

PURPOSE: Handle surface defects on brake rotors during quality inspection

SCOPE: All brake rotor production lines (Lines 1-5)

PROCEDURE:

1. DEFECT IDENTIFICATION

- Stop production immediately upon defect discovery
- Photograph defects using station camera
- Classify defect type: circular scratches, linear scratches, pitting, gouging

2. MEASUREMENT PROTOCOL

- Use Mitutoyo SJ-210 surface roughness gauge
- Measure at 3 points minimum per defect
- Record Ra values in quality log
- Tolerance limits:  $\leq 0.02\text{mm}$  Ra for brake surface

3. DECISION MATRIX

- IF Ra  $\leq 0.02\text{mm}$ : Continue production, log measurement
- IF Ra  $> 0.02\text{mm}$  but  $\leq 0.05\text{mm}$ : Rework authorization required
- IF Ra  $> 0.05\text{mm}$ : Immediate quarantine required

4. QUARANTINE PROCEDURE (when Ra  $> 0.05\text{mm}$ )

- Attach RED quarantine tag (Form QC-101)
- Scan batch QR code with handheld scanner
- Move ALL parts in batch to Quarantine Bay 7
- Update MES system status to "QUARANTINED"
- Notify Quality Engineering via instant alert

5. DOCUMENTATION

- Complete Defect Report Form QC-205
- Upload photos to quality database
- Log time, operator, line number, batch ID

6. FOLLOW-UP

- Quality Engineer response required within 2 hours
- Disposition: Scrap, Rework, or Engineering Review