

ENGINEERING





Spares Support

Spares Management

The Academy Training

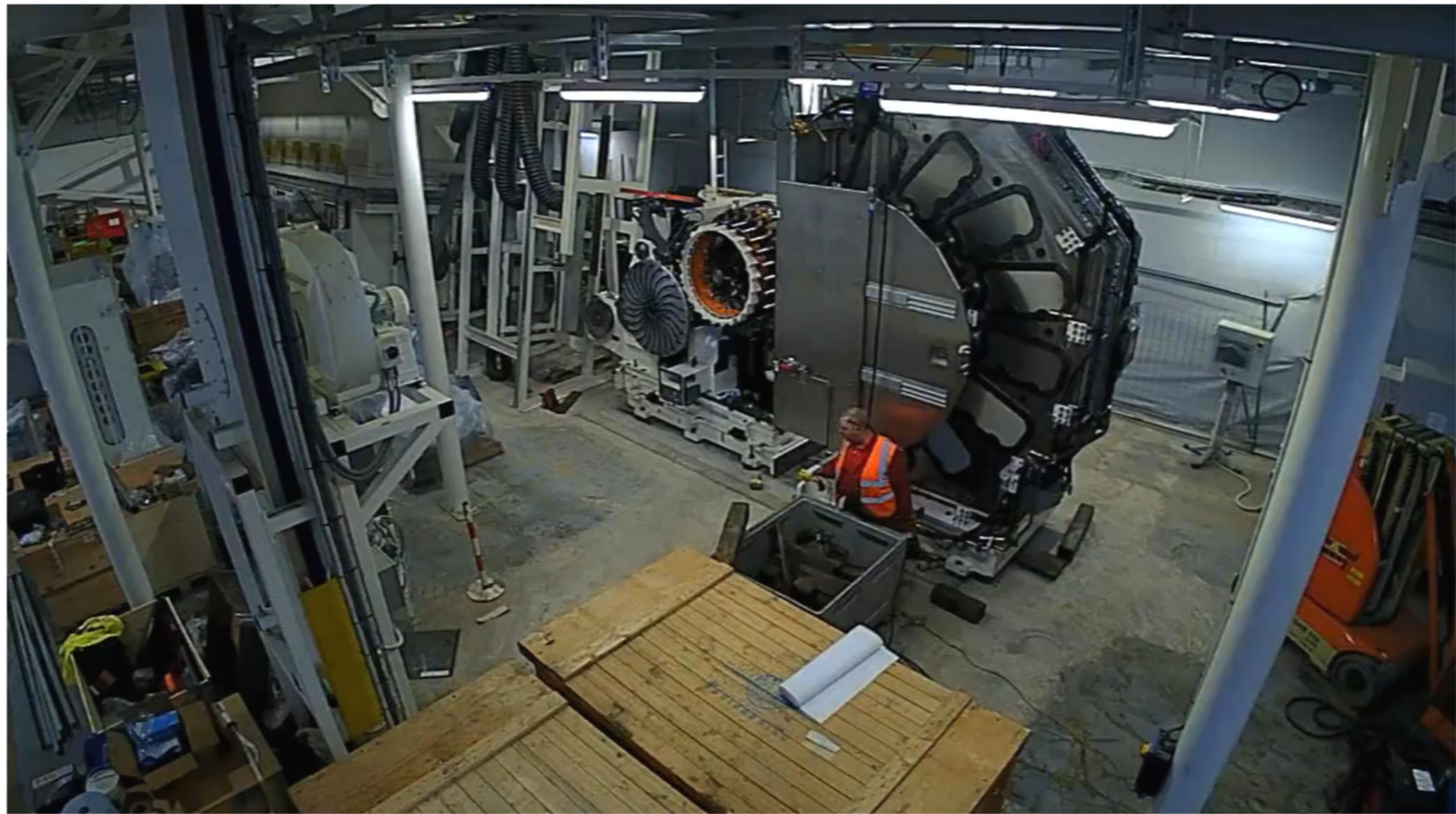
Service Engineers

Machinery & Equipment

Seamer Tooling







# Performance Qualification – Operation Status

Pin Chain Transfer	
Sleek	2000
Slim	1500

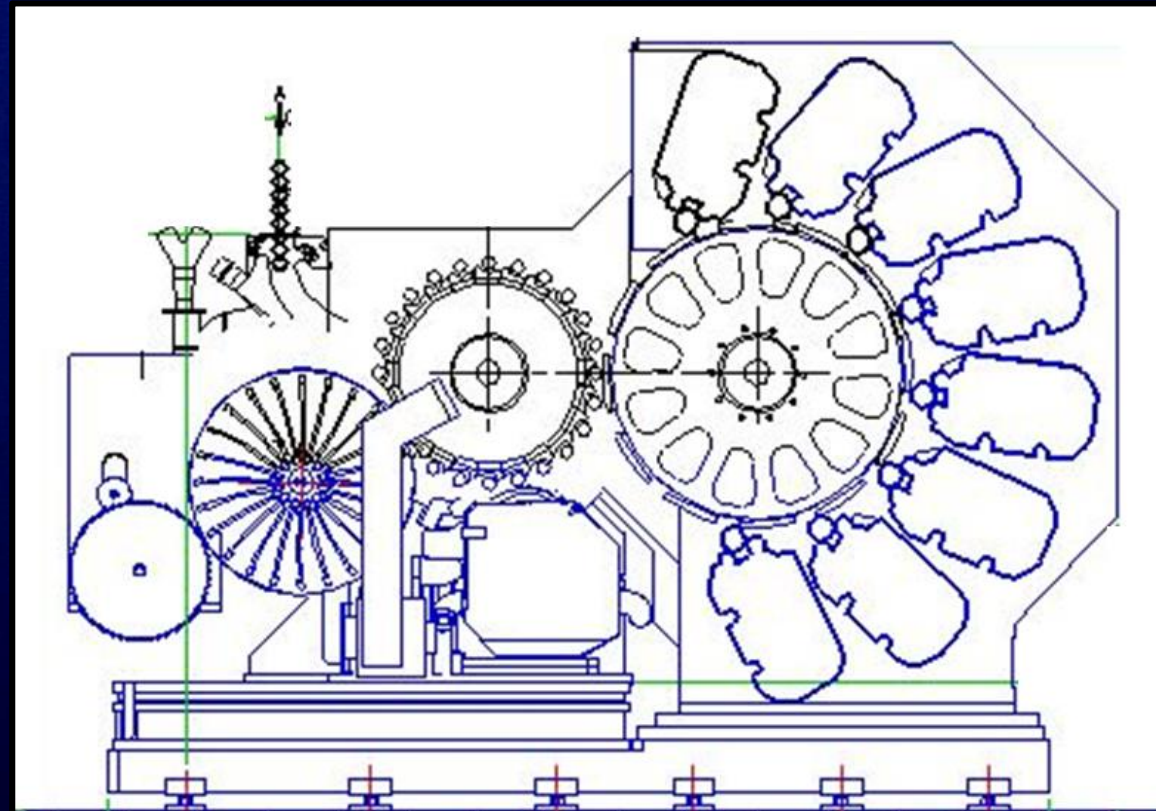
Can Loading	
Sleek	2000
Slim	1500

Bad Can Blow-off	
Sleek	2000
Slim	1500

Print Trip & Reset	
Sleek	2000
Slim	1500

Can Transfer	
Sleek	2000
Slim	1500

Plate Cylinders	
1	Registered
2	Registered
3	Registered
4	Registered
5	Registered
6	Registered
7	Registered
8	Registered



Inkers	
1	2000
2	2000
3	2000
4	2000
5	2000
6	2000
7	2000
8	2000



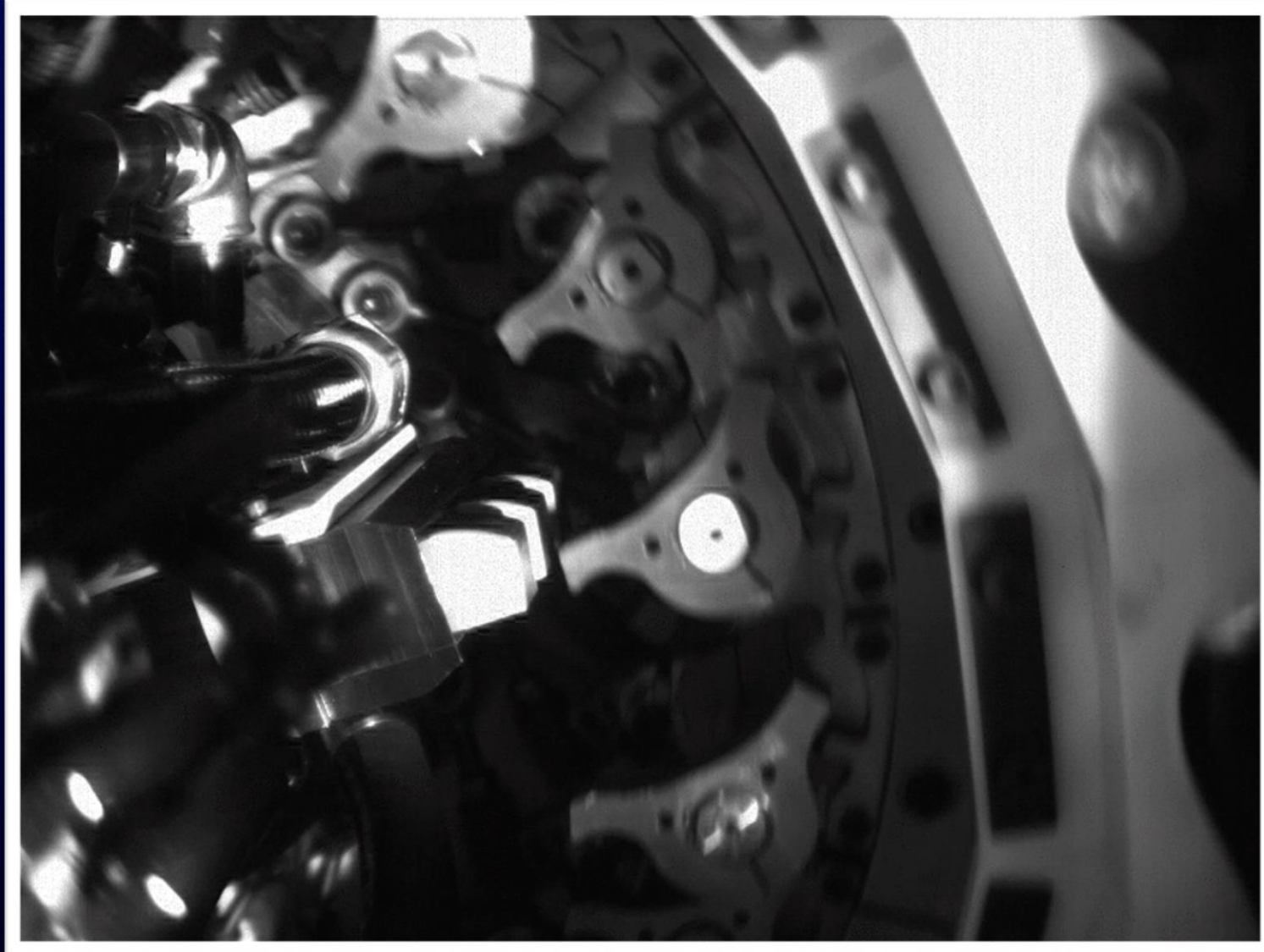
# Can Handling Performance Verification

- Verified - Decorator rejects incorrectly loaded can (bad can) at 2000cpm.
- Prevents bad can damaging blankets and OV applicator rollers, and so reduces machine downtime.



# Can Handling Performance Verification

Verified print trip performance at 2000cpm



# Performance Qualification – Print Details

Can Size	Artwork	Colours	Plates	Print Qualification			OV Qualification					
				Max print speed	Attributes & Defects	Barcode	OV Type	OV Weight	OV Distribution	OV Coverage (Top to Bottom)	Ink Cure [M.E.K]	
Sleek	ORANGINA REG	5	7	1700	PASS	PASS	CLEAR	PASS	PASS	PASS	PASS	PASS



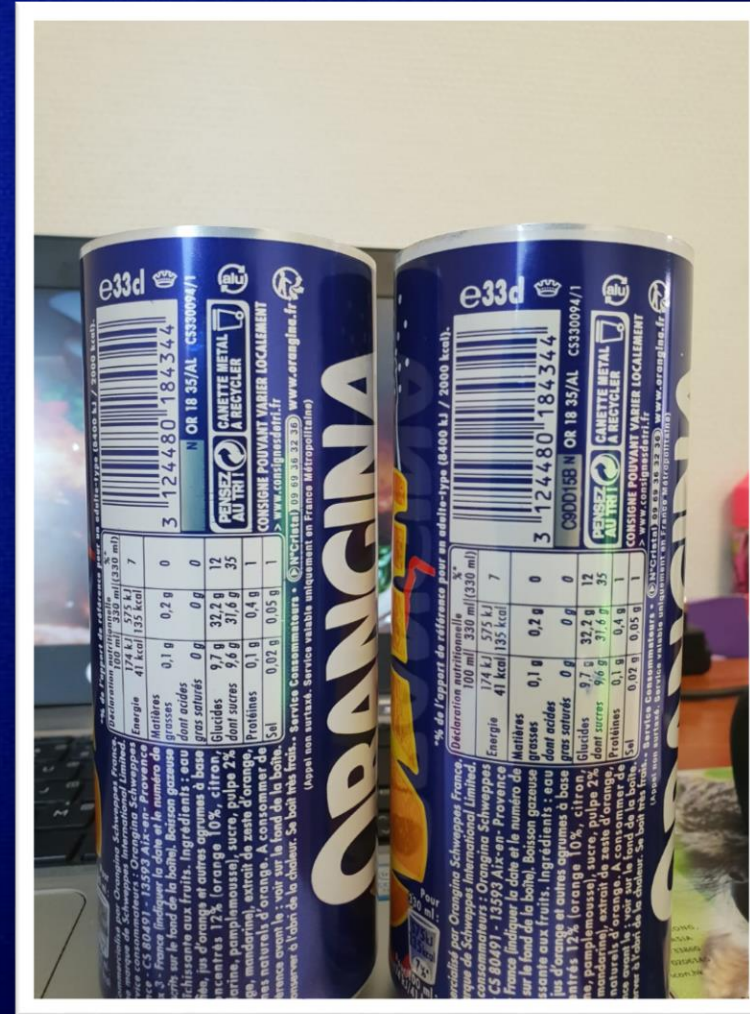
Print quality documentation and formal plant sign-off complete.



# CMB Decorated Can V's Plant Decorated Can



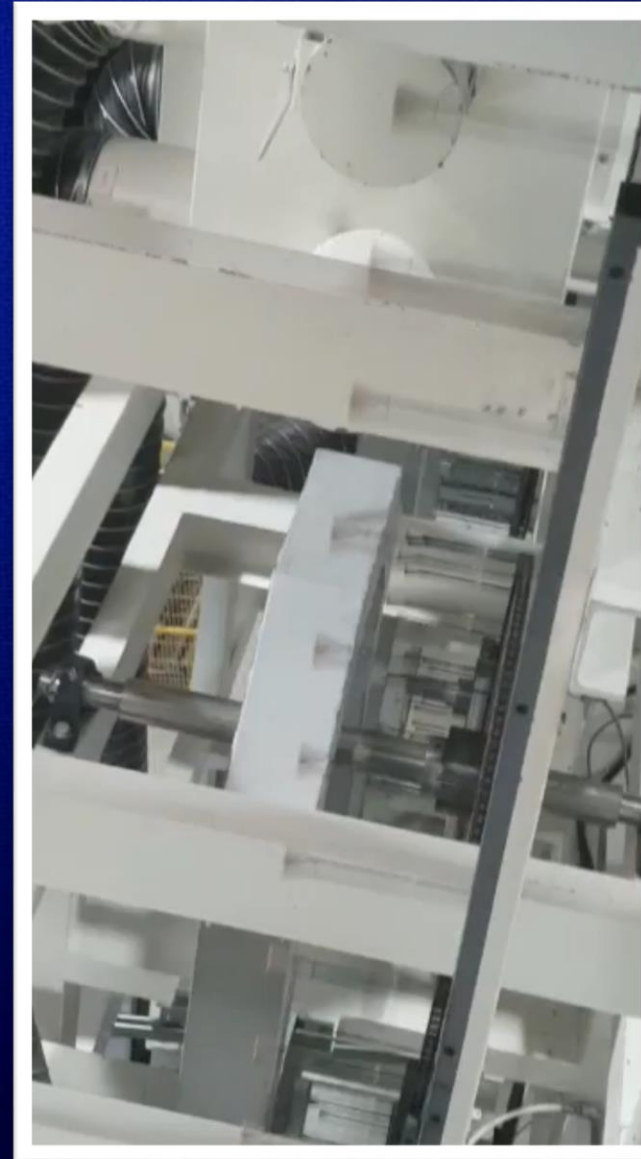
CMB - PLANT



CMB - PLANT



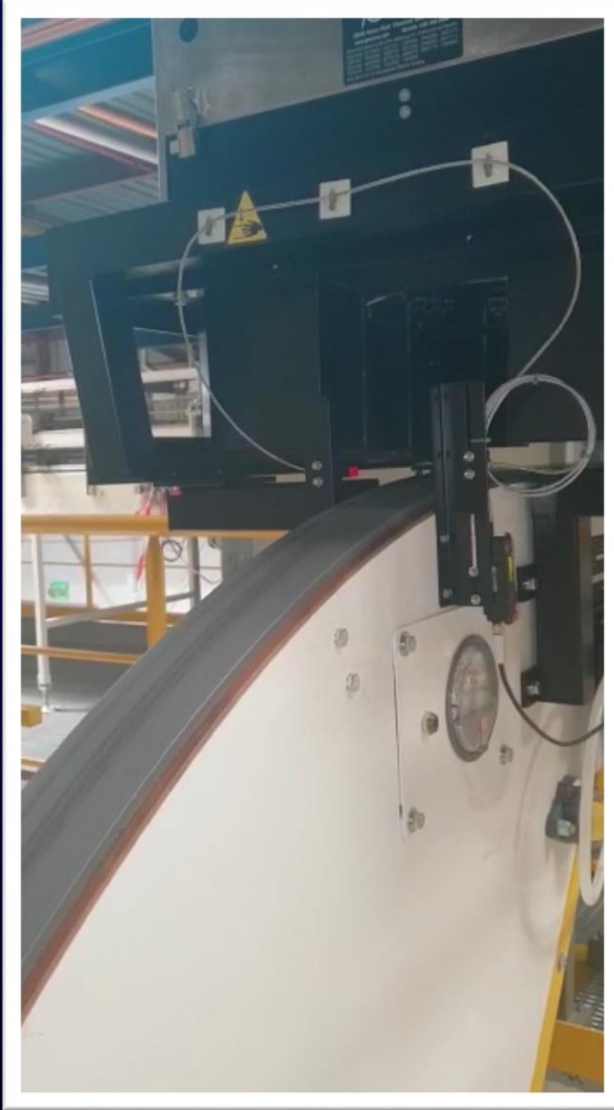
# Cans passing through CMB Decorator



# Checking and Correcting Registration



# CMB decorated cans passing through production line.

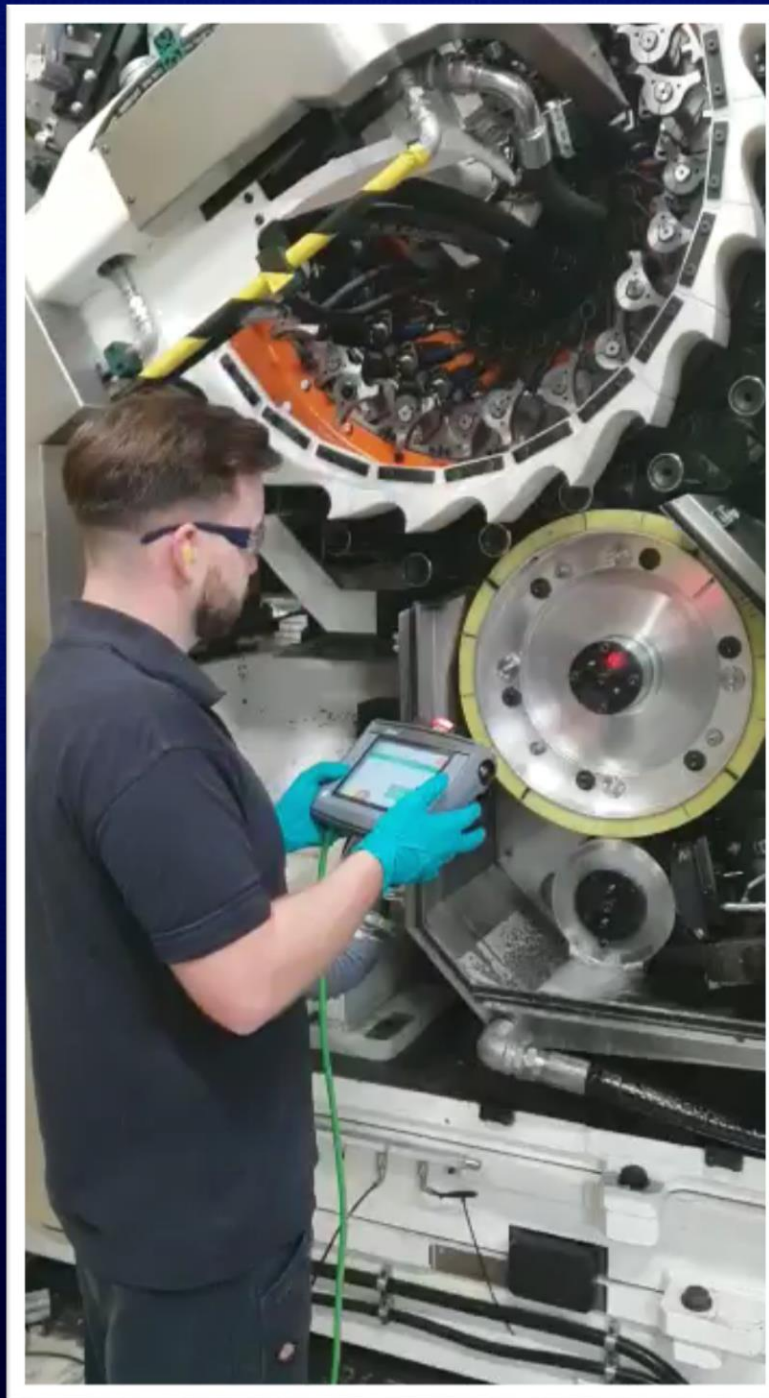


# Safety Improvements

- Installed 'safe speed' capability on the CMB decorator to significantly improve operator safety.
- Operator connects a portable HMI to a control port local to the area of the machine to be accessed
  - One control port at spindle disc, to support can size change over (mandrels) and blanket changes.
- One control port at inkers to support, inker forme roller setting and future system options (i.e. inker auto-wash)
- System allows controlled access to the required area of the machine (i.e. guard open for the given operation) whilst also allowing individual sections of the machine to be driven (at a controlled safe speed).
- This reduces need for manual interaction, over-reaching, strain risks, and the need to work at heights for certain operator activities.
- Further development of the system will allow the spindle disc or blanket drum to be jogged to defined positions to aid quick mandrel and/or blanket changes.
  - Feature only possible by exploiting the benefit of individual servo drives on the CMB deco.



**Video shows the spindle disc rotating at safe speed, and initially at super slow speed. This will be further developed to support operators when using a 'clock' to measure mandrel position (print circle).**

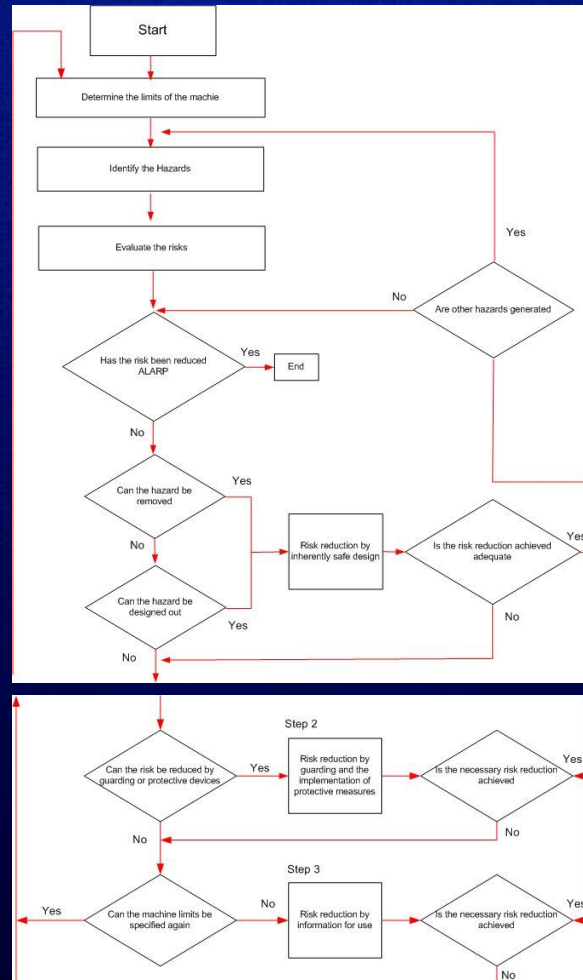


**The system will run super slow as mandrel passes the clock to aid good measurement, but then automatically increases speed between mandrel positions to reduce time.**



# Risk Assessments carried out on the machine Part of CE marking

## New guarding and new processes for various operations, for example servo registration





world skills



# What happens during the World Skills competition



1

Competitors receive a test project



2

Competitors execute a test project and deliver their completed work by a stated deadline



3

A group of experts assess competitors test projects in accordance with WSI standards



4

Results are calculated via an information system and a list of winners is generated



5

Winners are awarded during a closing ceremony

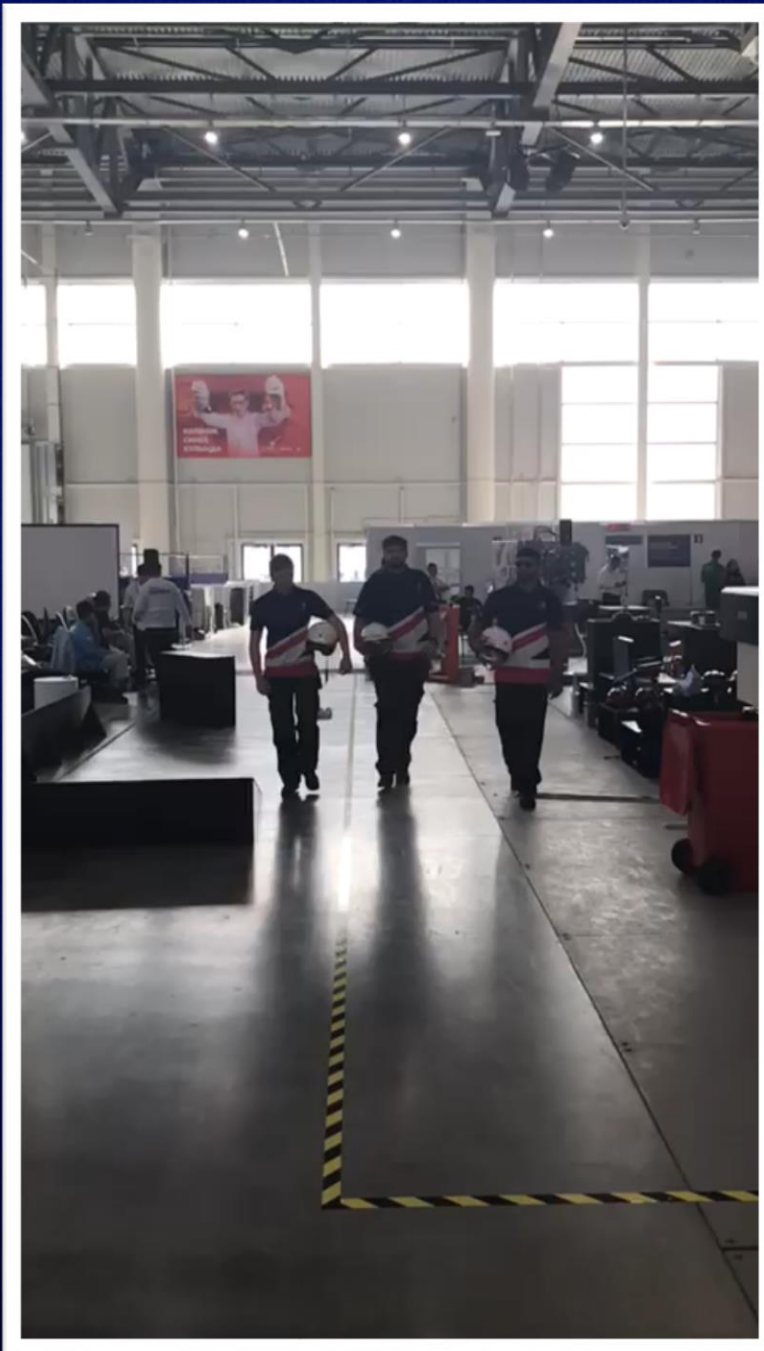


# Manufacturing Team Challenge



- Apprentices gain additional work & life skills
- The chance for apprentices to compete against other world class engineers
  - A chance to showcase the CMB Training Programme
- The event is broadcast live on sky TV worldwide and well promoted online via Website & Social Media.
  - Excellent exposure and PR for the company.





# 2019 World Skills Team

