

### 'A man is known by the company he keeps A company is known by the companies it keeps.'





In nature , atoms combine and form bonds with other atoms depending on their VALENCY. And it is the VALENCY of MGT, its customers and stakeholders that creates the necessary conditions and force to bring us together. Because the valency matches, the bonds are formed. Once formed, they are not broken easily. So what creates our Valency?

Our technological expertise, values, business ethics and management practices create this VALENCY but it is when this VALENCY matches with our customers and stakeholders and when our values are shared that a lasting BOND is formed

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## CHAIRMAN'S MESSAGE

Dear patrons and well wishers of MGT,

Our last issue was our 'Declaration of Interdependence' where we affirmed that the fates of our ecological, social and economic worlds were bound together and what we did in one circle affected the other. We declared our responsibility to one another, to the greater community of society and to the environment.

In this issue, we take a closer look at the links that bind these three circles of the economy, society and environment together.

We, at MGT, believe that we are not a separate entity and are defined in our totality through our associations with different people, organizations and networks.

"A company is known by the companies it keeps" and MGT's growth cannot be divorced from its customers and stakeholders – these are the companies we keep – and these define us. In fact, our customers and stakeholders are an intrinsic part of our growth story- our latest innovations, our cutting edge technological expertise and our socio - economic environmental consciousness. As a well wisher, customer and stakeholder, you continue to define us, machine after machine, day after day, year after year.

But what is it that brings us together and binds us? What is it that enables us to create and sustain winning partnerships? It is what we call Valency. Our Valency is our values, our organizational principles, our management practices. It is our vision, our socio - environmental responsibility and our business ethics. Our Valency is the link between the circles of economy, business and society. Because our Valency matches yours, we have been able to forge partnerships that deliver spectacularly and have a positive effect on all three circles.

This issue is an attempt to explore the idea of Valency- by presenting on ground initiatives and innovations that create this Valency, that binds us to you.

With warm regards,

N.K.Dhand Chairman & Managing Director Micromatic Grinding Technologies Ltd



# TECHNOLOGICAL EXPERTISE Accuracy. Exactness. Perfection. Precision

Every product manufactured at MGT is conceived by following thorough Research and Development procedures...every component is created with utmost precision and each product delivered following methodical examinations.

### Crank Shaft Journal Grinding Machine Model: Rhino R-120

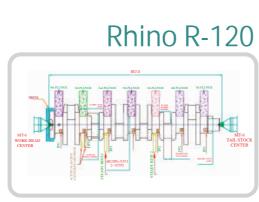
Crank Shaft Journal Grinding Solutions for high accuracy and Productivity of 3, 4 and 6 cylinder crank shafts.

### Key features

- 5-Axes and 2 Channel/path control CNC system.
- Simultaneous dressing and grinding cycle eliminates dressing time.
- Best dressing performance by high precision wheel head mounted 2-axes dresser
- Consistent runout and roundness accuracies ensured by proper job support during grinding by 3- point auto hydraulic steady rests.
- Fully tooled up machine with in-process gauge, positioning (flagging) and wheel dynamic balancing

### **Technical Specifications**

Description	Unit	Specifications R-120
Swing over table	mm	500
Admit between center	mm	1000
Grinding wheel diameter	mm	900 (1066 opt)
Peripheral wheel speed	m/sec	45 (60 optional)
Spindle power	kW	22







### Crank Shaft End Grinding Machine: Model *h*-Grind:

It offers precision grinding of multiple diameters in single set-up for large heavy parts e.g. railway axles and transmission shafts of heavy duty gear boxes, end grinding heavy duty crank shafts, profile grinding of rear axles of 4-wheelers etc. having length up to 3000 mm.

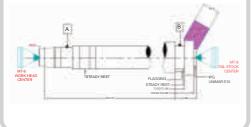
#### Key features :

- Straight wheel head or angular wheel head configuration as per application.
- Heavy duty work head with AC servo motor for constant torque at full range of speed.
- Easy adjustment of work head to suit the component length by rack and pinion arrangement.
- Idle movement minimized by mounting of dresser on tail stock or table .
- Fully tolled up with in-process gauging, flagging, dynamic wheel balance and 3-point hydraulic steady rests to suit the job length.

#### **Technical Specifications**

Description	Unit	Specifications <i>h</i> -Grind 500 x2000	Specifications <i>h</i> -Grind 500 x3000
Swing over table	mm	500	500
Admit between center	mm	2000	3000
Grinding length	mm	1000	1000
Grinding wheel diameter	mm	760 x 180	760 x 180
Peripheral wheel speed	m/sec	45	45
Spindle power	kW	22	22

### h-Grind









Our associates, MMT opened a branch office in Grenchen, Switzerland in 2010. The focus here is on providing quick and efficient service to European customers of MGT Grinding Machines.

The Switzerland branch is already raising the bar in innovation and productivity. A successful house show was organized in July at the Switzerland branch.

IG 50 - This was our "show stopper", displayed near the very entrance of the hall.





E-grind 200



GCU 260



Our technological expertise and innovative machines created the VALENCY and attracted the participation of the following companies.

- 1. Promec Automation
- 2. Movomatic
- 3. Greber Tools
- 4. Winterthur Grinding Wheels

The show attracted about 100 people and the highlight was the visit of delegates from Bosch Germany led by Mr. Krauter himself. Mr. Shailesh and two of his colleagues spent about 6-7 hours at our show.

There were 9-10 hot enquiries including one from Berger Ummendorf. Some of the other customers where W+F have submitted their offers are Sirona (Germany), Haeni(Switzerland) and Mawatech (Italy).

Mr. Wittwer (Rewitech) also made a short visit with his customers on the first day.



House show at MMT Grenchen, Switzerland



### Ace Micromatic Tech Centers

Ace Micromatic has endeavoured to create an eco-system to offer holistic solutions to customers for the continuous improvement of productivity, efficiency and quality. The establishment of Tech Centers at prominent industrial locations is also a part of our customer focus of hand holding. At present, this activity / initiative of Tech Center has been fully operational at our own premises in Gurgaon, Pune, Bangalore and at the rented premises in Chennai.

They are one stop shops for getting all the required information regarding Machines, Tooling and Fixture Options, Part Development, Machining Applications, Part Prove Out and Training .These centers are staffed by dedicated and experienced personnel . Every Tech Center has a representative selection of machines for customers to get hands on experience. They are fully equipped with state of the art training facilities, a representative selection of cutting tools, measuring instruments and CAD/CAM programming software.

The activities at these Tech Centers are:

#### Hands on experience of machines

Access to representative models is given to customers to assess the performance of machines. The technical staff assists them in the right selection of machines.

### Application engineering

The major activities are

- 1. Cycle Time Work-out along with Tool Layout
- 2. Recommendation of machines, work holding and cutting tools
- 3. Design and supply of simple tailor made jaws

- 4. Trouble shooting of process related issues
- 5. Machine audit and consultancy service

#### Seminars and House Shows

Interactive seminars and workshops are organized where the suppliers of accessories are also present to up-date the customers about the latest developments. These provide a forum to the customers where they can directly interact with the manufacturers.

#### Training

The major training programs are

- 1. Standardized modules of training on programming and maintenance.
- 2. Advance courses on effective utilization of machines
- 3. Customized training courses for various levels from Trainee Engineers to Senior Managers

#### **CSR** Initiatives

This is a unique CSR activity that offers gainful employment to the unemployed, non-technical youth. Under this initiative, youngsters are offered 8 weeks hands-on training on the operations of the CNC Lathe and Machining Center. We also help them get employment in the industry.





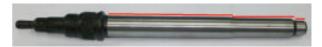
### ADDRESSING CHALLENGES Improving processes, technology and machines

Technology plays a leading role in innovation, but it isn't the only factor. Technology can be the establishing base for innovation, but it is people that drive it forwards. Technology is the mechanics of the process. Real innovation is about great people generating and then implementing new ideas.

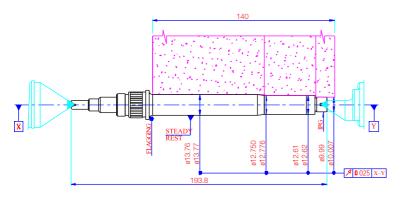
### **STALLION SH-40 CNC**

Component Name: Armature Shaft

Component Picture with Grinding Area highlighted:



Grinding Layout:





PARAMETERS	BEFORE	AFTER
Number of set-ups	3	1
Cycle time	115 secs	70 secs
Productivity increased	Х	1.6 X
Set-up change time	60 mins	nil
Maximum taper after grinding	7 microns	3 micron



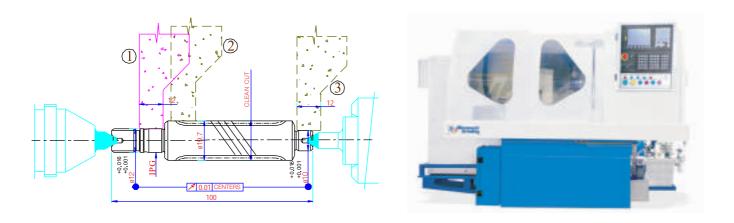
### E-Grind 200 CNC

Component Name: Worm

Component Picture with Grinding Area highlighted:



Grinding Layout:



PARAMETERS	BEFORE	AFTER
Cycle Time	25	22.5
Productivity Incresed	Х	1.1X
Process Capability	Cpk 1.33 on all dia.	Cpk 1.67 on all dia.
Job Driver	Need of job driver	No need of any job driver
Surface Finish	Ra >0.6	Ra<0.6



### MANAGEMENT PRACTICES

Putting social and environmental responsibility at the heart of our Management Practices.

In 2010, we had several open sessions where we brainstormed on topics like – " In what ways should our thinking change so that it is reflected in our daily actions?" We developed 'Operational Values' to help us focus on issues of quality and sustainable inclusive growth. We made 'Self Discipline' our core value. Now in 2011, we are taking this perspective forward by living up to this core value in different and valuable ways.

### SELF DISCIPLINE IN PRACTICE

Mr. R.C Lohani, "Manager Stores" To improve myself.

- Wake up at 5:30 in the morning.
- 2. Yoga-1hr daily in the morning.



At my work place.

- 1. Same day response to internal / external customers.
- 2. Keep patience and control anger.
- 3. To train all temporary workmen for safety during loading and unloading. Also providing them safety gloves and helmets

### For my family

- 1. Involve family members in yoga
- 2. Help them in household work

### **For society**

- Made a welfare committee in my colony and arranged a security gate by collecting amount of `500 from each home.
- 2. Organized one day free medical camp during Shiv Kavariya processions at Gangnahar bridge in Muradnagar.
- 3. Organized a free medical camp where 7 doctors gave free services. 677 patients were examined at this Medical Camp.

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### ADDING VALUE-GEMBA MEETINGS



N. K. Dhand, CMD, interacting with staff and workers at the monthly Gemba meeting on the shop-floor

#### "Gemba "

Japanese; the place where value is added.

In a manufacturing industry like ours, GEMBA becomes the shop-floor. So our fortnightly GEMBA meetings at MGT focus on continuous improvement at the shop floor. In the last GEMBA meeting, the 4R principles of waste management were introduced to all employees.

REDUCE. REUSE. RECYCLE. REPLACE

SAVING WOOD BY USING RECYCLABLE PACKAGING The crate packing for coolant units which was earlier destroyed has now been replaced by re-usable wooden boxes which saves wood and therefore trees. A total of 576 trees are thus saved annually.



An organization's productivity is measured not in terms of employee satisfaction but by employee engagement. Employees are said to be engaged when they show a positive attitude towards the organization and express a commitment to remain with the organization.

And so MGTL "Summer Camp" was organized in June 2011 for the children of MGT employees where they participated in activities like poetry recitation, songs, dance and quizzes besides a special program on "Awareness of Water Conservation"





Summer Camp for employees' children at MGT Ghaziabad



# ENVIRONMENT

At MGT, we are committed to develop and implement a coherent environmental policy which demonstrates good practice. Our environmental footprint remains a cornerstone of the Company's sustainability platform.



- 1 lakh ltr. capacity U/G and water tank for rainwater collection and storage.
- Advance Rainwater Harvesting System to recharge ground water for conserving ground water.
- Automatic Taps and Uninal Flush Systems in toilets for hygiene and water conservation.
- Regular testing of bore well water samples for water quality through certified laboratories to ensure that the quality of the ground water is good.
- Regular cleaning of storage water tanks to ensure that the water is suitable for drinking purposes.
- Water purifiers at drinking points.





- 25% green cover with plenty of trees and plants for clean and green environment.
- Almost paper-less working by optimally using ERP and IT tools like e-mail and CRM software thus contributing to the saving of wood and trees.
- Hazardous waste disposal through certified Pollution Control Board Agencies.

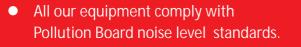


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- The height of all our chimneys is as per Pollution Board norms.
- CFC free chillers for centralized air conditioning.
- Advance dust filtration and collection units for clean exhaust air in surface treatment area.
- Regular testing and monitoring of air samples through certified laboratories to ensure good air quality for our employees and society.
- Automatic DG synchronization system for better loading and fuel efficiency thus minimizing emissions.





• We have acoustic rooms for open type DG sets and air handling units.



- Shop floor designed for maximum use of natural light through glass panes and windows
- Shop floor designed for maximum use of natural light through sky lights.
- Changed high wattage lamps with energy efficient lamps (CFL) in shop floor area.
- Removed all extra lights from all areas by involving people concerned.
  Made some major layout changes in the plant for energy saving in air conditioning.
- Maintaining power factor near unity for energy saving.
- Our shop roofs are specially insulated thus minimizing load on air-conditioning.







### A TRIBUTE TO OUR CUSTOMERS

"The four factors to keep in mind while choosing a customer are: the 'techno-commercial' value that a customer brings to the table; trust; a sense of equality in day-to-day dealings; and finally a commercial win-win deal, in that order."

From 'The High-Performance Entrepreneur' by Subroto Bagchi, Chairman, MindTree Consulting

"As I look back, I realize that the above is true not only in choosing customers, but also while selecting your other stakeholders like Vendors, Suppliers, Employees, Consultants and Service Providers.

This is exemplified right from my first meeting with Mr. A. V. Sathe, Chairman of the AceMicromatic Group in 1975, who designed our first Cylindrical Grinder Machine - the most successful model GCU 100 (now eco 200). Through Mr. Sathe, I met our other partners, Managing Directors of Ace Designer Ltd, Mr.S.G.Sirgurkar and Mr.B. Machado as well as Mr.P.Ramdas, MD of AMS, who all started as entrepreneurs and together have helped create the largest machine tool group - AceMicromatic, in India."

#### -N.K.Dhand

Chairman & Managing Director Micromatic Grinding Technologies Ltd



L to R: S.G.Shirgurkar-MD, Ace Designers Ltd., A.V.Sathe-Chairman, Pragati Automation Ltd., N.K.Dhand-CMD, Micromatic Grinding Tech. Ltd., B.Machado- MD, Ace Designers Ltd., P. Ramdas- MD, AMS Ltd.

We learned some valuable lessons in Business Management and Spirituality from our esteemed customer Polyhydron Pvt Ltd when some of us visited the company in Belgaum.

"I along with two of my colleagues, had a chance to visit one of our esteemed customers M/s Polyhydron Pvt Ltd- Belgaum on 7th July 11 .During the visit, we were introduced to a differ-

ent concept of management by Mr. S.B. Hundre, CMD of the company. We understood how spirituality when applied to management practices helped to develop a sense of morality and ethics, which helped the individual to be stable and correct



during interpersonal relations / transactions.

We observed some great management practices being implemented at Polyhydron Pvt. Ltd. and in the true spirit of learning, we have started applying some of them at MGT.

INSPIRATIONS FROM POLYHYDRON PVT. LTD. NOW IMPLEMENTED AT MGT:

- 1. Open door CMD office
- 2. Good library
- 3. Simple systems (No complications)
- 4. Managing things peacefully
- 5. No intention to cheat anybody /society /nature
- 6. Empowerment to employees
- 7. Cost per employee for growth pattern to know the output
- 8. Inspire one man every year to develop and practice ethics in day to day life

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### A MESSAGE FROM POLYHDRON PVT LTD

Polyhydron Pvt. Ltd. is the lead company of the Group having a turnover of  $\sim$  125 crores. Polyhydron has been contributing +60% of the sales and +70% profit of the Group.

The Group started practicing ethics in business in 1986 and has completed 25 years of corruption free business. It has also proved to the business world that a business can be run 100% ethically and still make a lot of money. Our Company pays almost ` 1000 per minute as Income Tax, though it works only in general shifts. No overtime is the rule.

The level of simplicity and transparency practiced in Polyhydron has made this organization highly efficient and dynamic in operation. Simplicity reduced cost of operation and transparency increases trust. The turnover per employee is ` 35,00,000 for the year 10-11. For an engineering industry with 80 to 85% inhouse manufacturing, it is a "Difficult to achieve target".

Polyhydron has a unique Wealth Sharing System for the employees. As a result we pay 100% bonus and still the cost of employment is less than 5% of the revenue from operations. 15% of the wealth created is shared with the employees (30% is max.), 5% with the share holders and 1% with society. The balance is retained by the business for growth. This has resulted in "zero" interest payment in the last 25 years.

Our Mission says, "We will nurture an ethically managed organization. We will not exploit our customers, employees, suppliers, government, society and nature."

Walking on the ethical path with the above mission as the guideline has made it possible to run, grow and prosper the business peacefully and with utmost satisfaction. This resulted in the successful creation of "Temple of Ethics". Polyhydron started its business with `4200 as initial investment, `18,000 as hand loan and `5,00,000 as the first year's turnover in 1982.

Once the ethics were in place, the establishment of the Business Ashrama proved the concept that integrating spirituality into business leads to excellent results.

My message to the business world is : Be Disciplined, Be Simple, Be Transparent, Be Honest, Be Ethical, and Be Moral. You and your business will become Spiritual.

The ultimate aim of a "Human Being" is to "Be spiritual and lead a joyful life".

Now the need of the hour is to make "Businesses spiritual and create wealth for the nation."



SB Hundre 31-8-11 10am



Mr. S. B. Hundre, MD, Polyhydron Belgaum, with a visitor





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### MGT Plant at Ghaziabad

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