The Phillips Machinist
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Tushar Kulkarni
Managing Partner
Mechasoft

Terrence Miranda
Managing Director
Phillips Machine Tools India

"The Phillips Machine Tools India team is pleased to present this newsletter's 3rd edition. We would like to thank our customers, whose trust in our products and services helped us achieve record sales growth in 2017-18. The HAAS VF-2/4 with the INDIA VALUE PACKAGE set the standard for performance and value, enabling our customers Make in India: for India and the World.

The HAAS USA factory and HERMLE Germany Open House visits by our Indian delegates highlight our efforts to showcase the latest trends and innovations to our customers, enhancing their competitiveness."

Hermle taking giant strides in a conducive Indian market

Mr. Maximilian Waizenegger
Regional Sales Manager
Maschinenfabrik Berthold Hermle AG

Amidst the stiff competition and the cost factor, Hermle sees a promising future in India, owing to its USPs, innovations and cooperation from Phillips.

- **What are the opportunities Hermle sees in India for the Machine Tools industry?**

India is one of the fastest-growing economies in the world, and the Metal Working industry is a driving sector. Being a manufacturer of high-end machining centers (mainly 5-axis), we have the right products to support the niche markets that demand the highest quality standards and not the mass market. The target industries in India are Mould & Die, Medical, Aerospace, General Machine Tool suppliers and job shops.

This sector is growing too, and we can see a trend towards high-end machines and higher demands of the manufacturers with regards to precision, reliability and productivity. All this calls for a high-end 5-axis machining center 100% manufactured in Germany: a Hermle machine!

- **What are the USPs of using Hermle machines? What advantages does Hermle offer to its customers as a machining partner?**

Highly accurate 5-axis machining centers, single-block polymer concrete machine beds, well-proven modified gantry design (since 1996), exclusively manufactured at the headquarters in Germany.

- **Please mention some latest innovations by Hermle machines for the Tooling industry?**

The new Hermle performance line including the latest model C650 offers the perfect solution for the Mould & Die applications. All our machines are a perfect symbiosis of dynamics and rigidity and therefore form the perfect basis for any application in the Mould and Die industry.

- **IIoT & Industry 4.0 are trending topics. How is Hermle adapting to the modern manufacturer?**

Hermle's digital modules are three steps towards Industry 4.0: Hermle Digital Production, Hermle Digital Service, Hermle Digital Operation. The digital transformation is now becoming the focus of many production operations. Hermle provides support to chart your individual course towards Industry 4.0 and the smart factory.

We offer a wide range of software solutions for improving your efficiency, precision and productivity. Our digital components represent links in the chain of smarter production. We can work together to find out what your operation needs.

- **How far has the association with Phillips Machine Tools India been helpful to grow business in India?**

A high-end machining center is worth nothing without excellent local service and after-sales support. Hermle is globally known for its service competence, and due to a long cooperation with Phillips Machine Tools, we can offer this for the Indian market too.

Reliable and easy-to-service machine design, excellent spare parts support, close cooperation between the headquarters and the local presence as well as highly educated engineers form a closed loop to support our customers as much as possible.

- **What is the scenario in Indian manufacturers adopting Hermle products? What is the cost factor included in this?**

In South Germany (Swabia), we have a saying: "If you buy cheap, you buy twice!" The Hermle machine is not the cheapest machine in the market, but it is reasonable. Considering the total cost of ownership, faster ROI due to high productivity and reliability and accuracy that lasts for decades, a Hermle will pay off, and once you step up to our product, you will understand these benefits.

- **How is the competition in the Indian market from the global counterparts?**

In the high-end 5-axis Machine Tools sector, the main players come from Europe and Japan. Hermle's target is to be always at least one step ahead of our competition.

- **What will be the highlights of the Hermle Open House 2018, which will update customers about the latest innovations and development?**

The Open House itself is a highlight each and every year. We expect close to 3,000 visitors from all over the globe. Not only will we show cutting-edge technology on around 20 machines in our showroom, 40 exhibitors from the Cutting Tool, Software and Workholding industry will be present. We open our complete facility for company tours and shed a light on the topics digitalization and smart factory.

Milling at its best! Hermle AG Manufacturing Facility at Gosheim, Germany

HIGH RELIABILITY & FLEXIBILITY: HAAS moulds the future

MECHASOFT: A Kolhapur-based company looks to HFO PHILLIPS as a one-stop solution provider: providing reliable, efficient, comprehensive sales, service and applications support for the HAAS machine and control.

Team Mechasoft in front of VF-7 machine

"The build quality of a HAAS machine is epitomized in its spindle performance: even after running the spindle for more than 48 hours at 10,000 RPM, there was no variation in cutting performance.

The early power failure detection module (PFDM), which comes standard with any HAAS machine, is also having a very useful feature: it senses a power failure or severe drop in incoming line voltage and quickly brings the motion of all axes to a safe and controlled stop thereby saving the job.

Machine performance aside, HFO Phillips India, provides a one-stop, comprehensive service solution: machine and control service under one roof. HAAS and PHILLIPS provide my business with high flexibility and reliability, which I value," said Mr. Tushar Kulkarni, Managing Partner, Mechasoft.

Getting introduced to the CNC technology

"I was first introduced to HAAS machines during my training days while handling HAAS VMC at Bharat Forge. I was well aware of the HAAS control before starting my company. The best part about HAAS is the compatibility of its 4th and 5th axis rotary table with any of its VMC machines, which provides the opportunity to upgrade a standard 3-axis HAAS VMC to a simultaneous 5-axis one. For example, tomorrow, if some job requires 5th axis machining, then I don't have to use another machine. I can add the 2-axis rotary tilt table and start the machining on the 5th axis, which saves us a lot of cost and time. In total, we have ten machines, out of which eight are HAAS machines including two 5-axis machines," said Mr. Kulkarni.

Investing in the future

"Die making is not an easy job. You need to have knowledge of design, manufacturing, tools and pre- and post- processes. In our line of business, we need a machine that can do batch production and mass production for dies and moulds also.

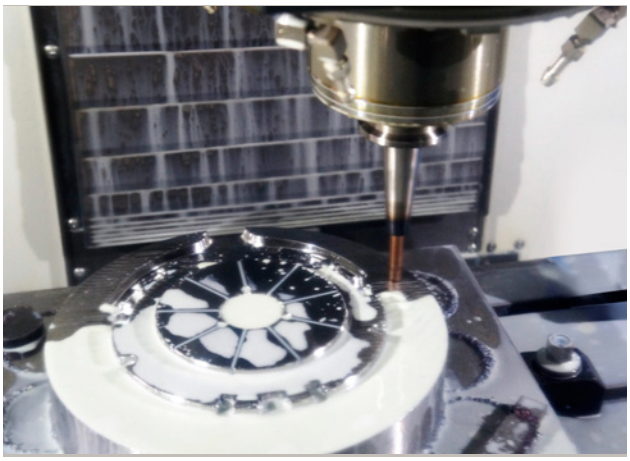
If one adds a machine for each process, he'll end up burning a lot of his resources. HAAS is not only affordable but also provides all these features in a single machine. Not every machine tools builder has this capability," said Mr. Kulkarni.

Mechasoft purchased its first HAAS machine in 2004 for production work. It now has the Mini Mill, VF-1, VF-2, VF-2-I, VF-3, VF-7 & VM-2 from HAAS, and one more VF-2-I is to be added the next month.

Tushar Kulkarni
Managing Partner
Mechasoft

"I will always recommend HAAS to others as I am getting the benefit of using a top-class machine from a company that has an exceptional commitment towards manufacturing world-class products and taking care of its customers."

Mr. Tushar with world's best-selling HAAS VMC



HAAS machines being used since 14 years without changing a spindle

Journey with HAAS

Mechasoft has been using HAAS machines for the past 14 years, and in all these years, it did not have to change a spindle. There were no variations, and they did not face any run-out problems. "I found that the overall machine design and components used from the spindle to the castings to the motion elements were easily able to handle a 10 mm or 15 mm depth of cut. The efficiency and ease with which we were able to rough and finish jobs make HAAS stand out," said Mr. Kulkarni.

The high-ergonomic, well-thought out machine design and features are loved by our operators, who find it very easy to run. We start a brand new machine installation during the day-time, & by the same night, it is ready to start production. We call it a plug 'n' play machine. The HAAS Visual Programming System (VPS) quick code feature, which comes standard with HAAS machines, is so simple that even without any designing knowledge, the operator can quickly create G-code programs for basic parts. The HAAS Next Generation Control (NGC) is the latest update to the Machine Tool industry's most user-friendly CNC control.

> ***The build quality of a HAAS machine is epitomized in its spindle performance. The efficiency with which we were able to rough and finish jobs with ease makes HAAS stand out.***

The experience till now with HAAS

"We always had very good experience with the HAAS team. The team is well trained in each and every aspect of the machine, including the software. With the HAAS factory outlet very close to our facility, it has become even easier for us to get service very quickly. The response time from HAAS is rapid, and most of the times, the errors are solved over the telephone," said Mr. Kulkarni.

The HAAS people have trained Mechasoft's in-house Maintenance team for troubleshooting. Apart from service support, they visit the plant frequently to check if everything is functioning correctly. Whenever the company wants to develop a component for a customer, the HAAS Applications team thoroughly analyses and provides the cycle time and speed feed, etc. They go an extra mile to provide customer support, which is admirable.

Future with HAAS

Mechasoft is extremely satisfied with HAAS machines, so much so that it has already planned to buy three more HAAS machines in the next financial year. The company is very happy with the competitive pricing of the machines because it is now getting international quality machines at an Indian price.

"I will always recommend HAAS to others as I am getting the benefit of using a top-class machine from a company that has an exceptional commitment towards manufacturing world-class products and taking care of its customers," concluded Mr. Kulkarni.

MECHASOFT

Mechasoft
www.mechasoft.in

Mechasoft was established near Kolhapur (India) in 2004. It manufactures pressure die casting dies, foundry toolings, high-performance cutting tools, moulds and precision components, thereby offering a complete solution to customers in the Automotive, Aerospace, and Machine Tools industries. It has an ultramodern facility of latest, high-precision CNC machines such as vertical machining centers, Sink EDM and surface grinders, etc. with sophisticated software. For aerospace components, it adheres to AS 9100D, a standardized Quality Management System. Its clientele includes R. B. America Inc. (US), PACE (UK), Engineering Technologies and Crompton Greaves Ltd., Goa.

Timely Check Prevents Untimely Machine Breakdown!

Maintaining Right, Machining Right Part III

In this third and final series of 'Maintaining Right, Machining Right', we bring you a sneak peek into some precision measuring instruments from the machining shop floor.

Megger

The device enables to measure electrical leakages in wires and thereby the insulation level of any device such as motor, cable and generator winding etc. The insulation resistance quality degrades due to temperature, humidity, moisture, dust and electrical and mechanical stress, which may result in an electrical or fatal shock.

Thermometer (Conventional/Laser)

This device enables to measure the temperature of various machine elements such as spindle, ball screw and drive. It is in conventional and infrared or laser types. The advantages of laser thermometers are speed and non-contact. But, they measure only surface temperature.

Vibration Analyzer

This device enables to detect early precursors to machine failure, allowing machinery to be repaired or replaced before expensive failure occurs. It helps to detect a wide variety of fault conditions. It measures the amplitude and displacement readings while bearings are in motion. It is most effective on high- speed rotating equipment.

Standard Tools and Torque Wrench

This enables to apply precisely a specific torque to a fastener such as a nut or bolt. It is used where the tightness of screws and bolts is crucial. It allows the operator to measure the torque applied to the fastener so it can be matched to the specifications for a particular application.

Phillips Machine Tools India makes all these precision-measuring instruments available at various locations across India to support its wide customer base from various industries. With timely preventive check and periodic record file, manufacturers can avoid untimely machine breakdown and increase throughput.

PHILLIPS Machine Tools technical centres and regional locations throughout India have one or multiple sets of these tools/instruments. The qualification of the machine condition can be assured by a specific protocol and quantification of parameters for machine condition analysis during a preventive check. It is always advisable to qualify the machines from the certified agency/engineer. A record file of periodic check results should be maintained for every machine. The analysis of these records will provide a wear pattern of the components and help in predictive spare parts planning. The unpredictable machine breakdowns can be reduced considerably with this check, as well as it helps to control the spare parts inventory cost.

*Our specialist, **Shardul Itkalkar**, heads the Engineered Products division of Phillips Machine Tools India Private Limited. With more than two decades of industry experience, he advocates the right maintenance for your machines. He can be reached at sitkalkar@phillipscorp.com*

PHILLIPS all set to create a new benchmark at the 11th Die & Mould Exhibition

Phillips Machine Tools, a leading Global Machine Tool Distributor, showcases its latest offerings at the 11th Die & Mould India International Exhibition from 11th-14th April 2018 at the Bombay Exhibition Centre, Goregaon, Mumbai.

Phillips will be showcasing the popular HAAS VF-4-I and VF-2-I Vertical Machining Centers and Hermle C 250 Universal 5 axis machining center at its booth.

HAAS VF-4-I & VF-2-I, manufactured in Oxnard, California, USA, features a user-friendly high tech CNC control with an updated user interface and improved connectivity that mould makers find extremely powerful and intuitive. Both machines are configured with the India Value Package. HAAS is a widely trusted global brand in India known for its reliability, durability, high precision and value for money.

The Hermle C 250 features the typical HERMLE excellence in 5-axis machining center design. It is equipped with the largest working area relative to the installation area, ergonomic control panel, optimum loading height, minimum interval between the machining table and operator and large door opening.

The Die and Mould industry in India has evolved over the years. With increasing demand from industries such as Automobiles, Auto Components, Packaging, Plastics, Electronics, Electrical, Healthcare and Machine Tools, there is a huge growth opportunity in the Die and Mould industry in India.

The Die and Mould industry, which is a prerequisite for further complex manufacturing activities, will play a significant role in the Government's efforts to boost the overall Manufacturing sector and take it to a global scale.

High quality, High speed, High precision, High flexibility is not an option but a very basic requirement of the tool room world globally.

VF-4-I HAAS Machine

Machine builders are fast catching up with the global trend to become globally competitive. As against earlier practices of using CNC machines to manufacture only a few components, now the Tooling industry is switching over entirely to CNC to gain a competitive edge.

PHILLIPS Machine Tools India, which is a worldwide supplier of products and services relevant to manufacturing technology, has always been providing opportunities to the Tooling industry by improving competitiveness through spreading awareness and building exposure through domestic and international visits, seminars and exhibitions.

Keeping with this commitment, PHILLIPS Machine Tools India is participating at the 11th Die & Mould India International Exhibition, aiming to set a new benchmark in the event and continuing the legacy of success in terms of new enquiries, new customers and value-addition through sharing best practices.

Mr. Ramkripal Yadav
General Manager
Phillips Machine Tools India

"Phillips Machine Tools India is confident of scaling new heights in this exhibition. Our machines will certainly be in the limelight, which endorse the consensus that our products are market leaders.

We perpetually strive to render world-class products to the Die and Mould industry in India, which in scale and quality is fast catching up with the highest international standards. We look forward to meeting with our customers and partners and building on a multitude of mutually beneficial relationships."

The Phillips Machine Tools-RVCE combination accelerating at breakneck speeds

Phillips Machine Tools has a very rewarding relationship with the Ashwa Racing team of the Rashtriya Vidyalaya College of Engineering (RVCE), Belagavi. This is an exemplary relationship of an industry-institute partnership across states.

The Phillips Machine Tools-Ashwa Racing relationship commenced in August 2016 when Mrs. Miranda met the Ashwa Racing team in Mumbai. Phillips offered sponsorship during the Design phase of the 2017 Hybrid Racecar project. The team attained the second position in the annual Formula Hybrid 2017 event held in New Hampshire, US. Presently, Phillips is a Silver sponsor of the team's Hybrid Racecar Vehicle project for the 2018 race season.

Phillips provided the Ashwa team relevant components that were machined on world-class machining centers from HAAS. The Ashwa team was free to design innovatively and then rely completely on Phillips for highest quality and precision of the components.

Phillips encouraged the young Ashwa team to continue on its ambitious path in the field of engineering, mobility and racing excellence. Ashwa Racing epitomizes how frugal, innovative engineering combined with dedication, perseverance and a commitment to be the best helped an Indian team achieve global recognition.

The Ashwa team would like to express its gratitude to the PHILLIPS community for supporting their young, talented engineers in their quest to become the best and showcase India on a global stage. The team is short of words to appreciate Phillips for becoming a part of the Ashwa family.

Electrifying visit at HAAS facility by Indian delegates

The Indian delegates were amazed by the HAAS production facility and overwhelmed by the warm hospitality at Oxnard.

HAAS & Phillips jointly arranged a visit of 12 Indian customers to its plant in Oxnard, California, US. These customers could see first-hand how HAAS builds world-class products in a modern >1.6 million square foot facility. About this visit, Sarthak Vetal, AVP Production-Eagleburgmann India Pvt. Ltd., remarked, "The HAAS-USA factory setup has several modern machines. The plants are very systematic, and the operation is sequence-oriented. Various critical machine parts like the control and spindle, are manufactured and tested carefully. I thoroughly enjoyed the visit." Ganeshbhai Thumar, Director-Ashish Engineering Works, commented, "I am very much impressed by the manufacturing facilities, production systems, paperless work, management by robots, cleanliness and safety precautions. We received a very warm welcome and heart-touching hospitality. Thanks to the entire HAAS and Phillips team."

HERMLE
milling at its best

Phillips
MACHINE TOOLS INDIA

Dynamics.

Dealing with large forces just as dynamically as the end product: Hermle machines for tool and mould making.

Hermle machining centres are the durable masters of micro precision engineering. Simultaneous 5-axis machining of workpieces weighing up to 2,500 kg - with an accuracy of a few microns. For the perfect results.

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