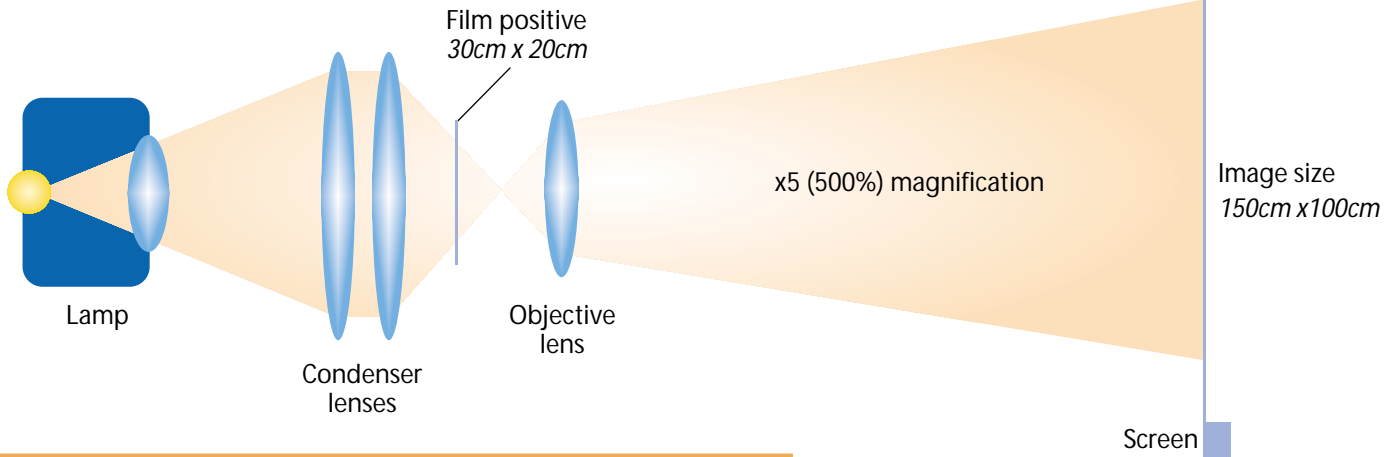


What is Direct Projection?

Direct projection is a system designed to expose screens using a projection camera to project a small original positive onto an emulsion coated screen using ultra violet light.

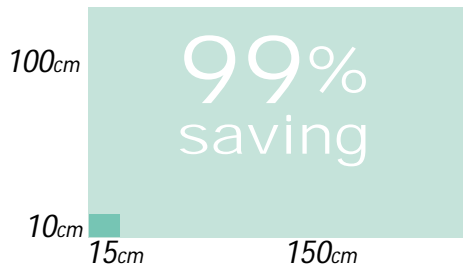
Basic Components of a Direct Projection System



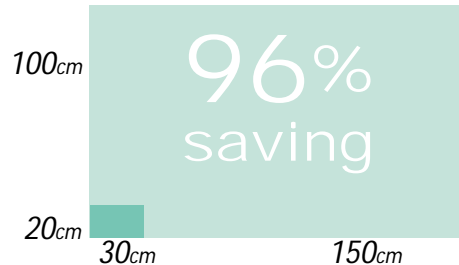
Why use Direct Projection?

Silver Film Savings

at x10 magnification



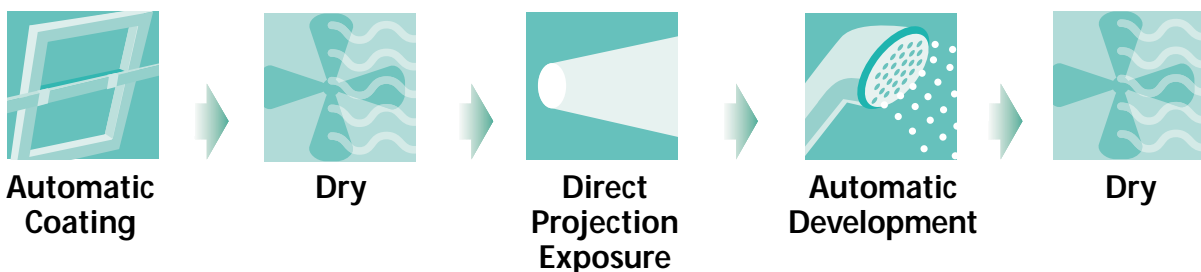
at x5 magnification



Production Time Savings

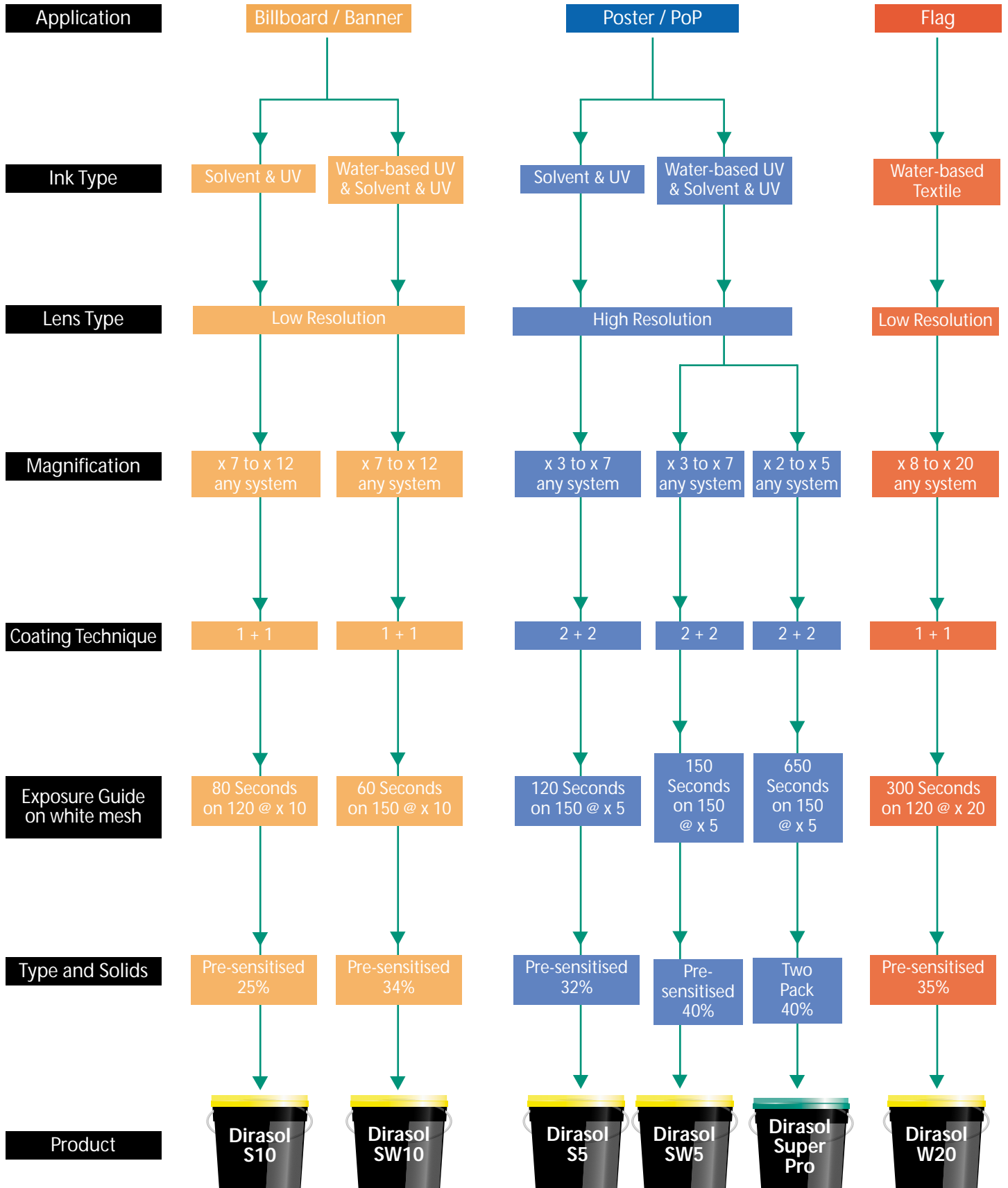
	Contact Exposure	Direct Projection
Position Positive on Screen	1min	—
Apply Vacuum	2min	—
Exposure Time	5min	1 - 2 min
Total	8min	1 - 2 min

In Line Processing



Emulsion Selector for Direct Projection

Note: Exposure times are an average based on exposure for different manufacturer's equipment.



Hints and tips for best results

- **Frames** **Large format frames must be constructed from the correct section to maintain tension without deforming.**

- **Mesh** **White mesh gives better and faster emulsion throughcure especially at higher magnifications.**
With solvent-based inks use 120.34 white plain weave.
Water-based UV and UV inks use 150.34 white plain weave.
Tension = minimum 18 N/cm.

- **Mesh Preparation** **New mesh requires a diazo wash to optimise emulsion adhesion.**
(see Dirasol Direct Projection Product Information Sheet for further information).
Degrease all mesh with Seriprep 102 or 300 to improve coating properties and stencil durability.

- **Coating** **For consistent results use an automatic coating machine at up to 250 cm/min.**
1+0 or 1+1 for high magnifications and a build of approximately 1 micron.
1+2 or 2+2 for lower magnification and a build of 2 - 4 microns.

- **Emulsion Drying** **To maintain emulsion build, dry horizontally with the squeegee side up.**
Maximum temperature of 35°C.
Ventillate drying area to avoid high humidity.

- **Positives** **Should be high clarity and good density.**
Screen ruling of 230 - 300 lpi.
Right reading emulsion side up.

- **Projection optics** **Low resolution/fast exposure lens.** **High resolution/slower exposure lens.**
For approximately 10 times magnification. For approximately 5 times magnification.

- **Correct exposure** **Calculate with step-and-repeat exposures using appropriate tonal range or 50% square dot value.**
Exposure times will vary according to the type of projector.

- **Post exposure** **Improves durability to water-based UV inks.**