

**TG MEDICAL(F3), TOP QUALITY, TOP EFFICIENCY,
GOOD HEALTH, SAFETY FIRST & BE HONEST**



Complaints on Glove Packing

Root Cause and Preventive Actions

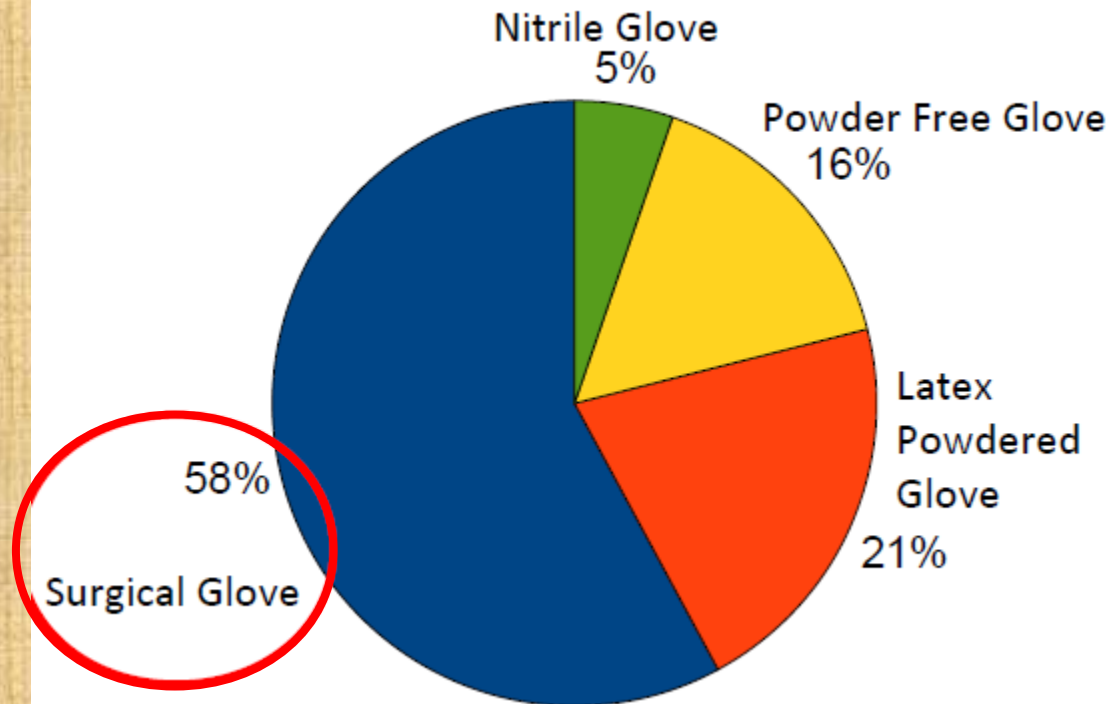
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Factory 3

Complaints on Packing received in Factory 3 for year 2010

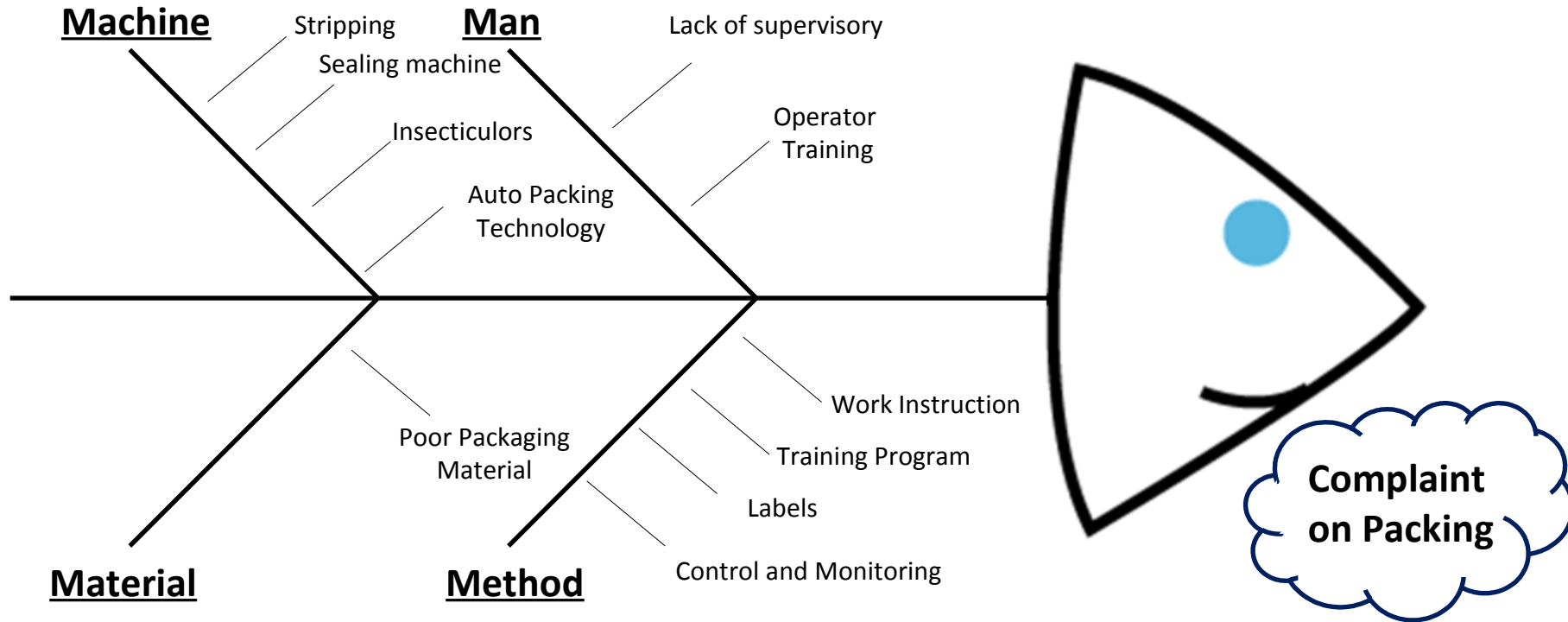
Total of **19 customer complaint (29%)** received
by F3 on packing defect

COMPLAINT ON PACKING ACCORDING TO TYPE OF GLOVE



Nature of Complaint	No. of Complaint Received	
Poor Packing/ Improper Packing	8	38%
Foreign Material (Insects, metal)	5	24%
Mixed Glove (Side, Size, Weight)	5	24%
Wrinkle Glove	3	14%

Outline – Root Cause Fishbone Diagram



Identified Root Cause For Poor Packing/Improper Packing

Packing

- Man: Packer
 - Inexperience packer
 - Insufficient/improper training scheme/guideline
- Method:
 - Inconsistent packing quality due to human packing
 - Lack of inspection on pouch sealing condition
 - Poor standard and quality of outsource packing process
- Material
 - Poor Packaging Material - Easily tear, Not able to be sealed

Identified Root Cause For Foreign Material

Stripping

- Maintenance work around stripping area causing foreign material (eg. metal debris) fall into glove basket
- Stripper Jewellery/Decorative which loosely bound falls into glove basket
- Insufficient enclosure around production area that attract the insects

Tumbling

- Inadequate usage of cover for glove basket
- Basket was not properly cleaned before usage

Packing

- Leftover tools on packing table
- Insufficient housekeeping/maintenance of packing room
- Inadequate of insecticido installed

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Identified Root Cause For Mixed Glove (Side, Size, Weight)

Former

- Mixing of former in production line (between side or between size) during installation or changing former.
- Lack of supervision and monitoring of former installation process.

Stripping

- Inexperience or incompetent stripper
- Stripper negligence – Place glove in wrong basket
- Insufficient Barrier between left and right side – Overshoot glove from autostripping go across side

Tumbling

- Tumbler operator negligence – put in wrong basket, mixed size/side during tumbling, wrongly labeled on tumbler tag

Packing

- Inexperience packer
- Insufficient/improper training scheme/guideline
- Packers not aware of difference between size, side or type of glove.
- Mix up of glove on packing table
- Lack of packing space, congested table creating high chances of glove mixed.

Identified Root Cause For Wrinkle Glove

Stripping

- Improper arrangement in basket during dispensing glove from former by pulley brush causing glove wrinkle by stacking on each others.

Tumbling

- Glove pressing each other during tumbling process
- Long storage of glove in basket before sending for packing

Packing

- Inexperience packer
- Poor standard and quality of outsource packing process

PREVENTIVE ACTIONS

- FORMER DEPT
- PRODUCTION DEPT.
- PACKING DEPT.
- QA DEPT.
- R&D

FORMER DEPARTMENT



Man:

- Skilled and experienced former operators
 - - Daily checking at all production line.

Method:

- Former storage area
 - - Proper segregation of size, side and type
- Screening by Former Leader
 - - During former standby
 - - After former installation
- Daily former inspection
 - - Done by QA/IPQC department at all lines



PRODUCTION DEPARTMENT (STRIPPING/TUMBLING)

Man:

- Allocation of trained and skilled stripper
- Merit/demerit system to operators for any human mistake



Machine:

- Partition at autostripping chain area
- PVC curtain installed around stripping area
- Different tumbler machine for different line.

Material:

- Color coding basket
- Clean basket only
- Compulsory glove basket cover

PACKING DEPARTMENT



Man:

- Only trained and skilled packers
- Continuous train and re-train packers



Machine:

- Packing Room Expansion – Ease Congestion
- Sealing Machine – No overlap of glove pouch
- Insecticulators – Installed sufficiently
- Packing Area – Proper and sufficient labeling

Method:

- Minimize Outsource Packing – Better control
- Spot Checks – Conducted frequently
- Housekeeping/Maintenance – Good Condition Packing room
- Double Checked Glove – Before supply to packing table
- FIFO – Shortened glove storage time in basket
- WIP Storage – Basket instead Sugar bag
- Steel Cage – Reduce glove stacking



QA DEPARTMENT



Method: New Inspection Procedure

- QA basket verification – No mixed glove released to packing
- Pre-packing inspection
- Daily Glove Counting Inspection
- Pouch Sealing Inspection
- Incoming Packaging Material Inspection

Research & Development (R&D)

1. Technology



- High Efficiency (High productivity, Low operating cost due to less operator required)
- Prevent and reduce packing mistake
- Yield consistent and better packing quality
- Reduce dependency on human labor
- Better image to customer by adapting advanced packing technology

Currently, Factory 3, GED and Project Team are working together towards implementation of surgical glove auto packing machine in TopGlove.

2. Formulation & Process Improvement

- To achieve better glove curing.

3. Planning

- Better planning and increased production line to improve the current situation of many sizes in single line

CONCLUSION

In order to prevent the customer's complaint on packing, all departments had implemented the preventive actions to prevent mistakes.

Apart from that, adapting new packing technologies could also help to improve the packing quality.

Zero Mistake = Zero Complaint