

CNC Plus

Ace Micromatic Group Newsletter

03/2014

Never
back down

Pg 09

3^{1/2} times
to the moon

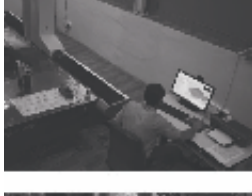
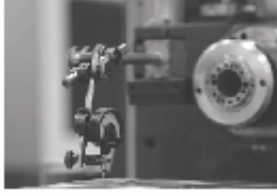
Pg 13

Spines
of Steel

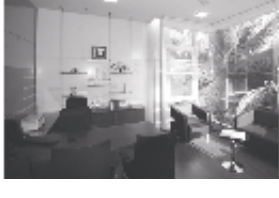
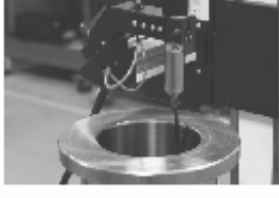
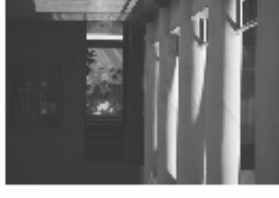
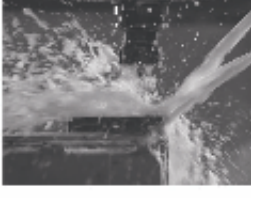
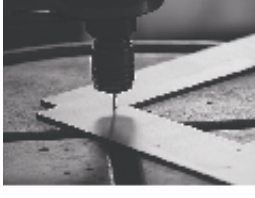
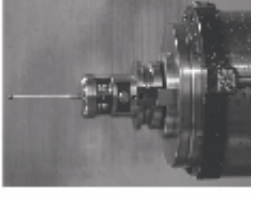
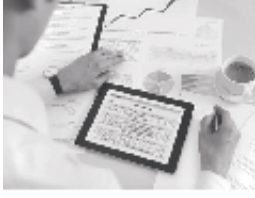
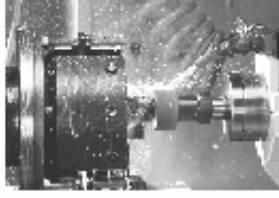
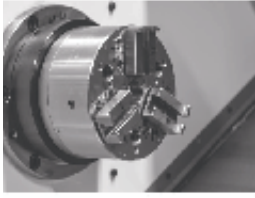
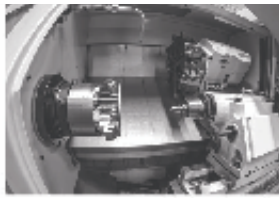
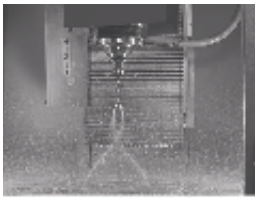
Pg 01

Ace Micromatic
Group

www.acemicromatic.net



The largest machine tool group in India



CONTENTS



Spines of Steel

KPC Flexi Tubes,
Faridabad, India.

01

09

Never back down

Sakthi Gear Products,
Coimbatore, India.



3^{1/2} times to the moon...

Escorts,
Faridabad, India.

13

18

Case study Tracking the shop floor story

**Wipro Infrastructure
Engineering ,**
Chennai, India.



Machine Environment

21



T. K. Ramesh, CEO

Micromatic Machine Tools Pvt. Ltd.

It is all about perception and change with the new government at the helm of the country, it seems that we are about to welcome an environment of manufacturing. There is talk in the air of making India as a manufacturing hub, FDI in defense and an era of competent SME in the making, fuelled by industry friendly initiatives. What do the Machine tool user; machine tool manufacturer and service provider need to step up on? It is all about Value – Creation & Addition.

Value it has been said can be only determined by its beneficiary, and value especially in the metal cutting industry is not derived from the machine but created with it. Thus at the Ace Micromatic group it is always the passionate endeavor to co-create value working closely with the customer.

Be it our tech centers, field force, publications, training courses are all steps aiding customers create value working with themselves and determining what value is beneficial to them. In this edition we feature a few of our customers from the micro, SME & corporate sectors who are creating value to the nation by contribution to its transportation, defense and infrastructure sectors in no small way.

We truly believe that our business revolves around your business and it is our philosophy to hold your hand in every way we can. We know, we care, and we perform. Happy reading and please do give us your feedback for improvement.



COVER PAGE

The cover page shows a submarine in action during naval exercises. These submarines are equipped with state-of-the-art wire guided torpedoes. KPC flexi tubes makes the connectors for these wires and is one of the 3 companies in the world who have been approved by the Indian navy, to supply this critical component. Read more about KPC flexi tubes and their association with the Ace Micromatic Group.

Disclaimer: Edited, designed and printed on behalf of Ace Micromatic Group. The design, pictures and content used in this publication are intellectual property of the group unless mentioned otherwise.

No part of this publication may be reproduced or transmitted in any form without the prior written consent of the editor. Efforts have been made to keep the information in this brochure as much correct as possible. However, the editor cannot be held responsible in case of any discrepancies found in the data. If you have any interesting story/event/contribution to be shared or any questions, please get in touch with the editor at ankura@acemicromatic.com

Editor: Ankur Agarwal

Sub Editor / Correspondent:
Ms. Sunanda Pati, Ms. Gurpreet Kaur

Design & layout: Harish M

Printed at: Repromen, Bangalore

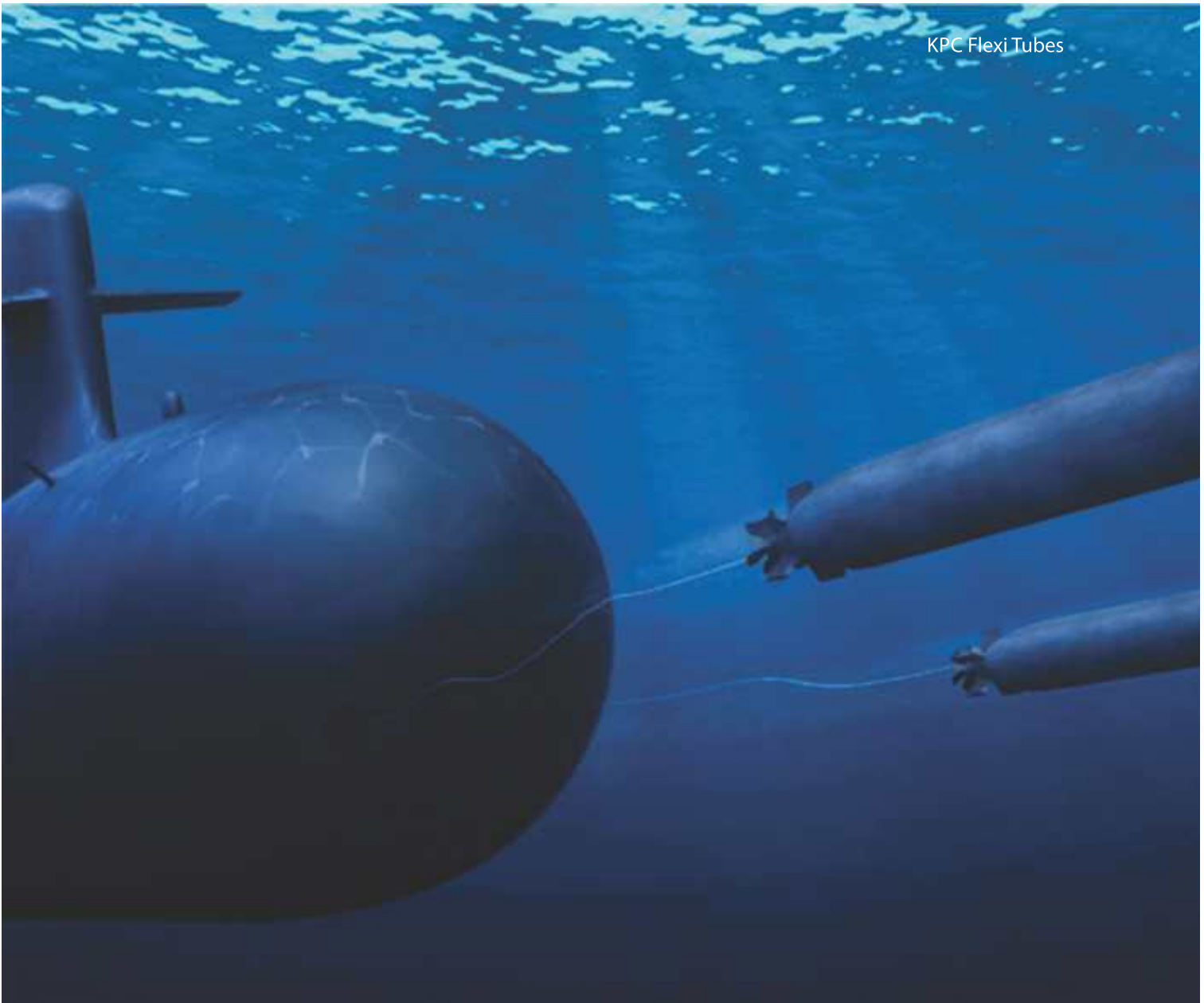




SPINES OF STEEL

...and the torpedo hit its target, three kilometers away, destroying the enemy ship.

This line may sound straight out of a young adult fantasy novel, but torpedoes are very much a part of the lives of brave and handsome men who make up the Indian Navy, as are submariners.



The process of launching a torpedo is even more fascinating than it sounds...deep within the belly of the submarine lies an inactive torpedo, which once launched must navigate about a hundred feet to reach outside before it heads for the enemy ship. So there is a hollow tube which leads this torpedo out of the submarine. To ensure, that the torpedo does not hit the wall of tunnel a tensile steel cord or communication cable guides the torpedo out, encasing this cord is a flexible pipe.

The minute the torpedo is fired, the pipe, which is in a drum, unravels and rivets around the torpedo and after reaching its full length breaks at certain strength to let the torpedo

along with the communication cable go and hit its target which could be up to 30 km away.

The key is in having a perfectly made flexible pipe which breaks just at a specific strength. The specifications have to be strictly adhered to, and the pipe has to be of certain length, weight, height, and diameter. This is where KPC Flexi tubes India Private Ltd. (and by association, Ace Micromatic Group) comes in, one of the three companies in the world to have successfully made this pipe for the Indian Navy. The story of KPC Pipes is as fascinating.

It started in December 1989 when Mr. K. P. Chandhok, a 52 year old who had just retired from a career in finance, decided to give life to his passion. He had no capital but a dream of



Incorporated in December 1988 the KPC Group has managed to gain a world-wide reputation as leaders in manufacturers of components used in automotive, industrial and Infrastructure sectors, manufacturing over 500 components. With over 300 team members, 35 technical employees, and a turnover of over 30 crores; the company's 'rigidity about quality' has gained it customers who are world leaders in their respective industries like Honeywell, ABB, Indian Navy, Siemens and NTPC among others.

making a machine that could make flexible pipes, he designed a prototype, a machine of its kind and started producing flexible pipes for BHEL.

A few hundred meters of production and the demand had exhausted but he had a machine and three men he did not have the heart to let go of.

The hobby thus turned into a full-fledged commercial venture which addressed requirements for such pipes across industries. While larger diameter pipes were made for exhaust and steam applications, smaller diameter ones were used for instrumentation and electrical computing. As Mr. Chandhok's sons, Gaurav and Gagan joined the business,

The vista grew broader and as Mr. Gagan Chandhok said, "Sky was now the limit." From hoses the company graduated on to making fittings for the hoses. KPC today manufactures interlock metal hoses, goosenecks; PVC extruded or wire braided conduits and more. KPC's conduits are manufactured as per IS 3480 and BS 6501 part-2 specifications and have been approved by companies like Siemens, Honeywell, ABB and Larsen and Turbo. Given its focus on quality and the excellent finishing of the fittings, KPC started getting orders for more precision products, which were not only meant for hoses but also for instrumentation.

So as the company started making the likes of

components for sensors and thermal couplers, and as they slowly gained a firm footing in the market of stainless steel precision components, the company felt the need for better machines. There was a distinct demand for more precision, repeatability, timely deliveries and strict standards that needed to be maintained.

A progressive thinker and a bit of a risk taker, Mr. Gagan Chandhok, started his R&D with job work CNCs. Satisfied with the results; he decided to procure his own CNC.

Having worked on various machines, he zeroed in on Ace Micromatic Group and thus started what was the start of what was to prove to be a long relationship.



Ace Micromatic CNCs brought in both quality and consistency

Needless to say, the Ace machines lived up to his expectations and it was to prove to be the first of many.

As the components started being manufactured on Ace CNCs, not only was there perceptible improvement in quality but also an influx of orders. KPC's commitment to quality and excellence has paid dividends.

Before 2004, the company worked on conventional lathe machines and consistency was a challenge and a lot of manual work had to be put into refining each component before the company could send it. Ace Micromatic CNCs brought in both quality and consistency; the customers commented upon the better threading, look and quality which was now at par with the best internationally.

As Mr. Chandhok recounts, "The components

on lathe machines required so much buffing and polishing that it became our USP, so when we sent the superior products, the customers were extremely happy but missed the polish; we still had to polish them," he laughed.

Having proved their worth in flexi tube and instrumentation industries, KPC once again expanded and ventured into the automotive industry. The 2004 year saw the advent of KPC's very successful foray into the making of sensor and trailer parts.

"Our customers are industry giants, we cater to maybe only 0.1% of their business, however post our association with Ace and the subsequent improvement in quality and deliveries, they have not only increased our business share but developed confidence in us and put more products in our kitty," says Mr Gagan Chandhok.

The truth of Mr. Chandhok's statement is reflected in his catalogues, "In case someone wants to make a sensor, all they need to is order parts from our catalogue and assemble it," offers Mr. Chandhok. The measure of success of the company can be gauged by the fact that the company today has a major distributor in almost every continent for its components.

It added other units like a press shop, a welding unit, powder unit, shot blasting units. It is now an all-encompassing, self-sufficient unit with its CNC division at the heart of it. KPC is today a key supplier to some of the leading trailer manufacturers in Europe, among others. Just like in the case of sensors, the range of parts that KPC makes is extensive and one can almost order an entire trailer, off a KPC catalogue.

It is not so much the volumes that KPC takes pride in but the range. Not only are the catalogues extensive but a single shipment has been known to carry as many as 172 parts, with varying numbers of each component.

The Ace-KPC relationship is symbiotic. While Ace Micromatic machines played a part in KPC becoming a reputed supplier in various

categories, KPC is one of the first companies to have worked with Stainless Steel on Ace machines and very successfully so.

"I do not think Ace realizes how good they are, we were the first ones at least in the Delhi-Faridabad region, to work with Stainless Steel on Ace Micromatic machines, and now so many others are doing it," says Mr. Chandhok. The company in a sense has opened up a lot of avenues for the machines. Seeing the success of KPC operations, Mr. Chandhok's cousin who ran a similar operation, Micro Precision Products, with around 150 lathe machines, switched to CNCs and procured thirty CNC machines from the Ace Micromatic Group.

KPC Flexi Tubes is a pioneer and a risk taker. It is constantly stretching its capacity and its limits. They are probably the only company to have worked with Ace machines on metals like Inconel and Estano, extremely hard and valuable metals. True to its nature, KPC is constantly stretching its own limits and in the process Ace CNCs'. The machines live up to the challenge every time.



KPC is probably the first company to have worked with Ace machines on stainless steel and also metals like Inconel and Estano, extremely hard and valuable metals.



And the one Jobber has turned to seven of the same category in addition to a BT-40 machining center, turning the Ace machines count to eight. Initially the company had bought a larger machine, not knowing the way the business would shape and how the machines would perform. However over the years not only has KPC gained confidence in Ace machines but Ace technology has also advanced and KPC now plans to buy smaller machines like Ace Cubs from the company.

"We have as many as three settings a day on our machines and it is possible only because the machines are so easy to operate and our workers are used to them." The CNCs have not only improved quality and consistency but brought down labor costs in the sense that every CNC machine has substituted almost 6 conventional lathe machines.

Also, because of the ease of operation, labor is readily available and at a lower cost.

Having a machine shop which has all Ace CNCs has proved to be an advantage, there is the ease of learning for all our teams, be it maintenance, operators or workers; we have

developed a comfort level. "I realized that buying a machine was one thing, and maintaining it another. So what worked in favor of Ace Micromatic Group was our proximity to its service center and also since it was an extremely well sold machine, we knew that spare parts would not be a problem."

"Ace machines have really helped us balance our company operations. Not only are they extremely low on breakdowns but the post sales is exceptional," adds Mr. Praveen Kumar, the head of Production at KPC.

While KPC's products are known for their inherent strength and high performance, its relationships are the same. Be it vendors, customers or the factory workers, the company has a connection and concern that transcends mere professionalism. A large section of KPC workers are people with disabilities, the company supports entire families and encourages employment within families, the company even offers a second chance to recovering alcoholics whose wages are partly given directly to their ration shops and the other half to their wives.



KPC Flexi Tubes is as flexible as its name. "We are rigid only about quality," is the motto of this ISO 9001:2000 company. It is no wonder that the company has risen from one with no capital to one with a turnover of nearly ` 30 crore and even bigger targets.

The size and the reputation of the company can be gauged from the fact that it does sales in over 30 countries including Germany, UK, USA, Netherlands, Italy, France, Austria, Sweden, Poland, Australia, South Africa, Saudi Arabia, UAE, China and Singapore to name a few.

Today the company has gained a formidable world-wide reputation and its customers read like a power list of top industrial conglomerates. While its industrial customers include Siemens, ABB, NTPC, BHEL, its automotive customers include Hambaur, Granit, Schmitz Cargobull, Mehler, Strautmann, UPS, Branter, Wabco, Kramp and TATA motors among others. It is not only these companies that depend on KPC for key components but also infrastructure related companies. RDSO Lucknow has approved the company for supply of bridge bearings

for the infrastructure sector of the Indian railways.

It is a company founded on commitments, passion, vision by men with spines made of steel. A company making components not only for giants across the world but also for men of steel who guard our sea borders. It is a company that makes flawless products that give these fearless men the confidence that they are backed by an infrastructure as strong and reliable. That behind them are more men of steel, with an attitude and spirit that is chiseled to perfection. Men who are also malleable and flexible like the tubes they make, adapting to times, rising up to opportunities and stretching their limits. It is a process, a vision, a journey Ace Micromatic Group is proud to be an integral part of and sees itself travelling along a long way with, hand in hand, part by part, from one formidable challenge to another...winners in arms. **CNC+Plus**

As told to our correspondent Ms. Gurpreet Kaur.



KPC Flexi Tubes

Faridabad, India.

www.kpcflixtubes.com

NEVER BACK DOWN



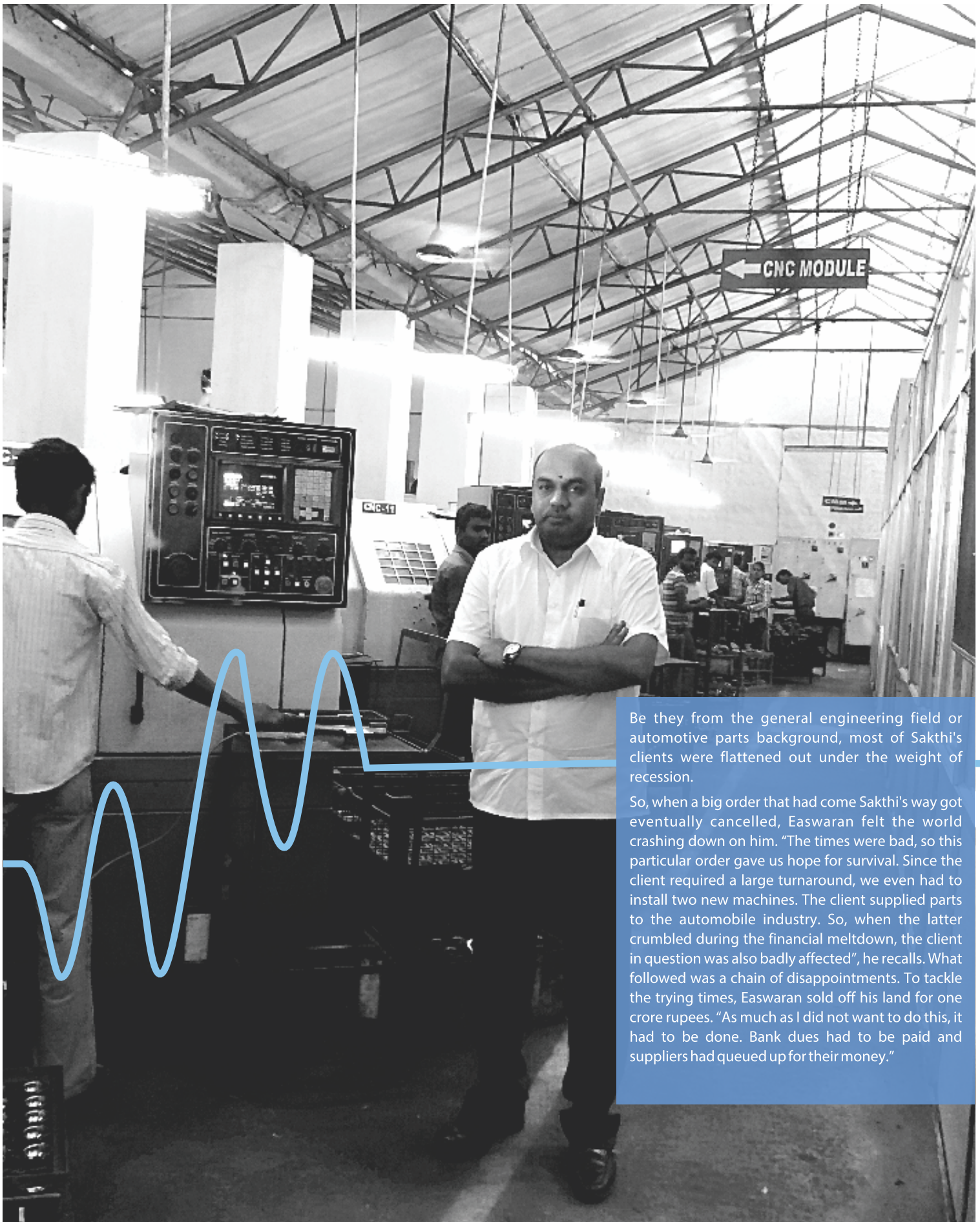
You can do a lot armed with 15,000 rupees and a bicycle. If you sense disbelief and suspense flooding through you, no matter. All you need is a brief meeting with K. Easwaran of Sakthi Gear Products to set your doubts to rest.

“Let me take you back in time. The year was 1990 and I was inspired by the thirst to do something on my own. And all that I had to reach my destination was a bicycle and 15,000 rupees”, reminisces Easwaran in a cool, clear voice. With limited resources in hand, Easwaran started a business that focused on the manufacturing of textile spares with the help of conventional lathes. A day's work would typically involve cycling between mills and figuring out their requirements. “I would go around taking measurements at mills so that we could manufacture replacement parts for them”, he remembers.

The story took a more modern turn around 2002-2003 when Easwaran realized it was time to ramp up. “I got my first job order from Marks Engineering

and with that I felt the need for mechanization.” Thus, Sakthi Gear acquired its first CNC lathe. Interestingly, this was also the initiation of a long working relationship based on trust and goodwill. “Ever since that first job order, we have worked consistently with Marks”, Easwaran points out.


In five years, however, the situation changed drastically. Both for the good and bad. The good part was that Sakthi was being able to land more and more job orders pushing Easwaran to scale up to six machines – three VMCs and three turning centers. The bad part was the impact the recession created on the company. “At the peak of recession, orders trickled to almost zero. Since big companies were suffering, so were we”, he recalls.



Be they from the general engineering field or automotive parts background, most of Sakthi's clients were flattened out under the weight of recession.

So, when a big order that had come Sakthi's way got eventually cancelled, Easwaran felt the world crashing down on him. "The times were bad, so this particular order gave us hope for survival. Since the client required a large turnaround, we even had to install two new machines. The client supplied parts to the automobile industry. So, when the latter crumbled during the financial meltdown, the client in question was also badly affected", he recalls. What followed was a chain of disappointments. To tackle the trying times, Easwaran sold off his land for one crore rupees. "As much as I did not want to do this, it had to be done. Bank dues had to be paid and suppliers had queued up for their money."





There's something for everybody at Sakthi Gear

But like they say, there is a silver lining to every cloud. Not only did Sakthi survive the wrath of recession in 2008 but also emerged stronger, eventually covering clients across sectors. Despite these successes, Easwaran never leaves behind the basics when he comes to work. "Moving this business to where it is today would have been difficult for me if I had to do it all by myself. However, thanks to a great team, this business has been able to cross many hurdles. Most of them have been with me for over ten years now", informs a proud Easwaran.

Today Sakthi serves clients across sectors and has even ventured into exporting some parts to the UK and US for the last six years. Manufacturing valves for a multinational company has also stepped up Sakthi's position in terms of business consistency and client approval. And there's something else that has been pivotal in making Easwaran's business a success: Sakthi Gear's enduring business relationship with Ace. "We bought our first machine, a Jobber XL, from Ace Designers in 2003. I had only heard about Ace's precision in sales and after sales service till then. Once I bought the first machine, I realised why I had been suggested to buy from them", points out Easwaran. So, in many ways, the decision of buying 20 more machines from Ace sounds justified. "Every time, there has been the slightest problem with any of the machines, repair has been only a phone call away. But what really made a difference to Sakthi's relationship with Ace is that the latter came with the kind of expertise we needed when we were getting accustomed to the idea of auto CNC machines."

At this point, the constant whirring of machines reminds us that we are in the middle of a busy day at work. And that it is time for Easwaran to attend a friend's daughter's wedding.

As the man drives away, we know that a rickety bicycle and a few thousands are all you need to make it big. **CNC+Plus**

As told to our correspondent Ms. Sunanda Pati.

Sakthi Gear Products

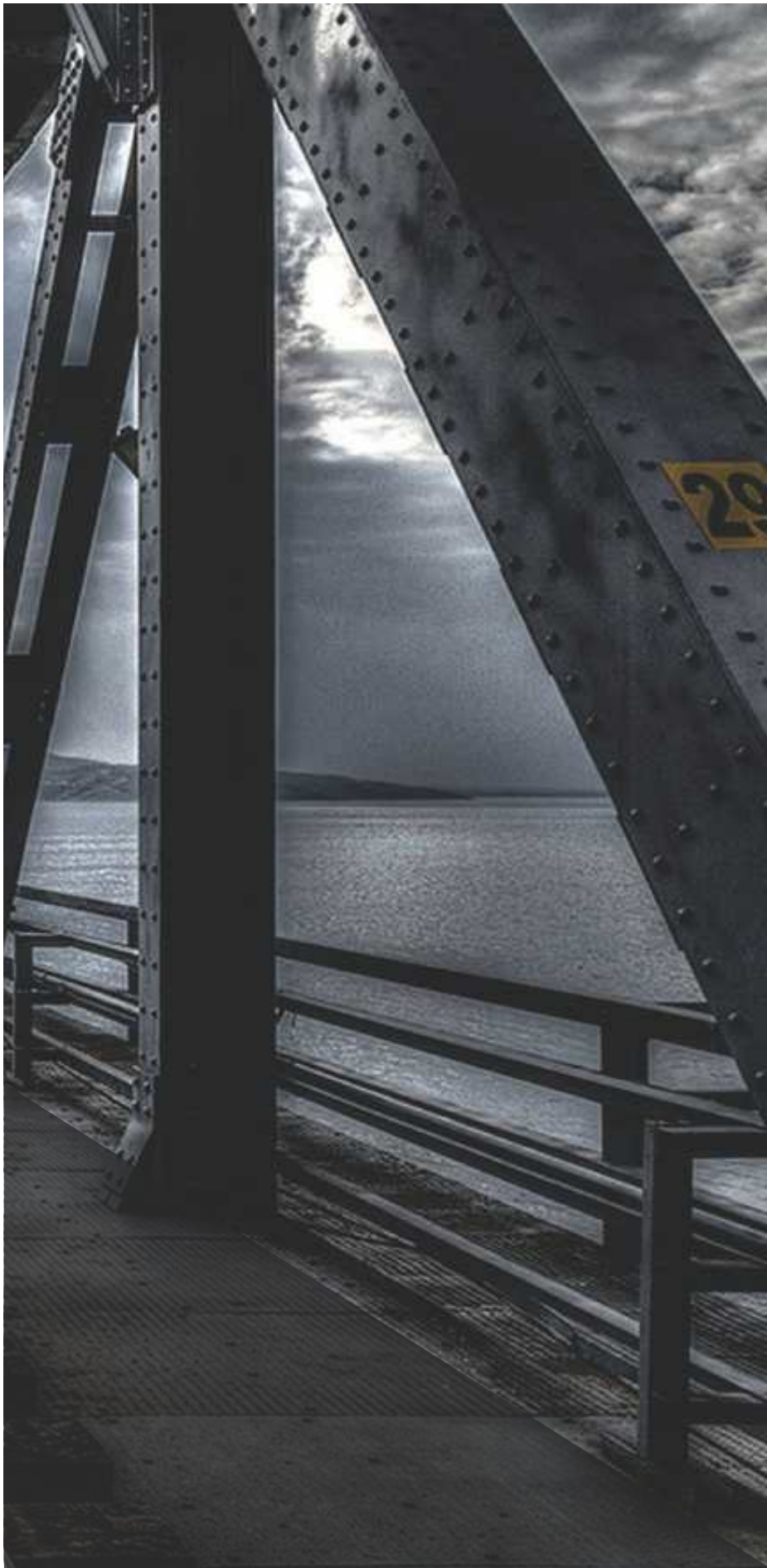
Coimbatore, India.

www.sakthigear.com



3 1/2 times to the moon..

Envision tracks of metal that form a labyrinth of over 115,000 kms, over a route of 65,000 km running across 7,500 stations and transporting over 30 million passengers daily as of January 2014. The statistics sound even more astounding when we think of these miraculous metallic carriers, running like the veins in a human body; the life line of a nation that transports over 10 billion population and goods worth millions annually. We are talking here of none other than one of world's biggest transportation networks the Indian Railways.



While mere numbers may not do the trick, some interesting facts tell us exactly how gigantic the operations of this network, which we take for granted, are. The Indian Railway network is the fourth largest in the world, running 14,300 trains daily which collectively travel a distance equaling three and half times the distance to the moon. The entire population of Australia, New Zealand and Tasmania put together, falls short of the 25 million passengers which the Indian Railways carries on a daily basis, this does not include the 2.8 million tons of freight, which it ferries everyday. If the Indian Railways carried only unique passengers in a year, it could ferry the entire population of the world in a single year, with about 25% of capacity to spare.

This brings us to the safety of the network; given the statistics of 2011-12, the percentage of train accidents vis a vis the total number of train journeys was a mere .0025%; out of which 87.78% were due to human failure and a mere 3.81% due to failure of equipments. To make a network, that seems to be safer than NASA; the Indian Railways relies upon only the best of the best vendors. Escorts Railway Products (ERP), a division of Escorts Group, is one such company which has remained as one of the reliable partners of Indian Railways throughout its journey of modernization since 1962.

With a rich experience of manufacturing critical railway products, including safety equipment, Escorts Railway Products is a market leader across all product offerings. There is a lot of focus on developing newer products with better technologies through an exclusive research and design facility as well as collaboration with leading names in the Railway Industry. A certified ISO 9001:2008 company, its products conform not only to Indian standards such as RDSO but also international standards such as UIC, AAR etc.

The company is a division of the Escorts Group, which is one of India's leading engineering conglomerates. Established in the year 1944, the group has had an invaluable contribution towards the mechanization of India's farming; one of the key steps in Green Revolution. Escorts has always been a forerunner of new technology, a prime mover on the industrial front, it has at over the years, introduced products and technologies that have helped the nation progress in key growth areas. With a presence in over 40 countries, the group has filed 80 patents in the last four years. It is one of the world's largest Hydraulic mobile pick 'n' carry cranes manufacturer and India's third largest tractor manufacturer; having rolled out over one million tractors. It is then no surprise that it is one of India's leading suppliers to the Indian Railways, having maintained the position for over 50 years.

In the 22,500 sq. meters state of the art facility, which doles out brake systems, couplers, shock absorbers, vestibules and break blocks for the Indian Railways as well exports to countries like Egypt and Sri Lanka, etc.; proudly stand the Ace Micromatic machining centres.



In the 22,500 sq. meters state of the art facility, which doles out brake systems, couplers, shock absorbers, vestibules and break blocks for the Indian Railways as well exports to countries like Egypt and Sri Lanka etc; proudly stand the Ace Micromatic machining centres. As the company is surging ahead into new domains of Railways through global partnerships, the machines are to be used in the manufacture of components for the new technology bogie mounted brake system which is now being commissioned as the earlier systems are being phased out.

"It is the first time we have worked with Ace Micromatic. I being originally from the machine tool industry, I always knew that Ace Micromatic machines were good. There was

always the impression that Ace was in the small vendor category but I now see the machines in a lot of large organizations," says Mr. Vikas Tandan, Dy. General Manager Maintenance. "It was however a trip to Ace's plant in Bangalore that truly shaped my opinion. We thought Ace made only simple machines or tooled up machines. We were extremely impressed with your facility and happy to see the kind of machines you were making. We did not realize such kind of work was happening in India", elaborated Mr. Tandan.

When asked about the experience with the machines, "Your machines are good," he said without missing a beat, "Escorts had never procured machines from Ace Micromatic but we are very happy; not only are the machines

good; you are a customer oriented company and hence the immense growth that the Ace Micromatic Group has seen since its inception."

He then went on to cite his experience with Ace Micromatic. "Ace had promised a feature when we were buying the machine. However when we tested on the shop floor, we realized that in 20% of the cases, there was a flaw. They could have easily said it's only 20% of the cases or said that Escorts had already inspected the machine and refused to do anything or take responsibility. However Ace understood our problem and fixed it. Whatever the marketing team had promised, the technical team delivered."

With Escorts being an extremely well informed and tech-savvy client, it had very

precise requirements, down to the make of the LM guideways, ball screws etc. that held the machine. Ace Micromatic not only complied but provided a quality product at a highly competitive price.

Ace Micromatic's machining centres are used to make several components, like the load sensing device (LSD), tucker carriers and several others. These are not dedicated machines as Escorts Railways does not use a shift system. The simple functioning of the Ace machines, allows for a hassle-free change of settings, which happens every 8-16 hours at Escorts with a change in requirement.

A trip to the shop floor showed that the Ace machines stood prominently, holding their own in a neatly organized space. Mr. S.K. Taneja, the CNC Head said that he was very happy with the machines and there had been no problems. The machines have twenty four tools and perform a variety of operations to manufacture an entire range of components. "While it may seem that our quantities are not much, you need to understand, that a number of components go into the making of one part," intervenes Mr. Tandan. The turnaround time, used to make a component is 12 minutes on an Ace Micromatic machine, the cycle time having been reduced by 20%. Mr. Taneja was extremely appreciable of the fact that Ace as a company allowed for a lot of adaptability. "We initially felt that the flushing was inadequate and asked for a larger motor," he said with obvious pride in the machine.

When asked about the on-machine experience, he said, "We are very happy with the machine. It is a fully covered machine. The coolant pressure is high, and chips are automatically pushed to the chips conveyor belt, saving us productive time which would have otherwise gone into cleaning. The machine has a separate filtration system. The most important feature is the interfacing. If we re-set the machine, we have to go to the first tool and follow through every step again. This minimizes human error, unlike in other machines, even if the operator makes an error; the machine would not allow it."



The operator is quick to chip in as he demonstrates the three check points or the three interlocking points which makes the procedure error free.

His sense of pride shines through as he demonstrates the one touch ejection button, in case the cap gets stuck.

"It is a very easy machine to operate, there is hardly any learning time required. The interlocking system is great, if there is a snag or a power cut, the doors can be open." He further goes on to elaborate on the joys of working a fully closed machine, "There is no dust, no sound, no coolant splash and no chips that are scattered around, the flushing feature saves us a lot of time and effort." Not only do all these features make the whole working easier for the operator, it also makes for a healthier work environment.

The simple functioning of the Ace machines, allows for a hassle-free change of settings, which happens every 8-16 hours at Escorts with a change in requirement.

“There is no dust, no sound, no coolant splash and no chips that are scattered around, the flushing feature saves us a lot of time and effort.” Not only do all these features make the whole working easier for the operator, it also makes for a healthier work environment.



While the Escorts Group has differentiated itself by remaining ahead of the technological advancements not only through critical alliances with world leaders but also through constant research and innovation; and also through a focused customer oriented approach, Ace Micromatic reflects exactly those principles and hence sees a long term alliance with all divisions of this progressive group. “We definitely see that your performance would open up the doors of the other Escorts Group divisions for you,” says Mr. Tandan.

Great privileges mean greater accountability and Escort Railway Products realises the immense responsibility it shoulders when manufacturing safety products for the Railways. The fact that it albeit indirectly, shoulders the responsibility of the millions of passengers that use the Indian Railways is always at the forefront when the company manufactures a product.

“Every single part is tested by us.” says Mr. Tandan. “It is not a batch inspection, we inspect every single piece. After we have passed them, Indian Railways then tests every piece and puts their hologram,” he reiterates. Needless to say, each Ace Micromatic machine by implication goes through the same quality check and has lived up to impeccable standards expected of it.

The Escorts Railway Products brochure reads, “Every technology has a purpose, a purpose that drives tomorrow. The objective behind

our technology is to make Railways safe through high standards of quality.”

Ace Micromatic proposes to do exactly the same, to provide machines that continue to live up to the high standards of quality to be a cog in a system that lies at the core of India’s infrastructure, to keep 10 billion passengers a year safe... **CNCPlus**

As told to our correspondent Ms. Gurpreet Kaur.

Escorts

Faridabad, India.

www.escortsgroup.com



Case study

Tracking the Shop Floor Story

On any given day, a shop floor is a crazy place. At any given point, there's too much happening. And that gives rise to the need for accountability. TPM-Trak is a software/hardware offering from Pioneer Computing Technologies that allows manufacturing companies to keep a tab on shop floor processes. This case study reveals how this product has been instrumental in shaping up shop floor production values at Wipro Infrastructure Engineering.

About Wipro Infrastructure Engineering

Wipro Infrastructure Engineering (WIN), a division of Wipro Enterprises Limited, is the largest independent hydraulic cylinder

manufacturer in the world. It came about as a result of Wipro's diversification efforts that started in 1977. The first plant came to be established in Peenya, Bangalore while the second was erected in Hindupur. In 2006, another plant was established in Sriperumbudur, Chennai. WIN has 14 state-of-the-art manufacturing facilities across India, China, US, Brazil, Eastern Europe and Northern Europe. With over six decades of experience combined with widespread geographical presence, deep expertise, scalability and focus on quality, Wipro Infrastructure Engineering is now considered one of the most preferred hydraulic solution providers in the world.



What WIN needed

When WIN approached Pioneer Computing Technologies, the company was still using manual methods of data collection at the shop floor. This was a challenge because the required data was not available at the right time. "All the plants had their own and different ways of collecting data. This prompted me to bring about uniform norms that would aid in calculating productivity", says Vasudeva Rao K., Manager, Process Excellence, WIN. Before the arrival of TPM-Trak, data collection was a real challenge at WIN. "Manual Data capturing made it difficult to rely up on as it is operator dependent. What made it even more challenging was the presence of different kinds of machines. From welding machines to turning centers, CNC machines to robots, all working equipment required a

standardized system," recalls Rao.

So, at the time, the immediate need was for a tracking system that would allow consistent follow-up on data associated with production and stoppages. Flexibility was also a concern because they had a host of different kinds of machines. The system, thus, would need to seamlessly gel with processes such as burnishing, turning and welding among others. WIN was also intent on making the shop floor more visual in nature. One sureshot way of doing this was to deploy ANDON boards that would be driven by data collected in real time. The end goal was simple – this real time data should help process improvement involving both labor and workflow. WIN also needed a solution that could be implemented across plants.

Earlier, data errors belonging to one shift would reflect on another because the function would not reset with the end of every shift. This would invariably lead to confusion. We've been able to resolve this over a period of time.



Pioneer's answer: TPM-Trak

When Pioneer CT started acting on behalf of WIN to set the latter's data collection methods in place, TPM-Trak was the obvious choice in hand. TPM-Trak covers the spectrum of hardware and software machine monitoring products offered by Pioneer CT. From tracing online production to downtime, monitoring real-time events to energy used up, TPM-Trak can be used on the go with the aid of mobile phones. TPM-Trak products are geared to give off the following results:

- Increased production rates
- Improved Overall Equipment Effectiveness (OEE)
- Reduced down-time losses
- Reduced cost per piece
- Better decision-making capabilities

How it has worked for WIN

WIN had acquired machines equipped with TPM-Trak, and from November 2011 the TPM Trak began to be put into action. "It has only been a year and half now that TPM-Trak operations across plants have been stabilized. Earlier, data errors belonging to one shift would reflect on another because the function would not reset with the end of every shift. This would invariably lead to confusion. We've been able to resolve this over a period of time," states Rao. Post-implementation, the team at PCT has made sure of working collaboratively with the one in WIN. Since the former can access problem areas through their servers, issues have been nitpicked and resolved effortlessly. In some instances, problems have been solved in a day! For problems that can't possibly be rectified remotely, service engineers are just a call away.



Why TPM-Trak

Efficiency of man, machine and process is of primary importance. But something as simple as data retrieval can turn it all upside down. TPM-Trak, with its ability of recording real-time production data, ensures better accountability, greater precision at work and improved maintenance of machines. In effect, the need for electricity goes down and so does overall downtime. And naturally, better decision-making follows. **CNC+Plus**

As told to our correspondent Ms. Sunanda Pati.

If you want to know how **TPM-Trak** can enhance the productivity at your shop floor, contact us:

T: +91 97404 66636,

+91 97407 24242

E: connect@acemicromatic.com

MACHINE ENVIRONMENT



Machine Environment

The area around the machine should be free from dust, moisture, standing water, liquid and rain etc.



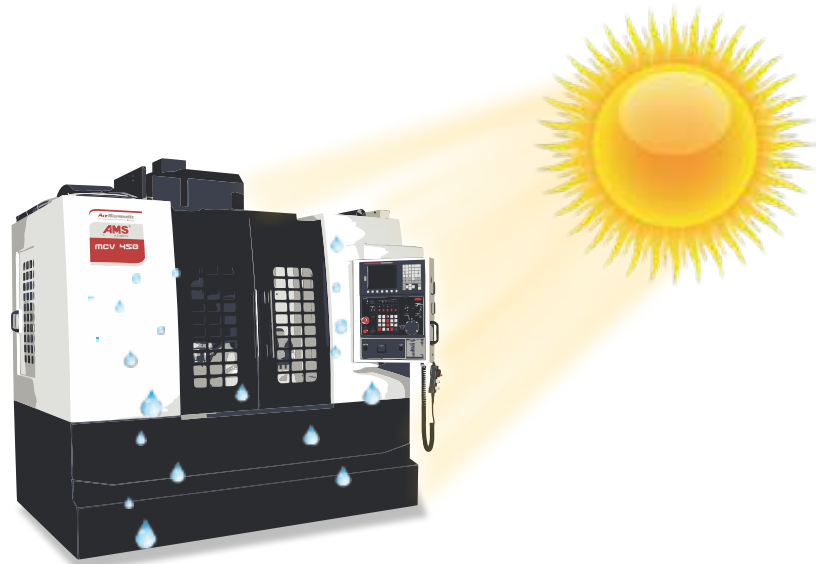
Magnetic Sources

The machine should not be placed near the vibrating sources like punch press & magnetic / electric sources etc.



Exposure to sunlight

The machine and CNC should not be exposed to direct sun light or any other heat sources. This may lead to overheating of moving parts.



Leveling of Machine

Machine leveling pads & bolts should be used for proper placement & tightness of locking bolts & nuts.

Machine Earthing and Safety Requirements

- Use Earth Leakage Circuit Breakers(ELCB) of 63A, 30 mA, 415 V AC, 4 pole tripping.
- Ground & Neutral dia 4/6 mm copper to be used.



dia 4/6 mm copper





Sales and services
contact details

INDIA

NORTH

Delhi
T: +91 11 22414232
E: mmtdel@acemicromatic.com

Gurgaon
T: +91 124 4745500
E: mmtdel@acemicromatic.com

Rohtak
T: +91 99966 91055
E: mmtdel@acemicromatic.com

Faridabad
T: +91 129 4047000
E: mmtdel@acemicromatic.com

Ludhiana
T: +91 97791 28296
E: mmtdel@acemicromatic.com

Rudrapur
T: +91 95570 30224
E: mmtukd@acemicromatic.com

SOUTH

Bangalore
T: +91 80 40200555
E: mmtblr@acemicromatic.com

Chennai - Sriperumbudur
T: +91 44 40440700
E: mmtche@acemicromatic.com

Ranipet
T: +91 4172 272732
E: mmtprt@acemicromatic.com

Bangalore - Bommasandra
T: +91 80 27834836
E: mmtbms@acemicromatic.com

Chennai - Tambaram
T: +91 044 22265531
E: mmtche@acemicromatic.com

Trichy
T: +91 431 2483066
E: mmttry@acemicromatic.com

Belgaum
T: +91 99800 02597
E: mmtbgm@acemicromatic.com

Coimbatore
T: +91 422 4506183, 6588595
E: mmtcbe@acemicromatic.com

Chennai - Ambattur
T: +91 44 40440700
E: mmtche@acemicromatic.com

Hyderabad
T: +91 40 23070496
E: mmthyd@acemicromatic.com

EAST

Jamshedpur
T: +91 657 6539931
E: mmtcal@acemicromatic.com

Kolkata
T: +91 33 23648781
E: mmtcal@acemicromatic.com

WEST

Ahmedabad
T: +91 99242 89892
E: mmtbom@acemicromatic.com

Pune - Chakan
T: +91 21 35322002
E: mmtpune@acemicromatic.com

Mumbai - Thane
T: +91 22 25829062
E: mmtbom@acemicromatic.com

Aurangabad
T: +91 240 2552309
E: mmtaur@acemicromatic.com

Pune - Chinchwad
T: +91 20 40712111
E: mmtpune@acemicromatic.com

Pune - Shirur
T: +91 98906 23217
E: mmtpune@acemicromatic.com

Indore
T: +91 73899 39190
E: mmtindr@acemicromatic.com

Kolhapur
T: +91 230 2460444
E: mmtkop@acemicromatic.com

Rajkot
T: +91 281 6548369
E: mmtraj@acemicromatic.com

Nasik
T: +91 253 6610254
E: mmtbom@acemicromatic.com

Mumbai
T: +91 22 26861009
E: mmtbom@acemicromatic.com

INTERNATIONAL

Germany
T: +49 1722316688
E: debjoyr@acemicromatic.com

China (Shanghai)
T: +86 (21) 5866 5031/32
E: raguramachandranc@acemicromatic.com



Micromatic Machine Tools Pvt. Ltd.,
#240/241, 11th Main, 3rd Phase, Peenya
Industrial Area, Bangalore – 560 058
Tel: +91 80 4020 0505
Email: connect@acemicromatic.com
www.acemicromatic.net



[/acemicromaticgroup](#)



[/user/acemicromaticgroup](#)