

# TROUBLE SHOOTING GUIDE

CONDITION	POSSIBLE CAUSES	POSSIBLE REMEDIES
<b>CATCH-UP</b> Temporary ink sensitivity of the non image areas on the plate	Dampening forme roller setting uneven with the plate	Reset the rollers for even contact
	De-laminated metal rollers	"Re-laminate the transfer rollers (in old days a mix of CuSo4 + Phosphoric acid would do the trick and buy time for re-lamination)"
	Ink deposition on metering rollers	De-sensitize the metering rollers with good quality metering roller cleaner
<b>FOUNTAIN SOLUTION CONDUCTIVITY INCREASED ABOVE SET STANDARD</b>	Increased conductivity of raw-water used for fount mixing	Check incoming raw-water. Use water from standard source
	Excess dosing of fount	Calibrate auto-dosing. Higher dosage = Higher conductivity
	Change of fount	Rework conductivity graph for new fount
	Reduced dosing of Isopropyl alcohol	Standardise Isopropyl alcohol dosing. Rework conductivity graph
	Excess contamination	Check and control sources of contamination. Change to freshly mixed fountain solution
<b>FOUNTAIN SOLUTION CONDUCTIVITY REDUCED BELOW SET STANDARD</b>	Reduced conductivity of raw-water used for fount mixing	Check incoming raw-water. Use water from standard source
	Insufficient dosing of fount	Calibrate auto-dosing. Lower dosage = Lower conductivity
	Change of fount	Rework conductivity graph for new fount
	Increased dosing of Isopropyl alcohol	Standardise Isopropyl alcohol dosing. Rework conductivity graph for increased IPA dosing
<b>DOUBLE IMAGE</b> Shadow image reappearing next to original image	Too much water	Reduce water feed
	Too much moisture in paper stock	Condition the paper to the correct temperature/ humidity (it is also called dampening the paper by running it through the press without printing)
	Too much blanket-to-impression cylinder pressure	Reset pressure

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<b>EMULSIFICATION</b> Water forming free drops apart from ink	Low water uptake ink	Contact ink supplier; ink change may be necessary
	Excess water feed	Reduce water feed
	pH value of fount too acidic	Set pH value of 4.5 - 5.5
	Poor metering of water	Go to standard setting between metering roller & pan roller
<b>INK NOT DRYING ON SHEET</b> Printed sheet not drying	Water release too high	Reduce water feed
	Fount too acidic	Reset the fount pH between 4.5-5.5/4.8-5.2
	Paper too acidic	May require change of paper
	Anti-set off powder not used IR Dryer put off / malfunction	Use compatible anti-set off powder Use IR dryer at the correct temperature
<b>INK ROLLER STRIPPING</b> Inking rollers taking water instead of ink	Glazed rollers	Deglaze thoroughly/change rollers
	TDS of water higher than standard	Treat water
	Excessive dosing of fount	Correct the dosing levels
	Excess water feed	Reduce water feed
	Ink too weak	Consult ink manufacturer; this may require change of ink
<b>MOTTLE</b> Non-uniform appearance in the printed image	Paper surface quality uneven	May require to replace the paper
	Ink application - uneven ink lay or ink too thin	Contact with ink supplier (increase ink viscosity)
	Heat - excessive heat generation during print run	Give proper exhaust for heat moderation
	Blanket squeeze - too tight	Set blanket squeeze to its specs



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<b>LOW DENSITY IMAGE ON PAPER</b> Ink release is proper	Out of spec NIP pressure	Reset the NIP pressure to spec
	Glazed ink rollers	Deglaze the rollers and decalcify
	Improper trapping	This may require change of printing sequence
<b>PILING ON BLANKET</b> Accumulation of paper fluff and ink outside paper area	Unconditioned uncoated paper	Condition the paper or replace
	Paper with high lint content	Add anti-piling additive to the chiller or replace paper
	Over emulsification of ink	Reset raw water hardness to GATF recommendation (150-180 ppm ; use non-calcium water hardener
	Glazed blanket (Gum glaze)	Deglaze (may require overnight application)
<b>SCUMMING</b> Hard to remove ink sensitivity of the non-image areas of plate	Fount too acidic	Reset the fount pH between 4.5-5.5/4.8-5.2
	Plate not desensitised after cleaning	Apply desensitising gum after plate cleaning operation
	Low ink viscosity.	Add viscosity builder; Change to an ink with more body.
	Under exposed +ve plates/ Over exposed -ve plates	Correct exposure and development with a plate control wedge
	Under developed plates	
	Forme rollers too tight to plate ; damaging non-image area	Reset to spec
<b>TINTING</b> Ink appears on the background of a printed sheet, in the non-image area	An acidic fountain solution	Reset the fount pH between 4.5-5.5/4.8-5.2
	Increased conductivity (old chiller bath)	Use fresh bath as per specs
	Too much drier added to the ink	Consult the ink supplier (may require change of ink)
	Emulsified ink in water	Use fresh bath as per specs
	Incompatible fount and ink	Use compatible ink and fount

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<b>ROLLER GLAZING</b> Build up of solvent insoluble material on the rollers	Gum transfer from plate to rollers	Rinse plates with water thoroughly during every re-start
	Calcium deposition in roller train	De-calcify the rollers; repeat if necessary
<b>CHALKING</b> Incompatibility between the ink and a coated paper that results in the inactivation of the drier in the ink.	Excessive ink vehicle or varnish penetration	Contact ink supplier
	Paper is too acidic	Check pH of paper, try to get neutral pH paper
	Paper is too absorbent	Contact ink supplier; this may require inks with higher solids
	Fountain solution pH too low	Use compatible fountain solution with pH between 4.5-5.5 / 4.8-5.2
<b>HICKEYS</b> External particles appearing as unwanted image in print	Dried ink from roller shoulders	Wash rollers and blankets. De-cuff the rollers regularly
	Paper particles/layer picked by heavy ink tack	Reduce ink tack
<b>MISREGISTER</b> Multiple colours not registering correctly	Loose blanket	Tighten blankets to machine specs
	Side lays not set properly	Check and reset
	Plate-blanket NIP too tight	Check and reset
	Worn out gripper pads	Replace gripper pads
	Paper edges moist than center	Condition the paper
	Paper not square or wavy edges	Re-cut the paper, condition the paper or replace



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<b>PREMATURE IMAGE WEAR</b>	Plate/blanket over-packed	Check and correct packing to specs
	Forme rollers set too tight to plate	Reset rollers to specs
	High paper dust content causing abrasion	Use anti-piling additive
	Under exposed -ve plates and over exposed +ve plates	Correct exposure using a plate control wedge
	Incompatible solvents in contact	Use specialty plate cleaners
	Dried gum/ink on image areas (especially during reuse)	Try washing with warm water or change plate
	Damaged roller surface	This may necessitate change of roller
	Paper too acidic	Replace paper
<b>SLURRING</b> Distorted print image that occurs in two directions only: lateral or circumferential	Paper slippage	Check gripper timing
	Excess NIP between plate and blanket	Reset to spec
	Blanket too loose	Reset to spec
	Ink too soft	Contact ink supplier (use of viscosity/tack builder may be required)
	Excess ink	Optimize ink flow until the word slur becomes invisible in the slur target
<b>FILLING IN</b> Shadow areas on plate printing as solids	Too much nip pressure	Reduce blanket packing 0.025mm at a time
	Blanket too soft	Treat the blanket for correct shore hardness / replace
	Ink is either too thin or too tacky	Treat the ink for correct tack
	Ink piling on blanket.	Increase blanket cleaning frequency

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<b>IMAGE BLINDING</b> Image not accepting ink	Fount too acidic	Reset the fount pH between 4.5-5.5/ 4.8-5.2
	Over development with certain plate coating types	Set standard developing parameters
	Alkaline paper coating	May require change of paper
<b>DOT LOSS</b> Dots on plate/paper smaller than the dots on film/plate	Poor film-plate contact on +ve plates	Check and adjust vacuum pressure and overlap of film edges on the paste-up
	"Over exposed +ve plates and/or Under exposed -ve plates/ "	Correctly expose plates using a standard control wedge
	Over developed +ve plates	Follow plate manufacturer's instructions for standard development
<b>PAPER CREASING</b>	Feeder board not set properly	Reset correctly
	Front lay/Impression cylinder gripper out of timing	Reset correctly
	Feeder roller pressure too high	Reset pressure
<b>MECHANICAL GHOSTING</b>	Starving of ink on Ink form rollers	De-glaze and de-calcify roller train
	Highly glazed blankets	De-glaze the blankets
	Ink too tacky	Use tack reducer
<b>INK DOT SCUM</b> Ink sensitive spots on the plate	Anodic layer of the plate damaged	Change the plate and reset forme rollers
	Plate oxidation	Gum the plate at every stoppage

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<b>DOT GAIN</b> Dots on plate/paper larger than dots on film/plate	Excessive nip between plate & blanket	Reset nip as per machine specifications
	Ink form rollers set too tight to plate	Reset roller-to-plate pressure setting
	"Under exposed +ve plates and/or Over exposed -ve plates "	Correctly expose plates using a standard control wedge
	Under developed +ve plates	Follow plate manufacturer's instructions for standard development
	Inconsistent/soft ink.	Contact ink supplier
	Hardened gum fringes around image	Clean the plate with warm water. Apply mild etch if necessary
<b>STREAKS</b> Horizontal ink patches across the plate cylinder	Ink and/or damper rollers skidding or bouncing on plate	Reset until skidding and bouncing stops
	Incorrect plate-to-blanket or blanket-to-impression pressure.	Reset to machine spec
	Worn-out roller and cylinder bearings	This may require maintenance schedule
	Worn-out cylinder drive gears (in old machines)	This may require maintenance schedule
	Loose blankets	Reset to machine spec
	Hardened gum streaks	Try warm water wash
Gear streaks	This may require maintenance schedule	

