacer models turns set-up time into production time, makes automatic spacing practical even for two- or three-lift jobs.

Highest cutting precision results from cushion-contact hydraulic clamping and a sturdy, supported

knife bar that moves the knife through the pile at an efficient, controlled cutting angle.

Safety system combines two-hand actuation of clamp, as well as two-hand actuation of clamp and knife to make a cut. For additional safety, fully-guarded foot treadle applies minimum clamp pressure only.

Operator-convenience design simplifies operation and makes for greater efficiency with minimum training.

Minimum maintenance. Features like high-reliability components and one-shot lubrication to all main bearings minimize downtime and assure day-in, day-out production dependability.

Plug-in, solid-state spacer components, readily identifiable as functional groups, facilitate a do-it-yourself maintenance approach.

32¹/₄"

R&P paper cutter SPECIFICATIONS

general

stock size

Opening between side gauges	32 ¹ / ₄ "
Maximum distance in back of knife	32 ¹ / ₄ "
Cutting height	4 ⁵ / ₁₆ "

table

Front of table to knife	20 ⁷ / ₈ "
Height, table top to floor	35 ⁷ / ₈ "
Illuminated table.	
Recessed handwheel.	
Two table rules.	
Cutting stick, 4 positions.	
Cutting stick adjustment.	
Slot-closing device.	

positioning

- Large, illuminated, magnified backgauge position indicator, adjustable to operator's eye level.
- Indication band graduations
- Handwheel dial graduations
- Table rule graduations
- Minimum distance to knife
- Push-button backgauge controls.
- Electromagnetic backgauge lock.
- Three-piece backgauge with graduated scales.
- Horizontal and vertical backgauge adjustment.

maximum book size:

Left	9 ⁷ / ₁₆ "
Center	13 ³ / ₈ "
Right	9 ⁷ / ₁₆ "
Side sections can be offset from center	5 ¹ / ₂ "
Power backgauge speed, forward/reverse	330 in./min.

Magnetomatic spacer positioning

- Solid-state electronic circuitry enclosed against dust and dirt.
- Automatic backgauge return.
- Movable limit switch for backgauge travel, automatic reverse/forward.
- Magnetically-controlled, infinitely-variable backgauge positioning.
- Selector: 12 channels.
- Manual indexing: 1 to 12 channels.
- Mark-while-you-cut spacer set-up.
- Direct control of backgauge by spacer.
- One-to-one ratio between backgauge and spacer movement.
- Program correction for sheet lay change, forward or back
- Partial or total program erasing.
- Minimum trim cut
- Speeds: (Read, Slow)
- (Reverse)
- (Erase, Fast)

clamping

- Cushion-contact full hydraulic.
- Variable pressure control.
- Variable clamp closing speed.
- Maximum clamping force
- Independent hydraulic system with separate motor.
- Treadle or push-button control for gauging cut.
- 2³/₄" wide-fingered clamp.

cutting

- Mechanically powered, electromagnetic clutch and spring brake.
- Two-hand "Start," two-hand "Hold" push-button controls.
- Double-shear knife action.
- Knife size
- Cuts per minute (cyclic rate)
- Variable knife delay for difficult stocks.
- Knife bevel
- Knife, useable amount

size and weight

- Dimensions: see diagrams below
- Net weight
- Shipping weight
- Cubic measurement

power required

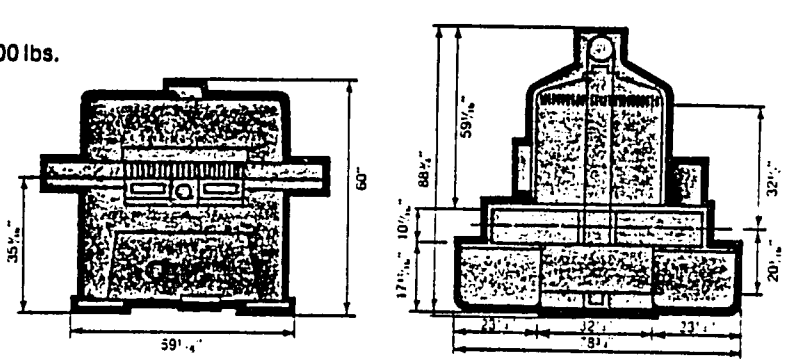
- Cutting drive motor
- Hydraulic clamping motor
- Backgauge motor
- Standard electrical: 230/460 VAC, three phase, 60 Hertz.
- Total electrical input req'd

standard equipment

- Safety system.
- Two-hand "Start," two-hand "Hold" push-button cut controls.
- Two-hand "Hold," full pressure, clamp-only operation.
- Electro-mechanical knife safety latch.
- Clamp treadle, fully-guarded, minimum pressure only.
- Safety on main switch.
- Master "Stop" switch.
- Shear-bolt overload protection.
- One set, knife-changing handles.
- One complete set of guards.
- One R.H. extension table, 17¹/₁₆" x 23³/₄"
- One L.H. extension table, 17¹/₁₆" x 23³/₄"
- Two knives.
- One tool kit.
- Two plastic cutting sticks, 32⁷/₈" x 0.394" x 0.197"
- One quick-mount, detachable clamp sole plate, 3¹/₄"
- One shot centralized lubrication, with oil reservoir, for all main bearings.
- Back table slot-closing device.

optional equipment

- Power backgauge.
 - Extra knives.
 - Extra plastic cutting sticks.
- Specifications subject to change without notice.



R&P Roberts & Porter Inc.
 printing machinery group
 4140 W. Victoria Avenue
 Chicago, IL 60646 (312) 588-3700

Serving the graphic arts industry since 1897.

ROSBACK MODEL 203R AUTO STITCHER

One (1) Rosback Model 203R Auto Stitcher, with 2 stitching heads, 2 feeding stations, stagger stitch, Electric eye control of stitcher heads, front feed table, heavy duty disc brake, complete electrical controls for adding on feeder or trimmer at later date:

Model 203R (230-60-3ph-1 HP motor) F.O.B. Maryland rigger---	\$10,600.00
Rear Feed table-----	90.00
3rd stitcher head attachment - less head-----	85.00
4th stitcher head attachment - less head-----	80.00
Spare/additional head each-----	380.00
Head alignment gauge-----	18.00
Model 213, 4-station Saddle Extension-----	1,600.00
(Above prices quoted F.O.B. Michigan)	

Delivery ranges from 2 weeks to 6 weeks.

COMPLETE BINDING UNIT

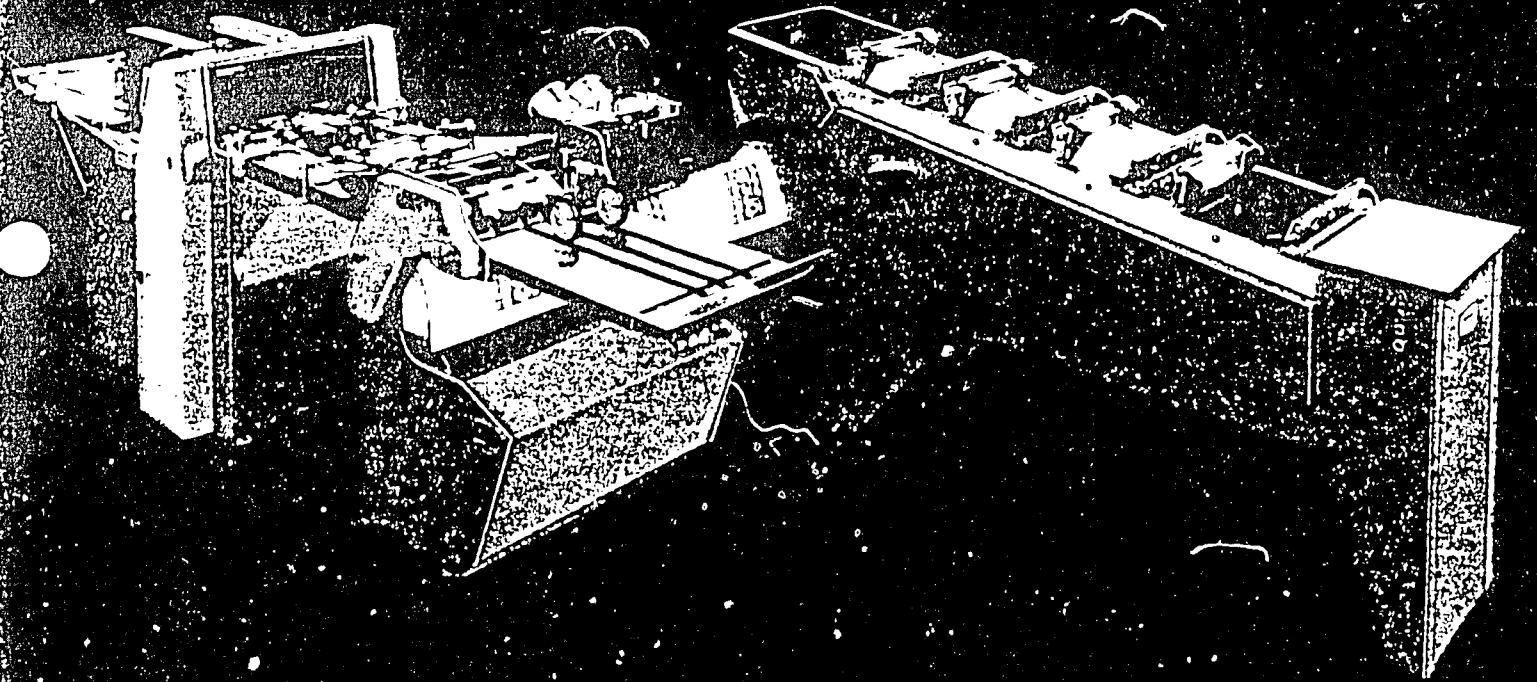
One (1) Rosback 203 Bindery System as a complete Saddle Binding unit which will include the following:

- 1 - 203 Stitcher complete (230v-60-3 ph)
- 1 - Model 704 6-pocket Auto Feeder (115v-60-1ph)
- 1 - Model 250 Knife Auto Trimmer (220v-60-3ph)
- 1 - Spare Stitcher Head
- 1 - Extra set of knives
- 1 - Total and Batch Counter

COMPLETE PRICE F.O.B. Michigan-----\$35,800.00

Delivery ranges from 2 - 6 weeks.

featuring:



model 203
BINDERY SYSTEM

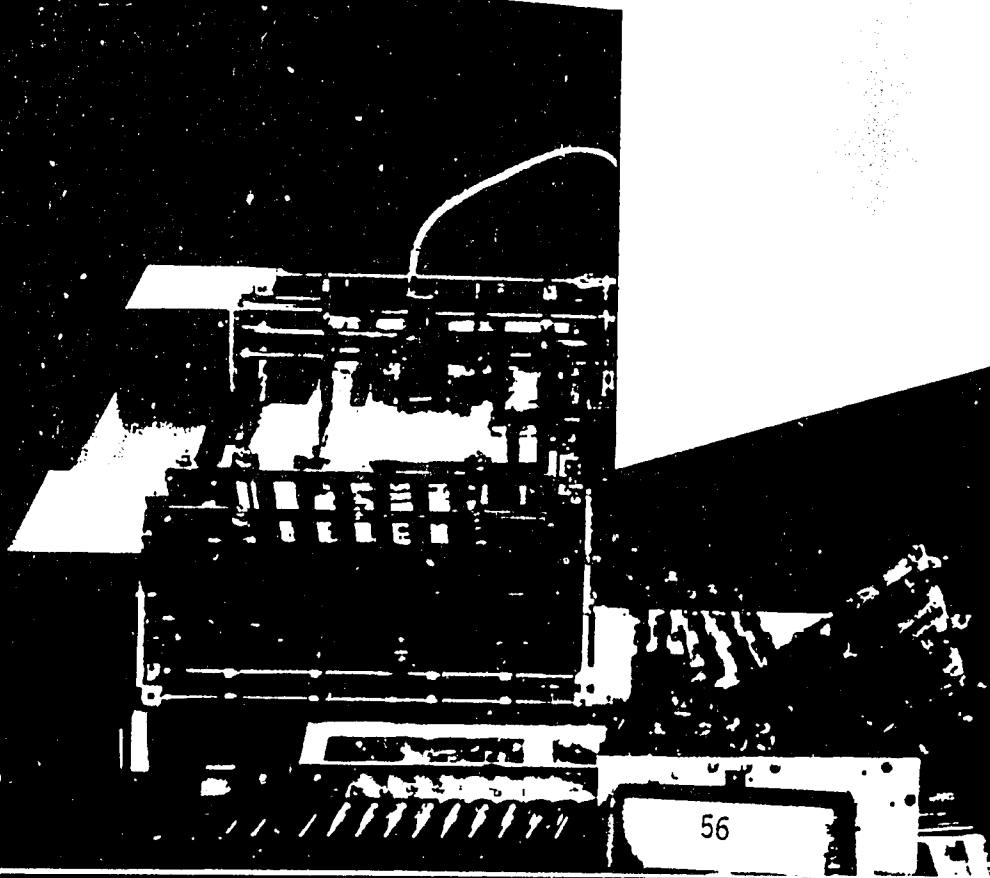
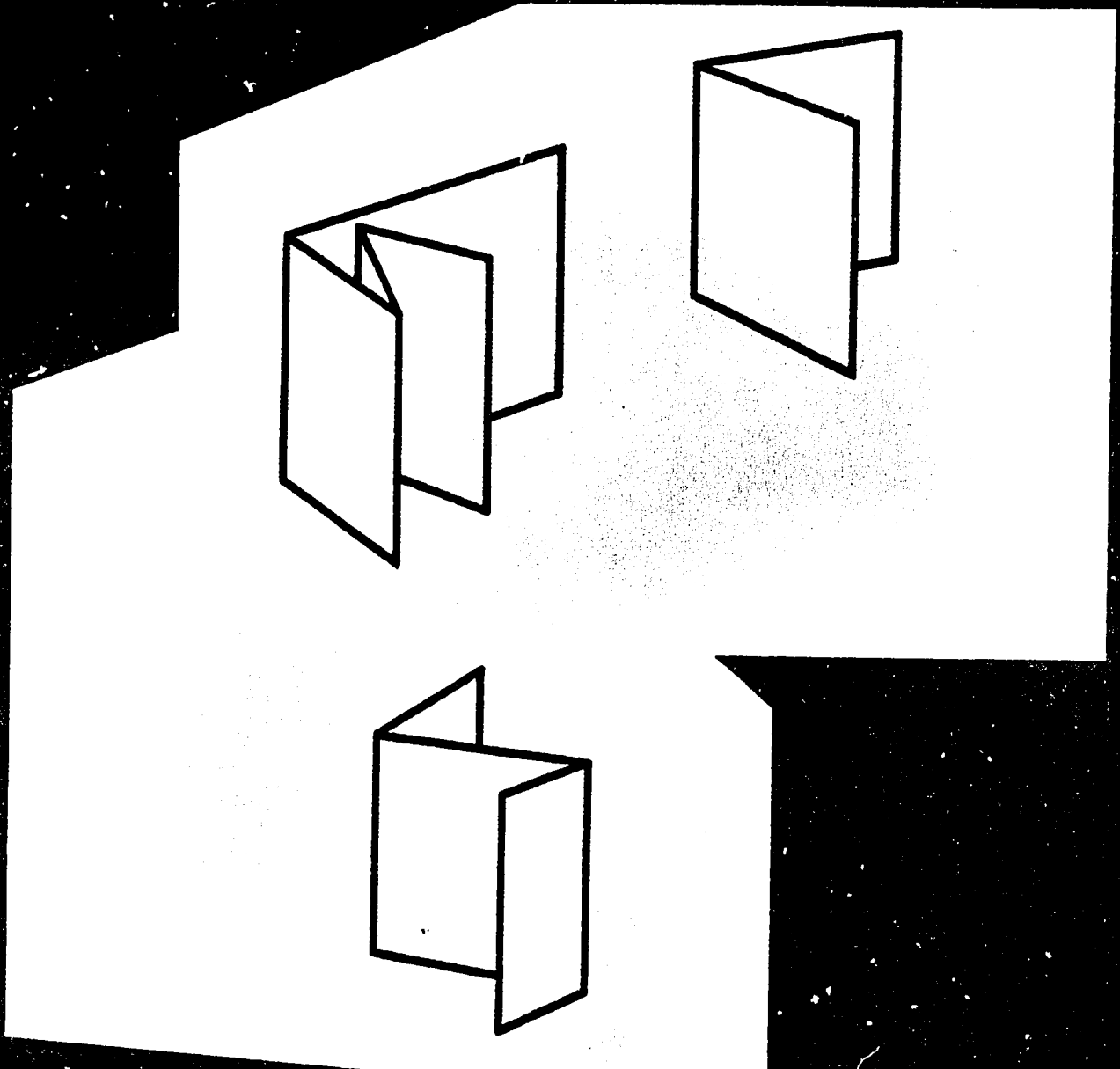
GBC O & M FOLDING EQUIPMENT

O&M 20"x29" pile feed folders, with four plates in the 4-page sections and three plates in the 8-page sections, and with three plates in the 16-page section, F.O.B. Ft. Lauderdale, Florida as follows:

One (1) New O&M 20"x29" Pile Feed Folder Model 4.3.3-----	\$13,140.00
Freight, rigging to Maryland rigger-----	1,000.00
Counter-----	400.00
Wetter-----	400.00
Total-----	<u>\$14,940.00</u>

Delivery ranges from 30 - 60 days.

GBC O&M Folding Equipment



ROLLEM "AUTO 5"

Rollem "Auto 5" - perforator-scorer-slitter-numberer which includes two perforators, one numbering head, 24" Model.

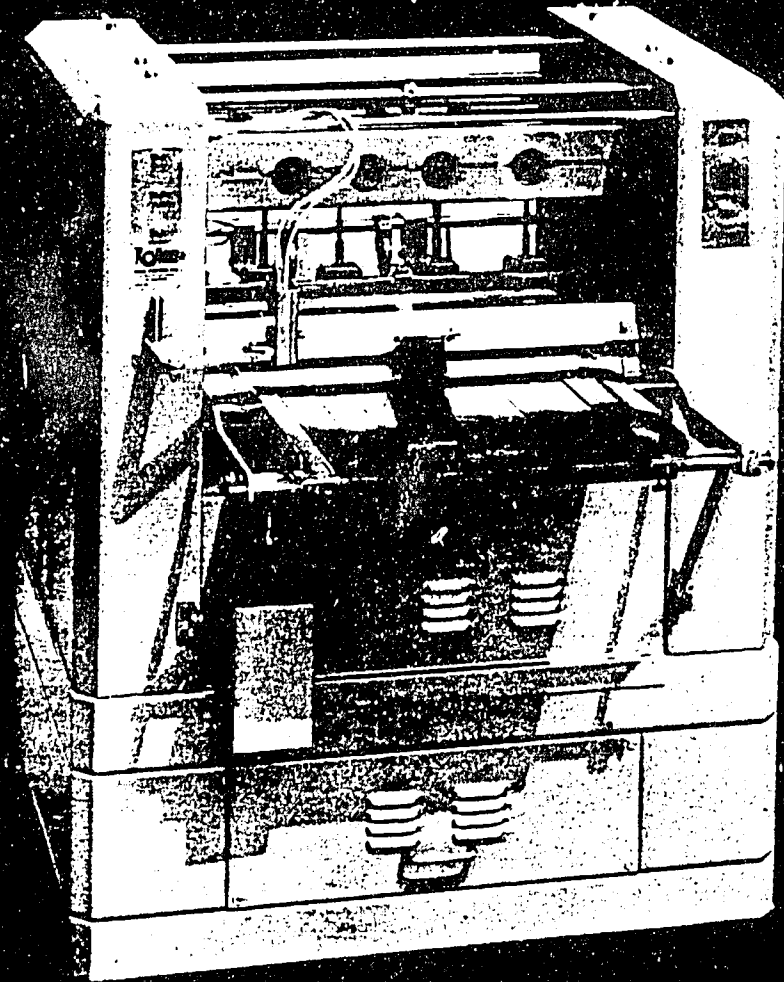
F.O.B. Long Island City, New York-----\$10,600.00
 Freight to Maryland rigger----- 500.00

Attachments that you may want to include, F.O.B. New York, N. Y. :

Perforating heads (male and female)-----	\$ 120.00	per set
Scoring heads-----	100.00	per set
Slitting heads-----	100.00	per set
Edge perforators (2 lines set as close as $\frac{1}{4}$ ")-----	170.00	per set
Control heads (male and female)-----	80.00	per set
Semi-Slitting head-----	200.00	each
Edge scorers (for 2 lines set as close as $\frac{1}{4}$ ")-----	100.00	per set
Numbering head (Forward)-----	120.00	each
Numbering head (Reverse)-----	150.00	each
Perforating blades (Standard)-----	7.50	each
Rolletronic Strike for Stop Perforating-----	1,150.00	each
Skip numbering-----	200.00	each

The Rollem "Auto 5" allows you the numbering flexibility on most forms

ROJEM



AUTO 5

GSA

AUTHORIZED FEDERAL SUPPLY SCHEDULE AND PRICE LIST

CONTRACT NO. GS-00S-45145

DUPLICATOR MACHINES & ATTACHMENTS

Contract period: 28 September 1979 through 30 June 1980

FSC Group 36, Part II

Special Item Numbers 51-13, 51-17, 51-66, 51-67, 51-128, 51-129

Rental Items 51-165

Service Rates 51-166

CONTRACTOR

White Consolidated Industries, Inc.

ATF-DAVIDSON DIVISION

WHITINSVILLE, MA 01588

617 234-7451

Prices shown herein are net (discount deducted).

**AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST
FSC GROUP 36 PART II, SEC. A&B**

R&P

Roberts & Porter, Inc.

125 E. Oakton

Des Plaines, Illinois 60018

FSC CLASS 3610 - PRINTING, DUPLICATING AND BOOKBINDING EQUIPMENT

PRODUCTS

Printing and/or Duplicating Machines

ITEM NO. 51-128

Cutting Machines, Paper

ITEM NO. 51-110

CONTRACT NO. GS-005-45086

Period From September 11, 1979 through June 30, 1980

CONTRACTOR'S PAYMENT ADDRESS

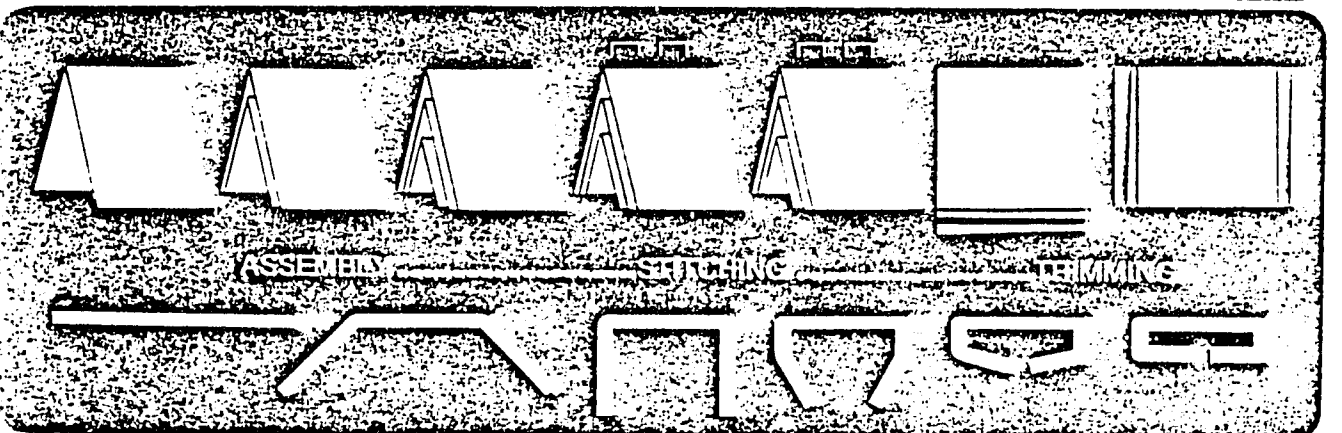
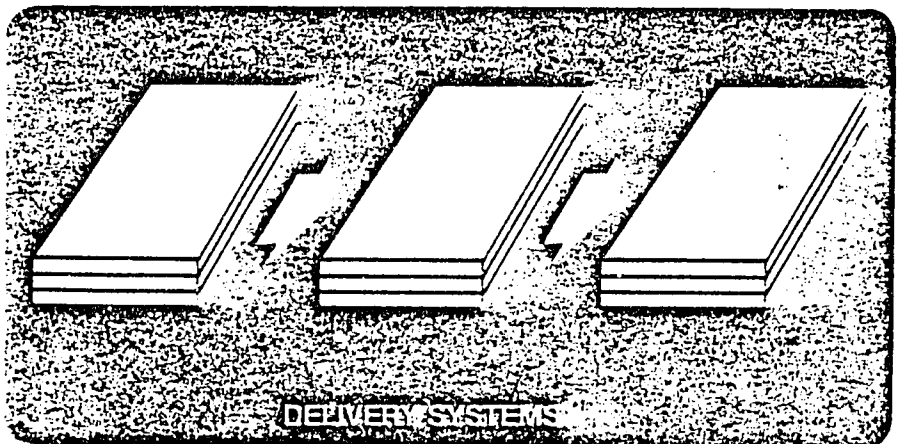
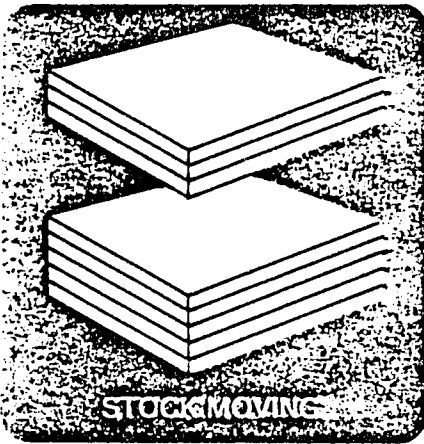
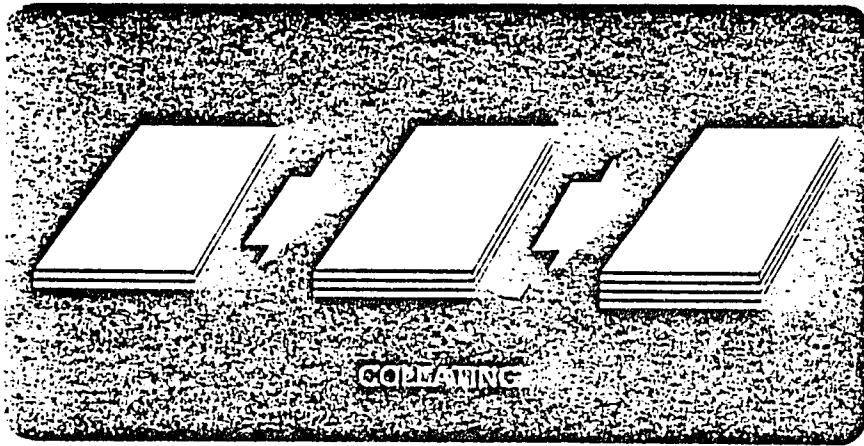
Roberts & Porter, Inc.
125 E. Oakton St.
Des Plaines, IL 60018
(312) 296-2000

CONTRACTOR'S WASHINGTON REPRESENTATIVE OFFICE

Atlantic Graphic Systems, Inc.
7100 Baltimore Avenue Suite 511
College Park, Maryland 20740
(301) 927-5600

**GENERAL SERVICES ADMINISTRATION
FEDERAL SUPPLY SERVICE**

BINDERY EQUIPMENT



CUMMINS

MODEL 99

Planax Binding System

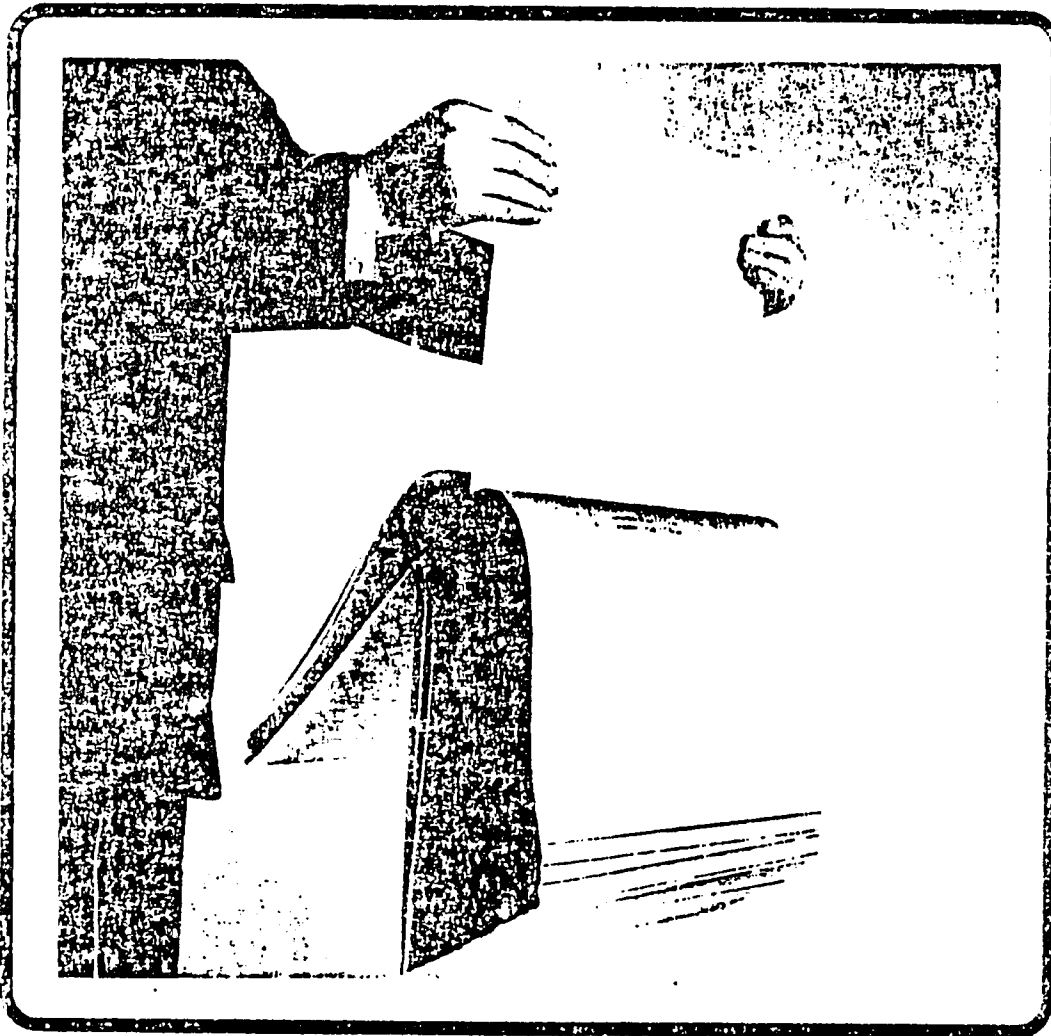
In-house, perfect binding at low cost

The Cummins Planax binding system permits on-premise perfect binding of pads, forms, reports, booklets and manuals without incurring the cost of expensive equipment or supplies. Convert stacks of papers into thin, neatly bound pamphlets or books up to six inches thick. When binding multiple pamphlets or brochures, bind as one and then simply cut along the spine to separate. Bind up to six inches of pages simply and efficiently in minutes.

For continual use in a print shop or bindery department or for those special one-of-a-kind office jobs that are needed in a hurry, Planax is the most practical answer. And Planax bindings won't break or fall apart. The unique synthetic resin adhesive holds papers securely forever. The economics of in-house binding are undeniable and the quality, convenience, and efficiency of the Cummins Planax perfect binding system make it the only choice for plant or office operation.

Anyone can operate Planax

The Planax binding system is safe and easy to handle. By training several people on the Planax system, a department is assured of instant service which is greatly appreciated when bound presentations or reports are needed yesterday.



SPACE REQUIREMENTS

Space required for the various pieces of equipment is included in the specifications of the equipment recommendations (estimate of 1,500 - 2,500 square feet).

Additional Space:

250 sq. ft. - General Administrative Space

2,500 sq. ft. - Personnel Space

600 sq. ft. - Storage, Stock, Supplies, Finished Materials

It is estimated that the total space required to ensure safe, comfortable, working conditions and adequate safe, secure storage will be approximately 4,500 square feet - 6,000 square feet.

C. Mechanism for Clearance of All Printing
Required by the Ministry of Health

The Bureau of Health Education/Communication Section should have the responsibility for clearing all printing requests of the Ministry of Health. This would assure that the Ministry of Health is in compliance with the Ministry of the Public Service, Conditions of Service Division, Circular No. 20, M.P.S. No. 17313, dated 30th October, 1979. This circular served as an update reminder of Circular No. 8, Classification "0", File M.F. 113/05, Division of Financial Administration, Office of the Deputy Prime Minister and Minister of Finance.

Circular No. 20/M.P.S. No. 17313, 30 October, 1979, stated:

"It has been brought to the attention of this Ministry that certain Ministries/Departments have been giving out printing jobs to private printers without any prior consultation with the Government Printing Office. This action is in breach of the instructions contained in paragraphs 4 and 6 of M.F. Circular ko. 8 of the 11th of March, 1976.... These instructions still hold good notwithstanding the fact that the Printing Office is now a Department of the Ministry of the Public Service.

2. Permanent Secretaries and Heads of Departments are asked to take steps to ensure that the instructions referred to above are strictly observed in future."

The information contained in paragraph 4 and 6 of M. F. Circular No. 8 of March 11, 1976, is as follows:

"4. With the exception of Departments who operate Printing Presses, the Government Printing Office is charged exclusively with the duties relating to the execution of all printing, lithography, binding work and engraving. The General Manager of the Government Printing Office acts in an advisory capacity regarding the format, type materials, process, etc., for all printing requirements. In order to effect economics, he may therefore propose to the requisitioning Department changes in printing orders in terms of quantities and format.

6. If for special reasons the Government Printing Office is unable to accommodate a printing job, within its production schedule, the General Manager will enter into the necessary arrangement with a Private Printing Contractor. No Ministry, Department or Agency shall refer their printing requirements to any firm or agency."

The delegating of the responsibility for monitoring the activities referred to in the above referenced circulars to the Communication Section will further

solidify the centralization of all printing and related activities of the Ministry of Health. The centralization of this particular function will provide maximum accountability over the use of non-government printing services.

Under this arrangement the Communication Section would establish criteria and priority scheduling for all authorized printing. Included in this schedule will be the set of criteria and procedures for determining the need for and the solicitation of outside printing.

This procedure should be instituted immediately. A complete set (C-3) of criteria and procedures should be completed by June 1, 1980.

D. Survey of Ministry of Health and Related Agencies for Documentation of Printing Requirements

It is extremely important that a survey be conducted of all components of the Ministry of Health and related agencies to determine the printing and materials production support that the Communications Section will be required to supply.

The information yield by such a survey will serve as the primary inputs for the annual planning for materials produced by the Communication Section. This will allow for a more efficient programming of manpower and resources.

Completion of the survey and the subsequent institution of a planned production cycle will also greatly enhance the production accountability of the Communication Section. It was very evident through observation and discussions that the Communication Section develops and produces "a lot of" materials. What is missing is a system that provides exact accounting of the Communication Sections outputs.

This level of accountability is necessary to document and support the annual budget request for the financial support of the materials development and production activities of the Communication Section.

The results of this survey would provide information on the following:

- The description of the program.
- Type of audience served.
- Description of materials previously produced.

- a. Total Amount
- b. Actual Cost--Estimated Cost

-Materials request.

- a. No. of
- b. Production Budget
- c. Source of Funds

Vote No

-Production Priority

-Development Priority

-Technical Assistance Need (Relative to assistance needed to develop and produce health related educational materials)

-Other resources available to support material production.

The above items represent only a sample of the kinds of questions that should be included in the survey. The sample is far from being all inclusive.

E. Materials Production Workshops

The Communication Section should develop a workshop curriculum and schedule a series of workshops for all of the program components of the entire Ministry of Health and related activities.

The objective of this series of workshops will be to provide the necessary information to all program components for the effective planning for the development, production and utilization of health related educational materials.

The following suggested topics are intended to show the various topic areas that may be included in the proposed workshops. This list is not all inclusive and the order of listing does not reflect the level of importance.

1. The nature and function of the Communication Section.
2. The process of Materials Development and Production
3. Understanding the audience to be served.
4. Programming Request to ensure timely response.
5. Technical Assistance offered by the Communication Section to assist other components in the development and production of health related educational materials.
6. Most effective use of audio-visual materials.
7. Planning multi-media educational campaigns.
8. How to request material production support.
9. How to determine annual program support for the development and production of health related educational materials.

PRODUCTION FLOW

The production flow for the development, printing and distribution of health education and other printed materials of the Ministry of Health should adhere to an annual production schedule.

This production schedule should be based on:

1. An End-Of-The-Year Survey

Of all of the components of the Ministry of Health and other related agencies, this survey will document:

- a. kinds of materials needed;
- b. volume of materials needed;
- c. dates materials needed.

2. National Priority Considerations

The schedule should have the built-in flexibility to respond to supporting national programs. Support of National Emergencies should also be a consideration.

3. Public Opinion Poll. A public opinion poll of the general public should be conducted to determine both areas of which the general public is not adequately informed and the areas that there is interest in greater information.

4. Evaluation Research. The evaluation component of the Communication Section should develop a methodology that will gather information from the total national community as to the health informational needs of Jamaica. This will include:

- a. Information Requirements;
- b. Education Requirements;
- c. Communication Requirements.

The information gathered will be in a greater depth than that obtained through the Public Opinion Poll also mentioned in this section of the report.

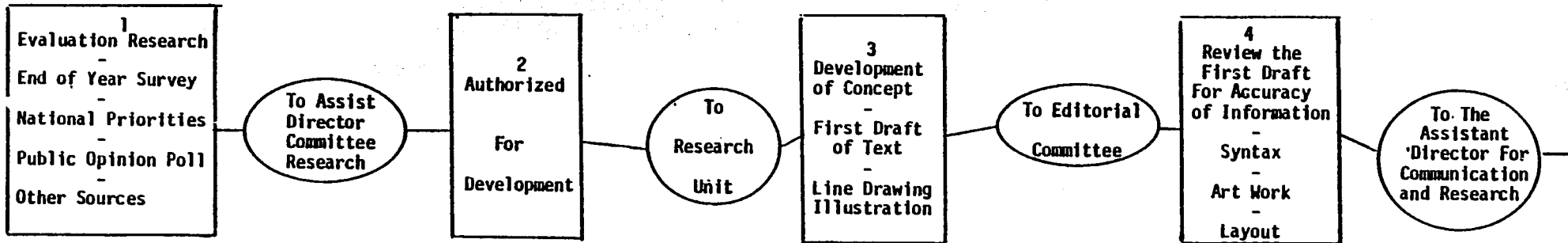
The production flow that is presented in this report represents the major activities in the development, printing and distribution process. It will also serve as the bases for the further development and expansion of these milestones into a more detailed plan of activity.

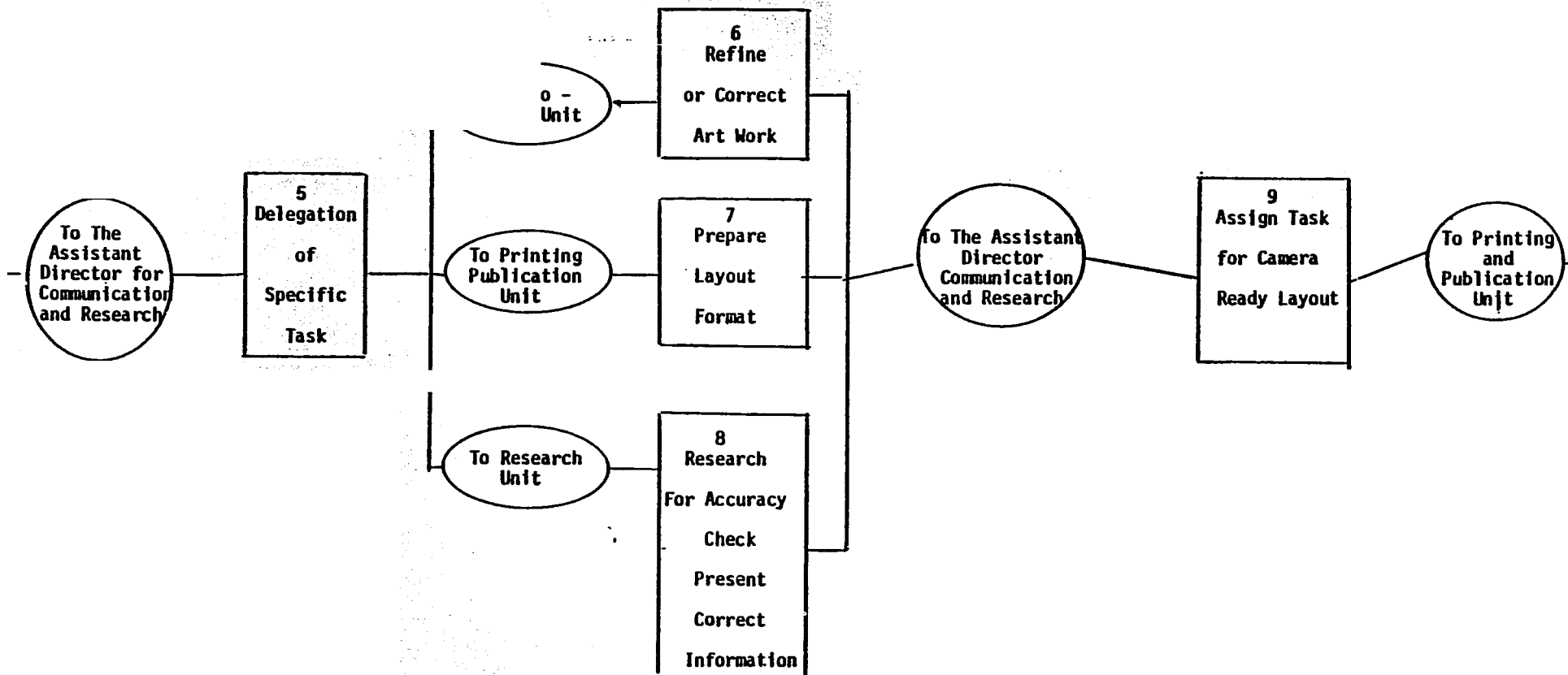
PHYSICAL LAYOUT

The physical layout design should be done on-site after:

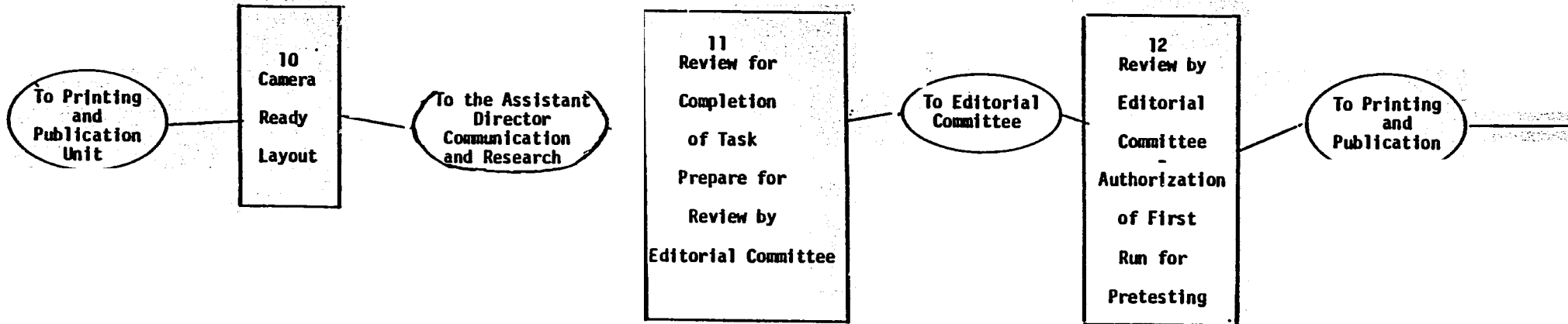
1. a more permanent site has been selected;
2. the complete inventory of equipment has been selected.

**PRODUCTION FLOW FOR DEVELOPMENT, PRINTING AND DISTRIBUTION
STEPS 1 - 4**



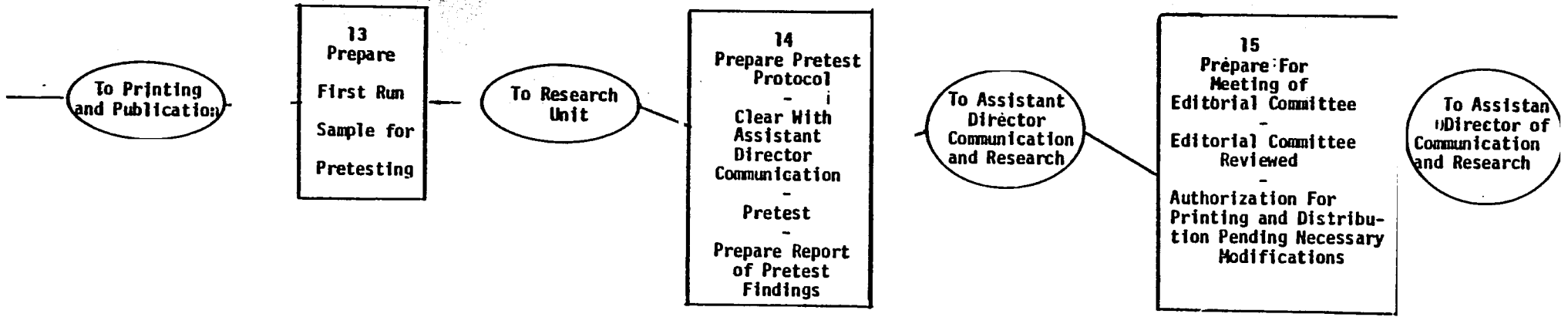


STEPS 10 - 12

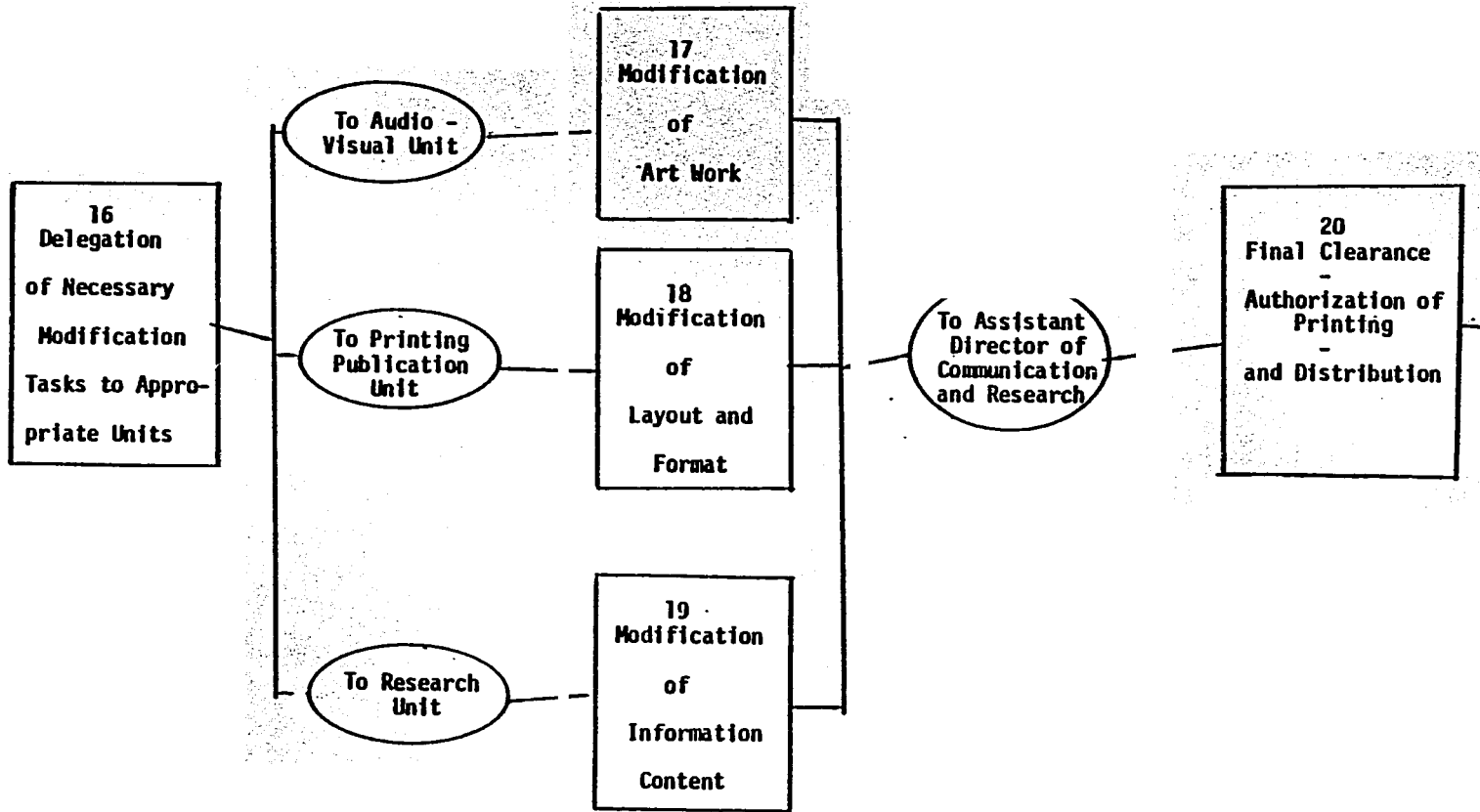


STEPS 13 - 15

73



STEPS 16 - 20



STEPS 20 - 23

