

# THE MACHINIST

RNI No 71129/98

Volume 10 Issue 11 • November 2015 • Rs 75

www.themachinist.in

**CONSTRUCTION  
EQUIPMENT**  
FOCUSING ON  
PRODUCT INDIGENIZATION

**TRAINING &  
DEVELOPMENT**  
WHY WORKPLACE  
INTERACTION IS CRITICAL



## 'Nayi Parampara'

**GUILLAUME SICARD**, PRESIDENT, NISSAN INDIA OPERATIONS, WANTS TO START A NEW TRADITION IN THE INDIAN AUTOMOTIVE INDUSTRY WITH THE BEST OF TECHNOLOGY AND WITH CARS THAT BRING A SHINE TO THE EYES

# Solutions For Industry

**Perfect, Precision, Progressive Machine Technology**

HYUNDAI WIA Machine Tools pours its whole efforts on every process of production and distribution, covering from self-reliant designing to manufacturing and after sales service.



## **HS Series (HMC)**

- Heavy Duty Motion Roller Guidways
- Powerful Dual Wound Spindle Motor
- Heaviest Maximum load in its Class
- Big Plus Spindle (BBT)

## **F500D/600D (VMC)**

- High-precision P4 Angular Contact Bearing main spindle
- Dual Tables for high productivity
- Latest Servo ATC for fastest tool exchange in the class
- Latest SIEMENS 828D Controllers for various software support

## **E160 Series (CNC Lathe)**

- 45° slanted one-piece high rigidity bed structure
- Unbeatable rapid travel speed: **30m/min**
- The most reliable high speed servo turret is adopted: **0.1sec/step**
- Compact design, able to install within a narrow space.
- Ergonomic design allows convenient access to chuck and tool



## **Machine Tools Line-Up**

- CNC Lathe (Horizontal & Vertical)
- Drill Tap Centers
- Vertical Machining Centers
- Horizontal Machining Centers
- CNC Boring Machines

## **Hyundai Wia India Office**

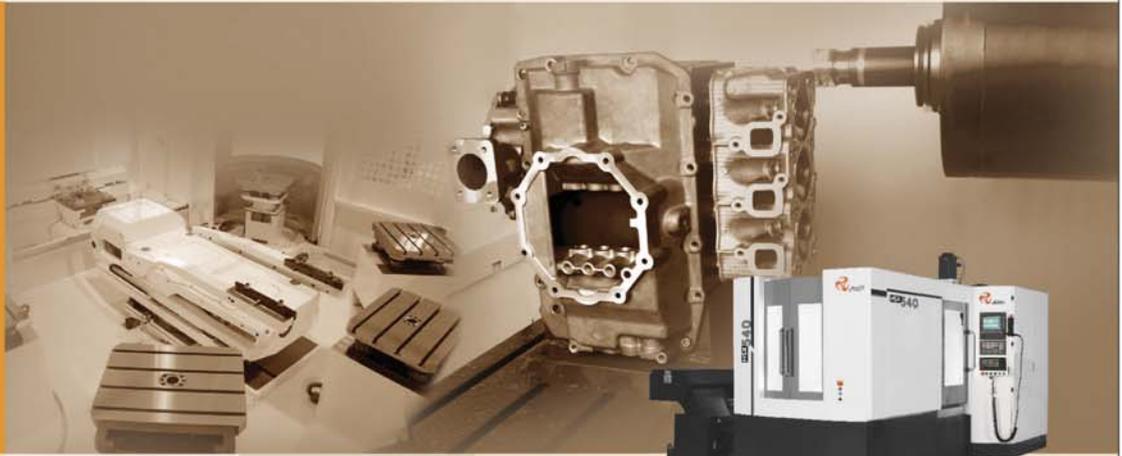
#4/169, Rajiv Gandhi Salai, (OMR), Kandanchavadi,  
Chennai - 600 096, Tamilnadu, India

Tel. +91 44 3290 1719

Mob. +91 9840999094

e-mail. sales@hyundai-wia.com, service@hyundai-wia.com

**PRODUCTIVITY SOLUTIONS**



**HX / HSX Series**  
Horizontal Machining Centers  
HX 500, HX 510, HX 600, HX 610, HSX 540, HSX 650,  
HSX 860, HSX 1080, HSX 1210, HSX 540 MP PRO, HSX 650 MP PRO

JYOTI CNC is having the largest range of machines for all of metal cutting applications across entire Indian machine tool industry. We commit our best efforts to deliver the best application solutions through the widest machine range enhanced by our customized solution expertise.



Productivity Solutions caters to typical requirements of fast machining operations of small and medium mass production components to whom cycle time matters in even minor seconds. These solutions are efficiently interfaced with automation systems to achieve cut-throat cycle time requirements with highest accuracy, surface finish & loading / unloading time delivering higher process capability.



- State-of-Art Structural Design
- Optimized Surface Quality
- Better Dynamics
- Complex Application Ability

**MAKE IN INDIA**



**JYOTI CNC AUTOMATION LTD.**

G - 506, G.I.D.C. Lodhika, Village : Metoda, Dist : Rajkot - 360 021, Gujarat (INDIA).  
Ph. : + 91-2827-306100/101, 287081/82 | Fax : + 91-2827-306161/287811

[f /JyotiHuron](#) [i /JyotiHuron](#) [v /JyotiHuron](#) [/JyotiHuron](#)

web : [www.jyoti.co.in](http://www.jyoti.co.in) / [www.huron.fr](http://www.huron.fr)

E-mail : [info@jyoti.co.in](mailto:info@jyoti.co.in), [sales@jyoti.co.in](mailto:sales@jyoti.co.in)

**One Stop Solution**  
for metal cutting

Ahmedabad : +91-79-26921309, +91-99798 62231, Aurangabad : +91-95455 10255, Bangalore : +91-80-23472544, +91-97390 01092, Belgaum : +91-97390 01091, Chennai : +91-44-26253813, +91-99625 62501, Coimbatore : +91-99625 62511, Hosur : +91-99625 62783, Hyderabad / Secundrabad : +91-97032 16651, Indore : +91-99789 11214, Jaipur : +91-97833 07603, Jamshedpur : +91-75490 00992, Kanpur : +91-93368 33783, Kolhapur : +91-97644 42654, Kolkata : +91-33-24618635, +91-98361 13939, Ludhiana : +91-98728 88746, Mumbai : +91-22-26850044, +91-98204 27984, Nagpur : +91-97644 42662, Nasik : +91-97644 42660, New Delhi : +91-11-47791193, +91-99991 91193, Pune : +91-20-66305452, Sriperumbudur : +91-89398 24662, Surat : +91-99798 62235, Vadodara : +91-99798 62232

# Indian Manufacturing - Vision 2020

**A**t The Machinist Manufacturing Excellence Summit (MES) 2015, we had a very interesting CEO Panel Discussion. The views of our panellists clearly reflected the sentiments of the industry with regards to the current scenario as well as the way ahead. While there was acknowledgement (and happiness expressed) at the intent of the current administration at the Center, the CEOs were unequivocal in their demands for on-the-ground action as well as a political convergence with a constructive and positive frame of mind. "The intent is right, the sentiments have improved and there is also a certain momentum. But the need of the hour is too have a consensus in the context of larger interest of the country, the economy and the industry," they said.

There were four straight forward (and reasonable) demands: Bring in the GST at the earliest, improve the infrastructure substantially, build an industry oriented skilled workforce and implement key campaigns like 'Make in India' as well as 'Smart Cities' to the fullest. Very importantly, these leaders did not shy away from their responsibility or commitment. "We are well aware of what is required of us and we are already working towards it," they said. They also recognised and acknowledged the fact that as the leaders of the industry, they also have certain responsibilities towards the MSMEs. "We will continue to hand hold the MSMEs but they too need to change their mindsets and look at the bigger picture rather than being complacent with small successes," the CEOs remarked. If one is to put all of the above together, it very succinctly forms a clear roadmap for achieving the 'Vision 2020 for Indian manufacturing'. Come on, let us make it happen.

Of course, we are quite proud that we were able to achieve our set target for the MES 2015 in terms of arriving at certain insights with participation of the industry itself. But then, it is just a beginning! So stay with us.



Editor & Chief Community Officer



"THE INTENT IS RIGHT, THE SENTIMENTS HAVE IMPROVED AND THERE IS ALSO A CERTAIN MOMENTUM. BUT THE NEED OF THE HOUR IS TOO HAVE A CONSENSUS IN THE CONTEXT OF LARGER INTEREST OF THE COUNTRY, THE ECONOMY AND THE INDUSTRY."

## Editorial Advisory Board



**Aravind Melligeri**, Chairman and CEO, Aequs.  
*Works towards making India a leading hub for high quality precision manufacturing & aerospace*



**GK Pillai**, MD and CEO, Walchandnagar Industries Ltd.  
*Brings the best of the public and private sectors for the benefit of the manufacturing industry*



**Nitin Chalke**, MD – India, Eaton.  
*Combines the understanding and expertise of five business segments to provide visionary leadership*



**Viren Joshi**, CEO and President, Sigma Electric Manufacturing Corporation.  
*Blends the proficiency of growing new businesses and managing growth at large MNCs*

## THE MACHINIST

Volume 10 Issue 11 November 2015



**CHIEF EXECUTIVE OFFICER**  
**Deepak Lamba**

**CHIEF FINANCIAL OFFICER**  
**Subramaniam S**

**PUBLISHER, PRINT & PRODUCTION CONTROLLER**  
**Joji Varghese**

**EDITOR & CHIEF COMMUNITY OFFICER | Niranjana Mudholkar**  
[niranjana.mudholkar@wwm.co.in](mailto:niranjana.mudholkar@wwm.co.in) +91 9819531819

**ASSISTANT ART DIRECTOR | Sanjay Dalvi**  
[sanjay.dalvi@wwm.co.in](mailto:sanjay.dalvi@wwm.co.in)

### SUBSCRIPTIONS

[subscriptions.rmd@timesgroup.com](mailto:subscriptions.rmd@timesgroup.com)  
022 22733274 / 66354083

**BRAND PUBLISHER | Rishi Sutrave**  
[rishi.sutrave@wwm.co.in](mailto:rishi.sutrave@wwm.co.in) +91 9820580009

### ADVERTISING

**SOUTH | Mahadev B**  
[mahadev.b@wwm.co.in](mailto:mahadev.b@wwm.co.in) +91 9448483475

**WEST | Ranjan Haldar**  
[ranjan.haldar@wwm.co.in](mailto:ranjan.haldar@wwm.co.in) +91 9176267474

**NORTH | Shashin Bhagat**  
[shashin.bhagat@wwm.co.in](mailto:shashin.bhagat@wwm.co.in) +91 98250 13439

Printed and published by Joji Varghese for and on behalf of owners Worldwide Media Pvt Ltd (CIN:U22120MH2003PTC142239), The Times of India Building, Dr DN Road, Mumbai 400001. Printed at JRD Printpack Private Limited, 78, Resham Bhavan, 7th Floor, Veer Nariman Road, Churchgate, Mumbai - 400 020. Editor: Niranjana Mudholkar. Published for November 2015.

Disclaimer: All rights reserved worldwide. Reproducing or transmitting in any manner without prior written permission prohibited. All photographs, unless otherwise specified, are used for illustrative purposes only. The publisher makes every effort to ensure that the magazine's contents are correct. However, we accept no responsibility for any errors or omissions and accept no responsibility for any loss or damage caused as an effect thereof. The information provided in this publication is for general use and may not be appropriate for the specific requirements and / or conditions of the reader/s. The opinions expressed by experts are their own and in no way reflect those of the publisher.



**UMC 750**

at

**HAASTEC**  
**PUNE SHOW**

9-12, December 2015

10 a.m. to 6 p.m.

**OTHER MACHINES ON DISPLAY:**

ST-35, VF-7/50, DT-1, VF-2SS, ST-10Y  
Super Mini Mill, VF-2

**SHOW DETAILS:**

Date: 9-12, December 2015

Time: 10 a.m. to 6 p.m.

Venue: Hall – B, Plot No. C-181, Auto Cluster  
Exhibition Center , Pimpri - Chinchwad  
Pune, Maharashtra: 411019

# CONTENTS

Powered By



**STRONGER FASTER SUPERIOR**



**COVER STORY** ..... **40**  
**Starting a 'Nayi Parampara'**



**Machine Tools**  
**'Propelling Technology, Prospering Life'** ..... **26**  
**Aiming higher!** ..... **30**  
**Positive sentiments** ..... **34**  
**Forward-looking** ..... **36**



**Facility Tour**  
**'Insightful Integration'** ..... **18**



**MES 2015** ..... **60**  
**Scaling the 'Summit'!**



**Construction Equipment**  
**Concrete success!** ..... **67**

Editorial ..... 4

News ..... 8

Event Calendar ..... 12

Human Resources: Dynamic dialogues! ..... 14

Automotive ..... 24

Products ..... 48

IT In Manufacturing: Smart Factories: Next wave in IoT Revolution ..... 72



**Human Resources**  
**A new dawn** ..... **70**

# THE CUTTING EDGE IN DRILLING EFFICIENCY



YOUR GLOBAL CRAFTSMAN STUDIO

## MMS Drills

- Special drill for Stainless steel machining with TRI-Cooling technology
- Beyond the bounds of common sense for Stainless steel drilling



## MVS Drills

- New generation solid carbide drills with new TRI-Cooling technology
- New wavy cutting edge
- Zero- $\mu$  surface for reduced cutting resistance
- New DP1020 grade for higher wear resistance



## MWS Super Long Drills

- Drilling upto 50 L/D is possible
- 80% cycle time reduction compared to conventional deep hole drilling
- Designed to use on conventional machining centres



## MHS Drills

- Innovative drilling for hardened steel
- Eliminates the need for heat treatment process
- Possible to machine high precision deep holes for resin & die casting moulds



## MNS Drills

- World's first drill with 4 coolant holes for high efficiency machining of aluminium alloys
- High feed & high efficiency drilling with feed rates upto **10,000 mm/min**



Original geometry of Mitsubishi & TRI-Cooling technology enables smooth cutting performance at higher speeds and feeds. Accurate holes with good surface finish can be achieved now with higher penetration rates.



**MMC Hardmetal India Pvt. Ltd.**  
A Subsidiary of **MITSUBISHI MATERIALS**

H.O.: Prasad Enclave, #118/119, 1st Floor, 2nd Stage,  
5th Main, BBMP Ward #11, (New #38), Industrial Suburb,  
Yeshwanthpura, Bengaluru – 560 022, Karnataka, India.  
Tel : +91 80 3080 7400 to 3080 7499  
Website : [www.mitsubishicarbide.com](http://www.mitsubishicarbide.com)



TOTAL  
SOLUTIONS



DRILLING



MILLING



TURNING



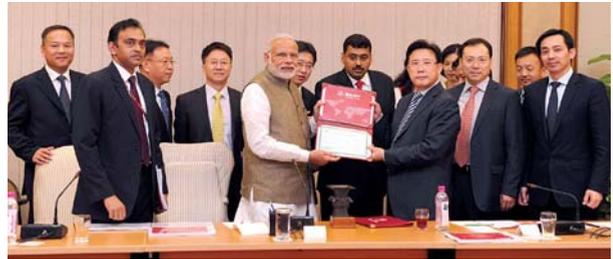
THREADING  
& GROOVING



# NEWS

## Sany Group to invest US\$ 3 billion in Make in India; to focus on energy renewable projects

Sany Group, one of the largest global manufacturing companies of construction equipment, has signed and handed over the Green Energy Commitment to India's Prime Minister towards development of 2000 MW of Renewable Energy Projects with investments of US\$ 3 billion for the period 2016-20. Besides generating 4.8 TWh of green and clean power annually these projects will generate 1000 jobs and prevent carbon emissions of around 3.6 million tons per year. Sany will establish efficient technologies for Off-Shore Wind Power Generation. Sany Group will bring in its relevant expertise, operational excellence and global best practices for development of Renewable Energy in India. Commenting on the announcement, Liang Wengen, Chairman of the Board, Sany Group, said, "This investment is a significant step in deep-



ening our presence and commitment to India. Green Energy industry in India is growing and we see this as a huge opportunity to introduce our wind Energy business in the country. We have invested in a potential market like India, and are excited about the future growth & potential for future investment."

## India key in aerospace industry's evolution: Boeing Chairman



Boeing Chairman Jim McNerney said that India is poised to play a pivotal role in the evolution of the global aerospace and defense industry. Speaking at the opening of "India's Time to Fly" aerospace innovation summit in New Delhi, McNerney said: "We live in a world that's demanding more for less. Companies like Boeing are always on the lookout for the competitive advantages that come with innovative new technologies and long-term partnerships. India, with its broad, deep engineering capability and skilled workforce, is a natural partner that offers us the long-term opportunities."

## Record 500 people attend Haas Demo Days in Nashik

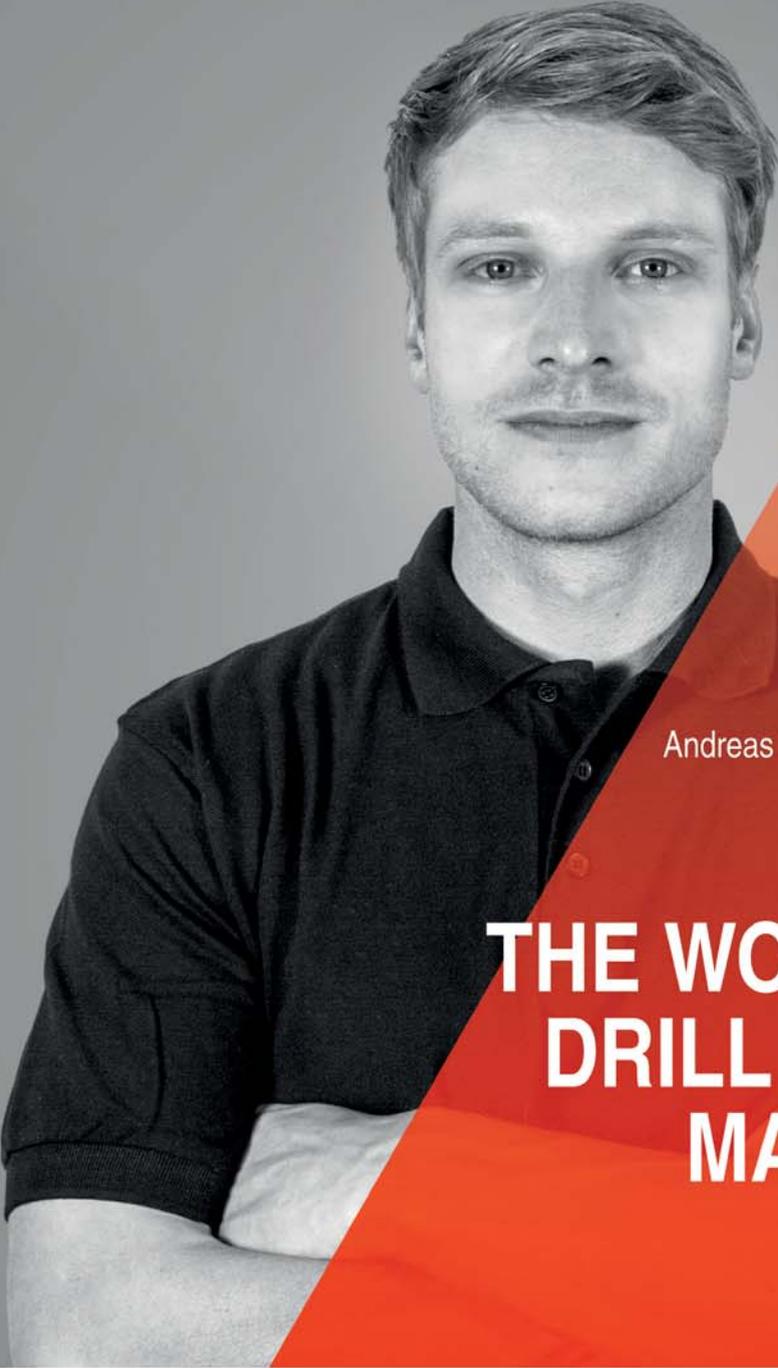
Tom Thomas – DGM, M&M along with Mr. Gune - CEO, Nashik Engineering Cluster inaugurated the new Haas Factory Outlet at NEC on October 15, 2015. Facility tours and live cutting demonstrations were among the highlights of a highly successful event which witnessed over 500 visitors in three days. Terrence Miranda, MD – Haas Factory Outlet Mumbai stated: "An HFO at Nashik was long awaited and we are happy that we will



also be engaging in skill development for the people of Nashik in partnership with NEC. We would like to develop an even stronger & more widespread HFO network in India and set it up in all key industrial cities. We do not want our customers to travel more than 100 km to find an HFO. The main idea of an overseas company to have HFOs in India is to present a localized approach." "I am happy to see that 55% of our attendees were newcomers and a 20% increase in visitors YoY. It highlights the growing importance that this high tech, engineering-driven city gives to adopting the latest CNC technology" said Ram Kripal Yadav – GM, CNC Servicing & Solutions (I) Pvt. Ltd. Nashik is a rapidly expanding industrial hub located around 100 miles northeast of Mumbai. Sectors like Precision engineering, Electrical engineering, Forging, Automobile, Aerospace engineering, General engineering, and Export oriented units are well represented in the area.

## Bosch officially opens new research campus in Renningen

With its Renningen research campus, Bosch wants to encourage interdisciplinary collaboration, and in this way further enhance its innovative strength. At the new center for research and advance engineering on the outskirts of Stuttgart, some 1,700 creative minds are doing applied industrial research. "With this campus, Bosch is setting new standards," said the German Chancellor Dr. Angela Merkel.



Andreas Kleinmans, Product Manager, Drilling

# PROBABLY THE WORLD'S BEST DRILL – CERATIZIT MAXIDRILL 900

## CERATIZIT MaxiDrill 900 product range

Technically superior and simply easy to use

Your production:	more efficient
Handling:	easier
Machining process:	more stable
Range of applications:	universal
Product range:	more extensive



### Head Office and Works:

Ceratizit India Pvt.Ltd

58, Motilal Gupta Road - Barisha \ IN-Kolkata 700008 \ India  
T. +91 33 2494 0581 0335 \ +91 33 2494 0581 6382 \ F. +91 33 2494 1472 \ +91 33 2494 5839  
E. ctindia.info@ceratizit.com

CERATIZIT India Round Tool Solutions Private Limited

(Formerly known as G.W. Precision Tools India Pvt Ltd.)  
Plot 124-A, Bommasandra Industrial Area, Anekal Taluk \ IN-Bengaluru 560099 \ India  
T. +91 80 40431 252 \ F. +91 80 40431 254  
E. roundtools.info@ceratizit.com

www.ceratizit.com



## Shilpi Cable signs JV with Eyecom Telecom; plans to manufacture antennas in Rajasthan

Shilpi Cable Technologies Ltd. (SCTL) has entered into a joint venture with the Eyecom Telecommunications Equipments Ltd, marking its foray in the next generation technology of Radio Frequency (RF). Headquartered in New Zealand, Eyecom Telecommunications Equipments Ltd. is one of the leading RF path technology solution providers globally. With this strategic partnership SCTL becomes a one-stop RF path solu-



tion provider in the telecom space and introduce Base Station Antenna (BSA) products for 2G/3G/4G and next generation rollouts in India. SCTL has successfully carried out field trials of its Antennas in the Indian market and plans to set up a manufacturing facility at Chopanki, Rajasthan. Once the commercial production begins in the next six months, the facility will manufacture around 15,000 Antennas per month.

## IZA-HZL team up to galvanize Indian auto industry

International Zinc Association (IZA), in a joint initiative with IIT-Mumbai & Hindustan Zinc Ltd (HZL), a subsidiary of Vedanta Ltd organized an interactive session to raise awareness of the benefits of galvanized steel in the Indian automotive industry. “Hindustan Zinc lends full support to IZA to resolve this grave problem of corrosion in India. India loses around five percent of GDP each year in corrosion losses. As a sustainable organization we believe that corrosion mitigation will lead to sustainable vehicles and infrastructure for the future generations and at the same time bring down GDP loss to the economy,” said Vikas Sharma, COO (Smelters), Hindustan Zinc Ltd. Galvanized steel primarily has two distinct benefits—first, it protects the steel from corrosive attack acting as a continuous and lasting shield between steel and the atmosphere. Secondly, it acts as a galvanic protector, sacrificing itself slowly in the presence of corrosive agents. “Zinc is an amazing corrosion protector because of its sacrificial properties”, said Prof. Khanna from IIT Mumbai, who has steered a study on corrosion in cars in Mumbai.

## Schwing Stetter India forays into industrial equipment

Schwing Stetter India, one of the leading concrete equipment manufacturing companies in India has announced their entrance into the Industrial Equipment Segment with the launch an exclusive range of the Sludge pumps and muck pumps. This product was launched at IFAT 2015 trade show.



V.G. Sakhthikumar, Managing Director,

SCHWING Stetter Sales & Services Pvt. Ltd. said, “At Schwing Stetter, we are looking to broaden our horizons by entering newer segments. The industrial equipment business is exciting and the Schwing sludge pumps will be used for handling dewatered municipal sludge, flyash in thermal plant and sludges in mineral processing and dredging muck.”

## SKF Office achieves highest possible environmental rating

SKF’s office in Pune, India has been awarded the highest possible LEED (Leadership in Energy and Environmental Design) rating – Platinum – by the Indian Green Building Council.



Designed with a focus on energy and water efficiency, the building’s envelope material and lighting help it exceed LEED’s baseline building standards by approximately 60 percent. In total, 65 percent of the building’s electricity comes from roof-top solar panels and at peak office hours, it is energy neutral, as 100 percent of its power requirement is drawn from solar energy. Sh-

ishir Joshipura, Managing Director and Country Head, SKF India, said, “This certification is reflective of SKF India’s commitment to sustainable business development. We are delighted and thank all our partners who made this happen”.

# MOTUL

# TECH

## THE INDUSTRIAL LUBRICANTS DIVISION OF THE

## MOTUL GROUP



**METAL WORKING  
FLUIDS**

**SPECIALTY  
LUBRICANTS**

**MAINTENANCE  
LUBRICANTS**

**HIGH PRESSURE  
DIE CASTING**

**QUENCHING  
FLUIDS**

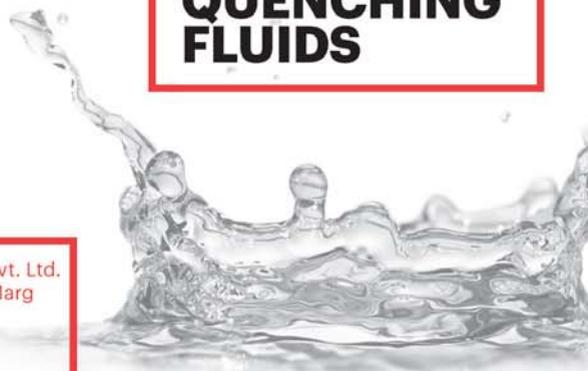


[motul.com](http://motul.com)

**Motul**

119 boulevard Félix Faure  
93300 AUBERVILLIERS - France  
Tel: +33.1.48.11.70.30  
Fax: +33.1.48.11.70.38

Atlantic Lubricants & Specialities Pvt. Ltd.  
301, Ketan Apts., 233, R.B. Mehta Marg  
Ghatkopar East, Mumbai 400 077  
Tel: + 91 22 2501 1960/2501 1961  
Fax: + 91 22 2501 1928





# Mark your diary

A list of key events happening between November 2015 to December 2016, both nationally and internationally.

## EXCON 2015

**November 25-29, 2015**, Bangalore  
[www.excon.in](http://www.excon.in)

## MODEX 2016

**April 4-7, 2016**, Atlanta (USA)  
<http://www.modexshow.com/>

## Global SME Business Summit 2014

**December 07-08, 2015**, New Delhi  
<http://ciisme.in/>

## CeMAT 2016

**May 31-June 3, 2016**, Hannover (Germany)  
<http://www.cemat.de/home>

## IMTEX FORMING 2016 & Tooltech 2016

**January 21-26, 2016**, Bengaluru (BIEC)  
[www.imtex.in](http://www.imtex.in)

## IMTS 2016

**September 12 - 17, 2016**, Chicago (US)  
[www.imts.com](http://www.imts.com)

## Auto Expo 2016 - Components

**February 4-7, 2016**, New Delhi  
<http://www.autoexpo.in/components-show/index.aspx>

## MINExpo International

**September 26-28, 2016**, Las Vegas (USA)  
<http://www.minexpo.com/>

## Auto Expo 2016 - The Motor Show

**February 5-9, 2016**, Greater Noida  
<http://autoexpo-themotorshow.in/>

## India International Textile Machinery Exhibition 2016

**December 3-8, 2016**, Mumbai  
<http://itme2016.india-itme.com/>

## Grindex International 2016

**March 3-5, 2016**, Mumbai  
[www.grindexpo.in](http://www.grindexpo.in)

## BAUMA CONEXPO India 2016

**December 12-15, 2016**, New Delhi  
<http://www.bcindia.com/>

## DIEMOULD India – 2016

**April 6-9, 2016**  
Bangalore  
[www.diemouldindia.org](http://www.diemouldindia.org)





# VG-Cut

**NEW**

Deep Grooving, Threading, Turning, Profiling and Parting Off System



Parting Off



Deep Grooving



Turning



Profiling & Undercut



Threading between Shoulders







Optimal Solutions for the Future

# Multi-purpose Machining Center

## VCF 850 series

Multi purpose column moving, vertical machining center providing 3m wide X axis cutting area and simultaneous 5 axes cutting with 3 axes achieved with diversified applications.



### Speed

±110° tilting head and built-in type spindle improve reliability; high-rigidity roller-type LM Guideway ensures powerful cutting performance.



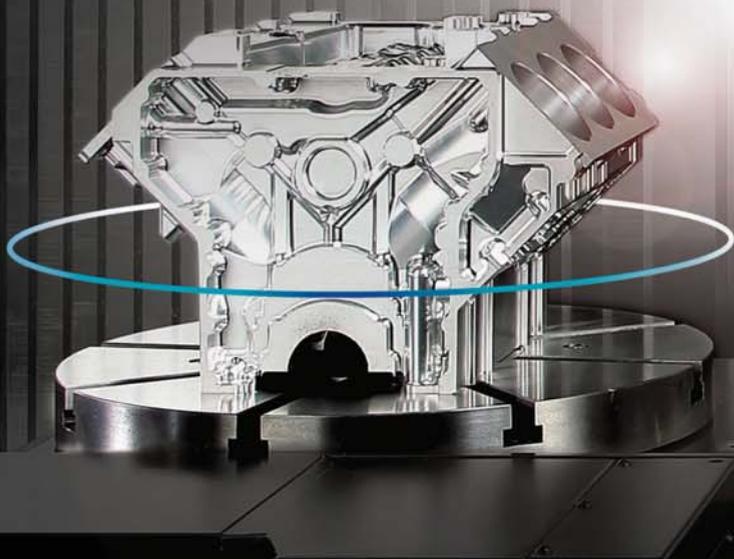
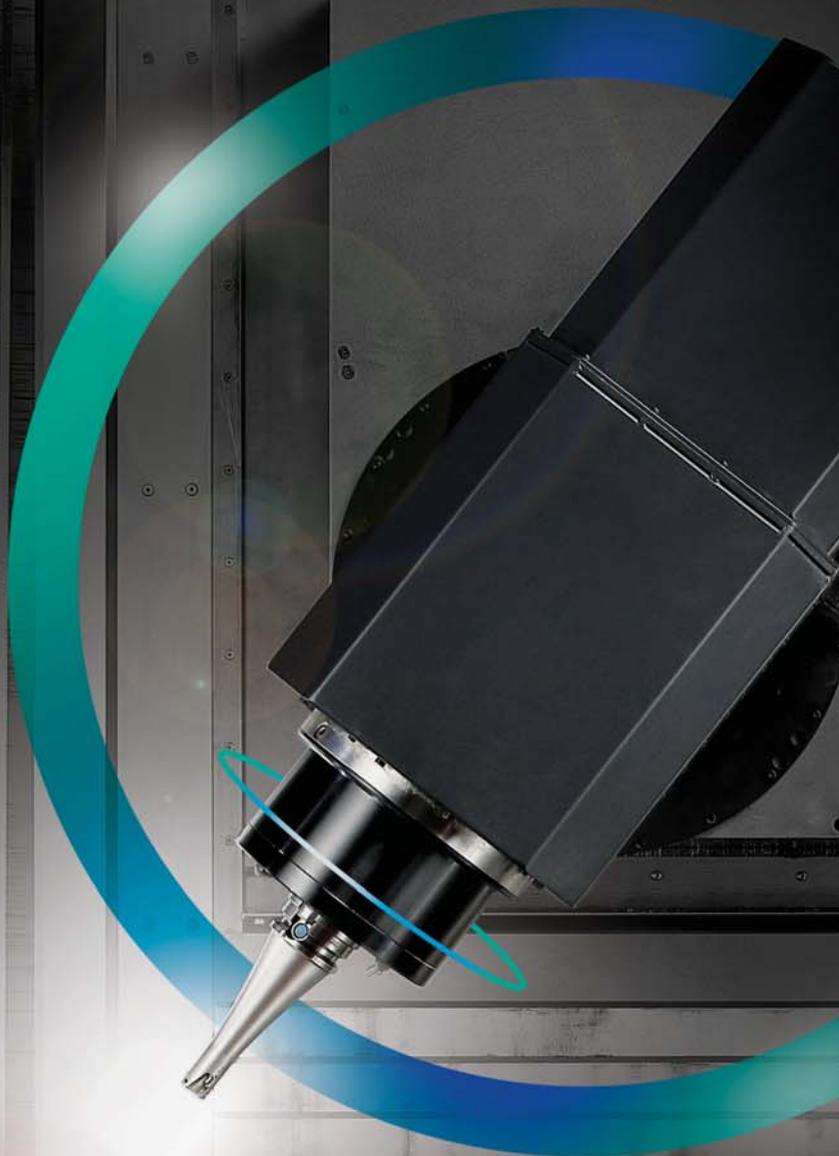
### Quality

Equipped with embedded and top-mounted type rotary tables that satisfy a diverse range of machining applications. 3- to 5-axis machining capability and tables with center partition improve productivity significantly.



### Efficiency

User convenience is maximized by the compact size of the column-moving type machine, the separate pickup magazine capable of holding long and large tools, and the movable operation panel designed in consideration of the user's work range.



### VCF 850 Series

Multi-purpose machining center

VCF 850 / VCF 850SR / VCF 850L / VCF 850LSR



Doosan Machine Tools

[www.doosaninfracore.com/machinetools](http://www.doosaninfracore.com/machinetools)

Doosan Infracore India Pvt., Ltd.  
106/10-11-12, Amruthalli Byatarayanapura  
Bellary Road, Bangalore - 560092, India  
Tel : +91 (0)80 4266 0122, 121, 101



end-up solving the problem, they leave a feeling of imposing their decision on others or even doing the job of their team members.

**Riding their success wave** – Because their style/approach to addressing issues helped them solve problems the last time, they tend to see the world from the same lens. It is like the old saying, “You give them a hammer and the whole world looks like a nail”. This might end up building a blind spot for them.

**Dealing with Challenging issues** – Most managers find themselves ill-prepared to handle challenging issues, especially performance issues. They put these under the rug and end-up not resolving and the problem amplifies over time.

**Inconsistent actions** – Sometimes managers surprise us by solving few issues in a very effective manner, but the same manager leaves us baffled in similar situations on other occasions.

**Factual and Logical Only** – What often sounds very logical and rationale to some managers, this quality often makes them poor listeners as they always try and approach resolving issues in a logical way. They fail to get perspective from others before presenting their point of view.

**Ignore in the moment coaching opportunities** – Many Managers believe coaching is a long term agenda and completely fail to coach their direct reports for “here and now”. This is where most direct reports need support and too often a missed opportunity for the managers.

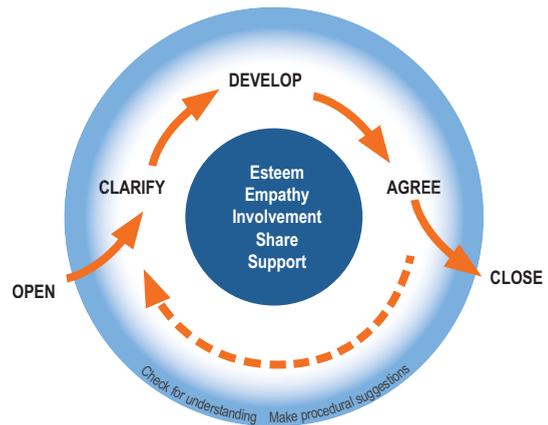
The Interaction Essentials<sup>SM</sup> provides a framework for satisfying the two critical components of effective interactions: the practical and personal needs of the participating parties. This standardized approach includes the Interaction Guidelines which have the five steps that target the practical needs of participants by guiding the structure of the conversation. These steps are: Open, Clarify, Develop, Agree, and Close — they together form a process that progresses from the beginning of the interaction, through the engagement of participants, to the resolution. A closer look at these five elements of interaction guidelines suggests that in different situation one needs to spend more time on different aspects.

Personal needs are met through the application of a set of five key principles, (center of figure). The Key Principles guide how participants interact with each other during the conversation and focus on building / maintaining esteem, offering empathy, bringing involvement, sharing their thoughts, feelings and rationale, and providing support without removing responsibility. The two elements at the bottom of the figure additional process elements — checking for understanding and making procedural suggestions — help keep an interaction going.

Example, if a manager is dealing with a poor performance conversation then he might end up spending more time in clarifying and developing an action plan to help his team member improve as part of the interaction guidelines. However, if it’s a situation where you are offering a new assignment to your best performing employee then the whole

focus would be on develop state. However, in both cases the next steps and delivery/review dates will be different and need to be agreed and accepted / closed between the discussing parties to ensure the what’s, where’s and the how’s are discussed for the upcoming deliverables.

At the same time the use of Key Principles adds to the element of building trust factor. In the poor performance conversation while it’s important for the manager to maintain the esteem, offering genuine empathy becomes a key. Lack of the same will create disrespect among the manager and



subordinate. By involving the employee in developing the improvement plan and offering to support or share his own experience will build the all-important authenticity between the two. On the contrary, while offering a new assignment the manager need not use empathy, but all the other four key principles in the right equation will ensure that both the parties are on the path of success faster.

Our research shows that a whopping 85 percent of frontline leaders don’t clarify before moving on to discuss an issue. An alarming 94 percent of frontline leaders rely more on their own ideas, instead of involving the people closest to the work—their employees.

We all know of the eight forms of waste that are talked about under Lean manufacturing: Defects, Overproduction, Waiting, Non value added processing, Transportation, Inventory, Motion and Unused employee creativity. Poor ‘Workplace interactions’ can create lot of wasted energies among teams and can touch each of the eight forms of waste in some form or the other. Training the organisational workforce on improving the workplace interaction is becoming critical as this will help India Inc develop as a dominant global manufacturing hub. We all know that capital investment is important, but once should not forget that this capital is in the hands of the managers and team members and the millions of interactions that take place every day decide how this capital will be put to use. So let us all come together to fight with a common challenge of Poor ‘Workplace interactions’.

*The author is Member, Key Leadership Team, DDI India.*

**starrag**

Starrag Group



IWK 4000.5000 / 6000.7000

Your investment for greater productivity

IWK 4000.5000  
(HSK - A63 / BT40)



High Dynamic  
Horizontal Machining Centers

IWK 6000.7000  
(HSK - A100 / BT50)



High Performance  
Horizontal Machining Centers



Fully air-conditioned world class manufacturing facility



Complete turnkey solution under one roof



Unique solutions for Transport, Industrial & Aerospace Industries

**German Quality...**  
**Proudly Made In India!**

**Starrag India Private Limited**

No. 66, KIADB Bengaluru Aerospace Park, Singahalli Village,  
Budigere Post, Bangalore North Taluk, Bangalore - 562 129.

T +91 99000 92569, +91 96117 63479

Email: sales.in@starrag.com | [www.starrag.com](http://www.starrag.com)



# 'Insightful Integration'

The DCM Shriram Group is strategically diversified and yet operationally integrated across its various businesses. This is substantially reflected at its Kota manufacturing complex. The Machinist magazine recently visited the facilities to find out more.

By Niranjan Mudholkar



We are amongst the most cost efficient producers of products and services across all our businesses and furthermore, we continuously work towards reducing our operational costs in every possible manner."

**Prem Das,**  
President & Business head  
(Plastics & Power), DCM Shriram

**A**t Kota in Rajasthan, DCM Shriram Ltd has an integrated manufacturing complex. This one of its kind campus spread over 791 acres of land produces a variety of products including Urea Fertilizer, Caustic Soda, Chlorine/ Hydrochloric Acid, PVC Resin, Calcium Carbide, Cement, PVC Compounds and UPVC Profiles. A captive coal based power facility of 125 MW also situated within the complex supplies power to all the products getting manufactured at the integrated complex. The total employee strength at the Kota Complex is 1,364, which includes Officers (659) + General staff (58) + Workmen (647).

The Kota complex is unique (and integrated) in the sense that the various manufacturing plants located within this complex supply to others. This directly helps in lowering operational costs and making DCM Shriram highly competitive in the market place. "We are amongst the most cost efficient producers of products and services across all our businesses and furthermore, we continuously work towards reducing our operational costs in every possible manner. This philosophy is obviously reflected in the Kota campus, which is like our flagship complex," shares Prem Das, President & Business head (Plastics & Power), DCM Shriram. "The Kota complex also has the unique advantage of low-cost captive power for all the major operations," he adds.

The 'integration' at the Kota Complex is quite interestingly done. The 'main' Chlor-Alkali plant produces Caustic Soda / Chlorine. The Chlorine produced is largely used in the manufacture of PVC resin and the balance is sold as chlorine gas. Similarly, the Calcium Carbide



Our Kota complex is certified for ISO 9001, 14001 and OHSAS 18001 for its effective Quality, Environment, and Occupational Health and Safety Management Systems and it has also been awarded five star certificates by British Safety Council for its effective safety systems."

**K.M. Tandon,**  
Sr. VP (Business Head –  
Fertilisers & Engineering),  
DCM Shriram

# Precision Machines.

Reliable  
Performance.

Largest Manufacturers of  
3 axes, 4 axes & 5 axes  
CNC Machining Centers...



We understand complex shapes and exotic materials can be a real challenge to machine without the use of right products. With AMS's multitasking and 5 axes machining centers you can address these issues while raising the productivity levels. Our products are handcrafted to suit aerospace parts machining while they are also designed for high dynamic performance.

**ACE MANUFACTURING SYSTEMS LTD.**

Plot No. 467 - 469, 4th Phase, Peenya Industrial Area, BANGALORE - 560 058. INDIA.,

T: +91-9880189832 E: helpdesk@amslindia.co.in

VISIT US AT

12<sup>th</sup> **ENGIMACH** 2015

Dates from 3 - 7 December 2015  
Hall 13

Stall: L 43

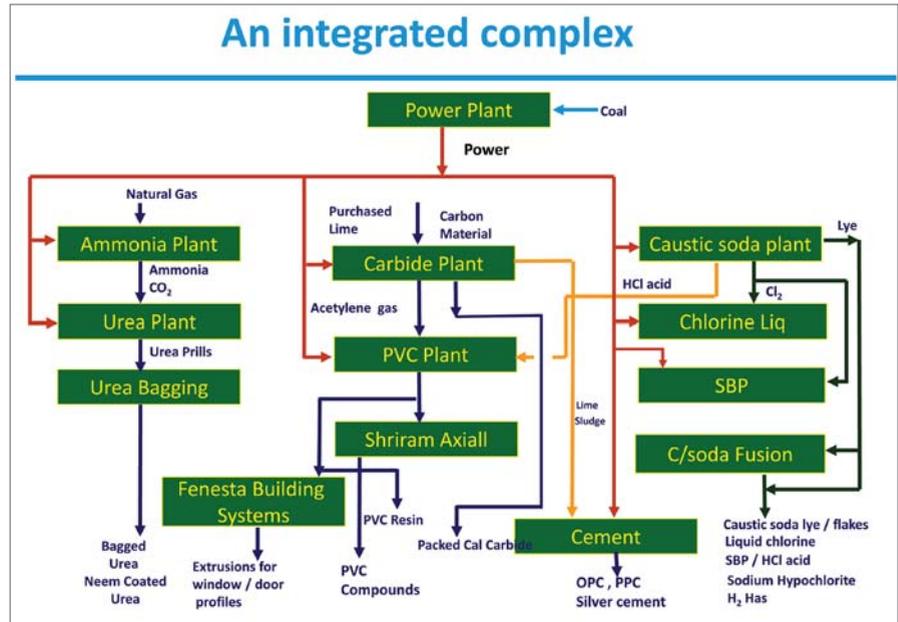


produced in the Carbide Plant is largely used as the key input in the manufacture of PVC Resin while the balance Carbide is sold in the market. The waste sludge produced during the manufacturing of Calcium Carbide is used in the manufacturing of Cement. “The PVC Resin manufactured at the complex is further consumed to the extent of 25 percent in the PVC Compounding and UPVC windows business while the rest is sold in the market,” shares Prem Das.

“We have well defined processes in all our manufacturing plants. And continuous improvements are made through global benchmarking as well as TQM and TPM,” informs K.M.

Tandon, Sr. VP (Business Head – Fertilisers & Engineering), DCM Shriram. “We are strategically diversified yet operationally integrated across our various businesses. Our Kota complex is certified for ISO 9001, 14001 and OHSAS 18001 for its effective Quality, Environment, and Occupational Health and Safety Management Systems and it has also been awarded five star certificates by British Safety Council for its effective safety systems,” he adds.

According to Prem Das and Tandon, DCM Shriram has a long history of accessing and employing the best technologies for its projects and has worked successfully with renowned international and domestic technology partners. “As a learning organisation, DCM Shriram has worked regularly with the national and international consultants of repute, in diverse



“DCM Shriram, a spin-off from trifurcation of the reputed erstwhile DCM Group in 1990, is managed by Ajay S. Shriram, Chairman & Senior Managing Director and Vikram S. Shriram, Vice Chairman & Managing Director, along with a highly professional executive team.”

areas of business strategy, quality, organizational development etc.,” they share.

In terms of implementing information technology (IT), DCM Shriram has networked all its facilities (including Kota) on a Wide Area Network (WAN) and has also implemented SAP R/3 Enterprise Resource Package (ERP) across the Company in 1998. Implementation Customer Relationship Management (CRM) as well as Business Information Warehouse (BIW) is also happening.

“We understand that we operate in a business environment, which is global as well as increasingly competitive. In this light, our vision is to continue to strengthen and grow our commodity businesses as well as our customers with existing as well as new products and services,” shares Prem Das.

Manufacturing facilities at the Kota Complex

Plants / Products	Commissioned in	Unit	Capacity	Current production levels
Power	1969, 1983, 1995, 2000, 2005	MW	125	133
Fertiliser - Ammonia - Urea	1969	TPD	600 1000	700 1200
Chlor Alkali - Caustic Soda - Chlorine Liquefaction - HCl - SBP	1963	TPD	335	325
	“	TPD	180	180
	“	TPD	175	175
	2000	TPD	50	50
Plastics - Calcium Carbide - PVC Resin	1963	TPD	330	330
	1964	TPD	200	180
Cement	1987	TPD	1200	1200
Shriram Axiall - PVC Compounds	1964	TPD	90	45
Fenesta - Window and Door profiles	2004	TPA	6400	3100

# OMRON

## Transforming Packaging Industries through automation



Vision System



HMI



Machine Automation  
Controller



Servo Motor



Proximity sensor



VFD



Encoder



In Packaging Industries when reliability is asked for, from start to finish from initial requirement to on-site support or zero defects Omron ensure that it applies to everything it does. Omron focuses only on Quality, thus ensuring that it's know-how is beneficial to the end user. These are the principles that derive the expertise in transforming a mundane caterpillar like machine into a flawless butterfly.

[www.omron-ap.co.in](http://www.omron-ap.co.in)

realizing

ECOLINE – HIGHEST FUNCTIONALITY, BEST PRICE!

# **ECOLINE** – The revolutionary new *ecoMill V* series with the new DMG MORI SLIMline<sup>®</sup> multi-touch control.



NOW WITH THE NEW  
DMG MORI SLIMline<sup>®</sup>  
MULTI-TOUCH CONTROL  
Available  
from March 2016



18-month standard  
warranty for ECOLINE machines  
for components and service



**Measuring head**

Material: 39NiCrMo3  
Dimensions:  $\varnothing 80 \times 150$  mm  
Machining time: 19 min 51 sec



All details & product brochures  
available from [www.ecoline.dmgmori.com](http://www.ecoline.dmgmori.com)  
or contact DMG MORI India



1800 103 6467  
Support around the clock

# ecoMill V

MONTFORT & HANCHAU

## ecoMill V series

ecoMill 600 V  
ecoMill 800 V  
ecoMill 1100 V

## HIGHLIGHTS

- ecoMill V series for maximum precision and 12,000 rpm milling spindle as standard
- 3D control technology with the new DMG MORI SLIMline® multi-touch control\* (19" / Operate on SIEMENS / 400 V), compatible with the previous version of Operate and with a capacity expanded from 5MB to a remarkable 4GB
  - › Optionally with the DMG MORI SLIMline® Panel (15" / MAPPS IV on FANUC)
- **Maximum stiffness** – FEM-optimised cast iron bed in C-frame design and approx. 1t more weight
- **30 tool stations included as standard**, 1.3 sec. tool change time

\* Available from March 2016





## GM India celebrates first export to Mexico with Chevrolet Beat



General Motors India has recently announced that it is shipping the first 3,000 left-hand-drive Chevrolet Beats to Mexico. The vehicles left the Mumbai Port Trust of Maharashtra and are expected to arrive in Mexico within eight weeks, with sales commencing in December 2015. GM India President and MD Arvind Saxena said: “This is part of GM’s strategy to make India an export hub for global markets. We will continue to export Beats to Mexico on a monthly basis.” The Beat, badged the Spark outside India, is available in more than 70 markets worldwide and has sold over 1 million units. The Beat is produced at GM India’s state-of-the-art manufacturing facility in Talegaon, Maharashtra, which has a base capacity of 130,000 vehicles. GM India began vehicle exports from India to Chile in September 2014. “In 2015, we plan to export 20,000 vehicles, compared with just 1,000 vehicles last year,” said Saxena. “This number will further increase to approximately 50,000 vehicles in 2016, reinforcing our commitment to the Indian market and our strong local supplier base.” He added, “We expect to identify additional export markets going forward. This will help increase capacity utilization at our Talegaon plant.”

## Magneti Marelli opens new plant in India at Manesar, near Gurgaon

Magneti Marelli, through its “Magneti Marelli Powertrain India Private Ltd.” joint venture (JV between Magneti Marelli, Maruti Suzuki and Suzuki Motor Company in force since 2007), recently inaugurated a new industrial site for the production of robotized gearboxes for automobiles, also called AMT (Automated Manual Transmission). The plant is located in Manesar, near Gurgaon, just a few kilometres from New Delhi, in the same area that is home to the manufacturing facility dedicated to the production of powertrain electronic control units. The new plant covers a total surface area of 7,500 sq m, which houses the production lines and offices. When fully operational, the plant will employ approximately 115 people and will have a production capacity of 280,000 robotized gearbox kits per year. The facility was created to address the growing market success that the AMT component has had in India over the past two years.

## Lionel Messi is Tata Motors’ global brand ambassador for cars

Tata Motors has signed-up the football player star Lionel Messi in a long-term association as its global brand ambassador to promote and endorse its passenger vehicles, globally. To start with, Tata Motors will first roll-out the association campaign, #madeofgreat, starring Lionel Messi.

This is the first time ever that the Passenger Vehicle Business will be undertaking an overall brand association campaign with a brand ambassador. The campaign is based on consumer insight and rides on a strong consumer motivation of ‘Seeking Excellence’ & ‘Self Belief’ which is epitomized by the confluence of two global brands- Tata Motors and Lionel Messi.



The core idea of this campaign - Made of Great emerges from the inspiring thought of ‘What drives us from within is what makes us great’. The Company will also soon launch an exclusive, limited edition merchandising range of this association. Announcing the association, Mayank Pareek, President, Passenger Vehicle Business Unit, said, “As we look to expand our footprint across the globe, Messi’s unique ability to appeal globally, transcending geographies, makes him ideal person to represent our brand, internationally.”

## Honda Cars India records 52 percent growth in October 2015

Honda Cars India Ltd. (HCIL) registered a growth of 52 percent with monthly domestic sales of 20,166 units in October 2015 against 13,242 units in the corresponding month last year. The company registered a cumulative domestic sales of 1,17,383 units during the period April - October 2015 as against 1,01,442 units for the corresponding period last year marking a growth of 16 percent. Speaking on the company’s sales performance, Jnaneswar Sen, Sr. Vice President – Marketing & Sales, Honda Cars India Ltd. said, “The festive demand has led to a strong growth for HCIL during October where-in we recorded our highest monthly sales of this fiscal year. We are thankful to our customers for their great response and support and hope to continue this momentum.” HCIL also exported a total of 134 units during October 2015.



THE WORLD LEADER IN SAWING TECHNOLOGY



**WIKUS India Pvt. Ltd.,**

No. A/38,  
Chakan Industrial Area, PH-IV,  
Nighoje, Taluka khed, District Pune,  
Pin code - 410501

Made in Spangenberg, made in Germany.

[www.wikus-india.in](http://www.wikus-india.in)



# 'Propelling Technology, Prospering Life'

"We treat our company as 'A Temple of Technology'. We are constantly thriving to bring out innovation by means of cutting edge technology," says P.G. Jadeja, CMD, Jyoti CNC Automation Ltd.

By Niranjan Mudholkar



When it comes to serving Indian customers we can proudly say that our after warranty cost to the customers is the cheapest amongst the peers. Further to that, timely and effective after sales services give us the edge over imported machines."

**Q** While the overall market sentiments have improved in the recent times, the metal cutting industry is still struggling reap the benefits. Where are the challenges and what are you doing about the same?

One of the first and foremost challenges is the lack of business confidence amongst the manufacturer; people are still in a wait and watch mode as far as capital investment is concerned. However, we are witnessing slow but steady improvement in the mind set of potential buyers of metal cutting industry. Once the effect of the reform activities spread to the bottom level, fresh buying cycle will start. Slow down in China has also adversely affected our sentiments.

But, this phase looks temporary and we are sufficiently optimistic for a rejuvenated economy in near future.

**Q** How would you compare the major Indian machine tool players like yourself with the key international players operating in India? What advantages does Jyoti provide when it comes to serving Indian customers?

If we talk about Jyoti itself, we rank ourselves at a par with any of the international brand selling in India in terms of product offerings. However, Indian manufacturers have to thrive constantly on the quality, technology, aesthetics and,

# Solutions for Tomorrow's Engineering



## EXPERIENCE OUR SEALING RANGE FOR 'NEXT-GEN' TECHNOLOGY IN CONSTRUCTION EQUIPMENT INDUSTRY

Innovations in hydraulic sealing are perfectly matched by the Turcon M12 material from Trelleborg Sealing Solutions. It's engineered to set the standard for improved performance in hydraulic equipment, today and in the future.

Turcon M12 is Unrivaled!

- ✓ Compatible with virtually any media/hydraulic fluid.
- ✓ Minimal Abrasion.
- ✓ Low Friction and suited for Short Stroke movement.
- ✓ Zero Wear with no micro scratching.
- ✓ No Seal Extrusion or Deformation.
- ✓ High tolerance for Pressure, Friction and Wear.

Visit us at Stall no. 218, Hall 1  
**TURCON**  
 Nov 25-29, BIEC, Bangalore



### Why Trelleborg Seals?

- ✓ Industry Leading Polymer Technology
- ✓ Innovative Seal Designs
- ✓ Increased Efficiency
- ✓ Minimal Downtime
- ✓ Surprisingly Low Maintenance Cost

Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative engineered solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has annual sales of about SEK 21 billion (EUR 2.3 billion, USD 3.2 billion) in over 40 countries. The Group comprises five business areas: Trelleborg Coated Systems, Trelleborg Industrial Solutions, Trelleborg Offshore & Construction, Trelleborg Sealing Solutions and Trelleborg Wheel Systems. In addition, Trelleborg owns 50 percent of TrelleborgVibracoustic, a global leader within antivibration solutions for light and heavy vehicles, with annual sales of approximately SEK 15 billion (EUR 1.7 billion, USD 2.3 billion) in about 20 countries. The Trelleborg share has been listed on the Stock Exchange since 1964 and is listed on NASDAQ OMX Stockholm, Large Cap. [www.trelleborg.com](http://www.trelleborg.com)

Trelleborg Sealing Solutions India Pvt Ltd  
 #22/9, Beratena Agrahara  
 Hosur Main Road  
 Bangalore 560 100  
 Karnataka, India

Join us at



lastly but most importantly, reliability while comparing with foreign brands. When it comes to serving Indian clients we can proudly say that our after warranty cost is the cheapest amongst the peers. Further to that, timely and effective after sales services give us the edge over imported machines.

**Q Currently, what is production capacity utilising?**

Our production capacity is almost 3600 machines to 4000+ machines per annum depending upon the variants to be produced. Due to the bit slow down of economy the plants are still under-utilised. Rather than expanding in the near future we are working on improving efficiencies of our manufacturing capacities across the units.

**Q In the last 25 years, Jyoti has evolved as a strong manufacturer of machine tools with a robust focus on R&D. How is this helping you compete at the global level as an Indian machine tool player?**

After several attempts to reach to the international market through our subsidiaries and active participations on global front (for example, our participation at the recent EMO Milan was our seventh presence at this global event). Our brand is now well recognised and finds acceptance across the globe. Our presence is not only noticed but taken seriously by global buyers and also by international competitors. We just have started to taste the fruits of our hard efforts done for last 25 years. Products are now well appreciated by the customer segment, and slowly we are trying to change the conventional psyche of foreign buyers who trust only European or Japanese brands.

**Q How are you doing on the exports front?**

Export business has started flourishing and new territories are identified and focused to grab a good export market share. We have established our full fledged set ups in the market like US and Asian countries apart from a regular business volume from Europe. Maturity in export orientation is increasing day by day in transacting with foreign buyers. Technology, customer orientation and reliable after sales services are the key contributors for us to penetrate the global market with ease.

**Q You have built Jyoti into what you call as ‘A Temple of Technology’. What is the ‘faith’ of this temple and what do its followers get in return?**

Yes, we treat our company as ‘A Temple of Technology’. We are constantly thriving to bring out innovation by means of cutting edge technology. The dedicated team of more than 90 R&D professionals is cultivating our culture to respect technology. In fact, our Mission itself states ‘Propelling Technology, Prospering Life’.

**Q The automotive industry is slowly getting back on track in India. Do you see a glimmer of hope there?**

Automobile sales figures from the recent past are encouraging. After a delayed but good monsoon season we foresee automobile industry to grow at a rapid pace. We are optimistic about the two wheelers from rural India in particularly (due to blessings of Rain God!) and also expecting demand enhancement in four wheeler segment too. Commercial vehicle has already started showing a robust sales growth. The forecasted figures for automobile sales in this financial year may surpass the same. Once the automobile industry prospers, we will see a huge growth in Indian machine tool consumption for sure.



**Q Which are the other sunrise industries that promise good business for you in the coming years?**

We are bullish on emerging segments like Aerospace and Energy. It seems the future years would belong to the Aerospace industry in the country (including Defence as well as civil aviation). Also a good expectation for the machine tool industry is from other niche segments like Energy and Health care.

**Q Have you launched any new product recently?**

Every year our R&D team is committed to launch at least 10 new variants to strengthen our product basket. We are planning to launch some of the fantastic products bundled with innovative technology. Some of the state-of-the-art multi axis CNC machines are on the agenda for launching it globally.

**Q Any plans of expansion?**

Yes, we are evaluating the demand perspective periodically to grab the market share whenever the demand exceeds the production capacities nationally through expansions. The charted action plan for expansion is already on the paper and will get the green signal as soon as we smell some good shine of demand across the industrial spectrum. We surely believe in the theory “Survival of the fittest!” Whosoever is prepared for the growth should have an agenda for expansion to take an opportunity advantage by expansion. 



Drill Ø Range  
0.4331" - 1.3780"  
(11,00 - 35,00mm)

Stub, 3xD,  
5xD, and 7xD  
Lengths Available

## GEN3SYS® XT

High Penetration Drilling System

- ▶ Material-specific geometries offer superior performance in more applications
- ▶ Offers increased hole quality, surface finish, and true position
- ▶ Helical Margin design provides maximum durability and stability

# LONGER LIFE, LOWER COST PER HOLE



 [www.alliedmachine.com](http://www.alliedmachine.com) / 330.343.4283



**ALLIED MACHINE  
& ENGINEERING CORP**

Holemaking Solutions for Today's Manufacturing



# Aiming higher!

His organisation has set its goal to be among the top 25 machine tool manufacturers in the world, says TK Ramesh, CEO, Micromatic Machine Tools Pvt. Ltd.

By Niranjana Mudholkar

**Q Do you think things have started to get better with automotive industry getting back on track?**

Green shoots of growth are being observed, though the pace of growth is not up to the expectation. Also, as we are beginning to see automotive sales, especially the passenger car segment increasing, the capacity utilisation is also improving. Sooner or later the new investment plans will also kick in.

**Q What are the challenges and how are you dealing with them?**

The major challenges are in keeping up with the demands of the market. There is always a cost pressure when the demand is down as many players would be fighting for the smaller pie. Managing cost to the price pressures especially at lower volumes is a tough act. Working with the customer holistically across the value chain to provide value is a key challenge in tough times.

**Q Do you think the machine tools industry's approach is now changing due to the dynamic nature of the market?**

There is more uncertainty and chaos in the market as predicted. Manufacturing and machine tool industries have to learn to be responsive to this new dynamic era. The throughput time has to be cut down in order to be able to deliver to the changing needs of the user industry. Rather than stocking and selling manufacturers have to move to the mode of build to the requirement in shorter time in order to be responsive to the changing needs of the market. We at ACE Designers have implemented systems to produce our standard machine within five days and this has helped us to trim our finished goods inventory. A serious effort to show case Life time & life cycle costs and working to reduce it is beginning to happen.

**Q India stands 14th in production and 10th in the**



“Our Government is giving stress on the development of the electronic sector in India through the “Digital India” initiative; we are internally developing new products that will cater to the needs of this sector.”

**consumption of machine tools in the world as per the 2015 Gardner Business Media survey. What impact will the various govt. Initiatives like Make in India will have on these statistics? How will your organisation contribute?**

We at Ace Micromatic have set our goals to be among the top 25 machine tool manufacturers in the world and are moving towards that aim with planned initiatives. India has a large captive market for machine tools and the Make in India initiative will definitely increasing the Manufacturing activity in India. We have the required products to meet the demands of the emerging markets and are also actively creating new products looking at the new growth opportunities that the “Make in India” initiative is throwing at us.

**Q Have you launched any new product recently or are planning to do so? Tell us about it?**

New product development is a constant activity across our group companies. During the last IMTEX in

January our group brought out about 20 new products which we are promoting in the markets in India and abroad. Further, as new developments happen, we bring out products needed for the sector. For e.g. Our Government is giving stress on the development of the electronic sector in India through the “Digital India” initiative; we are internally developing new products that will cater to the needs of this sector.

**Q Any plans of expansion?**

Our group has already acquired large chunk of lands towards Dobaspet area and the future expansions will happen in the new area. Further, Ace Manufacturing Systems Ltd. is building a new hanger of around 10,000 sq m in its existing facility. Our expansion plans are in step with the demand of the markets. Investments in internal efficiency improvements and a whole set of learning initiatives are happening. 

COME PARTICIPATE IN 10TH SPECIAL EDITION OF  
INDIA'S LARGEST INTERNATIONAL DIEMOULD SHOW

## 10th DIE & MOULD INDIA INTERNATIONAL EXHIBITION

"Manufacturing Excellence Begins with Dies & Moulds"



**6th to 9th April 2016**

Bangalore International Exhibition Centre,  
Bangalore, Karnataka, India

*Overwhelming Response Hall No. 1 & 2*

**BOOK  
ONLINE**

**HALL NO. 3**  
Now Added

**New Expanded Exhibit Range**

**3D Additive Manufacturing Technology Solution,  
Precision Machining, Aerospace,  
Injection Moulding Machines  
& Related Solutions**

Organized By :

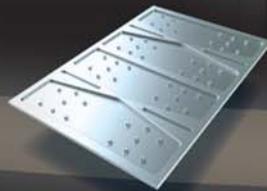
**TAGMA  
INDIA**

TOOL AND GAUGE MANUFACTURERS ASSOCIATION - INDIA

[www.diemouldindia.org](http://www.diemouldindia.org)

# MAKING TOMORROW with Mazak

Yamazaki Mazak produces advanced machine tools to meet the production requirements of manufacturers around the world



**INDIA TECHNOLOGY CENTER**

115, Pune Nagar Road, Sanaswadi, Pune. 412208.



Yamazaki Mazak produces one of the largest ranges available of machine tools, laser processing machines, FMS, CNC systems and production support software.



**YAMAZAKI MAZAK INDIA**

+ (91)-2137-668800 [marketing@mazakindia.com](mailto:marketing@mazakindia.com)

[www.mazakindia.in](http://www.mazakindia.in)

*Your Partner for Innovation*

**Mazak**



# Positive sentiments

Things will get better in coming quarters and boost the machine tool market, says **Prakash Naganath**, Regional Sales Manager - Canada, Europe, Africa, Middle East & Asia, Quickmill

By Niranjan Mudholkar

**Q Do you think things have started to get better with automotive industry getting back on track?**

Within the automotive industry, some segments like passenger cars are doing well. However, other segments like trucks, utility vehicles and farm equipment industry are still in recovery mode. Yes, things will get better in coming quarters and boost the machine tool market.

**Q What are the challenges and how are you dealing with them?**

a) Pricing especially with a stronger US Dollar coupled with import duties that adversely impact landed costs and b) higher shipping costs due to geography. Quickmill (QM) and its group company Batliboi SPM have partnered to build QM's gantry machining centers at one of our group company's manufacturing facilities in India to be able to save on shipping and lower installation costs.

**Q Do you think the machine tools industry's approach is now changing?**

Yes, MTBs have to be more flexible and sensitive to industry's changing demands that are increasingly leaning towards adaptive machining, automation in part handling, newer technologies in tooling that can handle new and tougher materials, reliability in machines that can work in a 'lights out' environment and versatility in machine features that include five axis machining.

**Q What impact will the various govt. initiatives like Make in India will have on your industry?**

Hopefully, increased appetite to set up new ventures and a higher level of engagement with overseas manufacturers having proprietary technologies, along with incentives (such as duty

concessions or tax breaks for new start-ups or capital intensive businesses that can also contribute to increased employment, labour market reforms that will continue to attract foreign players with technologies and capital to invest in India both for domestic and for export consumption) and lowering of bank interest rates on par with other developed nations (to ensure cost of borrowings is competitive) which when coupled with lower labour rates can provide a big boost to exports and attract more multinationals to invest in India.

**Q How will your organisation contribute?**

By continuing to focus on technology transfer with our group company in India to build some of our products in India for the Indian market, by investing in training and service support so our Indian customers can experience the same standards that Quickmill has been providing its customers worldwide for over three decades.



“MTBs have to be more flexible and sensitive to industry's changing demands that are increasingly leaning towards adaptive machining, automation, newer technologies, reliability in machines and versatility in machine features.”

**Q Have you launched any new product recently? Tell us about it?**

The Quickdrill III is our newly launched triple headed spindle machining center that is targeted towards shops that are primarily into drilling of large quantities of holes and need the higher throughput at lower overall cost of ownership. This model is effectively cost competitive in terms of employing lower manpower, lower floor space on the shopfloor, higher return per square foot of floor space used, lower power requirements. With several table and bridge size configurations, this model caters to customers looking for a machine to handle larger parts with the versatility to perform multiple operations without resorting to several part set ups or transferring of parts to multiple machines.

**Q Anything else?**

India is one of our priority growth markets and Quickmill is committed to investing its resources to provide a superior value both in terms of the product and an overall user experience.

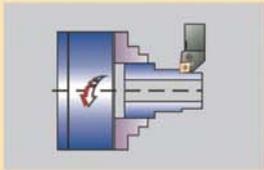
# PMT Machines Limited

• Pune • Halol

CUSTOMISED SOLUTIONS

CELEBRATING 50 YEARS

## CNC Turning



SC-8K  
GANTRY LOADER



SC-14  
BIG BORE LATHE



SC-25  
CNC HEAVY DUTY LATHE

## CNC Internal Grinding

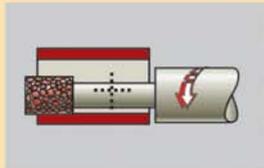


FIG-200 SPL CNC  
BIG BORE GRINDER

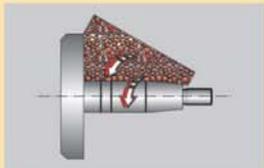


FIGT-300 CNC  
FOUR STATION TURRET



FIGE-150 CNC  
ID / OD GRINDER

## CNC Cylindrical Grinding



AWH-1500 CNC  
LONG SHAFT GRINDER

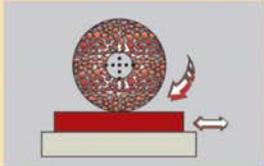


AWH-2000 CNC  
HEAVY DUTY GRINDER



SWH-400 CNC  
AUTO LOADING

## Surface Grinding



SG-106 CNC  
CREEP FEED GRINDER



SGR-60  
ROTARY GRINDER



SG-63  
HYDRAULIC / PLC

## Automats



A15/25

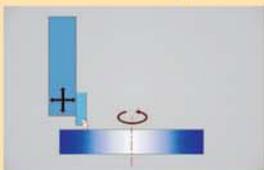


TD36  
AUTOLOADING



A42/60

## Vertical Turning Lathe



VIG-500 CNC  
VERTICAL INTERNAL GRINDING



VC - 60C  
1.5 M



VC - 75C  
TURNMILL (2.5 M)

**Built To Last**

Pune : Tel : +91-20-27426219 to 23 • Fax : +91-20-27426231/35 • E-mail : rd@pmtmachines.com, marketing@pmtmachines.com

Halol : Tel : +91-2676-246786/87 • Fax : +91-2676-246788 • E-mail : cb@pmtmachines.com, mkt.brd@pmtmachines.com • website: www.pmtmachines.com

Pune : 9960693354; Mumbai : 9821713400; Delhi : 9810401815; Bangalore : 9845026905; Chennai : 9840896822; Coimbatore : 9840366822; Jamshedpur : 9934119234; Vadodara : 9662503927



# Forward-looking

'We will continue to aggressively grow our footprint in both domestic and export markets across diverse industry sectors as well as applications', says **Ravi Raghavan**, CEO & MD, Bharat Fritz Werner.

By **Niranjan Mudholkar**

## **Q** Do you think things have started to get better with automotive industry getting back on track?

The automotive industry is getting back on track and this definitely seems to be a positive situation. This is on account of seasonal impact and due to launch of few new models. From manufacturing capacity perspective – there is enough capacity with the OEMs and therefore it needs to be seen how this would get translated into substantial machine tool orders and spur the growth of the industry.

On the commercial vehicle segment, there has been a good growth. There are several factors that would conducive to the growth of the industry, chief among them being supportive govt and trade regulations, festival sales, and investments on state transportation network and its infrastructure. Overall, we need to watch for some more time for it to convert in investments. BFW is adopting a measured approach in view of the industry developments as well as the developments in the external environment.

## **Q** What are the challenges and how are you dealing with them?

With the overall global economic situation and especially the current situation in China – we expect that competition from imported machines will be higher in the Indian market. Competing with them on technology features and gaining confidence of clients against these brands will be a challenge.

For more innovative and flexible machine tools capable of handling production of increasingly complex parts – balancing speed with precision, compactness with flexibility at the same time conforming to domestic and international statutory requirements is also a challenge. We have brought in high performance product platforms in HMC and VMC families and we are continuously engaged in bringing newer products to meet above needs of clients and to make their manufacturing more competitive.

## **Q** Do you think the machine tools



**“**We have brought in high performance product platforms in HMC and VMC families and we are continuously engaged in bringing newer products to meet above needs of clients and to make their manufacturing more competitive.”

## **industry's approach is now changing due to the dynamic nature of the market?**

Yes, the changing nature of the markets, has led Indian MTMS to look beyond traditional customer industries like automotive, auto ancillaries, railways, defence and consumer durables. There is definitely a need for MTMs to constantly explore newer markets like medical devices industry, aerospace industry or newer applications like machining of composites or to get into the 'Solutions Space'. BFW is wholly committed to deliver superior technology-enabled products to market.

## **Q** India stands 14th in production and 10th in the consumption of machine tools in the world as per the 2015 Gardner Business Media survey. What impact will the various govt. Initiatives like Make in India will have on these statistics? How will your organisation contribute?

On the topic of 'Make in India', BFW completely supports the Govt. of India on making India the manufacturing hub of the world. We are bringing to India high

technology 5 axis product line of our German subsidiary – Matec.

**Q Have you launched any new product recently or are planning to do so? Tell us about it?**

Yes, we have recently launched. This includes a range of new products under the ORION series of Next-Gen HMCs and Accutron Series of Twin Spindle VMCs. We are presently committed to continue launching a host of new products that will change the perceptions of Indian and international customers with regards to Indian-built machine tools.

Our Accutron range of VMCs will perfectly balance high speed machining with precision performances, resulting in high levels of productivity for our customers. Our Next-Gen Orion – series HMCs, which is a product of Indo-German engineering excellence, offers cutting edge performance in machining like never before. Both products are perfectly poised to offer path-breaking performance and will set benchmarks in machining for domestic OEMs, Tier 1 and Tier 2 customers, as well as cater to the challenging of international markets. With these products and more to come, BFW is optimistic of being counted among the top 20 MTMs globally.

We have made significant investment – including an acquisition – to add the turning product line to our milling portfolio. With this acquisition – we are now equipped to offer end-to-end turning range – starting from catalogue prod-



ucts, solution turning, high end turning and vertical turning. Market response to our turning portfolio is very encouraging.

**Q Any plans of expansion?**

BFW is a forward-looking organisation upbeat about medium and long term growth prospects and we will continue to aggressively grow our footprint in both domestic and export markets across diverse industry sectors as well as applications in our chosen domain by expanding product lines and geographies. 

VDI



BMT



Machine Tool Accessories

**ALGRA** S.p.A., for over forty years of activity has acquired leading position in precision machining. working in partnership with the most important companies, global leaders in the fields of machine tools. The constant technological upgrading and continuous improvement of the business system enable to ensure flexibility, quality and reliability to its own customers.

**Available For :** Sauter - Diplomatic - Baruffaldi - DMG - DMG Ecoline - Goodway - Moriseiki - Mazak - Okuma - Emag - Index - Nakamura Tome - Jyoti - Feeler - Biglia - Hass - Hurco - Baruffaldi - CMZ - Miyano - Nakamura - Doosan - Hardinge - Samsung - Hwacheon - Hyundai WIA - Victor

Exclusive Distributor in India :



25, Payal Park, Opp. Sundervan,  
Satellite Road, Ahmedabad - 380015,  
INDIA  
Tel.: +91 - 79 - 2676 0747  
E-mail : dwijcon@gmail.com,  
info@dwijcon.com  
Contact Person:  
Sarthak Baxi - +91 - 98259 60061



ALGRA S.p.A. - divisione accessori  
Via Manzoni 41 - 24031 Almenno S.  
Salvatore (BG)  
Tel. ++39 035.64.20.51  
Fax ++39 035.64.01.28  
algra.accessori@algra.it  
www.algra.it

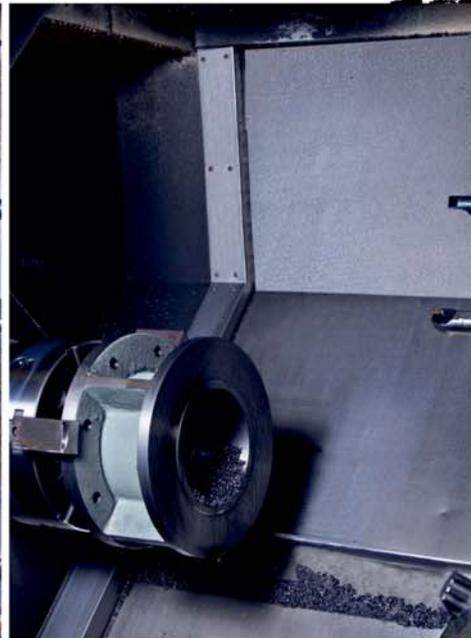
## Dirty machines can affect your shop floor productivity and your morale

Machining of Cast Iron, is a tricky and demanding process. Inherent composition and properties of the metal pose stiff challenge to even the experienced machinist. The fine graphite residues generated during the machining process tend to stick on to the machine parts rendering it with an unenviable look.

If unattended, these impurities tend to form a thin oxidized film on surface of the machine parts. Chances of rust formation also cannot be ruled out. These can not only lead to choking of pipelines and nozzles but also significant reduction of machine lifetime. Dirt on the machines is not only a blot to your reputation but can also impede efficiencies. While chances of tool breakage and poor finish increase, the biggest impact is on the morale of the operator!



Scale formation with ordinary cutting fluid

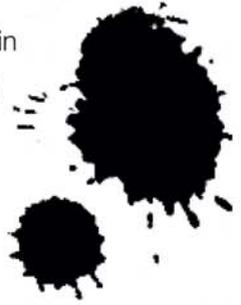


Machine after switching over to Avantin

Cutting oils • Deep drilling oils • Cleaning fluids • Wire drawing fluids  
• Forging oils • Tube drawing fluids

Don't be surprised if the operator starts complaining about skin irritation and foul smell. With tempers running high and production targets to be met, this certainly is an undesirable situation.

What you need is a dependable metal cutting fluid. Like Avantin from BECHEM. An unbeatable range of synthetic and semi synthetic based cutting fluids for regular to even the severest of the machining processes.



## Dirt on the machine or a blemish on your image?

BECHEM's Avantin range of metal cutting fluids are developed with special formulations with superior flushing and detergent properties that ensure less stickiness thereby a stain free and sparkling machine.

Apart from low consumption and increased sump life, the Avantin range also provides excellent corrosion protection to machines and components.



Get in touch with BECHEM's well-trained Service Engineers who work systematically to ensure that you stay focused on surpassing production targets than being bothered about coolant issues.

Choose a cutting fluid that takes care of your reputation, switch to Avantin.



**CARL BECHEM LUBRICANTS (INDIA) PVT LTD**

28D, Bidadi Industrial Area, Bidadi - Harohalli Road, Bangalore 562109

Ph: +91 80 669 00 800/01/02. Fax: +91 80 669 00 803

[www.bechemindia.com](http://www.bechemindia.com)

Mail to [info@bechemindia.com](mailto:info@bechemindia.com)



**BECHEM**  
LUBRICATION  
TECHNOLOGY



# Starting a 'Nayi Parampara'

Guillaume Sicard, President, Nissan India Operations, wants to start a new tradition in the Indian automotive industry with the best of technology and with cars that bring a shine to the eyes.

By Niranjan Mudholkar

While he has been around for sometime in India, Guillaume Sicard, President, Nissan India Operations has just completed one year at the current position. And he already finds the journey quite fascinating because the market is transforming extremely rapidly. He recognises that the India 'is a very demanding market with a very high level expectation'. And he knows why: "When you look at the more mature markets like Europe and Japan, we know what to expect. The median age in those markets is around the 40s - so there is far more stability. But in India, the median age is about 27 and that is why we have such pace."

Sicard finds 'everything very young here', and it's also about the time international players have been around. "When you look at global OEMs, except for a few of them like GM and Toyota, most of them have come here quite recently - relatively speaking." In fact, even Nissan is just about five years old in India. "So it's very challenging to work in a young company where you have to develop the mindset and the culture, you have to establish the process

"It's very challenging to work in a young company where you have to develop the mindset and the culture, you have to establish the process and you have to stabilise the organisation. It is all the more challenging because the market itself is quite demanding."







and you have to stabilise the organisation. It is all the more challenging because the market itself is quite demanding," he says.

The Chennai manufacturing plant where the Nissan cars are made in India is the number three plant in terms of size in the alliance (Renault-Nissan) and it is also one of the youngest plants. "We also have a R&D company in Chennai which is also very young but we already have 5,000 people working there. And the sales & marketing side is in fact the youngest because we took over from Hover about one and half years ago. That's where we stand right now."

Sicard has worked in different markets around the globe. How different does he find the Indian market? "Well, I have worked in many markets in Europe like UK, Netherlands, Spain and France. Those markets are very mature markets. The pace of change is very slow. The expectations are predictable; you know more or less what people want. You just need to maintain certain momentum to survive in those markets; there is no glitz and glamour. Things move at a steady place." In fact, Sicard observes that even the Japanese and the US markets are quite similar.

But things are different in the emerging markets. "If you look at markets like South Africa or Turkey – which I know quite well – and Brazil or Russia, the pace is completely different. The mindset in these markets is totally different. In the mature markets, people believe that the future is likely to be

more difficult than today. If you ask a European about tomorrow, he's likely to say that he's not too sure what's going to happen. But what's different in Turkey, in South Africa and in India is that everybody is quite excited about tomorrow. You guys are sure that tomorrow is going to be better. Something better is going to happen to my country, to my family and to myself. That approach gives you a pace; it gives an attitude to the country."

Sicard believes that the same applies for the car industry. "Let's say that today you are going to buy a Sunny but tomorrow you will be hoping to buy a future Teana. 'Or today I am driving the Terrano but I am pretty much sure that one day Nissan will launch the X-Trail and I am going to get it. I know I am not going to stop here because I am only 30 years old and in the next five years I am going to be more successful and I am going to get a bigger and better car'." According to Sicard, this attitude defines the car market in India. For a car company, it means that it is always going to be challenged. "You need to offer new products and new technology very often. You cannot be at a slow pace because the country is at a high pace and it is expecting something new very often. So I think that's the big difference between the mature markets and emerging markets like India."

Sicard finds it much more interesting to work in a high pace country than a low pace country. "That's because, you need to challenge yourself, you need to develop the network,



"I think five percent market share by 2020 is something that we should be able to achieve if we keep on developing the brand properly, offering the right products, developing our offers and maintaining the improvement in customer satisfaction that we are doing currently."

# S141

The Universal  
for short to long workpieces.



If you do not want to miss out on the latest technology in internal grinding, then take a moment – for the S141. Whether flange parts or spindles up to 1300 mm in length, the S141 can master any challenge. The incomparable STUDER precision is based on the Granitan® machine bed and the guideway system StuderGuide®. During the development of the machine the highest attention was given to the ergonomics, be it in connection with grinding, the machine set-up or with the maintenance of the machine.

[www.studer.com](http://www.studer.com) – «The Art of Grinding.»



 **STUDER**  
KÖRBER SOLUTIONS



India being a very price sensitive market, reducing cost at the manufacturing level is a key to produce competitive vehicles.

you need to develop the training centers and you need to have a strong retention program so that the good elements are staying at your company,” he explains.

Nissan India’s ambition of grabbing 10 per cent market share in India by 2017 hasn’t really been on track. Sicard acknowledges that. “I think ‘the ten percent story’ is something I learnt when I arrived here. For me, it is like a dream; it is a vision. And it is true that ten percent is a market share that every global OEM is aiming at.” Then he reminds us that Nissan (globally speaking), is in the midst of the ‘Power 88’ program right now. This program aims to achieve a global market share of eight percent and increase its corporate operating profit to a sustainable eight percent by 2017.

“Eight percent market share is possible in markets like the US where we have been operating for more than 50 years old, or the UK where are more than 40 years old. In India, we are just five years old. So ten percent by 2017 is extremely ambitious,” he admits and adds that it still is a dream and a vision. “If you talk about reality, I think five percent market share by 2020 is something that we should be able to achieve if we keep on developing the brand properly, offering the right products, developing our offers and maintaining the improve-

“The international content needs to decrease gradually as it is more expensive due to the taxes. Currently, our local content is about 68 percent to 70 percent. It is quite good but we still need to improve it further.”

ment in customer satisfaction that we are doing currently. I think it is possible.”

Sicard points out that the Company has two faces in India; the Nissan one and the Datsun one. The iconic Nissan is a car that is priced around ten lakh. It is quite expensive with a very high level of technology content, best in class safety and quality content, and with a design that will keep on evolving. “Then we have the Datsun side with cars below five lakh globally with the aim of delivering best value for certain budgets. For example, the Datsun Go+ at Rs4.5 lakh has five + two seats, 1.2 l engine, two years unlimited warrant, quite roomy cabin space and enough features to please the customer in that segment. Although it is a bit complex to manage two different brands, we still have an advantage over our competitors,” he shares.

Sicard is quite happy for many things with regards to the response to Datsun in India. “Very pleased to hear what customers are saying about our products. Also, there has been a huge improvement on the after sales aspect as well. The challenging part is to establish a completely new brand in India. While the brand has been known in some other markets, it was not known in India before,” he states.

India being a very price sensitive market,



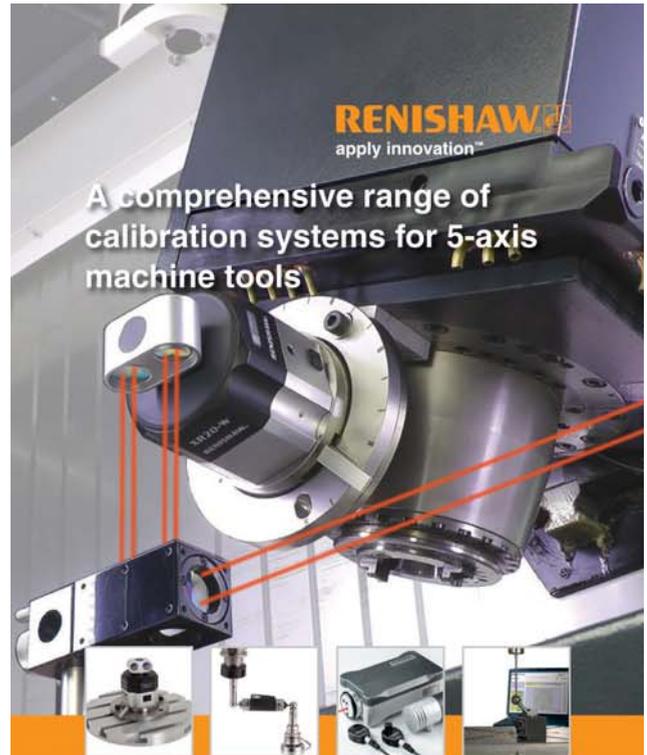
reducing cost at the manufacturing level is a key to produce competitive vehicles. So what is Nissan doing on the manufacturing front to take care of this issue? “You are absolutely right. Well, it (price sensitivity) is a very good thing for the consumers but it is making our job as global OEMs extremely difficult,” he says. Then he points out that if you look at the profitability of the global OEMs in India, excluding the two major ones, all of them are having a hard time in terms of profitability. “We are fortunate because we have selected a good strategy, which was to have exports at the beginning. It is helping us not to be in a bad shape in terms of P&L. So I would say that we are in an acceptable situation today.”

But, globally, profitability is still difficult because transaction price is extremely low in India. “It is extremely low because you have the main manufacturer (*alluding to Maruti Suzuki*) who has been here for decades. That has amortised its main investments. So all the new guys who are coming in need to adapt. Either they cannot adapt at the right price so they are having hard time to sell or they can adapt but they are making losses.” And that is making this market extremely challenging, he says.

While Nissan is doing okay due to exports Sicard agrees that it needs to make cars more competitive. “It means we have to work better on our costs.” Sicard knows that the manufacturing cost or rather the assembly cost is not really a big cost. The bigger cost is coming from the components that are being sourced from suppliers. “So we need to ensure that the parts that we are buying from India are as cost competitive as possible. So it’s negotiation and it is also a bit of a *juggad* as it requires us to source the right parts to what we have adapted here. The international content needs to decrease gradually as it is more expensive due to the taxes. Currently, our local content is about 68 percent to 70 percent. It is quite good but we still need to improve it further. Then of course, the more you will produce the quicker your depreciation is going to cost you less. So we are very much focussed on keeping our prices as competitive as possible. There is a huge team working



The capacity utilisation at the plant is about 60 percent to 65 percent.



## A comprehensive range of calibration systems for 5-axis machine tools

Renishaw's laser interferometer and ballbar measurement systems assess, monitor and improve the static and dynamic performance of machine tools

### XR20-W rotary axis calibrator

- Measurement accuracy of  $\pm 1$  arc second
- Wireless communication
- Compact dimensions
- On or off axis rotary measurement
- Indexing accuracy measurement in any orientation

### QC20-W ballbar system

- Results to ISO, ASME, VDI, JIS and GB standards
- Wireless communication
- Analysis of dynamic errors in machine tool linear axes

### XL-80 laser system

- $\pm 0.5$  ppm linear measurement accuracy
- Measurement of positioning and geometric accuracy of machine axes
- Completely new XCal-View analysis software

### Axiset™ Check-Up

- Health check of rotary axis pivot points and reporting of errors on A, B, C axes of machine tools

For more information, please visit  
[www.renishaw.com/calibration](http://www.renishaw.com/calibration)

Renishaw India G.K Arcade, 3rd Floor, #125/1-18, T. Mariappa Road, Jayanagar 1st Block, Bangalore 560 011  
 T +91 80 6623 6000 F +91 80 6623 6060 E india@renishaw.com

[www.renishaw.com](http://www.renishaw.com)





## The Chennai plant

With reference to 'Make in India', Sicard says: "But to me it is not just 'Make in India' which is important but it is also 'Engineered in India' that is important. We don't want India to be only assembling cars; we want India to be an intelligent manufacturing & R&D hub. Our strategy is not just to make in India but also to engineer and develop in India."

at the plant right now focusing on making the necessary improvements." Nissan's manufacturing is at the average industry capacity utilisation in India, which is about 60 percent to 65 percent. "It means that we can sell more cars in the domestic market. Our domestic to exports ratio at present is 50:50," Sicard shares.

Sicard is in favour of 'Make in India' both for the domestic as well as the exports market. "We started making in India in 2010 when we opened our plant. But to me it is not just 'Make in India' which is important but it is also 'Engineered in India' that is important. We don't want India to be only assembling; we want India to be an intelligent manufacturing & R&D hub. We have 5,000 engineers working at our R&D center in Chennai making sure that we engineer, we develop, we create and we innovate in India both for Indian as well as for the world. So our strategy and philosophy is not just to make in India but also to engineer and develop in India," he

states. For example, Nissan is working on the CMFA platform with its alliance partner Renault - which has launched the Kwid in India recently. We will also be launching a car for the masses on the same platform under the Datsun brand in 2016. And there is a lot of Indian content in these cars and I would say there is a lot of internationalisation as well since it is a combination of Japanese, French and Indian engineering."

Sicard has been living in India for quite some time now. How has been his experience at the personal level being a European working for a Japanese company in India? "To start with, Nissan doesn't really care for your passport. It doesn't care where you come from. It looks at your capabilities and it looks at your flexibility as well as mobility.

"With regards to my experience of working in India? It has been great. What counts for me is that my family is happy and likes it. My wife and two kids enjoy being here. They love the people and they love hanging around. People are quite welcoming and we appreciate that."

His vision for the company? Sicard wants Nissan to be seen as an international company that is bringing in India the best of technology, which brings a sparkle and makes the eyes shine. "And I want Datsun to be a real breakthrough. The small car segment is 25 percent of the TIV (total industry volume). Maruti is doing 75 percent and Hyundai is doing 22 percent. We are doing three so far. There's nobody else apart from these three with now Renault also entering the fray. I am thinking that the cake can either grow or the share of the big guys can become smaller! But there is surely more room. I would like to see Datsun emerging as the *'Nayi Parampara'* (new tradition) in this market," he says, signing off on a positive note. 



The local content used at the plant at present is about 68 percent to 70 percent.



# Make it possible



International Forming Technology Exhibition



International Exhibition of Dies & Moulds, Forming Tools,  
Machine Accessories, Metrology and CAD / CAM

**21 - 26 January 2016, Bangalore**

Venue



Organiser



Indian Machine Tool Manufacturers' Association  
T: +91-80-66246600. F: +91-80-66246661. E: info@imtex.in



[www.imtex.in](http://www.imtex.in)



### World's first for long travels: 40 percent lighter cables for e-chains

Reduce weight and driving force with igus single core motor cables made of copper-coated aluminium

The new chainflex motor cables CF430.D and CF440 (unshielded and shielded) from igus save significant system weight for long travel applications using energy chains. In this way, the use of smaller e-chains can reduce cost and enhance both the energy efficiency and the service life of energy chain systems. As for all chainflex cables, igus offers a unique 36-month warranty for its durability.

Whether in plant construction, mechanical engineering, cranes, ships or conveyor technology, the travel distances in dynamic applications are becoming

increasingly longer whilst speeds and number of movements are rising. This leads to ever increasing stress on cables that are constantly in motion.

The motion plastics specialist igus has developed extremely lightweight single core motor cables for energy chains for long travels, the chainflex types CF430.D and CF440. By the use of a special stranded conductor, the cables are up to 40 percent lighter than standard copper cables. Depending on the cable length and cross-section, the savings potential of the new motor cables can be up to several tonnes, offering a considerable saving on required drive force.

#### Material combination gives numerous advantages

“This weight reduction is possible by the use of a stranded conductor made of the special material CCA,” explains Rainer Rössel, head of the chainflex cables division at igus. “Here, the cable core is made of lightweight aluminium coated with copper, known as copper-clad aluminium or CCA.” The combination of these two metals has a number of advantages. Compared to solid copper cables, the CCA cable benefits from the lower density and thus the lower weight of aluminium.

When compared to a pure aluminium conductor this one offers the big advantage that the cross-contacting is ensured by the copper coating. Furthermore, the copper layer also con-



Depending on the cable length and cross-section, the savings potential of the new motor cables can be up to several tonnes, offering a considerable saving on required drive force.

tributes enormously to the durability of the entire conductor with a stranding structure optimised for the constant bending in the energy chain.

#### Developed for use in e-chains

igus has created a special stranding method for its CCA lightweights, and the insulation jacket material has been further enhanced for use in energy chains. igus has already demonstrated the long service life in operation in their own test lab.

The chainflex CF430.D and CF440 types have already completed more than 17 million strokes without failure in continuous movement. And the marathon test continues to run. The outer jacket is made of a high-quality mix of thermoplastic elastomers (TPE) makes them extremely resistant to abrasion and bending, making them ideal for extremely high loads

even at low temperatures and for outdoor use. These cables, designed for very long travel lengths outdoors, can be ordered as shielded or unshielded options. The cables are also resistant to UV and ozone.

For more details, contact: Sreejith Menon, Product Manager, Chainflex®, igus (India) Private Limited, Phone: +91-80-45127852; Cell: +91-9342828642; Email: sreejith@igus.in; Website: www.igus.in



# GEN. NEXT PRODUCTS FOR MACHINING

## From the Grinding Fluid Specialist



*We Value your Fluid...  
Every Drop is  
Worth it...*



**WATER SOLUBLE -  
Aluminium Machining**

### **CUMICUT 1013**

- \* Specially Designed for Aluminium Machining
- \* Excellent lubricity - No Built up edge
- \* Ideal for large central systems
- \* Superior additive package for long life

**WATER SOLUBLE -  
General Machining**

### **CUMI MACRO E513**

- \* Nitrite Free
- \* Stain free parts
- \* Suitable for Steel and Aluminium
- \* No foam / odour

**WATER SOLUBLE  
NEAT OILS**

\*  
\*

**RUST PREVENTIVES  
CLEANERS**

\*  
\*

**FORMING FLUIDS  
EQUIPMENTS**

## **CARBORUNDUM UNIVERSAL LIMITED**

3rd Floor Parry House , 43 Moore Street , Chennai 600001.

Phone : +91 44 3000 6161 / Fax: +91 44 3000 6191.

website : [www.cumiabrasives.com](http://www.cumiabrasives.com)

For more info / demo please write to : [sales\\_abrasives@cumi.murugappa.com](mailto:sales_abrasives@cumi.murugappa.com)



**murugappa**



### The Cutting Edge

The KOMET GROUP has started a wide-ranging product offensive with the presentation of more than 1000 new products at the EMO Milano 2015

The KOMET GROUP's trade fair slogan was 'THE CUTTING EDGE – Solutions for top-quality performance' and it showcased more than 1000 new products for efficient machining at the EMO Milano 2015. "Achieving a competitive advantage by using cutting-edge technology is the promise we are making to our customers," is how Dr. Christof Bönsch, MD, KOMET GROUP, describes the meaning behind this year's trade fair slogan. "Customer focus and process optimisation are our primary concerns," Dr. Bönsch goes on to explain, "because increasing performance, productivity and efficiency for our customers is – for us – the principle driving force behind the development of new products."

**Complete product portfolio:**

In addition to the familiar tool portfolio for high-precision drilling, reaming and threading, the KOMET GROUP in particular, presented at the EMO 2015 an extensive new range of high-performance milling cutters, thereby emphasising once again its leading position in the area of technology and innovation. In addition to the already successful KOMET® Quatron hi.feed, KOMET® hi.aeQ and KOMET® hi.apQ range of milling cutters, six further indexable insert milling cutter systems are now also included in their ex-stock range. KOMET has

also extended its leading position in bore machining as a result of a consistent further development of its product range.

**Technology precursor in Industry 4.0:** With the ToolScope system, the subsidiary KOMET® BRINKHAUS provides an efficient, high-end technology in the area of machine and process monitoring. With the new firmware version 10 and its user-friendly applications, the assistance system for machining production now marks a milestone in Industry 4.0.

**Investment in innovation:** Management at KOMET is extremely pleased with the business transactions and growth in turnover achieved in the current year. Dynamic growth is particularly evident at the European subsidiaries. "Growth in the first half of the year was above 10 percent," says Matthias Heinz, MD, KOMET GROUP, "and we expect to see a continuation of this extremely positive trend for the second half of the year." The focus of investments, which are being maintained at a continuously high level, is centred on the area of innovation. "We invest around 8% of turnover in develop-

ment," Heinz goes on to explain. In the current business year, our main interest has been primarily the expansion of our own carbide production.

**A comprehensive Industry 4.0 solution for machining:** KOMET® BRINKHAUS ToolScope monitors and documents signals internal to the machine during the process, such as the torque of a spindle or the feed force of an axis. Furthermore, it also records results, such as tool changes or machine downtimes. In conjunction with knowledge of what are referred to as process identifiers, such as range, tool, batch number, etc., which are read from the control system, the software is able to provide process-related or tool-related documentation il-



B01\_KOMET BRINKHAUS\_Assistance system\_TS-Apps-Compositing.

lustrating the average and maximum tool life in the form of candlestick charts, for example. Potential savings on tool costs can be determined from this in conjunction with a table about reasons for tool changes.

In order to offer independent added value to customers, KOMET® BRINKHAUS has developed applications, known as apps, which are easy to license and activate, can be called up on the user interface and provide various services: They have the function of an automatic shift record (TS-BDE app) or a log of tool changes (TS-WLog app), take over adaptive feed-rate regulation (TS-AFC app), provide an independent cloud database function (TS-Cloud app), are used to identify collisions (TS-CD app) and monitor processes (TS-PM app), and much more.

For more information, contact: KOMET Precision Tools India Pvt Ltd., Tel. +9180 6772 8000; Fax +9180 6772 8100; Email: info.in@kometgroup.com; Website: www.kometgroup.com

# SHARPEN YOUR CUTTING EDGE TECHNOLOGY WITH TOTAL METALWORKING FLUIDS.

- ◉ Macro Emulsions
- ◉ Micro Emulsions
- ◉ Synthetic Fluids
- ◉ Neat Cutting Oils
- ◉ EDM Fluid
- ◉ Rolling Oils
- ◉ Prelubes
- ◉ Quenching Oils
- ◉ Way Lubricants
- ◉ Stamping and Drawing Oils
- ◉ Rust Preventives



## TOTAL OIL INDIA PVT. LTD.

3<sup>rd</sup> Floor, The Leela Galleria, Andheri-Kurla Road, Andheri (E),  
Mumbai-400 059, INDIA. Tel.: +91-22-6723 2500,  
Fax: +91-22-6723 2600, Website: [www.total.co.in](http://www.total.co.in)





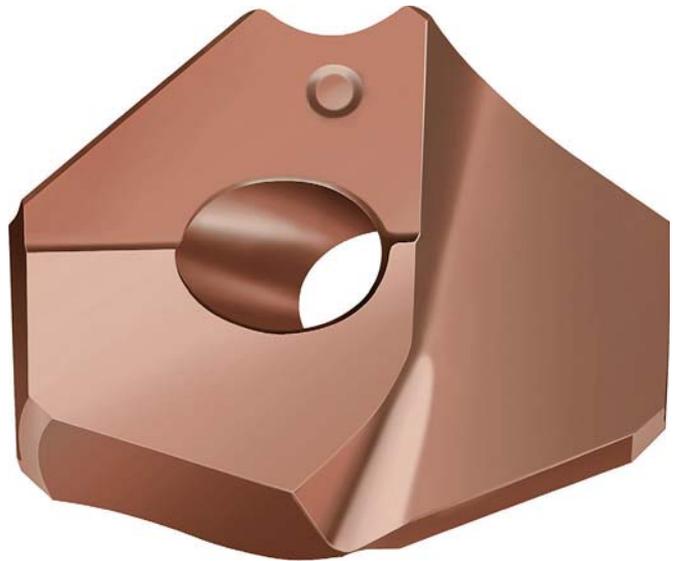
### Top performance you can see from the colour

Xtra•tec® B401x point drills are high-performance tools for drilling applications. They are equipped with Color Select P600x indexable inserts, which are suitable for use with a variety of materials. The unique range of colours used for their coatings was developed by Walter experts and are based on the colours used to designate ISO material groups. They immediately show users which cutting material grade for which application they have in their hands. The colour also acts as a wear indicator.

The red Color Select grade WKK45C will soon be available for cast iron workpieces. The substrate, its coating and geometry have been developed to suit the typical properties of cast iron: Brittle, irregular structure, inclusions and crusty surfaces. These properties place a great deal of strain on the cutting edges, which means that temperatures also increase very quickly while machining. The new WKK45C cutting tool material has a multilayer PVD coating which counteracts this: It consists of a com-

The structure of the coating is thicker than that of standard single-layer coatings, which gives it exceptional heat shielding characteristics.

combination of highly wear-resistant layers and supporting layers that give the material its toughness. The relationship between hardness and toughness is therefore optimal for working on ISO K materials; cracks are prevented from forming and



The new Color Select P600S-WKK45C indexable insert for Xtra•tec® point drilling and boring tools has been optimised for use with cast iron workpieces. Walter manufactures this insert with a diameter of 12 to 29,77 mm. The colour of its coating indicates which ISO material group it should be used with.

Image: Walter AG

spreading. The structure of the coating is thicker than that of standard single-layer coatings, which gives it exceptional heat shielding characteristics. The result is a considerably higher level of productivity and process reliability when drilling in ISO K materials.

### New solid carbide milling cutters increase output by up to 50 per cent

The milling cutters from Walter's new Advance product line increase tool life by up to 50 percent. With this product line, the metal cutting specialist is setting a new benchmark in terms of cost effectiveness and profitability. This is very true of the MC251 Advance solid carbide milling cutters from Walter's Prototyp brand, which have the ideal geometry for machining stainless materials from material group ISO M and for secondary applications in ISO S materials. The new MC251 tool family is designed to operate most efficiently on machines having only an external coolant supply.

The MC251 product family comprises a tough carbide substrate (WK40RC), which has been specifically designed to

The MC251 product family comprises a tough carbide substrate (WK40RC), which has been specifically designed to provide a high level of machining reliability.



Ideal for machining stainless steels: The new Walter solid carbide milling cutter family MC251 Advance.

Image: Walter AG

provide a high level of machining reliability. And because the coating is made from a combination of titanium aluminium nitrate (TiAlN) and aluminium titanium (AlTi), not only is the tool's service life extended significantly, but it also exhibits particularly good anti adhesion properties, which means that the formation of build-up on the cutting edge is not significant.

For more information, contact: [www.walter-tools.com](http://www.walter-tools.com)

Rajamane®



*Delivering Solutions*

INDIA'S LARGEST  
**COOLANT PUMP**  
MANUFACTURER

NOW  
WITH  
**IE2**  
MOTORS



RTH Pump



Coolant Pump



Screw Pump



Electric Motor



*Product Of Proven Performance*

Rajamane Industries Pvt Ltd. Whitefield Road, Mahadevapura Post, Bangalore-560 048.

Ph: +91-80-43659000, Fax: +91-80-28524320 Email: coolantpump@rajamane.com Web: www.rajamane.com

**SUPPORT IN SALES & SERVICE THROUGH DEALERS ACROSS INDIA**



## WALTER presents the next generation of the worldwide proven grinding machine Helitronic Vision

The new Helitronic Vision 400 L high-performance tool grinding machine is designed for machining rotationally symmetrical precision tools such as cutters, hob cutters, drills, step drills, profile tools, woodworking tools made of HM, HSS, ceramic, cermet and CBN.

This machine is based on the globally tried-and-proven Helitronic Vision high-precision tool grinding machine with linear drives in the linear axes and torque motors in the rotation axes.

With an identical work area size compared to the Helitronic Vision, the new generation Helitronic Vision 400 L produces tools with a circumferential machining length of up to 420 mm compared to former 370 mm as well as diameters from 3 to 315 mm.

The polymer or mineral casting machine base and the portal design for extreme rigidity translate the high dynamics of the digital drives into virtually vibration-free grinding



WALTER Helitronic Vision 400 L

precision.

For the first time, there is also an inexpensive belt drive spindle for automated changing of grinding wheel sets available, that improves in addition to the double spindle variant and the motor spindle variant the possibilities for different configurations of the machine to fit customer's needs.

The wheel changer is capable of changing grinding wheels up to 254 mm in diameter and up to 24 grinding wheel sets. The tool changer is a 6-axis CNC robot from Fanuc.

With the latest generation of the FANUC control system, WALTER offers users maximum availability and reliability. This is supplemented by the ease of use of WALTER's globally tried-and-tested HELITRONIC TOOL STUDIO grinding software, including 3D simulation and therefore guarantees highly efficient and user-friendly machine operation.

For more information: [www.walter-machines.com](http://www.walter-machines.com)

## 'All-in-one' laser precision machining of diamond tools

EWAG presents a new laser processing machine, the LASER LINE PRECISION - the perfect machine for the modern tool manufacturer wanting to get started in laser technology. The latest short-pulse fibre-laser technology used in the green-wavelength range (532 nm) offers highly efficient machining results for the commercially available diamond cutting materials such as CBN, PKD and CVC-D. Rotationally symmetrical tools of up to 200 mm diameter and up to 250 mm length as well as indexable inserts from 3 mm inscribed diameter and up to 50 mm circumscribed diameter can be machined without force with the LASER LINE PRECISION.

The unique and patented Laser Touch Machining® machining process offers excellent surface quality, even on tools with complex or delicate geometries. Any cutting contours, clearances and 3D machining of chip breaker geometries can be performed in one clamping operation. The resulting flue gas and the vaporised material are suctioned away and carried to a corresponding suction/filter system.

With a footprint of only 5 sq m, and in comparison with the globally tried-and-tested LASER LINE ULTRA, the LASER LINE PRECISION is the most compact high-end laser production centre for super hard tools. An optional 6-axis



LASER LINE PRECISION

robot offers the highest flexibility during minimally manned multi-shift operation.

For more information: [www.ewag.com](http://www.ewag.com)

**Register your participation NOW !**



# National Productivity Summit 2015

*"Spearheading productivity in metal working"*

**20 - 21 November 2015**

**Hotel Crowne Plaza, Gurgaon**



To champion the cause of productivity in the metal working industry, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing the National Productivity Summit (9th in the series) on 20 – 21 November 2015 at Gurgaon. The event showcases best productivity practices in metalworking through live case study presentations, Plant visits and Keynote sessions.

## Leaders Speak

Renowned industry experts will deliver Keynote addresses on various facets of productivity.



- 'Ascent : A Practising Manager's Growth Mantra'  
Mr. Amit Chatterjee, Managing Director, Sartorius India Group



- 'Hitech's Journey in achieving productivity excellence'  
Mr. Rajesh Magoo, Chief Operating Officer,  
Transmission & Engine Component Business, Hitech Gears



- 'Quality Route to Productivity'  
Mr. Rajeev Wasan, Sr. Vice President - Manufacturing,  
Honda Cars India Ltd.

## Live Case Study Presentations !

**Contesting Companies**



## Plant Visits (19 November 2015)

The plant visits scheduled a day prior to this summit, on 19 November 2015, provides an excellent opportunity to witness productivity improvements on the shop floor.

**TOUR A : Hero Motocorp and Sona BLW Precision Forgings**

or

**TOUR B : Hitech Gears and Honda Motorcycle & Scooters India**



Registration for Participation must be made online only. To register online, log on to [www.productivity.imtma.in](http://www.productivity.imtma.in)  
For event details or any queries / clarifications during 'Online Registration' process, please contact IMTMA's Bangalore office :

**Abhishek, tel : (080) 66246829; (abhishek@imtma.in)**  
**Laxmikant M Duge, tel : (080) 66246665; (laxmikant@imtma.in)**

Organised by



Indian Machine Tool  
Manufacturers' Association

Awards Sponsor

**AceMicromotic**  
Group

Gold Sponsor

**Mazak**  
Your Partner for Innovation

Silver Sponsor

**TaeguTec**  
Member IMTMA Group



## Mechatronic Gripper Modules - Intelligent Powerhouse

The SCHUNK EGL 70 mechatronic parallel gripper combines power and intelligence: with variable gripping force between 50 and 600 N it is one of the most powerful and flexible mechatronic grippers on the market and was specifically developed for industrial applications. Since the finger position, closing speed, and gripping force are freely programmable within a maximum stroke of 48 mm per finger, diverse components with a weight of up to 3 kg can be precisely handled in force-fit gripping. The gripper fingers can be prepositioned to reduce cycle times. The entire control and power electronics of the EGL are integrated to save space and to allow decentral operation and even mobile use, thanks to the 24V DC operating voltage. Standard Profibus DP and CAN-Bus interfaces allow fast and easy integration in higher level system controllers. The gripper also features a USB-port as a service interface.

A brushless servo motor ensures continuous and reliable op-



**EGL - The intelligent and powerful EGL enables flexible and efficient handling processes.**

eration with no maintenance required. To maintain the position in the event of a power outage the gripper features an electrically operated brake. Since the EGL fulfills industrial standards and the basic version is connected only by means of industrial connectors, installation time is reduced to a minimum. The powerful mechatronic gripper is compatible with the world's most extensive standardized line of modules for gripper systems from SCHUNK. In combination with quick-change systems and other robot accessories it can significantly increase the flexibility and efficiency of handling processes. It is ideal for diverse applications in the field of industrial assembly technology, mechanical engineering, and lab automation.

*For more details, contact: Satish Sadasivan, Schunk Intec India Pvt. Ltd; Phone: 080-40538999; Fax: 080-40538998; Email: info@in.schunk.com; Website: www.in.schunk.com*

## New system for simple length setting of tools on CNC machining centres



Global engineering technologies company Renishaw has launched the Primo™ LTS (length tool setter) at CIMT, Beijing, China. The Primo LTS is a single-axis tool setter which allows users to set tool length, check for breakage, and compensate for thermal growth on a CNC machining centre.

The Primo LTS eliminates the need for time-consuming, error-prone manual tool length setting which can lead to scrap, rework, and reduced productivity and profit levels.

Automated on-machine tool length setting with Primo LTS is up to ten times faster than manual methods, resulting in immediate and significant cost savings. It is suitable for use on small to large CNC machining centres and helps guarantee "right first time" parts, reducing waste and increasing profits.

During a machining process, dimensional accuracy is dependent on a number of variables, including tool length and tool breakage. The Primo LTS monitors these variables automatically, enabling users to compensate for variations which may occur and benefitting the overall machining process.

The Primo LTS is a hard-wired product featuring a fully integrated interface for straightforward electrical connection: the hardware can be bolted onto the machine table and is immediately operational, with no additional set-up required. The Primo LTS is designed to operate in the harshest of machining environments, so it is resistant to swarf or coolant ingress and prevents false triggers caused by shocks or vibration. An integrated air blast provides effective swarf removal when necessary.

Easy to install and use, Primo LTS provides an accessible solution for increasing the productivity and profitability of a machine tool.

*For more information, contact: www.renishaw.com*

# A snappy solution. E2/000

# Mounted in no time.

Open on the left and right.

# Adapted in no time.

Can be opened on the inside or outside as open chain, "half pipe" or completely closed.

# Ready to go.

E-Chains® of the E2/000 series from igus®.  
Hundreds of variants ex stock.



# igus®.in/E2micro

plastics for longer life®



igus® (India) Pvt. Ltd.  
36/1, Sy. No. 17/3

Euro School Road, Dodda Nekkundi Industrial Area - 2nd Stage  
Mahadevapura, Bangalore -560048, Karnataka, India

Phone +91-80-45 12 78-00  
Fax +91-80-45 12 78-02



## LVD launches Phoenix Fiber Laser

The Phoenix FL completes LVD's fiber laser line-up. The new fiber laser system unites cost efficient and dynamic laser cutting together with LVD's laser automation possibilities.

*Quality comes first:* The Phoenix offers the perfect balance between performance and price. The compact, modern machine design includes a welded steel frame construction that minimizes deformation caused by high acceleration thus improving overall machine accuracy. Powered by a high efficiency solid-state doped fiber laser source, the fiber laser provides fast, accurate processing of various sheet thicknesses

and types. The Phoenix FL features a lightweight, high rigidity beam delivery system to allow for highly dynamic processing.

The Phoenix maximizes uptime with an integrated automatic shuttle table system that allows one table to be loaded while the machine is cutting on the other table. Table change time is only 30 seconds.

*Touch screen control & interface:* LVD's touch screen control and user interface, TOUCH-L, make the Phoenix easy to use and operate. TOUCH-L employs a 19" touch screen and icon driven user interface to efficiently and effortlessly guide the user through all necessary man-machine interactions.

TOUCH-L also incorporates a part programming and nesting feature allowing users to import drawings directly into the control, applying cutting technology and nesting sheets at the machine.

*Efficient operation:* The Phoenix FL features the latest in fiber laser source technology with a wall plug efficiency of up to



The PHOENIX FL is LVD's answer to dynamic and cost efficient laser cutting. Photo by: LVD

30%. The maintenance-free fiber laser resonator utilizes the latest fiber laser technology for reliable trouble-free performance.

*Advanced automation options:* Modular automation options further increase the productivity and throughput of the Phoenix FL. The laser cutting system is offered with the option of a Compact Tower (CT-L) and the Flexible Automation for Lasers (FA-L) developed by LVD. CT-L is a compact material warehousing tower with an integrated load / unload system and a shelving unit for storage of raw material and finished parts. FA-L is a system for interchanging finished and unfinished sheets on the table within 40 seconds and includes thickness control and automatic sheet separators.

*For more info: Product Manager Laser, Kurt Van Collie, LVD Company nv; Tel: +32 56 43 05 11; Email: kvcl@lvd.be; Website: www.lvdgroup.com.*

## EVENT

### HaasTec Pune 2015 Event set for December

The popular HaasTec show is returning to India this year. Managed by the Haas Factory Outlet (HFO) in India (Phillipscorp, CNCSSIPL division), the HaasTec will take place on 09th – 12th December at Auto Cluster, PCMC, Pune.

In line with previous HaasTec events, a number of innovative and affordable Haas CNC machine tools will be on view. Machines like UMC-750 five-axis universal machining centre and the ST-35 big bore CNC lathe will be on display. All of the Haas CNC machine tools on display will be powered and performing demonstrations, cutting metal. Haas specialists from the HFO will be available to guide visitors through the demonstrations and answer any questions about the machines.

Other Haas CNC machine tool models scheduled to ap-

pear at both HaasTec events include the ST-10Y turning center with Y-axis, the ever popular DT-1 Drill Tap machine with new 30 taper 15,000 rpm spindle, a VF-2 VMC, a VF-2SS, Mini Mill and the VF-7/50 VMC.

Visitors are invited to bring along components or drawings for a full evaluation of optimized machining solutions. Indeed, the HaasTec events will also feature a number of the company's industrial partners, all able to offer complementary technologies and advice.

*Demonstrations, tours and a live Q&A counter will be among other event highlights. Pre-register on [www.haascnc.com/openhouse](http://www.haascnc.com/openhouse). For more information: Nikhil Modi – Marketing Associate; [Marketing.india@phillipscorp.com](mailto:Marketing.india@phillipscorp.com)*

# Many technologies. One right solution



Bosch Rexroth is one of the leading specialists in the field of drive and control technology offering solutions for industrial applications (machinery applications & engineering and factory automation), mobile applications and renewable energy in the form of hydraulics, electric drives & controls, linear motion & assembly technology and pneumatics. Economical, precise, safe and energy efficient drive and control solutions from Bosch Rexroth moves machines and systems of any size. Based on broad portfolio of standard products for drive and control technologies, Bosch Rexroth offers system solutions for nearly all sectors such as plastics, steel, bulk materials handling, construction machinery, agricultural & farm machineries, machine tools, automotive, food & packaging etc.

Bosch Rexroth. The Drive and Control Company

# Scaling the 'SUMMIT'!

With great speakers, fabulous audience and strong partners, the first edition of The Machinist Manufacturing Excellence Summit (MES) 2015 created a robust road map for #Vision 2020.

By Team The Machinist



Great mix - Group photograph with some of our speakers, delegates, partners and team members of The Machinist

INDUSTRIAL LUBRICANT PARTNER



MACHINING PARTNER



KNOWLEDGE PARTNER





"Tata Strategic Management Group (TSMG), the Knowledge Partner for MES 2015, unveiled a Knowledge Paper specially developed to commemorate the Summit. The paper is an endeavour to highlight the current scenario of the manufacturing sector in India and identify challenges faced by the industry. The paper describes the Vision 2020 for the sector and the key policy reforms from the government to support the growth of the sector. Finally, it lays down the imperatives for the manufacturing sector which will enable them to compete on a global scale and drive growth. The paper can be downloaded from: <http://mes.themachinist.in/>"

The maiden edition of 'The Machinist Manufacturing Excellence Summit' (The Machinist MES) was a grand success. Successfully conducted at The Lalit Ashok Bangalore on October 30, 2015, 'The Machinist MES' saw great speakers sharing their insights with a fabulous audience and received wonderful support from esteemed partners. The theme of the event was 'Indian Manufacturing - Vision 2020'.

The Great Indian Manufacturing sector is slowly but certainly getting back its well deserved place in the



**Yatendra Kumar – Business Head – MotulTech India, shared some brief but interesting and useful case studies**

national economy. Thanks to our Government's multiple policy reforms and encouraging initiatives like 'Make in India', India is now witnessing a new wave of growth in manufacturing after the industry's downturn for several years. Of course, getting the desired results will take time but thankfully the journey has definitely started. And one thing is for sure. If we want this wave of growth to be successful and sustainable, then we need to ride it with excellence. And it is manufacturing excellence that this Summit was all about.

In fact, The Machinist MES 2015 endeavoured to understand the key factors that directly impact the industry's quest for excellence. It is said that 'Excellence is to do a common thing in an uncommon way'. MES 2015 highlighted the 'uncommon ways' in the context of the manufacturing industry through insightful panel discussions, interesting case studies and informative presentations. The audience primarily included senior manufacturing professionals from different sectors, some top management representatives and even a few engineering students.



The event started with a crisp and quick welcome note by Niranjan Mudholkar, our Editor. Niranjan briefly spoke about the journey of The Machinist since the re-launch of the publication in January 2014 which also included 'The Machinist Super Shopfloor 2015 Awards' conducted successfully in May 2015. Speaking about 'The Machinist MES 2015, Niranjan said that it is probably the only Summit which takes a comprehensive approach to manufacturing excellence. "There was a huge gap in this industry in terms of having an integrated platform. MES 2015 is an endeavour to bridge that gap with an agenda that covers all key aspects through case studies (on green manufacturing and product development), panel discussions (on IT in manufacturing & Quality Management) as well as a robust top view with the CEO panel discussion."

There was a time when 'Green' was considered only as an optional activity or part of CSR. Well, not anymore. In fact, organisations are today realising that 'Green' actually makes good business sense. And who better than Hussain Shariyarr, Sr. VP – Operations, Godrej Appliances, Godrej & Boyce Mfg. Co. Ltd. to talk about it. He is the man behind ensuring that the entire manufacturing process at Godrej Appliances is Green. In fact, both the manufacturing



"Lean and Green can co-exist together provided you look at three elements. First, when lean is not implemented as a short-term strategy for short-term gains. Second, when the scope of Green is not limited to the internal environment but includes the external environment. And third, when the approach is innovation and not improvement."

**Hussain Shariyarr,**

Sr. VP – Operations, Godrej Appliances, Godrej & Boyce Mfg. Co. Ltd.

**Case study presenters at MES 2015**

**1 Hussain Shariyarr, Sr. VP – Operations, Godrej Appliances, Godrej & Boyce Mfg. Co. Ltd.,** presented a case study on Green Manufacturing talking about 'Why Green is good for business'

**2 Vice Admiral (Retd.) NN Kumar, Executive Director (Production), BrahMos Aerospace.,** presented a case study on 'What it takes to create a Global & Innovative Product'



The winners of the #SelfieAtShopfloor Contest partnered by igus India were announced at the MES2015.

units of Godrej Appliances' - in Shirwal and Mohali became the first manufacturing units in the country to be honoured with the coveted 'Platinum Green Co' certification for their efforts in Green Manufacturing. At The Machinist MES 2015, Shariyarr presented his case study talking about how Godrej Appliances undertook the green journey and how this journey actually benefitted the organisation. "We have integrated Green in our business. All our strategies in all our divisions integrate green as one of the levers for achieving business excellence," he said. He added that lean and green can co-exist together provided you look at three elements. "First, when lean is not implemented as a short-term strategy for short-term gains. Second, when the scope of green is not limited to the internal environment but includes the external environment. And third, when the approach is innovation and not improvement," Shariyarr pointed out.

# LEADING MANUFACTURER OF HIGH PERFORMANCE GROUND THREAD TAPS IN INDIA.

- Over 7500 Varieties ex-stock
- Manufacturing Facility using Latest Technology
- Steel Imported from the Best Manufacturers in the world.
- Taps available ISO DIN, JIS, BS & ANSI in metric and fractional Sizes in HSS, HSSE & HSS-E PM with Through Coolant facility.
- R & D facility for developing taps as per application
- Special taps as per customer requirement.
- Taps also available with TiN, TiALN, TiCN Surface treatment
- Network of distributors
- Sales & Service Support and More...



**EMKAY TOOLS**

B-27 & B-27/1, M.I.D.C., Industrial Area,  
Hingna Road, Nagpur - 440 014 (India)

**Tel :** 91-7104-237363, 237584 **Fax :** 91-7104-232862

**E-mail :** [hq@emkaytools.com](mailto:hq@emkaytools.com) | [sales@emkaytools.com](mailto:sales@emkaytools.com)

**Website :** [www.emkaytools.com](http://www.emkaytools.com)

The next component of MES 2015 was an informative and insightful presentation by Yatendra Kumar – Business Head – MotulTech India, Kumar presented an overview of his organisation’s business and shared some brief but interesting case studies demonstrating how various manufacturing companies had gained benefits by using the right kind of oils & lubricants across a variety of applications.

Tata Strategic Management Group (TSMG), the Knowledge Partner for MES 2015, unveiled a Knowledge Paper spe-

“Internet of things (IoT) is now becoming a part of our day to day life in the industry. It is now a question of how do we interconnect all assets – including humans – and make the best use of the same.”

**Prakash Hegde, DGM IT, L&T India**

cially developed to commemorate the Summit. The Knowledge Paper was unveiled on stage by Shripad Ranade, Senior Principal – Automotive, Engineering & Infrastructure from TSMG along with the Editor and Publisher of The Machinist magazine. The Paper endeavours to highlight the current scenario of the manufacturing sector in India and identify challenges faced by the industry. The paper describes the Vision 2020 for the sector and the key policy reforms from the government to support the growth of the sector. Finally, it lays down the imperatives for the manufacturing sector which will enable them to compete on a global scale and drive growth.

Taking and sharing Selfies has become a kind of a norm in the times of social media. And our friends from the shopfloor are no exception to this practice. The Machinist magazine

“Your technology may be superb and your machinery may be giving the highest tolerances and accuracies in terms of performance. But if the people on the shopfloor are not committed to quality then you will not get the desired results. So people play a big role in quality management.”

**Chintala Maheshwar Reddy, VP – Operations, Toshiba Transmission & Distribution Systems (India) Pvt. Ltd.**

decided to hold a small contest to showcase this Selfie talent from the manufacturing industry with its #SelfieAtShopfloor Contest. igus India was the Partner for this interesting contest, which saw two winners in Aman Kak, Assistant Manager, Mahindra Heavy Engines Private Ltd., Plant: Chakan, Pune, and S. V. N. Prasad, Sr. General Manager (PPC), Hyundai Motor India Ltd., Plant: Sriperumbudur, Chennai.

Information Technology (IT) in Manufacturing has had a remarkable impact on the way manufacturing companies have been conducting their operations over the last few years. IT has made things faster, better and more economical. With Industry 4.0, ‘IT’ is now set to become a tool of transformation



### Panel Discussion in IT in Manufacturing

Are we ready for Industry 4.0

- **Jacob John**, Director, Ajax Fiori Engineering
- **Prakash Hegde**, DGM IT, L&T India
- **Satish PV**, Senior General Manager – Hyundai Autoever India
- **Angadi VC**, IT Head, Ashirvad Pipes Pvt Ltd.



### Panel Discussion on Quality Management

Can a customer focused approach be taken to quality in production?

- **Suranjan Chatterjee**, Plant Head, Hampson Industries
- **Harald Friedrich**, Plant Manager Bangalore & Head of Operations India, Continental Automotive Components (India) Pvt. Ltd.
- **Ankur Gupta**, Chief General Manager, Quality Assurance, Escorts Limited
- **Chintala Maheshwar Reddy**, VP – Operations, (Department Head – Quality & Environment and Safety), Toshiba Transmission & Distribution Systems (India) Pvt. Ltd.
- **Jiten Goswami**, Chairman, Atlantic Lubricants & Specialities Pvt. Ltd.

Both discussions were moderated by **Shripad Ranade**, Senior Principal – Automotive, Engineering & Infrastructure, TATA Strategic Management Group

from being a tool of facilitation and this is exactly what the panellists discussed. Later, in the post lunch session, the panel discussion on Quality Management witnessed some remarkable conversations about ‘Can a customer focused approach be taken to quality in production?’.



CEO Panel Discussion in progress

It is a matter of great pride that India is the first country to employ a supersonic cruise missile for its armed forces and this supersonic cruise missile – BrahMos – is actually manufactured in India. In this context, Vice Admiral (Retired)

NN Kumar, Executive Director (Production), BrahMos Aerospace, presented a case study on ‘What it takes to create a Global & Innovative Product?’. For the benefit of the audience, Admiral Kumar explained the genesis of BrahMos Aerospace

**Freewheels- oneway clutches / Holdbacks:**  
Transmit power in one direction only. Used as Overrunning, Indexing (feeding) backstopping clutch. Holdback having centrifugal lift off sprags are used where shaft runs at high speed.

**Keyless Transmission Elements:**  
Shaft - hub has no keyway, minimising notch effect, most suitable for shaft hub connection. Wear free, perfect alignment, easily adjustable & economical.

**Cam followers:**

**Tensioner Nuts & Bolts:**  
A simple mechanical element, economical comparatively to other way bolting and reusable – that offers a much better quality bolted joints / connections.

Applicable all over Industries

An ISO 9001 : 2000 Certified Group

**NMTG Mechtrans Techniques Pvt. Ltd.**

A2, GIDC Naroda, Phase - 1, Nr. Systronics, Ahmedabad - 382 330. Gujarat, India.  
Phone (O) : 079 - 2282 1527 / 2281 7688, Mobile : 093282 71660, Fax : 079 2282 0214

E-mail : [dipak@nmtgindia.com](mailto:dipak@nmtgindia.com)  
[sales@nmtgindia.com](mailto:sales@nmtgindia.com)  
Website : [www.nmtgindia.com](http://www.nmtgindia.com)

## Speakers at the CEO Panel Discussion

Subject: #Vision2020 – Indian Manufacturing Industry

- **Gopal Subramanyam**, Executive Director, Ajax Fiori Engineering (I) Pvt. Ltd.
- **Kamal Bali**, Board Member & MD, Volvo India Pvt. Ltd.
- **Thimmaiah NP**, MD & CEO, Meritor India
- **Chandru Kalro**, MD, TTK Prestige
- **Anders Grundströmer**, MD, Scania India and Senior VP, Scania Group

Moderated by **Niranjan Mudholkar**, Editor, The Machinist

the company that manufactures these missiles in India. He spoke at length about the mission critical demands from the customers (the Indian armed forces) and explained how the performance and precision of the product was absolutely vital to these customers.

Admiral Kumar also illustrated the role played by various supply chain partners emphasising on the fact that several manufacturing capabilities required in the production of these missiles are both unique as well as extremely challenging. “Manufacturing a missile which is required to hit its target located nearly 300 Km away while flying at a speed of 2.8 Mach requires the utmost of focus on quality management. There cannot be even the slightest of errors,” he remarked. Kumar also described the various technologies and sciences involved for successful design to development to deployment of the missiles like Material Science & Metallurgy, Airframe, Fluid Dynamics & Engineering, Propulsion Technologies and so on.

When Kamal Bali, Board Member & MD, Volvo India Pvt. Ltd., said that “there has to be a convergence of all stake holders in the country including the political parties, the industry and the academia to understand that this is a compelling vision; and we all have to create a greater economic activity otherwise we are staring at too much of a gap between the ‘haves’ and the ‘have nots’”, he succinctly summed up the task required for realising the ‘Vision 2020’ for the industry. Bali

## The Machinist Hall of Fame 2015 Award



**Conferred upon: Shri Baba Kalyani**, CMD, Bharat Forge Ltd. On receiving the Award, Shri Kalyani said: “It is my privilege and pleasure to be receiving ‘The Machinist Hall of Fame for India Manufacturing 2015 Award’. This honour is not mine alone; my organization, my family and my

industry have played an equally important role in my quest for excellence and my vision of bringing global glory to the brand ‘Make in India for the World’. Thanks to all of them.”

“Indian doesn’t need more MBAs. India needs more of skilled workers and it is important to raise the social status of these skilled workers.”

**Anders Grundströmer**, MD, Scania India and Senior VP, Scania Group

was one of the five top industry leaders who participated in the CEO Panel Discussion. Anders Grundströmer, MD, Scania India and Senior VP, Scania Group, started off by declaring his support for ‘Make in India’, which he described as a mission. However, he also emphasised on the need to urgently address the political challenges towards accomplishing the mission including the implementation of



“Manufacturing a missile which is required to hit its target located nearly 300 Km away while flying at a speed of 2.8 Mach requires the utmost of focus on quality. There cannot be even the slightest of errors.”

**Vice Admiral (Retired) NN Kumar**, Executive Director (Production), BrahMos Aerospace.

GST. Chandru Kalro, MD, TTK Prestige, expressed hope that the right intent shown by the administration will translate into reality. “India is a large and intelligent market with a great demographic advantage. And India is also a questioning market. So you will see a lot of development happening,” he said. Thimmaiah NP, Regional Vice President, Meritor India, pointed out that ‘there is a differential quality because quality is performance, performance is value and value is cost’. Gopal Subramanyam, Executive Director, Ajax Fiori Engineering (I) Pvt. Ltd., said that the solution lies in what you do contextually. “I am also quite optimistic about this ‘100 Smart Cities’ project. If we develop good infrastructural facilities around these 100 cities then I am sure it will be a game changer in terms of employing the youngsters of this country more productively,” he added. 



# Concrete success!

Schwing Stetter India is primarily focusing on indigenisation of its products, says its Vice-Chairman and Managing Director **Anand Sundaresan**

By Niranjan Mudholkar

**Q** Schwing Stetter India has consistently maintained its market leadership in the concrete machinery segment for many years. What are you doing to further consolidate this position?

We have the first mover advantage as we were the first ones to start manufacturing concreting equipments in India and our focus was to bring down the cost of the products. Our main focuses are on indigenisation of our products and on making it user friendly for our customers. Our sales and service engineers constantly interact with our customers and get their feedback on performance, ease of operation, etc. Whatever changes that are suggested, we try to incorporate in our equipment. This has helped us in broad basing our customers. In addition to that, we focus a lot on after sales service, parts availability, parts supply, etc. Besides this we also focus on customer training for getting the best out of our equipments. I strongly believe these are some of the points which put us ahead of the competition.

**Q** It has been almost three years since Schwing Stetter India's parent Company Schwing GmbH was acquired by China's XCMG. Has that had any impact on your operations?

XCMG has invested in the Holding company, which holds



As far as major equipment are concerned, several Indian companies were already manufacturing equipment in India. However, we have been missing the high quality and high cost components that go into producing these equipment."





the majority of our Parent company Schwing GmbH. We continue to be 100 percent subsidiary of Schwing GmbH, and we continue to operate in the same way as in the past.

**Q According to CII - like the automotive industry - the construction equipment industry would soon position India as a global hub for manufacturing, design, R&D and components outsourcing. Is this happening?**

Most of the construction equipment manufacturers in India are either 100 percent subsidiaries or they are joint venture companies. Being a part of a global MNC, most of us have territorial restrictions. In the last 10 years or so, the Indian manufacturers have substantially upgraded the quality of their product and many companies in India have also started exporting the Indian manufactured product out of India, especially to the East Asian market, African countries, etc. We are no exception to that. In the last few years we have been exporting our products outside India because our parent company has the confidence that we are able to produce quality equipments for the export market where it (parent company) is unable to compete. I think going forward Indian manufacturers will have more opportunities to export to other countries as well.

**Q What is your take on PM Modi's 'Make in India' campaign?**

It is good that our Prime Minister Mr. Modi is campaigning for 'Make in India'. As far as major equipment are concerned, several Indian companies were already manufacturing equipment in India. However, we have been missing the high

"In 2011, which was the peak, almost 70,000 construction equipment were sold by Indian manufacturers. This number has come down to 40,000. After the recession in 2009, the Indian market bounced back in 2010 and 2011; so most of the manufacturers invested and increased the capacity."

quality and high cost components that go into producing these equipment. Unfortunately the numbers are not good enough in India to produce them in India. So the key to 'Make in India' is that the equipment industry has to grow, which in turn depends on speedy implementation of infrastructure projects.

**Q What are the key challenges facing your sector and how are you dealing with them?**

You are right that the last few years have been de-growth for the construction equipment industry. In 2011, which was the peak, almost 70,000 construction equipment were sold by Indian manufacturers. This number has come down to 40,000. After the recession in 2009, the Indian market bounced back in 2010 and 2011; so most of the manufacturers invested and increased the capacity. Unfortunately, the capacity utilisation currently in most of the companies varies between 50 percent to 70 percent. This is our biggest challenge. As far as

infrastructure projects are concerned, we see some development in the road sector. But other segments like ports, metro rail and dam construction projects, power projects are still lagging. Real estate industry is still in a bad shape and unless these projects improve, our business will not grow. It is a challenge to meet the expenses with lower revenue - let alone make a profit.

**Q How are you managing costs at the manufacturing level?**

Well, this is the biggest challenge. All manufacturers' bottom line is very badly hit. Every company is implementing austerity measures to cut down expenses. However there is a limit.



The market has to improve substantially, until this happens all of us will be in deep trouble.

**Q What is your utilisation?**

In 2010-11, we increased our capacity by almost 30 percent. Today, our capacity utilisation depending on the type of product is between 30 percent to 50 percent.

**Q You were also planning to have one more manufacturing plant. What's the progress on that front?**

We are waiting the market to improve. We will take a decision once the market improves.

**Q Tell us about your R&D activities.**

Schwing as a group invests about three percent on R&D. Predominantly the R&D activities are carried out in Germany, USA and India. So we work closely with our parent company and develop new concepts and products.

**Q What are your targets for the next two years including the current FY?**

Because of some export sales and the introduction of new products, fortunately for us, we did not see a de-growth, in the last two years. We had a growth of six percent last year and this year we are expecting to grow 15 percent. However, we are still far away from our levels in 2011. It is too difficult to

predict anything at the moment. We would wait for another six months to plan our growth for the future. Currently our export revenue is about nine percent of our total revenue.

**Q What is your personal vision for Schwing Stetter India?**

We want to be a strong, long term player in the concreting equipment market which is our focus area. We are experts on concreting equipment and would like to grow around this.

**Q What are the three key milestones you would want the industry to achieve during your tenure as the President of the Indian Construction Equipment Manufacturers Association (ICEMA)?**

Well, ICEMA has been very active in interacting with the various government Department of heavy industries and the Ministry of Road Transport and Highways. We have set a certain agenda and two or three very important issues that we are discussing with the Government are:

- Set up a Test Centre for OFF-Highway equipments which is a huge project.
- We are working with the Government to put up a CEMM Act (Construction, Earthmoving, Mining and Material handling Act) which will focus on off highway equipments.
- Working very closely with the Ministry of Road Transport and Highways to improve the quality and productivity of equipments used for road projects. 



**Siddhapura ENGINEERING WORKS**  
Mfg. of ALL TYPE DRILLING MACHINES  
"Enter with Trust Exit with Satisfaction"

एन. एस. आई. सी.  
**NSIC**  
ISO 9001: 2008



India's Best **Drilling Machine**



SEW/S-25M, 25MM CAP.  
DRILLING CUM MILLING MACHINE



SEW/P-4, 19MM CAP.  
PILLAR DRILLING MACHINE



SEW/S-25, 25MM CAP.  
PILLAR DRILLING MACHINE



SIC-40/900, 40MM CAP.  
ALL GEARED RADIAL DRILLING MACHINE



SDM-45, 45MM CAP.  
ALL GEARED RADIAL DRILLING MACHINE

**Contact to:**

Mr. Urmish Siddhapura - CEO  
+91-9824246655

**B-15, VITTHALWADI UDYOGNAGAR, BHAVNAGAR-364 001, GUJARAT, INDIA.**

**T** : +91-278-2428054, **F** : +91-278-2511961

**e** : urmish@siddhapuradrills.com / drills@dataone.in

**w** : siddhapuradrills.com



## A new dawn

An inclusive, clear cut workforce strategy for the contract workers will increase employee pride and motivation, as well as business productivity and profitability.

By James Thomas

India's manufacturing industry is one of the biggest employers of contract workers in the country. Yet, there's an interesting dichotomy at play. On one hand, most manufacturers are trying to figure out how to increase the output of their contract workforce on a consistent basis and sustain the productivity momentum. On the other hand, (strangely enough) most large manufacturing organisations don't often consider contract workforce management as a key organisational priority! As a result, manufacturers run the risk of ending up with 'tunnel vision' when managing this increasingly critical base of employees. How can India's technology prowess help the manufacturing industry get smarter, and convert this challenge into a strategic growth opportunity?

India's labour laws and compliance mechanisms have always triggered numerous, interesting debates! In recent times, a VUCA (acronym for volatility, uncertainty, complexity and ambiguity) world has driven many organisations towards a lean workforce strategy, with a significant chunk of them employed as contract workers, delivering the much needed flexibility to adapt to asymmetrical business cycles and also drive down permanent workforce costs.

With the regulations for contract workforce less strictly defined than those of a permanent workforce, the Indian manufacturing industry has navigated the challenge of labour compliance deftly by increasing the ratio of their contract workforce over the years. In this milieu, the management of contract workforce becomes a critical cog in the wheel for any progressive manufacturing company that not only cares about profitability, but treats (all) its employees as strategic assets. Industry estimates peg the size of the contract workforce in Indian manufacturing at 46 percent, and this will only increase with time!

Yet, this is one sector where the management of contract workforce is largely unorganised, which begs the question of



“Ultimately, a contract worker is also an employee and should be treated as a brand ambassador of the organisation. And what better a driver than technology to usher in parity throughout the workforce.”

how we can make this sector more organised, while equally making the industry more fair and equitable in its management of this section of the workforce. Traditional workforce



management processes are typically siloed, with varying levels of technology enablement and automation in place and can seldom accommodate new and dynamic workforce management approaches.

What's intriguing is that many manufacturers don't have the complete wherewithal to effectively manage and motivate their contract workforce, particularly as there's a high possibility of dissatisfaction and apathy setting in quicker with this employee base than any other section, owing to the sheer nature of the job. Ultimately, a contract worker is also an employee and should be treated as a brand ambassador of the organisation. And what better a driver than technology to usher in parity throughout the workforce.

The lack of a clear, unifying workforce management strategy and minimal technology infrastructure can warrant serious business and reputation risk to an organisation. Strong technology has significant role to play in managing these issues. Taking advantage of India's proven technology prowess, some innovative Indian manufacturers are relooking at technology as a key tool to effect change and transform their contract workforce into a business advantage

Buoyed by new technology solutions, such as analytics and

**"Organisations have started to reap the benefits of superior technology infrastructure to make more informed decisions based on real-time insights using advanced data analytics."**

automation, technology can help organisations realise greater workforce visibility, leading to better scheduling, resulting in improved process efficiencies. Instead of managers having to rely on gut feel and past experience alone, organisations have started to reap the benefits of superior technology infrastructure to make more informed decisions based on real-time insights using advanced data analytics. Further, manual errors can be significantly minimised by opting for an integrated automation strategy that aids bias-free decision making and operations.

Ultimately, this technology shift will enable manufacturers, with large volumes

of contract workers to design a more holistic, integrated workforce management strategy that accounts for parity in the way its entire workforce is seamlessly managed – be it permanent or contract, so that there's clear accountability for each and every employee. An inclusive, clear cut workforce strategy for the contract workers, possibly spanning on-boarding to continuous skill enablement and absorption into the workforce, will increase employee pride and motivation, as well as business productivity and profitability.

*The author is Country Manager – India, Kronos. Views are personal.*

## We Cover the Largest Range in Tapping Attachments

### Ranging from M2 to M200

**CNC Tap Chucks QCLK**



**Heavy Duty Non Reversible Taping Attachment**



**Tap Adaptors QA-QASB**



**Non Reversible Taping Attachment QCSFL**



## Polygon Tapers



**Universal Quick Change Adaptors**



**HSK & VDI Tooling**



**CNC Tool Holders**



**HR HRF Reversible Taping Attachments**







Block No. 135/2, Bileshwarpura, P. O. Chhatral - 382729. Dist : Gandhinagar. (N.G) INDIA.  
Tel : +91 - 2764 - 233464, 233983, Fax : +91 - 2764 - 233840 E mail : imi@imitoolsindia.com

Web : [www.imitoolsindia.com](http://www.imitoolsindia.com)

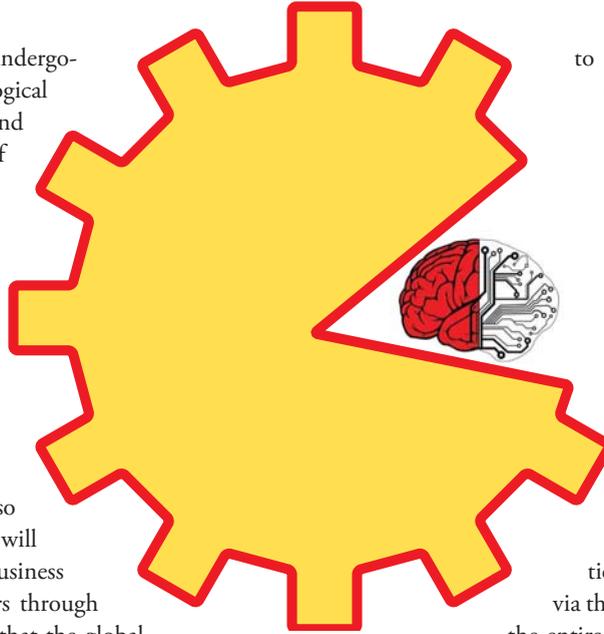


# Smart Factories: Next wave in IoT Revolution

The Smart Factory approach adds a new dimension to multi-scale manufacturing by using the state-of-the-art ubiquitous computing technologies and software tools.

By Atul Sareen

The world is undergoing a technological revolution and every sphere of life including factories is undergoing this revolution. As a result, manufacturing is becoming highly-automated and IT-driven or simply put, 'smart'. Reports suggest that over 4.9 billion connected things will be in use in 2015, which will reach 25 billion by 2020. A report also predicts that smart machines will have widespread and deep business impact within only seven years through 2020. Various reports suggest that the global smart factory market is expected to reach nearly \$67 billion by 2020, growing at a CAGR of six percent from 2014



to 2020. From the industry perspective, manufacturing, utilities and transportation will be the top three verticals using Internet of Things (IoT) in 2020. The next generation smart factory would be a purpose-built environment of efficiency and efficacy where whether defect or downtime, waste or waiting would be a long forgotten tale.

The Internet of Things is becoming prevalent in today's day and age, where it connects real and virtual worlds of production. The fusion of these two worlds via the internet enables manufacturers to the entire production line. This enables machines and products to inter-communicate and they can independently control each other.



**"The Internet of Things is becoming prevalent in today's day and age, where it connects real and virtual worlds of production."**

Smart Factory facilitates full integration, turnkey and affordable factory automation that can be deployed quickly to track and streamline the manufacturing materials. Smart Factory provides omni-channel features comprising of continuous, real-time work in progress (WIP) tracking, scrap and breakage monitoring, and integration with materials software.

The Smart Factory approach adds a new dimension to multi-scale manufacturing by using the state-of-the-art ubiquitous computing technologies and software tools. The Smart Factory represents a context-sensitive manufacturing environment that can handle turbulences in real-time production using decentralized information and communication structures for an optimum management of production processes.

The next generation smart factory would be a purpose-built environment of efficiency and efficacy where whether defect or downtime, waste or waiting would be a long forgotten tale."



### What's there in the SMART Basket?

Smart factory holds benefits like increased production yield and product quality, lowers costs, eliminates operator mis-processing, reduces material shortages, reduces need for physical inventory, and easily handles factory expansion plans. The Full potential of smart factory can be felt when the three primary digital elements - intelligent devices, intelligent systems and intelligent automation would fully merge with the physical machines, facilities, fleets and networks. When this occurs it would trigger benefits of enhanced productivity, lower costs, secure systems, reduced waste which would propagate through entire industrial economy.

Smart Factory gathers location data through its best-in-class Real-Time Location System (RTLS), and correlates it with information from other enterprise systems. This delivers unprecedented visibility of real-time process interactions. Smart Factory intelligence is instantly connected to the relevant people and tools – providing insights and control that drive real improvements to the bottom line.

**Measuring SMART Scope:** While analyzing the scope of smart industry six main challenges arise in smart industries. The product/process design is the first of these challenges. It covers all the tools and engineering services supporting the design of parts, finished products, processes, production lines, and factories. The second challenge is the management and control of the production apparatus. This integrates the control system, traceability, and the management of physical flows. Manufacturing operations which is at the heart of processing were identified as the third challenge. The fourth challenge covers services related to the production apparatus. It includes the integration services of the various components of the production line and the installation and maintenance of production machinery. The fifth challenge is the newcomer; it includes the digital technologies behind the upheaval. Finally, work organization is the last challenge.

**Under SMART Expert Lens:** While taking a look at critical facets of the smart factories of the future definitely one thing which comes in limelight is that Future Factories will be shaped by the Internet of Things. Lesser importance would be given to location, thanks to the immersion of IoT technologies, some functions that are integral to manufacturing need no longer to be co-located while some can be controlled and monitored from faraway places. Paradoxically, increased automation requires additional manpower, modifying the nature of the demand for labour. IoT Standards and international collaboration would play a vital role to facilitate industrial automation.

### Manufacturing Vision turns SMARTer

The future smart factory represents the absolute pinnacle of technological and manufacturing development. Next Gen-

**“The changing nature of the manufacturing world is simply juxtaposing some of today’s environments with tomorrow’s requirements; Smart Factory is sole solution to these never-ending demands.”**

eration Smart Factory would march forward with the motto ‘Specialized By industry – Engineered for Speed’ It is a perfect amalgamation of high-tech tools and high-tech workers that shines like a silver lining of the dark and dirty cloud of manufacturing from past centuries. A Smart Factory is a more productive factory! And in order to stay competitive tomorrow, we must start planning our Smart Factories today.

The changing nature of the manufacturing world is simply juxtaposing some of today’s environments with tomorrow’s requirements; Smart Factory is sole solution to these never-ending demands. It’s a nice future dream, yet a dream which sometimes appears as a fantasy, is much closer to reality than one can think. This especially can be seen in the automotive industry. The key elements in today’s automotive industry have expanded beyond the horizon of nuts and bolts. To understand this perspective, let’s backtrack a bit. Indian roads experienced the first car in 1897. Indians were directly importing the cars in few numbers till 1930. Now the Indian automotive industry is one of the bigger markets in the world. Indian car and commercial vehicle manufacturing industry is the sixth largest in the world. The majority of India’s car manufacturing industry is based around three clusters in the south, west and north. The southern cluster in and around Chennai is the largest.

To this end, to survive in such competitive environment, the auto manufacturers need to constantly innovate with appropriate R&D facilities. Raised on a staple diet of iPhones and social media, the incoming manufacturing workforce already knows how technology allows them to access and use real-time information in their personal lives. And now, more than a century after the assembly line began its run, the new age workforce is ready to use the

tools of this generation to drive innovation into the industry’s next century. With newer, smarter and disruptive solutions being introduced by some of the best enterprise application players of the world, the automotive industry is all geared up for a tremendous growth in the foreseeable future.

The efficiency, productivity, and economic gains involved are substantial, and we believe that innovation, collaboration, and the application of intelligent technology across end-to-end industrial systems stand to lead us to the most competitive era we have ever seen. 

*The author is Managing Director, Infor India.*

“Various reports suggest that the global smart factory market is expected to reach nearly \$67 billion by 2020, growing at a CAGR of six percent from 2014 to 2020.”



**Meistermacher.**  
Made in Germany.

*J. Lehmann*

Jens Lehmann,  
German goalkeeper legend,  
SCHUNK brand ambassador since 2012  
for precise gripping and safe holding.

German champion  
with Borussia Dortmund 2002

English champion  
with Arsenal London 2004

Peter Büchsler,  
Master – Milling and Clamping Technology

**Most precise repetition,  
consistent at only 0.005 mm**

VERO-S, quick-change pallet system from SCHUNK

**Most precise technique, consistent  
in 20 years of top-level football**

Jens Lehmann, legendary German goalkeeper



[www.gb.schunk.com/vero-s](http://www.gb.schunk.com/vero-s)

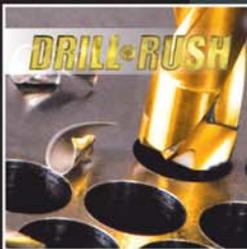
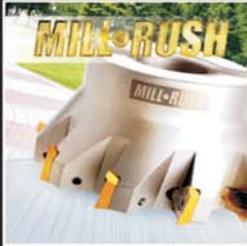
Superior Clamping and Gripping

**SCHUNK** 

First time buyers, please contact '+91 - 9632200040' to avail special discount offers

© 2015 SCHUNK GmbH

**IT JUST GETS BETTER**



**BLACK RUSH**



TOTAL  
**GR**  
SOLUTIONS



Die & Mould



Wind Power



Shipbuilding



Railway



Acrospace



Power Generation



Automotive



General



Miniature