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#### ANAPURNA M4F & Wasatch Key Operator Training (Trainee required checking all topics)

## 1. Safety First

- a. UV Inks
  - i. UV Inks (and waste) are chemicals, when handling the ink, wear protective gloves to protect your skin. Also wear protective glasses to avoid splashes
  - b. UV Light
    - i. Do not look directly into the UV Light when printing
    - ii. Don't expose your skin directly to UV light
    - iii. If you need to look at the direction of the light, wear protective glasses
  - c. Ozone
    - i. Make sure printing room exhausts are working and lead to the outside air
  - d. Anapurna Engine
    - i. Know the Emergency 'Stop' buttons
    - ii. Make sure that the 'Safety Sensors' are working (turned 'ON') (While at OFFLINE Mode, Press F4 & then F2)
    - iii. Before printing, make sure no one is around the engine
    - iv. After printing, always put the engine to 'OFF LINE'

2. Anapurna Inks, Cleaning Solution & Waste

- a. Storage of inks
  - i. Ideal between 4 & 10 degrees Celsius. No more than 25 degrees at any time
- b. Shelf Life of inks
- c. Use
  - i. Take care when filling the main ink tank / cleaning tank
  - ii. Keep waste separate from the ink bottles
- d. Dispose off waste as per local council regulations
- e. Never mix solvent waste or aqueous waste with UV waste (as per local council regulations)
- 3. Environment
  - a. Dust Free
  - b. Ideal Room Temperature : 22 degrees Celsius (Range between 18 25 degrees C)
  - c. Ideal Humidity : 50 % (Range between 40% 60 % relative humidity)

# 4. Anapurna M4F Component Overview

- a. Terminologies used (Home Side, Purge side or Capping side etc)
- b. Anapurna Shuttle (carriage) Layout
  - i. Print Heads, sub tanks etc
  - ii. 2 way ink valves / solution valve
  - iii. UV Lamps
- c. Purge Button (Ink), Flushing Button (Cleaning Solution)
- d. Negative Vacuum 'Gauge' & 'Digital Indicator'
- e. Ink Supply System
- 5. Anapurna M4F Start Up Sequence
  - a. Compressor & Drier (to get compressed dry air)
  - b. Exhaust (in the room)
  - c. Main Switch (Power), Circuit Breakers (if applicable), Power switch on Anapurna Engine
  - d. Emergency Buttons on Anapurna Engine
  - e. Power 'ON' (Start Button on Anapurna Engine)

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- 6. Making Anapurna Ready for printing
  - a. Print Head Test (Prime : Menu F1 on Control Panel)
    - b. Roll to roll print
      - i. Media Loading
        - ii. Vacuum Settings on the bed
        - iii. Set Gap (Head Height Calibration in regard to the media thickness)
        - iv. Set Margins (Parameters)
      - v. UV Lamps (Power settings: Full / Half and Mode settings: Normal / Both)
    - c. Rigid media printing
      - i. Registration Bar
      - ii. Vacuum Settings on the bed
      - iii. Set Gap (Head Height Calibration)
      - iv. Left & Top Margins
      - v. Borderless Printing
      - vi. Dual Board Printing
      - vii. Input / output Support Tables
      - viii. UV Lamps (Power settings: Full / Half and Mode settings: Normal / Both)
    - d. Heater Settings
      - (How to change settings on the digital controls)
        - i. Sub Ink Tanks
        - ii. Head Base
    - e. Negative Pressure Settings
    - f. Print Quality
      - i. Horizontal Alignment
      - ii. Bi Direction Alignment
      - iii. Step Size (Feed)
      - iv. Carriage Speed
    - g. Printing Artefacts
      - i. Gloss Banding
      - ii. Peppering
      - iii. Pooling
      - iv. Step Banding / Nozzle-missing banding
- 7. Print Head Purging / Cleaning

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- (Function of 2 way valve)
  - a. 'Quick' Purge if 'Prime Test' (nozzle test) not good
  - b. 'Long' Purge
  - c. Head 'Bleeding' (drop the negative pressure down to -.010)
  - d. Head Cleaning using Cleaning Solution
  - e. Weekend / Long Break engine preparation
- 8. Anapurna Control Panel
  - a. 'ON Line' & 'OFF Line'
  - b. Local & Host
  - c. Head Gap (Calib)
  - d. Parameters: Left, Top & Right Margins + Null Point (Y or N)
  - e. Nozzle Check (Prime)
  - f. 'Pause' function
  - g. Cancelling a print

### 9. Preventive Maintenance (operator)

- a. Daily
- b. Weekly
- c. Alignment of Conveyor (Media) Belt
- 10. What can go wrong!!!!
  - a. Air in the Ink Filter (always make sure enough ink in the main tanks)
  - b. Light colours in Dark colour tanks
  - c. Check Over Flow (sub air) tank (part of weekly maintenance)
  - d. Keep an eye on Waste Tank (part of weekly maintenance)
  - e. Printing on the Conveyor Belt (specially when printing borderless) resulting in poor vacuum
  - f. Static on Media (specially rigid media)
  - g. Head Height!!!

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- 11. Advanced Scheduled Maintenance
  - a. Adjustment of conveyor belt
  - b. Replacement of conveyor belt (service engineer)
  - c. Cleaning the Feed Table (service engineer)
  - d. UV Lamp Replacement (operator)
  - e. Cleaning of Crystal Glass (operator)
  - f. Calibration (Horizontal, Bi-dir, Feed Adjust)
  - g. Cleaning / Lubricating the Carriage Rail & Greasing the Carriage Bearings

## 12. Consumables Required

- a. Inks
- b. Cleaning Solution
- c. Lint Free Cloth
- d. Part #'s
- e. Recommended Media

## Wasatch & Agfa Rip Operations

#### **Rip Station** ( ) 1. a. Do not load any design software (DTP applications) b. Never download anything from the internet (updates 'OFF') c. Have 2 network cards in the CPU; one for the office network & the other for the Anapurna engine (cross over network cable) d. How to connect Wasatch with Anapurna e. Defrag the CPU every week f. Clear Rip queues & Print queues 2. Wasatch Set Up ( ) a. Printing Modes (4 pass, 8 pass, bi-dir, uni-dir) b. Imaging Configuration c. Media Width d. Color Related Info i. Color Correction Curves ii. Spot Color Replacement iii. Color Gamut view iv. Do not touch Ink Limits, do not over write Agfa Profiles **Ripping & Printing** () 3. a. Supported File formats b. Opening a file c. File preparation: size, scale, crop, mirror, rotate, tiling d. Selection of correct Imaging Configuration (print mode) e. Sending to Rip Queue (Or Rip & Print) f. Hot folder set up (if applicable & required) g. Print Strategy i. Rip (only) & keep jobs ready for printing ii. Print to the engine when it Anapurna is ready 4. Wasatch Exercises ( ) 5. Have you received the Operator's Manual + other operational documents () 6. Have you received the Anapurna M4F Ink MSDS ( ) 7. Have you printed samples on Anapurna engine using flexible & rigid media () (YES) (NO) Are you comfortable 8. 9. What other information do you need

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