

Film Exposure & Processing

Film exposure

- Produces a latent image
 - Invisible image

Processing - visible image from latent image

- Tray or manual processing
- Machine processing

Tray processing

- Chemical safety
 - Exposure - prolonged could lead to skin problems
 - Rubber gloves
 - Tongs
 - Mixing
 - Avoid splashes
 - Add acid to water
 - Avoid dripping

Developing

- Silver halide
 - Struck by light
 - Latent image
- Developer action
 - Silver grains turn to metallic silver
 - Latent image becomes visible
- Unexposed silver – milky

Stop bath

- Acetic acid - add acid to water
- Neutralizes the action of the developer
- Prolongs life of next step, fixer

Fixer

- Sodium thiosulfate
- Unexposed silver is removed, also antihalation backing
- Completely fixed film - clear instead of milky color of unexposed silver

Wash

- Running water
- Removes remaining chemicals
- Drying

Machine processing

- Developer
 - Replenished as needed automatically
 - Temperature - higher, 34°C or 94°F
 - Speed - faster
 - Agitation - chemistry is recirculated by pumps, rollers move film through

Fixer

- Stop bath omitted - film moves into fixer dry from squeegee action of rollers
- Silver recovery
- Wash - recirculating with fresh water
- Dryer - air blowing + heat

Advantages & Disadvantages

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| <ul style="list-style-type: none">• Advantages<ul style="list-style-type: none">- Faster processing- Consistent developing- Can take film from roll fed imagesetter | <ul style="list-style-type: none">• Disadvantages<ul style="list-style-type: none">- Cost - initial and upkeep- Control of chemistry- Requires constant use- Downtime - chemistry reaches exhaustion without replenishment which only occurs when running |
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Processor Setup