

Issue Special

- ACMA Awards "Online Management System"
- Launch of ACT New Product Development Cluster
- ACT Professional Certification Courses (PCC) Pune, Delhi, Chennai
  - **PCC -1**: Lean Hydraulic Systems (Breakdown Free Systems)
  - PCC-2 : Lean Electrical Systems (Breakdown Free & Without Air Conditioners Systems)

Innovation

Energy

- PCC-3: Lean Coolant & Lubrication Systems (Contamination Free Systems)
- PCC-4 : Quality Management (Move towards Zero Defect Quality Culture)
- **PCC-5** : Productivity Improvement through Flow Mfg. & Low Cost Automation (Multifold Productivity improvement and Line Balancing)
- PCC-6 : Inventory Management (Releasing Blocked Capital)
- New Sections with case studies
  - Engineering Excellence
  - Innovation
  - Technology
  - Energy
  - Quality

Vol. 7 No. 1 April 2014

# LPS BOSSARD **Fastening Soluntions Redefined** (More Than Nuts & Bolts) Bossard SmartBin Flex \* No line down solution for "C" parts. \* Reduced obsolescence & exess for special "C" parts. \* A leaner supply chain that reduce upto 50% man-hours. \* Towards a Six Sigma quality supply chain possibility. LPS Bossard Pvt. Ltd. NH-10, Delhi Rohtak Road, Kharawar Bye-Pass, Rohtak-124001 (Hr.) Ph.: +91-1262-305101, 198 Fax: +91-1262-305111 Email : rjain@lpsboi.com, vtalwar@lpsboi.com



# PASSION FOR SAFETY

We supply manufacturers of trucks, buses and trailers around the world with leading technologies for braking, stability and transmission automation systems.Our innovations significantly increase the safety of commercial vehicles while strongly contributing to driver effectiveness.

We address nearly every type of road accident. Our passion is to reduce the number of accidents involving commercial vehicles by 50% by 2020.





# WABCO INDIA LIMITED

Plot No. 3(SP), IIIrd Main Road, Ambattur Industrial Estate, Ambattur, Chennai - 600 058,INDIA www.wabco-auto.com

I

#### Inside

<b>Engineering</b> Case Study by Fairfield Atlas Ltd.	3
<b>Quality</b> Case Study by New Swan Autocomp Pvt. Ltd - Ludhiana	6
Case Study by Nipman Fastener Industries Pvt. Ltd.	9
<b>Green Manufacturing</b> Case Study by Kusalava International Ltd.	14
<b>Technology</b> Case Study by Rockman Industries Ltd.	18
Innovation	
<b>Know Our Team</b> Atul Kumar Gupta, Counselor ACT Mahesh Gupta, Counselor ACT	22
ACT news (January 2014 – April 2014)	
Session on Nurturing Innovation Culture in the In Auto Component Industry	dian 25
ACMA Awards Online Management System	26
ACT New Product Development Cluster	29
ACT Team Meet in Mysore and Plant Visit to TVS Motors	30
ACT Professional Certified Courses	31
CMVR/ AIS/ BIS	32
Letters to the Editor	34

#### Editorial Team

Publisher	:	Mr. Vinnie Mehta, Executive Director, ACMA
Chief Editor	:	Mr. V. K. Sharma, Principal Counselor, ACT
Assistant Editors	:	Mr. Jitender Rana, Ms. Sakshi Karkamkar & Deepti Panikker

One complimentary copy of "ACT Now" is sent to each member of ACMA. Additional copies are available @ ₹150/- for each copy. This cost is including service tax & postage charges.



# Chairman's Message

It is indeed a pleasure for me to present to you yet another edition of "ACT now". I am happy that each issue of this publication has received wide acclaim and has shown remarkable improvements over previous issues, be it its design, content or relevance of the articles shared; I am hopeful that this issue too will be useful.

The Indian auto component industry remains under cost pressures what with customer demanding cost reductions every year. The market for existing components becomes saturated in a short time and profit margins shrink constantly. The only silver lining is the new products that are being introduced continually that offer a competitive edge over the existing products. To remain competitive in these tough times, roughly 35% of the total turnover of any component manufacturer should come from new products, year after year; developing new products with robust design and lasting quality is a challenge that needs to be overcome.

ACT will soon be launching the much-awaited New Product Development Cluster program for the automotive industry. This will be yet another milestone for ACT and will guide companies in an area which is, today, a burning need of the industry.

However, it is also possible to achieve better results from the existing set of machines and equipment by changing our approach towards performing various processes, leading to consistent improvements. ACMA Centre for Technology (ACT) has a remarkable history of building competencies in auto component units by bringing cultural change. I am proud that ACT has successfully transformed a number of auto component manufacturers and enabled them to face the challenges of the industry through SME, Foundation, Advance and Engineering Excellence Clusters, Apart from our new initiative of New Product Development Cluster.

ACMA Awards process is 'going green' - the entire award management process is being made online and I hope this will encourage our members to apply for these coveted awards in large numbers.

While the other ACT services are improving to their next level, our readers will witness a new look "ACT now" from this issue onwards. Based on the feedback, this newsletter will focus more on sharing case studies in addition to its regular sections. I am thankful to the companies who have shared their success stories through this vehicle for the benefit of entire auto component industry.

I request our readers to send their feedback and ratings in the format that is being sent with this issue.

Best Wishes, Srivats Ram

#### E N G I N E E R I N G

# Engineering Excellence in Manufacturing (Part 1 of 2)

"Engineering" is described by dictionary as Manufacturing, Business, Commerce, trade or production and "Excellence" is described by dictionary as Fitness, Superiority, Distinction, Ouality or Merit. So, Engineering Excellence can be described as Distinct Manufacturing with merit in commerce torun a superior quality business.

If we relook at the 1960s, it is evident that use of technology was very limited. Over a period of time, things changed and we are now getting superior machine tools, toolings, educated manpower and also easy access to information in 2014. Have we achieved those levels of Excellence in Engineering by which we are comfortable with fluctuation in business as we are able to achieve lowest possible per piece cost. (Variable) to maintain (protect) bottom line, or NOT ? Achieving Excellence in Engineering is the key for ensuring bottom line.

#### Steps to Achieve Excellence in Engineering:

- 1. Design a road map
- 2. Top Management communication to all employees (Together)
- Building competencies within organization for related processes (Casting / Machining / Fabrication/pressing/ Molding)
- 4. Challenging traditional ways of manufacturing
- 5. Embracing new tools and techniques for each business process
- 6. Creating culture where abnormalities are discussed in morning meetings instead of yesterday's failures. (production numbers will come automatically with reduction of abnormalities)
- 7. People empowerment for expressing their issues.
- 8. Innovation in motivation.
- 9. Finally, giving back to people and society.

Human tendency is to always work for short term gains. This will always give short term results. It is our choice to decide.





Dinesh Vedpathak Head Cluster Program

Retention of Talent is a function of providing more challenging jobs to people. Lesser the challenges, more is the attrition. I was surprised to see layout changes made every two years by the management in spite of supplying ZERO Defect components. When asked, I was told that where is food for the brains available - if we do not adopt new ways, brains will search food outside.

Same ways of working = Same levels of results

This was a real thought provoking idea as it was very easy to be understood by all. In this world, every improvement is a cost when it is not budgeted. If budgeted, it becomes investment.

1

Investment for future

More the investment for future, Lesser will be cost.

One more incident - I was comparing two companies with similar nature of work.

#### 1st Company

Cost =

... Bright shop floor = Shining Employees with Zero Customer complaints

#### 2nd Company

Dark shop floor = Unsatisfied employees struggling to achieve quality

What is the message.....Make employees shine in all respect, as it is fact that only employees ADD or subtract value.

#### Shining Employees = Add Value

Now, you might have decided not to read further. I agree, as I want you to spend few minutes here and go through above few equations one more time and then decide as we have printed remaining part at end of this magazine knowingly. (To read more Turn to page No 33)

www.acma-act.in

# Case study by **Fairfield Atlas Ltd.**

14 March, 2014



Project Title	:	Designing & Manufacturing a fixture which can accomplish 1st and 2nd side Machining in 1 Set-up.
Target	:	Reduce set-up time by up-to 180 minutes and Eliminate 1 Machine from utilization for the selected part.
Area	:	Machining Center (Complete all operations on Mazak Nexus 6000 HMC & eliminate Mazak VMC)
Part Details	:	035400701 & 035400702 Spindle Carriers
Chief Mentor & Guru (ACT)	:	Mr. C. Narasimhan
Head of Cluster Program (ACT)	:	Mr. Dinesh Vedpathak
Head of Fairfield Busine	: ess	Mr. D. E. Jacob Unit, Belgaum
Cluster CEO & Sr. Gen. Manage	: er(	Mr. V. Muthu Manufacturing)
Cluster Coordin	at	or &

Asst. Manager : Mr. Nikhil Subraveti

#### Core Team:



Mr. Nitin Shinde



Compiled and Presented by : Mr. Nikhil Subraveti

Introduction : As a part of ACT Engineering

Excellence Cluster 2011 – 2013, one of the best key

learning was in the area of toolings, fixtures and material movement. As we audited the areas where

we can considerably improve and contribute

After considerable research we could find out that by

designing a new fixture for the Mazak Nexus 6000

HMC, the 2nd side operation done on the Mazak VMC

can be done along with the 1st side operation on the

Nexus 6000 HMC. The main advantages of this are as

1. Reduce utilization of 1 machine completely so

towards cost saving for the company.



Mr. Rajesh Hulaji

Mr. Manohar Dalvi

- that it can be used for manufacturing other components. This proves to be as good as buying a new VMC.
- 2. Elimination of VMC Set-up time of nearly 220 minutes
- 3. No material movement from HMC to VMC

Mr. Deepak Kawale

- 4. Reduced trans-shipments of the component
- 5. Avoid damages or rejections due to material handling
- 6. Improve component quality & manufacturing accuracies as both operations are accomplished in l set-up.
- 7. Reduced errors in dimensions due to machine variation.



below;

www.acma-act.in

April 2014 | 3

#### Engineering

#### **Problem Description :**

Process	Set–up time	Storage	Other
<ul> <li>Process carried out in 2set-ups.</li> <li>Set-up1: Finish turn first side taken on HMC.</li> <li>Set-up 2 : finish turn second side taken on VMC.</li> </ul>	<ul> <li>Set-up 1 : 180mins</li> <li>Set-up 2 : 220mins</li> </ul>	<ul> <li>After first side components waiting for 2<sup>nd</sup> set-up.</li> <li>Increased Material movement.</li> <li>Increased material storage.</li> <li>Increased Trans- shipment.</li> <li>Increased dent's &amp; damages.</li> <li>Fixture storage.</li> </ul>	<ul> <li>Excess man power.</li> <li>Machine power required.</li> <li>Fixture maintenance.</li> <li>Loading/unloading time.</li> </ul>

#### Analysis of the Process : Before :

Finish Turn 1st side on Mazak Nexus 6000 HMC. M/c # : 6504 & 6505. Set-up Time : 180 mins



Finish Turn 2nd side on Mazak VMC. M/c # : 6502 Set-up Time : 220 mins



The Mazak Nexus 6000 HMC has a  $360^{\circ}$  index-able pallet which was not exploited before and hence the machining was done in 2 set-ups. To utilize this feature to maximum extent, a hole was made in the fixture exactly in the shape of the Spindle Carrier so that the second side is now open for machining as shown in the after pictures below.

After :



This addition saw a reduction in a host of activities that were done during the 2nd side machining process like lifting the fixture with a hydraulic lift, truing the pallet face, inward time and outward time tooling off-setting, loading & unloading. The biggest advantage of this is the eliminating the utilization of a machine and additional manpower.



SI.No.	Activity	Time in Minutes		
		Before	After	
1	Remove Chips & Clean the Pallet	5	0	
2	Lift the fixture with hydraulic crane and get	15	0	
3	Load the fixture	5	0	
4	Adjust the t-nuts & tighten the bolts	5	0	
5	Fix the locator	15	0	
6	Adjust the hydraulic connections & pipes	30	0	
7	Face truing, pallet inward/outward time	43	0	
8	Aligning the fixture & tightening the fixture	45	0	
9	OD truing/taking WPC & copying in program	15	0	
10	2nd Set-up loading/unloading	2	0	
	Total	180	0	
	Total Time Saved	180	0	

#### Engineering

Time taken for Program Checking & Tooling Installation & offset setting - 40 minutes per machine, considering 2 setups it was 80 min. Now there is no set up required, hence total time has come down to 40 mins.

Process	Set–up time	Benefits	Others
<ul> <li>Process carried out in single set-up.</li> </ul>	<ul> <li>Total Set-up time :180 mins</li> </ul>	<ul> <li>After machining components moved to burnishing.</li> <li>Transshipment reduced to 100% of the 2<sup>nd</sup> side.</li> <li>Dent's &amp; damages eliminated to 50%.</li> <li>Rejections due to concentricity off eliminated.</li> <li>Storage reduced.</li> <li>Inventory reduced.</li> <li>Change over time eliminated.</li> <li>Operator fatigue eliminated.</li> <li>Loading/unloading for 2<sup>nd</sup> set-up eliminated.</li> </ul>	<ul> <li>Man power reduced.</li> <li>Machine eliminated.</li> <li>Fixture maintenance reduced.</li> </ul>

#### **Benefits**:

- 1. Set-up time reduction of 180 minutes
- 2. Zero rejections due to concentricity being off. Previously atleast 20 parts per month used to be rejected
- 3. Man-power reduced by 50% i.e., from 6 to 3
- 4. Fixture maintenance cost of Rs. 30000/- per annum has been eliminated
- 5. Cost Saving per month based on reduction of set-up time is Rs. 162000/- per annum.
- 6. Purchase of a new Mazak VMC machine has been evaded. Cost of a new machine: Rs. 20 Million approximately.
- 7. Productivity has gone up from 60% to 80%
- 8. Generated additional production capacity.





#### Q U A L I T Y

We are in the new era of competition. Quality Management will be the norm rather than the exception . We are in a battle for survival and total quality is going to sort out the winners from the losers ..... Alex Trotman, CEO, Ford.

A competitive world has two possibilities for you . You can lose .Or , if you want to win , you can change. Lester C. Thurow....Management writer.

In the 1950's American industry was enjoying a boom. Whatever was made could be sold. Few industrialists heeded the work of this man called Deming and his ideas about Total Quality. In Japan, however, things were different . The Japanese economy was depressed. Goods stamped made in Japan were known for poor quality and high price.

Japanese industrialists were very receptive to the ideas of Deming on TOM and set about implementing them. By the mid - 1970's Japan was beginning to seriously undermine its American and other western competitors. First in cars, then in the whole range of goods including videos, Hi-fi and computers. The rest is history.

What does the term quality mean?



Mahesh Gupta Counselor ACT

Most popular: Quality is the ability of a product or service to consistently meet or exceed customer expectations.

A more comprehensive definition:

Ouality is a concept that involves multiple dimensions, which are: Excellence, Value, Conformance to specifications, Meeting or exceeding customer expectations.

Any definition of quality must include the customer, the voice of authority. The voice above all other voices must be the voice of customer.

To maintain quality service (and products) to customer we must continually strive to improve it through problem solving – involving a structured approach that leads us to root causes so that the problem is eliminated – for ever.

# Case study on problem solving through a structured approach New Swan Autocomp Pvt. Limited, Ludhiana

Project Title :	Elimination of Blank cut probler	n in Fine Blanking proces	s while Auto blanking.
-----------------	----------------------------------	---------------------------	------------------------

Area : Fine blanking press.

Team : Ramesh Bagga, Harpreet Singh, Inderjit Singh, Jatinder Singh, Amandeep Singh

#### **OC STORY:**

One of the key areas of focus under the ACT Cluster program is 'Quality Management'. As a part of strengthening our Quality Management we are on the mission of improving part quality and deskilling the processes. After the introduction of the cluster program at our works, we have started using 7 steps of problem solving technique as a standard practice. We shortlisted the above mentioned problem as a part of our very important project which can reduce a huge amount of internal PPM in addition to eliminating the customer complaints. We shortlisted this problem also due to the reason that the parts being manufactured on Fine Blanking machines are either going to the Gear shifting, Engine or parking brake areas where every problem can be of a fatal nature.



#### 1. Clarify the problem

Problem statement: Blank Cut in XCD Pawl.

Dispositioning action: Quality alert implemented

		New Swan Auto comp (P) Ltd.         Doc No         TSF/QC/17									
		ΟΠΑΓΙΤΥ ΑΓΕΡΤ						Rev No	0		
			<u> </u>	UAL		ALLI				RevDate	31.12.12
Date Implen	nented	10.1.2014	Time	12.00 PM	Valid till (date)		Up to the next notification		Q-Alert No.		2
Problem Ide	ntified Area	Inhouse	Line	Starways	Station ( app	olicable )	final Insp/ Pa blank	acking/ fine	Complaint No :		2
Part Name		Pawl gear s	hift (JK56120	7)	Model		N.A				
Awarenes: root cause.	s It is the o	ne of the ma	ajor rejectior	I From April	-13 ~ Dec -	13 100% in	spection (at	final stage f	for blank cut	t) until we r	ot reach at
Operator 1	Name	Suresh Kumar	Sign.		Shift Engineer 1	Name		Sachidaana d	Sign.		
Operator 2	Name	Mohan	Sign.		Shift Engineer 2	Name		Uday	Sign.		
Operator 3	Name	Mamta	Sign.		Shift Engineer 3	Name		Ram dyal	Sign.		
Prodn. Engr.	Name	Manpreet singh	Sign.		QA Engr.	Name		Rahul	Sign.		
	OK ( 🖌 ) I	PAWL GEA	R SHIFT				NOT	OK ( 🗱 ) F	PAWL GEAP	R SHIFT	
рното											
DESCRIPTI ON	without blank cut Blank cut										
It is the one of the major rejection From April -13 ~ Dec -13 100% inspection (at final stage for blank cut ) until we not											
PREPARED B	TEACH ALLOUG CAUSE.										

#### **ADVANTAGES:**

- Reduce customer complaint
- Reduce in house PPM

1. PROCESS FLOW DAIGRAM

RAW MATERIAL

FINE BLANKING

CHAMFERING ( # 8 mm

FINAL INSPECTION

IS there is

ny change

in Machin

LINISHING

BENDING

REAMING

PACKING

PDI

IS there is

ny chang

in mar

NO

VIBRO

10

20

30

40

50

80

70

80

90

100

- Reduce inspection time
   Saving in term of time &
- Saving in term of time & money

#### 2. Breakdown the problem (Data Collection )



IS something we did on 4M from the month of Oct ????

IS there is

any change in Method

NO

IS there is

any change

in Material

NO

Source : - control plan, Tool History Card, P.M check sheet etc.



# 2. There is fluctuation in fine blanking process so that blank cut happened.

3. Month wise rejection trend of pawl gear shift



Ejection tubes change from Metal to narrow nose rubber to reduce the air compressor cost. Added in the possible causes (Significant Cause)

www.acma-act.in

#### 3. Set the Target

- 1 Eliminate the problem of blank cut from XCD pawl
- 2 To eliminate the rejection of Pawl gear shift due to blank cut" from 2384 Nos to Zero in next 2 months.



#### Why-Why on significant causes

Problem	nefficient ejection system of part from Die.	Cause	Miss Feedir
Why-1	Why part not ejected from die?	-	
Answer	Air Pressure is not enough on the part.	Why-1	Miss Feeding fro
Why 2	Why the air pressure was not enough?	Answer	Feeder unable to
wily-2	why the an pressure was not enough.	Why-2	Feeder unable to 2
Answer	Air pressure was not coming directly on part.	Answer	Because problem of
Why-3	Why air pressure was not coming on part?	Why-3	Why problem occu
Anewar	A irreleasing tuber were unable to rate in its actual position when pressure	Answer	Play in ratchet and f
Auswer	comes	Why-4	Why Play in ratchet a
Why-4	Air releasing Tubes are unable to retain its actual position when pressure	Answer	Mechanical wear and
	comes?	Why5	Why Mechanical wea
Answer	Because ejection tubes are made from Rubber Material.	Answer	No auto detect mechan

Cause & effects conclusions: 1. Ejection Tubes are made of rubber material and 2). Play in Rachet

#### Quality

5. Develop Countermeasures							
S.No	Counter Measure	Impact on target					
1	Servo implements motor instead of mechanical feeder.	28.01.2014 (OK)					
2	Use copper tubes to easy set its direction & other concept of small nose to be same as new Attached with Top & bottom Die	28.01.2014 (OK)					
3	Imparting training to the operators.	28.01.2014 (OK)					



www.acma-act.in

T

<b>6.</b> I	6. Implement Countermeasure							
Sr	No	WHAT ( Action )	WHEN ( Date )	WHO ( Doer )	HOW ( Method )	Status		
1	1	Eliminate the rejection of pawl gear shift due to blank cut	12.02.14	Jatinder singh	Use copper tubes to easy set its direction & use of small nose to be attached with Top & bottom Die	Done		
2	2	Eliminate the of pawl gear shift due to blank cut	12.02.14	Jatinder singh	Implement servo motor instead of mechanical feeder.	Done		
7. N	7. Monitor Results & Process 8. Standardize & Share Sucess							
3000-					1. Check point added in preventive maintenance sheet.			
2500-					2. Check point added in PFMEA			
2000-								
1500-	1307	7.44						
1000-	•							

# Case study on problem solving through a structured approach Nipman Fastener Industries Pvt. Ltd.

Apr - 14

Project Title	:	To Reduce Dull Plating/Color Variation from Electroplating.
Part Name	:	M8x16BoltFlange
Customer Name	:	Hero Moto Corp Ltd.
Area	:	Electro Plating
Team	:	Electroplating & Quality Assurance Team

0

0

Feb - 14 Mar - 14

0

Jan-14.

#### **OC STORY:**

500·

0

Apr,13 - Dec,13

One of the Key Result area of focus under guidelines of ACT Cluster Program is Quality Management. As a part of Strengthening our Quality Management System we are improving Product Quality and Deskilling process through use of 7QC Tools. Here, since the introduction of Cluster Program, we have made a Standard Practice for use of 7 Steps of Problem Solving for all Quality related problems. We also learned use of GEMBA observations, an important tool for analyzing problems. We have shortlisted the above mentioned problem as a part of our Quality improvement Project "Reduce dull Plating/Color variation from Electroplating Process".

#### Advantages:

- Reduce internal PPM FROM 34292 to 0
- Increase Productivity



• Reduce customer complaint

Reduce Rework cost

www.acma-act.in



ACCOUNT 225

www.acma-act.in

IPMAN OMOTIVE FASTENERS	QCC-2	2	NI	NIPMAN FASTENER IND. PVT. L Haridy					
TRODUCTION 1.DEFINITION 2.OBSERVAT	ION 3.ANALYSIS	4.ACTION	5.CHECK	6.STANDARDISATION	7.CONCLUSI				
gnificant causes – Why Wh	ıy Analysis								
(2) Passivation	n solution terr	nperatu	re not c	ontrolled					
Question What is your final action?		Answe Auto c amenc	r ut tempera SOP.	ature controller insta	lled and				
Why	Ar	iswer		Action					
Why passivation solution temperature not controlled?	Tank temperat idle condition.	ure increa	sed in	Temperature manually controlled.					
Why tank temperature increased in idle condition?	Heater switch	continuou	is on.	Switch Off heater connection.					
Why heater switch continuous on?	Heater switch	manuaiiy	control.	Pian to modify for atomization.					
Why heater switch manually control?	Auto cut temp not provided.	erature co	ontroller	Auto cut temperat controller installe amend SOP.	ture d and				

IPMAN	(	QCC-	2	NI	PMAN FASTENER	IND. PVT. LT Haridw						
TRODUCTION 1.DEFINITION	2.0BSERVATION	3.ANALYSIS	4.ACTION	5.CHECK	6.STANDARDISATION	7.CONCLUSIO						
gnificant causes -	- Why Why J	Analysis										
(A) p	H-Value of t	he Passiv	ation so	lution f	luctuate							
Question What is your final action	n?		Answe Digital SOP.	Answer Digital pH_controller installed and amend in SOP.								
Why		Α	nswer		Action							
Why pH-Value of the passivations solution	fluctuate?	leading varia	tion in pH	-value.	Analyze the pH readings.							
Why Reading variatio value ?	n in pH p	H- meter res atisfactory.	ults not		Cross verify with Master machine.							
Why pH- meter result satisfactory?	s not F	tesults verifi vas wrong.	cation met	hod	Develop method.							
Why results verification was wrong?	on method	ack of aware H- meter.	ness to op	perate	Digital pH contro installed and ame	ller nd in SOP.						

#### 4.0: Action Plan

S.No.	Counter Measure - What	Who	When	Where	How
01	Standard Operating Procedure displayed at the Passivation Work Station	ОРК	22-08-12	Pass. Tank	Display
02	Provided auto cut temperature Controller with sensor.	Amit/ OPK	26-08-12	Pass. Tank	Installed
03	Display customer approved master limit sample.	Kuldeep / OPK	25-08-12	Process Inspection area	Display
04	Digital pH controller installed and amend in SOP.	ОРК	28-08-12	Pass. Tank	Installed

#### NIPMAN FASTENER IND. PVT. LTD. Haridwar NIPMAN QCC-2 Significant causes – Why Why Analysis (3) Colour variation in final product Answer Question What is your final action? Provide Customer approved master limit sample and add in SOP. Why Answer Action Why Colour variation in final product? Poor judgment of Passivation. Training given to operator. Why poor judgment of passivation? Communicate with Customer. Internal master sample not ok. Internal master sample matched with Customer finish requirement. Master sample & customer finish requirement not Why internal master sample not ok? Provide Customer approved master limit sample and add in SOP. Why master sample & customer finish requirement not matched? Customer approved sample not available.

#### 3.1: Cause verification & Validation

	N	Ģ	QCC-	2		NI	PMAN FASTE	NER I	ND. PVT. LTD. Haridwar
INTRODUCTION 1.	DEFINITION	2.0BSERVATION	3.ANALYSIS	4.A0	CTION	5.CHECK	6.STANDARDISA	TION	7.CONCLUSION
Root Cause V	/erificat	ion							
CATEGORY	PO C/	SSIBLE AUSES	CHECKE	D	C	BSERV	ATION	VEF	RIFICATION
METHOD	BAKING S	SOAKING TIME	30 Shift		CHECKED 28 LOTS OF BAKING SOAKING TIME, FOUND OK				NO
METHOD	PASSIVAT TEMP.NO	TON SOLUTION	ONCE IN A Shift	30	TEMP. ROUNI	EMP. INCREASE BETWEEN OUND TO ROUND.			YES
METHOD	IMPROPE	R DRYING	30 Shift			30 Sh	ift		NO
METHOD	CUSTOME MASTER AVAILABL	ER APPROVED SAMPLE NOT LE	VISUAL CHECK		VARIAT	TION BETW NAL & EXT OVED MAST	'EEN ERNAL TER SAMPLE.		YES
MEASUREMENT	PASSIVAT FLUCTUA	TON DIP TIME TE	30 Shift		CHECH PASSIN FOUNE	(ED 28 LOT /ATION DIP OK	S OF TIME,		NO
MEASUREMENT	pH VALUE FLUCTUA	E OF SOLUTION	30 Shift		P <sub>H</sub> VAL INCRE	UE OF SO ASE EVER	LUTION (3 LOT		YES
MEASUREMENT	LOT VOLU	JME TE	30 Shift		CHECH (QTYF	(ED 28 LOT (gs), FOUN	S VOLUME D OK		NO

#### 5.0 : Check the effects and side effects

#### MONITORING SHEET FOR COLOUR VARIATION

MONTHS (WEEK)	TOTAL PRODUCTION QTY	TOTAL NON- CONFERMANCE QTY	TOTAL PPM	Verified By
Oct-12	22140583	0	0	OPK
Nov-12	22017710	0	0	OPK
Dec-12	30801231	0	0	OPK
Jan-13	25701622	0	0	OPK
Feb-13	23751845	0	0	OPK
Mar-13	22707879	0	0	ОРК





AUT		ERS						P	ROCESS	S QUA	LITY CONTROL SH	IEET (II)					Doc. No. : QSF-0609 Rev. No. : 01 Date : 28.10.2011
P.C	C.S. White Pass. H	ydro	gen													Doc.No.:PQ	CS/ EP/002
e of	De Embrittiemer	π 	ŧ			QUAL	TY CHARACT	FERISTICS				CONT				age ·2	of 5
Sequeno Proces	Equipment Name (Name of Supplier)	Trouble Mode	Importa	No.	Control Item	Specified Value	Inspected by	Inspection Method	Inspection Frequency	Data Form	Control Item	Specified Value	Inspected by	Inspection Method	Inspection Frequency	Data Form	Detail of Process/ Sketch
											Volume * 1. Concentration i) DM Water ii) Tripass IR - 100 iii) Sulphuric Acid	700 ltrs. 614 ltr 120 ml/ltr(86 ltr) According PH Value	Operator P.E	M. Cyl. M. Cyl. M. Cyl.	Starting of Setup	Format Format	
33	TRIVALENT			1	Appearance	No visual defects.	Operator	Visually	Every Lot.		<ul> <li>* 2. PH Value</li> <li>* 3. Temperature</li> <li>* 4. Time</li> <li>* 5. Analysis</li> <li>* Add. a)Tri pass IR 100</li> <li>b) Subburic Acid</li> </ul>	1.6 - 1.9 33±3 °C 30 Sec. Auto Dosing	" " P.E	PH Meter Temp. contr. Timer By Analysis	" " Continue	Format Format Format	
											* 6 Impurities a) Zinc b) Iron Decanting	20 gm/ltr Max. 0.3 to 0.5 gm/ltr Weekly	P.E P.E	By Analysis By Analysis	Once a week Once a week Once a week	Format Format Format	



# **Super-Speed Edition**

VF-2SS | Super-Speed Vertical | Affordable Haas Price





 $(\mathbf{X})$ 

E-Z setup

Super-Speed milling

Repeat (max profit)

#### Haas Factory Outlet - India locations

 Sales: Ahmedabad: 079- 079 32405007, Bangalore: 080-41179452/53, Chennai: 044 - 65156052, Coimbatore: 0422-2413924

 Delhi: 9312-909801, Kolhapur: 0231-2677979, Mumbai: 022-61321500, Pune: 020-32935433

 Service: North: 09312550550, West (Guj) and Central: 09376150150, West (Mah) and East: 09325150150, South: 080-41179452/53

 Haas Automation INDIA
 I

 TEL: (91) 22 61392800, 66098830
 I
 indiasales@haascnc.com

## GREEN MANUFACTURING

#### Green Manufacturing:-

Energy costs today are very high and constitute a major part of the manufacturing cost. Consequently, the focus of the Industry is on optimizing energy costs. Energy is one of the major resources and optimization of resources is the essence of Green Manufacturing. Green manufacturing enables economic growth by focusing on minimising pollution, waste and conservation of resources.

Effective energy management needs to be ongoing and supported by processes and systems. An energy management program is best designed as an integral part of your existing management systems. As part of developing an energy management program, it is recommended that manufacturing plants:

- Monitor energy consumption;
- Set energy use reduction targets;



Compiled by: Atul Gupta, Counselor ACT

- Highlight key areas where energy savings can be made;
- Develop an action plan; and implement energy savings.

In ACT cluster programs energy management is one of the key focus areas. Many cluster companies have implemented energy saving kaizens and reaped rich benefits. Case study from one cluster company from ACT SME cluster, Pantnagar is discussed below highlighting the energy saving improvements.

# Committed to Optimise Resources Case Study of **Kusalava International Ltd. -Pantnagar**



Upendra Thakur CEO-ACT SME Cluster Kusalava International Ltd-Pantnagar



"We have committed to save natural resources by adopting best energy saving practices in our plant after joining ACT SME Cluster. We are following these practices smoothly and continuously to realise improvements in all areas of our organization."

#### Theme : To Save Energy

Work Carried Out:

- 1. Analysis of Energy required to run individual machine.
- 2. Analysis of Compressed air required.
- 3. Strengthen Preventive Maintenance of Equipments.
- 4. Reduce Breakdown.
- 5. Improve Productivity.
- 6. Implement JishuHozen.
- 7. Increase Total Employee Involvement.



www.acma-act.in







400

350

300

250

200

150

100

50

0

Apri-13

April 2014 | 15

432.934

325.176

241.3

, 149.8

97.18

May-13 Jun-13 Jul-13 Aug-13 Sep-13 Oct-13 Nov-13 Dec-13 Jan-14 Feb-14 Mar-14

45.15 53.06

6.5 6.5

#### Technology



K. Chandrasekhar Principal Counselor ACT & National Project Co-ordinator ACMA UNIDO

#### What is Technology?

Technology is the application of knowledge to the practical aims of human life or to changing and manipulating the human environment. Technology includes the use of materials, tools, techniques and source of power to make life easier or more pleasant and work more productive. While science focuses on why things happen, technology focuses on making things happen. The word Technology is a combination of two GREEK words: techno & logos. Techno means arts, craft or skill .Logos means to speak of.



G. Ananthakrishnan Expert – ACT Cluster Program

Technology began to influence human endeavour as soon as people began using tools. It accelerated Industrial revolution and substitution of machines for animal and human labor.

The rapid strides that the world has seen in the past two decades are in these areas: Hardware, Software, Data and Communication. The pace of changes that are seen today is mind boggling.

All across the globe, manufacturing technology has witnessed speedy progress in the past decades. This is particularly in terms of process technology as well in product technology.



The progress has been far more rapid in the peripherals like controls, man/machineinterfaces, software, data storage/retrieval/transmission, and intelligent communication and so on.

A company who wishes to be Market Leader should continuously upgrade the technology to stay competitive.



### MECHATRIX

ount on us

BADVE ENGINEERING LIMITED

PARK MINDA Stor

Sterlite

RONG

mannin

Reliance

TAT

GÜDEL

2000 million

#### MANUFACTURING DIVISION

- ••• Plant Automation & Material Handling Solutions
- \* Raw Material & Finished Goods Storage Systems
- \* ABS/ESD Coated Pipe & Joint Modular Systems
- \* **Aluminium Extrusion Profiles & Accessories**
- \*\* KANBAN Racks, FIFO Systems & Bin Stores
- Castors & Wheels for Handling systems
- •\*• Assembly Workstations & Kitting Lines
- ••• **Turnkey Projects & Assembly Lines**
- **Customized Automation Solutions**
- •\*• Conveyors & Up - Down Lifters
- Assembly & Test Workstations
- \* **Component Pallets & Fixtures**
- •\*\* **Component Handling Trolleys**
- ••• Parts Dunnage & Handling
- ••• **Shop Floor Ergonomics**

#### **VISUALIZATIONS DIVISION**

- **Greenfield Projects** & Plant Visualizations
- Industrial Animations
- ••• **3D Product Animations**
- ••• Mechanical Visualizations
- ••• 3D Walkthrough Animations
- ••• **3D Interactive Product Demo**
- \*\*\* **Proposal & Project Animations**
- •\*• 2D Flash Animations / Projects
- •\*• **3D Product Training Animations**
- ••• 3D Product designing & modeling
- \*\* Medical Illustrations & Animations
- ... **Process Animations & Visualization**
- ••• **Corporate PowerPoint Presentations**
- ••• E-Learning Corporate Projects/Software
- \*\* Brand development (Logo, Brochure & Design)



MECHATRIX SOLUTIONS

HEAD OFFICE:- 14, ELECTRONIC CO. OP. SOC. LTD., NR. CITY PRIDE CINEMA, PUNE SATARA RD, PUNE-411009, Shed No. 05, R. B. Industrial Estate, Narhe-Dhatari Road, Narhe, Pune - 411041 WORKS:-+ 91 90110 36465 / + 91 98223 36465 <u>E-mail</u> :- sales@mechatrix.com Contact No. :-

# Case Study by Rockman Industries Ltd.

#### About Rockman Industries Ltd.

Rockman Industries Limited is a Hero Group Company established in Year 1960. We started off by manufacturing bicycle chain and hubs. After more than 3 decades into manufacturing of bicycle chain came the need of diversification. In year 1995 we entered into a technical tie up with Izumi, Japan for manufacturing of Motorcycle Chains. Gradually, as our business grew, in the year 1999, Rockman entered the Die-Casting field. From then on, there is no looking back. We soon got certified for ISO-TS16949, ISO-14001 and BS-18001. Today, as one of the largest Al-Die Casting Companies in India, our plants boast of having High Pressure, Low Pressure and Gravity Die-casting under one roof. Our presence is now visible in Ludhiana, Mangli, Haridwar, Bawal and Chennai.

#### Technology @ Rockman

As a learning organization we invest a lot in technology up gradation. We deliberate on new product/ process challenging its cost competitiveness, verifications through VA/VE followed by appropriate validation process incorporating valuable help from IITs & other research organizations. This consists of not only functional checks but also to establish the product's and process's environmental effects. R & D efforts have led the company to invest in CAD /CAM facilities which include conversion of 3D to 2D concepts to arrive at machining stage drawings. We also deliberate upon other considerations like weight and size to develop improved designs and trouble shooting. SAP implementations are seen worthy of reducing the delivery cycles & providing real time information. We have made remarkable strides in recent past for a major shift from traditional shop practices culture to systematic working through technical improvements and innovation. We have covered a lot of ground on developing self sufficiency

on capacity & capability building. It is leaping forward with its annual themes (Challenge 25, V5T20, ZERO ABCD etc.) to incremental yet continuedgrowth on the path of our vision of becoming a World Class Organization.

For enhancing product and manufacturing technology, we have signed MOU's / Tie-ups with various international Faculty / Institutes like JIELI, WENFANG, Indian Institute of Technology, EBISAWA, Fraunhofer (Germany), JMAC / Solving Effiso.

Our R&D spend is more than 1% of Sales turn-over and is increasing YOY. As a part of green initiative Rockman is working with its suppliers on Green Vendor Development Programs. More so, the Department of Scientific and Industrial Research (DSIR) has awarded Rockman Ludhiana plant its prestigious affiliation.

#### Rockman's relation with ACT Cluster Programs:

Rockman first joined the ACT Foundation Cluster-3 Program in the year 2005 – 2007 and continued the cluster approach by being the part of 1st ACT Advance Cluster during 2007– 2009. We also underwent and successfully finished the 2 year journey of Engineering cluster with ACT. The Cluster Journey with ACT has revolutionized our thinking and our approach towards work.

#### The Foundation Cluster taught us:

Workplace Improvement (5S, QCC etc), Inventory Management, Productivity Improvement, and introduction to LEAN.

#### The Advance Cluster taught us:

Advance 5S, Sustenance culture through Discipline, Cellular Manufacturing, Integrated flow manufacturing and introduction to ACT Engineering Cluster.



#### Technology

Few achievements during our Advance Cluster Journey :



No of Kaizens	1451 Nos.
No of Poka- Yoke Installed	41 Nos.
LCA Deployed	31 Nos.
QC Projects Completed	13 Nos.

Green Vendor Development Award from HMCL

**ZIG-ZAG** Layout

Single piece flow



The ACT Engineering Cluster taught us: Green Manufacturing, Total Lean Manufacturing, Tool Engineering, Parts Handling and Logistics, Institutionalization through Horizontal Deployment plans. First time in history ACT had introduced the term (I.P.S) Indian Production System similar in terms with Toyota Production System. The Cluster program was mentored by Honorable Shri. C. Narasimhan, Chief Mentor of ACMA Centre for Technology.

Few achievements during the Journey of Engineering Cluster: Implementation of "Ganga flow" helped us to maintain chip free machines and products. It also improved productivity in our 100 CC line.



Coolant Nozzle provide to clean the component





#### Technology



During the period we were a part of the Engineering Cluster, our Group won the ACMA Gold Trophy for Technology 2012-13 and also the ACMA Bronze trophy for Manufacturing Excellence. The above awards say by itself that Rockman believes Technology up-gradation is the only way that people are going to survive in the future.



Due to less accessories less **DOWN TIME** Heat So less Electronic **Component Failures** 5S Improved (Easy To Clean) **INTENGIBLE BENEFITS** INCREASED TEAM MORALE,



ACMA AWARD - TECHNOLOGY 2012-13 - GOLD TROPHY



5S

ACMA AWARD - MANUFACTURING EXCELLENCE 2012-13 - BROZNE TROPHY



ACMA AWARD - BEST MODEL LINE -**ENGINEERING CLUSTER 2013-14** 

We have been a part of all cluster programs of ACT now and we are eagerly awaiting the launch of NPD cluster. I am sure this is going to play a very important role in helping and developing a robust NPD Centre within Rockman Industries.

With Regards



Mr. C.P. Gupta Plant Head Rockman Ind. Ltd, Ludhiana



www.acma-act.in

April 2014 20

## **Nurturing Innovation in Organizations**

The needs of today's world is changing at an enormous speed. The expectations of today's customers are very different and these differences are the fostering ticklers for innovation of new and varied products, services & processes. When there is a resistance to change in an organization, its future is at stake. There are many examples of such organizations which failed to embrace the changing needs of customers and are today struggling for survival in the market. In the ecology nothing is stable - the system / organization's stability lies in dynamism. As a concept there is no equilibrium stage which can be achieved and hence this dynamism in the organization should be captured for the betterment of its future.

Fulfilling customer expectations becomes more stringent to achieve in today's scenario of global competition. It becomes more difficult due to the risks and uncertainty involved in the business. The challenges in such business environment push the organization towards activating and stimulating the process of managing businesses more effectively & efficiently , striving continuously to adopt something new which will improve the top & bottom line of the organization. What does this something new means & How it can be embraced by the organization?

This is entering into an innovative methodology , innovative product/ service or innovative process. The organizations need to take necessary steps within & outside the organization to make things happen. It has been offhand seen that companies which have focus on Innovative way of working, like Google , 3M , Toyota Motors & Microsoft, are far away from their competitors. This has given a learning to other organizations to make innovation as a part of their business strategies. The survey made by Boston Consultancy Group , mentioned that more than 70% of the organizations have Innovation as their strategic objective & more than 55% have prioritized it in Top 3 objectives.

"It is by now well understood by the .com organizations that not exploring the talent of the employees & not borrowing the talent from outside is the biggest waste the organizations have" ...... Peter Drucker - Challenges of 21st Century.



Sunil Mutha Sr. Counselor ACT

Firms which foster innovative culture create a definite competitive advantage and are in a better position to achieve exponential growth in top & bottom lines.

**Benefit of innovation:** Innovative organizations are considered to have following advantages over others:

- First to market.
- Premium Prices.
- Best Customers
- Large Market Share
- Increased Shareholder return
- Increased employee motivation & morale.

Innovation, Discovery, Creativity & Change .... these words sounds to be similar , but have distinct differences in the terminology.

**Innovation** - A profitable implementation of an idea – (Idea generation, Implementation & Profitability-three core elements.)..... Broken Bulbs

Peter Drucker defines innovation as the generation, acceptance & implementation of new ideas , processes, products or services.

But in a simpler form it can be expressed as taking an idea to Cash. All the phases can be categorized into Initiation & implementation activities. Initiation phase consists of formulating the idea, "doing the right thing". Whereas the implementation phase is "doing it right."

Innovation involves an intention by gaining through implementation of idea. It also has the impact on the society as a whole. Innovation is a form of Science, and has base & logic built around the idea to benefit the organization & society.

Creativity : The emergence of a novel &



appropriate idea by one individual or a small group working together.

e.g. painting a picture, developing a new sculpture.

In Oxford dictionary the word " to create" is to bring into existence , give rise to. & to innovate is " to bring novelties , to change"

In creativity the intention is not in pure form. Creating can give satisfaction to the individual. The impact is limited to individual or small group of people. Creativity is an art by itself.

Creativity is a natural talent that some people have, very rare and it normally occurs as serendipity. Innovation skills can be developed in the people by training them in specific tools pertaining to enhancement of the thinking ability & exploration of the knowledge within the team or organization.

**Change :** Change can be defined as moving from one level to another. Certainly all Innovations can be considered as change , but all Changes are not innovative. Changes can be destructive and unintended such as deterioration of equipment. In an organization many changes occur without the intention of direct benefits, but are small adjustment/corrections in the routine activities.

**Human aspect of Innovation :** It is obvious for an organisation to focus and drive employees to innovate - but How ? is the key Question.

Innovation Often results from serendipity- it emerges from the chance convergence of ideas.

What aspects of your organization encourage this and what aspects discourage it? How might the organization be changed to enhance the possibility of such events occurring , and their being effectively explored when they do?

Motivating employees for idea generation is one of the ways to move on the path of innovativeness. Organisations like Toyota , M&M, TVS have from past many years practicing the idea generation through employee participation for process ,product and system improvement. The Innovative ideas are generated by an employee individually or by groups. There have been many examples of Innovative idea generation by the employees in past 13 years of the ACT cluster programs. The roadmap includes the methodology that can cultivate , foster and enhance the process of innovative idea generation through employee involvement , Employee participation and Employee Ownership.

Innovation is not only for the so called intellectual handful individuals, Innovations can be done by any organisation or individuals, the only criteria is to create an environment / culture to motivate employees to generate ideas.

India Ranks 3rd in the list of Most Innovative Country, Let us take this forward to number 1 by exploring ourself.

# **Know our Team**

Atul Kumar Gupta, M. Tech Counselor, ACT ACT SME Cluster and Foundation Cluster (Northern Region)



• There are thousands of possible careers. Why do you want to follow this particular career of counseling?

- My main job area has always being training & improvements on shop floor, hence I realized that this job would provide me the opportunity to work on my strength & also enjoy my job.
- What do you find most attractive about this position?
- The major attraction in this job is working with different people, locations& situations.
- What do you consider as the most important things for you to be successful in this position?



www.acma-act.in

The increased growth factor in all aspects of the plant through the techniques and technologies implemented  $\mathcal{S}$  in return the fame, recognition  $\mathcal{S}$  admiration that the counselor gets, is the most important things for me to be successful in this position

- What do you think is the most difficult thing about being a Counselor?
- To change the set pattern of thinking.
- Describe your work ethic and what things frustrate you the most? How do you usually cope with them?
- My work ethic is "A faith behind the team A sprit behind the effort – A solution behind the problem".I get frustrated while interacting

with people having inflexibility towards the new change & I have to inspire those people to be flexible or to adapt the new change.

- What accomplishments in your career to date are you most proud of?
- The accomplishment I value most is that I started as a QC member and later became a QC mentor in my work area. I am waiting for further accomplishments at ACT.
- What are your long and short term plans?
- I wish to strengthen my training skills to a higher grade and my long term plan is to aim for becoming northern region mentor of ACT.
- What are your hobbies?
- Trekking & spending time with my family.
- There are thousands of possible careers. Why do you want to follow this particular career of counseling?
- I always had a desire to join Indian Army and serve the nation. However, I could not join due to certain reason. Working in ACT satisfies me as here also we are working for a social cause of improving the nation through improvements in auto component industry.
- What do you find most attractive about this position?

Enormous opportunities to learn. And then share the learnings for the up-gradation of companies. I feel counseling is a unique way to prepare the companies to face the business challenges.

- What do you consider as the most important things for you to be successful in this position?
- Learning sharing further learning again sharing. And the cycle should continue.
- What do you think is the most difficult thing about being a Counselor?
- Changing the mind-set of people.
- Describe your work ethic and what things frustrate you the most? How do you usually cope with them?
- I believe in Indian army philosophy fight till death. I never give up. I get frustrated when I see people ignoring abnormality and shy away from

Mahesh Gupta B.E.(Mech. Engg.) Counselor ACT SME Cluster Programs of Pantnagar region.



their responsibility.

- What accomplishments in your career to date are you most proud of?
- Joining ACT Team and working for the great cause of serving the nation.
- What are your long and short term plans?

I am responsible for improving the small sized companies that are part of ACT SME cluster, Pantnagar region. My short-term plan is to make Pantnagar a model area.

In long-run I have a desire to transform the entire auto component industry to world class level which should be known for its best quality at least possible cost and just-in-time delivery.

- What are your hobbies?
- Reading books guides me in achieving my goals, playing chess sharpens my thinking, listening patriotic songs and stories of bravery keeps me motivated.





January - April 2014

# **Session on Nurturing Innovation Culture in the Indian Auto Component Industry**

- An ACMA Fraunhofer Initiative

8th February, 2014: New Delhi



(L-R) Mr. Srivats Ram, Past President ACMA & Chairman ACT, Ms. Anandi Iyer, Head, Fraunhofer Representative, India Office, Mr. Dinesh Vedpathak is Head Cluster Program ACT

Although India represents one of the world's largest automobile industries, a majority of vehicles and components are developed overseas, creating a gap in local knowledge and expertise. Consequently, the Indian auto component industry is largely a 'build to print' industry. However, to be globally competitive, the industry must continuously emphasize on Resource Efficiency, R&D and Innovation and investments in technology to support local automotive industry growth.

To facilitate a culture of R&D and innovation in the industry, ACMA along with Fraunhofer Germany organized a Session on "Nurturing Innovation Culture in the Indian Auto Component Industry" on 8thFebruary, 2014 in India Habitat Centre, Lodhi Road, New Delhi. Experts from Fraunhofer shared their insights on the following subjects during the session:

- Innovation Management from idea to market
- Light weighting a path towards mass and cost efficient solutions for automotive supply companies

- Resource Efficiency Relevance for Production Technologies
- The importance of the tool & die making sector for an innovative industry

Mr. Srivats Ram, Past President ACMA and Chairman ACT, Mr. Dinesh Vedpathak, Head Cluster Program ACT attended the session along with the entire ACT Team. Following persons from Fraunhofer were present in the session:

- Ms. Anandi Iyer, Head, Fraunhofer Representative, Office, India.
- Dr. Manfred Dangelmaier, Fraunhofer IAO
- Mr. Rüdiger Heim, Fraunhofer LBF
- Dr. Andreas Sterzing, Fraunhofer IWU
- Mr. Kristian Arntz, Fraunhofer IPT

A total of 41 participants from the Industry participated in this program and enriched their knowledge on the subject.



# **ACMA Awards Online Management System**

Improving consistently...

The ACMA Awards are today among the most coveted recognitions in the auto component industry. ACMA Awards for the year 2013-14 were announced in March'2014. Applicants have the opportunity to submit applications for excellence in following categories:

- Export (Small & Large Category)
- Technology (Small & Large Category)
- Quality and Productivity (Small & Large Category)
- Manufacturing Excellence (Large Category)

We are pleased to inform our members that the process of



#### **Online Awards Management System**

ACMA Awards is being improved continually, year on year. This is primarily because of the valuable guidance of esteemed Jury of ACMA Awards. ACT Team is meticulously working so that this process becomes more transparent and friendly to the applicants.

As a step ahead, from 2014, ACMA Awards applications submission has been made online through "Award Management System". This will not only smoothen the process but also provide easy access to information for the members regarding the status of their application.



Every new system finds little operational challenges in its initiation. However, gradually one starts reaping the benefits its efficiency. Understanding the need, ACMA had scheduled awareness sessions in all the four parts of country i.e Chennai, Pune, Kolkata, Delhi on 16th, 23rd, 24th and 28th April, 2014 respectively. These sessions have been well attended by the ACMA members in which the online system was demonstrated and explained in detail. Excellent feedback has been received from members regarding this online system.

Contact Ms. Sakshi Karkamkar, Email – sakshi.karkamkar@acma.in, Phone – 07387002181

The schedule of ACMA Awards 2013-14 is as given below:

Activity	Timelines
Release of Circular	March 2014
ACMA Awards Application Awareness Meetings for Companies (Optional)	April / May 2014
Deadline for intimating intent to apply ACMA Awards through e-mail (mention category also)	5th May, 2014
Availability of Online, 'Award Management System' to members	5th May, 2014 onwards
Deadline for receipt of applications into Online, 'Award Management System'	5th June, 2014
Scrutiny of Applications & Short listing of applicants for Site diagnosis	June 2014
Feedback to non-shortlisted companies	July 2014
Site diagnosis of the shortlisted companies and submission of report to the Jury	July 2014
Jury Meeting for selection of Awardees	August 2014
ACMA Awards distribution in ACMA AGM at New Delhi	September 2014
Diagnosis Report to shortlisted companies	October 2014

Members can visit the following link to access the ACMA Awards 2013-14 circular and application template (only for reference, actual application is to be filled online): http://www.acma-act.in/acma-awards-2013-14/

The web link for filling online application is http://acma.mxerp.in. In case of any query, members are requested to contact Mr. Jitender Rana on e-mail jitender.rana@acma.in or on phone 09873369699.



www.acma-act.in











# Manufacturers of

- Sheet Metal Forming and Stamping
- **CNC** Division •••••
- Assemblies and Sub-Assemblies of Diesel Filtration Systems
- Aluminum Pressure Die Casting Components and Machining

# Supplying Leading OEMS through **BOSCH**



# **Devilog Systems (India)**

Bangalore - 560 058, India marketing@devilog-group.com A-316, Peenya II Stage, www.devilog-group.com

+91 9740084835/+91 9611165785/ +91 9845102439



# **ACT New Product Development Cluster Program**

- After the success of regular SME, Foundation, Advance and Engineering Excellence Clusters, ACT will soon be launching the much-awaited New Product Development Cluster program for the automotive industry. This will be yet another milestone for ACT and will guide companies in an area which is, today, a burning need of the industry.
- Moving from "Manufacture to Print" to "Design and Manufacture" is the key outcome of this cluster program. NPD Cluster will guide the participating companies to institutionalize a robust New Product development process to achieve minimum lead time with lowest possible cost of product development and per piece cost.

#### ACT NPD Cluster Road map consists of

- Basic NPD process and organization setup
- New Product Quality Assurance

- New Product Delivery Assurance
- Product Cost Management
- Product Optimisation

#### **Deliverables of ACT NPD Cluster program**

- Controlled processes
- First time right products
- Consistent product quality
- Improved quality
- Cost Reduction
- Improved customer satisfaction Companies are encouraged to enroll in this cluster program to get more competitive.

ACT		ACT	NP	D	FOU	ND	ATIO	ON	CLU	ISTI	ER	RO	AD	MAF	)				PM_ Rev.	46_G8 (Provisional) No.: 0 May 2014 Page 1 of 1
Time in Months	1 2 3	4 5	6	7	89	10	11	12	13 14	15	16	17	18 1	9 20	21	22 23	24	Deliverables	Exj	pected Outcome during 2 years
DFM / DFA																		Improved quality		
VA/VE												ł	Prod	luct	-			Reduced cost	De	ployment of all initiatives
Customer voice / QFD - basic concepts											(	Opt	timi	zati	ion			Improved customer satisfaction	for	one product project.
DOE																				
Target cost																Setting a	nd acł	nieving target costs		
Cost models							P	Prod	uct	Cos	st M	an	age	mer	nt				Ach	nieve Target cost for one oduct project
Detail cost estimation																				
Project management														On t	ime de	livery o	f proje	ects		
Gate and Project reviews				N	ew P	roc	luc	t De	live	ry	Assı	ıra	nce	High	ı perp	etuity ra	tio		Act on	nieve on time delivery of e product project
Red box management																				
Requirements management											First t	ime r	right pi	oducts						
FMEA and control plan	N		rodi	ict	0110	lity	Ac	our	mco		Consi	stent	produ	ct quali	ty				Act	nieve First Time Right
Product validation and quality proving	IN IN	ew F.	loui	ici	Qua	шу	AS	Suid	ince										Qu	ality for one product
Technical reviews																				
NPD process establishment	Ba	sic NI	PD		Controll	led pro	ocess													
Organizational alignment	pro	cess a	and																Est	ablishing NPD process
Cross functional teams	orga	inizat	lion																101	one produce
		secup				Prop	erty	of ACT	C ( ACI	MA C	entre	for	Techi	ology	7 <b>)</b>				_	
Rev 0 : May 2014 Timeline mentioned in terms of month	h is a guideli	ne and c	an varv	z as pe	er the sit	uatio	n. All	course	conten	its mu	ist he di	eliver	red wit	hin th	e clus	ter prog	ram di	uration "		
Approved by Process Owner:		ine und t	an vary	as pe	uic sit			course	conten	.co mu	or be u		.cu wi		e cius	ter prog	amu			

Contact Details : Jitender Rana , Asst. Director , ACMA Centre For Technology , 09873369699 jitender.rana@acma.in , act@acma.in



# ACT Team Meet in Mysore and Plant Visit to TVS Motors

The 4th ACT team meet was conducted on 14th and 15th February'2014 at Mysore. All ACT counselors and office staff participated in the meet. The meeting agenda and venue was conceived by Chief Mentor-ACT Mr.C.Narasimhan (CN) in consultation with Head cluster program-ACT, Mr.Dinesh Vedpathak. The meet was spread over three days. An educative visit was scheduled to TVS Motors Mysore plant on the first day, a conference session was scheduled on the second day and an informal gathering of all ACT staff through local sight-seeing was scheduled on the third day. The first day started off auspiciously with the plant visit to TVS Motors, Mysore. The plant is built on 182 acres of land, 60 percent of which is Lush green area with natural habitat - having a lake where migratory birds frequented during season. Within this green habitat was situated an open temple of Lord Muneeshwarar with his consort. The other attraction of the greens was the snake's pit. The rest 40 percent area houses the manufacturing unit of scooters. We got the following insights from our visit to the plant:

- The plant produces one vehicle every 25 seconds.
- This was first company to use CED Cathode Electro Deposition done in 7 stages.
- The company has introduced scooters for girls with tubeless and puncture less tyres.
- At TVS Motors plant there is no painting done only plating.
- In one day 2,000 scooters are produced at TVS Motors, Mysore.

The plant visit was concluded with a lunch at TVS canteen. The whole visit was very effectively organised by TVS Motors team under the guidance of chief mentor CN. The chief mentor took time out of his busy schedule to himself show the ACT team around the beautiful greens surrounding the plant. Later he remained with the team till conclusion of the visit. We are ever grateful for this thoughtful gesture.

On second day, all ACT staff, made presentations on their Key Performance Areas and discussed ideas on how to take ACT forward in the coming years. The conference was chaired by Chairman ACT Mr.Srivats Ram in the presence of chief mentor CN and ACMA ED Mr.Vinnie Mehta.

#### Key inputs provided by Chief Mentor ACT - CN:

- 1. ACT Clusters should reach out to all members of ACMA aim for 100% participation from ACMA membership.
- 2. The term 'Auto component Suppliers' should be replaced with 'Auto Subsystem Suppliers'.
- 3. Flow Manufacturing Curriculum has to be created where in a topic on "How a plant has to be designed" should be introduced - implying how a Perfect layout is to be done before putting the foundation for the unit.
- 4. Energy Cost has to be seriously taken into



consideration in view of the fact that Energy is going to be scarce resource in future.

## Key inputs provided by Chairman ACT – Srivats Ram:

- 1. Chairman congratulated ACT on 25 years of working also mentioned this year ACT would complete 25 Clusters.
- 2. He emphasised that ACT has a duty towards auto component industry. A company having completed a cluster program with ACT should be at par with world class component industry. The certification should be of that standard.
- 3. Counselor training is of top most priority.
- 4. NPD Cluster is very significant and should be introduced on priority.
- 5. Energy problem has to be seriously dealt with through ACT cluster programs.
- 6. ACT should come out with an Optimal layout provide training for Optimal layout.
- 7. Quality Management should be focussed, where in Aesthetic Quality needs to be emphasised.
- 8. ACT has to give its best. Continuous improvement must be the goal. After completion of every cluster program, PDCA should be implemented. According to PDCA findings, contents of the cluster program should be updated and the lessons learnt should be recorded.
- 9. Being Green is important ACT may include green initiatives in its cluster programs.

#### Key inputs provided by ACMA ED - Vinnie Mehta:

- 1 Appreciate efforts of ACT Team for driving the improvements across Auto Component Sectors.
- ACMA awards journey is moving towards green, year on year. As a step forward towards green, we are making ACMA Awards Online Management System – Along with Award Guide book in soft version.
- 3. ACT Team may organize Awards Awareness Program with the help of ACMA Regional Directors.
- 4. Winners of ACMA awards should be promoted and publicised in media and more companies should be made to participate in this process.

The meet was concluded with remarks from ACT Head Cluster Program Dinesh Vedpathak and vote of thanks by ACT Principal Counselor V. K.Sharma.

![](_page_33_Picture_32.jpeg)

# **ACT Professional Certification Courses (PCC)**

#### Starting from June, 2014

ACMA Centre for Technology is serving industries over a decade and is pioneer in cluster approach in Auto component industries. To achieve excellence in manufacturing we need competent people and robust Systems/ processes to compete globally. It is very important to improve the efficiency and effectiveness of manufacturing process in terms of productivity enhancement, Cost competitiveness, Zero defect Quality, employee performance.

We are happy to announce ACT Professional Certification Courses (PCC) in the following key areas which will help organizations to develop Experts within organization.

- PCC -1 : Lean Hydraulic Systems (Breakdown free Systems)
- PCC-2 : Lean Electrical Systems (Breakdown Free & Without Air Conditioning Systems)
- PCC-3 : Lean Coolant & Lubrication Systems (Contamination Free Systems)
- PCC-4 : Quality Management (Move towards Zero Defect Quality Culture)
- PCC-5 : Productivity Improvement through Flow Mfg & Low Cost Automation (Multifold productivity improvement and Line Balancing)
- PCC-6 : Inventory Management (Releasing blocked Capital) Course time plan: (Tentative)

PPC-1 to PCC -6 are designed for 5 days spread over 5 months (1 day per month).

All programs would be conducted at Pune, New Delhi and Chennai as per following time plan. (This plan is tentative, final plan would be communicated to participants).

City	Venue	Day	PCC -1	PCC-2	PPC-3	PCC-4	PCC-5	PCC-6
	ACMA	Day 1	23 <sup>rd</sup> Jun 14	24 <sup>th</sup> Jun 14	25 <sup>th</sup> Jun 14	26 <sup>th</sup> Jun 14	27 <sup>th</sup> Jun 14	28 <sup>th</sup> Jun 14
	Centre for	Day 2	21 <sup>st</sup> Jul 14	22 <sup>nd</sup> Jul 14	23 <sup>rd</sup> Jul 14	24 <sup>th</sup> Jul 14	25 <sup>th</sup> Jul 14	26 <sup>th</sup> Jul 14
	Technology,	Day 3	Aug'14	Aug'14	Aug'14	Aug'14	Aug'14	Aug'14
Pune	Wakdewadi	Day 4	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14
		Day 5	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14
	Faculty		Mr. Dinesh	Mr. Dinesh	Mr. Dinesh	Mr. Sunil	Ms. Sapana	Mr. Sunil
			Vedpathak	Vedpathak	Vedpathak	Mutha	Baravkar	Mutha
	ACMA	Day 1	14 <sup>th</sup> Jul14	15 <sup>th</sup> Jul	16 <sup>th</sup> Jul 14	17 <sup>th</sup> Jul 14	18 <sup>th</sup> Jul 14	19 <sup>th</sup> Jul 14
	Office, New	Day 2	Aug'14	Aug'14	Aug'14	Aug'14	Aug'14	Aug'14
	Delhi	Day 3	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14
New Delhi		Day 4	Oct'14	Oct'14	Oct'14	Oct'14	Oct'14	Oct'14
		Day 5	Nov'14	Nov'14	Nov'14	Nov'14	Nov'14	Nov'14
	Faculty		Mr. Dinesh	Mr. Dinesh	Mr. Dinesh	Mr. V K	Mr. V K	Mr. V K
			Vedpathak	Vedpathak	Vedpathak	Sharma	Sharma	Sharma
	ACMA Office	Day 1	18 <sup>th</sup> Aug 14	19 <sup>th</sup> Aug'14	20 <sup>th</sup> Aug 14	21 <sup>st</sup> Aug 14	22 <sup>nd</sup> Aug 14	23 <sup>rd</sup> Aug 14
	Chennai	Day 2	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14	Sep'14
Chennai		Day 3	Oct'14	Oct'14	Oct'14	Oct'14	Oct'14	Oct'14
		Day 4	Nov'14	Nov'14	Nov'14	Nov'14	Nov'14	Nov'14
		Day 5	Dec'14	Dec'14	Dec'14	Dec'14	Dec'14	Dec'14
	Faculty		Mr. Dinesh Vedpathak	Mr. Dinesh Vedpathak	Mr. Dinesh Vedpathak	Mr. Sunil Mutha	Mr. Sunil Mutha	Mr. K. R. Bhoopalan

For registration , interested companies are requested to contact Ms. Sakshi Karkamkar on 07387002181 or email: sakshi.karkamkar@acma.in

![](_page_34_Picture_14.jpeg)

# **BIS/AISC/CMVR**

45th meeting of AISC was held at ARAI on 17th and 18th December 2013 under the Chairmanship of

Shri Shrikant R. Marathe, Director, ARAI. List of attendees is given in Doc. 45AISC-DEC13-01.

#### Action taken report on minutes of last meeting

#### • AIS / amendments to AIS released

1. AIS-000 : Administrative Procedure to deal with Corrigendum, Amendments or

Revisions to AIS, TAP 115/116, CMVR Notifications, IS and ISO standards, which are notified under CMVR

2. Amend 5 to AIS-022 : Automotive Vehicles – Advance -Warning Triangles and Conspicuity Marking Tape – Specifications

3. Amend 1 to AIS-113 : Code of Practice for Type Approval of Trailers towed by Motor Vehicles of Category N

## • AIS / amendments to AIS in process of release (by January 2014)

1. AIS-062 (Rev 1) : Performance Requirements of Lighting and Light-Signaling Devices for Agricultural Tractors

2. AIS-120 : Automotive Vehicles - External Projections -Performance requirements for M1 Vehicles

3. Amd.2 to AIS-063 : Requirements for School Buses

4. Amend 1 to AIS-110 : Automotive Vehicles-Temporary-Use Spare Wheel/Tyres and Run Flat Tyres

Following draft AIS and amendments were hosted on website since last meeting

1. Draft AIS-013 (Rev1)/F : Automotive Vehicles - Spray-Suppression Systems

2. Draft AIS-034 (Part3)/D0 : Uniform provisions concerning the approval of light emitting diode (LED) light sources for use in approved lamp units on power-driven vehicles and their trailers

3. Draft AIS-126/F1 : The Location, Identification and Operation of Motorcycle Controls, Tell-tales and Indicators

4. Draft AIS-127/D1 : Provisions Concerning the Approval of Adaptive Front- Lighting Systems (AFS) for Motor Vehicles

5. Draft Amd.2 to AIS-063 : Requirements for School Buses

6. Draft Amd. 1 to AIS-110 Automotive Vehicles – Temporary-Use Spare Wheel/Tyres and Run Flat Tyres

#### Standards and draft notifications for approval

**AIS-013:** Spray Suppression Systems : Summary of his presentation is given below:

• Draft DF is hosted on website on 25th November 2013 seeking comments till 25th December 2013.

• Scope of the standard is revised to cover vehicles of

![](_page_35_Picture_25.jpeg)

category N1 and N2  $\leq$  7.5T in line with EU directive 109/2011.

 $\bullet$  Complete alignment for the technical requirements as per EU directive 109/2011 would be taken up in next phase of revision.

• Amendment to IS: 13943 (Wheel guards for passenger cars) is proposed in order to include M1 category of vehicles in the scope. This activity is initiated in TED 6 sectional committee of BIS.

#### Progress on AIS/IS

**AIS-005/IS: 15140: Safety Belts :** Regarding Draft IS: 15140 (Part II): Safety Belt Assembly-Installation Requirements, it was informed that Draft D0 was circulated to panel members. Comments were received from SIAM, which would be also discussed in January 2014 meeting. Subsequently the draft would be submitted to TED 6 Secretariat for wide circulation.

**AIS-015** / **IS: 15139: Safety Belt Anchorages:** Shri Rajpal, BIS informed that Doc. TED 6 (723) W was finalized in the last meeting of TED 6 and the amendment of the standard is under print.

AIS-016 / IS: 15546 / GTR 7: Seats, their Anchorages &Head Restraint for M1 : It was informed that the draft D1 of revision transposing all the requirements of GTR 7 (Phase-1) was finalized. Further, UN R 17 including requirements as per GTR-7 (Phase-1) is not implemented yet and the work was put on hold. Work related to phase-2 of GTR7 is still not finalized at UN-ECE. It was also informed that Draft D1 is submitted to AISC secretariat for hosting on the website.

**GTR 6** / **IS: 2553 (Part II): Safety Glazing:** ARAI informed that Doc. TED6 (946) P was circulated to the members of TED 6 Sectional Committee on 28th March 2013 seeking comments. She informed that comments were received, which would be discussed in meeting to be held in January 2014.

Committee noted the progress and requested BIS to inform status in the next meeting.

Revision of IS: 11852 Braking systems for M, N, T category vehicles: BIS informed that IS 11852:2013 (aligned with UN R 13) was printed and Doc. TED 4(697) (aligned with UN R 13 H) is under print. Soft copies of the same were sent to AISC Secretariat. Further, he informed that distribution/sale of Indian Standards is done in the form of soft copies. Complimentary copies are sent to the members of TED4 Sectional Committee. Committee noted the progress and following was decided:

AIS on Light Emitting Diode (LED) Light Sources: Convener presented the progress as given in Doc. 45AISC-DEC13-17. He informed that Draft D0 of AIS-034 (Part 3) was hosted on ARAI website on 19th November 2013 inviting comments. Comments received from ARAI, Mahindra 2 wheelers, HMCL, &

TKML were discussed in the 2nd panel meeting held on 13th December 2013.

www.acma-act.in

#### Contd. from page 2 Engineering Excellence in Manufacturing

Welcome back and thank you forjoining the journey of Engineering excellence with us . Journey of Engineering Excellence of xxx Company (Name is not important .. It can be your company next time) This company is having a business of machining and assembly of components and I was providing services to this company. My first visit (with prior appointment with Top management over phone fixed at 11:30 AM)

**11 AM** I entered the plant around 11 am, well received by one of the staff, served with tea and got informed that management is having a meeting on some important issue and I would be attended shortly.... (I said ...No issue)

**12 PM** I was little worried and started enquiring .. received message .. Little more time required.

**1 PM** It was suggested that we can finish lunch and then we can meet. I said OK We went outside company as there was no eating arrangements inside. As place was new and hotel was not comfortable, I asked for mineral water and hotel owner looked towards me.. expressing that this word "mineral water" is a new word for him. I could not eat much.

**2 PM..** Meeting continued and I was advised to have a plant tour to understand the process. I said OK (as no other option ).

**4 PM.** I completed entire plant round with my camera and downloaded all photographs in my laptop

**5 PM..** I was informed that within next 5 minutes we will meet in conference room with all staff and I can prepare for my presentation.

5:10 PM.. (I was at my highest level of anger)

**5:15 PM..** Top management entered where around 50 staff was already sitting looking towards me with a different angle (New fad of management as a flavor of month)

**5:20 PM.** I was introduced to people and its purpose and asked to finish my presentation quickly as it would be late for me (and not for them)

**5:22 PM.** I was Hungry and Angry at a time. More dangerous for others.. I tried to control.

I started thanking them for this opportunity and allowing me to visit their facilities and started showing photographs (which I have taken during my plant tour)

**5:30 PM..** Top Management (Age 67) intervened and asked " why you are showing other companies' photographs which are so dirty and what we can learn from them"

My higher limit of patience reached .. I politely told (blasted would be more appropriate).. SIR .... These are your company photographs taken a while ago.

TOTAL SILENCE .. Top management added .. Mr.

Vedpathak, you know we have already achieved 5 S levels > 85 % and we are practicing well known tools (Tools name is not important,, Result is important) and we are supported by a well known Industry consultant (Name of the person is not important.. His charges are important.. Even if result is not there .. MORE CHARGES means More quality results .. MYTH ) AND How come you show such dirty photographs?? ARE YOU SERIOUS?????

I took One minute pause and deep breathing .....

Sir, yes and I agree and I have decided to take your leave now.... And only one thing I want to inform (Tell) you that I would not be able to Provide (Not interested) any services to you as there is nothing to Improve (Improvements happen where there is at least eagerness to improve).

CONFUSION State:

#### Top Mgt: Means what?

Me : Sir, I do not want to spoil my name getting associated with your company.

Top Mgt: (discussing with their team) Vedpathak .. Can you give us few minutes and we will be together after few minutes..

#### Me: OK (No other option)

FEW Minutes later: (Situation was further tense) Top Mgt: Mr. Vedpathak .. Are you in a listening mood? Me : Sir, YES.

**TOP Mgt:** Let me congratulate you for such an eye opening way of provoking us and telling the truth directly (Truth should be told directly otherwise its importance is not there). In-fact I am glad that there is one person who will not be fooling us like others did in past. I have only one request for you. Can you forget our behavior with you from morning..

**Me**: Sir, Nothing.. It is a part of process of running a business.

Top mgt... No Vedpathak, This has happened as we may not be running the business processes as expected by you and COULD YOU take us with you w.e.f. Today for your journey. Me: (My anger has gone and my body felt some vibrations )... Sir ......

(WHY..... NOT).. I put one condition ..... CAN YOU UNLEARN FIRST ..... Your complacency .. it is killing you all ... ALL Team unanimously added .... YES .. YES .. YES. Me: Then let us start from today .. Only one homework ...... You will not use your brains .. I will use brain and you will follow .... Team asked .... means what .... I added " means what " should not be asked .. you should blindly follow as you are in SAFE Hands.

Part II (Doubling the business and profit by reducing other related parameters to half )would be published in September, 2014 Issue of ACT now.

Author is a practitioner of business growth model with competency building within organization.

![](_page_36_Picture_31.jpeg)

# **Letters to the Editor**

![](_page_37_Picture_1.jpeg)

"ACT now" is an informative newsletter. The publication is an open door for auto component manufacturers for networking and learning about simple but useful shop-floor practices.

The publication works on the method of "Learning and Sharing". In the present issue we have shared our case study on quality. Hope readers will find it useful.

Presently, Nipman is a part of ACT Advance Cluster 4(N). The learnings of this cluster are really changing the mind-set of our team and also focussing to increase productivity by reducing all types of wastages.

We wish the best of everything to ACT now and look forward to publishing more case studies for the advantage of Auto component industry.

Regards,

#### Amit Shriwastav AGM Operations & TQC facilitation Nipman Fastener Inds. Pvt. Ltd. Haridwar 07895002102

# **ACT Now Tariff**

	ACT	now Adver	tisement	Tariff 2014				
	Advert Single	isement for issue (INR)	Advertisem (three is	ent for one year sues) (INR)	Advertisement for two years (six issues) (INR)			
Advertisement Type	Member	Non Member	Member	Non Member	Member	Non Member		
Cover Leaf (Front or Back of Newsletter) - 2 Page Advt.	23000	30000	62000	80000	107300	140000		
Back Cover Outside	11500	15000	31000	40000	53600	70000		
Centre Spread (2 Page Advt.)	17000	22000	45000	58000	80000	104000		
Cover Inside (Front or Back of Newsletter)	10000	13000	27500	36000	50700	66000		
Inside Full Page	8500	11000	22500	29000	38600	50000		
HalfPage	5100	6600	13500	17400	23200	30000		
Quarter Page	3000	3750	7000	9400	12300	16200		

Note: Service Tax will be charged extra, as applicable.

Advt. Size for Full Page: in inches: 8.5"(width)X11"(Height) (3 mm bleed extra)

Advt. Size for Half Page: 8" (width) X 5.25" (Height)

Advertisement should be an open file with all fonts and links with a color reference printout.

![](_page_37_Picture_14.jpeg)

![](_page_38_Picture_0.jpeg)

Our automotive range of products emphasizes our philosophy of "Inspiring Every Movement" symbolized by blending Engineering with innovation, crafted in every genre of Bearings we manufacture namely; Self Centering Clutch Release Bearing Assembly, Tapered Roller Bearings, Cylindrical Roller Bearings & King Pin Bearings

![](_page_38_Picture_2.jpeg)

Phone: +91 22 2492 6660, 4058 0707 Website: www.deluxbearings.com Email: info@deluxbearings.com

# **NIPMAN** AUTOMOTIVE FASTENERS

# World Class Automotive Fasteners for World Class Customers

- A market leader in manufacturing of standard and specialized fasteners for the automotive and auto component industry
- In-house Forging & Thread Rolling, Heat Treatment, Surface Treatment, Dacro Coating, Chrome-free Zinc Flake Coating, Testing Labs, Tool Room
- Excellent customer profile and track record
- Sound In-house engineering
- Fasteners & Studs of all Grades from M4 – M16 sizes
- Follow all international standards such as ISO, DIN, JIS. Can also produce imperial size fasteners
- Integrated Management Certified Company. All plants are ISO 14001, OHSAS 18001, ISO 9000:2008 and TS 16949 certified.

#### Technology

**GEOMET** – Environment friendly water based chromium free coating.

**DACROMET** – The leading waterbased inorganic metal finishing system recognized around the world as a proven and cost effective alternative to both electro and mechanical platings and solvent-based organics.

![](_page_39_Picture_12.jpeg)

## Torx ® and Torx Plus®

- Features
- 100% average improvement in drive bit fatigue life
- Elliptically-based geometric configuration provides larger cross sectional area
- True 0° drive angle improves drivability
- · Straight Side walls eliminate camout and end load

#### **Benefits**

- Significantly reduce bit usage and asssembly downtime from bit changes
- Allows optimum torgue transfer and increased reliability
- Reduces fatigue and muscular stress during manual assembly
- Lowers scrap, rework and in place costs

#### NIPMAN FASTENER INDUSTRIES PVT. LTD.

Corporate Office: 1004, 10th Floor, DLF Jasola Tower B, Plot No.11, DDA Distt. Centre, Jasola, New Delhi - 110025, India • Phones: +91-11-41010084-86 • Fax: +91-11-41010087 marketing@nipmanfastener.com • www.nipmanfastener.com

#### "Achieve Best to Give the Best"

#### Your Fastening Solution Provider

![](_page_39_Picture_28.jpeg)

Plants at Ghaziabad, Manesar, Haridwar, Bawal

#### Key Customers

![](_page_39_Picture_31.jpeg)