



Marico Ltd.,

Paonta Sahib



WELCOME TO

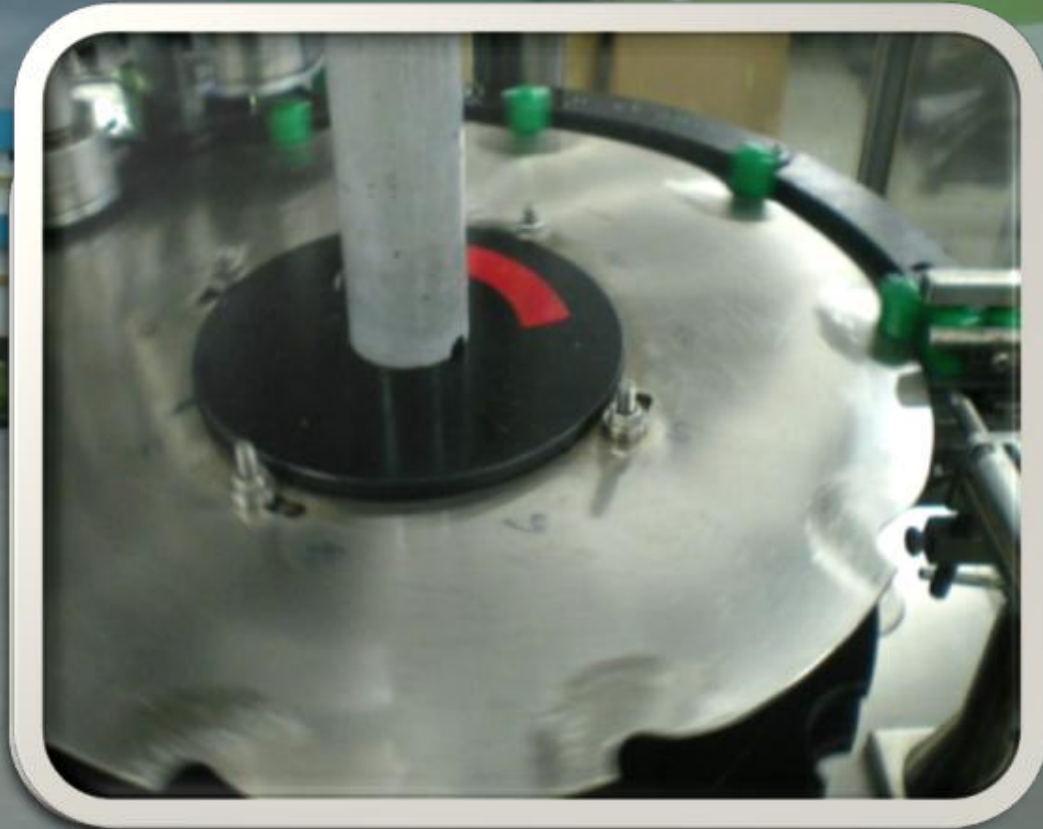


MARICO-Paonta Plant

MARICO - Brands / Business



Process flow diagram



Kaizen Theme



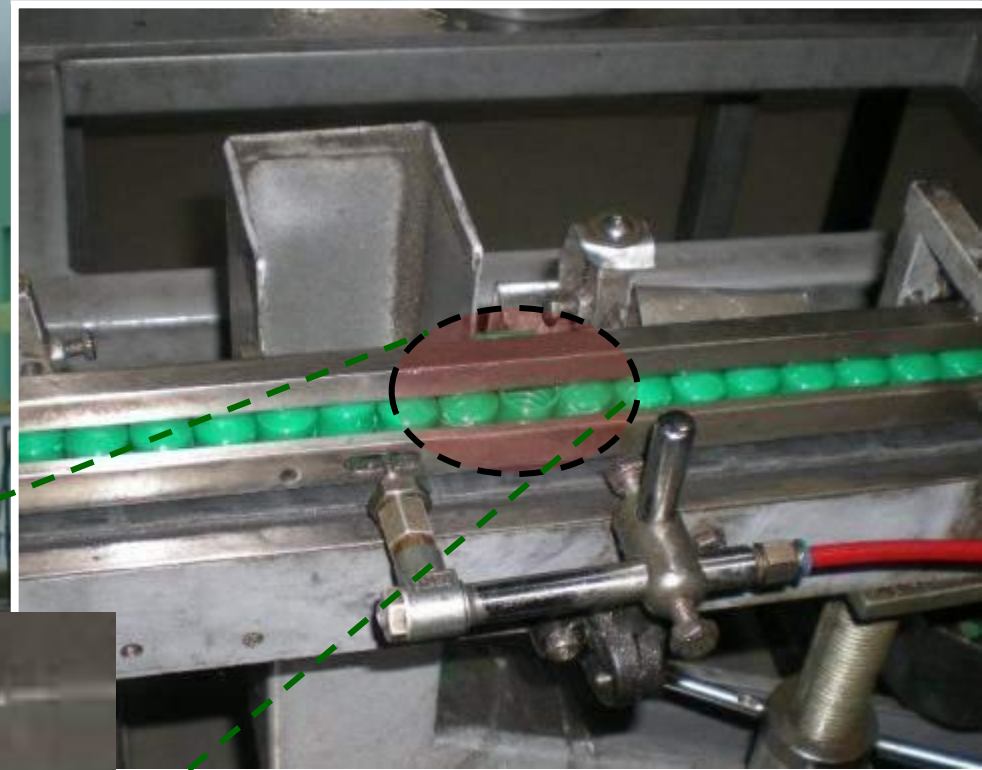
“Internal Rejection Elimination”

To Reduce Filled Bottles Rework by
reducing the online rejection

We Handle near about 200 lac caps per month

Problem Statement

- The Rejection of bottle rework is presently huge due to:
 - Wrong Cap Orientation
 - Jaw mis-stroke due to cap orientation
 - Bottle Damage due to wrong cap orientation
 - Oil spillage due to uncapped bottles



What Is Wrong Orientation of the Cap



- IF Went Wrong Or Defected
 - May Lead to Leakage in Transit
 - Can Damage to Bottle
 - Increase the Rejection
 - May Lead to Market Complaint

Benchmark



Avg. Benchmark Rejection as per baseline data = 1.7 %

Sample size = 60,000 Nos/Shift

Avg. Benchmark Total time = 1000 Bottles-Caps/Lot

Target /cap = 0.5 %

Root Cause Analysis



Rejection is high

Why ?

Damaged Bottles without Cap

Why ?

Mis-Oriented Cap in the from the feeder

Why ?

Poor Design

Root Cause: **Poor Design**

Kaizen Idea



- Improvement in Design

Provide Vacuum base to hold the rite oriented caps
and a blower to clear wrong oriented caps

Counter Measures Taken

- Considering the problem statement we have designed,
 - A belt with dotted holes where vacuum is applied so that whenever a positioned cap comes cap is pulls down wards
 - when a reverse cap comes a tangential air flow will push it to the drain passage hence no reverse cap is fed to the system



Aiya video aavse

PROBLEM :- More Rejection due to Reverse Caps

Before

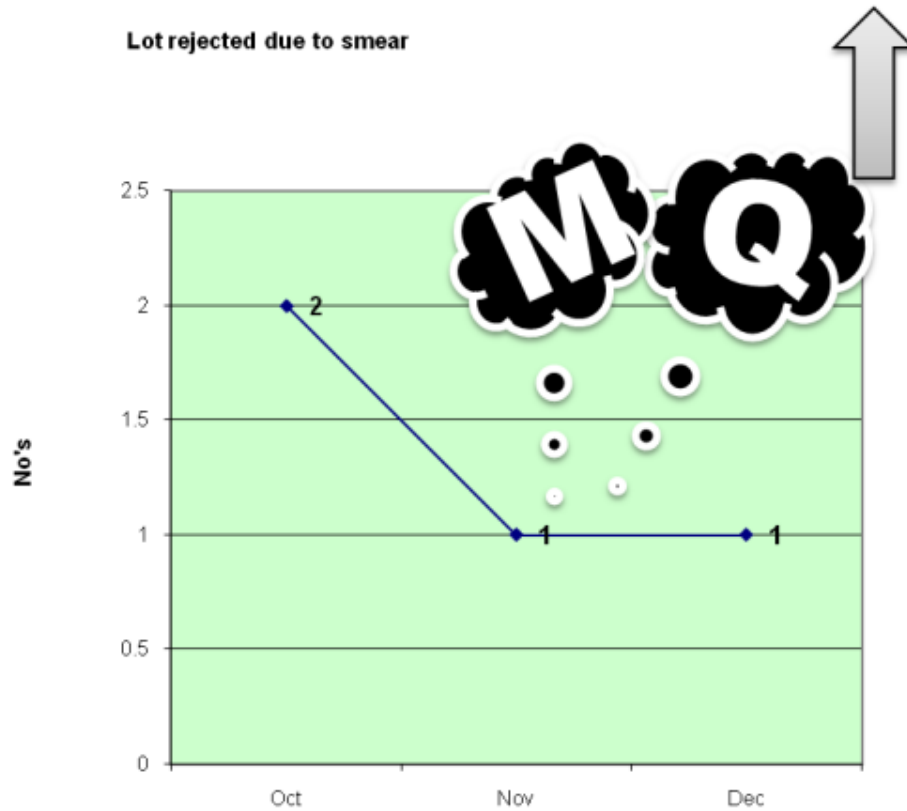


After

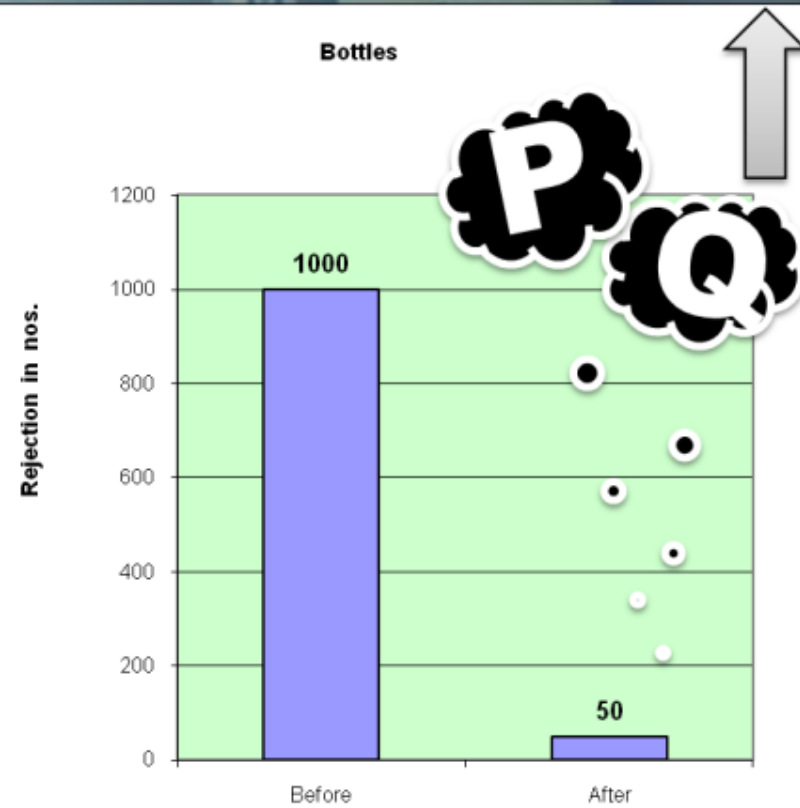


Results

Lot rejected due to smear

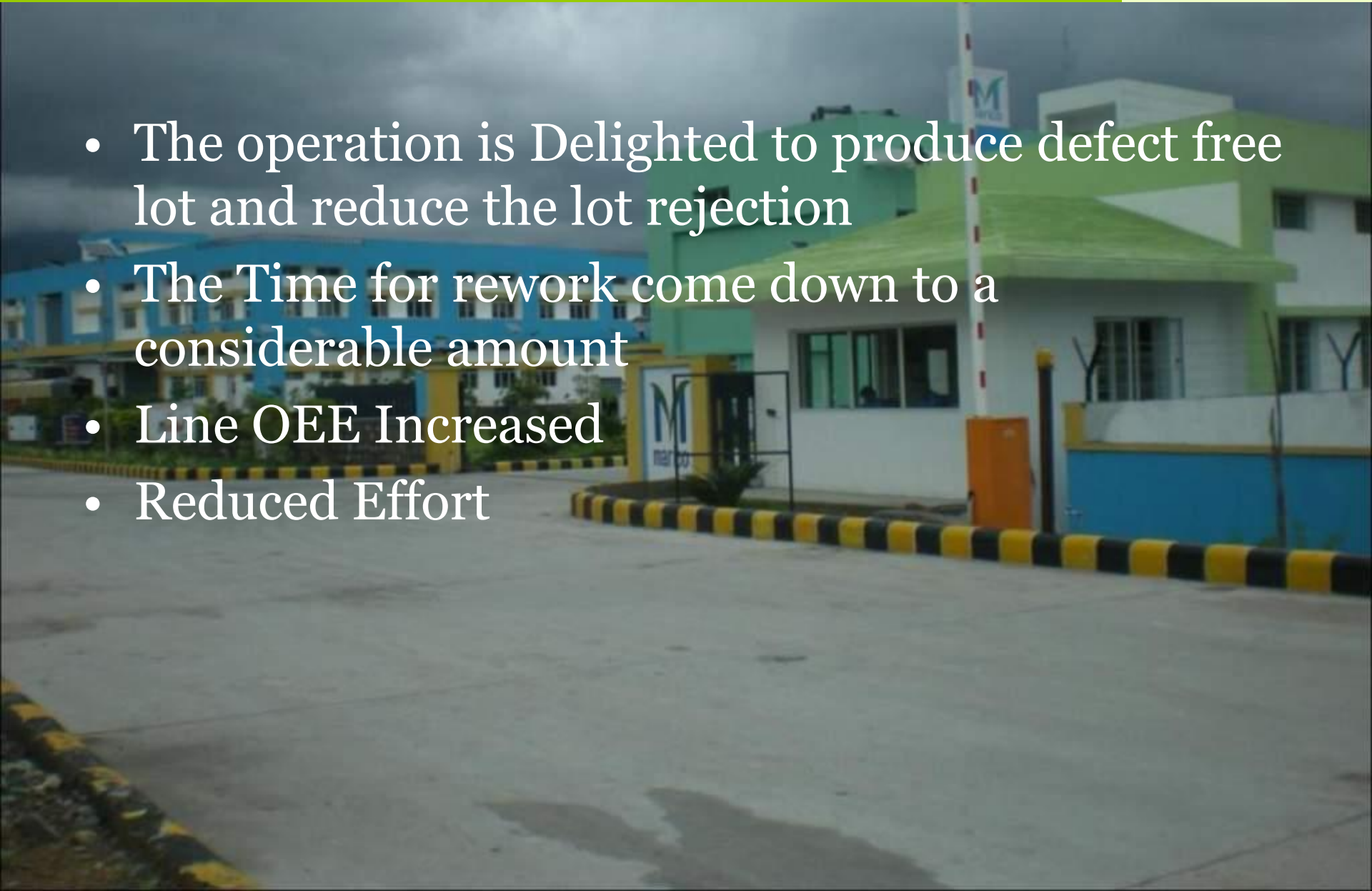


Bottles



Operators Feedback after Kaizen

- The operation is Delighted to produce defect free lot and reduce the lot rejection
- The Time for rework come down to a considerable amount
- Line OEE Increased
- Reduced Effort



Kaizen Idea Sheet



th KAIZEN CONFERENCE

KAIZEN IDEA - SHEET

Supervisor / Senior Manager Level Kaizen

Activity	KK	JH	QM	PM	SHE	OTPM	DM	ET
Loss No./ Step	0							
Result Area	P	Q	C		D	S	M	



Plant : Marico Limited - Paonta Shahib.
kaizen theme :

Machine :Capping Machine

Idea :

Reduction in filled bottle rework

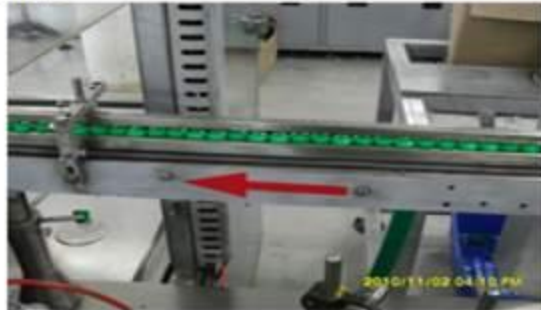
Providing with vacuume base and horizontal air flow

Problem/present status : Presently reworking of bottle without cap is huge which leads to production loss

Countermeasures:-Considering this we have designed a plate where air sucker is applied so that whenever a positioned cap comes cap is pulles down wards and when a reverse cap comes a tangential air flow will push it to the drain passage hance no reverse cap is fed to the system

Bench mark	xx
Target	31.11.2010
Kaizen start	08.08.2010
Kaizen Finish	23.08.2010

Before



After



Team members

1. Tarun
2. Srinivasan D
3. Paresh
4. Kumar

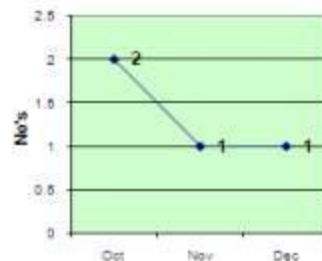
Benefits:

1. Cost saving
2. Reduction in rework
3. Increase in productivity

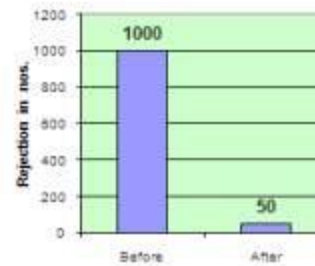
Why-Why

- 1)WHY :- Bottle without caps
- 2)WHY 2:- Reverse cap in the guide
- 3)WHY 3:- No system to eliminate reverse cap from the hooper
- 4)WHY 4:- Weak design

Lot rejected due to smear



Bottles



Scope & plan for Horizontal Deployment

S no	M/c No.	Target date	Responsibility	Status
1	Line 2,3,4	3.02.2011	Srini	Pending

Any Query ?

Thank You

