

F3070 Safe Ink Transition SOP

STANDARD OPERATING PROCEDURE FOR INK REPLACEMENT

Doc No: SOP-INK-F3070-01-EN

Version: V1.1 (2026 Revision)

Classification: Confidential - Internal Technical

Use

Procedure Overview: This Standard Operating Procedure (SOP) is designed to guide technical personnel through a safe and efficient ink replacement workflow on industrial-grade F3070 printers. Strict compliance with all five stages (Evaluation, Draining, Flushing, Charging, and Calibration) is mandatory to eliminate risks of printhead clogging, nozzle deflections, or chemical crystallization caused by fluid incompatibility. This protocol ensures seamless transition to continuous 24/7 high-speed production.

STAGE	CORE ACTION STEPS	KEY TECHNICAL NOTES	EXPECTED OUTCOME
01 BASELINE TEST	Print a standard nozzle check pattern and archive/save the output for reference.	Evaluate the overall printhead health, documenting any existing missing nozzles or severe nozzle deflections.	Establishes a solid initial baseline for comparison.
02 INK DRAINING	Remove OEM high-capacity ink bags and execute the ink-draining command via the control panel to completely drain fluid lines.	Minimize physical overlapping of old and new formulations in the fluid paths to prevent cross-contamination.	All fluid paths are fully prepared for system clearing.
03 SYSTEM FLUSHING	Insert the matched Cleaning Flush Solution and run the designated tube flush cycle.	CRITICAL REQUIREMENT: Continuously flush the lines until the discharged waste liquid runs 100% completely clear to block any chemical reaction between different brands.	Fluid lines achieve a perfectly neutral, chemical-free state.
04 INK CHARGING	Install the compatible 1.5L ink bags with smart chips (or refill the bulk bottle ink system as required).	Run the printer's initial ink charging utility to ensure the new ink fills all fluid paths evenly and completely.	Smart chips are successfully recognized with zero startup errors.
05 FINAL CALIBRATION	Print a final nozzle check pattern and output initial color target test patterns.	Verify absolute nozzle alignment. Optional: Apply custom-calibrated ICC color profiles for premium quality jobs.	Ready to resume safe, high-speed 24/7 industrial production.



TECHNICAL SAFETY WARNING

Due to the high precision and substantial replacement cost of the industrial F3070 printheads, chemical incompatibility will lead to catastrophic gel precipitation or crystallites within the micro-channels. **Stage 03 (System Flushing) is the most critical phase of the process.** Never skip the cleaning step or attempt to charge new ink directly into an un-flushed system. Confirm that the waste discharge is completely transparent before proceeding.

Lead Technician Signature: _____

Date: Year ____ Month ____ Day ____

Technical Supervisor Approval: _____

Date: Year ____ Month ____ Day ____