PRODUCING HOT-SPLIT TRANSFERS USING AW HOT-SPLIT

Technical Information Bulletin

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HST APPLICATION RANGE TIME/TEMPERATURE/PRESSURE (APPLIES TO A HOT OR PREHEATED PRESS) (BASED ON 60# BASIS WT. AW HOT SPLIT PAPER)

TEMPERATURE F°

Pressure		Ideal Range			High temperatures in this range may trigger bleeding				
Low <35		350°	360°	370°	380°	390°	400°	410°	420°
		18	15.9	13.8	11.7	9.7	7.6	5.5	3.4 sec.
		16	14.2	12.3	10.5	8.7	6.9	5.0	3.2 sec.
Medium 35-40		14	12.4	10.8	9.2	7.7	6.1	4.5	2.9 sec.
		12	10.7	9.3	8	6.7	5.3	4	2.7 sec.
		10	8.9	7.9	6.8	5.7	4.6	3.6	2.5 sec.
High >40		8	7.2	6.3	5.5	4.7	3.9	3.0	2.2 sec.
		6	5.4	4.9	4.3	3.7	3.1	2.6	2.0 sec.

HOT - 375° F. 5-7 Seconds. 50 P.S.I. Lower temperatures won't work as well. Above 375° F, is acceptable, but reduce time to compensate.

SPLIT – Peel the paper immediately! Some of the ink will stay on the paper. AW Hot Split will give you an approx. 80/20 split of the ink.

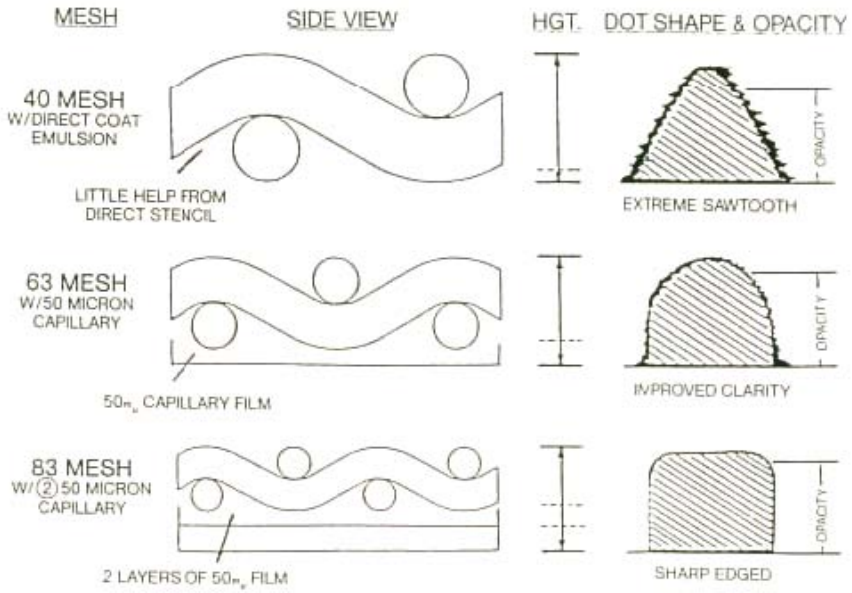
"COLD MACHINE"

Preheat Press for 5 to 7 seconds at 375° F then apply transfer to the shirt.

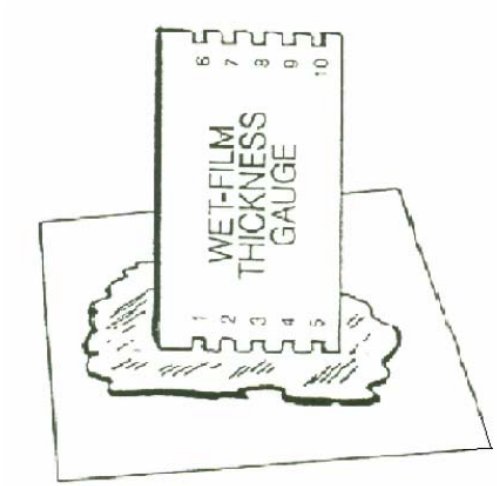
"HOT MACHINE"

This method works best. The bottom heat helps reduce dwell and improve adhesion.

PRINTING HST PROPERLY
Mesh, Stencil, & Measurement



TEST BEFORE GEL:



Measure wet ink-film thickness before curing the print.

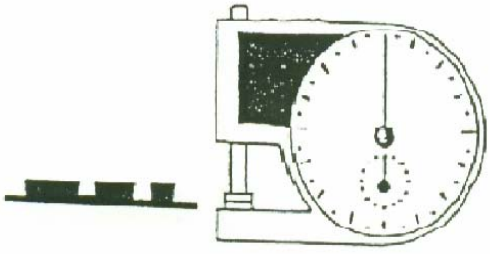
(CONTACT YOUR LOCAL SUPPLIER FOR THESE MEASURING DEVICES)

HST DEPOSIT RANGE:

2 mils and up – transparent super soft hand

5 to 8 mils - opacity and ultimate latitude

TEST AFTER GEL:



- Use a micrometer or dial indicator to measure dry ink film thickness.
- Don't forget to subtract the thickness of the paper.

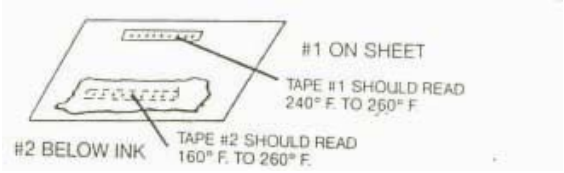
* Use temperature tapes to determine the gel of the HST Ink Film

* Stick 2 tapes onto the transfer paper, screen a block of ink over one, gel the ink, peel the ink off of the tape and read.

* HST Flash cures fast! Don't over-gel it.

* If you can't peel it at all, you may be undercured.

* For thin ink films, rely on the temperature tape test.

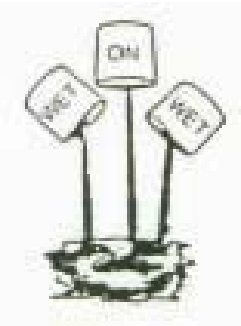


* When stretched, gelled HST will snap quickly.
* If it stretches well, you're over-cured.
* This test works on 5 to 8 mil ink films. Finger films may be too fragile to strip from the transfer paper.

* Peel it from the paper very easily or
it will break!

HST can be printed directly onto garments, but you'll probably lose most of the advantages. Use it the way it was intended to be used.

HST is NOT intended to print wet on wet! Wet on wet requires an absorbent surface— the transfer stock is not absorbent.



HST REGISTRATION Helpful Hints to Speed Production

1.) 3-Hole punch (or drill) ¼" diameter holes on the grain direction of the sheet.

2.) Use 2 ea. ¼" diameter stripper pins. Glue or tape them to the press bed. Locate the sheet by aligning and re-aligning the sheets over the pins.

3.) Be sure that the pins are off copy. For long runs, use Mylar tape to protect the screen from puncture.

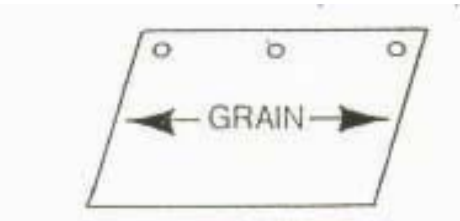
4.) Pre-shrink stock. 260° F.
plus then run immediately, or
cover with plastic.

5.) Don't crowd HST. Thick films need room to breathe. This will reduce blurring and improve image clarity.

6.) 5.) Use photographic chokes and spreads (aka: Fatties and Skinnies.) They make the print fit and simplify butt-register. *Reference Kodak pub. Q-4 and Q-4A.

7.) Shoot a film positive of an offset press masking sheet. Print the grid work onto a sheet of transfer paper. The paper will shrink much more in one direction than the other.

1.



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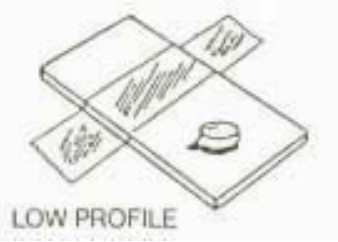

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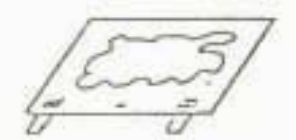

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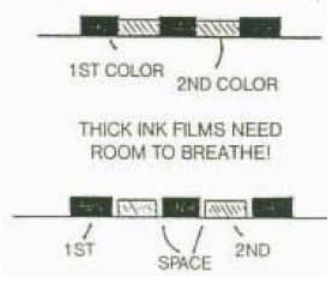

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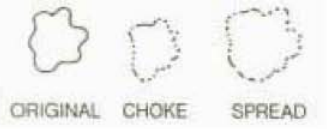

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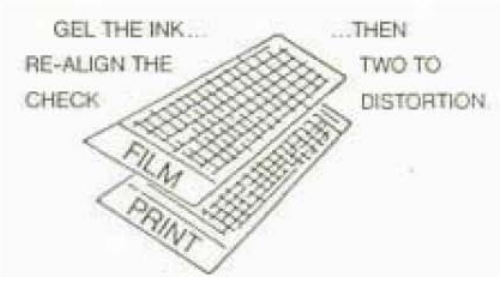
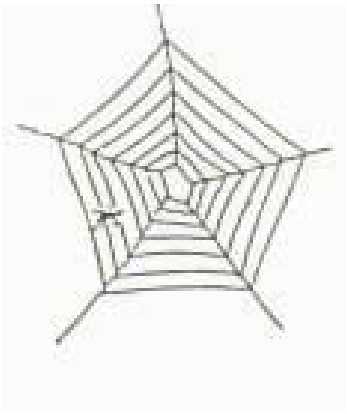


ADDITIONAL INFORMATION

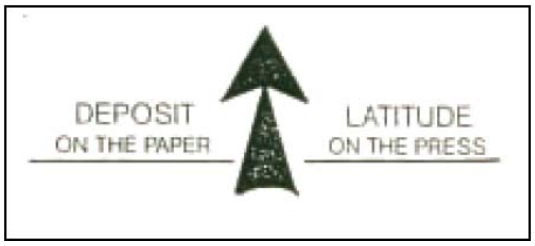
- Spider-webbing is caused by:
  - Improper ink flow
  - Saw toothed edges
  - Uneven ink deposit

Add #4 detackifier (3% to 5% by weight) to control flow.
Stir the ink before adding #4.



- Printing darks? Adding HST Split Opaque:
  - Allows use of finer mesh
  - Reduces penetration
  - Improves split
  - Increases latitude
  - Softens hand

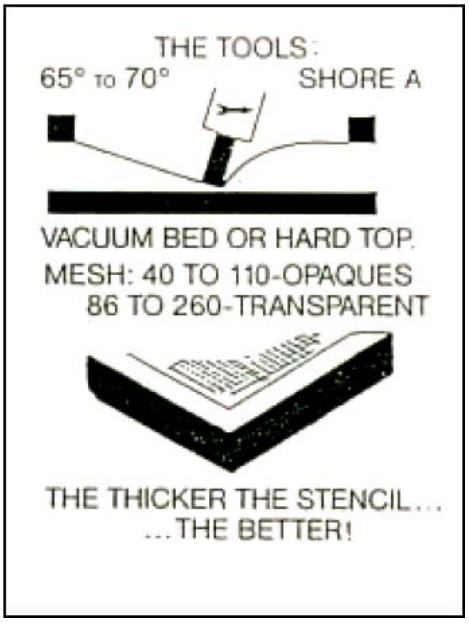
HST Split Opaque is an opacity builder. Add 10% to 20% for printing on darks.
Not recommended for finer meshes (140 or higher counts.)



Special colors are non-standard. Either:
1.) Order a drum
or
2.) Mix any amount with the PCs

Use finer meshes:
- For keyline (120 mesh)
- For transparents (up to 260)
- With HST Split-Opaque
- With capillary stencils
- On highest opacity colors
- On high detail artwork.

HST 190 Black was designed to trap well. A special black P.C. is available for use with the pigment concentrate system.



TROUBLESHOOTING GUIDE FOR HST INKS

Burring Secondary Colors:
- No space between colors
- Printing on contact
- Printing on soft surface

Cobwebbing - Stringing:
- No ink flow
- Delay before peeling
- Image edges saw-toothed
- Time, temp, pressure low

Harsh Hand:
- Reduce ink deposit

Miss-Register:
- Paper not pre-shrunk
- Excess off contact
- Changed grain direction
- Varying gel temps

No Adhesion:
- No ink flow
- Pressure too low
- Time/temp. too low
- Weave too fine

No Adhesion at 1 or More Edges:
-Transfer press too small
- Image too close to edge
- Pressure is marginal
- Ink too thick at edge

No Opacity:
- Ink deposit too thin
- Color not opaque
- Ink over-gelled
- Too much press:
  Time
  Temperature
  Pressure

Penetration:
- Too much time/temp
- Ink viscosity too low
- Fabric very thin

Poor Shelf-Life:
- Paper absorbing plasticizer
-Transfer over-cured

Poor Trapping:
- Too much time/temp
- Ink viscosity too low
- Fabric very thin

Subsequent Shirts Improve:
- Preheat transfer press

Uneven or Partial Split:
- Low pressure
- Low time/temperature
- Cool spot on platen
- No ink flow
- Marginal over-cure