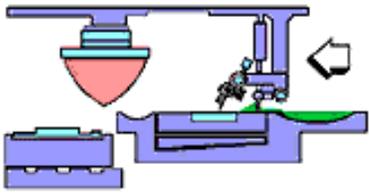
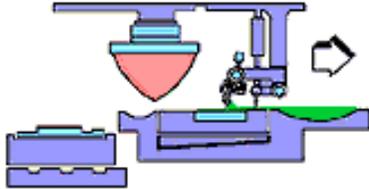
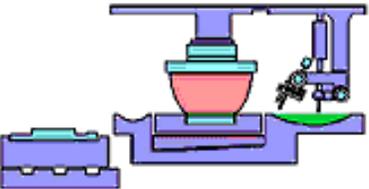
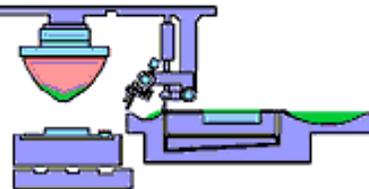
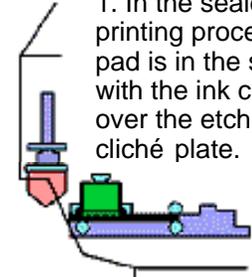
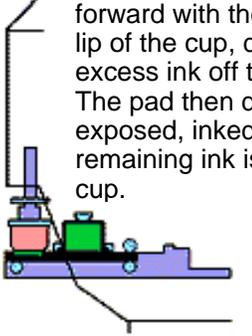
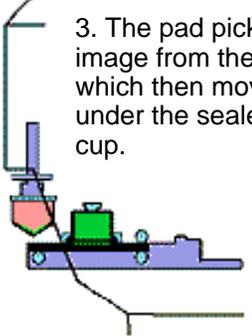
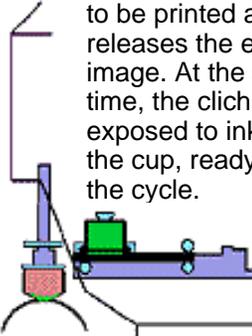


## BASIC THEORY: How does transfer pad printing work?

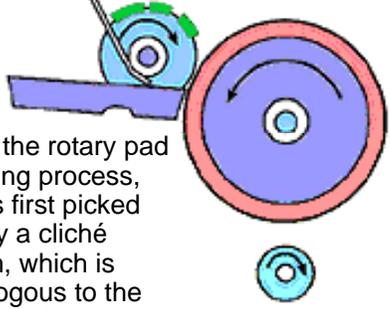
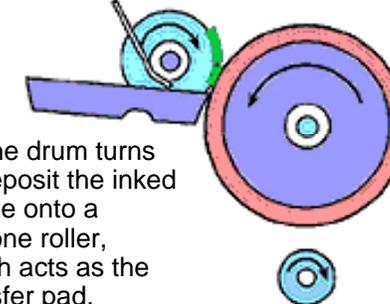
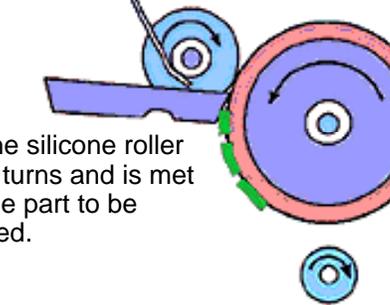
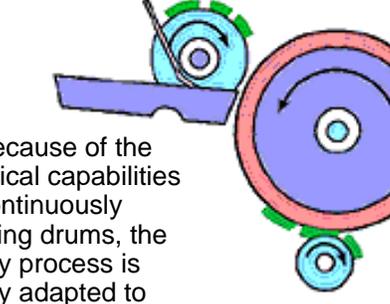
### Open Inkwell Pad Printing

- 
1. In standard open inkwell pad printing, the spatula scoops ink out of the inkwell and over the entire cliché plate surface with the doctor blade lifted off the surface.
- 
2. The pad slide moves to the right as the doctor blade removes excess ink from the cliché.
- 
3. The transfer pad, or tampon, is then pressed against the inked plate and lifted.
- 
4. As the transfer pad (now holding image) moves left toward the object to be printed, new ink is deposited onto the plate.
- 
5. With the new image now slightly tacky, the pad descends to the part, leaves the imprint, and the process is then repeated.

### Sealed Ink Cup Pad Printing

- 
1. In the sealed ink cup pad printing process, the transfer pad is in the starting position with the ink cup positioned over the etched area of the cliché plate.
- 
2. The cliché now moves forward with the hardened metal lip of the cup, doctoring the excess ink off the image area. The pad then descends onto the exposed, inked image. All remaining ink is retained in the cup.
- 
3. The pad picks up the image from the plate which then moves back under the sealed ink cup.
- 
4. The pad pushes downward onto the part to be printed and releases the entire image. At the same time, the cliché is being exposed to ink inside the cup, ready to repeat the cycle.

### Rotary Gravure Pad Printing

- 
1. In the rotary pad printing process, ink is first picked up by a cliché drum, which is analogous to the plate in the standard process.
- 
2. The drum turns to deposit the inked image onto a silicone roller, which acts as the transfer pad.
- 
3. The silicone roller then turns and is met by the part to be printed.
- 
4. Because of the physical capabilities of continuously rotating drums, the rotary process is easily adapted to high-speed applications.