

Witness best practices in manufacturing



National Productivity Summit 2017

“Showcasing Competitiveness in Manufacturing”
4 - 5 August 2017, Hyatt Regency, Pune

Inspiring Keynotes



Plant Visits



Case Study Presentations



Indian Machine Tool Manufacturers' Association
www.imtma.in

"Showcasing Competitiveness in Manufacturing"

National Productivity Summit 2017

4-5 August 2017
Hyatt Regency, Pune

Companies are being constantly challenged to increase competitiveness in manufacturing to increase their growth, reduce cost of operations, enhance productivity and thereby, build a sustainable competitive advantage. With the growing merger of physical and digital manufacturing worlds, technological advancement is becoming a key facilitator in this pursuit. Companies need to adopt a highly structured approach to manage innovation, while at the same time, not losing out on time to reach the markets.

To champion the cause of Productivity and enhancing competitiveness in the Indian manufacturing industry, IMTMA is organizing the 11th edition of National Productivity Summit on 4-5 August 2017 at Pune. The event showcases best practices in manufacturing through Inspiring Keynotes, Live Case Study Presentations and Plant Visits.

This summit brings out why manufacturers should embrace an integrated approach to optimizing manufacturing productivity, and how to prepare their people, processes and technology as part of this journey of productivity excellence.



Enriching Keynote Sessions

Learn from industry leaders who will share their knowledge and expertise on various facets of manufacturing competitiveness.



"Quality Culture at ANAND - Leader Led Transformation for Zero Defect "

Mr. Sunil Kaul
Group President, Excellence in Manufacturing, Innovation and Technology, ANAND Automotive

"Relevance of Smart Manufacturing in the Indian context"

Mr. Dattatreya Gaur
Vice President and Business Unit Head, Robert Bosch Engineering and Business Solutions



"Innovation for Manufacturing Excellence – Varroc Group's approach"

Dr. Ravi Damodaran
President - Technology & Strategy, Varroc Engineering

"The combination of automation and information is the next wave of productivity. The seamless integration of the enterprise, the supply chain and the plant floor is becoming the next wave of competitive differentiation" - Keith Nosbuch

Pre-Summit Plant Visits (Thursday, 3 August 2017)

This summit offers technical tours to delegates, which provides a unique opportunity to witness how productivity improvement projects are being translated into action.

Leading manufacturing companies open their doors to participants on 3 August 2017 to showcase best manufacturing practices and productivity improvements on their shop floor.

TOUR A : Spicer India & Bosch Chassis Systems India

TOUR B : Cummins India & Tata Cummins

TOUR C : Mahle Behr India & Concentric Pumps



Products Manufactured

Cummins India	Mid high horsepower engines for off-highway applications
Tata Cummins	Mid-range engines for on-highway applications
Bosch Chassis Systems	Braking system components and vehicle safety systems for the automotive industry.
Spicer India	Axles, Driveshafts and Drivetrain products
Mahle Behr India	Automotive air conditioning and engine cooling systems.
Concentric Pumps	Advanced technology oil pumps, water pumps, fuel pumps and hydraulic systems

IMTMA - ACE MICROMATIC PRODUCTIVITY CHAMPIONSHIP AWARDS 2017

Awards Sponsor

AceMicromatic
Group

Live Case Study Presentations on some of the best practices in manufacturing. The IMTMA - ACE MICROMATIC Productivity Championship Awards 2017 will recognize and reward outstanding efforts from the shortlisted case studies of companies who have excelled in achieving superior performance and gives away cash prizes worth Rs. 10 Lakhs.



Contesting companies and their Case Study Summary



- Shot blasting, heat treatment are batch processes, resulting in inventories in a flow line. **Bajaj Auto, Akurdi, will share their innovatively developed cheaper, right sized, highly productive and customized Garnet Shot Blasting setup** in place of a purchased steel shot blasting machine for welded sheet frame. This resulted in 92% drop in inventories and 100% increase in productivity besides lower capital and process costs.
- **Would you like to eliminate manual errors in inspection, recording, sorting, analysis and diagnosis of maintenance related activities? Bajaj Auto, Waluj, did just that!** On their journey to becoming an Intelligent Factory, they automated their TPM dashboard with maintenance records, manuals, machine monitoring and diagnostics, resulting in increased uptime of mass production machines by 25% and de-skilling routine maintenance work.

“Innovation distinguishes between a leader and a follower” - Steve Jobs

- **To reduce Takt time in a fully automated machining setup with robotic loading/ unloading is a challenge that Hero MotoCorp, Haridwar, took up.** Systematic Analysis and Focused Innovative actions on machining as well as Robotic Automation, resulted in synchronizing the Takt time of Crank Case Line, with engine assembly, thereby eliminating one shaft.
- **Mahindra & Mahindra, Kandivali, made the impossible possible.** They converted an existing Hot Core box to Cold box process to make shell cores **without stopping production for a single day.** By doing this modification of equipment and Die for core making, they overcame a productivity bottleneck, significantly reduced rejections and reduced cost of production. Carbon Foot Print reduction was an additional benefit.
- **Mahle Behr India, Pune, have demonstrated through their case study how 100% line balancing can be achieved in an assembly line.** From conventional cell concept, the production shop layout systematically evolved implementing "New Fixture Flow concept" where moving fixtures passes through stations with material / tools on either side to support product variants of HVAC assemblies, with significant improvement in productivity and Sigma level.
- **We all know that with one progressive die set, we can produce one component. How about producing FOUR? Titan Company, Hosur, came up with the solution.** Use of innovative progressive Die design resulted into 4 different watch components from a single Die, with 90 degree indexing of Die and use of two parallel strip feeds.
- **Ever wondered what you could do with an old VMC? Do you need to wait for a CMM report? Would you like to get an automatic feedback and correction from your quality equipment to your CNC machines? TVS Motor Company, Hosur, has done just that by** using a refurbished CNC Machine with probe for automated in-line inspection to reduce the inspection overheads of transportation and waiting for standalone CMM Centre in AC Inspection room.
- **WABCO India, Chennai, struggled with 40 variants** in mass manufacture of compression-brake units for vehicles. Setup time reduced availability to 68%. Innovative use of QR code on nameplate for automated variant switchover on production line, along with systematic use of Lean methodology, better cutting tools, cutting parameters and reducing setup change time to accommodate more variants resulted in an increased machine availability to 94%. SMED was achieved, and line capacity increased by 27%. **Through online SPC monitoring and real time SMS alerts, the company embarked on its journey to becoming an Intelligent Factory.**



Key Take Aways

- Listen to keynote presentations from industry leaders
- Cross learning from best manufacturing practices
- Insightful plant visits to renowned manufacturing companies
- Ideal platform to interact and network with several manufacturing professionals
- Learn innovative approaches to address productivity challenges
- Exchange new ideas & concepts – Knowledge networking

Who Should Participate?

CEOs, Top Management Executives, Senior Executives, Practicing engineers, R&D Specialists and Industry consultants from manufacturing industries Viz. Automotive, Auto components, Consumer durables, Machine tool, Tool rooms, Aerospace, Defence and Railway units, PSUs, General Engg. and other discrete manufacturing industries.

Programme Schedule

Pre-Summit Plant Visits

3 August 2017 (Thursday)

0700 : 0800 hrs

Registration

0900 : 1700 hrs

TOUR A : Spicer India & Bosch Chassis Systems India

TOUR B : Cummins India & Tata Cummins

TOUR C : Mahle Behr India & Concentric Pumps

Day 1 : 4 August 2017 (Friday)

0830 : 1000 hrs

Registration

1000 - 1120 hrs

Inaugural Session

Chief Guest : Mr. Girish Shankar, Hon'ble Secretary, Department of Heavy Industry, Govt. of India

Guest of Honour : Mr. Shishir Joshipura, Managing Director, SKF India

1120 : 1140 hrs

Coffee / Tea Break

1140 : 1220 hrs

Keynote Address : **"Quality Culture at ANAND - Leader Led Transformation for Zero Defect",
Mr. Sunil Kaul, Group President, Excellence in Manufacturing,
Innovation and Technology, ANAND Automotive**

1220 : 1225 hrs

Change Over

1225 : 1305 hrs

Case Study 1 : **Reduce Investment through development of Low Cost Blasting Machine,
Bajaj Auto, Akurdi**

1305 : 1415 hrs

Lunch

1415 : 1455 hrs

Case Study 2 : **'Smart Measuring Machine' to Assure Zero Defect, TVS Motor Company**

1455 : 1500 hrs

Change Over

1500 : 1540 hrs

Case Study 3 : **Productivity in Compressor Manufacturing, Wabco India**

1540 : 1605 hrs

Coffee / Tea Break

1605 : 1645 hrs

Keynote Address : **"Relevance of Smart Manufacturing in the Indian context"
Mr. Dattatreya Gaur, Vice President and Business Unit Head,
Robert Bosch Engineering and Business Solutions**

1645 : 1650 hrs

Change Over

1650 : 1730 hrs

Case Study 4 : **Enhance Productivity and Quality of life in Cold Box Process for Barrel Core Making,
Mahindra & Mahindra**

Day 2 : 5 August 2017 (Saturday)

0930 : 1010 hrs

Case Study 5 : **Productivity Improvement of HVAC Assembly Line by 100% with implementation of
Lean Tools to Increase Capacity to meet Customer Demand, Mahle Behr India**

1010 : 1015 hrs

Change Over

1015 : 1055 hrs

Case Study 6 : **New Age Smart 4G, Titan Company**

1055 : 1115 hrs

Coffee / Tea Break

1115 : 1155 hrs

Keynote Address : **"Innovation for Manufacturing Excellence – Varroc Group's approach"
Dr. Ravi Damodaran, President – Technology & Strategy, Varroc Engineering**

1155 : 1200 hrs

Change Over

1200 : 1240 hrs

Case Study 7 : **To reduce Crank Case Line shifts from 9 nos. to 8 nos. for Synchronization of Crank
Case Line with Engine Assembly Line, Hero Motocorp**

1240 : 1400 hrs

Lunch

1400 : 1440 hrs

Case Study 8 : **Intelligent Factory to Improve Uptime, Bajaj Auto, Waluj**

1440 : 1445 hrs

Change Over

1445 : 1525 hrs

Keynote Address : **Mr.Parag Satpute, Managing Director, Sandvik Asia**

1525 : 1550 hrs

Coffee / Tea Break

1550 - 1715 hrs

IMTMA - Ace Micromatic Productivity Championship Awards 2017 Presentation Ceremony

Productivity Champions of yesteryears



..... and many more

3 August 2017 : REGISTRATION FEE for PRE-SUMMIT PLANT VISITS

Rs. 2000/- Per Delegate for Tour A / Tour B / Tour C (Taxes extra as applicable)

TOUR A : Spicer India & Bosch Chassis Systems India

TOUR B : Cummins India & Tata Cummins

TOUR C : Mahle Behr India & Concentric Pumps

- Note
- A participant has the option of choosing either Plant Tour A or Plant Tour B or Plant Tour C, since these visits are concurrent.
 - Registration for plant visits will be limited to 25 delegates only and will be taken on 'first come-first' basis. Delegates opting for Plant visits must register on or before 15 July 2017.
 - Plant Visits are open only to delegates participating in the summit and confirmation for plant visits will be at the sole discretion of the host companies.

4 - 5 August 2017 : REGISTRATION FEE for summit only (Per Delegate)

	Companies nominating upto 3 delegates	Companies nominating more than 3 delegates
IMTMA Members, MSMEs, PSUs, Defence Establishments, Railways, Research & Educational Institutions	Rs. 5500/-	Rs. 5000/-
Non-IMTMA Members & Large Companies	Rs. 6500/-	Rs. 6000/-

- Note
- Registration fee includes summit documentation and Lunch on Day 1 & 2
 - Taxes extra as applicable
 - MSME companies must produce valid Certificate.

Registration for participation must be made online only . To register online, log on to www.productivity.imtma.in

For event details or any queries / clarifications during 'Online Registration' process, please contact

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About IMTMA

Constituted in 1946, Indian Machine Tool Manufacturers' Association (IMTMA) is a single point of contact for the machine tool industry in India. The apex body of machine tool industry in the country, IMTMA has a membership of about 500 companies from both the public and private sectors, manufacturing a wide range of metal-cutting and metal-forming machines, accessories, cutting tools and other allied equipment. The association has over the years deeply committed itself to focus on issues of productivity, quality, technology, new product development, design, customer satisfaction, etc. for enhancing competitiveness of the industry in both domestic and overseas markets. IMTMA is proactive in taking new initiatives to promote advancement of metalworking industry in India. IMTMA organises the prestigious IMTEX and Tooltech exhibition, where both Indian and overseas manufacturers showcase their metalworking machines, equipment and tools. Productivity Summit and IMTMA-ACE MICROMATIC Productivity Championship Awards are among the key initiatives of IMTMA.



**Indian Machine Tool
Manufacturers' Association**
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