

# **NEEDLE & METAL CONTAMINATION-CONTROL STANDARD OPERATING PROCEDURE**

## **Purpose of Guide**

**The purpose of the Needle and Metal Contamination Control Procedures guide is to help Factory set up in-line procedures to control broken needle or other metal contamination in a garment. The aim is to prevent used, or broken needle or other metal contamination embedded in the garment being sold to customers, causing bodily harm to them.**

The Guide consists of the following sections:

- Needle Replacement Control Procedures
- Broken Needle Control Procedures
- Metal Contamination Control Procedures
- Needle Detector Calibration Procedures
- Needle Detection Procedures
- Needle Detector Maintenance Procedures

## **FACTORIES PRODUCT SAFETY GUIDE & PROCEDURES**

### **NEEDLE AND METAL CONTAMINATION CONTROL PROCEDURES - GARMENT APPAREL, SHOE WITHOUT METAL PARTS & TOYS.**

Under no circumstances will Vamani Overseas or its vendors accept any product containing or possibly containing any foreign metal components or needle components or needle fragments, or other sharp objects. In an effort to monitor this, all garment manufacturers are required to implement and enforce the following needle control procedures.

#### **a. Needle Replacement Control Procedures**

All needles even if needle is not broken must be checked regularly by the supervisor to ensure that they are in good working condition.

No sewing operator should be in the possession of any spare sewing needles, used or new, other than the needle installed on the sewing machine.

All replacement / spare sewing needles must be secured in a locked cabinet accessible only by the plant supervisor, mechanic, or other authorized personnel.

All new sewing needles may only be replaced by the plant supervisor, mechanic or authorized personnel. Replacement by the sewing operator is not permitted.

Used sewing needles must be disposed of in a sealed container in a separate area from the sewing floor and recorded in the used needle disposal log. The Kate Spade & Company, Field QA or Product Compliance Officer will review this log during their site visits. The QA staff will count the numbers of needles in the sealed container against issued record to confirm proper implementation.

#### **b. Broken Needle Control Procedures**

When a needle is broken during sewing, every effort must be made to locate ALL fragments of the broken needle in the garment(s); machinery must be checked, including such areas as the sewing machine throat plate, feed dogs and bobbin case. Use of magnet to locate / search all fragments of the broken needle is recommended.

Any breakage must be recorded in the broken needle log and the broken fragments attached (kept) in the Log; entries into the Log must be completed in full. This log should

be kept in the plant supervisor's office. The Kate Spade & Company, Field QA or Product Compliance Officer will review this log during their site visits.

If all fragments cannot be found, then the bundle of garments on which the operator is sewing, and any bundles in close proximity must be taken to a separate bin in the plant for further examination.

Unauthorized access to the bin must be forbidden. The bin may be painted in **RED** for identification.

Under management supervision, all garments in the bin should be passed through the needle detector for broken needle. If garment not being rejected again may be accepted.

If garment is rejected, it must be searched for any contamination either by visual inspection or by hand-held metal detector. If the needle fragments still cannot be allocated and removed, the garment must be passed through the needle detector again; if garment not being rejected again may be accepted.

If garment is not being passed the detection check, it cannot be put into the production areas and packed for shipment.

For full width quilted/embroidery fabric, if the broken fragment cannot be located, special sticker marked with "**Broken Needle – Special Handling**" has to be attached at the end of each roll.

All the panels from the roll with "**Broken Needle – Special Handling**" sticker must pass through needle detection machine before putting through to the sewing line for assembling process.

### **c. Metal Contamination Control Procedures**

No metal pins, wires or staples may be used in any part of the production process for bundling, tacking, securing components or packaging of any product.

Meal pins must be excluded from all sampling and production areas, alternatives should be sought (e.g. tape, adhesives, clamps). This includes pins used for notice boards in sewing room.

If metal pins must be used in specific garment manufacturing process, such as fabric laying and cutting, the factory is requested to maintain the documented record for the control of these pins and it can be checked by Field QA during the audit.

Manual striping is not allowed

Scissors and clippers should be tied to the workplace to prevent the potential loss within a garment.

Where hand-sewing / embroidery needles are used, they must be regularly counted in and out every working shift by appointed personnel.

#### **d. Needle Detector Calibration Procedure**

The detector must be checked periodically using the 1.2-mm diameter test card supplied with the unit. The card should be mounted onto a non-detectable block (plastic or another inert material) such that it passes through 9 points of the aperture, in where the center point is of least sensitivity.

The calibration check should be carried out at least three times a day in beginning of each shift and machine being started to operate.

If the detector fails a calibration check, all products coming after the previous calibration must be re-checked once the detector is rectified. Rectification of the unit should be carried out with the guidance of the detector supplier.

Only products inspected between confirmed checks can be cleared for packing.

Designated zone may be assigned for rejected products, those products waiting to be cleared and fully cleared products must be identified and avoid mixing these products.

#### **e. Needle Detection Procedures**

The operator of the detector must be trained by the needle detector supplier and keep the machine clean and tidy condition at the end of each working shift.

An authorized factory staff is nominated to perform the metal contamination detection check and record the details in the log.

It is critical that the operator does not fiddle or try to adjust the machine unless he is authorized and trained to do so.

Before performing the needle detection check, the machine must be calibrated and in proper working condition.

Any garment or part checked and to be returned to the sewing floor must be kept separately from the unchecked ones, in a clearly marked trolley to prevent mix up.

After a needle fragment is found, the same garment/parts of a garment must be put through the needle detector once more. If it is not rejected, then the said item is returned to the sewing floor.

If a lot of broken needles are found by machine detection, it indicates that needle control procedures may not be effectively implemented. Suggest the factory management reviewing all broken needle logs and rectifying the efficiency of broken needle control procedures.

#### **f. Needle Detector Maintenance Procedure**

All personnel involved in the use of the metal detection unit must be trained by supplier to understand the metal detection system, the operation procedures and how to make or correct necessary adjustments for calibration check.

Records of authorized operator need to be kept. The nominated person responsible for the operation of the unit needs to be documented.

The detection unit must be serviced at regular intervals according to maintenance requirements from the supplier. Maintenance records must be kept for review during the audit.

## **FORMS**

### **1. Used Needle Disposal Log**

Generated by

Authorized Staff in a Sewing Plant e.g. line leader, supervisor or mechanic.

*When*

When sewing needle is not in good working condition (bent or tipped) and new needle replacement is needed. Every sewing line must have its own needle log for better traceability.

*Why*

The purpose is to prevent used needle(s) being left in a garment and hurting the wearer.

### **2. Broken Needle Control Log**

Generated By

Authorized Staff in a Sewing Plant e.g. a line leader or a line supervisor or a mechanic.

*When*

When a sewing operator requests for a new needle as the original one is either broken or blunt. All the broken parts of a needle must be found and pasted on the log for record. Every sewing line must have its own needle log for better control.

*Why*

The broken needle log is a mean to prevent broken needles being left in a garment and hurting a wearer. An authorized staff will be issued a new needle only when he/she presents all parts of broken needle.

### **3. Metal Contamination Detection Log**

Generated By

Factory Authorized Staff

*When*

There are 3 possibilities when the log will be used:

- During production when finished garments or partially sewn parts are passed through the needle detector to check for metal contamination.
- When a needle is broken and some parts of it cannot be found on the sewing machine nor on the partially finished or finished garment. The contaminated garment and bundles around the area are put inside a RED bin for contamination check before being returned to the sewing floor.
- When a garment return from repairing must undergo needle detection to check for any possible metal contamination.

*Why*

The log enables factory management to check the effectiveness of their needle control procedure implementation on the factory floor.

It stops contaminated garment from being sent to the customer. It completely removes the possibility of a factory getting a claim from their customer.

### **4. Needle Detector Calibration Log**

Generated By

Factory authorized staffs e.g. an operator.

*When*

Three times a day in the beginning of each shift & machine being started to operate.

*Why*

To ensure that the machine is in calibration control and will perform accurately according to the Gap's standard of 1.2mm ferrous check card.

## USED NEEDLE DISPOSAL LOG

Factory Name  
:VAMANI OVERSEAS  
PVT LTD

Section :LINE  
NO.-

[illegible]



# METAL CONTAMINATION DETECTION LOG

Factory Name :VAMANI OVERSEAS PVT. LTD.

[illegible]

**Needle Control SOP**  
**Needle Detector**  
**Calibration**

Factory Name: Vamani Overseas      Countr  
 Needle Detector: pvt. ltd.      y:  
 Brand:      Model      #:

***Remarks: Needle detector must verify the calibration and accuracy 3 times per day, at the beginning, middle and end of a working period by using the 1.2mm sphere ferrous checks cards to check machine sensitivity.***

CROSS SECTION OF NEEDLE DETECTOR TUNNEL			
TOP	A7	A8	A9
CENTRE	A4	A5	A6
BOTTO M	A1	A2	A3

1. Switch on the machine and adjust sensitivity level to less than 1.2mm sphere.
2. Position the 1.2mm sphere ferrous check card onto the conveyor belt at position A1; let the test card passes through the search head.
3. The needle detection should be activated (alarming).
4. Repeat the procedure 1-3 with position the 1.2 mm sphere ferrous card onto the conveyor belt at position A2 & A3.
5. The needle detection should be activated (alarming) also.

6. Test A1, A2 & A3 with 1.2mm ferrous check card only. No garment or paper is allowed to put together during testing.
7. Repeat the procedure 1-3 with position the 1.2 mm sphere ferrous check card on the top of the stand, and placed the stand onto the conveyor belt at position A4, A5, A6, A7, A8 & A9 and record.

Date Time	Buyer	POSITION									Operator's Signature	FQA	PSO
												/	
		A	A	A	A	A	A	A	A	A		Date	Signature
		1	2	3	4	5	6	7	8	9			

Factory Name: \_\_\_\_\_ Country \_\_\_\_\_  
 Needle Detector : \_\_\_\_\_  
 Brand: \_\_\_\_\_ Model \_\_\_\_\_  
 \_\_\_\_\_ #: \_\_\_\_\_

***Remarks: Needle detector must verify the calibration and accuracy 3 times per day, at the beginning, middle and end of a working period by using the 1.2mm sphere ferrous checks cards to check machine sensitivity.***

### CROSS SECTION OF NEEDLE DETECTOR TUNNEL

TOP	A7	A8	A9
CENTRE Fv	A4	A5	A6
5BOTTO M	A1	A2	A3

8. Switch on the machine and adjust sensitivity level to less than 1.2mm sphere.
9. Position the 1.2mm sphere ferrous check card onto the conveyor belt at position A1; let the test card passes through the search head.
10. The needle detection should be activated (alarming).
11. Repeat the procedure 1-3 with position the 1.2 mm sphere ferrous card onto the conveyor belt at position A2 & A3.
12. The needle detection should be activated (alarming) also.
13. Test A1, A2 & A3 with 1.2mm ferrous check card only. No garment or paper is allowed to put together during testing.
14. Repeat the procedure 1-3 with position the 1.2 mm sphere ferrous check card on the top of the stand, and placed the stand onto the conveyor belt at position A4, A5, A6, A7, A8 & A9 and record.

			POSITION									Operator's  Signature	FQA / PSO
Date	Time	Buyer	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9		Signature

“Y” – the needle detection activate (alarming) when 1.2mm ferrous check card pass through the search head.

“N” – the needle detector no reaction (not alarming) when 1.2mm ferrous check card pass through the search head.

Factory Name:-VAMANI OVERSEAS PVT. LTD.

[illegible]