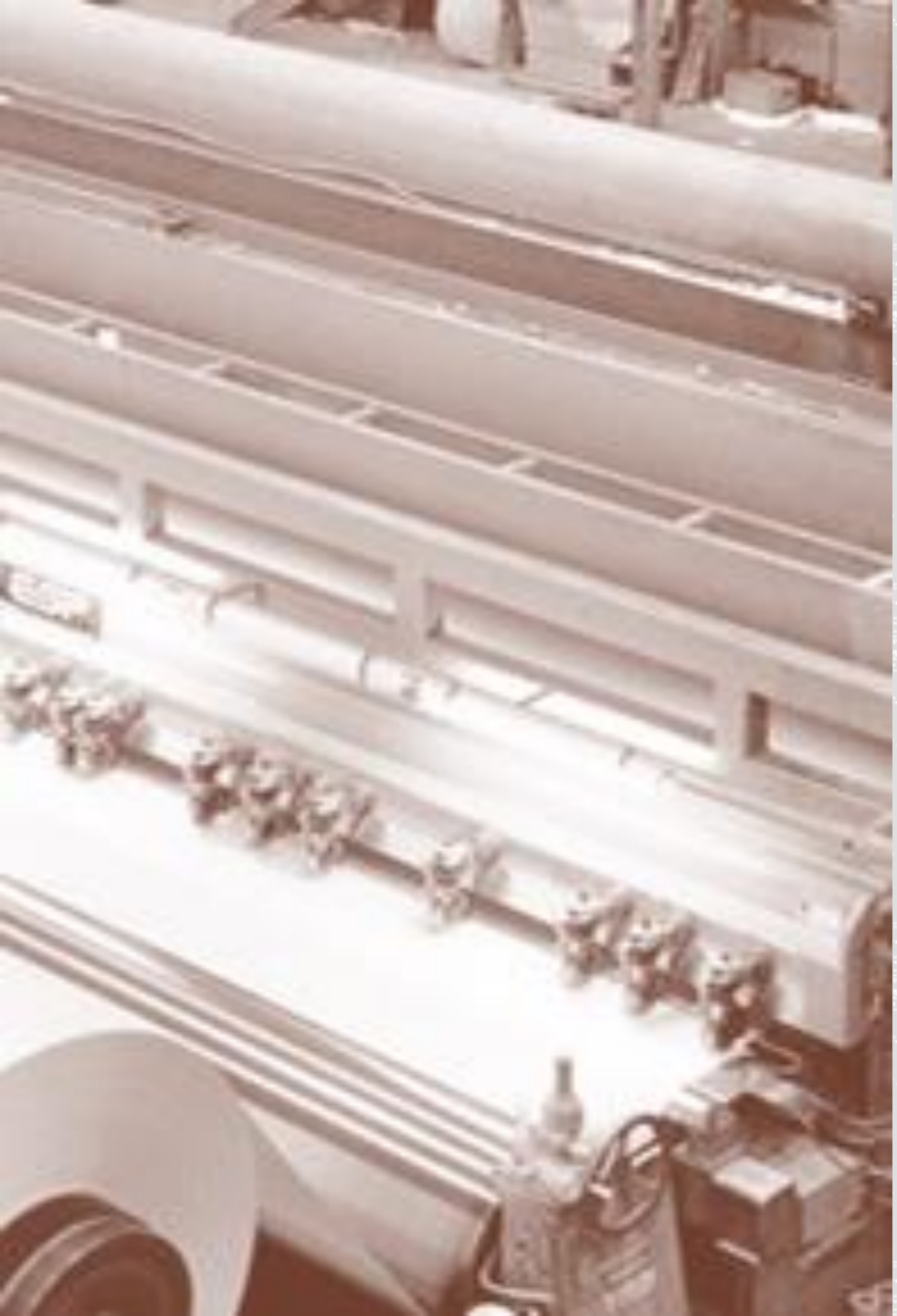
SLITTER HANDLING JIG

2017 PPSA Innovator Award WestRock Chattanooga Mill Presentation

Presented By: Allan Sanders and John Barlew



- Slitters, also known as knifeholders, operate in nearly all paper converting and mill locations
- Periodically, blades must be replaced, handled, and transported for maintenance exposing workers to laceration and serious injury
- Our site experienced such injury in February of 2017

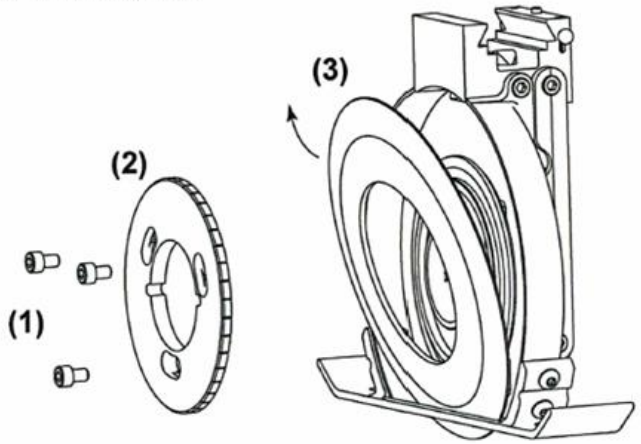
INNOVATION THROUGH COLLABORATION

- Production, management, maintenance, and reliability all provide valuable experience and knowledge.

MANUFACTURER PROCEDURE

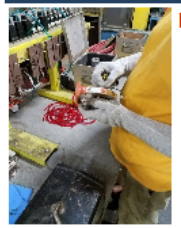
WARNING!
Hand hazard.
Blades are sharp.
Avoid injury—wear stainless steel protective gloves when handling blades.

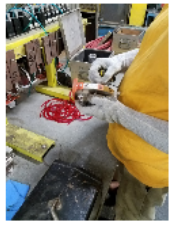
1. Remove cartridge from knifeholder before beginning disassembly (p. 18). It is not necessary to remove the blade guard or the blade guard attachment
2. With 4 mm hex wrench, loosen the three blade clamp screws **(1)**. Rotate the blade clamp **(2)** counter-clockwise to remove it from the blade hub.
3. Remove the knife blade **(3)**.
4. Install new or sharpened blade and reassemble the cartridge.
5. Tighten the blade clamp screws to 45 in·lbs (5.10 Nm).
6. Reinstall the cartridge, making sure that the blade cartridge arrow points in the same direction as the cant key label arrow (p. 17).



SITE JOB HAZARD ANALYSIS

Engage Brake and Rotate Blade to Secure Blade in Locked Position	Hazard Rating 5		
	**Potential Hazards**	**Existing Controls**	**Hazard IDs**
	1 Exposure to sharp or rough surfaces.	Housekeeping: Ensure the work area is free of tools and objects that may pose a slip, trip, fall hazard Hand : Gloves - Cut/Puncture Resistant	

Break Torqued Bolts Loose	Hazard Rating 5		
	**Potential Hazards**	**Existing Controls**	**Hazard IDs**
	1 Exposure to sharp or rough surfaces. 2 Exposure to force using hand tools	Housekeeping: Ensure the work area is free of tools and objects that may pose a slip, trip, fall hazard Hand : Gloves - Cut/Puncture Resistant	

Fully Loosen Bolts	Hazard Rating 5		
	**Potential Hazards**	**Existing Controls**	**Hazard IDs**
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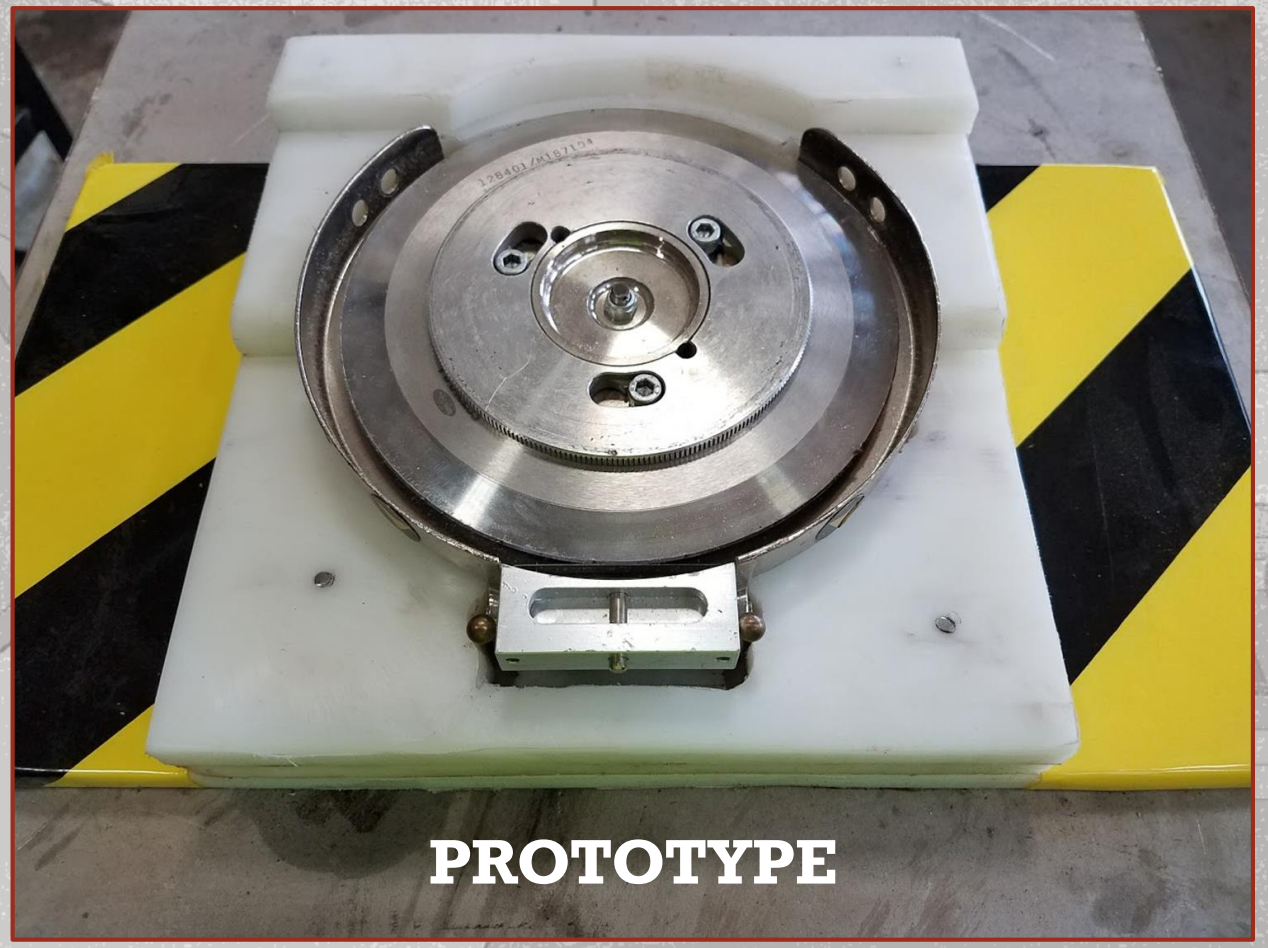
Employee Involvement

POSTURE AND HAND POSITION

- Employee holds the knifeholder while loosening the blade clamp exposing him/herself to laceration and dropping the unit
- Engage the brake to prevent blade spin

CAPA: ENGINEERED SOLUTION

- Eliminate the laceration potential with a molded jig securely holding the knifeholder
- Jig must:
  - Be compatible with all knifeholder types
  - Engage the braking button
  - Protect the sharp edge
  - Secure the knifeholder from dropping/movement
  - Be ergonomic in design



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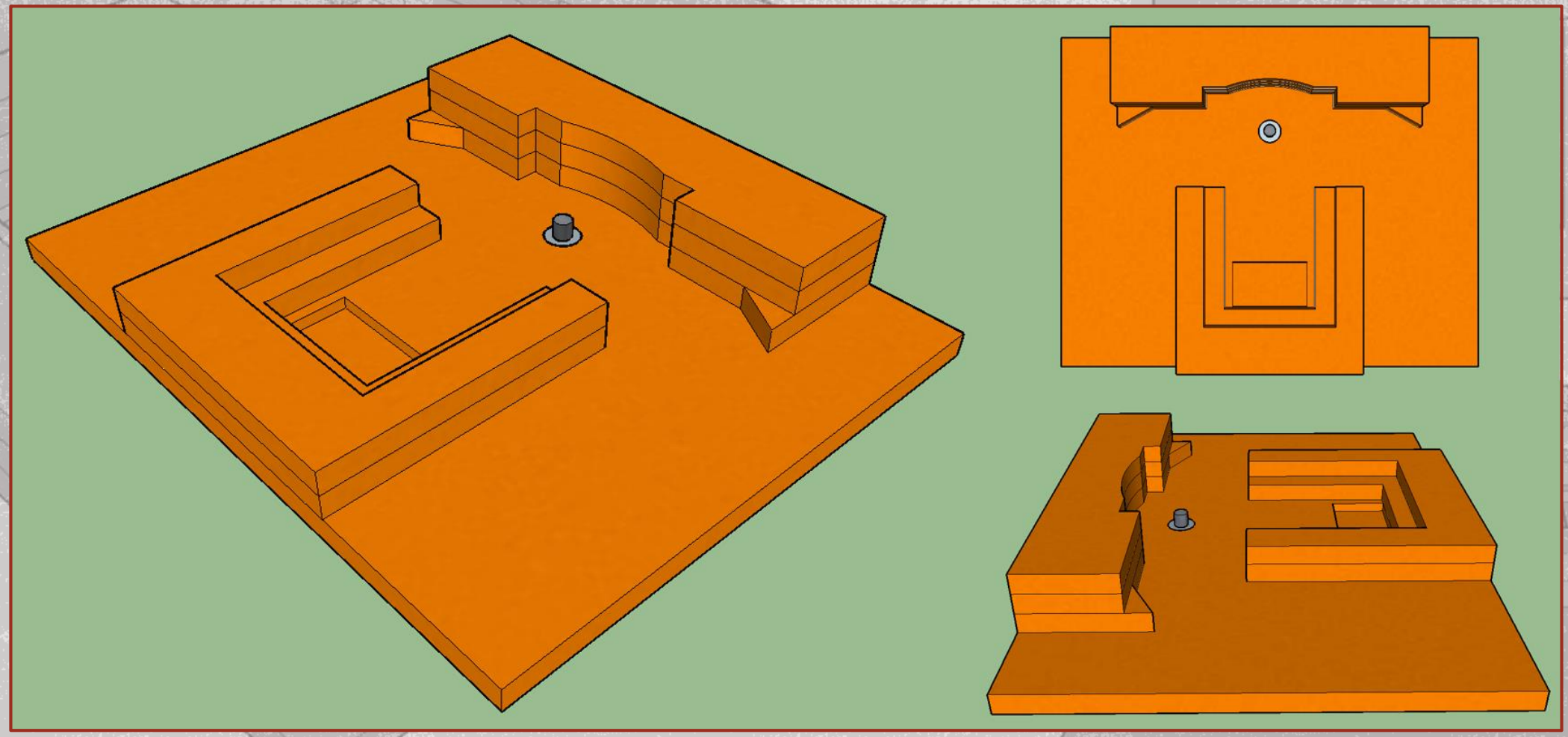


Ease of Replication

SLITTER HANDLING JIG

Key Features:

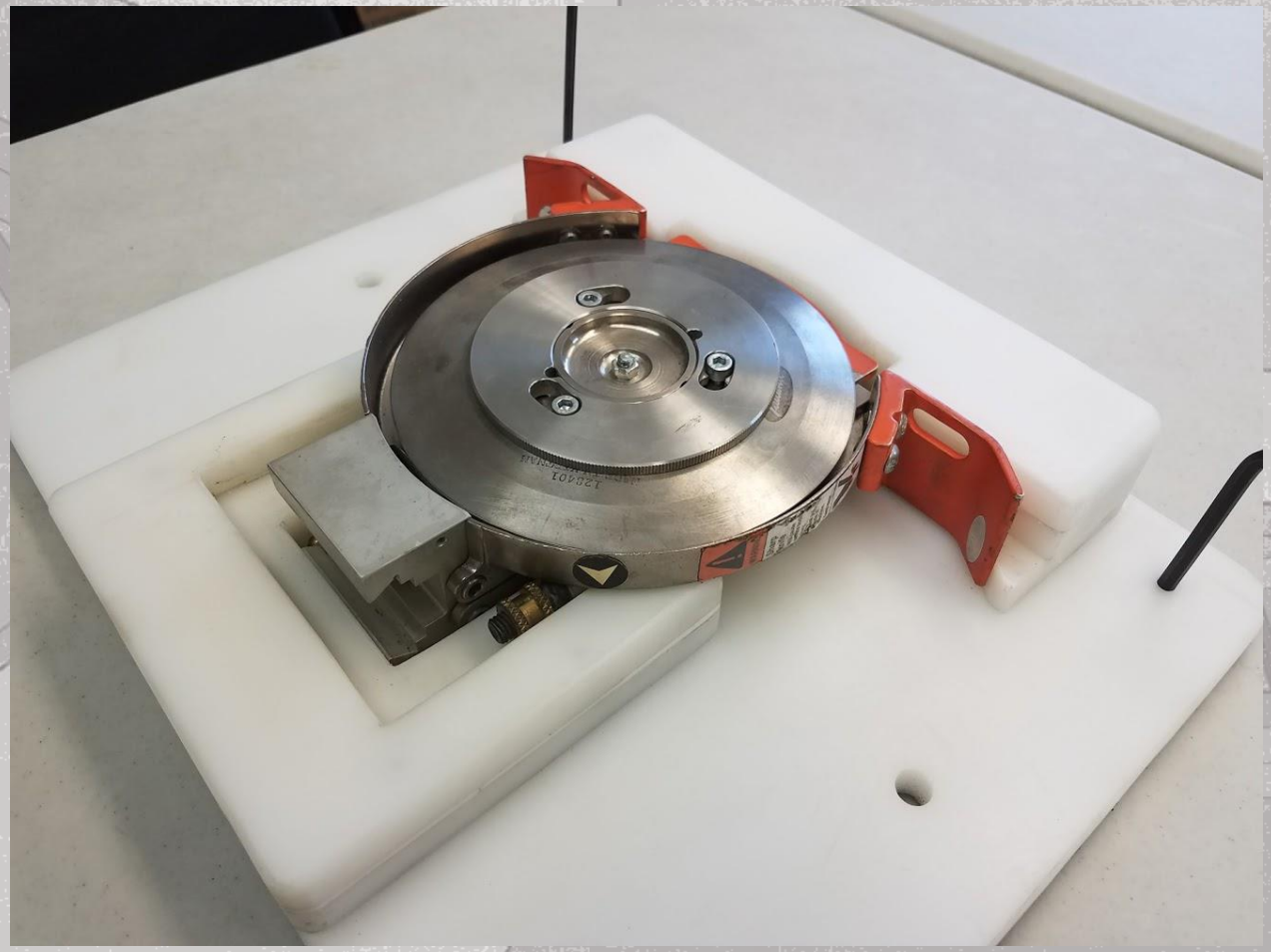
- Protected knife edge
- Secures Tidland Maxcess class 2 and 3 knifeholders
- Scalable to class 1 knifeholders
- Mounts to horizontal surfaces
- Non-slip backing
- 5S tool storage
- Mobile

SLITTER HANDLING JIG

BILL OF MATERIALS

- 1 – ½ ” x 12” x 24” HDPE Sheet - $27.72
- 1 - 12”x24” 8 mil rubber pad - $4.15
- 1 – ½ ” x 2” threaded stock - $0.30
- Hardware for mounting - $0.45

TOTAL COST: $32.62



THE RESULTS

AN EASY, COST EFFICIENT, SAFE ENGINEERED SOLUTION MITIGATING KNIFEHOLDER BLADE CHANGE LACERATION RISK

AN EMPOWERED INCIDENT INVESTIGATION TEAM

ENHANCED PRIDE AND CULTURE