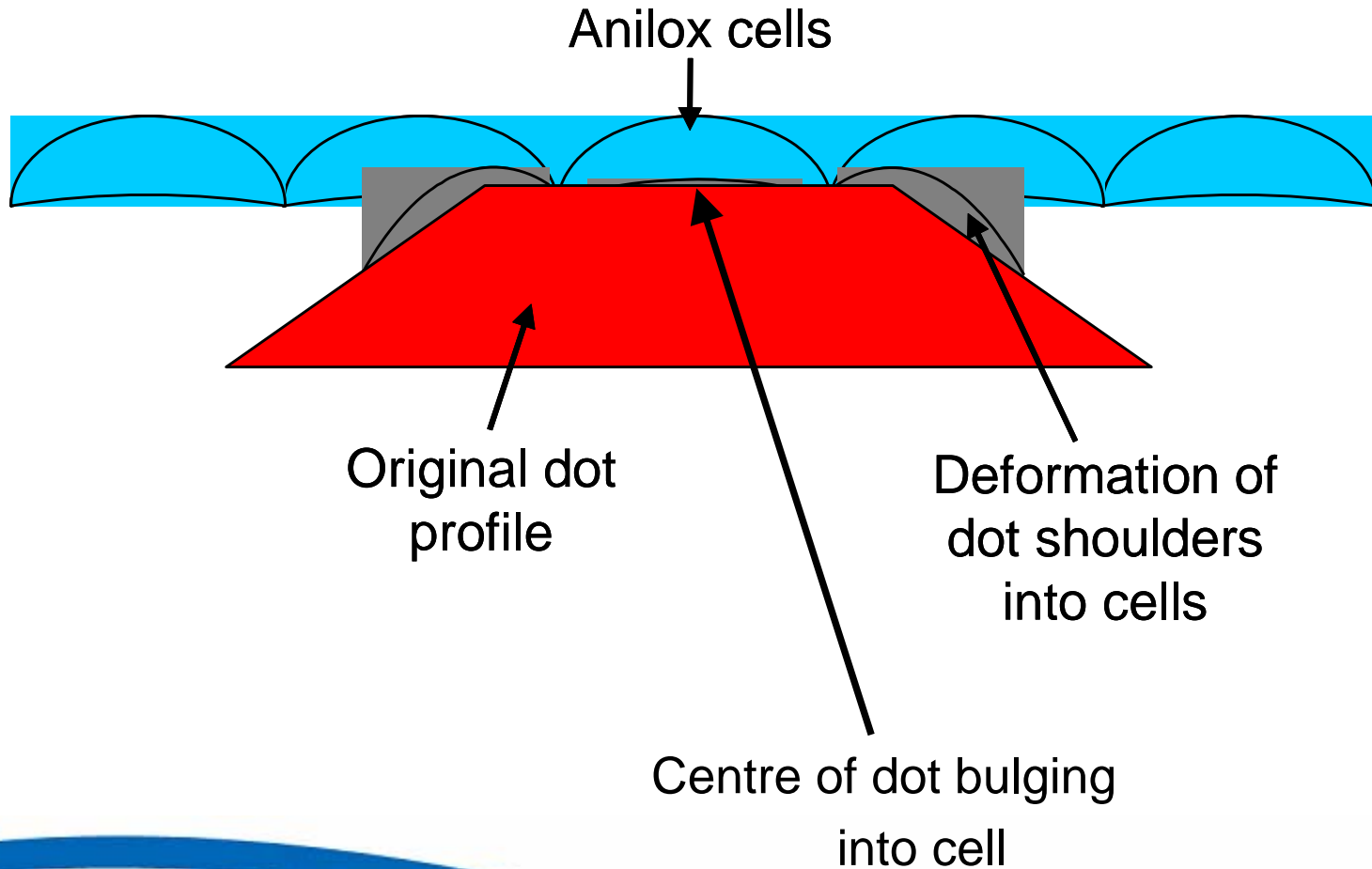


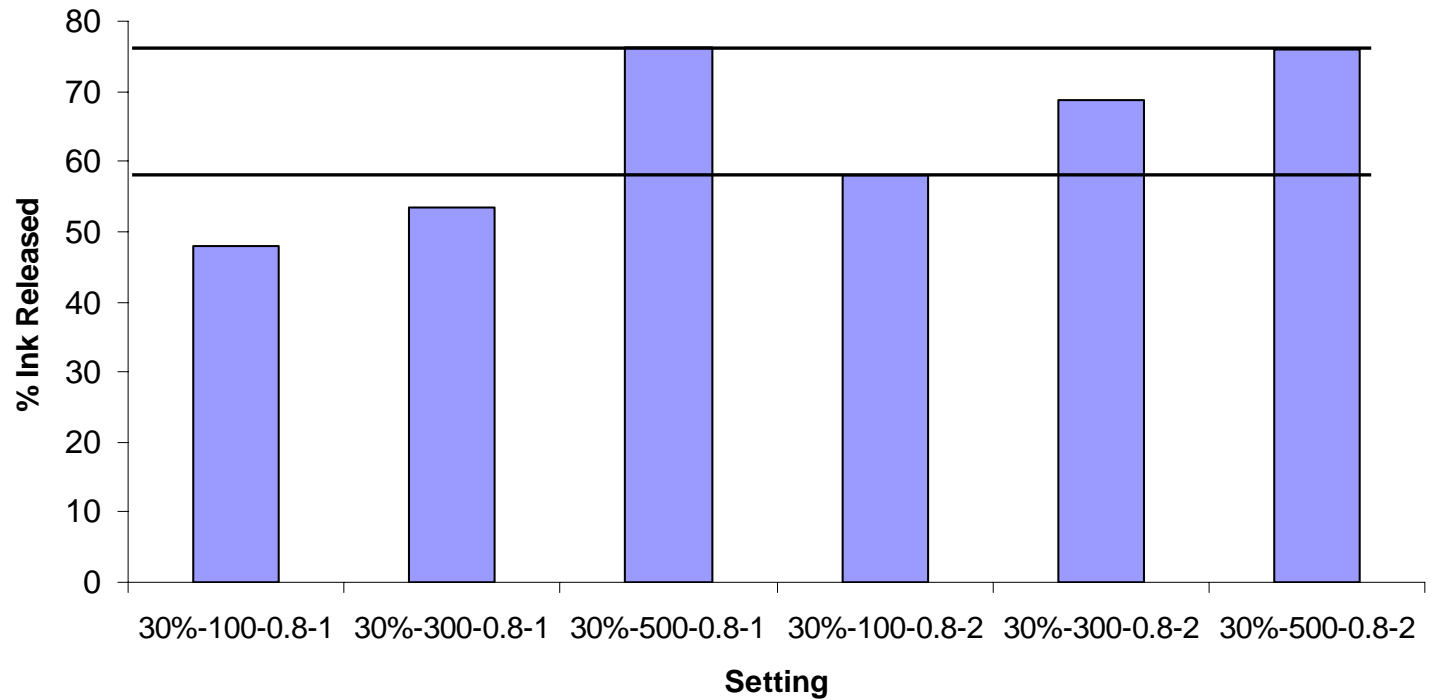


Deformation of dots into cells





30% Plate % Ink Released



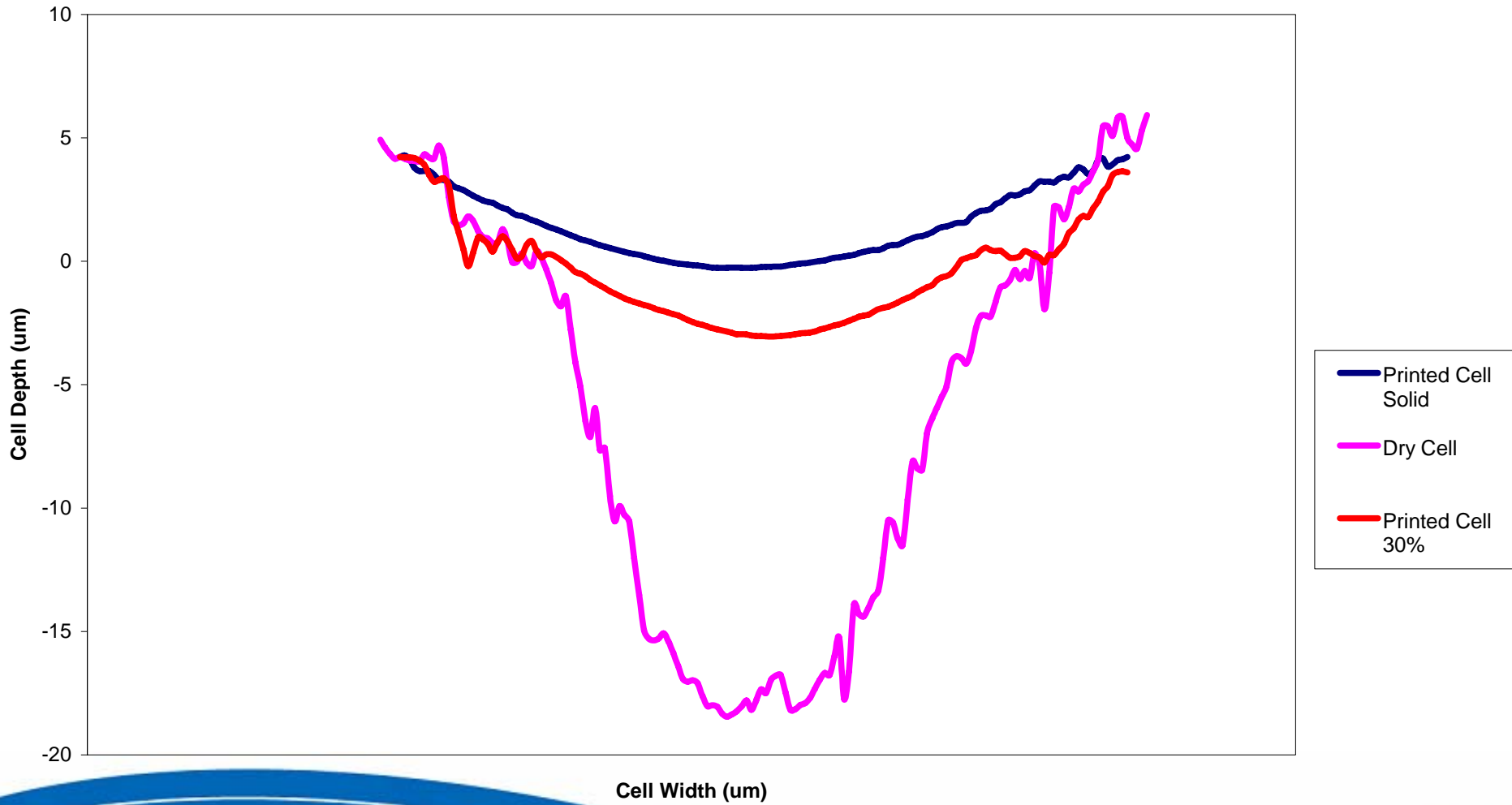
Labels represent: Coverage - Anilox pressure(N)-print speed(m/s)-Anilox No.



Anilox 1- Ink Profiles



Anilox 1 (402409)





Anilox 2 – Ink Profiles



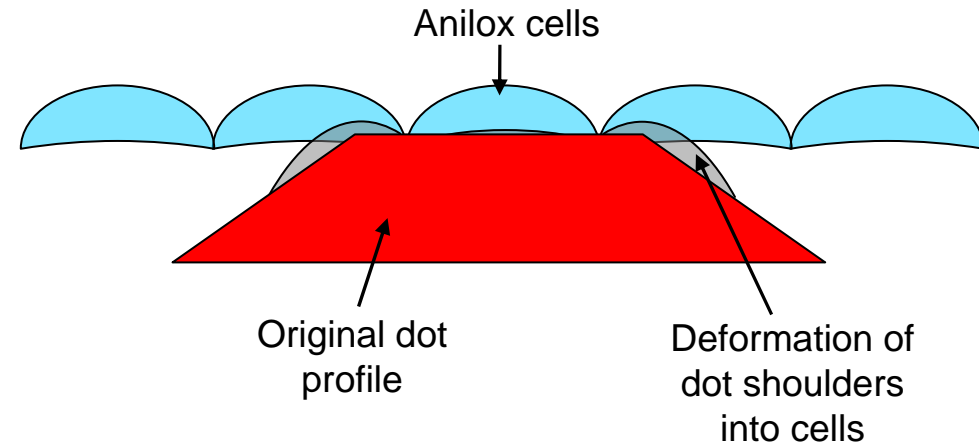
Anilox 2 (402411)



Interaction between Dot and Anilox



- Deformation of dots into cells
 - Transfer ink onto shoulders
- Dots with greater barrelling
 - More likely to deform into cells
 - 20% coverage (59.1 lpcm)
 - Greater volume carried
- Interaction reduced
 - Cell count increased
 - Cell opening reduced





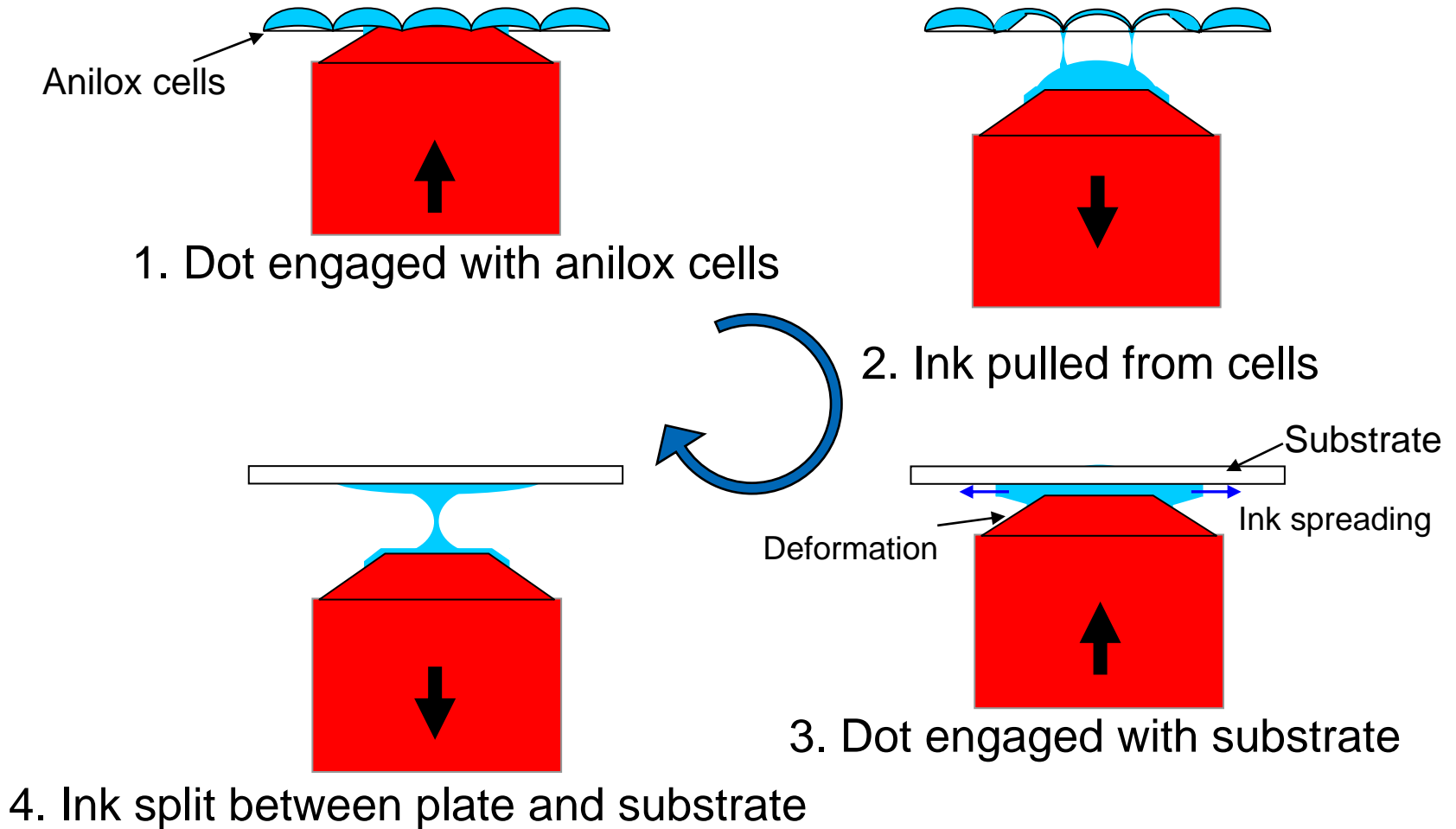
30% Plate



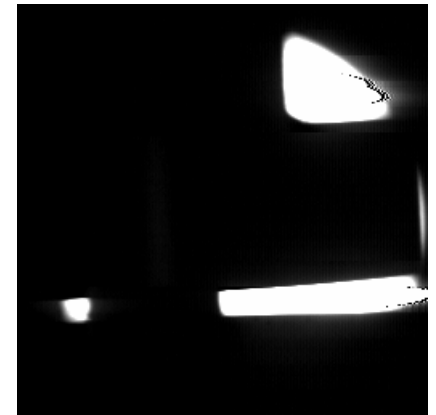
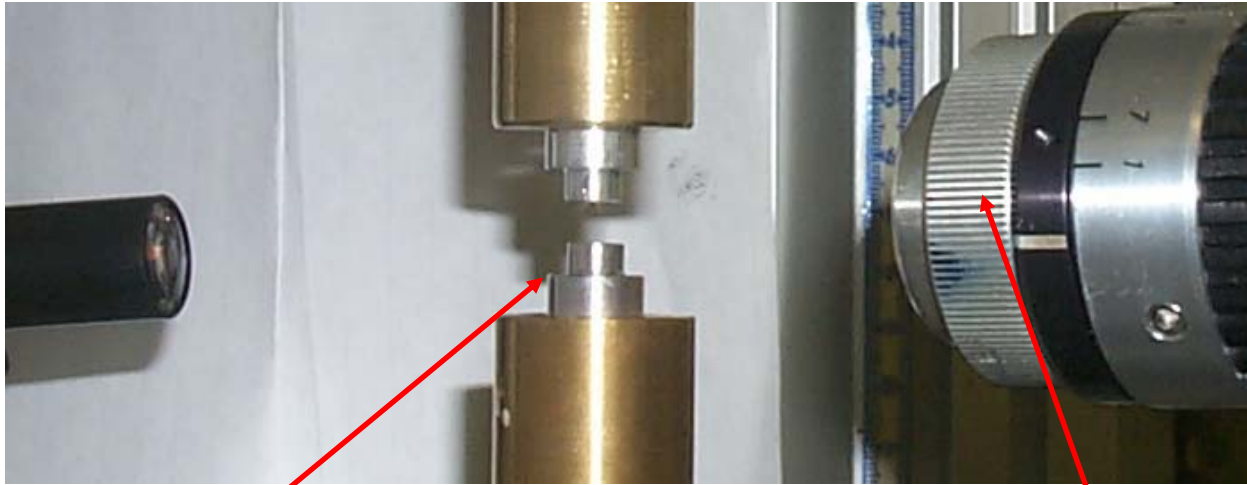
- Ink released from cells that contact half tone is higher than solid plate
- Ink released increases with pressure
- Ink released more sensitive to pressure than solid
 - From 37% to 74% compared to solid 35% to 50%
- More ink released from anilox 2 at lower pressures
 - Anilox 2 has larger open area
 - Less force required to deform dots into cells



Halftone Ink transfer



Ink film splitting - Extensional rheometer



Plates moves apart at controlled speed

High speed camera to record the phenomena

- Up to 40.000 frame/s (typically 4500 f/s)



- Standards
 - Allow communication
 - Ink colorimetric measurement
 - A minimum target, not a goal
- Standardisation
 - Establishing a process
 - Process Control
- Understanding the Flexo process
 - Speed
 - Ink release from anilox

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