Quality Metrics Can be Green Metrics: Steelcase Wood Plant

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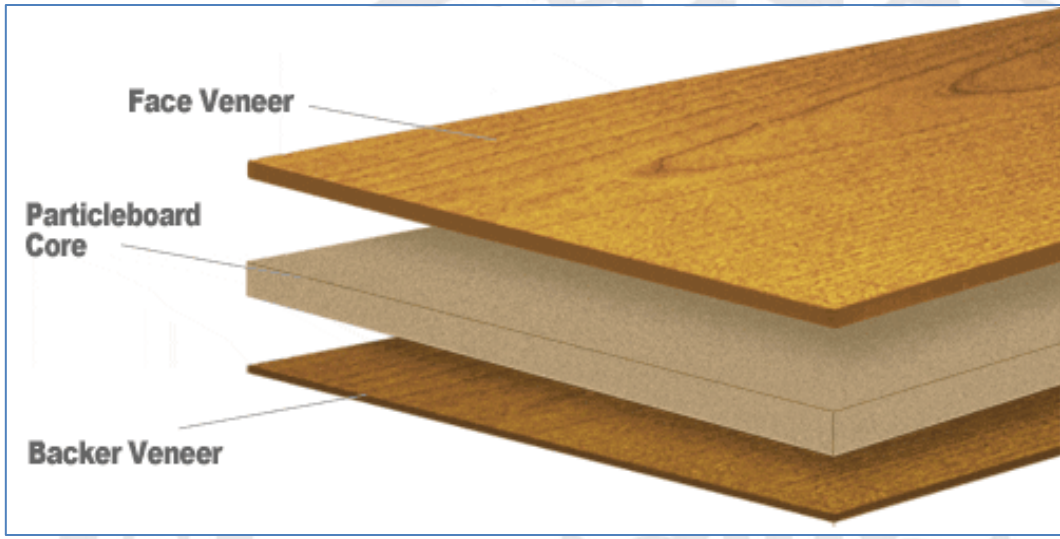
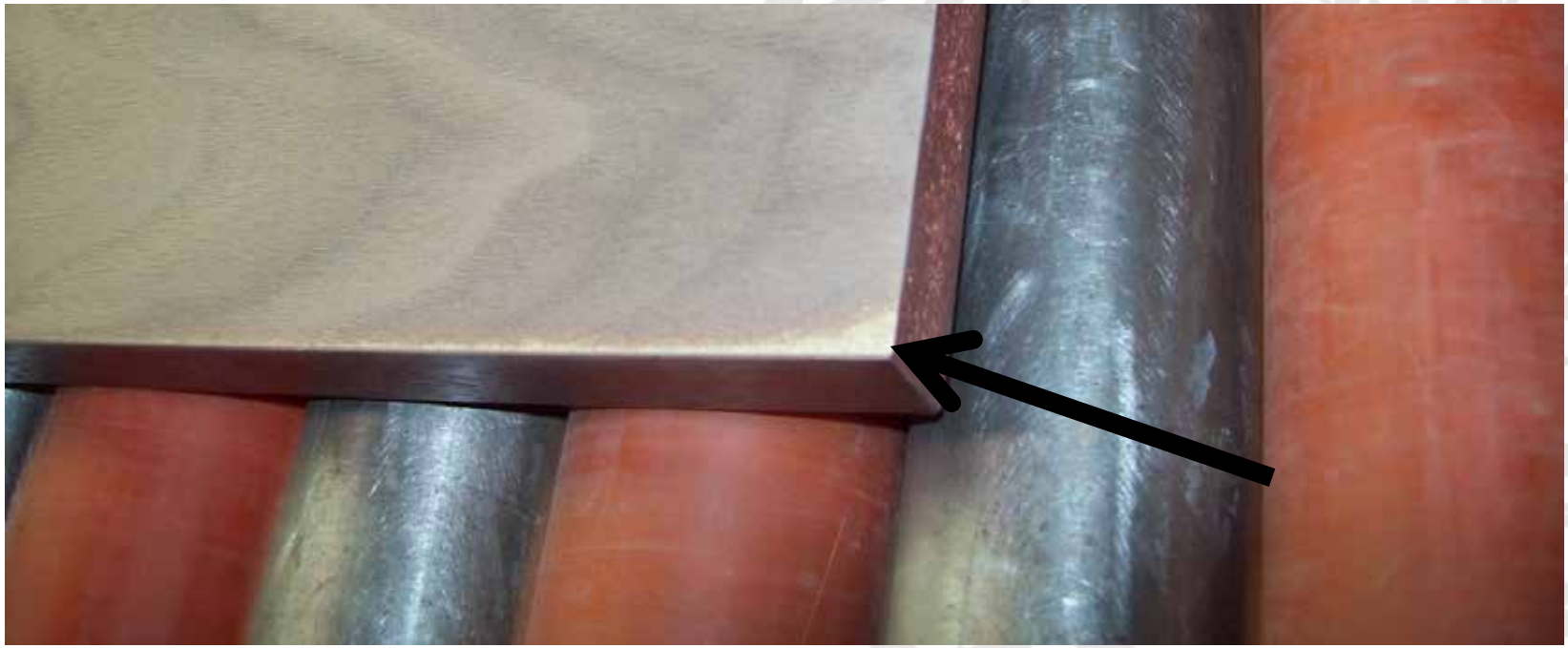
Background Info.



The Problem

- Sandthroughs (STs)
  - Veneer damage from sanding process



Tracking the Sandthroughs

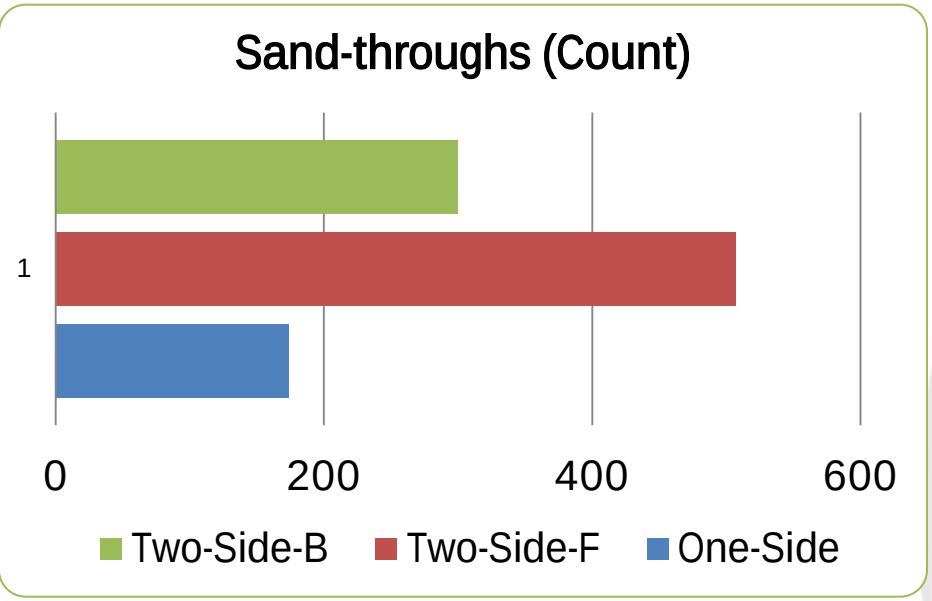
- Observers monitored sanding area
- Utilized check sheets
  - Side of board
    - Two sided: front or back
    - One sided
  - Area of board
    - Corner
    - Edge
    - Top

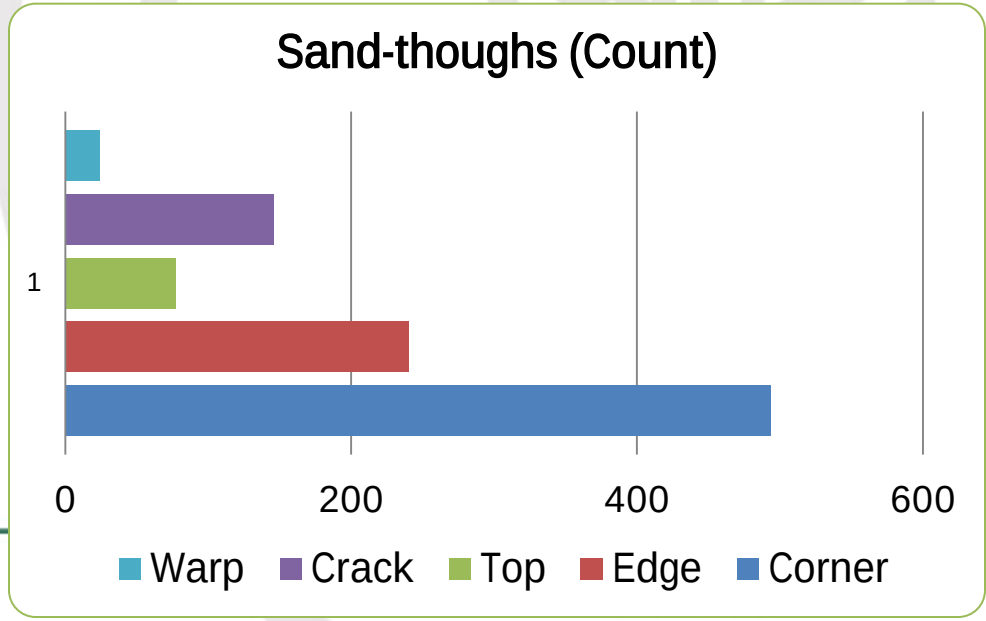
Sand-Throughs Check Sheet

Plant: Steelcase, Woodplant **Date:** _____
Machine: Heesemann Sander Monday / Tuesday / Wednesday / Thursday / Friday (Circle)
Operation: Sanding Veneer On Particleboard **Recorder's Name:** _____

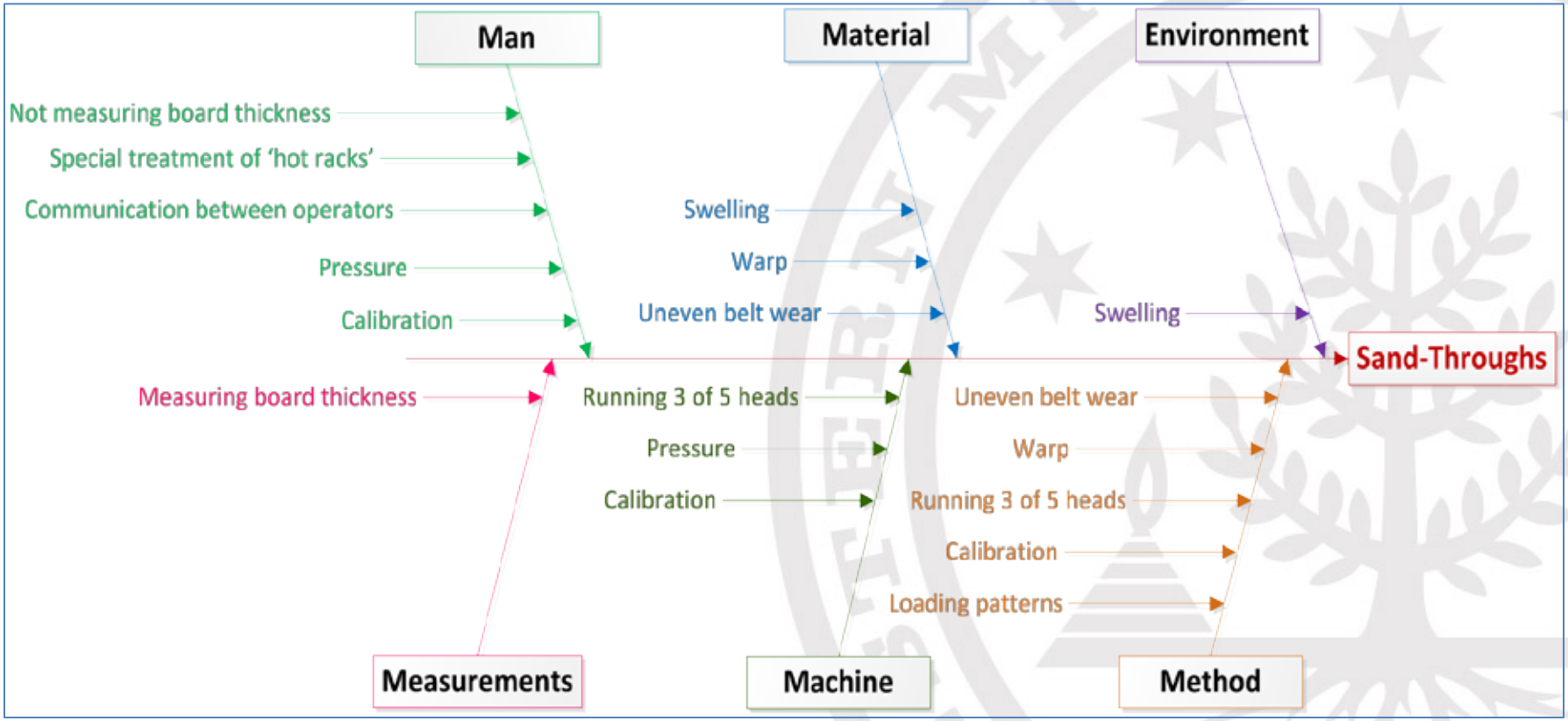
DEFECT TYPE		OCCURRENCE	SUB-TOTAL
One-Sided	Corner		
	Edge		
	Top		
	Crack		
	Warp		
Two-Sided (FRONT)	Corner		
	Edge		
	Top		
	Crack		
	Warp		
Two-Sided (BACK)	Corner		
	Edge		
	Top		
	Crack		
	Warp		

Sandthrough Occurrence



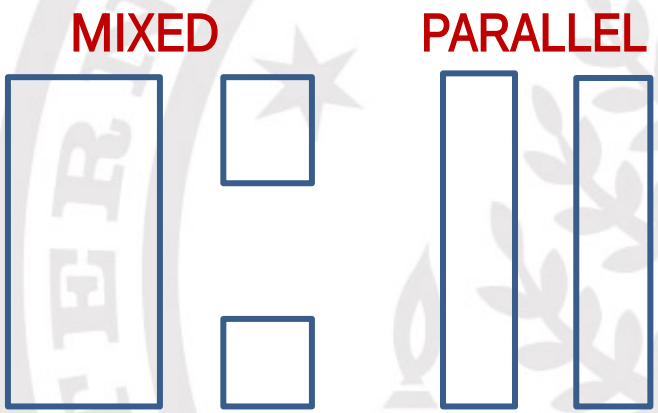


Root Cause Analysis

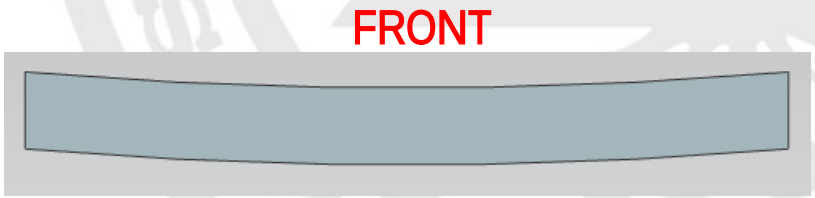


Root Causes

- Many were quickly eliminated
- Two main causes contributed synergistically
  1. Loading Patterns:



  2. Warp:



Veneer Project Wrap Up

- Eliminating the problematic patterns could reduce STs by 50%
  - ProModel simulated results
- Warp impact harder to quantify
- Recommendations have not yet been implemented

Quality is **Green**

- For Steelcase….Reducing STs = Reduced scrap
  - Scrap= Unnecessary energy and material usage
- The same methodology, tools, and skills can be applied to sustainability issues
  - Why is this defect occurring?
  - Why are we using so much water/energy in this process?
- Continuous Improvement should include sustainability