

Direct-to-Plate

The Principle

- ◆ Ink and Water
 - What happens when rain hits a parking lot?
 - Water beads
- ◆ Offset plate
 - Oily ink
 - Water

The Offset Plate

- ◆ Image area
 - Oleophobic
- ◆ Non-image area
 - Hydrophilic
- ◆ Agape, phileo, eros
 - Love
 - City of Brotherly Love



Conventional Plate Prep

- ◆ Output film
- ◆ Image Assembly
 - Layout masking sheet
 - Position negative
 - Open image area
- ◆ Expose plate
 - Process



Proofing & Conventional Plates

- ◆ Color proofs from film
 - Dots
 - Film=plate=print
- ◆ Proof accurately matched print, & vice versa



Waterless Plates

- ◆ Conventional plate
 - Image and Nonimage on same level
- ◆ Waterless plate
 - Silicone rubber layer over polymer surface
 - Removed upon exposure and processing
 - Ink adheres to the polymer surface
 - Silicone layer keeps nonimage areas clean
 - Temperature Control

Computer-to-plate

- ◆ Levels & costs
 - Hi-end - \$100,000+
 - ◆ Metal plates, large presses
 - Mid-range - \$30,000
 - ◆ Polyester
 - Lo-range - \$3 – 5,000
 - ◆ Polyester
 - Laser
 - Thermal ink

Traditional vs. CTP

- | | |
|-----------------------|-------------------------|
| ◆ Film \$ | ◆ CTP plate \$ |
| ◆ Film processing \$ | ◆ Electronic imposition |
| ◆ Image assembly time | ◆ Plate processing \$ |
| ◆ Plate \$ | |
| ◆ Plate processing \$ | |

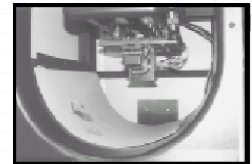
Agfa Galileo

- ◆ High end system
- ◆ Plate run length - 100,000
- ◆ Total system - \$500,000



Internal drum

- ◆ Plate is mounted on the inside
- ◆ Laser exposure - mirror deflects at a 90° angle onto the plate



ABDick DPM2000 CP

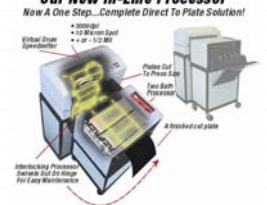
- ◆ Built-in scanner to input text, line art and photographs for imaging
- ◆ 5 mil and 8 mil polyester plates - run lengths to 25,000
- ◆ 1,200 dpi to 3,600 dpi
- ◆ Activator and Stabilizer
- ◆ \$30,000



RIPit Computer Corp.

- ◆ Polyester plates
- ◆ Roll fed
- ◆ Maximum Resolution 3000 dpi
- ◆ Two bath processing
- ◆ \$30,000

Introducing RIPit's Latest Product Our New In-Line Processor



Dry Toner Transfer (DTT)

- ◆ Plate imaged from the "dry" toner of a properly designed laser printer/platemaker.
 - Hi-resolution
 - Large format to handle press size plates
 - 4 - 8 pages per minute (PPM)
 - Minimal toner scatter

Xante

- ◆ Especially redesigned HP 5000 Laser Printer
- ◆ Polyester plates
- ◆ Print plain paper
- ◆ 15,000 impressions
- ◆ 1200 dpi
- ◆ \$6000 & up



- ◆ coating of the DTT plate has hydrophilic properties (water loving) and the surface of the plate is designed and manufactured to simulate grooves and the rough surface of a metal plate, allowing for the retention of water for as long as possible. While the hydrophilic coating and the texture of the plate accepts the water and rejects the ink, it is the actual toner particles of the image (fused onto the plate by a properly designed laser printer) that effectively attracts and holds the ink.

Kimotosetter

- ◆ Thermal-ribbon transfer printing
- ◆ 5-mil polyester plate
- ◆ Adobe Postscript 3 Software RIP for Macintosh
- ◆ 1200 dpi
- ◆ 5000 impressions
- ◆ \$3390 with RIP

