Learning Nugget LN-005

Understanding AMANN UK Site: Cell-Based Structure and Value Stream

Information
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Purpose of This Learning Nugget

This Learning Nugget provides a concise, professional overview of the AMANN UK production site, focusing on the cell-based layout and the end-to-end value stream — from Twisting to Final Winding. It equips every team member with a clear understanding of how workflows, how quality is secured, and how each role contributes to efficiency and sustainable job security.

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Why It Matters

- ✓ A clear understanding of AMANN UK's production logic enables employees to:
- ✓ See how value is created and flows across departments
- ✓ Understand how each department depends on the next
- ✓ Recognize the importance of teamwork, precision, and continuous improvement
- ✓ Take ownership and contribute confidently to operational excellence

Site Context (Location & Mission)

AMANN Group UK operates a long-standing sewing-thread production site in **Ashton-under-Lyne, Greater Manchester (UK)**. The site's mission is to deliver reliable, application-ready industrial threads by combining robust upstream preparation (twisting) with precise coloration (dyeing), performance finishing (bonding/polishing), and customer-ready presentation (final winding and packing).

Cell Production at AMANN UK – What It Is and Why We Use It

Cell production groups related tasks into dedicated work units (cells), each with its own team, equipment, and in-cell quality control.
At AMANN UK, the main operations are organised as focused cells — **Twisting, Dyeing, Bonding/Finishing, and Final Winding** — to ensure:

- Clearly defined work zones for each step
- Teams accountable for output, safety, and quality
- Faster detection and correction of issues via local KPIs and standard work
- Smooth, efficient handovers that reduce waiting times and WIP

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Benefits of the Cell Structure

- ✓ Transparency across the value stream
- ✓ Better traceability of issues and delays
- ✓ Strong team ownership and engagement
- ✓ Flexible resource management
- ✓ Solid foundation for lean and continuous improvement

Each cell acts like a **mini business unit** within the wider system — directly contributing to customer satisfaction and delivery reliability.

Value Stream: From Raw Material to Customer Delivery

1. **Raw Yarn Receipt & Incoming Control** – Raw yarns arrive and are checked for yarn count, tensile/elongation, and shade readiness. Identification and batch data are created for traceability.
2. **Twisting (Construction & Strength)** – Single ends are twisted and/or plied to achieve the required ticket/tex, construction, and mechanical properties (strength, elongation) for the application. This establishes the core seam performance.
3. **Dyeing (Colour Matching & Fastness)** – Twisted yarns are dyed to customer specifications (lab dips → approved bulk recipes), followed by controlled rinsing and drying to ensure shade consistency and fastness.
4. **Bonding / Polishing (Surface Finishing)** – Threads receive bonding/coating or polishing to optimise sewability and performance (controlled friction, lower lint, improved abrasion/heat resistance). This step tailors the product to AMANN customers' process and end-use demands.
5. **Final Winding (Make-Up & Dispatch)** – Product is wound to the specified presentation (e.g., cones/cops/king spools), labelled, inspected, quality-released, and packed for shipment.

Handover criteria at every step include: correct identification, quantity, visual/mechanical checks, and release status — ensuring stable throughput and quality.

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Department Overview and Cell Mapping

1. Twisting Department

- **Processes:** Prep → Twisting → Dye-Prep & Packing → QC & Release
- **Cells:** Cell 1, Cell 2, Cell 3
- **Focus:** Strength/consistency of thread before dyeing
- **QC:** Final quality gate before Dyeing

2. Dyeing Department

- **Processes:** Prep → Dyeing → Finishing → QC & Release
- **Cells:** Cell-based layout for batch and colour control
- **Focus:** Shade accuracy, repeatability, and fastness
- **QC:** End-of-line checks for colourfastness and quality

3. Bonding Department (2nd Floor)

- **Cells:** Cell 1 (SAHM Room), Cell 2 (MP Room)
- **Processes:** Thread bonding → Polishing
- **Focus:** Technical enhancement of sewability and performance
- **QC:** Integrated checks at each process step

4. Final Winding Department (1st Floor)

- **Cells:** Cell 1 – Cell 4
- **Zones:** Cone Stores, Box Stores, Labelling, Waste Management
- **Processes:** Final winding → Labelling → Inspection → Dispatch
- **QC:** Final assurance before shipment

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Facility Layout Summary

Floor Level	*Department*	*Cells / Zones*	*Key Activities*
Ground Floor	DH Department	Not Cell-Defined	General Ops / Infrastructure
1st Floor	Final Winding	Cells 1–4, Stores, Labelling	Product completion & QC
2nd Floor	Bonding	Cell 1 (SAHM), Cell 2 (MP)	Bonding, polishing, integrated QC
Not Defined	Twisting	Cells 1–3	Thread prep, twisting, dye-pack, QC
Not Defined	Dyeing	Cell-structured	Dyeing, finishing, and end QC

Key Terms at a Glance

Term	*Definition*
Cell Structure	Dedicated team unit focused on specific steps with local control
QC	Quality Control – checkpoints for compliance and quality standards
Final Winding	Last production step – winding, packaging, and customer readiness
SAHM / MP Room	Specialized bonding areas for thread treatment
Prep	Preparatory phase before main processing begins

Learning Outcomes – You've Achieved This If You Can:

- ✓ Describe the AMANN UK production flow
- ✓ Identify what happens on each floor and in each department
- ✓ Explain quality control locations and their importance
- ✓ Recognize how your own role supports the full value stream

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Questions or Feedback?

Contact the Learning Hub: mail to: learninghub@amann.com
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Together, we build quality, ensure efficiency, and secure a strong future.

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