



KONFIWEAR

The Complete Custom Apparel Production Handbook

Design intake, 3D visualization, blank sourcing, decoration, personalization and quality control for custom and decorated apparel businesses.

Executive Summary

The Complete Custom Apparel Production Handbook is a 24-chapter operating system for any business that designs, decorates and delivers personalized apparel – sportswear brands, print shops, team-kit suppliers, uniform distributors and eCommerce apparel sellers. It replaces guesswork with a repeatable control cycle: brief, source, customize, produce, quality-check and improve.

Part I (Chapters 01–12) builds the core system: business models, production-ready briefs, product and decoration selection, catalog architecture, supplier sourcing and verification, professional communication, the digital customization process itself, the software layer that runs it – with a dedicated look at the **Konfiwear platform** – and the materials, costing and feasibility work behind every quote.

Part II (Chapters 13–19) is production control: sampling and proofing, roster and personalization data, labeling and packaging, compliance, contracts and platform agreements, planning and batching, and quality control with AQL sampling for decorated and personalized goods.

Part III (Chapters 20–24) goes decoration- and product-specific: screen print, DTG and DTF; sublimation for team sportswear; embroidery and heat transfer; roster-based bulk-custom team kits; and a closing chapter on common problems, on-demand strategy and continuous improvement.

500+

BRANDS ON KONFIWEAR

40+

COUNTRIES

10M+

DESIGNS CREATED

99.9%

PLATFORM UPTIME

€90

PLANS FROM / MONTH

Every chapter follows the same control discipline: Overview, learning outcomes, a control question, four core principles, a five-step recommended workflow, a decision guide, and a control sheet with a ready-to-proceed checklist and red flags. Twenty-four chapters, seventeen toolkit worksheets, six communication templates and a shared glossary make this handbook usable as a cover-to-cover read or a working reference pulled out chapter by chapter, order by order.

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Important Information: Purpose, Scope and Professional Disclaimer

Read this page before using the handbook as part of a commercial production project.

Educational and operational purpose. This handbook is a practical learning and workflow resource for teams that design, customize, decorate and sell apparel — sportswear brands, print shops, uniform suppliers, distributors and eCommerce operators. It explains common customization and production processes, documents, risks and control methods. It is not legal, customs, tax, engineering, chemical-safety, labor-compliance or product-certification advice.

Requirements change. Laws, standards, tariffs, restricted substances, labeling rules, import procedures and platform requirements can change. Product obligations depend on product type, materials, decoration method, claims, user group and destination market. Confirm current requirements with official authorities and qualified professionals.

Supplier and platform responsibility. A certificate, test report, inspection, factory statement or platform uptime figure is evidence with a defined scope; it is not a universal guarantee. Buyers, brands and platform operators must perform risk-based due diligence and maintain their own approvals, records and post-market processes.

Use this handbook to: – Prepare clearer customization briefs, design files and decoration specifications. – Ask stronger questions before committing money to a blank supplier, decorator or software platform. – Create repeatable proofing, approval and quality-control gates for personalized goods. – Identify where specialist advice, testing or platform support is required. – Document decisions so that on-demand and batch production can be audited and improved.

Commercial use note. Before selling or distributing a customized product, verify current requirements for every market, and confirm the customer holds the rights to any uploaded logo, artwork or sponsor mark. Keep dated evidence that connects the actual bulk product, materials, decoration and production site to the approved design.

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How to Use This Handbook

A practical operating system, not a book to read once.

Use the chapters in sequence for a new custom product line, then return to the relevant control sheets at each production gate.

1. **READ** — Understand the decision, risk and vocabulary before supplier, decorator or platform discussion.
2. **ADAPT** — Translate the guidance into requirements for your product, decoration method and market.
3. **DOCUMENT** — Use the worksheets, matrices and templates to create a controlled record.
4. **VERIFY** — Collect digital proofs, physical samples, measurements, tests, approvals and independent evidence.
5. **IMPROVE** — After delivery, update standards, templates and supplier/platform controls with real results.

Suggested Paths

First Custom Collection — Read Chapters 1–19 in sequence. Complete the customization brief, blank-supplier and decorator screen, design-file standards, costing, digital proofing, production and inspection tools before launching a storefront or bulk order.

Existing Print Shop or Uniform Supplier — Begin with Chapters 6, 7, 9 and 19. Review verification, communication, your software stack and quality data, then strengthen the weakest control.

Platform-First Brand (Konfiwear Users) — Begin with Chapter 9 to align your customizer, catalog and integrations, then use Chapters 2, 8 and 13 to connect the customer-facing design experience to production reality.

Decoration Specialist — Jump to the relevant decoration chapter (20–23), then cross-reference materials, compliance, QC, contracts and personalization data control.

Document rule: Whenever a decision changes the product, decoration, cost, timing or acceptance standard, update the controlled source document — not only the message thread or chat with the customer.

End-to-End Roadmap: The Custom Apparel Control Cycle

The Custom Apparel Control Cycle

Each gate requires defined evidence and approval before the next stage takes on cost or risk

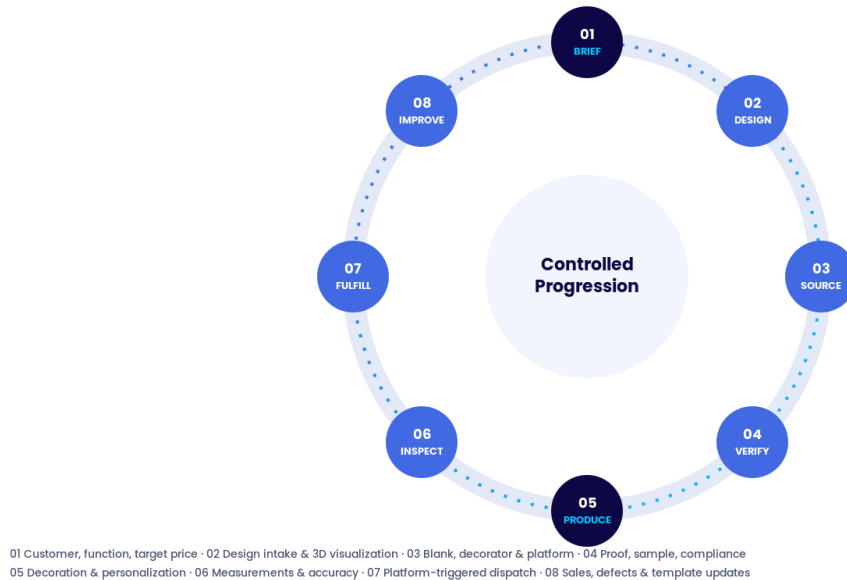


Figure 1 – The Custom Apparel Control Cycle: eight gates from brief to improvement.

Each gate requires defined evidence and written or platform-logged approval before the next stage takes on additional cost or risk.

1. **BRIEF** — Customer, function, target price, quantity, decoration method and market.
2. **DESIGN** — Digital intake, 3D visualization, artwork, color and personalization data.
3. **SOURCE** — Qualified blank supplier, decoration partner, software platform and commercial model.
4. **VERIFY** — Digital proof, physical pre-production sample, tests, cost and compliance evidence.
5. **PRODUCE** — Capacity, blanks, decoration line control and change management.
6. **INSPECT** — Measurements, decoration accuracy, personalization accuracy, function and packing.
7. **FULFILL** — Documents, platform-triggered dispatch, transport, customs, receipt and reconciliation.
8. **IMPROVE** — Sales, defects, platform data, supplier score and updated templates.

The rule of controlled progression: Do not move uncertainty downstream. If a critical blank, decoration method, personalization field, cost, label or delivery assumption is unresolved, either close it or document the controlled risk, owner and decision deadline.

Production Principles: Ten Rules That Prevent Expensive Mistakes

These rules apply across blanks, decoration methods, software platforms, personalization data and markets.

1. **Never quote an undefined customization.** A low price for an unclear design, decoration method or personalization scope is not a reliable price.
2. **Approve proofs, not promises.** Use digital proofs, physical samples, data, tests, inspections and dated records.
3. **One current design file only.** Retire obsolete artwork, color specs, roster files and platform templates.
4. **Match decoration method to fabric, design and quantity.** Blank and decorator capability must reflect the customization requested.
5. **Resolve personalization risk before batch.** A wrong name, number or roster field in one proof becomes a repeated defect in bulk.
6. **Use physical and digital color standards together.** Screen color, Pantone swatches and on-garment result are three different things.
7. **No silent substitutions.** Blanks, inks, threads, transfer films, processes and platform templates change only with written approval.
8. **Quality is defined before the order is placed.** Inspectors and platforms cannot enforce an unstated expectation.
9. **Plan cash, software costs and critical path together.** Subscription tiers, MOQ, decoration setup fees and freight create timing pressure.
10. **Every order and every platform release must improve the system.** Update documents, templates and supplier/software controls with real production data.

Use these as approval questions: Before each gate, ask which rule is at risk and what evidence would close the gap.



Figure 0 — The ten rules, at a glance.

PART ONE

Core System

Chapters 01–12

From understanding custom apparel business models through the customization process, the Konfiwear platform, sourcing and costing.



Chapter 01 — Understanding Custom Apparel and Personalization Business Models



Choose the operating model before choosing the supplier or the software.

Custom apparel production is not one service. It is a chain of decisions involving design intake, visualization, blank sourcing, decoration, personalization, quality control, logistics, software and commercial control. The first task is to decide which responsibilities your team can manage directly and which should be delegated to a decorator, a supplier or a customization platform. A technically capable decorator can still be a poor partner if its business model, machinery, order size, communication style or quality level does not match your product — and a capable platform can still be the wrong fit if it does not match your catalog, order volume or eCommerce stack.

Learning Outcomes

1. Distinguish blank suppliers, in-house decorators, outsourced decorators, sourcing agents and customization-software platforms.
2. Select an operating model that matches your skills, budget, order size and decoration method.
3. Map the complete flow from customer design intake to delivery.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Blank supplier, decorator and platform are three different roles.** A blank supplier manufactures or distributes undecorated garments. A decorator applies print, embroidery or transfer to a blank. A customization platform sits above both, letting a customer design in real time and routing the approved design into a production-ready

file. Ask who physically performs every critical operation and who is contractually responsible for the finished, personalized product.

2. **In-house versus outsourced decoration.** In-house decoration gives direct control over turnaround, proofing and quality, but requires machinery, staff and floor space. Outsourced decoration reduces capital investment but reduces direct visibility unless responsibilities, file formats and quality standards are documented.
3. **Print-on-demand, team stores, private label and wholesale custom are used inconsistently.** Print-on-demand typically means single-unit, order-triggered production with no inventory. A team store is a time-limited, roster-linked storefront for a group, club or event. Private-label custom starts from an existing blank and branding. Wholesale custom serves distributors who resell to their own customers. Define the actual order pattern rather than relying on the label.
4. **Specialization matters, for decorators and for software.** A decorator optimized for screen print on cotton tees is not automatically suitable for all-over sublimation on performance jerseys or 3D puff embroidery on caps. A software platform optimized for single-product customization is not automatically suitable for full team-kit configuration with rosters, sponsor placements and multi-tier pricing. Match the product and order pattern to proven daily capability.

Recommended Workflow

1. **Define ownership** — List who owns design intake, artwork approval, personalization data, blank sourcing, decoration, quality, platform administration, fulfillment and customer support.
2. **Choose the model** — Select in-house decoration, outsourced decoration, agent-supported sourcing or a customization-platform-led model according to your gaps.
3. **Map dependencies** — Identify what must be approved before the next stage can start, especially artwork, color, personalization fields and blank availability.
4. **Create control gates** — Set written or platform-logged approval gates for quotation, digital proof, physical sample, materials, pre-production and shipment.
5. **Document the system** — Keep one shared production record — ideally inside your customization platform and order-management tool — with versions, dates, decisions and responsible people.

Decision Guide

Area	Option	Best use	Main control
Operating model	In-house decoration	Maximum control over turnaround and quality	Requires machinery, staff and quality-system investment

Area	Option	Best use	Main control
Operating model	Outsourced decorator network	Access to specialist methods without capital investment	Verify transparency, capacity and subcontracting
Operating model	Sourcing agent	Local support, blank access and follow-up	Define fees, conflicts of interest and authority
Operating model	Platform-led customization (e.g. Konfiwear)	Customer-facing design experience with production-ready output	Confirm integration scope, template control and data ownership

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Product category, decoration method and personalization scope are defined.
- Responsibilities are assigned for every stage from design intake to delivery.
- The decorator's real specialization matches the product and method.
- Subcontracted processes are disclosed.
- Communication, approval and escalation channels are named.
- Quality expectations for decoration and personalization are measurable.
- Commercial terms match the operating model and software plan.
- A production record will be maintained from day one.

Red Flags

- The contact cannot explain where decoration actually happens.
- The decorator claims to handle every method equally well with no comparable examples.
- Key processes are outsourced without disclosure.
- Responsibilities are described only as "all included."
- No one can identify who approves design changes or resolves personalization errors.

Do not ignore a pattern because the current sample or proof looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Custom apparel becomes manageable when every responsibility, dependency and approval — including inside your software stack — is visible.

Chapter 02 — Building a Production-Ready Customization Brief



Turn an attractive idea into a manufacturable, personalizable commercial target.

A decorator or platform cannot quote or configure accurately from mood boards alone. A useful customization brief explains the customer, function, target price, aesthetic, decoration method, personalization fields, fit, construction level, compliance market and launch timing. It should be specific enough to guide decisions without pretending that unresolved details are final. The brief becomes the commercial compass for the design-file standard, blank selection, decorator or platform selection and pricing.

Learning Outcomes

1. Create a brief that designers, decorators, developers and platforms interpret consistently.
2. Set a target retail and landed-cost range — including per-unit customization cost — before development expands.
3. Separate fixed requirements from preferences and open questions, including which fields are customer-editable.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Start with the use case and the customizer experience.** Describe where, how often and by whom the product will be used, and what the customer should be able to change themselves — color, logo placement, name and number, sponsor panel — versus what is fixed. A fan-gear hoodie, a team jersey and a corporate uniform have very different personalization needs even when the base garment is similar.

2. **Define value architecture.** Identify which customization options create customer value and which merely add cost and configuration complexity. Protect signature fabric, fit, color range or personalization capability while simplifying hidden or low-impact options. Development improves when trade-offs are intentional.
3. **Set measurable targets.** Replace vague words such as premium, heavy or fully customizable with testable specifications: target GSM, fit ease, decoration durability, Pantone range, personalization character limits and turnaround time. Where a target is not yet known, label it as a development question.
4. **Plan the commercial boundary.** Estimate target retail price, wholesale needs, margin, landed cost, per-unit decoration cost, software subscription cost and acceptable MOQ (if any). A beautifully configurable product that cannot meet its commercial boundary is not production-ready.

Recommended Workflow

1. **Write the product sentence** — Summarize the item, customer, use, decoration method and differentiating customization feature in one sentence.
2. **Prioritize requirements** — Mark every requirement, including every customizer option, as critical, preferred or optional.
3. **Set target ranges** — Record cost, delivery, quantity, size range, color range, personalization fields and turnaround targets.
4. **Identify unknowns** — List decisions that need decorator input, platform testing or prototyping.
5. **Approve the brief** — Freeze the current brief before technical development or customizer configuration begins.

Decision Guide

Area	Option	Best use	Main control
Requirement level	Critical	Failure makes the product unsafe, unusable or off-brand	Do not trade without formal approval
Requirement level	Preferred	Creates meaningful value but has alternatives	Compare cost and production risk
Requirement level	Optional	Enhances the concept but is not essential	Remove first if cost, timing or configuration complexity rises
Brief maturity	Open development	Some targets remain unresolved	Use controlled experiments and dated decisions

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Clear customer and use case, including who configures the design.
- Target retail, margin, landed cost and per-unit decoration cost range.
- Expected order quantity and color/size/personalization split.
- Launch date and required delivery window.
- Fit, function and decoration-durability expectations.
- Critical aesthetic details, brand colors and reference standards.
- Target markets and likely compliance needs.
- Known risks, unknowns and decision owners.

Red Flags

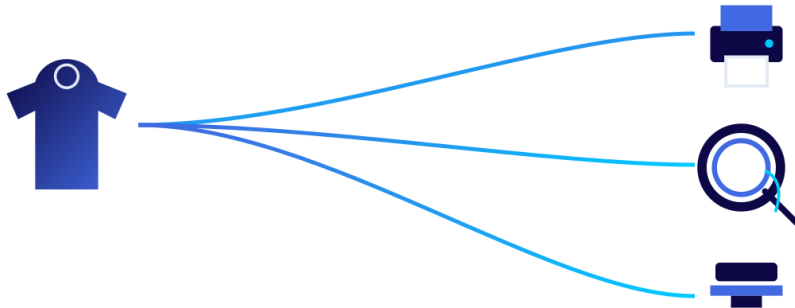
- The brief contains only images and adjectives, with no decoration method specified.
- Target price is decided after the first customer order.
- Every customizer option is treated as non-negotiable.
- Launch timing ignores proofing, decoration and platform-configuration lead times.
- References are copied without defining what should be learned from them.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

A strong customization brief prevents the team from configuring the wrong product.

Chapter 03 — Choosing Products, Decoration Methods and Complexity by Risk



Match ambition to current production and platform capability.

Different products and decoration methods create very different development and quality risks. Complexity comes from construction, fit sensitivity, material behavior, decoration method, personalization variability, component count, tooling, performance claims, testing and specialized machinery or software configuration. A first custom collection should not be selected only by visual impact. Use a risk score to decide what can be produced now, what needs specialist support and what should be postponed.

Learning Outcomes

1. Evaluate categories and decoration methods using a consistent risk framework.
2. Understand why simple-looking customizations can still be technically demanding.
3. Build a product ladder that increases customization complexity gradually.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Construction and decoration complexity.** Count panels, seam types, linings, closures, finishing operations, and decoration passes (colors, layers, placements). More operations and more decoration zones create more opportunities for variation and require stronger process control.
2. **Fit sensitivity.** Basic caps and bags may have low body-fit risk, while tailored uniforms, compression jerseys and footwear are highly sensitive. Fit risk also increases with stretch materials, sublimation shrinkage, broad size ranges and roster-driven size grids.

3. **Material, decoration and personalization risk.** Custom fabric, all-over sublimation, embroidery on stretch knits, waterproof components and specialty coatings can create minimums, long lead times and test requirements. Free-text personalization (names, numbers, sponsor text) adds a data-accuracy risk layer that fixed designs do not have.
4. **Compliance and performance risk.** Products for children, protective use, or markets with strict chemical, labeling and safety rules require additional expertise. Avoid making unsupported performance, durability or sustainability claims about decoration or personalization.

Recommended Workflow

1. **List product and decoration operations** — Break each product into construction, material, decoration, personalization and testing requirements.
2. **Score the risks** — Rate fit, material, decoration method, personalization accuracy, MOQ and quality-control difficulty.
3. **Check decorator and platform capability** — Request comparable production examples, process details and customizer configuration examples.
4. **Reduce complexity** — Use stock blanks, common decoration placements, fewer personalization fields and proven constructions where appropriate.
5. **Stage the roadmap** — Launch lower-risk products and decoration methods first and use the learning to support complex categories.

Decision Guide

Area	Option	Best use	Main control
Relative complexity	Screen-printed cotton tee	Low to medium	Registration, ink cure and fit still require control
Relative complexity	Embroidered polo or cap	Medium	Digitizing quality, stitch density and stabilizer choice
Relative complexity	All-over sublimated jersey	Medium to high	Fabric compatibility, pattern-cut alignment and shrinkage
Relative complexity	Full team kit with roster personalization	High	Data accuracy, size-grid management, sponsor placement rules

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- The category's critical construction and decoration operations are identified.
- The decorator demonstrates comparable products and placements.
- Fit, material and decoration risks have test plans.
- Personalization fields and validation rules are defined.
- MOQ applies realistically to styles, colors, decoration methods and materials.
- Performance and durability claims can be supported.
- Complexity fits the launch schedule and cash plan.
- A simpler fallback specification is available.

Red Flags

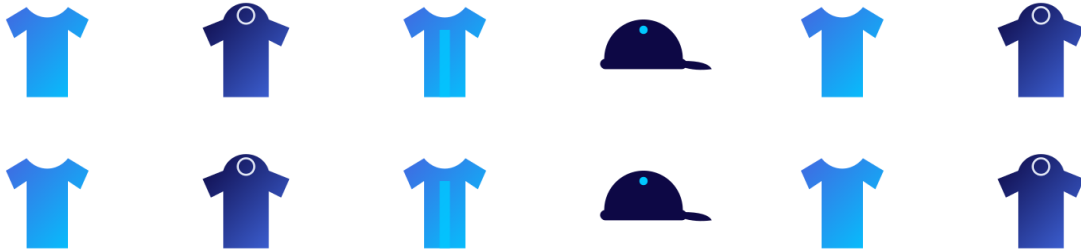
- A decorator uses samples from another shop as proof of capability.
- The development plan ignores custom placements, digitizing or color-separation needs.
- A durability claim is based only on ink or thread marketing.
- The product needs machinery the decorator cannot show.
- The first order contains too many unfamiliar decoration processes and personalization rules at once.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Choose decoration and personalization complexity deliberately; do not discover it after a customer has already checked out.

Chapter 04 — Planning a Scalable Custom Catalog and Template Library



Build a catalog of customizable templates that share blanks, decoration setups and code.

A custom catalog becomes expensive to run when every template needs a different blank, decoration setup, color library and platform configuration. Strong catalog planning balances customer choice with operational efficiency. The objective is not the largest number of customizable products; it is a coherent, well-tagged template library that can be configured once in your customization software and reused across many orders with controlled cash and attention.

Learning Outcomes

1. Create a balanced catalog of core, seasonal and team-specific customizable templates.
2. Use shared blanks, color libraries and decoration placements to improve leverage.
3. Control the multiplication of templates, color options, sizes and personalization variants.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Think in template families.** Build related customizable products from common blocks, blanks and decoration zones. A jersey template family might share one blank and one placement grid across a short-sleeve, long-sleeve and sleeveless option. Shared choices reduce testing, color-library maintenance and platform-configuration time.
2. **Control template and SKU multiplication.** Every template-color-size-personalization combination behaves like a SKU. A modest-looking catalog can create thousands of

buildable combinations inside a 3D configurator, each needing production-file logic, labels and inventory rules for blanks. Add a variation only when it serves a clear customer or commercial purpose.

3. **Protect the critical path.** Identify blanks, decoration methods or platform templates that determine the catalog's launch schedule. Custom color libraries, new decoration placements and complex sponsor-panel rules can delay every dependent product.
4. **Plan replenishment and template stability.** Core templates should use repeatable blanks and stable decoration zones. Seasonal or event-driven templates (team stores, tournaments) may accept more risk, but should not consume the resources required to deliver dependable core volume.

Recommended Workflow

1. **Set catalog roles** — Classify templates as core, seasonal, team-store or test item.
2. **Create a commonality map** — Mark shared blanks, decoration placements, color libraries and platform templates.
3. **Build the configuration matrix** — Calculate all template, color, size and personalization-field combinations before publishing to the customizer.
4. **Sequence development** — Start long-lead and high-risk templates first, not simply the most visually exciting design.
5. **Approve the catalog** — Remove templates that duplicate purpose or exceed cash, capacity, decoration or platform-configuration limits.

Decision Guide

Area	Option	Best use	Main control
Catalog role	Core template	Reliable demand and year-round replenishment	Use stable blanks and conservative change control
Catalog role	Seasonal / team-store template	Time-limited demand tied to an event or group	Prioritize fast configuration and clear close dates
Catalog role	Image-builder template	Creates brand identity or press value	Limit inventory risk and protect signature decoration details
Catalog role	Test template	Tests demand, decoration method or personalization feature	Use small quantities and explicit learning goals

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Every template has a role in the catalog.
- Configuration/SKU count is calculated, not guessed.
- Core blanks and decoration placements are shared where sensible.
- Long-lead components are identified.
- Order quantities reflect demand by size, color and personalization field.
- Decoration and platform-configuration capacity fit the number of templates.
- A drop, season or team-store close-date plan protects cash flow.
- Late additions require a documented business case.

Red Flags

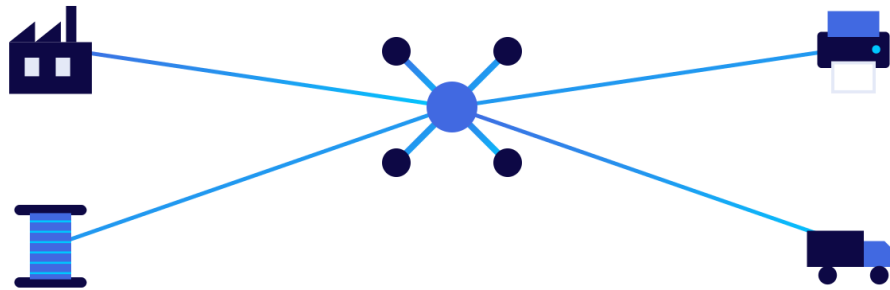
- Many colors are added only to fill out a color library, not to meet demand.
- The same customer need is served by several nearly identical templates.
- Every template depends on a different decorator with no shared standard.
- Size curves are copied without demand evidence.
- Development starts before the configuration count and cash impact is understood.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

A focused, well-tagged template catalog creates more control — and a faster customizer — not less creativity.

Chapter 05 — Finding and Shortlisting Blank Suppliers and Decoration Partners



Search for capability, fit and transparency — not the lowest quote.

Sourcing for custom apparel is a two-track qualification process: blank garments and decoration capability. The best partners are not necessarily the largest, closest or cheapest; they are the suppliers and decorators whose proven capability, order economics, quality system, communication and capacity match your product and decoration method. Build a longlist from credible sources, then compare using the same evidence and questions.

Learning Outcomes

1. Create a sourcing brief before contacting blank suppliers or decorators.
2. Use multiple discovery channels and verify the actual decoration site.
3. Shortlist partners with evidence rather than impressions or portfolio photos alone.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Write a sourcing profile for each role.** Specify blank category, fabric, expected order quantity, decoration method, target market, quality level, personalization support and required certifications. This prevents irrelevant inquiries and makes comparison fair.
2. **Search where specialists appear.** Use trade fairs, industry directories, blank-garment wholesalers, decoration-equipment vendors, professional networks and referrals. Large marketplaces can support discovery but do not replace verification.
3. **Ask capability questions.** Request details about core decoration methods, machinery (screen press, embroidery heads, sublimation calendar, DTF printer), monthly capacity,

sample turnaround, typical customers and subcontracting. Ask for examples comparable in fabric, decoration method and personalization complexity.

4. **Build a comparable shortlist.** Send the same concise inquiry to selected blank suppliers and decorators. Track response quality, questions asked, lead times, commercial terms and willingness to provide evidence.

Recommended Workflow

1. **Create the sourcing brief** — Define exact capability, order size, service level and market requirements for both blanks and decoration.
2. **Build a longlist** — Collect candidates from at least two independent channels.
3. **Run a desk screen** — Review legal identity, specialization, address, website, references and claims.
4. **Send a controlled inquiry** — Share enough information for a meaningful response while protecting sensitive artwork and customer data.
5. **Score and shortlist** — Advance only suppliers and decorators that meet non-negotiable capability and transparency criteria.

Decision Guide

Area	Option	Best use	Main control
Discovery source	Trade fair	Direct comparison and physical samples	Verify that exhibitor is the actual manufacturer or decorator
Discovery source	Blank-garment wholesaler	Recommends decorators experienced with the blank	Check commercial relationships and bias
Discovery source	Industry referral	Useful evidence of real working behavior	Confirm order size and product are comparable
Discovery source	Online marketplace or directory	Broad access and fast contact	Listings and badges are not proof of capability

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- A written sourcing profile guides the search for blanks and decoration.
- The legal company and production/decoration address are recorded.
- Comparable products and decoration placements have been reviewed.
- Core machinery and outsourced processes are known.
- MOQ, development service and capacity are plausible.
- The partner asks informed technical questions.
- Target-market requirements can be supported.
- At least two qualified alternatives remain active per role.

Red Flags

- A generic sales response ignores the product and decoration details.
- Product images appear copied or inconsistent across the portfolio.
- The company name differs across invoices, website and bank account.
- The partner refuses live video, visit or independent inspection.
- A very low quote arrives before decoration specifications are understood.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Shortlisting is successful when weak options — on either the blank or the decoration side — are removed early.

Chapter 06 — Supplier and Decorator Verification and Risk Screening



Confirm identity, capability and working behavior before sending a deposit.

Verification should combine documents, independent checks and direct observation. No certificate, marketplace badge or polished proof mockup proves the complete operation. Confirm who you are contracting with, where blanks and decoration are actually produced, what is subcontracted, how quality is managed and whether the commercial information is consistent. Risk screening should be proportionate to order value and product sensitivity.

Learning Outcomes

1. Build a layered verification process for blank suppliers and decorators.
2. Recognize inconsistencies in documents, claims and payment requests.
3. Use samples, audits and inspections for different purposes.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Verify legal identity.** Match the legal company name, registration, address, invoice and bank beneficiary. Ask why any entity differs. Use official registries or qualified local support where available.
2. **Observe the operation.** A visit or live video should show relevant decoration machines, production lines, sample area, quality area, storage and current products. Request real-time movement rather than a prepared promotional clip.
3. **Separate social and technical evidence.** Social or environmental certifications may support due diligence, but scope, site, issue date and issuing body matter. Technical

capability still requires decoration-method-specific evidence — a wash test, a stitch sample, a color-match panel.

4. **Test working behavior.** The proofing and sampling process reveals responsiveness, accuracy, documentation and problem solving. Treat unexplained changes, missed commitments and resistance to written records as risk signals.

Recommended Workflow

1. **Desk verification** — Check identity, address, ownership, trade history and public claims.
2. **Capability verification** — Review machinery, staff, sample turnaround, quality system and comparable decorated goods.
3. **Commercial verification** — Match quotation, invoice, payment beneficiary and agreed entity.
4. **Pilot the relationship** — Use a controlled sample or small order with explicit acceptance criteria for decoration and personalization accuracy.
5. **Plan independent control** — Decide whether audits, lab tests (wash-fastness, crock-fastness) or third-party inspections are required.

Decision Guide

Area	Option	Best use	Main control
Verification tool	Facility audit	Assesses systems, site and capability at a point in time	Scope must match the actual production/ decoration site
Verification tool	Product inspection	Checks selected goods against specifications	Does not prove wider labor or management systems
Verification tool	Laboratory test	Measures wash-fastness, crock-fastness or print/thread durability	Test method and sample selection must be appropriate
Verification tool	Reference check	Provides practical relationship insight	Confirm identity and similarity of the referenced work

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Legal entity, address and bank details match.
- The actual production and decoration site is confirmed.
- Subcontractors and critical processes are disclosed.
- Comparable products, placements and machinery are demonstrated.
- Certification scope and validity are checked.
- Proofing and sample behavior support the partner's claims.
- Inspection and audit access is agreed.
- An escalation and exit plan exists before deposit.

Red Flags

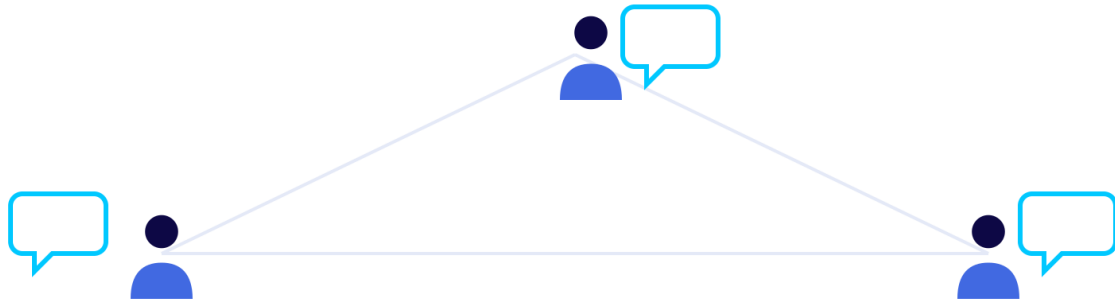
- Urgent pressure to pay a new or personal bank account.
- Certificates belong to another company or site.
- The decorator refuses to name subcontractors.
- Live video cannot show relevant decoration areas.
- Important claims change when questions become specific.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Trust should be earned through consistent evidence, not assumed from a polished portfolio or storefront.

Chapter 07 — Professional Communication with Suppliers, Decorators and Customers



Make every message easy to answer, track and execute — including the customer's.

Custom apparel businesses communicate across at least three audiences: blank suppliers, decorators and end customers approving their own design. Clear communication is a production control tool, not a matter of style. Use concise messages, visual references, numbered questions, deadlines and written confirmations. Separate discussion from approval and keep one source of truth — ideally your customization platform's order and proofing history — so that decisions do not disappear across chat apps, emails, calls and customer support tickets.

Learning Outcomes

1. Write a complete first inquiry to a decorator without overwhelming the recipient.
2. Create a communication rhythm that exposes delays early, on both the supply side and the customer side.
3. Convert calls, chats and customer proof approvals into controlled written decisions.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Give context before questions.** State the product, blank, decoration method, quantity, target market, development stage and requested action. A decorator cannot answer accurately when the commercial and technical context is missing — and a customer cannot approve a proof accurately without seeing exactly what will be produced.

2. **Use numbered decisions.** Group questions by topic and number each item. Ask for a direct answer, owner and date. Attach clearly named files and state the design version being discussed.
3. **Confirm the record.** After calls, send a short recap listing decisions, open points, responsible people and deadlines. For customer approvals, capture the exact proof version approved — ideally with a platform-generated approval link and timestamp.
4. **Escalate by impact.** Routine questions belong in the working channel. Cost, specification, decoration-method, personalization or contractual changes need formal approval from named decision makers.

Recommended Workflow

1. **Prepare the message** — Define the action you need and attach only the relevant current files or proof link.
2. **Structure the request** — Use headings, numbered questions and a response deadline.
3. **Check understanding** — Ask the decorator or customer to restate critical assumptions or flag conflicts.
4. **Record the answer** — Update the decision log, design-file version or timeline rather than relying on the message alone.
5. **Close the loop** — Confirm completion with evidence — a signed proof, a passed inspection photo — not only the phrase "done."

Decision Guide

Area	Option	Best use	Main control
Communication type	Inquiry	Capability, MOQ, lead time, development and quote request	Share a concise sourcing brief
Communication type	Technical comment	Exact issue, evidence, required correction and revised file	Use annotated images and measurements
Communication type	Customer proof approval	Approved design version, date and limits of approval	Never use vague approval such as "looks fine" — capture the exact proof
Communication type	Escalation	Impact, facts, requested recovery plan and decision deadline	Stay factual and preserve the relationship

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Messages identify the exact style, decoration and design-file version.
- Questions are numbered and grouped by topic.
- Deadlines include a date and time zone.
- Approvals — including customer proof approvals — state precisely what is approved.
- Calls are followed by a written summary.
- Decisions are transferred into controlled documents or the platform's order record.
- Translation and ambiguity risk is reduced with visuals and simple language.
- One owner maintains the open-action list.

Red Flags

- Important changes are agreed only in voice messages or live chat with no record.
- The decorator answers "yes" without addressing individual questions.
- Several conflicting design files remain active.
- Feedback uses subjective words without evidence.
- A customer's proof approval cannot be traced to an exact design version.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Good communication creates an auditable chain from customer design intent to decorator execution to shipped product.

Chapter 08 — The Customization Process: Design Intake, 3D Visualization and Production Files

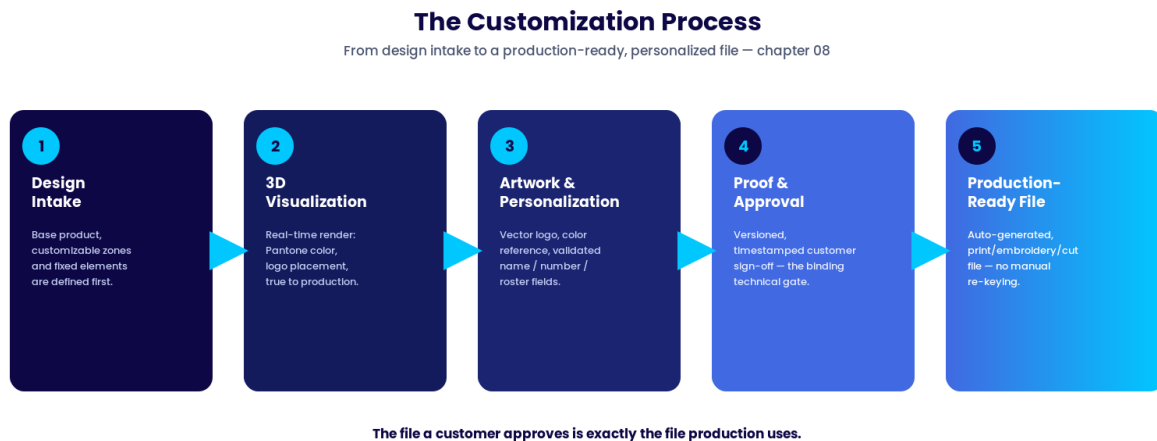


Figure 2 — The customization process: five stages from design intake to production-ready file.

Turn a customer's idea into a production-ready, personalized file — without a manual translation step.

The customization process is the core operational difference between a generic apparel business and a custom apparel business. It runs from the moment a customer, sales rep or brand manager starts designing, through real-time 3D visualization, artwork and color decisions, personalization data entry, proofing and approval, to the automatic generation of a production-ready file that a decorator or factory can execute without guesswork. Every stage in this pipeline either removes ambiguity or creates it. The objective is a process where the file a customer approves is exactly the file production uses.

Learning Outcomes

1. Map the full customization pipeline from design intake to production-ready output.
2. Control color, artwork and personalization data with the same discipline as a tech pack.
3. Use proofing and approval as a binding technical and commercial gate, not a courtesy step.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Design intake defines the boundaries before creativity begins.** Every customization flow needs a defined base product, a defined set of customizable zones (color, logo placement, text, sponsor panel) and a defined set of fixed elements. State which fields are open to the customer and which are locked, so the design experience cannot create a technically unbuildable product.
2. **Real-time 3D visualization must represent the true production result.** A customer who rotates, zooms and previews a garment in 3D is forming a binding expectation. Color rendering, logo scale, placement and fabric behavior on screen should match Pantone-accurate, production-calibrated values — not just an attractive on-screen approximation. When the render and the physical result diverge, disputes and returns follow.
3. **Artwork, color and personalization are components — treat them like a BOM.** A logo file needs format, resolution, vector status, color mode and placement coordinates. A color choice needs a Pantone or brand-palette reference, not a screen hex code alone. A personalization field (name, number, size, sponsor text) needs a character limit, an allowed-character set, a font, and a validation rule. Undefined components create bulk-production errors at the exact rate they created sample errors.
4. **Proofing and approval is the technical acceptance gate.** A proof should show the design exactly as it will be produced, referencing the base product, decoration method, color standard and personalization data. Approval should be captured with a version, a timestamp and an identified approver — automatically, wherever the platform supports it — because a verbal or implied "yes" is not evidence.

Recommended Workflow

1. **Define the customizable product** — Set the base blank, decoration method, customizable zones, fixed elements and available color/personalization ranges before opening the design tool to customers.
2. **Configure the visualization** — Load Pantone-accurate colors, real logo-placement boundaries and true-to-production 3D rendering so the customer's preview matches the manufacturable result.
3. **Capture design and personalization data cleanly** — Require vector or high-resolution artwork, defined color references and validated personalization fields (character limits, allowed characters, roster upload format).
4. **Issue and capture the proof** — Generate a production-representative proof (mockup or render) for every order or design, and capture explicit, versioned, timestamped approval before the file is released to production.

5. **Generate the production-ready file** — Convert the approved design automatically into the format the decorator or factory needs (print-ready file, embroidery digitizing file, cut/sew instructions) without manual re-keying.

Decision Guide

Area	Option	Best use	Main control
Design intake	Fully open customizer	Maximum customer expression for fashion and fan gear	Requires strong guardrails on placement, color and file validation
Design intake	Guided/templated customizer	Team kits, uniforms and sponsor-governed products	Faster approvals; less flexibility for the individual customer
Proofing method	Automated 3D-rendered proof	High order volume, fast turnaround, on-demand production	Render must be calibrated against physical production regularly
Proofing method	Physical pre-production sample	High-value, first-run or safety-relevant products	Slower; reserve for critical or first-of-kind orders

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Customizable zones and fixed elements are defined before the design tool is opened to customers.
- Color library uses Pantone or approved brand-palette references, not screen colors alone.
- Logo and artwork requirements (format, resolution, vector status) are enforced at upload.
- Personalization fields have character limits, validation rules and an approved font set.
- Every order generates a proof that represents the true production result.
- Proof approval is captured with a version, timestamp and named approver.
- The production-ready file is generated automatically from the approved proof, not re-created manually.
- A process exists for correcting and re-proofing rejected designs.

Red Flags

- The on-screen preview color or placement does not match physical production samples.
- Personalization text is accepted with no character limit or validation, risking cut-off or unbuildable designs.
- "Approval" is a verbal or implied customer response with no captured version.
- Production starts from the customer's original upload instead of the approved, production-formatted file.
- Roster or bulk personalization data is manually re-typed between the storefront and the decorator.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

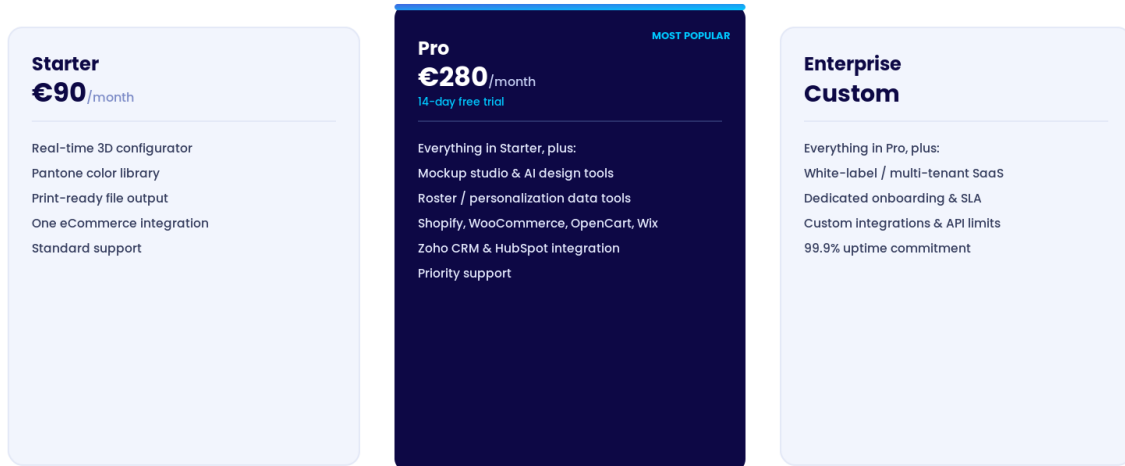
Chapter Takeaway

The customization process is only as reliable as the discipline applied to color, artwork, personalization data and proof approval — treat every design as a controlled technical document.

Chapter 09 — Apparel Customization Software and the Konfiwear Platform

Konfiwear Plans at a Glance

Choose the platform tier that matches your production volume and integration needs



Source: Konfiwear Press Kit & Brand Guide v2.0 — v2.konfiwear.com/pricing

Figure — Konfiwear plans: Starter, Pro and Enterprise.

The Apparel Customization Software Stack

Five functional layers, operationalized as one connected system by the Konfiwear platform — chapter 09

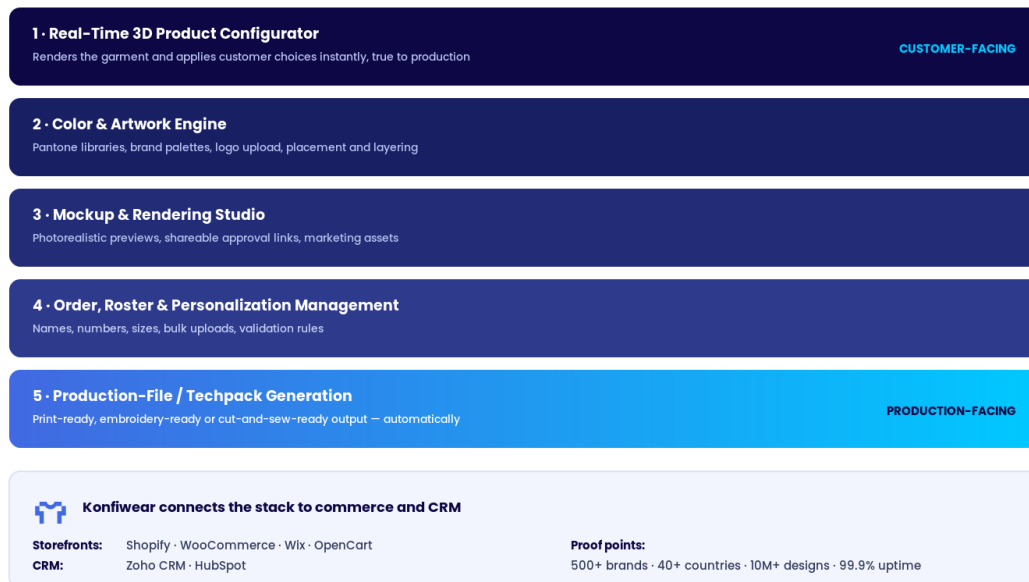


Figure 3 — The apparel customization software stack, connected end to end by Konfiwear.

Choose the software layer that turns customer intent into production-ready output — at scale.

Every custom apparel business runs on a software stack, whether that stack is a spreadsheet and email, a set of disconnected point tools, or a purpose-built apparel

customization platform. The software layer typically spans: a real-time 3D product configurator, a color and artwork engine, a mockup and rendering studio, an order and roster management system, production-file/techpack generation, and integrations into the eCommerce and business systems the company already runs. Choosing and configuring this layer correctly is now as consequential to production quality as choosing a decorator.

Learning Outcomes

1. Understand the software categories that make up a modern apparel-customization stack.
2. Evaluate build-versus-buy and platform-versus-point-tool trade-offs with a consistent framework.
3. Configure the Konfiwear platform as the customer-facing design layer connected to your production and commerce systems.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **The software stack has five functional layers.** (1) A **3D product configurator** that renders the garment and applies customer choices in real time. (2) A **color and artwork engine** that manages Pantone libraries, brand palettes, logo upload and placement. (3) A **mockup and rendering studio** for photorealistic previews, approval links and marketing assets. (4) An **order, roster and personalization management system** for names, numbers, sizes and bulk uploads. (5) **Production-file / techpack generation** that turns an approved design into a print-ready, embroidery-ready or cut-and-sew-ready output, connected via API or native integration into your storefront (Shopify, WooCommerce, Wix, OpenCart) and business systems (CRM, ERP).
2. **White-label and multi-tenant capability determine how the platform shows up to your customer.** A white-label configurator runs under your own brand, domain and visual identity, even though the underlying engine is shared infrastructure. Multi-tenant SaaS means many brands run on the same platform with isolated data — evaluate this for both cost efficiency and data-separation guarantees.
3. **Build-versus-buy is a capability and speed decision, not only a cost decision.** Building a custom 3D configurator, color engine and techpack generator in-house demands ongoing engineering investment most apparel businesses do not carry as a core competency. A purpose-built platform converts that investment into a subscription and lets your team focus on catalog, decoration quality and customer relationships — evaluate total cost of ownership, not sticker price alone.

4. **Konfiwear is a purpose-built apparel customization platform.** Konfiwear is an advanced B2B SaaS platform for the custom apparel industry, enabling sportswear brands, print shops, uniform suppliers and distributors to offer a fully branded, real-time 3D product customizer — complete with Pantone-accurate colors, logo placement, roster management and production-ready file output. It integrates natively with Shopify, WooCommerce, Wix and OpenCart, plus CRM systems including Zoho CRM and HubSpot, and is used by 500+ apparel businesses in 40+ countries with 99.9% uptime and more than 10 million designs created to date.

Recommended Workflow

1. **Audit the current stack** — List every tool currently used for design intake, color/artwork management, proofing, roster handling and production-file generation, and identify manual hand-offs between them.
2. **Define the requirement, not the tool** — Specify what the customer needs to configure, what production needs to receive, and what your storefront and CRM need to stay in sync — before evaluating vendors.
3. **Evaluate platforms against the same criteria** — Real-time 3D rendering accuracy, Pantone/color-library depth, personalization and roster handling, production-file automation, integration coverage and total cost including per-order or per-seat fees.
4. **Configure Konfiwear (or the selected platform) to your catalog** — Load base products, decoration placements, color libraries and personalization rules from Chapters 4 and 8 directly into the customizer.
5. **Connect commerce and production** — Integrate the platform with your storefront (Shopify, WooCommerce, Wix or OpenCart) and route approved, production-ready files directly to your decorator or factory queue.

Decision Guide

Area	Option	Best use	Main control
Software approach	In-house build	Highly differentiated configuration needs and available engineering capacity	Requires sustained engineering investment; verify total cost of ownership
Software approach	Point tools (separate design, proofing, order tools)	Very small operations testing a new decoration method	Manual hand-offs create the same errors a tech pack prevents
Software approach	Purpose-built platform (e.g. Konfiwear)	Businesses that need a branded 3D configurator	Confirm integration coverage, plan tier and data ownership

Area	Option	Best use	Main control
		connected to production and commerce	
Konfiwear plan	Starter (from €90/month)	Small catalogs and lower order volume getting started with 3D customization	Confirm feature and integration limits before committing
Konfiwear plan	Pro (from €280/month, 14-day free trial)	Growing catalogs needing fuller integration and configuration depth	Use the trial to validate rendering accuracy against physical samples
Konfiwear plan	Enterprise (custom pricing)	High-volume, multi-brand or white-label deployments	Negotiate SLAs, data terms and integration scope in the agreement

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Konfiwear Platform Reference

What it is. Konfiwear is an AI-powered apparel customization SaaS platform that lets businesses design, visualize and sell custom sportswear with real-time 3D tools and native eCommerce integrations.

Core capabilities

Capability	What it does
Real-time 3D product configurator	Customers rotate, zoom and interact with a true 3D garment model; every customization renders instantly so they see the product they will receive.
Pantone colors and brand palettes	Offers the full Pantone library, custom brand palettes or curated color sets per product, with production files matching what the customer sees on screen.
Graphics, logos and typography	Logo and artwork upload with real-time resizing, alignment and layering; player names, numbers and sponsor text with custom fonts, outlines and effects.
Print-ready production output	Generates production-ready files automatically when a design is finalized — no manual file prep and no design-to-production translation errors.

Capability	What it does
3D mockup generation	Produces photorealistic 3D mockup images and shareable approval links for customer sign-off, marketing and sales use, without third-party rendering software.
AI-powered design tools	Background removal, AI-generated graphics and design suggestions built directly into the customizer.

Integrations. Shopify, WooCommerce, OpenCart, Wix, Zoho CRM and HubSpot — enabling the customization layer to sit natively inside the storefront and CRM a business already runs.

Proof points. 500+ active brands · 40+ countries · 10M+ designs created · 99.9% uptime · plans from €90/month.

Where it fits in this handbook. Konfiwear operationalizes Chapter 8 (design intake, 3D visualization, proofing and production-file generation) as a connected system rather than a set of manual steps, and supplies the color, artwork and personalization engine referenced throughout Chapters 10, 13 and 14.

Control Sheet

Ready-to-Proceed Checklist

- Every layer of the software stack (configurator, color/artwork, mockups, orders/rosters, production-file generation) has an assigned tool and owner.
- Platform-rendered colors and placements are validated against physical production samples.
- Integration with the storefront (Shopify, WooCommerce, Wix, OpenCart) and CRM is tested end to end.
- Plan tier and pricing match current order volume and catalog size, with room for growth.
- Data ownership, white-label terms and SLA are documented in the platform agreement.
- Production-ready files route to the decorator or factory without manual re-entry.
- A fallback process exists if the platform has an outage or integration failure.
- Platform performance (uptime, render accuracy, order-to-production time) is reviewed on a schedule.

Red Flags

- The 3D preview color or placement regularly diverges from what production actually delivers.
- Orders or roster data must be manually re-typed from the storefront into a separate production system.
- No one owns the platform configuration, so templates and color libraries drift out of date.
- A plan or integration limit is discovered only after a customer-facing launch.
- Personalization data validation is weak enough that unbuildable or incorrect designs reach production.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

The right customization platform — configured deliberately, not adopted by default — turns your catalog, decoration standards and personalization rules into a single, production-accurate system your customers can design against directly.

Chapter 10 — Bill of Materials, Trims and Decoration Component Control



Track every physical and digital item that becomes part of the finished, decorated product.

The bill of materials, or BOM, is the component-level control sheet for a custom product. It identifies each blank, trim, label, thread, ink, transfer film, digitizing file and packaging item with a description, supplier reference, color, size, consumption and approval status. For custom apparel, the BOM must also capture digital components — the approved artwork file, the Pantone reference, the digitizing file and the personalization data schema — with the same discipline as physical trims. A strong BOM prevents substitutions, exposes long-lead components and connects material and design approvals to costing and production.

Learning Outcomes

1. Create component records — physical and digital — that purchasing and production can use.
2. Separate visual approval from functional and technical approval.
3. Control supplier substitutions, decoration-consumable changes and component traceability.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Use unique component lines — for blanks and for digital assets.** Do not group unrelated items under vague labels such as "all trims" or "the logo." Give each blank, trim, ink, thread, transfer film and artwork file a line, code and location so quantity, color and approval can be verified.

2. **Specify function and appearance for decoration consumables.** A screen-print ink requires type, opacity, cure temperature and wash-fastness rating. An embroidery thread requires weight, fiber, color reference and sheen. A DTF or sublimation transfer requires film type, temperature and pressure settings. Treat these exactly like hardware specifications.
3. **Track approval status for both physical and digital components.** Record nominated supplier, reference, submitted sample, approved sample, approval date and approved by — and, for digital assets, the exact file version, color mode and resolution approved. The approved physical standard (a printed swatch, a stitched sample) may be more reliable than a color name or on-screen preview alone.
4. **Plan substitutions.** Define whether alternatives are prohibited, pre-approved or require a new test — for blanks, inks, threads, films and platform templates alike. Supply disruption should not lead to silent changes in fabric, ink chemistry, thread type or digitizing file.

Recommended Workflow

1. **Explode the product** — List everything used in the blank, decoration, personalization and packaging.
2. **Add specifications** — Record material, dimensions, color, finish, supplier, decoration method and location for physical items; format, resolution, color mode and placement for digital items.
3. **Estimate consumption** — Include unit, usage, wastage and order quantity assumptions for blanks and decoration consumables.
4. **Approve standards** — Link Pantone references, ink/thread swatches, digitizing files, strike-offs, samples and test reports.
5. **Reconcile before bulk** — Confirm that purchase orders, decoration consumable stock and platform-approved design files match the approved BOM.

Decision Guide

Area	Option	Best use	Main control
Component class	Blank garment	Fabric code, construction, composition, weight and decoration compatibility	Approve blank performance under the actual decoration method
Component class	Decoration consumables	Ink, thread, transfer film, stabilizer type and cure/press settings	Test wash-fastness, crock-fastness and durability where relevant
Component class	Digital design assets	Artwork file, color reference, digitizing file, personalization schema	Version-control every asset; retire superseded files

Area	Option	Best use	Main control
Component class	Labels and packaging	Content, dimensions, color, placement and per-order personalization	Confirm market, sustainability and logistics requirements

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Every physical component has a unique description.
- Every digital asset (artwork, color reference, digitizing file) has a version and approval status.
- Supplier and decorator references are recorded.
- Color and finish standards are approved with physical swatches, not screen colors alone.
- Consumption unit and wastage assumptions are clear for blanks and consumables.
- Critical functional tests (wash-fastness, stitch durability) are defined.
- Alternative components or file substitutions require written approval.
- Bulk receipts and approved design files can be traced to the approved BOM.

Red Flags

- The BOM is incomplete until after the first customer proof.
- Visual similarity on screen is treated as functional or color equivalence.
- Ink or thread finish is described only as "brand blue" with no Pantone reference.
- Bulk substitutions of blanks or consumables are accepted without test or cost review.
- Personalization data schema changes without updating the platform, the BOM and the decorator's instructions together.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Component control — physical and digital — turns a customer's design into a purchasable, decoratable and inspectable product.

Chapter 11 — Blank Garment Sourcing and Material Qualification for Decoration



Select blanks for decoration performance, fit and repeatability — not appearance alone.

Blank selection affects fit, cost, durability, decoration result, cutting, sewing, washing and customer perception. A blank that looks convincing on a hanger can behave poorly under a heat press, an embroidery frame or a sublimation calendar. Qualification should combine construction data, physical evaluation, decoration-compatibility testing, sample performance, availability and repeatability. The goal is not simply to find an attractive blank, but to approve a blank standard that performs consistently under your chosen decoration method at bulk.

Learning Outcomes

1. Interpret the main fabric specifications relevant to decoration performance.
2. Build a practical testing and approval sequence for blanks under a specific decoration method.
3. Compare stock, nominated and custom-developed blanks.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Understand construction and decoration compatibility.** Record fiber composition, yarn, knit or weave structure, weight, width, finish, stretch and recovery — and how each affects the intended decoration method. Polyester content and weave affect sublimation results; ring-spun cotton density affects screen-print detail; knit stability affects embroidery puckering.

2. **Test in decoration context, not in isolation.** Shrinkage, spirality, colorfastness and handfeel should be assessed after the intended decoration process and any relevant washing. Test the blank together with the actual print, embroidery, sublimation or transfer process, not on an undecorated swatch alone.
3. **Control color correctly across screen, swatch and blank.** Approve Pantone references or strike-offs under consistent lighting and against a named standard, and confirm how the color reproduces on the specific blank fabric and decoration method. Bulk shade can vary between dye lots and between blank fabric batches; define shade bands and panel-matching expectations.
4. **Assess continuity.** Ask about stock status, repeatability, minimum order quantity, lead time and discontinuation risk. A blank suitable for a single team-store launch may be unsuitable for an ongoing core-catalog template.

Recommended Workflow

1. **Create the blank brief** — Define use, decoration method, composition preference, weight, handfeel, performance, color range and target cost.
2. **Request complete samples** — Collect supplier data, availability, minimums and lead times with each blank sample.
3. **Screen and shortlist** — Compare physical feel, appearance, cost, decoration compatibility and supplier reliability.
4. **Test and decorate** — Run the intended decoration process on the actual blank and evaluate the result after wash.
5. **Approve a standard** — Retain an approved blank sample and a decorated reference sample with traceable identification.

Decision Guide

Area	Option	Best use	Main control
Sourcing route	Stock blank	Lower minimum and faster availability	May have limited continuity, colors or exclusivity
Sourcing route	Nominated mill / blank manufacturer	Direct control of known material and decoration behavior	Requires coordination between mill and decorator
Sourcing route	Decorator-sourced blank	Simpler full-service workflow	Request mill identity, data and approval samples
Sourcing route	Custom-developed blank	Unique construction, color or performance for a signature template	Higher minimum, longer lead time and repeatability risk

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Fiber, construction, weight and width are confirmed.
- Stretch, recovery and dimensional stability are tested.
- Color standard and shade tolerance are defined for the specific blank and decoration method.
- The blank is evaluated after the intended decoration and finishing.
- Bulk minimum, lead time and continuity are known.
- Decoration-compatibility test results match the actual method and blank batch.
- An approved physical standard (blank and decorated sample) is retained.
- Substitution rules are written into the BOM.

Red Flags

- A blank is approved only from a small digital photo or supplier stock image.
- The supplier cannot identify the mill or lot.
- Decoration test data belongs to a different color, blank or construction.
- Bulk is ordered before wash and decoration-durability review.
- A custom blank is selected without including its minimum in the cash plan.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

A blank is approved only when its appearance, decoration performance and supply risk are all understood together.

Chapter 12 — Costing, Pricing Tools and Commercial Feasibility for Custom Orders



Understand the complete cost before approving the product or the pricing rule.

A blank unit price and a decoration price are only two parts of the commercial picture. Development, digitizing, setup fees, color-separation charges, personalization fees, platform subscription and per-order costs, packaging, freight, duty, rejects and financing can materially change the landed cost of a custom order. MOQ and setup fees may apply by blank, color, decoration method or personalization complexity. Build a transparent cost model — including your customization software cost — before pricing rules are published to the customizer.

Learning Outcomes

1. Read and compare blank and decoration quotations on a like-for-like basis.
2. Calculate realistic landed cost and margin scenarios that include platform and personalization fees.
3. Design customer-facing pricing rules that reflect true per-unit customization cost.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Break down the cost by component and process.** Request or estimate blank, decoration setup (screen/digitizing charge), per-unit decoration cost, personalization cost, labor, finishing, labels, packaging, platform fees, overhead and margin. A breakdown reveals the real drivers and supports better catalog and pricing decisions.
2. **Map every minimum and setup fee.** Distinguish blank MOQ, minimum color quantity, decoration setup minimums (e.g. screen charges, digitizing fees) and platform per-

order or per-seat costs. Small personalized orders often carry proportionally higher setup cost — price accordingly.

3. **Use landed cost, including software.** Include freight, insurance, import duty, brokerage, inspection, expected loss and the amortized or per-order cost of your customization platform. Use scenario ranges where rates or classification are not confirmed.
4. **Negotiate the system, and design pricing rules deliberately.** A lower minimum may require stock blanks, shared colors, simplified placements, higher unit price or staged delivery. Customer-facing pricing rules inside the customizer (per-color, per-personalization-field, per-quantity-tier) should mirror this real cost structure, not an arbitrary flat markup.

Recommended Workflow

1. **Set target economics** — Define retail, wholesale, gross margin and landed-cost ceiling, including platform and decoration setup costs.
2. **Build should-cost** — Estimate cost by component and operation, including personalization and platform fees, before requesting quotes.
3. **Normalize quotes** — Compare identical specifications, quantities, decoration methods, Incoterms, currency and packaging.
4. **Model scenarios** — Test quantity, color, personalization complexity, freight, reject and exchange-rate changes.
5. **Approve commercially** — Proceed only when cost, cash timing, platform pricing tier and demand risk are acceptable.

Decision Guide

Area	Option	Best use	Main control
Cost level	Ex-factory / ex-decorator unit cost	Blank and decoration price under the quoted delivery term	Confirm what setup, personalization and packaging are included
Cost level	Landed cost	Cost to bring the sellable, decorated unit to the receiving location	Include logistics, duty, inspection and loss assumptions
Cost level	Fully loaded cost	Landed cost plus platform subscription and internal fulfillment cost	Use for true margin decisions on customized orders
Pricing rule	Tiered per-quantity / per-personalization pricing	Team orders and bulk personalization	Mirror actual setup-fee amortization, not a flat markup

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Quote references the correct design-file and decoration-method version.
- Currency, tax and delivery term are explicit.
- MOQ, MCQ and decoration setup minimums are stated by style, color and method.
- Sample, development, digitizing, platform and personalization fees are included.
- Excess blank or consumable ownership is agreed.
- Freight, duty and inspection assumptions are modeled.
- Payment timing fits the cash-flow plan, including platform subscription cadence.
- A cost-change approval process is established.

Red Flags

- A quote is dramatically lower without explanation of what setup or personalization cost is excluded.
- The decorator or platform will not state what is excluded from the price.
- MOQ is described only as a total quantity, ignoring per-color or per-personalization minimums.
- Free setup or digitizing depends on an undocumented future order.
- Margin is calculated from ex-factory cost instead of landed cost, ignoring platform and setup fees.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Commercial control begins with a cost model that exposes every assumption — including the cost of the software that makes customization possible.



PART TWO

Production Control

Chapters 13–19

Fit and roster data, labels and packaging, compliance, contracts and platform agreements, production planning, quality control and AQL.



Chapter 13 — Sampling, Digital Proofing and Product Development



Use each proof and sample round to answer defined questions.

Sampling and digital proofing form a sequence of experiments and approvals, not a search for an attractive mockup. Each round should have a purpose, a controlled specification and a review method. Separate fit, construction, decoration, color and personalization-accuracy decisions where necessary. A rushed proof approval transfers unresolved questions into bulk production, where corrections are slower, more expensive and — for personalized goods — often unrecoverable once cut or decorated.

Learning Outcomes

1. Understand common sample and proof types and their purpose.
2. Write objective proof and sample comments with evidence.
3. Know when a product and its digital proof are ready for pre-production approval.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Define the sample or proof objective.** A development sample may test construction, while a digital proof tests color, placement and personalization accuracy. A fit sample tests measurements and balance. A pre-production sample should represent approved bulk blanks, decoration and personalization data together.
2. **Review systematically.** Inspect the proof or sample against the issued design-file standard: measurements, fit, construction, blank, decoration placement and durability, personalization accuracy and labeling. Photograph the physical sample, record actual measurements and mark the exact issue.

3. **Comment for action.** State what is wrong, the required outcome, the proposed correction and whether the change affects other sizes, colors or personalization records. Avoid comments such as "make nicer" or "logo looks off."
4. **Limit uncontrolled iteration.** Track root causes and confirm whether a correction has been incorporated into the pattern, design file, platform template, BOM or process. Repeated samples without updated documents create the same errors — and, for personalized orders, the same wrong name or number.

Recommended Workflow

1. **Issue the sample or proof request** — State sample/proof type, purpose, required materials, design version and due date.
2. **Receive and identify** — Label the physical sample or proof file and confirm it matches the approved order record.
3. **Measure and inspect** — Use the approved POM method, color standard, decoration-placement diagram and personalization-accuracy check.
4. **Hold a decision review** — Approve, approve with explicit conditions, or reject with numbered comments.
5. **Update the source documents** — Revise pattern, measurements, BOM, design file and platform template before the next issue.

Decision Guide

Area	Option	Best use	Main control
Sample/ proof type	Prototype or development sample	Tests concept, construction and decoration feasibility	Materials may be substitutes if clearly identified
Sample/ proof type	Digital 3D proof	Tests color, placement and personalization accuracy at scale	Must be validated against physical production periodically
Sample/ proof type	Fit sample	Tests balance, measurements and movement	Use consistent fit model and base size
Sample/ proof type	Pre-production sample	Confirms bulk-ready product, decoration and personalization standard	Use approved bulk-representative blanks, decoration and data

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Sample/proof type and review objective are stated.
- Sample or proof is linked to an exact design-file version.
- Actual measurements and decoration placement are recorded.
- Fit is reviewed on the correct body or form.
- Materials, decoration consumables and substitutes are identified.
- Comments are numbered and supported by images.
- Source documents and platform templates are updated after decisions.
- PP approval is written and limited to the reviewed standard, including personalization data.

Red Flags

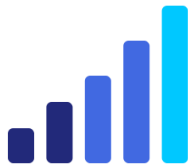
- The decorator starts bulk from a development sample or an unapproved digital proof.
- Substitute materials or consumables are not disclosed.
- Comments conflict between email, PDF, chat and the platform's proof history.
- A proof is approved despite unresolved critical issues in color, placement or personalization.
- The same defect returns because the pattern, design file or platform template was not updated.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Every proof and sample should reduce uncertainty and move the product toward a controlled, personalization-accurate bulk standard.

Chapter 14 — Fit, Sizing and Roster / Personalization Data Management



Build a repeatable fit and data system instead of correcting isolated samples and single orders.

Fit is the relationship between body, pattern, material and construction. For custom and team apparel, it is joined by a second control problem: managing personalization data — names, numbers, sizes and sponsor text — accurately across dozens or thousands of individual orders. Measurements alone do not describe balance, ease or movement, but they create a shared language for controlling the result. A roster, similarly, is only useful if its data is validated, versioned and traceable to the exact garments produced.

Learning Outcomes

1. Define POMs and tolerances that different people can measure consistently.
2. Evaluate fit, balance and movement beyond the measurement table.
3. Build a roster and personalization data process that prevents mismatched names, numbers and sizes.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Define the measuring method.** State garment position, whether closures are fastened, how stretch is handled, where the tape begins and whether a measurement is straight, curved, half or full. Diagrams reduce disagreement.
2. **Separate specification and tolerance.** The specification is the target. Tolerance is the permitted manufacturing variation, not an additional design range. Critical measurements may need tighter tolerance than low-impact dimensions.

3. **Fit the base size first, then grade.** Resolve silhouette, balance, mobility, length and key proportions in the chosen base size before extending changes across the size range used by a roster or size-run order.
4. **Treat roster and personalization data as a controlled dataset.** Use a single validated source file (name, number, size, color, sponsor text) per order or team, with a defined format, allowed-character set and a locked version once production begins. Reconcile every produced unit back to its exact roster row.

Recommended Workflow

1. **Define the customer** — Use target body data and intended fit, not a generic size label.
2. **Create POM diagrams** — Write an unambiguous method and target for each measurement.
3. **Fit the base size** — Review posture, balance, ease, function and aesthetic proportion.
4. **Collect and validate roster data** — Require a structured upload (template, spreadsheet or platform form) with validation on name length, number range and size options.
5. **Approve the size set and roster** — Measure and fit selected small, middle and large sizes; lock the roster version before cutting or decoration begins.

Decision Guide

Area	Option	Best use	Main control
Fit control	Base size	Primary development size for silhouette and balance	Choose one relevant to the target customer and sample process
Fit control	Tolerance	Permitted production variation around a target	Set by impact and process capability
Roster intake	Structured template / platform upload	Team orders with many individual sizes and names	Validate before it reaches production, not after
Roster intake	Manual entry per order	Small volume, high-touch orders	Requires a second-person check before release

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Target customer and intended ease are defined.
- POM methods use diagrams and consistent units.
- Base-size fit is approved before grading is finalized.
- Critical tolerances are realistic and measurable.
- Roster and personalization data is collected through a validated, structured format.
- Roster data is version-locked before cutting or decoration begins.
- Selected size-set samples confirm proportion and placement.
- Every produced unit reconciles back to its exact roster row.

Red Flags

- A size chart is copied from another brand without body data.
- Tolerance is used to excuse incorrect pattern dimensions.
- Roster data arrives as an unstructured list with no validation of names, numbers or sizes.
- Roster data changes after production has started with no re-approval process.
- Personalization placement does not grade correctly with the garment across the size range.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Fit control and roster-data control are the same discipline applied to two different variables — both require a defined method, a locked version and a traceable record.

Chapter 15 — Labels, Branding, Packaging and Order Identification



Integrate legal, operational, brand and per-order personalization information without late surprises.

Labels and packaging sit at the intersection of branding, product information, logistics and market requirements — and, for custom apparel, at the intersection of a specific customer's order. They must be developed early enough to allow content review, material sourcing, testing and barcode setup, and they must reliably connect the correct label (size, name, number) to the correct individual garment inside a batch of look-alike products. Treat every label, hangtag, sticker, bag, carton marking and packing-slip personalization as a controlled component in the BOM and design-file system.

Learning Outcomes

1. Plan the complete labeling architecture by market, including per-order personalization.
2. Create production-ready artwork and placement specifications for both fixed and variable labels.
3. Coordinate barcodes, packaging and carton identification with roster and order data.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Separate label functions.** Main brand, size, composition, care, origin, traceability and commercial information may appear on separate components or a combined label. Requirements vary by product and market; verify the rules that apply before production.

2. **Specify the physical item and the variable data together.** Define material, dimensions, fold, edge finish, print or weave method, colors, text orientation, seam allowance and placement — and, separately, exactly which fields (size, name, number, order ID) vary per unit and how that variable data is generated and verified.
3. **Control variable data at scale.** Sizes, personalization, language, country, barcode, batch or importer data may vary across a single order. Use an approved data matrix linked to the roster in Chapter 14, and test that the decorator or platform can generate the correct label-to-garment match for every unit before a full batch runs.
4. **Design packaging for individual-order fulfillment.** Packaging should protect the product, support per-order or per-recipient fulfillment (individual team-member bagging, for example), fit logistics and avoid unsupported sustainability claims. Confirm bag warnings or other market-specific requirements when relevant.

Recommended Workflow

1. **Map required information** — List legal, brand, care, traceability and retail data by destination market, plus every variable personalization field.
2. **Create artwork masters** — Use vector or high-resolution files with controlled fonts and colors for fixed label elements.
3. **Build the SKU and roster data matrix** — Connect style, color, size, barcode, personalization and label version to each roster row.
4. **Approve physical samples** — Check readability, color, durability, fold, placement and scan performance, including a sample personalized label.
5. **Verify packing execution** — Inspect unit packaging, individual-order assortment, carton labels and quantities against the roster.

Decision Guide

Area	Option	Best use	Main control
Identification layer	Product label	Brand, size, composition, care, origin or traceability	Confirm market requirements and permanence
Identification layer	Personalized label / heat-seal	Name, number or order-specific data on the garment	Validate the print-to-roster match before packing
Identification layer	Commercial barcode	Links a trade item to sales and inventory data	Assign through the correct standards organization and validate scans
Identification layer	Individual-order packing slip		Reconcile every slip against the roster before dispatch

Area	Option	Best use	Main control
		Confirms roster-linked contents for team or bulk personalized orders	

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Required label content is confirmed for each market.
- Artwork files have version, size and color specifications.
- Physical construction and placement are defined for fixed and personalized labels.
- Variable data is linked to a controlled roster and SKU matrix.
- Barcodes are assigned and scan-tested.
- Packaging supports individual-order or per-recipient fulfillment where required.
- Carton markings and packing slips support receiving, reconciliation and roster matching.
- Bulk labels and packaging match approved samples and the correct roster rows.

Red Flags

- Label content is finalized after bulk production starts.
- A font or personalization field is substituted without approval.
- Barcodes are created from random online generators.
- Personalized labels are printed from an unvalidated or outdated roster file.
- Packaging dimensions ignore per-order assortment and shipping tests.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Labels and packaging should be engineered as components — including their variable, per-order data — not added as decoration at the end.

Chapter 16 — Compliance, Product Safety and Responsible Sourcing



Build compliance into design, decoration and records from the beginning.

Compliance is product- and market-specific. It may include textile fiber labeling, chemical restrictions on inks, adhesives and coatings, general product safety, children's product rules, packaging obligations, environmental claims, documentation and traceability. Certifications can support due diligence but do not transfer the brand's, decorator's or platform's responsibilities. Define applicable requirements with qualified specialists and current official guidance before placing the order or opening a storefront.

Learning Outcomes

1. Create a market-specific compliance matrix that covers blanks and decoration chemistry.
2. Distinguish certification, test reports and legal responsibility.
3. Integrate responsible purchasing behavior into production and platform-configuration planning.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Start with product, decoration method and destination.** Requirements depend on product type, materials, ink and adhesive chemistry, user group, claims and countries of sale. Create a matrix rather than assuming one global rule.
2. **Control chemicals and materials — including decoration consumables.** Ask suppliers and decorators for material declarations and appropriate test evidence on inks,

adhesives, transfer films and coatings, not only on the blank fabric. Test plans should identify substance, method, limit, sample source and responsible party.

3. **Maintain traceability across blanks, decoration batches and customer orders.** Keep supplier, batch, component, test, inspection and shipment records, linked to the specific customer order or roster where personalization is involved. Traceability supports corrective action and product-safety response.
4. **Buy and configure responsibly.** Late design changes, unrealistic prices and compressed lead times can increase excessive overtime, unauthorized subcontracting and quality failures. Purchasing and platform-configuration decisions influence working conditions and production integrity just as much as they do in bulk apparel.

Recommended Workflow

1. **Map obligations** — Identify rules, standards, labeling, documents and responsible economic operators.
2. **Assign evidence** — Decide which declarations, certificates, tests and records are required for blanks and decoration consumables.
3. **Qualify suppliers and decorators** — Check capability, system scope, subcontracting and material/consumable controls.
4. **Verify the product** — Use risk-based testing, inspection and document review on decorated and personalized goods.
5. **Maintain post-market readiness** — Keep traceability and a process for complaints, corrective action and recall, linked to affected orders or rosters.

Decision Guide

Area	Option	Best use	Main control
Evidence type	Supplier/ decorator declaration	Confirms stated material, ink or process information	Verify scope, issuer and supporting data
Evidence type	Certificate	Shows a system or product was assessed against a scheme	Check site, product, validity and issuing body
Evidence type	Laboratory report	Reports wash-fastness, crock-fastness or chemical results	Ensure sample represents the actual bulk product and decoration batch
Evidence type	Traceability record	Connects components, decoration batch and roster to shipped goods	Maintain identifiers through packing and delivery

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Destination markets and user groups are known.
- Compliance responsibilities are assigned across supplier, decorator and platform.
- Material and chemical restrictions are specified for blanks and decoration consumables.
- Required label and traceability information is approved.
- Test methods, samples and acceptance limits are defined.
- Certificates and reports match the site, product and decoration batch.
- Subcontracting is disclosed and controlled.
- Complaint, corrective-action and recall records can be created and linked to affected orders.

Red Flags

- The decorator says "compliant" without naming a rule, ink specification or test.
- A certificate is treated as proof for unrelated products or decoration methods.
- Testing uses a development sample with different blanks or inks than bulk.
- A claim such as recycled, organic or non-toxic lacks traceable evidence.
- Unrealistic lead time encourages hidden subcontracting or uncontrolled overtime at the decoration stage.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Compliance is an operating system supported by current expert advice, not a final checklist — and it extends to every ink, film and adhesive your decoration method uses.

Chapter 17 — Contracts, Platform Agreements, Payments and Intellectual Property



Convert commercial and platform understanding into enforceable written terms.

Custom apparel relationships need more than friendly messages, a proforma invoice and a software sign-up form. The agreement should identify parties, product and design-file documents, quantities, price, payment, delivery, inspection, acceptance, remedies, confidentiality, intellectual property, tooling and dispute process — and, where a customization platform is involved, data ownership, uptime commitments, white-label rights and what happens to customer designs and roster data if the relationship ends. Legal requirements vary, so use qualified counsel for material orders, platform agreements or unfamiliar jurisdictions.

Learning Outcomes

1. Understand the documents that form a custom-apparel production and platform agreement.
2. Reduce payment, change-control and platform-dependency risk.
3. Clarify ownership of designs, customer-uploaded artwork, patterns, tooling and roster data.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Incorporate the specification.** Reference the exact approved design file, BOM, samples, quality standards and packaging documents. A commercial order without a technical standard is difficult to enforce — and a platform agreement without a defined feature and integration scope is difficult to hold to account.

2. **Define acceptance and remedies.** State inspection timing, defect classification (including decoration and personalization defects), tolerance, shortage, rework, replacement, credit and late-delivery expectations. Remedies should be commercially realistic and legally reviewed.
3. **Stage payments against evidence.** Deposits may fund blanks or setup fees, while balance payments can be linked to completion, passed inspection and shipping documents. Platform subscription payments should be tied to a defined service level, not an assumed one. Verify beneficiary details independently when they change.
4. **Clarify ownership and use — including customer-uploaded content.** Address designs, patterns, grading, tooling, molds, logos, customer-uploaded artwork, confidential information, overruns, roster data and sale to third parties. Confirm the customer holds rights to any uploaded logo or artwork before production, and record who stores, insures and may dispose of tooling, excess blanks or personalization data.

Recommended Workflow

1. **Identify the parties** — Use verified legal entities, addresses and authorized contacts for suppliers, decorators and the software platform.
2. **Attach the product standard** — List incorporated files, versions, samples and acceptance criteria, including the approved design-file format.
3. **Agree commercial terms** — Confirm quantity, price, currency, delivery term, payment, tax treatment and platform subscription terms.
4. **Add risk clauses** — Cover change control, delay, defects, confidentiality, IP (including customer-uploaded artwork and rights clearance), data ownership and dispute resolution.
5. **Issue and acknowledge** — Obtain signatures or accepted purchase orders and platform terms before commitment.

Decision Guide

Area	Option	Best use	Main control
Document	Purchase order	Formal order with quantity, price, delivery and referenced terms	Use consistent style and version identifiers
Document	Proforma invoice	Supplier's or decorator's advance commercial invoice or payment request	Check entity, bank, specification and exclusions
Document	Platform / SaaS agreement	Defines feature scope, integrations, SLA, data ownership and pricing tier	Confirm exit terms for design and roster data before signing

Area	Option	Best use	Main control
Asset	Customer-uploaded artwork / IP	Logos, artwork and sponsor marks provided by the customer	Require the customer to confirm rights before production

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Legal entity and bank beneficiary are verified for suppliers and decorators.
- Technical documents and approved samples/proofs are incorporated.
- Quantity, price, currency and delivery term are explicit.
- Payment milestones are linked to defined evidence.
- Inspection, acceptance and remedy terms are documented, including decoration and personalization defects.
- Change orders require written approval.
- IP, customer-artwork rights, tooling and roster-data ownership are clear.
- Platform SLA, data-export and exit terms receive review before signing.

Red Flags

- Payment is requested to a personal account.
- The decorator refuses to reference the approved design file.
- The order has no written defect remedy for decoration or personalization errors.
- A bank change is communicated only through email.
- The platform agreement is silent on what happens to customer designs and roster data on termination.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Written terms work best when they connect technical acceptance — including a design proof — to commercial consequences and platform accountability.

Chapter 18 — Production Planning, Change Control and Order Batching



Turn approvals into a realistic, monitored production calendar — for both on-demand and batch orders.

Custom apparel production runs on two timing models at once: single-unit, order-triggered production (print-on-demand) and larger batch runs (team orders, seasonal drops). Blanks must be ordered, approved, received and inspected; decoration and personalization data must be released; production capacity — physical and software — must be reserved; and packaging must be available. A production calendar should expose dependencies and decision deadlines for both models. Change control protects the schedule and prevents silent cost or quality impacts.

Learning Outcomes

1. Build a critical-path production timeline for both on-demand and batch custom orders.
2. Use a pre-production meeting to align blanks, decoration and platform teams.
3. Control late changes — including late roster edits — and recover from delays.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Plan backward from delivery, for the correct order type.** Work backward through freight, final inspection, packing, decoration, cutting and blank readiness for batch orders; work backward through decoration queue time and dispatch for on-demand, order-triggered production. Add realistic buffers for proof approvals, tests and corrective action.

2. **Confirm capacity, not only lead time — physical and digital.** Ask when the decoration line is reserved, what output is expected, which products share the line, and what the platform's order-processing and queue capacity is at peak volume (team-store launch day, for example).
3. **Run a pre-production meeting.** Review current documents, approved standards, blanks, decoration setup, roster data, quality points, packing, schedule and open risks with production, decoration and platform-configuration owners together.
4. **Control every change — including roster edits after cutoff.** A change request should state reason, affected styles or roster rows, specification, cost, timing, inventory and quality impact. Approve or reject before execution, and set — and enforce — a roster edit cutoff before decoration begins.

Recommended Workflow

1. **Create the milestone plan** — List approvals, purchasing, decoration, personalization, inspection and logistics dates for both on-demand and batch flows.
2. **Confirm material and data readiness** — Track ordered, due, received, tested and approved status for every blank, consumable and roster file.
3. **Release production** — Hold the pre-production meeting and issue the approved-for-bulk design file and locked roster.
4. **Monitor execution** — Use regular status evidence — including platform order-status data — and focus on critical-path exceptions.
5. **Recover formally** — For delays, agree root cause, revised dates, actions, owners and consequences.

Decision Guide

Area	Option	Best use	Main control
Production model	On-demand (order-triggered)	Single-unit or low-volume, high-personalization orders	Requires reliable per-order decoration queue capacity
Production model	Batch (team / seasonal order)	Larger, roster-driven or seasonal volume	Requires a locked roster and cutoff date before cutting
Milestone	Roster lock / edit cutoff	Prevents personalization errors from late changes	Communicate the cutoff clearly to the customer or team contact
Milestone	Final inspection	Goods assessed before shipment	Leave time for rework, re-personalization or reinspection

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Calendar is built backward from required receipt date, for the correct production model.
- Blank and decoration-consumable lead times are confirmed.
- Decoration line and platform order-processing capacity are reserved for peak volume.
- Pre-production meeting actions are closed.
- Approved-for-bulk design file and locked roster are frozen before cutting or decoration.
- Status reporting includes evidence and forecast dates, including platform order status.
- Changes include cost, timing and quality impact, including roster edits.
- Recovery plans have owners and decision deadlines.

Red Flags

- Lead time begins before blanks or decoration consumables are available.
- The decorator reports only a percentage complete with no roster-level detail.
- Bulk starts with open proof comments or an unlocked roster.
- Late roster changes are accepted without timeline or cost revision.
- Platform order volume at launch exceeds tested decoration or fulfillment capacity.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

A credible custom-apparel production plan shows dependencies for both on-demand and batch flows, not just a start and finish date.

Chapter 19 — Quality Control, Inspections and AQL for Decorated and Personalized Goods

AQL Sampling at a Glance

Acceptable Quality Limit inspection — sample size scales with batch size, not order value

Batch size (units)	Sample size (general II)	Accept on	Reject on	Typical use
2 – 150	13	0 defects	1 defect	Sample runs, pilots
151 – 500	32	2 defects	3 defects	Small custom batches
501 – 1,200	80	5 defects	6 defects	Team kit / roster runs
1,201 – 3,200	125	7 defects	8 defects	Mid-volume production
3,201 – 10,000	200	10 defects	11 defects	Bulk custom / wholesale

How to read this

Sample size and accept/reject numbers follow ANSI/ASQ Z1.4 general inspection level II at a 2.5% AQL — the common default for decorated and personalized apparel. Sharper, "critical" defects (wrong roster name, unsafe trims) should use a tighter AQL and zero-defect acceptance regardless of batch size.

Reference table only — confirm the applicable standard and AQL with your quality team before use.

Chapter 19 — Quality Control, Inspections and AQL for Decorated and Personalized Goods

Figure — AQL sample sizes and accept/reject points by batch size.



Define quality — including decoration and personalization accuracy — before measuring it.

Quality control compares the actual product with an agreed standard. For custom apparel, that standard includes construction quality, decoration accuracy and durability, and personalization accuracy — the right name, the right number, on the right size, for the right recipient. QC should operate at incoming blank, pilot, inline, decoration, personalization, finishing, packing and final stages according to product and order risk. Final random inspection can provide statistical evidence about a batch, but for personalized goods, sampling alone cannot catch a wrong name on an individual unit — a 100%-check step at the personalization stage is often required.

Learning Outcomes

1. Create a product- and decoration-specific quality plan.

2. Understand critical, major and minor defects for decorated and personalized goods.
3. Use sampling inspection appropriately, and know when personalization requires 100% verification instead.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Write the quality standard, including decoration and personalization criteria.**
Combine the approved sample, design file, measurement method, color/Pantone standard, decoration-placement diagram, personalization-accuracy requirement, workmanship criteria, packaging and functional tests. Inspectors cannot enforce an unstated expectation.
2. **Control early stages.** Check incoming blanks and first decorated output before large quantities are cut, decorated or personalized. Early detection reduces rework and prevents a repeated process error across an entire roster.
3. **Classify defects consistently — including decoration and personalization defects.**
Critical defects create safety, legal or complete-personalization-mismatch risk (wrong name shipped to wrong recipient). Major defects affect function, appearance or saleability — off-registration print, puckered embroidery, faded sublimation. Minor defects are lower-impact deviations. Product- and method-specific examples should be agreed.
4. **Use AQL for construction defects; use 100% verification for personalization.** Sampling plans define sample size and acceptance numbers based on lot size, inspection level and selected AQL for construction and decoration quality. Personalization accuracy — because each unit is unique — generally requires a full, not sampled, verification pass against the locked roster before packing.

Recommended Workflow

1. **Build the defect library** — Use photographs and definitions for product-, decoration- and personalization-specific critical, major and minor defects.
2. **Approve inspection documents** — Set measurements, tolerances, tests, sampling levels and a personalization-verification method.
3. **Inspect during production** — Review blanks, pilot decoration output and inline work at risk-based points.

4. **Run final inspection and personalization verification** — Select cartons and units randomly for construction/decoration AQL, and verify 100% of personalized units against the locked roster.
5. **Close corrective action** — Document containment, root cause, rework, reinspection and prevention.

Decision Guide

Area	Option	Best use	Main control
QC stage	Incoming blank	Checks fabric, shade, width and quantity before decoration	Prevents unsuitable blanks entering decoration
QC stage	Inline decoration inspection	Checks registration, stitch quality or transfer adhesion while correction is possible	Focus on recurring defects and critical operations
QC stage	Final random inspection (AQL)	Assesses construction and decoration quality on a sampled basis	Requires representative random sampling
QC stage	100% personalization verification	Confirms every personalized unit matches its locked roster row	Does not substitute for construction/decoration AQL — run both

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Approved sample, design file and locked roster are available.
- Defect definitions are product-, decoration- and personalization-specific.
- Measurement, color and decoration-placement methods are clear.
- Functional and safety checks are included.
- Sampling parameters (AQL) are chosen before construction/decoration inspection.
- 100% personalization verification is performed against the locked roster.
- Rework, re-personalization and reinspection rules are agreed.
- Quality data feeds corrective action with the decorator and the platform team.

Red Flags

- Inspection begins without an approved standard or a locked roster.
- All defects are called minor to pass the order.
- Personalization accuracy is checked by sampling instead of 100% verification.
- A passed final inspection is treated as a guarantee that every personalized unit is correctly matched.
- Repeated decoration defects are reworked without root-cause action.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Quality improves when construction standards, decoration process control and 100% personalization verification work together — sampling alone cannot catch a wrong name.



PART THREE

Decoration & Product-Specific

Chapters 20–24

Screen print, DTG and DTF; sublimation for team sportswear; embroidery and heat transfer; team kits and roster production; continuous improvement.





Figure 4 — Screen print, DTG, DTF, sublimation and embroidery compared.

Chapter 20 — Screen Print, DTG and Direct-to-Film Decoration



Control registration, ink chemistry and cure for the most common apparel-decoration methods.

Screen print, direct-to-garment (DTG) and direct-to-film (DTF) are the workhorse decoration methods for custom apparel, but each has a distinct risk profile. Screen print depends on registration, mesh count, ink type and cure temperature. DTG depends on pretreatment, ink saturation and fabric composition. DTF depends on film quality, powder adhesive application and press settings. Bulk consistency depends on measured process behavior, not only an approved single-unit proof.

Learning Outcomes

1. Identify the main quality risks across screen print, DTG and DTF.
2. Specify registration, color separation and cure/press parameters clearly.
3. Plan wash and durability testing on production blanks and inks.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Qualify the method against the fabric.** Confirm fiber composition, weave or knit structure, and pretreatment needs. Cotton and cotton-blend fabrics behave differently under DTG pretreatment than performance polyester; screen-print ink adhesion varies by fiber and finish.
2. **Engineer registration and color separation.** Specify color count, separation method (spot color versus process color), mesh count, underbase requirements for dark garments, and registration tolerance. Approve a physical strike-off before running bulk.

3. **Control cure and press parameters.** Cure temperature, dwell time and press pressure directly affect wash-fastness and hand-feel. Retain a cured reference sample and monitor bulk output against it.
4. **Test durability on the actual production blank.** Wash-fastness, crack resistance and colorfastness should be assessed after laundering, not only on a fresh print. Approve placement, dimensions, color and durability on the actual fabric and color used in bulk.

Recommended Workflow

1. **Approve the blank and pretreatment** — Confirm fiber composition and pretreatment behavior for DTG, or ink adhesion for screen print and DTF.
2. **Develop the color separation** — Resolve spot-color or process-color separation, underbase and registration tolerance.
3. **Approve cure and press settings** — Confirm temperature, dwell time and pressure on a production-representative sample.
4. **Test durability** — Run a wash-fastness and crack-resistance test on the cured sample.
5. **Inspect bulk** — Monitor registration, color match, cure quality and placement consistency.

Decision Guide

Area	Option	Best use	Main control
Method	Screen print	High-volume, few colors, cotton or cotton-blend fabrics	Registration, mesh count and cure temperature
Method	DTG (direct-to-garment)	Low-volume, photographic or many-color designs on cotton	Pretreatment consistency and ink saturation
Method	DTF (direct-to-film)	Multi-fabric compatibility, small-batch or on-demand orders	Film quality, powder adhesive and press settings
Method	Digital proof-to-print validation	Confirming on-screen color matches physical cured output	Recalibrate the platform's rendering against physical swatches regularly

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Blank fabric is qualified for the chosen decoration method.
- Color separation, underbase and registration tolerance are specified.
- Cure or press temperature, dwell time and pressure are approved.
- Post-wash durability meets agreed targets.
- Placement is consistent across sizes and the size grid.
- The platform's on-screen color rendering is validated against the cured physical sample.
- Bulk registration and color match are monitored against the approved standard.
- Personalized elements (names, numbers) follow the same cure/press validation as fixed artwork.

Red Flags

- Fresh prints are approved but washed samples are not reviewed.
- Color separation is approved on screen without a physical strike-off.
- Cure temperature or dwell time is adjusted without re-approving the standard.
- DTG pretreatment is skipped or inconsistent across a batch.
- Personalized name/number prints use different cure settings than the approved standard, unvalidated.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Screen print, DTG and DTF become reliable only when registration, ink chemistry and cure are engineered into the specification — and validated against what the customer sees on screen.

Chapter 21 — Sublimation and All-Over Print for Team Sportswear



Manage dye-sublimation chemistry, pattern-cut alignment and fabric compatibility.

Sublimation is the dominant decoration method for team sportswear and all-over print jerseys, converting dye directly into polyester fiber under heat and pressure. It enables unlimited colors and full-garment coverage, but demands polyester-compatible fabric, precise pattern-cut alignment (so a design aligns correctly across seams) and controlled heat-press or calendar parameters. It is central to the personalization use case — team names, player numbers and sponsor panels applied as part of the same print run.

Learning Outcomes

1. Understand fabric-compatibility requirements for sublimation.
2. Manage pattern-cut alignment so all-over designs match correctly across seams.
3. Integrate name, number and sponsor-panel personalization into a single sublimation print run.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Qualify the fabric for sublimation.** Polyester content, weave or knit structure and finish directly determine color vibrancy and wash-fastness. Fabrics with low polyester content will not accept sublimation dye consistently — confirm composition before committing a template to this method.
2. **Engineer pattern-cut alignment.** All-over designs must be printed with cutting and sewing alignment in mind, so seams, side panels and sleeves match the intended

design rather than creating visible breaks. Approve the pattern-and-print alignment on a physical sample before bulk.

3. **Control heat, pressure and time on the transfer or calendar press.** Sublimation results depend on temperature, pressure and dwell time; inconsistent settings create shade variation across a batch. Retain a sealed reference sample and monitor bulk against it.
4. **Integrate personalization into the same design and print pass.** Names, numbers and sponsor panels are typically sublimated as part of the same file and print run as the base design — validate that your customization platform's production-file output places these elements correctly relative to seams and pattern pieces, not just relative to a flat design canvas.

Recommended Workflow

1. **Approve fabric performance** — Confirm polyester content and sublimation behavior on the actual bulk-representative fabric.
2. **Develop pattern-cut alignment** — Resolve how the all-over design maps onto pattern pieces so seams align correctly.
3. **Approve press or calendar settings** — Confirm temperature, pressure and dwell time on a production-representative sample.
4. **Integrate personalization** — Validate that name/number/sponsor placement renders correctly across the size range and seam layout.
5. **Inspect bulk** — Monitor color vibrancy, shade consistency, pattern alignment and personalization placement.

Decision Guide

Area	Option	Best use	Main control
Product	All-over sublimated jersey	Full-color team kits and fan gear	Fabric polyester content and pattern-cut alignment
Product	Sublimated panel / trim only	Cost-controlled designs with targeted color areas	Panel placement consistency across sizes
Personalization	Roster-driven name/number sublimation	Team orders with individual player data	Validate roster data against the locked file before the print run
Personalization	Sponsor-panel sublimation	Club, league or sponsor-governed kits	Confirm sponsor placement rules and approval chain before printing

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet**Ready-to-Proceed Checklist**

- Fabric polyester content and sublimation compatibility are confirmed.
- Pattern-cut alignment is approved on a physical sample before bulk.
- Press or calendar temperature, pressure and dwell time are approved and monitored.
- Personalization (names, numbers, sponsor panels) is validated within the same print file.
- Shade consistency is monitored across the full production run.
- Roster data is locked before the sublimation print run begins.
- Post-wash colorfastness meets agreed targets.
- Sponsor and league placement rules are confirmed before printing.

Red Flags

- A fabric with insufficient polyester content is approved for sublimation based on handfeel alone.
- Pattern-cut alignment is not tested before a full team-kit batch runs.
- Press settings vary across the run with no monitoring against a sealed reference.
- Roster data changes after the sublimation file is generated, with no re-approval process.
- Sponsor-panel placement is applied without confirming league or sponsor approval.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Sublimation succeeds when fabric compatibility, pattern-cut alignment, press control and personalization data are engineered as one system, not stitched together after the fact.

Chapter 22 — Embroidery, Appliqué and Heat Transfer



Manage digitizing quality, stitch density and stabilizer selection for durable, three-dimensional decoration.

Embroidery, appliqué and heat-transfer vinyl (HTV) offer decoration durability and a premium finish that print methods cannot always match, particularly for caps, polos and logo-forward branding. Each depends on a distinct technical input: embroidery on accurate digitizing and stabilizer choice, appliqué on fabric-to-fabric attachment method, and heat transfer on film selection and press control. Fit, stretch and personalization character limits behave differently under these methods than under print.

Learning Outcomes

1. Understand digitizing, stitch density and stabilizer requirements for embroidery.
2. Manage appliqué attachment methods and heat-transfer film selection.
3. Set realistic personalization character limits and placement rules for stitched and pressed decoration.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Digitizing quality determines embroidery outcome.** Stitch type, density, underlay and pull-compensation settings must be digitized specifically for the design and the fabric — a digitizing file approved on knit fleece will not necessarily produce the same result on a structured cap panel.
2. **Match stabilizer to fabric and stitch density.** Cut-away, tear-away and wash-away stabilizers each suit different fabric weights and stitch densities. An unstable combination causes puckering, distortion or thread breaks, especially on stretch knits.

3. **Control appliqué and heat-transfer attachment.** Appliqué requires a defined attachment method (satin-stitch border, bonding, or both) and a fray-resistant fabric edge. Heat-transfer vinyl requires film type, temperature, pressure and peel method matched to the base fabric, particularly for stretch or performance textiles.
4. **Set personalization limits that respect the decoration method.** Character count, font choice and stitch-out size for embroidered names and numbers must reflect digitizing constraints — very small text or very long names may not embroider legibly. Configure these limits directly in the customer-facing customizer so customers cannot request an unbuildable design.

Recommended Workflow

1. **Digitize and approve the design** — Confirm stitch type, density, underlay and pull compensation on the actual fabric.
2. **Select and test stabilizer** — Match stabilizer to fabric weight and stitch density; test for puckering and distortion.
3. **Approve appliqué or heat-transfer method** — Confirm attachment method, film type and press settings on a production-representative sample.
4. **Set personalization constraints** — Configure character limits, font and stitch-out size in the customizer to match digitizing capability.
5. **Inspect bulk** — Monitor stitch quality, registration, attachment strength and personalization legibility.

Decision Guide

Area	Option	Best use	Main control
Method	Flat embroidery	Logos, text and badges on polos, caps and outerwear	Digitizing quality, stitch density and stabilizer match
Method	3D / puff embroidery	Raised logo effect on caps and heavyweight fabrics	Foam density and stitch coverage to prevent collapse
Method	Appliqué	Large-area branding with a fabric-on-fabric look	Attachment method and fray-resistant edge finishing
Method	Heat-transfer vinyl (HTV)	Fine detail or gradient designs on stretch or performance fabrics	Film-to-fabric compatibility and press temperature/peel method

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Digitizing file is approved on the actual production fabric, not a generic sample.
- Stabilizer type matches fabric weight and stitch density.
- Appliqué attachment method and edge finishing are approved.
- Heat-transfer film, temperature and peel method are approved for the base fabric.
- Personalization character limits and font/stitch-out size are configured in the customizer.
- Stitch-out or press samples are tested for puckering, distortion and adhesion.
- Bulk is inspected for registration, density and attachment strength.
- Wash-durability testing is completed on decorated, production-representative samples.

Red Flags

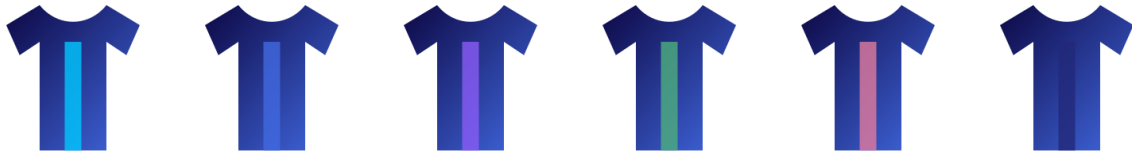
- A digitizing file approved on one fabric is used unchanged on a different fabric or garment type.
- Stabilizer is chosen by habit rather than by fabric weight and stitch density.
- Appliqué edges fray after the first wash because attachment method was not tested.
- The customizer allows personalization text longer or smaller than the digitizing file can legibly stitch.
- Heat-transfer film is applied at a generic temperature without matching the base fabric's heat tolerance.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Embroidery, appliqué and heat transfer reward precision at the digitizing and stabilizer stage — errors there are expensive to discover after a full batch has been stitched or pressed.

Chapter 23 — Team Kits, Uniforms and Roster-Based Bulk-Custom Production



Manage the highest-complexity custom apparel category: many individuals, one deadline.

Team kits, club uniforms and event-based apparel combine every risk in this handbook at once: multiple decoration methods, a locked roster of individual names, numbers and sizes, sponsor and league placement rules, and a fixed delivery date that cannot move. Success depends on treating the roster as the primary control document and building the production plan around it, rather than treating personalization as an afterthought bolted onto a standard bulk order.

Learning Outcomes

1. Build a roster-first production plan for team and uniform orders.
2. Coordinate multiple decoration methods (sublimation, embroidery, heat transfer) within a single kit.
3. Manage sponsor, league and club approval chains alongside customer and platform approvals.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **The roster is the production document.** Every size, name, number and sponsor placement traces back to one validated, version-locked roster file. Treat any change to that file with the same discipline as a tech-pack revision.
2. **Coordinate decoration methods deliberately.** A single kit may combine sublimated base fabric, embroidered club crest and heat-transfer sponsor logos. Sequence and

test how these methods interact — heat from a later press step can affect an earlier sublimation or transfer.

3. **Manage the approval chain beyond the individual customer.** Team and league orders often require sequential sign-off — team manager, club board, league or sponsor — before the roster and design are locked. Build the timeline around the slowest approver, not the fastest.
4. **Protect the fixed delivery date.** Team kits are typically needed for a specific match, season start or event. Build buffer into every stage — proofing, roster collection, decoration, QC — because a team order has no acceptable "late" outcome.

Recommended Workflow

1. **Collect and validate the roster** — Use a structured template or platform upload; validate names, numbers and sizes before any production step begins.
2. **Confirm the approval chain** — Identify every required approver (team manager, club, league, sponsor) and their expected response time.
3. **Sequence decoration methods** — Plan the order of sublimation, embroidery and heat-transfer application, testing for interaction effects.
4. **Lock the roster and design** — Freeze both before cutting or decoration begins, with a clearly communicated cutoff date.
5. **Inspect and reconcile against the roster** — Verify 100% of personalized units against the locked roster before individual-order packing.

Decision Guide

Area	Option	Best use	Main control
Roster intake	Platform-based team-store upload	Larger teams, clubs and recurring seasonal orders	Validate at intake, not after decoration
Roster intake	Manual spreadsheet collection	Small teams or one-off events	Requires a second-person check before lock
Approval chain	Single decision-maker (team manager)	Small clubs and informal teams	Fast, but confirm they hold authority for the full roster
Approval chain	Multi-tier (club, league, sponsor)	Sanctioned league or sponsor-governed kits	Build timeline around the slowest required approver

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Roster is collected through a validated, structured format.
- Every required approver is identified with an expected response time.
- Decoration method sequence is planned and tested for interaction effects.
- Roster and design are locked with a communicated cutoff date.
- Sponsor and league placement rules are confirmed before production.
- Buffer time is built into every stage against the fixed delivery date.
- 100% of personalized units are reconciled against the locked roster before packing.
- Individual-order packing matches the correct recipient within the team shipment.

Red Flags

- Production begins before every required approver has signed off on the roster.
- Decoration methods are sequenced without testing how heat or pressure from one step affects another.
- Roster edits are accepted after the communicated cutoff with no timeline adjustment.
- A single missing size or name is discovered only at final packing, with no buffer remaining.
- Sponsor or league placement is applied without final confirmation from the governing body.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Team and uniform production succeeds when the roster is managed as the central control document, the approval chain is mapped in advance, and every stage protects a delivery date that cannot slip.

Chapter 24 — Common Problems, On-Demand Strategy and Continuous Improvement



Build a repeatable operating system — across suppliers, decorators and software — that gets stronger with every order.

Production problems are inevitable; repeated unmanaged problems are not. Custom apparel businesses can reduce risk by narrowing blank and color choices, using stock components, validating personalization data before it reaches production, reserving cash for correction, and learning systematically from both decoration defects and platform-configuration issues. After every order and every platform release, convert problems into updated specifications, decorator actions, defect libraries and planning assumptions.

Learning Outcomes

1. Respond to decoration and personalization defects with containment and root-cause action.
2. Design on-demand and small-batch strategies around real minimums, cash flow and platform capacity.
3. Create a decorator, supplier and software-platform learning loop.

Control Question

Can the requirement, owner, evidence and approval status be understood by someone who was not present in the original discussion?

Core Principles

1. **Separate containment from correction.** Containment protects the current order: stop, segregate, rework, re-personalize or replace. Corrective action identifies root cause and changes the material, method, document, platform configuration, training or control so the issue is less likely to return.

2. **Design for on-demand and small quantities.** Use stock blanks, standard colors, shared decoration placements, validated personalization templates or modular design components. Accept a higher unit cost when it reduces unsold inventory and preserves learning.
3. **Measure decorator and platform performance together.** Track on-time proof delivery, first-pass approval rate, bulk decoration defects, personalization accuracy, platform uptime and order-to-production time, communication, cost changes and corrective-action closure. Compare trends rather than one isolated outcome.
4. **Hold a post-production review.** Review what changed, what failed, what was learned and what must be updated before the next order or platform release. Archive approved standards, design files and roster records with clear labels.

Recommended Workflow

1. **Stabilize the issue** — Stop affected work, identify scope (including which roster rows or orders are affected) and preserve evidence.
2. **Find the root cause** — Use process facts rather than blame or assumptions — was it a blank issue, a decoration setting, a platform configuration or a data-entry error?
3. **Choose the remedy** — Rework, replace, re-personalize, discount, remake or change schedule according to impact.
4. **Update the system** — Revise the design file, BOM, platform template, personalization validation rule, training or timeline.
5. **Review performance** — Use data to continue, develop, reduce exposure or exit a supplier, decorator or software configuration.

Decision Guide

Area	Option	Best use	Main control
Small-batch / on-demand lever	Stock blanks and standard color library	Avoid custom dye or mill minimums	Check continuity and reserve enough for repeat orders
Small-batch / on-demand lever	Shared decoration placements and templates	Use one placement grid or digitizing file across styles	Reduce setup complexity and platform-configuration time
Small-batch / on-demand lever	Pilot order	Validate demand, decorator execution and platform configuration together	Define learning goals and acceptance standards

Area	Option	Best use	Main control
Improvement tool	Decorator and platform scorecard	Tracks quality, timing, uptime, service and commercial behavior	Review with evidence after each order or release

Decision Discipline

Record the chosen option, the reason, the evidence used and the person who approved it. A decision without a record can be reversed accidentally.

Control Sheet

Ready-to-Proceed Checklist

- Current-order containment is documented, including affected roster rows.
- Root cause is supported by process evidence, not assumption.
- Corrective action has an owner and due date.
- Specifications, platform templates and validation rules are updated.
- Small-batch and on-demand economics include setup and material minimums.
- Unused blanks, consumables and tooling are tracked.
- Decorator and platform performance are reviewed after delivery.
- Reorder and template decisions use actual sales, defect and platform data.

Red Flags

- The team repeatedly fixes symptoms without changing the process or platform configuration.
- A low MOQ hides large decoration setup or personalization minimums.
- The same decorator or platform configuration receives more volume despite worsening data.
- Lessons remain in personal messages rather than documents or the platform's record.
- Sustainability or "on-demand, zero-waste" claims are made from low quantity alone without broader evidence.

Do not ignore a pattern because the current sample looks acceptable. Working behavior often predicts bulk-production behavior.

Chapter Takeaway

Your custom-apparel production system should become more accurate, transparent and resilient after every order — and every platform release.

Appendix T — Production Toolkit

Seventeen practical worksheets designed to convert the handbook into a repeatable production record for custom and decorated apparel. Use digitally, inside your customization platform's order records, or print for working sessions.

1. **PREPARE** — Complete before contacting, approving or releasing.
2. **EVIDENCE** — Attach proofs, samples, photos, reports, quotes or source files.
3. **DECIDE** — Name the result, owner, due date and approval status.
4. **ARCHIVE** — Store with the style code, design version and production order.

Included worksheets

1. Blank Supplier & Decorator Sourcing Brief
 2. Supplier & Decorator Comparison Matrix
 3. Supplier & Decorator Verification Checklist
 4. Customization Order Brief
 5. Product & Decoration Complexity Score
 6. Design File & Techpack Release Checklist
 7. Bill of Materials Builder (Decoration Components)
 8. Blank Garment Qualification Sheet
 9. Digital Proof & Sample Review Form
 10. Fit & Personalization Data Sheet
 11. Costing and Per-Unit Customization Cost Sheet
 12. Production Critical-Path Planner (On-Demand & Batch)
 13. Pre-Production Meeting Record
 14. Quality Plan and Decoration Defect Library
 15. Final Inspection Release Sheet
 16. Platform / Software Evaluation Matrix
 17. Supplier & Decorator Performance Scorecard
-

Worksheet 01 — Blank Supplier & Decorator Sourcing Brief

Define the blank supplier and decorator you need before starting the search.

Complete one brief per product family. Use it to screen candidates consistently and to avoid contacting suppliers or decorators that cannot meet critical requirements.

Requirement	Your specification	Priority / evidence
Product category and examples		
Blank fabric and construction		
Decoration method(s) required		
Expected order quantity / SKU count		
Personalization support required		
Target quality and price level		
Destination markets / compliance		
Delivery window and capacity		

Decision Gate

Advance only suppliers and decorators that meet every critical requirement and can show comparable, decorated production.

Worksheet 02 — Supplier & Decorator Comparison Matrix

Compare qualified candidates using the same evidence.

Score only what has been verified. Add a short evidence note for each rating so that presentation quality does not outweigh production fit.

Criterion	Candidate A	Candidate B	Candidate C
Comparable product / decoration capability			
MOQ, setup fees and commercial fit			
Sample / proof turnaround			
Material and consumable transparency			
Quality system and inspection access			
Capacity and lead-time credibility			
Communication and documentation			
Legal / payment consistency			

Decision Gate

Keep at least one qualified alternative until the first partner has passed proofing and commercial verification.

Worksheet 03 — Supplier & Decorator Verification Checklist

Verify identity, site, capability and commercial consistency.

Record document names, dates and sources. Escalate inconsistencies before sending money, confidential artwork or customer data.

Verification point	Evidence reviewed	Result / action
Legal name, registration and address		
Bank beneficiary and invoice entity		
Actual production / decoration site		
Machinery and comparable decorated products		
Subcontracted processes		
Certification scope and validity		
References / independent checks		
Audit, inspection and visit access		

Decision Gate

Do not pay when the legal entity, bank beneficiary or production/decoration location cannot be explained.

Worksheet 04 — Customization Order Brief

Translate the concept into commercial, technical and customizer-configuration targets.

Mark each item as critical, preferred or optional. Unresolved items should have an owner and decision date.

Brief field	Target / description	Priority / owner
Customer and use case		

Brief field	Target / description	Priority / owner
Product sentence / differentiator		
Decoration method(s) and personalization fields		
Target retail and landed cost, incl. per-unit decoration		
Order quantity, colors, sizes and personalization variants		
Fit and performance expectations		
Critical aesthetic and brand-color details		
Launch date and destination markets		

Decision Gate

Start technical development and customizer configuration only when the product, customer, cost boundary and critical requirements are understood.

Worksheet 05 — Product & Decoration Complexity Score

Evaluate whether the project fits current capability, cash and timing.

Rate each area from 1 (low) to 5 (high), then document the action that reduces or controls the risk.

Risk area	Score 1–5	Reason / control action
Construction operations		
Fit sensitivity and size range		
Decoration method and color complexity		
Personalization variability (names, numbers, sponsor text)		
Special machinery / subcontracting		
Testing and compliance		
MOQ, setup fees and cash exposure		
Lead time and launch dependency		

Decision Gate

High-risk products require specialist decorators, additional testing, more proof rounds or a simplified customizer configuration.

Worksheet 06 — Design File & Techpack Release Checklist

Confirm the design file and techpack are coherent before releasing to production.

Review as if you had never seen the product. Every item should point to the same style code, design version, unit and approval status.

Control	Complete?	Issue / owner
All relevant technical and decoration views		
Construction and decoration-placement callouts		
Measurement chart and POM diagrams		
BOM and component references (physical and digital)		
Colorways, artwork and personalization placements		
Labels and packaging		
Testing and quality criteria		
Revision log and release status		

Decision Gate

Issue one dated version and remove obsolete files from the active production folder and platform template library.

Worksheet 07 — Bill of Materials Builder (Decoration Components)

Create a purchasable and traceable component list, including digital assets.

Use one line per component. Continue the table digitally for additional materials, trims, inks, films and artwork files.

Component / location	Specification / supplier ref.	Color / qty / status
Blank garment		
Secondary fabric / lining		

Component / location	Specification / supplier ref.	Color / qty / status
Ink / thread / transfer film		
Stabilizer / adhesive		
Artwork file / digitizing file (version)		
Personalization schema (fields, limits)		
Brand, size and care labels		
Unit and carton packaging		

Decision Gate

Bulk purchasing and decoration begin only when critical component standards and substitution rules are approved.

Worksheet 08 — Blank Garment Qualification Sheet

Compare blank appearance, decoration performance and supply risk.

Attach or reference the swatch, decorated sample and supplier data. Record test methods and conditions rather than only pass/fail.

Property	Target / result	Approval / follow-up
Composition, construction, GSM and width		
Decoration-method compatibility		
Stretch and recovery		
Shrinkage / dimensional change after decoration		
Colorfastness / shade control		
Decoration durability (wash / crock fastness)		
MOQ, lead time and continuity		
Approved blank + decorated reference sample		

Decision Gate

Approve the blank only after it has been tested with the intended decoration method and finishing process.

Worksheet 09 — Digital Proof & Sample Review Form

Turn a digital proof or physical sample into controlled decisions.

Identify the proof/sample type, design version and materials before reviewing. Use screenshots, photographs and actual measurements as evidence.

Review area	Finding / evidence	Decision / correction
Proof/sample identity and purpose		
Measurements and tolerance		
Color and placement accuracy vs. on-screen proof		
Construction and workmanship		
Decoration durability (wash / wear result)		
Personalization accuracy (name, number, size)		
Trims, labels and packaging		
Overall approval status		

Decision Gate

Update the pattern, measurement chart, BOM, design file and platform template before requesting the next proof or sample.

Worksheet 10 — Fit & Personalization Data Sheet

Write objective fit comments and validate personalization data together.

Describe the issue, location, evidence and required result. Note whether the change applies to the base size only, affects grading, or requires a roster correction.

POM / data field	Actual issue	Required change / impact
Overall silhouette and ease		
Length and balance		
Shoulder / chest / armhole		
Waist / hip / rise		
Personalization field (name/number) accuracy		

POM / data field	Actual issue	Required change / impact
Roster size assignment accuracy		
Sponsor / logo placement		
Movement and comfort		

Worksheet 11 — Costing and Per-Unit Customization Cost Sheet

Expose the complete commercial cost, including platform and personalization fees.

Enter costs in one currency and note the quoted Incoterm, quantity and design-file version. Use ranges for uncertain logistics or duty.

Cost item	Unit / total cost	Assumption / source
Blank and material wastage		
Decoration setup (screens, digitizing, film)		
Per-unit decoration and personalization cost		
Platform subscription / per-order fee (amortized)		
Development, testing and inspection		
Freight, insurance and handling		
Duty, brokerage and import charges		
Estimated landed cost / margin		

Decision Gate

Approve the product and pricing rule only when the landed-cost scenario supports the intended price and cash plan.

Worksheet 12 — Production Critical-Path Planner (On-Demand & Batch)

Plan approvals, purchasing, decoration, personalization, inspection and transport backward from delivery.

Use forecast and actual dates. Highlight dependencies that can stop the next stage and add recovery actions when a milestone slips.

Milestone	Planned / actual date	Dependency / owner
Design file and quotation approved		
Blanks / consumables ordered and approved		
Roster collected and locked		
PP sample / proof approved		
Decoration and personalization window		
Finishing and packing		
Final inspection / personalization verification		
Shipment and required receipt		

Worksheet 13 — Pre-Production Meeting Record

Align development, decoration, platform and quality teams before bulk starts.

Review the physical approved sample, digital proof and current documents together.
Close or formally accept every open point.

Topic	Confirmed standard / decision	Action / owner / date
Current design file, BOM and approvals		
Bulk blanks, decoration consumables and standards		
Patterns, grading and measurements		
Critical decoration and personalization operations		
Roster, labels and packing		
Quality plan and defect examples		
Capacity, platform readiness and milestones		
Open risks / approved deviations		

Decision Gate

Do not release unrestricted bulk production with unresolved critical proof comments or an unlocked roster.

Worksheet 14 — Quality Plan and Decoration Defect Library

Define what inspectors will check and how decoration and personalization defects are classified.

Add product- and method-specific photographs in the working version. Use the approved sample and design file as the governing standard.

Control / defect	Method / category	Acceptance / action
Critical safety, legal or personalization-mismatch defects		
Major decoration defects (registration, adhesion, puckering)		
Minor workmanship defects		
Measurements and tolerance		
Functional and wash-durability tests		
Shade, placement and personalization accuracy		
Packing and assortment		
Sampling plan / inspection level (construction vs. 100% personalization check)		

Decision Gate

Inspection parameters and defect categories must be agreed before the final inspection begins.

Worksheet 15 — Final Inspection Release Sheet

Decide whether finished goods may ship.

Reference the full inspection report, selected cartons, sample size, personalization-verification result and approved product standard. A release can include explicit conditions.

Release control	Evidence / result	Decision / owner
Quantity and carton reconciliation		
Workmanship and decoration defect result		
Measurements and functional checks		
Personalization verification (100% of units vs. roster)		
Color, artwork, labels and packaging		
Required documents and test reports		
Rework / re-personalization completed		
Final shipping authorization		

Decision Gate

Shipment approval should be written, dated and linked to the inspected lot, personalization-verification result and report.

Worksheet 16 — Platform / Software Evaluation Matrix

Compare apparel customization software platforms on the criteria that matter for production accuracy.

Score only what has been verified through a demo, trial or reference check.

Criterion	Platform A	Platform B	Konfiwear
Real-time 3D rendering accuracy vs. physical production			
Pantone / color-library depth			
Personalization and roster-handling capability			
Production-file / techpack automation			
Integration coverage (Shopify, WooCommerce, Wix, OpenCart, CRM)			
White-label and multi-tenant capability			

Criterion	Platform A	Platform B	Konfiwear
Pricing tier fit for current order volume			
Uptime, support and SLA evidence			
Decision Gate Select a platform only after validating rendered output against a physical, decorated production sample.			

Worksheet 17 — Supplier & Decorator Performance Scorecard

Use real results to decide whether to grow, improve or exit the relationship.

Score each area from 1 to 5 and support the rating with dates, reports or measurable outcomes. Review trends after each order.

Performance area	Score / evidence	Required improvement
Proof / sample accuracy / first-pass approval		
On-time milestone performance		
Bulk decoration quality and defect trend		
Personalization accuracy trend		
Cost transparency / change control		
Communication and documentation		
Corrective-action effectiveness		
Capacity and future strategic fit		
Decision Gate Increase exposure only when performance is stable, transparent and supported by corrective-action evidence.		

Appendix C — Supplier, Decorator and Customer Communication Templates

Seven editable scripts for high-impact moments in sourcing, design approval, production and quality control.

The template is only the starting point. Replace bracketed fields, attach exact evidence and preserve the supplier's, decorator's or customer's written response.

1. **Initial Inquiry** — Qualify blank-supplier or decorator capability and commercial fit.
2. **Quote Clarification** — Normalize assumptions and exclusions.
3. **Customer Design Proof Approval** — Capture binding, versioned customer sign-off before production.
4. **Sample / Pre-Production Comments** — Convert review findings into controlled action.
5. **Delay Recovery** — Obtain facts, owners and revised milestones.
6. **PP Approval** — Define the exact bulk-production standard.
7. **Inspection Failure** — Hold shipment and require corrective action.

Communication standard: Every production message should identify the product, design-file version, requested action, responsible party and deadline.

Template 01 — Initial Blank Supplier / Decorator Inquiry

Use after screening the candidate's apparent specialization. Keep the first message concise but specific enough for a meaningful response.

Suggested subject: Production inquiry - [product category] - [decoration method] - [estimated quantity]

Hello [Name / Team],

We are developing [short product description] for [market / customer], decorated using [decoration method]. We are looking for a partner with proven experience in [material, construction or decoration method].

Project summary: - Estimated quantity: [units, styles, colors and sizes] - Target blank / construction: [details] - Decoration method and personalization needs: [details] - Development stage: [brief / design file / sample available] - Required delivery window: [date or range] - Destination market: [country / region]

Please confirm: 1. Whether you produce or decorate this product at your own facility. 2. Comparable products and key machinery. 3. MOQ / MCQ, sample cost and sample/proof lead time. 4. Estimated bulk lead time and current capacity. 5. Personalization or roster-handling support and any subcontracted processes. 6. Information required for an initial quotation.

Please also share your legal company name, production/decoration address and primary contact for development.

Thank you, [Name / Brand]

Use notes – Attach a one-page sourcing brief, not the full confidential design archive or customer data. – Do not request a final price until the candidate has enough technical information. – Track the quality and specificity of the candidate's questions. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Template 02 — Quotation Clarification Request

Use when a quote is incomplete or difficult to compare. Ask the candidate to answer every numbered item.

Suggested subject: Quotation clarification – [style code] – [version]

Hello [Name],

Thank you for the quotation for [style code / product]. Before commercial approval, please clarify the items below against design-file version [version and date].

1. Delivery term, named place and currency.
2. Quantity and color assumptions used for the price.
3. Included blank, decoration, trims, labels and packaging.
4. Excluded development, setup, digitizing, testing or inspection charges.
5. MOQ / MCQ by style, color, decoration method and personalization complexity.
6. Price impact at [quantity scenarios].
7. Sample/proof fee, refundable conditions and turnaround time.
8. Bulk lead time from which approval or payment milestone.
9. Payment schedule and legal invoice entity.
10. Quote validity and conditions that may change the price.

Please return an updated quotation with the above assumptions written into the document.

Thank you, [Name / Brand]

Use notes – Normalize all quotes to the same specification, decoration method and delivery term. – Keep a dated cost-comparison file. – Do not approve a price that depends on unstated substitutions. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Template 03 — Customer Design Proof Approval

Use to capture a binding, versioned approval of a customer's design before it enters production. This is the customization-specific acceptance gate referenced in Chapter 8.

Suggested subject: Please confirm your design – [order / style] – proof version [version]

Hello [Customer Name],

Please review your design proof below before we move to production. This proof reflects exactly what will be produced, including your selected colors, artwork, and personalization details.

Design summary: – Product: [style / product name] – Decoration method: [screen print / DTG / DTF / sublimation / embroidery / heat transfer] – Colors: [Pantone / brand-palette reference] – Artwork / logo: [file name, version] – Personalization: [name / number / size / sponsor text, as applicable]

Please confirm: 1. The design, color and placement shown match your intent. 2. Any personalization details (name, number, text) are spelled and formatted correctly. 3. You hold the rights to any uploaded logo, artwork or sponsor mark.

Once you approve this proof, we will move directly to production. Changes requested after approval may affect cost and delivery date.

→ [Approve This Design](#)

Thank you, [Name / Brand]

Use notes – Capture the approval with a version, timestamp and named approver — ideally through your customization platform's approval link, not an email reply alone. – Never proceed to production on an implied or verbal "looks fine." – Archive the approved proof exactly as production will use it. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Template 04 — Sample and Pre-Production Comment and Revision Request

Use after a structured measurement, fit, decoration and personalization review.

Suggested subject: Sample comments – [style] – [sample type] – round [number]

Hello [Name / Team],

We reviewed the [sample type] received on [date], made against design-file version [version]. The sample is [approved / rejected / approved only for the stated items].

Please review the attached numbered comment sheet. For each point, confirm:

- Root cause or technical explanation. - Proposed correction. - Whether the pattern, measurement chart, BOM, design file or platform template will change.
- Date the revised documents and next sample will be ready.

Critical points that must be resolved before the next gate: 1. [Issue and required result] 2. [Issue and required result] 3. [Issue and required result]

Do not begin bulk production from this sample. Only the items explicitly marked approved are approved.

Please return the updated documents for review before starting the next sample.

Thank you, [Name / Brand]

Use notes – Attach actual measurements, annotated photographs and, where relevant, a screenshot of the platform proof. – State the required result, not only the visual symptom. – Transfer every accepted correction into the controlled design file and platform template. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Template 05 — Delay Recovery Request

Use when a milestone is missed or forecast to slip. Keep the message factual and action-oriented.

Suggested subject: Recovery plan required – [style / purchase order]

Hello [Name / Team],

The agreed milestone [milestone] was due on [date]. The current forecast is [new date / unknown], which affects [inspection, shipment, launch or dependent product].

Please provide a written recovery plan by [deadline and time zone] containing:

1. Confirmed root cause. 2. Current quantity and status by production stage. 3. Material, decoration-consumable or capacity constraints. 4. Corrective actions already started. 5. Revised dates for every remaining milestone. 6. Responsible owner for each action. 7. Evidence supporting the revised forecast. 8. Any quality, cost or subcontracting impact.

Please do not compress quality-control, proofing or approval steps without written authorization. Any proposed specification, decoration-method, site or process change must be submitted through change control.

We will review the recovery plan and confirm the acceptable path in writing.

Regards, [Name / Brand]

Use notes – Request evidence such as material receipts or stage quantities, not only percentages. – Protect inspection, proofing and corrective-action time. – Document commercial consequences separately with legal advice where needed. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Template 06 — Pre-Production Approval

Use to define the exact standard authorized for bulk production, including the locked roster.

Suggested subject: Pre-production approval – [style] – [version]

Hello [Name / Team],

We approve the pre-production standard for [style code] subject only to the conditions listed below.

Approved references: – Design file: [version / date] – BOM: [version / date] – PP sample: [identifier / date] – Color / decoration standard: [identifier] – Roster / personalization file: [version / date, locked]

Conditions and open controls: 1. [Condition, owner and due date] 2. [Condition, owner and due date] 3. [Condition, owner and due date]

This approval does not authorize substitutions, specification changes, unapproved subcontracting, roster edits after the stated lock date, or deviation from the agreed quality and inspection plan. Report any conflict before cutting, decoration or personalization.

Please confirm receipt, production start date, line plan and the first inline-inspection point.

Regards, [Name / Brand]

Use notes – Approval should identify physical samples as well as files. – Conditions must not include unresolved critical safety, product-function or personalization-accuracy issues. – Archive the supplier's or decorator's acknowledgement. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Template 07 — Inspection Failure and Corrective Action

Use when inspection or receiving identifies decoration, personalization or construction defects that prevent release.

Suggested subject: Shipment hold and corrective action – [PO / style]

Hello [Name / Team],

The inspection dated [date] for [purchase order / style / lot] resulted in [status]. Shipment is on hold pending written resolution.

Summary of findings: – Lot and sample size: [details] – Critical defects (incl. personalization mismatches): [count / description] – Major decoration defects: [count / description] – Minor defects: [count / description] – Measurement / functional / packing issues: [details]

Please provide by [deadline]: 1. Immediate containment and affected quantity or roster rows. 2. Root-cause analysis. 3. Rework, re-personalization or replacement method. 4. Revised completion date. 5. Internal verification plan. 6. Proposed reinspection date. 7. Preventive action for future production.

Do not ship, mix or dispose of affected goods without written authorization. Preserve failed samples, roster records and production records.

Regards, [Name / Brand]

Use notes – Separate current-lot containment from long-term corrective action. – Use product-, decoration- and personalization-specific defect evidence and quantities. – Release only after agreed verification or reinspection, including a 100% personalization re-check where relevant. – Replace every bracketed field. Keep the exact style code, version and deadline in the final message.

Appendix G — Custom Apparel and Software Glossary

Essential blank-sourcing, decoration, customization-software and production terms explained in practical language.

How to use the glossary: The first time an abbreviation appears in a project, write the full term and the abbreviation. Do not assume that every supplier, decorator or platform uses the same definition. For commercial terms such as white-label, MOQ or lead time, describe the actual scope in writing.

1. **DEFINE** — State the term in the project document.
2. **MEASURE** — Connect it to a value, method or evidence.
3. **ASSIGN** — Name the responsible person or party.
4. **APPROVE** — Record the decision and version.

Important: Glossary definitions support communication but do not replace official legal definitions, current standards, contract wording or professional advice.

When a term affects price, timing, risk or legal responsibility, write the project-specific definition into the quotation, purchase order or platform agreement.

A–B

Acceptable Quality Limit (AQL) — A parameter used in acceptance sampling to define a maximum process-average level considered for a chosen inspection plan. It does not mean this percentage of defects is automatically acceptable in every shipment, and it is not a substitute for 100% personalization verification.

Appliqué — A decoration method in which a fabric shape is attached to the base garment, typically bordered with satin stitch, bonding, or both.

Approved Proof — A digital or physical representation of a customer's design, formally accepted as the reference for production, identified by version, date and approver.

Bill of Materials (BOM) — A controlled list of all blanks, trims, inks, films, digital design assets and packaging required for a product, including specifications, supplier references, consumption and approval status.

Blank Garment — An undecorated garment used as the base for customization or decoration.

Bulk Fabric / Bulk Blank — The actual blank garment lot purchased for production, as distinct from development or sample stock.

C–D

Colorfastness — A material's resistance to color change or transfer caused by washing, rubbing, light or other exposure — relevant to both blank fabric and decoration inks.

Critical Defect — A defect likely to create an unsafe condition, legal noncompliance, or a complete personalization mismatch (wrong recipient's name or number). Definitions should be product- and method-specific.

Crock Fastness — Resistance of a printed or dyed surface to color transfer from rubbing, dry or wet.

Digitizing — The process of converting artwork into a stitch file (type, density, underlay, pull compensation) that an embroidery machine can execute.

Direct-to-Film (DTF) — A decoration method in which a design is printed onto film, coated with adhesive powder, and heat-pressed onto the garment; compatible with a wide range of fabrics.

Direct-to-Garment (DTG) — A decoration method in which ink is printed directly onto a pretreated garment, suited to photographic or many-color designs on cotton and cotton-blend fabrics.

E–H

Embroidery — A decoration method in which a digitized design is stitched into the fabric using thread, producing a raised, durable finish.

Full-Service Decoration — A model in which the decorator manages a broad set of services, potentially including blank sourcing, decoration, personalization and fulfillment. Exact scope must be defined.

Heat Transfer Vinyl (HTV) — A decoration method using cut or printed vinyl film applied to the garment under heat and pressure.

Multi-Tenant SaaS — A software architecture in which multiple brands or businesses run on shared platform infrastructure with isolated data per tenant.

I–M

Incoterms — Rules published by the International Chamber of Commerce that allocate specified delivery tasks, costs and risks between seller and buyer.

Landed Cost — The total cost to bring a sellable, decorated unit to the receiving location, commonly including product, decoration, freight, insurance, duty, brokerage and inspection.

MOQ (Minimum Order Quantity) — The smallest quantity a supplier or decorator agrees to produce or sell. May apply to blanks, colors, decoration setup or personalization batches separately.

Mockup Studio — A software tool that generates photorealistic product renders for approval, marketing or sales use, typically without third-party rendering software.

O–P

On-Demand Production — A model in which each unit is produced only after an order is placed, with no held inventory of finished goods.

Order Management System (OMS) — Software that tracks orders from placement through production status to fulfillment.

Pantone Matching System (PMS) — A standardized color-reference system used to specify and communicate color accurately across screens, proofs and physical production.

Personalization — Customer- or roster-specific data (name, number, size, sponsor text) applied to an individual unit, distinct from a fixed design shared across a run.

Pre-Production Sample (PP Sample) — A sample intended to represent the approved product before bulk production, using approved bulk-representative blanks, decoration and personalization data.

Print-on-Demand (POD) — A fulfillment model in which products are decorated and shipped individually as orders are received, without pre-produced inventory.

Print-Ready File — A production-formatted output — generated automatically from an approved design in a customization platform — that a decorator or factory can execute without manual translation.

Q–R

Quality Control (QC) — Operational checks and inspections used to compare blanks, decoration, personalization and finished products with defined requirements.

Real-Time 3D Configurator — A software tool that renders a garment in three dimensions and updates the render instantly as a customer applies color, artwork or personalization choices.

Registration — The alignment accuracy of multiple print colors or layers relative to one another and to the garment.

Roster — A structured dataset of individual order details — typically name, number and size — used to personalize garments across a team, group or event.

S–T

Screen Print — A decoration method in which ink is pushed through a mesh screen stencil onto the garment, one color per screen pass.

Sponsor Panel — A defined placement area on a garment reserved for sponsor or partner branding, often subject to league or club approval rules.

Stabilizer — Backing material (cut-away, tear-away or wash-away) used beneath embroidery to support stitch formation and prevent puckering or distortion.

Sublimation — A decoration method in which dye is converted to gas under heat and infused directly into polyester fiber, enabling full-color, all-over designs.

Techpack Generator — A software function that automatically compiles an approved design's specifications — measurements, materials, decoration placement and personalization data — into a production-ready technical document.

Traceability — The ability to connect a finished, personalized product to relevant suppliers, materials, decoration batch, roster row, tests, inspections and shipment.

U–W

Underbase — A layer of (typically white) ink printed beneath a design on dark garments to ensure accurate color reproduction of the colors printed on top.

Vector Artwork — Artwork built from scalable paths rather than pixels, required for clean decoration output (embroidery digitizing, large-format print) at any size.

Wash-Fastness — A material's or print's resistance to color change, cracking or degradation through repeated laundering.

White-Label — A platform or product configuration that runs under a business's own brand, domain and visual identity, even though the underlying engine or infrastructure is shared or provided by a third party.

Yield / Consumption — The quantity of blank material or decoration consumable required per finished unit under defined width, placement and wastage assumptions.

Appendix B — Konfiwear Brand Reference

Color palette, typography and voice guidelines used to produce this handbook, drawn from the Konfiwear Press Kit & Brand Guide v2.0.

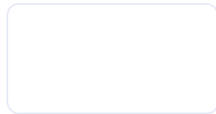
Konfiwear Brand Reference

Color palette and typography used throughout this handbook

Color Palette



Black
#000000



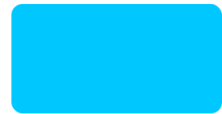
White
#FFFFFF



Deep Navy
#000845



Brand Blue
#4169E1



Cyan
#00C8FF

Typography

Aa Bb Cc — Gilmer Bold (Poppins substitute)

Body text uses a clean geometric sans for readability across digital and print.

Headlines, wordmark and prominent UI labels use Gilmer Bold on the Konfiwear platform.

Brand Voice

Direct, confident, professional. Benefit-led. No superlatives without proof — concrete stats over vague claims.

Preferred: "apparel customization platform" · "3D product customizer" · "production-ready output" · "print-ready files" · "white-label"

Proof points: 500+ brands · 40+ countries · 10M+ designs created · 99.9% uptime · plans from €90/month

Source: Konfiwear Press Kit & Brand Guide v2.0 — v2.konfiwear.com

Sources and Further Reading

Use current official material for the product, market and transaction. Links are starting points, not a substitute for project-specific review.

International Chamber of Commerce — Incoterms 2020 Official information on the ICC Incoterms rules, their scope and current 2020 edition. <https://iccwbo.org/business-solutions/incoterms-rules/incoterms-2020/>

European Union — Regulation (EU) No 1007/2011 Official EU legal text on textile fiber names and related labeling and marking of fiber composition. <https://eur-lex.europa.eu/eli/reg/2011/1007/oj>

European Union — General Product Safety Regulation (EU) 2023/988 Official EU legal text covering general product-safety obligations and traceability for relevant consumer products. <https://eur-lex.europa.eu/eli/reg/2023/988/oj>

European Chemicals Agency — Understanding REACH Official overview of the EU chemicals framework and responsibilities affecting substances, mixtures and articles — relevant to inks, adhesives and coatings. <https://echa.europa.eu/regulations/reach/understanding-reach>

International Organization for Standardization — ISO Standards Official source for current editions and scope of standards, including acceptance-sampling standards such as ISO 2859-1. <https://www.iso.org/standards.html>

GS1 — Global Trade Item Number Official standards information on GTIN identification used for products and barcodes. <https://www.gs1.org/standards/id-keys/gtin>

AAFA — American Apparel & Footwear Association Industry guidance on apparel and footwear compliance, restricted substances and responsible sourcing. <https://www.aafaglobal.org/>

PRINTING United Alliance Industry resources on screen printing, embroidery, DTG and garment-decoration standards and best practices. <https://www.printingunited.com/>

Konfiwear Platform and Documentation Product information, integrations and help-center documentation for the Konfiwear apparel customization platform. <https://v2.konfiwear.com>

Shopify Partner and Developer Documentation Official reference for storefront integration, apps and APIs relevant to connecting a customization platform to a Shopify store. <https://shopify.dev/>

WooCommerce Developer Documentation Official reference for plugin and REST API integration relevant to connecting a customization platform to a WooCommerce store. <https://developer.woocommerce.com/>

Final Control: Custom Apparel Production Is a System

Build products — and a platform experience — that can be understood, verified and repeated.

The strongest custom apparel businesses do not avoid every problem. They create clear standards, discover problems early, preserve evidence, make controlled decisions, and improve the process — and the platform — after every order.

1. **CLARITY** — One product standard, one design-file version, one owner for every action.
2. **EVIDENCE** — Proofs, samples, measurements, tests and documented approvals.
3. **CONTROL** — Gates, change management, inspection and traceability — for blanks, decoration and personalization data alike.
4. **LEARNING** — Updated documents, updated platform templates and stronger supplier decisions.

Final question: If the original team disappeared tomorrow, could a competent new team understand what was approved, what was produced, how quality was judged, how the customer's design was captured, and what must improve next time?

KONFIWEAR