Verification Record – Manufacturing Tools (Batch 4)

Tool ID: MFG-01

Tool Name: Machine ROI – Capital Justification

1. Verification Objective:

   - Validate payback & ROI calculations based on investment vs annual savings.

2. Test Methods:

   - Functional checks performed using on-screen inputs.

   - Analytical verification performed against known formulas.

3. Acceptance Criteria:

   - Outputs must match analytical computation to rounding tolerance.

   - UI fields must update deterministically.

4. Test Evidence:

   - Formula: Payback = Investment / Annual Savings. Verified working per UI.

5. Result:

   - PASS

6. Issues & Corrective Actions:

   - None.

7. Retest Status:

   - Pending.

8. Signoff:

   - Jarryd Giose / 25-02-2026

Tool ID: MFG-02

Tool Name: COPQ Executive Dashboard

1. Verification Objective:

   - Validate cost-of-poor-quality rollup from scrap/rework/warranty lines.

2. Test Methods:

  - Functional checks performed using on-screen inputs.

  - Analytical verification performed against known formulas.

3. Acceptance Criteria:

  - Outputs must match analytical computation to rounding tolerance.

  - UI fields must update deterministically.

4. Test Evidence:

  - Logic: (Qty*Unit Cost)+((Time/60)*Rate). Verified.

5. Result:

  - PASS

6. Issues & Corrective Actions:

  - None.

7. Retest Status:

  - Pending.

8. Signoff:

  - Jarryd Giose / 25-02-2026

Tool ID: MFG-03

Tool Name: Labor Efficiency Variance Tracker

1. Verification Objective:

  - Validate labor variance using (Planned - Actual)*Rate.

2. Test Methods:

  - Functional checks performed using on-screen inputs.

  - Analytical verification performed against known formulas.

3. Acceptance Criteria:

  - Outputs must match analytical computation to rounding tolerance.

  - UI fields must update deterministically.

4. Test Evidence:

   - Variance computed correctly on test rows.

5. Result:

   - PASS

6. Issues & Corrective Actions:

   - None.

7. Retest Status:

   - Pending.

8. Signoff:

   - Jarryd Giose / 25-02-2026

Tool ID: MFG-04
Tool Name: Energy Cost per Part

1. Verification Objective:

   - Validate per-part kWh cost using machine wattage and cycle time.

2. Test Methods:

   - Functional checks performed using on-screen inputs.

   - Analytical verification performed against known formulas.

3. Acceptance Criteria:

   - Outputs must match analytical computation to rounding tolerance.

   - UI fields must update deterministically.

4. Test Evidence:

   - kWh=(W/1000)*(s/3600). Cost = kWh*rate.

5. Result:

   - PASS

6. Issues & Corrective Actions:

   - None.

7. Retest Status:

   - Pending.

8. Signoff:

   - Jarryd Giose / 25-02-2026

Tool ID: MFG-05

Tool Name: Scrap Financial Impact

1. Verification Objective:

   - Validate scrap loss and weighted scrap-rate.

2. Test Methods:

   - Functional checks performed using on-screen inputs.

   - Analytical verification performed against known formulas.

3. Acceptance Criteria:

   - Outputs must match analytical computation to rounding tolerance.

   - UI fields must update deterministically.

4. Test Evidence:

   - Loss = scrap qty * unit cost. Rate = scrapped/produced.

5. Result:

   - PASS

6. Issues & Corrective Actions:

   - None.

7. Retest Status:

   - Pending.

8. Signoff:

   - Jarryd Giose / 25-02-2026

Tool ID: MFG-06

Tool Name: Shift Handover Gap Analysis

1. Verification Objective:

- Validate lost-production due to transition downtime.

2. Test Methods:

  - Functional checks performed using on-screen inputs.

  - Analytical verification performed against known formulas.

3. Acceptance Criteria:

  - Outputs must match analytical computation to rounding tolerance.

  - UI fields must update deterministically.

4. Test Evidence:

  - Gap=((min*60)/cycle)-actual. Verified.

5. Result:

  - PASS

6. Issues & Corrective Actions:

  - None.

7. Retest Status:

  - Pending.

8. Signoff:

  - Jarryd Giose / 25-02-2026

Tool ID: MFG-07
Tool Name: Training Matrix Gap Analysis

1. Verification Objective:

  - Validate competency gap detection comparing avg vs target skill.

2. Test Methods:

  - Functional checks performed using on-screen inputs.

  - Analytical verification performed against known formulas.

3. Acceptance Criteria:

  - Outputs must match analytical computation to rounding tolerance.

- UI fields must update deterministically.

4. Test Evidence:

  - Critical = avg <50% target or staff<2.

5. Result:

  - PASS

6. Issues & Corrective Actions:

  - None.

7. Retest Status:

  - Pending.

8. Signoff:

  - Jarryd Giose / 25-02-2026

Tool ID: MFG-08

Tool Name: 3D Warehouse Utilization

1. Verification Objective:

  - Validate volumetric capacity usage.

2. Test Methods:

  - Functional checks performed using on-screen inputs.

  - Analytical verification performed against known formulas.

3. Acceptance Criteria:

  - Outputs must match analytical computation to rounding tolerance.

  - UI fields must update deterministically.

4. Test Evidence:

  - Util = inv_volume/WH_volume. Verified.

5. Result:

  - PASS

6. Issues & Corrective Actions:

- None.

7. Retest Status:

  - Pending.

8. Signoff:

  - Jarryd Giose / 25-02-2026

Tool ID: MFG-09

Tool Name: Inventory Turnover

1. Verification Objective:

  - Validate turnover ratio & days-to-turn.

2. Test Methods:

  - Functional checks performed using on-screen inputs.

  - Analytical verification performed against known formulas.

3. Acceptance Criteria:

  - Outputs must match analytical computation to rounding tolerance.

  - UI fields must update deterministically.

4. Test Evidence:

  - Ratio=COGS/Inventory; DSI=365/ratio.

5. Result:

  - PASS

6. Issues & Corrective Actions:

  - None.

7. Retest Status:

  - Pending.

8. Signoff:

  - Jarryd Giose / 25-02-2026

Tool ID: MFG-10

Tool Name: Production What-If Simulator

1. Verification Objective:

   - Validate net profit delta from speed/scrap changes.

2. Test Methods:

   - Functional checks performed using on-screen inputs.

   - Analytical verification performed against known formulas.

3. Acceptance Criteria:

   - Outputs must match analytical computation to rounding tolerance.

   - UI fields must update deterministically.

4. Test Evidence:

   - Net=(good*profit)-(scrap*loss).

5. Result:

   - PASS

6. Issues & Corrective Actions:

   - None.

7. Retest Status:

   - Pending.

8. Signoff:

   - Jarryd Giose / 25-02-2026