

UT-Dallas PHOTOGRAPHY

Black & White LAB QUICK TOUR

BW LAB AREA

- 2nd floor
 - Film developing area
 - Light table for inspection of negatives
 - Film drying cabinets
 - Print drying racks
 - Print developing area

- 3rd floor
 - Dry mount press
 - Print presentation supplies
 - Mat cutter and paper trimmer

- YOUR INSTRUCTOR WILL DEMONSTRATE FILM PROCESSING





FILM LOADING ROOMS

Located on
2nd floor

DARKROOM: FILM PROCESSING



SINK AREA
INCLUDES:

D-76 DEV

STOP BATH

FIXER

HCA

FILM WASH

PHOTOFLO

FILM PROCESSING CHEMICALS:

**D-76: stock solution
(discarded in designated container after single
use)**

STOP (acetic acid): working solution

FIXER: working solution

HCA: working solution



- D-76 FILM DEVELOPER
- DILUTE 1 to 1
- 1 part D-76
- 1 part Water
- Temperature is critical
- 68-75°

- **FOR REGULAR FILM DEVELOPMENT**
- Kodak D-76 is used only once to hand develop film in steel or plastic tanks.
- Students mix D-76 with water at the ratio of 1 part D-76 stock solution to 1 part water , in a 1 to 1 ratio.
- Then discard into designated container after single use.

Digital Thermometer and Timer



Maintain variance of 2 degrees between all processing chemistry.

Processing times are determined by film type and temperature of solutions.

ON/OFF switch for thermometer is located at base of unit, on right side

STOP, FIXER, and HCA for film processing:
pour from bottle into graduates



STOP,
FIXER, HCA:
no dilution of
stock is
required

-20 oz for
plastic reel
tanks

-16 oz for
steel reel
tanks

INDICATOR STOP BATH

- RETURN STOP for FILM processing to gallon film containers located in sink.
- RETURN STOP for PAPER processing to large STOP container on shelf.
- EXHAUSTED STOP
STOP BATH that turns PURPLE in color is fully exhausted. The stop should be discarded into designated container.

VERIFYING THE FRESHNESS OF STOP BATH

- **FRESH STOP IS YELLOW.**
- STOP THAT IS EXHAUSTED APPEARS PURPLE IN COLOR.
- Stop is reused until this discoloration occurs.



Yellow/fresh



Brown/
almost exhausted



Purple/toss

VERIFYING THE FRESHNESS OF FIXER

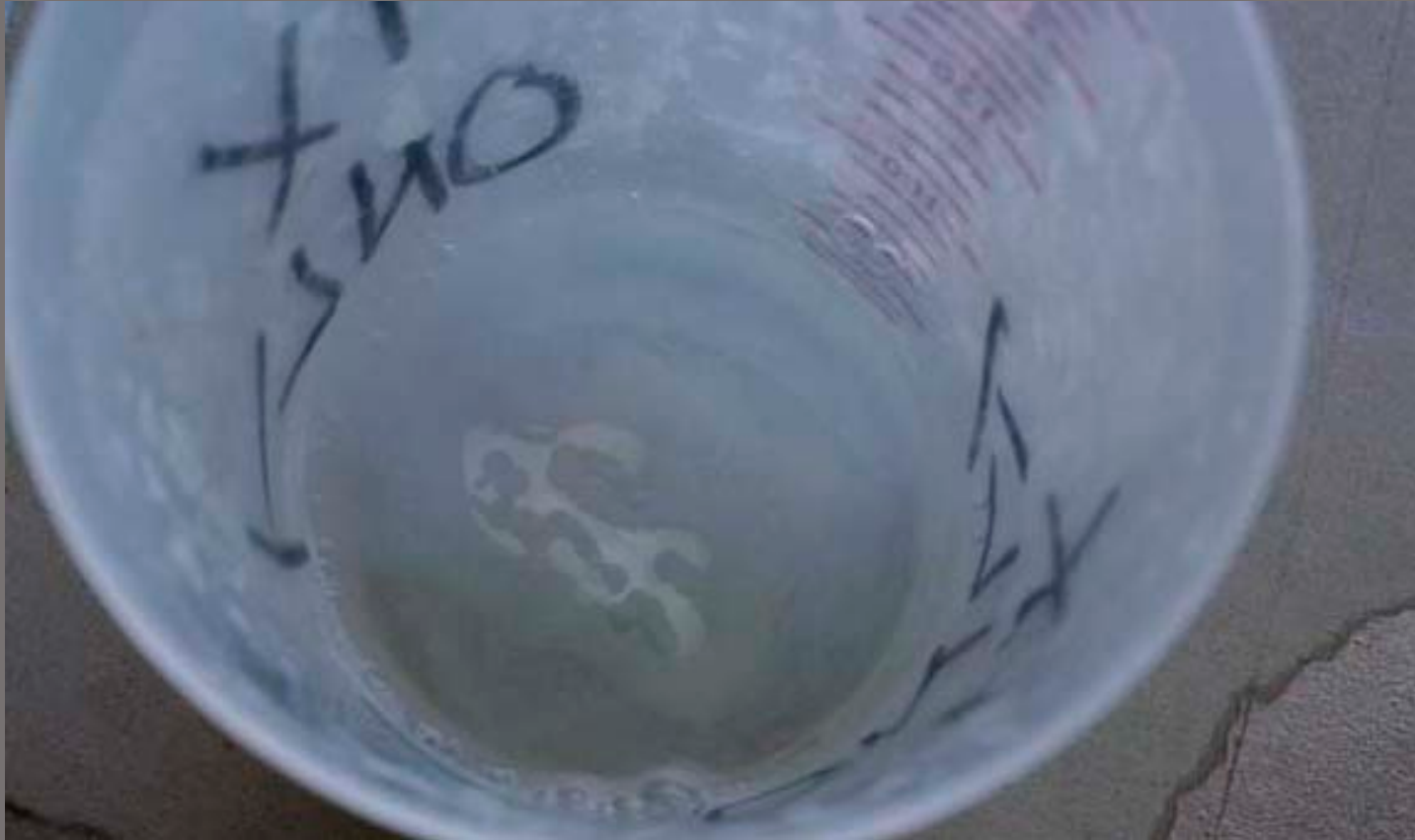
- ***FRESH FIX is clear and always looks the same, even when exhausted.***

2 oz. of fixer is checked with 2-3 drops of HYPOCHECK

- ***A WHITE PRECIPITATE FORMS INDICATING EXHAUSTED FIX***



- Fresh FIXER is clear and always looks the same, even when it is exhausted.
- 2 ounces of fix is tested with 2-3 drops of hypocheck. The presence of a white precipitate indicates that the fix is exhausted.



- Exhausted fix is disposed of in a 5 gallon container and *is not to be tossed down the drain.*
- Exhausted fixer is collected in our exhausted/dead fix containers so that UTD's environmental safety staff may dispose of it properly.



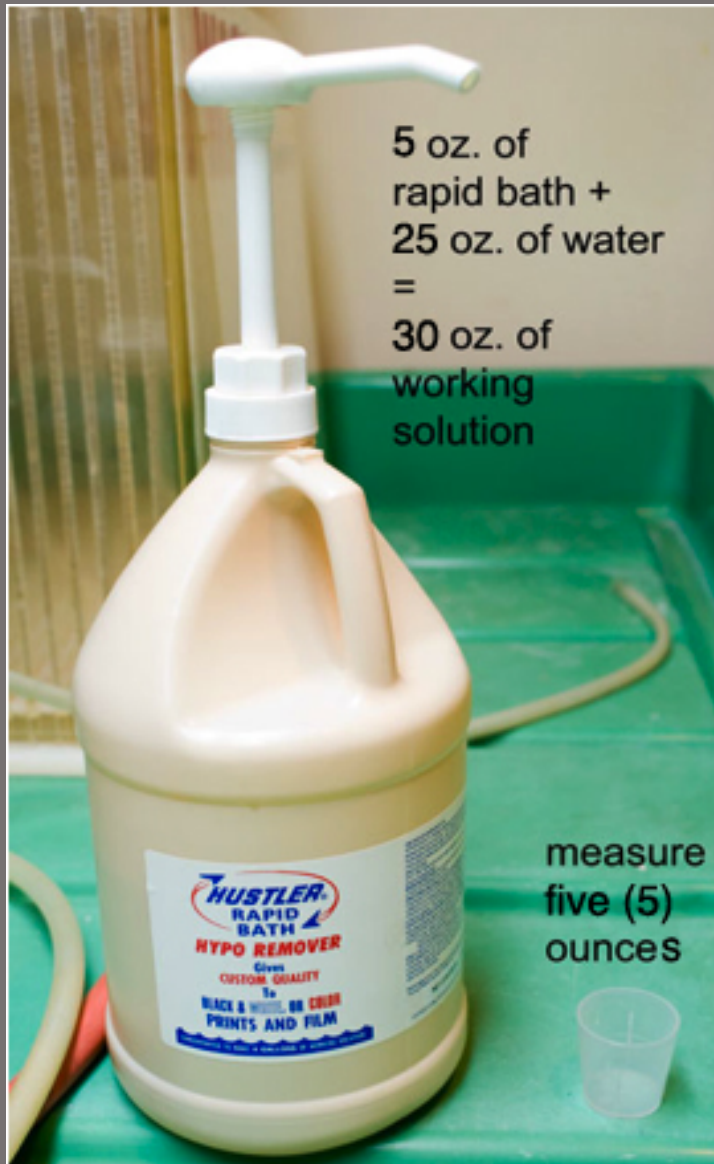
FIXER

- EXHAUSTED FIXER: Use hypocheck to check fix regularly for exhaustion--the white cloud!
- NEVER pour FIXER down the drain, as used fixer pollutes the environment. Pour exhausted fix into large containers for EXHAUSTED/ DEAD fixer.
- RETURN FIXER for FILM process to gallon film containers located in sink.
- RETURN FIXER for PAPER process to large USED paper fixer container located in darkroom.

HCA

- REUSE solution from one gallon containers for FILM.
- DILUTE solution from concentrate for PRINT processing and discard after use in designated container.
- HCA acquires a STRONG PINK COLOR upon exhaustion--when it can be discarded.
- Hypo Clearing Agent facilitates removal of residual FIXER from the prints and film.

MAKING 30 ounces OF HCA (hypoclear) SOLUTION for PRINTS



**30 ounces
WORKING SOLUTION
OF RAPID BATH**

25 OZ WATER
5 OZ RAPID BATH

MEASURE FROM
PUMP BOTTLE

FRESH HCA IS CLEAR.

- *HCA THAT IS EXHAUSTED APPEARS DARK PINK IN COLOR.*
- *IT IS RE-USED UNTIL THIS DISCOLORIZATION OCCURS.*



Clear/fresh



Dark pink/toss

GUIDELINES FOR CHEMICAL FRESHNESS

D-76 is **used only once** to develop. mix it with water at the ratio of 1 part D-76 to 1 part water. Discard afterward in designated container.

Stop bath that is **exhausted appears purple** in color.
Reuse Stop until this discolorization occurs.

Fixer that is exhausted fails the hypocheck test:
two drops of the **hypocheck** added to two ounces of Fix will either appear clear or cause a **white precipitate to form**. The white precipitate indicates an exhausted Fix.
Fixer is re-used until it fails the hypocheck test.

HCA turns a **dark pink color** when exhausted.
HCA is re-used until discolorization occurs.

Dektol, Stop and HCA that are exhausted can be discarded in the designated container. Fix must be disposed of in the dead/exhausted fix container.

FILM WASHER



keep washer
level so it will
drain & refill,
to wash film
in reels

10-20 MINUTES IN WATER
WASH

(shorter wash times are
preferable during warmer
months to prevent
swelling of film emulsion)

use PHOTO-FLO after washing film

- FILM DRYING CABINET

OPERATE ON MEDIUM HEAT for 20 minutes.

WAIT FOR FAN TO STOP BEFORE OPENING

HANDLE ALL FILM WITH CARE



Monitor Chemistry

- When finished working, dispose of any chemical (in designated containers) that YOU DILUTE from concentrate or that becomes exhausted:

D-76 film developer, STOP, FIX, HCA,
DEKTOL paper developer,
HCA tray solution for prints

- D-76 is a one-shot developer that cannot be reused.
- Developer can be contaminated easily so rinse beakers before measuring.

DEKTOL: PRINT DEVELOPER

is stored in labeled 1 gallon bottles

- DILUTE
- 1 PART DEKTOL
- 2 PARTS WATER

- FOR TOTAL 30 OZ



PRINTING CHEMISTRY

- Decant 30 oz for each print processing tray.
- HCA, diluted 1:31
- Dektol, diluted 1:2.

PRINT CHEMISTRY IS
STORED IN LARGE
TANKS ON SHELF UNIT

DO NOT MIX PAPER
AND FILM CHEMICALS



SINKS AND LABELED PROCESSING TRAYS

Process prints in one direction from developer tray to stop, fix, and then water rinse.



TONGS, GLOVES AND CLEANERS

Use tongs for each chemical to avoid cross contamination.



- WHITE LIGHT

Used only if setting up or cleaning up

- SAFELIGHT

Used when printing (BW paper only)



ENLARGER STATIONS



- Remember:
- WET SIDE
- DRY SIDE
- Keep your enlarging station clean!

ENLARGER STATION TIMER



- Each station has a timer to control the duration of time when the paper will be exposed to light.
- Check ON/OFF switch at top corner of unit.

ENLARGER STATION DETAILS



- Each station has a power supply that must be turned on to use the enlarger.
- Unplug the enlarger from wall when not in use.

NEGATIVE CARRIERS, GRAIN FOCUSERS



PRINT WASHING AND RETRIEVAL

- Following a 5 minute HCA tray agitation process (1:31 dilution HCA:water)
- Transfer to the print washer
- 20 Minutes for Fiber Based papers
- 5-10 Minutes for RC (contact sheets)
- Retrieve with plastic wand
- Squeegee the back side before taking to the drying racks.
- Locate plexiglass and squeegee by the washer.
- Turn OFF water after all prints are removed from the wash!
- Thank you.

PRINT DRYING RACKS

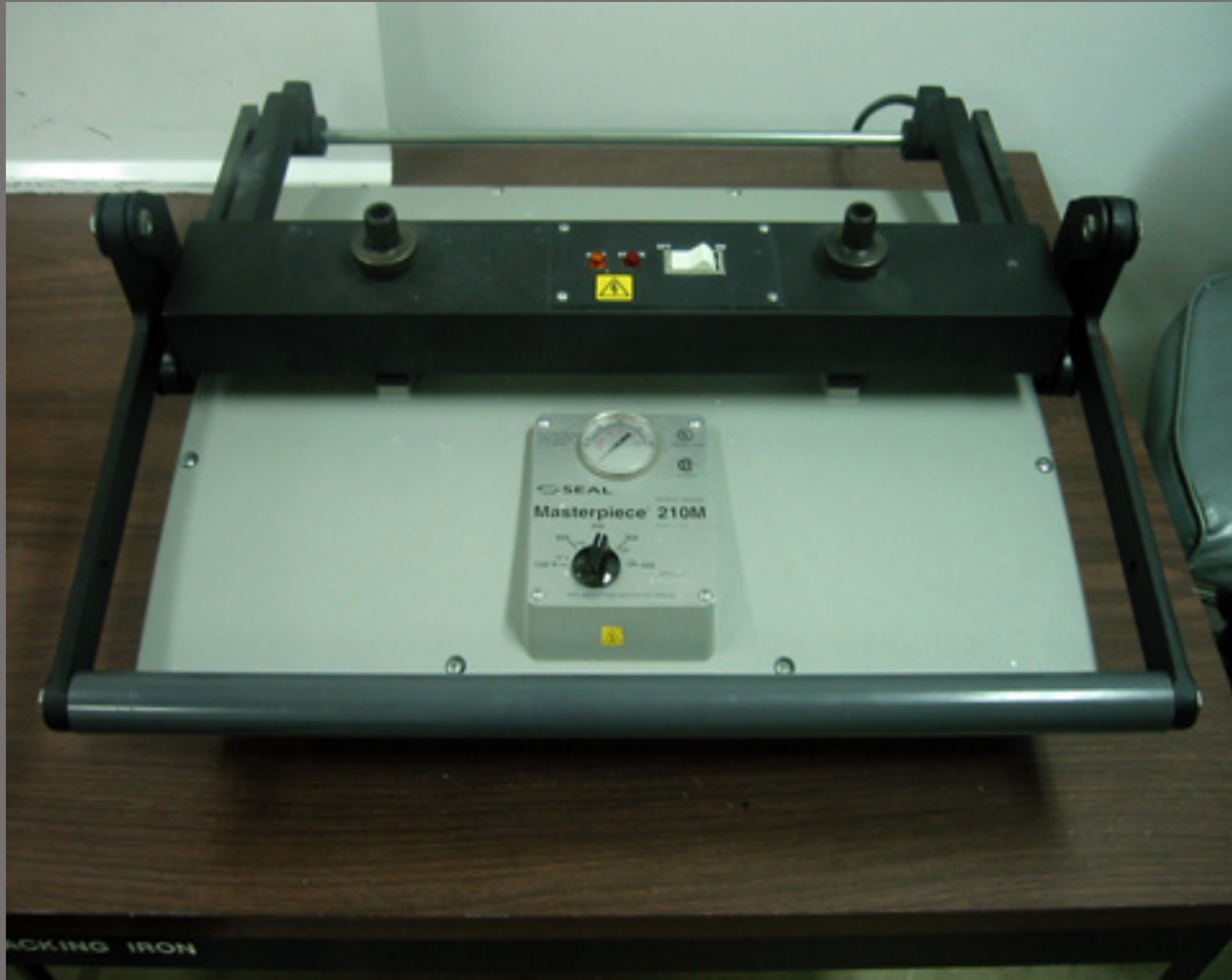


- **PRINT DRYING AND PRESSING**

- Place Emulsion side up on the racks to dry.
- FIBER dries best overnight (need pressing)
- RC (contact sheets) in 2 hours (no pressing)

- Allow press to warm up to 200°
- Place prints between clean cover sheets and mat board before pressing for 90 seconds.
- Place entire pressing set under metal plate to cool near press. Two prints can be done at a time if placed side by side.
- Turn OFF dry mount print press after use!

PRINT PRESS operate @ 200°--press 90 secs



- PRINT FINISHING / 3rd floor



Mat cutters and print finishing tools are located in the Clean Presentation area.

This presentation provides a guide to the
UT-Dallas BW LAB AREA.

- All instructions are repeated in greater detail in the posted lab area bulletins and handouts.
- For further clarification consult your instructor, your online lab manuals and/or text books.

- **LOCKERS ARE AVAILABLE FOR STUDENT USE**
- Consult with instructor for procedure to sign up for locker.
- Store journals, DRY tank and reels, negative sleeves and paper.

Please help keep your lab clean!