CONCEPT

# Pulp, Paper and Tissue Manufacturing Operations Course: Stock Preparation, Wet End and Yankee

20 – 24 September 2027
Dubai - Five-star CBD venue



# Pulp, Paper and Tissue Manufacturing Operations Course: Stock Preparation, Wet End and Yankee

**Ref:** 1696_26518 **Date:** 20 – 24 September 2027 **Location:** Dubai - Five-star CBD venue **Fees:** 19500 SAR

## Introduction:

Pulp, paper and tissue manufacturing operations, covering stock preparation, wet end and Yankee, is a 1-week course for production, process, quality and shift teams in paper, board and tissue mills that ends with a Mill Runnability and Efficiency Improvement Plan for a case machine. Mills lose tonnes, steam and fibre when pulper, refiner, chemical and Yankee settings drift unchecked. Nominees already run, test or troubleshoot a paper or tissue machine, and the course is taught through inspection walkthroughs of stock lines, wet ends and dryer sections. CoreConcept Training Center delivers this pulp and paper course.

## Course Objectives:

- Trace furnish from bale intake to parent reel and calculate consistency, dry solids and fibre losses across the mill
- Set pulper, cleaner, screen, flotation and refiner conditions to remove stickies and ink while developing fibre strength
- Control retention, drainage, sizing and wet strength chemistry by reading charge, turbidity and first-pass retention data
- Adjust headbox, press nips, dryer steam and Yankee coating and creping blade to hit sheet property targets
- Measure grammage, moisture, tensile, bulk and softness and link out-of-specification results to machine settings
- Diagnose sheet breaks, deposits and felt filling and cut steam, water and fibre use per tonne in an improvement plan

## Target Audience:

- Machine crews responsible for running the wet end, press, dryer or Yankee section on shift
- Stock preparation teams responsible for pulping, screening, cleaning, deinking and refining lines
- Process teams responsible for wet end chemical programmes, additive dosing and runnability trials
- Quality laboratory teams responsible for sheet testing, reel grading and product release
- Converting and finishing teams responsible for calenders, rewinders and log saws

## Course Outline:

### Day 1: Pulp, Paper and Tissue Process Fundamentals and Mill Baseline

- Recovered and Virgin Fibre Furnish Types and Properties
- Mill Process Flow From Bale Intake to Parent Reel
- Consistency, Dry Solids and Fibre Mass Balance Calculations
- Paper, Board and Tissue Grade Property Targets
- Machine Baseline Review Using Break, Grade and Downtime Records

### Day 2: Recovered Fibre Stock Preparation and Wet End Chemistry

- Pulper, Detrashing and High-Density Cleaner Sequence Settings
- Pressure Screening and Flotation Deinking for Stickies and Ink
- Low-Consistency Refining Energy and Freeness Development Control
- Retention, Drainage and Fixative Programme Dosing Strategy
- Internal Sizing and Wet Strength Resin Charge Control

### Day 3: Forming, Pressing, Drying, Yankee Creping and Converting

- Headbox Jet-to-Wire Ratio and Formation Adjustment
- Press Section Nip Load, Felt Conditioning and Dewatering
- Multi-Cylinder Dryer Steam and Condensate System Operation
- Yankee Coating Chemistry, Creping Blade Angle and Crepe Ratio
- Calendering, Reel Building and Rewinder Converting Line Setup

### Day 4: Sheet Quality, Steam and Water Efficiency and Runnability Problems

- Grammage, Moisture Profile and Tensile Testing to ISO Methods
- Tissue Softness, Bulk and Absorbency Measurement Methods
- Steam per Tonne and Yankee Hood Air Energy Balance
- White Water Loop Closure, Save-All and Fibre Recovery
- Sheet Break, Deposit and Felt Filling Root Cause Diagnosis

### Day 5: Inspection Walkthrough and the Mill Runnability and Efficiency Improvement Plan

- Case Machine Walkthrough Against Stock Line Checklist
- Wet End and Yankee Condition Findings Log
- Quality, Steam and Water KPI Gap Analysis
- Runnability Loss Ranking by Tonnes and Frequency
- Mill Runnability and Efficiency Improvement Plan Completion

## Skills You Will Gain:

- Fibre Mass Balancing
- Stickies Removal Control
- Refining Optimisation
- Retention Aid Dosing
- Yankee Creping Control
- Sheet Property Testing
- Steam and Water Benchmarking
- Sheet Break Troubleshooting

## Why Attend This Course:

- Deliver a Mill Runnability and Efficiency Improvement Plan for a case machine to the mill manager and the process lead
- Decide which pulper, refiner, chemical or creping setting to change first when breaks or off-grade reels rise, using trend data
- Avoid lost tonnes, wasted steam, blade changes and broke caused by stickies, deposits and filled felts left unchecked
- Pass furnish balance sheets, wet end chemistry logs, crepe ratio checks and break analysis forms to shift and laboratory colleagues

## Conclusion:

Back at the mill, the participant hands the mill manager, process lead and maintenance planner a Mill Runnability and Efficiency Improvement Plan covering furnish targets, stock line settings, wet end chemistry, Yankee and dryer conditions, quality limits and steam, water and fibre benchmarks. Management uses it to decide which runnability losses to address first and where chemical, felt and blade budgets go. After the first full month of use, the team should compare sheet breaks, off-grade reels and steam and water per tonne against the plan and reset targets where results diverge.

## Frequently Asked Questions FAQ:

### What should participants know before a pulp, paper and tissue manufacturing operations course?

Participants should already work on a paper, board or tissue machine, a stock preparation line or a mill laboratory and read shift logs and test sheets. No engineering degree is needed. Bringing anonymised break records, steam figures or sheet test results helps apply the walkthroughs.

## How does pulp, paper and tissue manufacturing operations differ from a packaging materials course?

It covers making the sheet: furnish, stock preparation, wet end chemistry, forming, pressing, drying, Yankee creping and converting. Packaging courses select finished board, film and containers and test packs in transport, which this course does not address.

## Why do stickies matter so much in pulp, paper and tissue manufacturing operations?

Stickies are adhesive contaminants from recovered fibre that pass screens, deposit on wires, felts and the Yankee and cause holes and sheet breaks. Controlling them through screening, flotation and fixative dosing protects runnability and reduces felt and blade changes.

## What do participants take back from the pulp, paper and tissue manufacturing operations course?

Participants take back a Mill Runnability and Efficiency Improvement Plan for a case machine, with a fibre mass balance sheet, wet end chemistry log, crepe ratio check, break analysis form and steam and water benchmark table to adapt to their own mill.