Annexure (A): Status of Cluster at a Glance

Name of SPV/DPG	Automotive Connective System Manufacturing Association.
Name of LMC	Quality Growth Services Pvt. Ltd K.N. Rai (Active Consultant) , **Contact Name**:- 09810791179
Brief Description	Location of SPV/DPG is in Greater Noida. The SPV/DPG basically enrolled with products like Terminals, Rubber Products, Plastic Components and Wires. The SPV/DPG is in last phase of implementation i.e. in 5th phase which is likely to be completed in first Week of September.

Summary of the units

Company Name	Location	Brief Description(Products range)	Active MSME
M/s Modvak Engineering (I) Pvt. Ltd.	Bahadurgarh	Manufacturing terminals using single stroke presses.	Under MSME-DI ,Karnal
M/s Deusch Moto Comp Pvt. Ltd.	Greater Noida	Manufacturing of Rubber parts using ➢ Rubber Injection Moulding ➢ Rubber compression Moulding	Under MSME-DI , Okhla
M/s SGR Elastomers (India) Pvt Ltd	Gurgaon	Manufacturing Rubber Components using Compression Molding.	Under MSME-DI , Karnal
M/S Positive Plastics Pvt. Ltd.	Noida	Manufacturing Plastics components using Dip Molding, Injection Molding and Extrusion Machines.	Under MSME-DI , Okhla
M/s BMI Cable Private Ltd.	Khushkhera	Manufacturing ELASTOMERIC (RUBBER) / PVC POWER AND CONTROL CABLES (Wire Drawing , Annealing , Extrusion)	Under MSME-DI , Jaipur
M/s Malhotra Cables Pvt. Ltd.	Manesar	Manufacturing PVC Auto Cables	Under MSME-DI , Karnal
M/s Shilpi Cable Technologies Ltd.	Chaupanki	Manufacturing PVC Auto Cables and House Wires	Under MSME-DI, Jaipur
M/s Mega Rubber Technologies (P) Ltd.	Manesar	Manufacturing of Rubber parts ➢ Rubber Injection Moulding ➢ Rubber Compression Moulding Plastic Injection Moulding	Under MSME-DI , Karnal

Success Story of the Cluster	Attached Below.
Way Forward	Sustenance is the main agenda for the last phase (5^{th} Phase). The main focus is to retain the Lean culture in the base system so that they can continually improve as well achieve accordingly.
Problems if any	----------

Achievements:-

1. Unit wise Monetary Benefits

Companies	5S	Quality Improvement	Break Down	Inventory Reduction	SMED	Kaizens	Total
Duesch	85,000	1.35 Lakh	-------	-------	-------	> 2 lakhs	**>4.2lakhs**
Modvak	4 lakhs	-------	0.90 Lakh	>2 lakh/-	89,000/-	> 2 lakh	**>9.79lakhs**
SGR Elastomers	1,00,000/-	0.85 Lakh	-------	-------	-------	1.69 lakhs	**>3.54lakhs**
Positive Plastics.	2 .26 lakhs/-	1.10 Lakh	3.68 Lakh/-	-------	>0.98 lakh	4.5 lakhs	**>12.52lakhs**
Mega Rubbers	1.75 lakh/-	>8 Lakh/-	>7.5 Lakh/-	-------	>1.25 lakh	> 14 lakh	**>32.5lakhs**
Shilpi Cables.	> 25 lakhs	-------	>1.22 lakh	>20 Lakh/-	>2.25 lakh	6 lakhs	**>54.47lakhs**
Malhotra Cables	28.09 lakhs	-------	-------	-------	>0.85 lakh	6.2 lakh	**>35.14lakhs**
BMI Cables	6.12 lakhs	>2 lakhs	-------	-------	>1.39 Lakh	6.75 lakhs	**>16.26lakhs**
						Total	**1.68 Cr.**

2. Unit wise Quantitative Benefits :-

Comanies Name / Project	Shilpi		BMI		SGR		Positive		Duesch	
	Baseline	Actual	Baseline	Actual	Baseline	Actual	Baseline	Actual	Baseline	Actual
Training	0 Nos.	19 Nos.	0 Nos.	19 Nos.	0 Nos.	19 Nos.	0 Nos.	19 Nos.	0 Nos.	19 Nos.
5S & Visual Management	12%	64%	12%	60%	16%	60%	16%	60%	16%	60%
Standardization , preparation & Display of SOPs	45%	68%	11%	57%	14%	61%	25%	54%	32%	68%
Quick Win Kaizens	3 Nos.	63 Nos.	0 Nos.	63 Nos.	19 Nos.	62 Nos.	15 Nos.	64 Nos.	20 No.	54 Nos.
Quality Improvement	N/A		2750 PPM	781 PPM	24842 PPM	15236 PPM	28166 PPM	17548 PPM	48883 PPM	25025 PPM
Reduce Cost of Poor Quality	N/A		N/A		N/A		N/A		3%	2.56%
Consistency in Quality (Customer Rejection)	N/A		N/A		N/A		N/A		628 PPM	198 PPM
Lean Management System	43%	67%	14%	54%	32%	62%	33%	66%	44%	67%
Reduction in Changeover Time	64 Min	26 Min	N/A		N/A		71 Hours	53 Hours	N/A	
Reduction in Break Down	N/A		N/A		N/A		N/A		N/A	
Inventory Optimization	40 days	28 Days	N/A		N/A		N/A		N/A	
VSM	N/A		Level 1	Level 2	Level 1	Level 2	Level 2	Level 3	N/A	
Application of FMECA	120 Hours	90 Hours	N/A		N/A		N/A		N/A	

Comanies Name / Project	Modvak		Mega		Malhotra	
	Baseline	Actual	Baseline	Actual	Baseline	Actual
Training	0 Nos.	19 Nos.	0 Nos.	19 Nos.	0 Nos.	19 Nos.
5S & Visual Management	20%	64%	16%	60%	32%	60%
Standardization , preparation & Display of SOPs	32%	64%	39%	61%	36%	64%
Quick Win Kaizens	0 Nos.	54 Nos.	0 Nos.	60 Nos.	5 Nos.	58 Nos.
Quality Improvement	N/A		45905 PPM	21682 PPM	N/A	
Reduce Cost of Poor Quality	N/A		N/A		N/A	
Consistency in Quality (Customer Rejection)	4679 PPM	1577 PPM	N/A		481 PPM	0 PPM
Lean Management System	33%	62%	46%	67%	45%	66%
Reduction in Changeover Time	62 Minutes	50 Minutes			N/A	
Reduction in Break Down	238 Hours	145 Hours	275 Hours	157 PPM	N/A	
Inventory Optimization	55 Days	37 Days	N/A		N/A	
VSM	Level 2	Level 3	Level 2	Level 3	Level 2	Level 3
Application of FMECA	N/A		N/A		N/A	

3. Instant Glimpses of Cluster :

Implementation :- 2S

For available needed material , dedicated locations are identified defined and marked based on 3F principle i.e. Fixed Item , Fixed Location and Fixed Quantity.

Implementation :- 2S

For available needed material , dedicated locations are identified defined and marked based on 3F principle i.e. Fixed Item , Fixed Location and Fixed Quantity.

Before

After

Before

After

Implementation :- 2S

For available needed material , dedicated locations are identified defined and marked based on 3F principle i.e. Fixed Item , Fixed Location and Fixed Quantity.

Before

After

Before

After

Quick Win Kaizen's

KAIZEN SHEET

Ref.No.	
Date	14-Sep-15

Part Description	Present Condition	Target	Actual Results	Kaizen Team Members
VENT BAFFLE	CRACK PROBLEM DURING UNLOADING THE PIECES.	SOLUTION OF CRACK PROBLEM.	IMPLEMENTED	① MR. SANTOSH MAURYA
Shop				②
COMPRESSION MOULDING (M-3)				③
				④
				⑤

Before	After
	 
CRACK PROBLEM OCCURS DURING MANUALLY UNLOADING THE PIECES.	PIECES ARE UNLOADED WITH THE HELP OF AN INSTRUMENT.

Cost saves = 64000 + 30000 + 94000

Kaizen	
Quality	yes
Cost	yes
Productivity	yes
5S	
Packing	
Safety	

Benefits

01. PROBLEM OF CRACK DURING PIECE UNLOADING IS SOLVED.

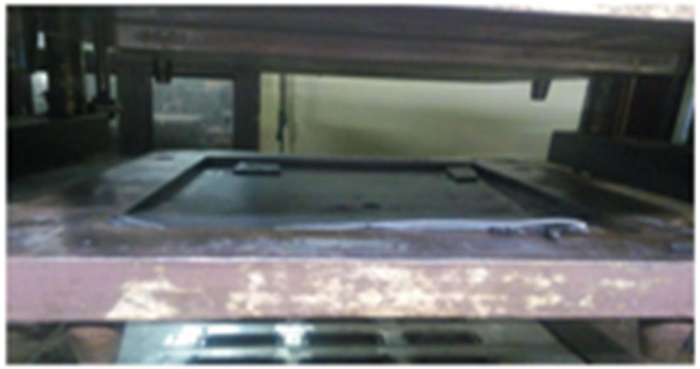
02. OPERATOR'S FATIGUE IS REDUCED BECAUSE NOW PIECES ARE UNLOADED WITH THE HELP OF AN INSTRUMENT .PREVIOUSLY PIECES WERE UNLOADED WITH DIRECT HAND FINGERS.

03. Cost saving = Man hour saving (2min on every shot) + percentage rejection in same part reduces from 2.5% to 1%

KAIZEN SHEET

Ref.No.	
Date	10-Sep-15

Part Description	Present Condition	Target	Actual Results	Kaizen Team Members
CUSHION PGM	FEED WEIGHT-26.5GM/CAVITY	FEED WEIGHT-26.5GM/CAVITY	IMPLEMENTED	① MR. SANTOSH MAURYA ② ③ ④ ⑤
Shop: COMPRESSION MOULDING (M-2)				

Before	After
	
MOULD RUNNING IN COMPRESSION TRANSFER ,FEED WT.=26.5 GM/CAVITY.	MOULD RUNNING IN COMPRESSION ,FEED WT.=21.5 GM/CAVITY.

Kaizen	
Quality	yes
Cost	yes
Productivity	yes
5S	
Packing	
Safety	

Benefits

Feed weight Saving = 5 gms on each shot

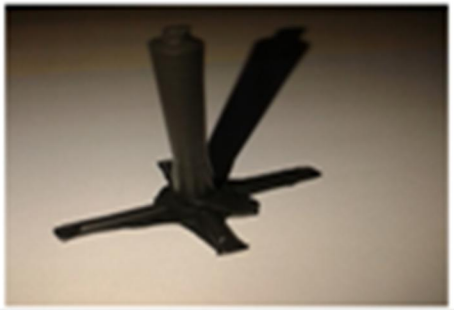
Cost saving = 0.005 kg * 8 (per shot) * 410(per kg) * 25(daily usage) * 13(per month)

Cost saves = Approx 56000 Rs

KAIZEN SHEET

DATE	17/11/2015

Part Description	Present Condition	Target	Actual Results	Kaizen Team Members	
GASKET HEAD COVER(12391-AAW-0000)	08 SHOTS/HOUR	10 SHOTS/HOUR	IMPLEMENTED	MR. RAJESH KUMAR	
				MR. JITENDER RAM	
MODULE-01				TOOL ROOM TEAM	

Before	After
	
BECAUSE OF A DIRECT STEP IN RUNNER POINT OF MOULD,INJECTION TIME OF M/C WAS MORE i.e. 90 SEC.TOTAL CYCLE TIME WAS 450 SEC.	INJECTION RUNNER OF MOULD IS MODIFIED FROM TOOL ROOM SO INJECTION TIME OF M/C IS REDUCED i.e. 60 SEC.TOTAL CYCLE TIME IS 360 SEC.

Effectiveness	
Quality	yes
Cost	yes
Productivity	yes
5S	
Packing	
Safety	

Benefits

01. PREVIOUSLY 120 PIECES WERE PRODUCED PER HOUR.

02. PRESENTLY 160 PIECES ARE PRODUCED PER HOUR.

NOTE: COST/PCE-Rs.52.00

Cost saving ₹ 44,23,680

Cost saving = 32 parts(one hour) *24(one day) *12(No of days mould was run in one month) * 12(Year) *40(Approx Part Cost)

Implementation of SOP's

SGR Elastomers India Pvt. Ltd.	WORK INSTRUCTION कार्य निर्देश	DOC. NO.	SGR/WI/MIX/02
		REV. NO.	00
		KEY DATE	04.11.2015
	MIXING	REV. DATE	
		SC/CC	SC

SAFETY FOR OPERATOR | QUALITY CHECK | CRITICAL PROCESS | MANDATORY SEQUENCE

Photo (Sketch)	SYMBOL STEP	MAJOR STEP (WHAT) क्या करे ?	KEY POINT (HOW) कैसे करे ?	REASON(WHY) क्यों करे ?
	1.0	मिक्सिंग करने से पहले मिक्सिंग रोल को अच्छी तरह साफ करें ।	मिक्सिंग हुड को नीचे करे और हवा के प्रेशर से तथा कपड़े से साँफ करे ।	मिक्सिंग जार अगर साफ नही होगा तो न्या बैच यदि असम रब्बर का ह तो रब्बर क्वालिटी (Quality) पर परभाव पड़ सकता है ।
	2.0	मिक्सिंग के लिए रब्बर ओर कार्बन - मिक्सिंग के लिए रब्बर ओर कार्बन को फ़ॉर्मूला के अनुसार वेयिंग स्केल पर भार माप कर ले ।	रब्बर को कटर से जरूरत के अनुसार बंडल मे से काटे ओर वेयिंग मशीन से भार मापे . कार्बन माते समय कार्बन बॉक्स के नीचे रखे वेयिंग स्केल देखते हुए डाल्व खोलकर फ़ॉर्मूला के अनुसार रबर की माता के अनुरूप इस्तेमाल करे ।	अगर निर्धारित माता (फ़ॉर्मूला) के अनुसार रब्बर ओर केमिकल नही डाले गये तो कॉपाउंड के क्वालिटी पर परभाव पड़ेगा ।
	3.0	मिक्सिंग के लिए मशीन कंट्रोल पॅरमीटर - मिक्सिंग मशीन को चलाते समय वर्किंग स्टैंडर्ड मे दिए गये तापमान ओर टाइम के अनुसार चलाए ।	वर्किंग स्टैंडर्ड मे दिए गये तापमान ओर टाइम के अनुसार चलाए ।	अगर निर्धारित स्टैंडर्ड के अनुसार मशीन सेंट नही होगी तो कॉपाउंड के क्वालिटी परभावित हो सकती है ।
	4.0	नीडर मशीन से बैच (CMB) निकालने के बाद गियर चेंबर से मुज़ारे तथा घाइना मीट्टी लगा कर रॅक मे रखे ।	रॅक मे रखते समय फीफो (पहले बना हुआ पहले ले) का प्रयोग करे ।	फीफो (पहले बना हुआ पहले ले) के अनुसार न रखने से पुराना ओर नया बैच मिक्स हो सकता ह । जिससे कॉपाउंड की क्वालिटी परभावित हो सकती है ।

Implementation :- Quick Win Kaizen (Safety)

Earlier :- There were no cover. Chances of wire hitting the operator during wire breakage

Now : - Near take up of bow twister there is iron frame is use for protection from wire breakage

Earlier :- Before no chain used for holding the gas cylinder

Now : - We are using protection chain for holding the gas cylinder

Earlier :- There were no safety cover at RBD machine

Now : - Safety cover provided at rotating part of RBD machine

Earlier :- Wire passing from annealer to take up at MIG/D was not visible and anyone passing may get injured

Now : - We are using protection channel between mord annealer and take up

Implementation :- Quick Win Kaizen (Office 5S)

BEFORE: (Problem / Present	AFTER (Photo / Sketch):
	
ANALYSIS: Due to inproper arrangement of machine documents it is hard to know the machine history and its efficieney.	**ACTIONS TAKEN** We have provided a proper arrangement to all machine document including manual,operating instruction,electrical & mechanical drawing.

No proper demarkation was there for office tables , table accessories etc.

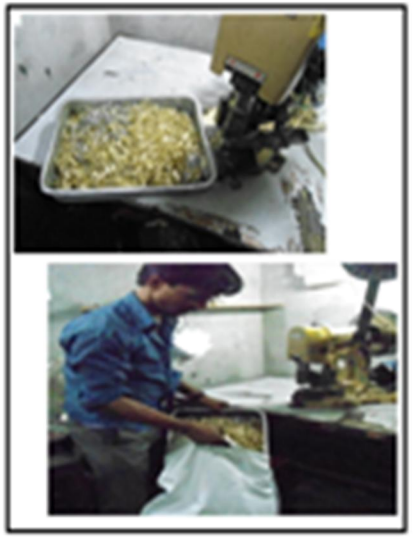
Proper marking along with proper identification is being imparted

Earlier drawers of executives found in a in organised manner

Now proper shadow is being impated in drawers itself so as to organise it in a better way

Implementation :- Quick Win Kaizen

Before



Earlier ,At Cutting Applicator, parts were being collected in Tray and then filled in Plastic Bags

After

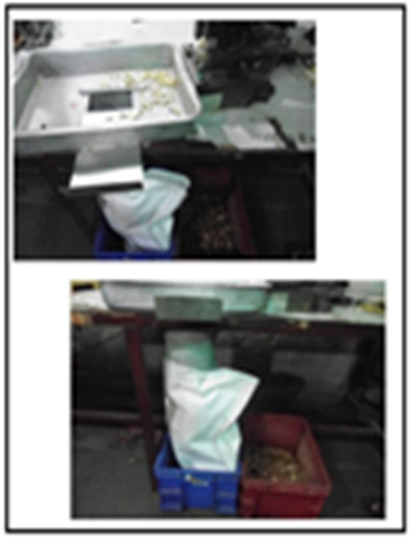


Table and Tray modified in such a way that no manual filling required from tray to Bags

Improves productivity and cleanliness, & Reduces fatigue

Before

Earlier one man is required to re-coil the material from caterpillar machine

After

Now a trolley arrangement was being implemented which elimates person's fatique

Reduces excess fatigue of Associate

Implementation :- Quick Win Kaizen

Before

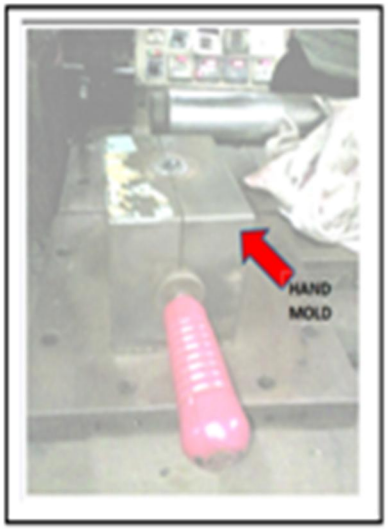
No planning for next changeover so that only at time of changeover operators looks for die and nozzles.

After

Now a proper place is defined on which operator can place next die and nozzle that will be going to use in next changeover.

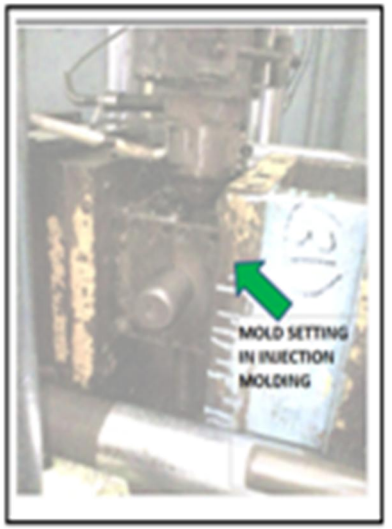
Reduces changeover time by 3 minutes (Approx.) and hence Increases productivity.

Before



Earlier Grommet 1122 was manually operated and producing 80 pcs in one hour.

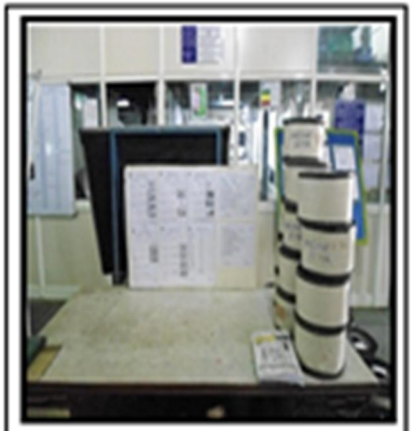
After



Now by making a proper arrangement with the help of nut and bolt arrangement it was made suitable for semi automatic machine.

Increases production from 80 pieces to 150 pieces per hour

Implementation :- Quick Win Kaizen

Before	After
No Online Inspection Stage at Shop Floor	
Earlier No inspection stage was available at shop floor	After doing inprocess inspection a stage is now being made where every coil is physically checked against all CTQ's parameters and then shifted to warehouse.

Reduces Quality issues and increases Customer satisfaction.

Before	After
	
Earlier for all parts deflashing was done at final stage only	For parts like KVNF deflashing is now done at molding stage only resulting in increase of productivity , removal of defalshing operation and also reduce rejection percentage from 5% to 3.3%

Reduces one process (i.e. deflashing) and reduces rejection % of KVNF from 5% to 3.3 %