

## WORKSYNC – FINAL SIMPLE CHECKLIST

(*Roles • Flow • Operations • Calculations*)

---

### 1 ROLES & RESPONSIBILITIES – CHECKLIST

#### ◆ Admin

- Add / remove users (Admin, IE, Supervisor, Management)
  - Add / remove employees
  - Add / remove lines
  - Add / remove products
  - Add / modify process flow
  - Add / modify SAH
  - Lock / unlock production days
  - View audit logs
- 

#### ◆ IE (Industrial Engineering)

- Decide which product is made on each line
  - Define process (operation sequence) per product
  - Define SAH per operation
  - Set daily line targets
  - Assign employees to operations
  - Define default working hours (8 AM – 5 PM)
  - Modify working hours for half day / second half
- 

#### ◆ Line Supervisor

- Scan employee QR
  - Scan workplace QR
  - Ensure correct employee is at correct operation
  - Replace employee at workplace if required
  - Enter hourly production quantity
  - Enter forwarded quantity
  - Enter remaining WIP
  - Input initial materials issued
-

## ◆ Management

- View dashboards
  - View employee efficiency
  - View line efficiency
  - Download Excel reports
  - No data entry
- 

## 2 SYSTEM RULES – CHECKLIST

- System runs on Raspberry Pi only (local server)
  - Default shift timing: **8:00 AM – 5:00 PM**
  - One product per line per day (default)
  - Multi-product per line disabled for now – enabled in the next phase of development
  - Work assigned to employee remains same until product/process changes
  - Supervisors cannot edit targets or SAH
  - Only Admin can unlock closed days
- 

## 3 DAILY OPERATION FLOW – CHECKLIST

### ● Start of Day

- Product confirmed per line
  - Process & SAH locked
  - Target confirmed
- 

### ● Employee Placement

- Supervisor scans employee QR
  - Supervisor scans workplace QR
  - System validates correct placement
- 

### ● Material Issue

- Initial materials issued are recorded
  - Material linked to employee / operation
-

### ● Hourly Production (Repeated Every Hour)

- Quantity completed entered
- Quantity forwarded entered
- Quantity remaining entered
- System validates:

Completed = Forwarded + Remaining

---

### ● WIP Tracking

- Transfer from Employee A to Employee B recorded
  - Quantity and time recorded
  - No missing or false data
- 

### ● End of Shift

- Supervisor reviews data
  - Shift closed
  - Data locked
- 

## 4 CALCULATIONS – CHECKLIST

### 1 SAH

- SAH stored per operation
  - Defined only by IE / Admin
- 

### 2 Standard Hours Produced

- Calculated as:

Standard Hours = Output × SAH

---

### 3 Employee Efficiency

- Calculated as:

Employee Efficiency (%) =

(Standard Hours Produced / Actual Working Hours) × 100

## 12 Line Efficiency

Calculated using **final QA-pass output only**

Formula:

Line Efficiency (%) =

(QA Output × Product SAH) /

(Total Line Manpower × Working Hours) × 100

---

## 5 REPORTS & DATA – CHECKLIST

Data stored in Raspberry Pi (PostgreSQL)

One Excel generated per day

Excel contains:

- Employee efficiency
- Line efficiency
- Production details
- Material usage

Historical Excel can be regenerated

Audit log maintained

---

## 6 MULTI-LINE SUPPORT – CHECKLIST

Multiple lines supported

Each line runs independently

Each line has its own product, process, and target

No data mixing between lines

Management can view all lines together

---

## ✓ FINAL CONFIRMATION QUESTION (FOR CLIENT)

**Does this checklist correctly represent how the software and factory flow should work?**

YES – Approved

NO – Changes required