The Process Inspection is what most manufacturers refer to as their In-line and End-line inspections. NPG considers activities ahead of the typical inspection points; Fabric, Spreading, Cutting and Sewing, and starts with Pre-Production and Preparation.

We believe that anticipation, identification and correction of issues as early in the process as possible are fundamental to the successful execution of a quality product. The objective is to embed quality throughout each stage of the manufacturing cycle. As a result, the requirements shown here are those of a total Process Inspection.

**REQUIREMENTS**

- Process Inspections are required for every Purchase Order and must be conducted throughout the manufacturing process
- The Production Spec Pack must be followed throughout the Process Inspection
- The Brand Standards Book must be used with the Spec Pack, where applicable, for Brand specific requirements
- Process Inspections must be documented and documentation available for review upon request
- All defects found during the manufacturing process must be repaired or replaced to ensure first quality products
  - Nordstrom accepts only first quality merchandise (For updated requirements, see: NPG Supplier Procedures Manual / Apparel / Quality & Manufacturing / Seconds Policy)

**NPG INSPECTION PROCESS – CUT & SEW KNITS AND WOVENS**

- **PRE-PRODUCTION**
  - Ensure Merchandising, Quality and Production have the information necessary to fully evaluate and execute the product
    - Style Folder - includes all product information and is available to all areas
    - Pre-Production Meetings – determine critical points and key operations, develop follow up actions as necessary

- **PREPARATION**
  - Confirm style is approved for production
  - Confirm raw material and garment testing is complete and approved / acceptable
  - Confirm Approved Production Sample is on-site
    - If sample is Approved with Changes, recommend make an internal sample from bulk reflecting required changes
    - Sample should be verified by factory QA
• PATTERN
  o Pattern history should be documented including:
    ▪ Pattern origination (block, like style, measurements, etc.)
    ▪ Production allowances
    ▪ Shrinkage testing and allowances applied
  o Patterns must be inspected to confirm:
    ▪ Number of pieces in style against Cutter’s Must
    ▪ Sizing, grade increments
      ▪ Create Jump / Full Size Set to validate grading
    ▪ Shrinkage / production allowances
    ▪ Accuracy of template / guide
  o Inspection should be documented and include sign off by the Pattern Master or Seefu

• MARKER
  o Marker sections must be inspected to confirm:
    ▪ Cut direction against the Production Spec Pack
    ▪ Match requirements against the Production Spec Pack
    ▪ Number of sizes marked against Purchase Order
  o If multiple markers are created for shrinkage variances, document
    ▪ Shrinkage applied for each marker
    ▪ Fabric roll numbers used by marker
  o Inspection should be documented and include sign off by the Pattern Master or Seefu

• FABRIC INSPECTION
  o NPG recommends a 4 Point System be used to determine acceptability of fabric quality
  o Please see detailed requirements in the next section Fabric Inspection Guidelines

• SPREADING
  o Ensure proper fabric relaxation time before spreading
    ▪ Recommend record start and scheduled end time of relaxation on bin / cart / shelf to ensure proper time is allowed
  o Verify sequence of dye lot / fabric rolls
    ▪ Rolls should be identified by dye lot A, B, C, etc.
    ▪ Different dye lots should be spread separately or have separating paper between lots
  o The spread / lay up must be inspected to:
    ▪ Validate use of separating paper between shade groups
    ▪ Confirm fabric direction (nap up / nap down)
- Confirm splice overlap is correct
- Confirm ply height against factory standard
  - Inspection should be documented and include sign off by the department manager before cutting

- **CUTTING**
  - All cut bundles should be inspected to:
    - Verify top, middle and bottom plies against hard copy pattern for:
      - Sizing
      - Uniformity
      - Even cuts, no jagged edges
    - NPG recommends 100% panel inspection for fabric / cutting defects
      - The inspection should be documented including quantity and defect type
      - All re-cuts of defective parts should be taken from reserved fabric ends that have been identified by shade lot

- **SEWING**
  - Randomly inspect bundles at each operation a minimum of two times per day:
    - Ensure accurate and consistent stitch, seams and construction
    - Verify compliance to measurement specifications is within tolerance
    - Verify panel to panel shade and color consistency
    - Verify correctness of trims and findings including placement
  - Document defects by operator and defect type
    - If initial inspection fails, additional units must be checked
  - NPG recommends use of a progressive inspection system (Traffic Light System) where the inspection rate is tied to performance

- **FINISHING / TRIMMING**
  - Inspect a minimum of 4 units of every bundle or 25% of the order
    - Pull units randomly ensuring all colors and sizes are represented
    - Inspect for visual and construction defects
      - NPG recommends development, documentation and implementation of a standardized inspection process to ensure all areas of the garment are covered
    - Confirm wet processing, pressing, folding and packaging comply with specifications and approved production sample
    - Document visual and construction defects including quantity and defect type
      - Recommend including operator identification and combine performance information with in-line reports
  - NPG recommends 100% inspection after Sewing
• Inspection should be performed separately from thread trimming
  o Measure a minimum of 4 units of each size
    ▪ Measure 1 unit for all Points of Measure
    ▪ Measure a minimum of 3 units for Critical Points of Measure
    ▪ Document measurements using “actual” measurements, not the variance from standard

NPG INSPECTION PROCESS – SWEATERS

• PRE-PRODUCTION
  o Ensure Merchandising, Quality and Production have the information necessary to fully evaluate and execute the product
    ▪ Style Folder - includes all product information and is available to all areas
    ▪ Pre-Production Meetings – determine critical points and key operations, develop follow up actions as necessary

• PREPARATION
  o Confirm style is approved for production
  o Confirm raw material and garment testing is complete and approved / acceptable
  o Confirm Approved Production Sample is on-site
    ▪ If sample is Approved with Changes, recommend make an internal sample from bulk reflecting required changes
    ▪ Sample should be verified by factory QA

• KNITTING SPECIFICATION
  o Develop and document Knitting Specifications including:
    ▪ Origination information (like style, measurements, etc.)
    ▪ Production allowances
  o Maintain Knitting Specs for production reference
  o Confirm panel weight and measurements
    ▪ Produce a minimum of one sample from bulk yarn

• PRODUCTION PLANNING
  o Confirm yarn order quantity against the Knitting Spec and seconds allowance
  o Confirm knit panel production quantity against P.O. plus seconds allowance

• YARN
  o Confirm receipt of bulk yarn sample for production reference
  o Confirm weight and quantity of bulk yarn when received
    ▪ Confirm receipt of trims and findings
  o Confirm knit down is approved
• KNITTING
  o Check tension of first panel in each dozen against knitting
  o Randomly check all knitting operators a minimum of 2 times per day
  o Conduct 100% inspection of completed panels
  o All inspections should be documented and include number and type of defects and operator / machine identification

• LINKING
  o Randomly check all linking operators a minimum of 2 times per day
  o Conduct 100% inspection of all linked garments
    ▪ Inspect over lighted form prior to wash
  o Document the results of all inspection including the number and type of defect and operator / machine identification

• WASHING
  o Maintain sample washing formula for production reference
  o Wash formula should be documented and available at each machine
  o Confirm hand-feel against sample and swatch
  o Recommend 100% inspection after wash

• FINISHING / TRIMMING
  o 100% visually inspect and check Critical Points of Measure after pressing and cool-down
    ▪ Measure a minimum of 4 garments each size for all Points of Measure
    ▪ Confirm cool-down time against factory standard
    ▪ NPG recommends development, documentation and implementation of a standardized visual inspection process to ensure all areas of the garment are covered
  o Document workmanship and measurement defects including quantity and defect type
    ▪ Recommend including pressing operator identification