

Annual Report

2007 - 2008



INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION

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EXECUTIVE COMMITTEE 2007 - 2008

President

Mr. N. K. Dhand

Chairman-cum-Managing Director

Micromatic Grinding Technologies Limited.

Vice President

Mr. M. Lokeswara Rao

Managing Director

Lokesh Machines Limited.

Members

Mr. V. Hemachandra Babu

Managing Director

HMT Machine Tools Limited.

Ms. Nabonita Baruah

Deputy Chief Executive Officer &

Chief Financial Officer

Bharat Fritz Werner Limited.

Mr. Satish Godbole

General Manager & Business Head -

Motion Control and Machine Tools

Siemens Limited.

Mr. Gurinder S. Goindi

Managing Director

Parishudh Machines Private Limited.

Mr. Vikram Salunkhe

Managing Director

Accurate Engineering Company

Private Limited.

Mr. P. P. Sastry

Vice President (Machine Tool

& Engineering Division)

Premier Limited.

Mr. Deepak S. Shrivastava

Chief Executive Officer

Electronica Machine Tools Limited.

Mr. Mohan Singh

Director

Hind Hydraulics & Engineers.

Mr. Rakesh Kumar Singh

Managing Director

SRB Machines Private Limited.

Mr. Vikram Sirur

Executive Vice Chairman

Miven Machine Tools Limited.

Past Presidents

Mr. Nirmal Bhogilal

Batliboi & Company Limited. *

Mr. Vinod L. Doshi

The Premier Automobiles Limited. *

Mr. Jamshyd N. Godrej

Godrej & Boyce Manufacturing

Company Private Limited. *

Mr. V. S. Goindi

Parishudh Machines Private Limited. *

Mr. J. N. Mehrotra

Batliboi & Company Private Limited. *

Mr. S. N. Mishra

Bharat Fritz Werner Limited. *

Dr. C. A. Phalnikar

Mysore Kirloskar Limited. *

Mr. C. P. Rangachar

Yuken India Limited. *

Mr. Jayant H. Shah

Batala Engineering. *

Mr. G. A. R. Shaikh

Voltas Limited. *

Mr. Shailesh Sheth

Simtools Limited. *

Mr. Shrinivas G. Shirgurkar

Ace Designers Limited. *

Mr. Bir D. Singh

Voltas Limited. *

Mr. R. Srinivasan

Widia (India) Limited. *

Mr. C. R. Swaminathan

PSG Industrial Institute. *

Co-opted Members

Mr. P. Ganesan

Senior General Manager (Business Unit Head)

Lakshmi Machine Works Limited.

Mr. P. V. N. Sanjay

Chief Executive Officer - Machine Tool Division

Batliboi Limited.

Invitees

Mr. Ghanshyam Agrawal

Director

Nagel Special Machines Private Limited.

Mr. Atam Prakash Arya

Managing Director

TAL Manufacturing Solutions Limited.

Mr. Parakram G. Jadeja

Chairman - 'UDAAN' &

Chairman and Managing Director

Jyoti CNC Automation Private Limited.

Ms. Manisha G. Kannur

Deputy Chairperson - 'UDAAN' &

Manager - Business Planning

Ace Designers Limited.

Mr. Shailesh D. Kawa

President - Rajkot Machine Tool Association &

Managing Director

Kawa Press Systems Private Limited.

Ms. Sonali Kulkarni

President and Chief Executive Officer

FANUC India Private Limited.

Mr. M. Lakshminarayan

Joint Managing Director

Motor Industries Company Limited.

Mr. Kirpal Singh Sagar

President - Ludhiana Machine Tool Manufacturers

Association & Managing Director

Sagar Heavy Engineering Private Limited.

Mr. Praful S. Shende

President

Vigel Manufacturing Technologies.

Secretary and Executive Director

Mr. V. Anbu.

* Companies represented by Past Presidents during their tenure of Presidency.

NOW OR NEVER



Foreword

NOW OR NEVER

The Indian economy has been a star performer since 2004, clocking a growth rate of around 9 % per annum. The manufacturing sector has mirrored this rise, registering an average annual growth rate of 8.7 % during the tenth plan period (2002-07) and even touching a high of 12 % in the last fiscal year.

Unfortunately, our hopes of sustained growth at these high levels are being threatened by a series of adverse national and global developments in the last few months. Prime among these happenings are the meteoric rise in global crude prices, spiralling inflation caused by high food and commodity prices, crash in the US property market and consequent economic slow down, increase in interest rates in India as an inflation containment measure, sharp downturn in the share markets and instability on the political front.

There is no way Indian industry could have insulated itself from the aftermath of these developments. Even forecasts paint a not-so-bright outcome for the year ahead. GDP has been revised downwards to below 8.0 % by end of this fiscal year. So also industrial growth, which is expected to hover around 7.5 % by end-March 2009. For the government too, the fiscal deficit threatens to go beyond control. Subsidising the oil pool deficit has already taken a considerable toll on the exchequer.

The exceptional silver lining amidst the gloomy clouds being the Indo-US civil nuclear deal, which will clearly catapult India on to the big league. The other being the much-awaited launch of the '**NANO**' - **every Indian's pride of gifting to the world, a truly global affordable vehicle with superior-quality features.**

Machine Tool Performance

2007 was indeed a year of achievement for us. India has finally succeeded in making it to the coveted list of the top ten machine tool consuming markets (ninth in ranking) in the world. *Icing on the cake* - the **Indian machine tool market logged a growth rate of 49 % last year.** Further details on the world machine tool market are given elsewhere in this Annual Report.

The flip side of this picture was that the Indian consumption market was catered to primarily by overseas machine tool suppliers. The huge swing in the market share in favour of imports is certainly very worrisome for the Indian machine tool industry. From 31 % two years ago, the market share of domestic manufacturers has fallen now to a distressing level of 23 %. If this trend keeps up, by the time of the next Annual Report of your Association, the domestic machine tool industry may become just a rump of the Indian machine tool market.

Clearly, **the time has come for some drastic measures to be taken by Indian manufacturers.** What needs to be done has been clearly indicated by the Frost & Sullivan survey, instituted by your Association, which was revealed at the VISION 2015 Conference in Bhubaneswar. According to this survey, Indian customers are looking at technology, quality and lead times over pricing. Being cost-competitive is no longer a USP. Customers are also singing the "fit-and-forget" tune - doing away with the need for any post-supply servicing.

We need to lend an ear to our customer thoughts and provide them total manufacturing solutions instead of just machines. Our machine tools should incorporate such customer-friendly features as TPM, high productivity, low footprint, high MTBF, consistent precision, etc. We must learn to reduce our lead times so that customers are not tempted to go in for off-the-shelf delivery offered by overseas suppliers.

Notwithstanding the current sluggishness in the economy in general and the automobile market in particular, the Indian demand for machine tools is expected to remain strong due to continued investments in the manufacturing sector.

The sectors which are currently witnessing high growth and have enormous potential over the next few years are aviation, oil & gas, energy, construction, health care, etc. The Indian machine tool industry has to quickly learn to develop products for these sectors mostly in the large-sized machine segments, so as to restore the consumption balance. This will also enable the Indian machine tool industry to broad-base, from its current focus on the auto sector.

How big a slice of this larger cake the Indian machine tool industry can grab depends entirely on how quickly we change to suit the new market paradigm indicated.

It is, therefore, now or never for us.

Association Initiatives

Your Association has distinguished itself successfully organising three major industry fairs within a span of 18 months - IMTEX in January 2007, Tooltech in February 2008 and Modern Machine Shop in April 2008.

And that's not all. A bagful of activities and new endeavours with a kitty full of major programmes - Productivity Summit, Machine Tool Industry Summit, two international seminars on metal-cutting and metal-forming, a VISION conference, CEOs technology mission. On top of all this two institutional efforts - IMTMA Design Institute and IMTMA Productivity School. **Your Association is only aiming to outperform its own records, year-after-year.**

Off course, nothing is achievable without the proactive support of our members and the effervescent guidance of the Executive Committee, in particular of the whole-hearted cooperation by the Past Presidents of IMTMA, who are the pillars to this great institution.

The last one year has also seen the revival of the three Regional Councils of your Association, which will implement all the future initiatives of the Association. In addition, the strategy map of IMTMA, which puts in place a comprehensive workplan of the Association, will clearly be an enabler to the machine tool industry to realise its objectives as enshrined in the 'VISION 2015' charter.

The other highlight of your Association's accomplishments in the year gone by has been to successfully elevate Bangalore International Exhibition Centre (BIEC) - our dream initiative - as one of the top notch venues for organising international trade fairs and large conventions. Since its launch with IMTEX 2007, BIEC has hosted ten major international exhibitions over the last 18 months, averaging almost about 100 exhibition-days per year.

BIEC has already lined up nine big-ticket trade fairs for the next six months, including highly-acclaimed brands such as DMAG, IETF, besides IMTEX and Tooltech 2009. In an

attempt to broad-base its clientele, BIEC is also launching two key events - BUILDARCH 2008, an exhibition on the Indian construction industry and BUILDUP, a show on the booming real estate sector.

After having recently undergone a radical facelift in its interiors as well as exteriors, **BIEC is well on its way to becoming one of the best exhibition and conference venues in this part of the sub-continent.**

In view of the need to better integrate the activities of IMTMA and BIEC for operational efficiencies, it was decided by the Executive Committee of your Association to shift the head office of IMTMA from Gurgaon to BIEC. IMTMA will, at the same time, be managed as effectively from its regional offices in Gurgaon (representing north) and in Pune (representing west).

Felicitation

The last one-year has been truly gratifying for me as President of IMTMA. The accomplishments of the Association in the last financial year have been made possible because of proactive assistance by the membership, the immense contribution of the Executive Committee, the enduring guidance of all the Past Presidents, in particular the support of our Vice President, the bankers of your Association especially the EXIM Bank, as well as the untiring efforts of each and every member of the secretariat. I shall look forward to the continued encouragement in all the future endeavours of your Association.



N. K. Dhand
President

61st ANNUAL SESSION

The 61st Annual Session of Indian Machine Tool Manufacturers' Association (IMTMA) was scheduled on 07 September 2007 in Mumbai.

In his address to the members, the IMTMA President, Mr. N. K. Dhand, spoke about key events IMTMA held successfully in its 60th year. He made a special mention about the Association's new initiative 'UDAAN', a forum comprising second-generation entrepreneurs, young professionals and emerging leaders and pledged wholehearted support in all its endeavours.

Speaking about the optimistic business environment in the Indian economy and industry in the first quarter of 2007-2008, Mr. Dhand pointed towards the rapid strides being made by auto makers and other potential customer segments of machine tools. He exhorted machine tool manufacturers to look for opportunities for growing and meeting the emerging demand in the country. According to him, India is expected to be among the top ten machine tool consuming countries in the world by next year.



The President informed that a study was being conducted by IMTMA to ascertain the reasons behind the dramatic fall in share of indigenous machines as well as to prepare a set of recommendations based on the analysis.

Spelling out his vision for the future, Mr. Dhand suggested five mantras as the probable path forward to achieve the goals of high growth and enhanced market share. These include an enhanced focus on design, technology, human resources, customer interface and partnership.

Mr. Dhand spoke at length about the realisation of the vision of the Association's founding fathers - having a state-of-the-art exhibition complex and convention centre. BIEC will be the most important contribution from

IMTMA to the Indian manufacturing industry, he emphasised. He advised that it was necessary to broad-base the exhibition portfolio of BIEC so as to enlist greater

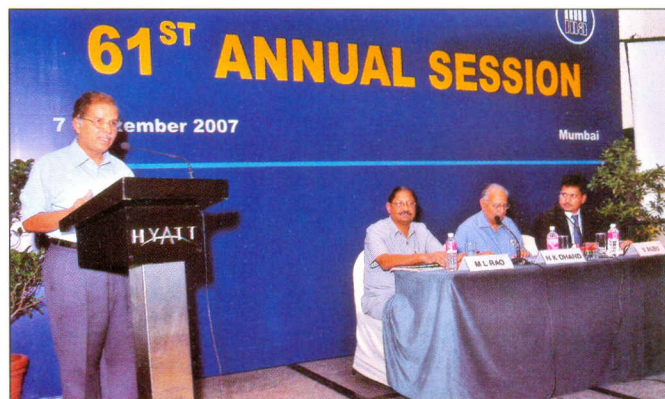


industry participation. He announced five exhibitions to be scheduled over the next two years - IMTEX FORMING 2010, IMTEX 2009, Tooltech 2009, Modern Machine Shop 2008 and Tooltech 2008.

The focus of the Association in the next one year will be on effective and logical implementation of the strategy map of IMTMA, so as to realise the objectives enshrined in the VISION 2015 strategy for the industry.

Mr. N. K. Dhand thanked the membership, the executive committee and the secretariat for providing invaluable assistance, guidance and support in all the major endeavours of the Association and hoped for their continued proactive encouragement in future.

The IMTMA President took up the statutory agenda of the 61st business session of the Association, which was unanimously approved by a voice vote.



The 61st annual session of IMTMA concluded with a vote of thanks to the current office bearers.

CALENDAR OF EVENTS

2007

August

- ◆ 'Productivity Summit 2007' and 'IMTMA - Siemens Productivity Championship Awards 2007' in **BIEC, Bangalore from 23 to 25.**

September

- ◆ 'UDAAN' programme in **Mumbai on 07.**
- ◆ 61st Annual Session of IMTMA in **Mumbai on 07.**
- ◆ IMTMA group participation at EMO 2007 in **Hannover, Germany from 17 to 22.**

November

- ◆ Workshop on 'How to get high Quality Output in Owner-managed Machine Tool Companies' in **Ludhiana on 02.**
- ◆ 12th 'VISION 2015 Conference for the Indian Machine Tool Industry' in **Bhubaneswar from 21 to 24.**
- ◆ Workshop on 'Enhancing Productivity through Appropriate Automation in Metal Working' in **Bangalore on 22 and 23.**

December

- ◆ Workshop on 'Effective Maintenance of CNC Machines for Productivity Improvement' in **Bangalore from 12 to 14.**

2008

January

- ◆ Workshop on 'Enhancing Productivity through Appropriate Automation in Metal Working' in **Bangalore on 09 and 10.**

February

- ◆ Symposium on 'New Generation Cutting Tools & Holding Systems for Productivity Improvement' in **Pune on 11.**
- ◆ 'Tooltech 2008' - 10th international exhibition of cutting tools, tooling technologies, production aids, machine tool accessories, metrology and CAD / CAM equipment and software in **BIEC, Bangalore from 15 to 18.**
- ◆ 'Certified Productivity Supervisor Course' for CNC Production Machine Shop Supervisors in **Bangalore from 25 to 28.**

March

- ◆ Interactive Meeting and Plant Visit to Rico Auto Industries Limited in **Gurgaon on 11.**

April

- ◆ 'Certified Productivity Supervisor Course' for CNC Production Machine Shop Supervisors in **Bangalore from 02 to 05.**
- ◆ Symposium on 'New Generation Cutting Tools & Holding Systems for Productivity Improvement' in **New Delhi on 05.**
- ◆ Workshop on 'Calibration of Dimensional Measuring Equipment & Evaluation of Uncertainty in Measurements' in **Pune on 15 and 16.**
- ◆ 'Modern Machine Shop 2008' in **Pragati Maidan, New Delhi from 25 to 29.**

May

- ◆ Seminar on 'Maximising Returns through Effective Selection and Utilisation of CNC Machines' in **Jamshedpur on 09.**
- ◆ Seminar on 'Maximising Returns through Effective Selection and Utilisation of CNC Machines' in **Kolhapur on 14.**
- ◆ Seminar on 'Maximising Returns through Effective Selection and Utilisation of CNC Machines' in **Ludhiana on 16.**
- ◆ Seminar on 'Realising & Maintaining Process Capability in Metalworking Industries' in **New Delhi on 17.**
- ◆ Seminar on 'High Speed Machining' in **Bangalore on 27 and 28.**

June

- ◆ Seminar on 'Realising & Maintaining Process Capability in Metalworking Industries' in **Pune on 02.**
- ◆ Workshop on 'Innovation Trigger' in **Bangalore on 13.**
- ◆ Workshop on 'High Volume Component Manufacturing' in **New Delhi on 13.**
- ◆ Seminar on 'TPM & Condition Monitoring of Machine Tools' in **Bangalore on 19 and 20.**
- ◆ Symposium on 'Die & Mould Manufacturing' in **Bangalore on 26 and 27.**

ACTIVITIES DURING 2007 - 2008

MAJOR EVENTS

Productivity Summit

The Association held the second Productivity Summit from 23 to 25 August 2007 at its own conference facility in BIEC, Bangalore. The theme was : “Unleashing the power of productivity in metalworking”.



The Summit was spread over a plenary session and seven technical sessions covering manufacturing system redesign, idle time reduction, better asset utilisation, productivity through quality improvement, optimising metalworking process, leveraging IT to increase productivity and productivity through metrics.

The three-day Summit began with an inaugural session on 23 August 2007 which had a keynote address by Mr. Donald Dinero, Chief Executive Officer, Round Pond Consulting, United States. A special plenary session followed the inaugural session and was addressed by Mr. Crispin Vincenti-Brown, Managing Partner, Bourton Group, France.

The Summit was facilitated by well-known practitioners of productivity who shared with delegates their vision on technologies for productivity enhancement. It brought together on one platform over 500 delegates from a wide cross section of manufacturing industries.

The Summit had two special features. A concurrent exhibition 'Productivity Shop' a one-stop show-window for showcasing latest innovations in productivity improvements. The second highlight was a panel discussion 'CROSS-FIRE' which discussed thread-bare topical issues connected to productivity.

'IMTMA - SIEMENS Productivity Championship Awards'

The climax of the Summit was the 'IMTMA - SIEMENS Productivity Championship Awards 2007' - an award instituted to recognise and reward productivity champions for their outstanding contribution.



Case studies were invited for the seven focused tracks. 21 case studies were presented over the seven technical sessions. And finally 13 companies were adjudged as the winners of the coveted 'IMTMA - SIEMENS Productivity Championship Awards 2007'.

'VISION 2015' Conference

The Association scheduled the 12th 'VISION 2015 Conference for the Indian Machine Tool Industry' from 21 to 24 November 2007 in Bhubaneswar. Theme of the conference was which direction should the Indian machine tool industry take from this “point of inflection?”



The conference commenced with a special emphasis on 'breakthrough innovation' with two thought-provoking presentations. The other interesting aspects of the programme included a unique session on a study report on why Indian machine tool industry is loosing market share; introduction and facilitation of various CSR initiatives being undertaken within the Indian industry; and a presentation on innovative ways to attract talent into the machine tool industry.



This VISION Conference had a new flavour - the presence and active participation of the second generation entrepreneurs, young leaders and emerging professionals within the machine tool fraternity. There was an exclusive concurrent session for them on fostering leadership and managing business for young entrepreneurs.

Accentuation of VISION Conferences was its evening extravaganzas with the unwinding of the morning brainstorming. The Conference finally had a memorable conclusion with a daylong visit on 24 November 2007 to the world-famous Konark temple and a Maha-Aarti at the Jagannath temple.

Tooltech

The tenth Tooltech exhibition was scheduled from 15 to 18 February 2008 at the Bangalore International Exhibition Centre (BIEC). Tooltech 2008 featured new trends in cutting tools, tooling technologies, production aids, machine tool accessories, metrology as well as CAD / CAM equipment and software.



106 exhibitors including 56 overseas companies from 12 countries, showcased a wide range of products over an exhibition space area of 2,300 square metres. The overseas

participation included a large country-group from Germany, led by the Indo German Chambers of Commerce.

Tooltech 2008 was held along with DIEMOULD INDIA 2008, organised by Tool and Gauge Manufacturers Association (TAGMA). Both the exhibitions were jointly inaugurated by Mr. N. K. Dhand, President of IMTMA and Mr. N. Reguraj, Past President of TAGMA on 15 February 2008.



The exhibitions attracted 17,000 business visitors from all across India. Intense parleys between exhibitors and business visitors generated confirmed orders worth Rs. 85 million and serious business enquiries to the tune of Rs. 280 million for Tooltech participants.

Modern Machine Shop

The Association launched yet another exhibition from its trade fair stable - Modern Machine Shop (MMS). The exhibition was scheduled from 25 to 29 April 2008 at Pragati Maidan in New Delhi. MMS was a unique b2b exhibition that showcased the complete range of machines, equipment and services that enable facilitation of a modernised shopfloor in manufacturing organisations.



The five-day exhibition had 'live' on display the entire array of metalworking machinery, low-cost automation, material handling, quality control systems & equipment, off-the shelf production aids, accessories, consumables, software and consultancy to address the current rapidly changing productivity and quality requirements.

MMS 2008 had 111 exhibitors including 24 from eight countries (Italy, Japan, Korea, Taiwan, Turkey & UK) including group participation from Germany. There were high level business delegations from Indian Railways and Indian Ordnance Factories besides special teams from OEMs (original equipment manufacturers).



The five-day exhibition had a unique attraction - "Model Machine Shop" - an attempt to create a display of a modern manufacturing workshop incorporating proven and cost effective techniques.



The exhibition attracted 5,000 core business visitors. In-depth interaction with business visitors led to confirmed orders worth Rs. 30 million while generating serious business enquiries to the tune of Rs. 350 million.

SEMINARS / WORKSHOPS

Quality Output in Owner-Managed Machine Tool Companies

To enhance competitiveness of the machine tool industry in Ludhiana, the Ludhiana Machine Tool Makers Association (LMTMA), along with IMTMA, organised a workshop on quality improvement on 02 November 2007 in Ludhiana. Titled as "How to get high quality output in owner-managed machine tool companies", the programme was aimed at increasing the quality awareness of entrepreneurs in Ludhiana.



A special part of the programme was a panel discussion "CROSS FIRE" - in which the panellists, comprising industry leaders, debated on issues concerning the machine tool industry in North India

Appropriate Automation in Metalworking

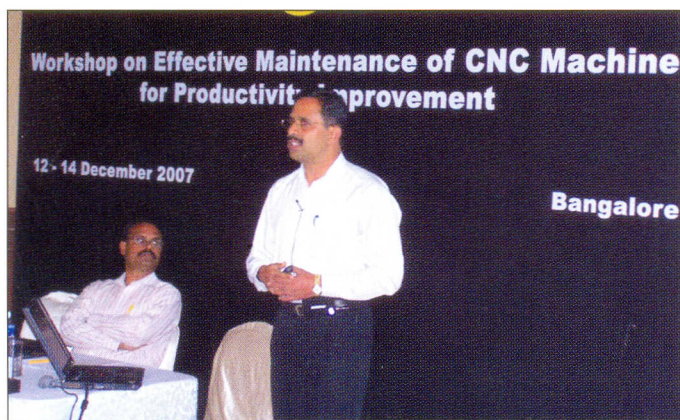
In order to better highlight the various aspects of appropriate automation, the Association scheduled two workshops on 'Enhancing Productivity through Appropriate Automation in Metalworking' in Bangalore.



The first workshop was held on 22 and 23 November 2007, and a repeat workshop was organised on 09 and 10 January 2008. The workshops were facilitated by well-known industry experts. Both the workshops included plant visits to reputed manufacturing companies.

Effective Maintenance of CNC Machines

To address various issues on 'why' and 'how' of preventive and breakdown maintenance of CNC machines, the Association organised a workshop on 'Effective



Maintenance of CNC Machines for Productivity Improvement'. The programme held from 12 to 14 December 2007 in Bangalore witnessed presentations by renowned experts and leading manufacturers of CNC machine tool and CNC control systems. The workshop coincided with plant visits to two reputed CNC machine tool manufacturing companies.

New Generation Cutting Tools

With a view to updating manufacturing industry with the latest trends in tooling technology, the Association



organised two Symposiums on 'New Generation Cutting Tools & Holding Systems for Productivity Improvement'. The first programme was held on 11 February 2008 in Pune and the second one on 05 April 2008 in New Delhi.

Leading cutting tool manufacturers and experts in both the symposiums interacted with participating delegates and shared their latest developments in the field. The faculty emphasised on ways to achieve higher productivity & quality through the latest technology tools and holding systems in manufacturing processes.

Certified Productivity Supervisor Course

The Association launched the 'IMTMA Productivity Institute' to impart training on various aspects of manufacturing productivity in metalworking industries. As part of its maiden initiative, the Institute held two programmes of Module I - 'Certified Productivity Supervisor Course for CNC Production Machine Shop



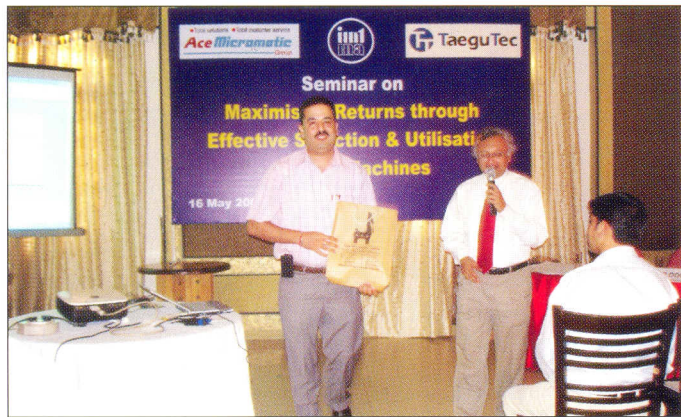
Supervisors' in BIEC, Bangalore. The first one was scheduled from 25 to 28 February 2008 and the second one from 02 to 05 April 2008. The courses were conducted by a team of industry experts and included plant visits for practical exposure.

Calibration of Dimensional Measuring Equipment

The Association organised a workshop on 'Calibration of Dimensional Measuring Equipment & Evaluation of Uncertainty in Measurements' on 15 and 16 April 2008 in Pune. The workshop was conducted by a well-known industry expert, who guided participants on ways and means to obtain accurate, reliable and traceable measurements.

Effective Selection & Utilisation of CNC Machines

To bring to the fore the critical parameters for proper selection process of CNC machines for particular applications, the Association organised three seminars on the topic. The seminars titled “Maximising Returns through



Effective Selection and Utilisation of CNC Machines” were scheduled on 09 May 2008 in Jamshedpur; on 14 May 2008 in Kolhapur; and on 16 May 2008 in Ludhiana. Faculty at the seminar in all three venues focused on how to derive maximum output from these machines.

Realising and Maintaining Process Capability

The Association organised two seminars on 'Realising and Maintaining Process Capability in Metalworking Industries' on 17 May 2008 in New Delhi and on 02 June 2008 in Pune. Facilitators at both the daylong seminars comprised industry experts in this segment who dwelt in depth on concepts of process capability and various techniques in realising and maintaining them.

High Speed Machining

To disseminate newest advances in the field of high speed machining, the Association held a seminar on 'High Speed Machining' on 27 and 28 May 2008 in Bangalore. Facilitators at the programme dwelt at length on the advantages that can be derived through this process of manufacturing.

Innovation Trigger

In order to bring out the criticality of innovation in manufacturing competitiveness, the Association organised a



workshop on 'Innovation Trigger' on 13 June 2008 in Bangalore. The workshop aimed at equipping individuals with capability to use innovation in their work context and towards achieving breakthrough in their spheres of work.

High Volume Production of Auto Components

The Association organised a Seminar on 'High Volume Component Manufacturing' on 13 June 2008 in New Delhi. Facilitated by experts from the manufacturing industry, the programme emphasised on various facets of high volume production as well as on its enabling technologies.



TPM & Condition Monitoring of Machine Tools

To emphasise and address various issues related to Total Productive Maintenance (TPM) in machine tools, the Association organised a seminar on 'TPM & Condition Monitoring of Machine Tools' on 19 and 20 June 2008 in Bangalore. Special aspect of the programme was interesting case study presentations by well-known TPM practitioners in the manufacturing industry.

Die & Mould Manufacturing

To highlight the latest technological advancements in die and mould manufacturing, the Association organised a symposium on the topic on 26 and 27 June 2008 in



Bangalore. Industry experts from this field shared their experiences and new product developments with participating delegates.

SPECIAL EVENTS

'UDAAN' Programme

The Association organised an exclusive programme for 'UDAAN' members on 07 September 2007 in Mumbai. The programme comprised a very special and interactive session with Mr. Jamshyd N. Godrej, Chairman and Managing Director, Godrej & Boyce Manufacturing Company Limited and Past President of CII and IMTMA; plant visit to the Locks Division of Godrej and Boyce; and a visit to the Indian Institute of Technology (IIT - Powai).

Attended by a large number of 'UDAAN' members, the interaction with Mr. Godrej was highly inspiring and clearly a learning experience. A stimulating presentation was made on the wide range of corporate social responsibilities (CRS) initiatives by the Godrej Group.

The daylong programme was wrapped up by 'UDAAN' members' participation at the 61st Annual Session of IMTMA.

Interactive Meeting and Plant Visit to Rico Auto

As part of its focus on having a much closer partnership with customers, the Association organised an interactive meeting of IMTMA Executive Committee members with key executives of Rico Auto Industries Limited. The interactive meeting and plant visit to Rico Auto was held on 11 March 2008 in Gurgaon.

Rico Auto Industries Limited made an exhaustive presentation about its organisation, its multifarious manufacturing facilities and their future objectives. IMTMA executive committee members were informed about Rico Auto's outstanding achievements in the areas of manufacturing, quality, TPM, 6-sigma and world-class competitiveness.

On expectations, executives from Rico Auto mentioned about high levels of commitment from machine tool manufacturers, 100 per cent reliability, 100 per cent capability, just-in-time and TPM-friendly offerings.

OVERSEAS PARTICIPATION

IMTMA Group Participation at EMO 2007

EMO 2007 was held from 17 to 22 September in Hannover, Germany. 2,118 exhibitors from 42 nations participated at the world's largest machine tool fair. 30 exhibitors from India participated at EMO 2007 occupying a net area of 1,330 square metres.



All the Indian exhibitors reported excellent business enquiries with five reporting direct order bookings worth four million Euros. The Indian displays included turning centres, machining centres, grinding machines, EDMs, super & micro finishing machines, cutting tools and a host of machine tool accessories.

ACTIVITIES OF IMTMA FOUNDATIONS



During the year 2007 - 2008, IMTMA Foundations carried out various activities to cater to the training needs of the engineers from the industry.

14th Machine Tool Design Course

IMTMA Design Institute conducted 14th Machine Tool Design Course of 15-weeks' duration. There were 12 participants for the Machine Tool Design Course. The course was completed in April 2007. Participants of the course have been suitably placed in various companies around the country.

Technology Seminar on Fixtures

IMTMA Design Institute organised a 3-day programme to address issues concerning concepts of fixture designs, various subsystems for building a fixture, application of fixtures, automated fixtures, etc. The seminar was conducted from 17 to 19 April 2007 in Bangalore.

Technology Seminar on Finer Aspects of CNC Turning

CNC turning technology is being used by many of machine tool user industries. With the objective of exposing users to all finer aspects of turning technology, namely, developments in turning machines, latest tooling and work

holding concepts, CNC control & drive advances and new inputs on production/process related aspects, IMTMA Design Institute organised a Seminar on 'CNC Turning' from 20 to 22 June 2007 in Bangalore.

Technology Seminar on Maximising Productivity of CNC Machining Centres

In order to address multifarious developments in the field of CNC machining centre technology and its usage, IMTMA Design Institute organised a Seminar focusing on 'CNC Machining Centres' from 15 to 17 November 2007 in Bangalore.

Seminar on Finer Aspects of CNC Machine Technology & its Effective Utilisation in Manufacturing

This seminar was focussed to provide comprehensive knowledge of CNC machine technology to enable the industry to increase its utilisation. IMTMA Design Institute organised the seminar from 22 to 24 January 2008 in Bangalore. There was an overwhelming response from the industry to participate in the programme, as a result of which the Institute repeated the seminar from 26 to 28 February 2008 in Bangalore.

ACTIVITIES OF BANGALORE INTERNATIONAL EXHIBITION CENTRE

Bangalore International Exhibition Centre (BIEC) is the finest exhibition and conference complex ever to take shape in India to offer organisers and exhibitors services and amenities of the highest quality at par with international standards. This complex has been created with only one purpose - to make it a preferred destination for international business exhibitions, trade fairs, congresses, international conferences, seminars and training programmes in India.

This multipurpose 34 acres beautifully landscaped complex has 40,000 square metres of covered column-less air-conditioned exhibition space (three exhibition halls), a multi-facility conference centre including four world-class conference halls, a food court, a machine tool training centre and large open outdoor area.

These ultra modern facilities have 100 % power backups, a helipad, an amphi-theatre, VIP lounge, business centre attached with each hall, speciality restaurants and many other support services.

With the above facilities BIEC has already hosted an exhibition of over 1,10,000 square metres of exhibit area. BIEC has been able to cater to well over 30,000 business visitors per day on several exhibition days. Over 5,000 cars and coaches per day have been successfully handled. BIEC has around 100 exhibition days planned per year.

BIEC caters to all industry segments such as engineering, auto, furniture, medical, energy, tourism, biotechnology, food processing, agri, textiles, printing, logistics and material handling, industrial automation, electronics, IT and other sectors, etc.

BIEC is a member of UFI the global association of trade fair organisers, exhibition and convention centres, professional exhibition association and industry partners. Deutsche Messe AG - the owners of the world's largest exhibition facility in Hannover, Germany, has a partnership arrangement, to promote BIEC globally.



WORLD MACHINE TOOL SCENARIO IN 2007

Notwithstanding the global economic turmoil, 2007 for the world machine tool industry proved to be a year of smooth sailing - registering an impressive 18 % growth on an output valuing 71 billion US Dollars. Virtually all the major machine tool manufacturing countries witnessed an increase in their shipments in 2007. Global consumption as well as exports of metalworking machine tools in most of the countries also resulted in considerable gains in the year that went by.

Global Production

Japan continued its two-decade global dominance in 2007, albeit with a 7 % growth. Germany's output rose significantly by 26 % and maintained to be the second largest machine tool manufacturing nation, although the country envisages a slowdown in 2008. And China, while remaining in the third place, saw an astounding 43 % increase in output. Explosive growing manufacturing community there has led the world in consumption.

Italy, like the other Euro-dominated nations, saw its growth in 2007 show a further increase even as it held on to being the fourth largest manufacturing country. The most notable performance came from another EU nation - the Czech Republic, which had the highest growth among all the countries (45 %). The other in the 40 % bracket was Austria - yet another EU nation.

The EU fraternity closed in on their market share of the overall global pie increasing to 42.9 %. The Asian tigers appeared to have fallen a bit with a share of 47.8 % of the overall global production.

The surprising result of 2007 was that of the United States machine tool industry, which tumbled by 3 % over the previous calendar year - apparently in line with declining fortunes in its economy.

World Trade

Exports of metalworking machine tools by 29 countries in 2007 totalled 39.2 billion US Dollars, matching the 18 % growth as in the total turnover. Germany continued its

dominance over the export front, exporting almost 72 % of its total produce in 2007. Closely followed was Japan and Italy. The countries that witnessed a significant rise in their export turnover in 2007 over the previous year included India, Czech Republic and Turkey - all registering over 40 % growth.

There was good news on the import front too with a 14 % growth on total imports worth 35.9 billion US Dollars in 2007. The world's most voracious importer happened to be China followed by United States, Germany, Taiwan and Italy. The ironical factor was an actual decline in imports by the two leading countries - China and United States - both witnessed a fall by 5 % in 2007 over the previous year. In comparison the other three witnessed over 40 % increase in their imports in 2007.

The two largest machine tool manufacturing countries - Japan and Germany had the highest trade balance in 2007, followed distantly by Italy and Switzerland.

Overall Consumption

The global industry consumed 66.9 billion US Dollars worth of metalworking machine tools in 2007, and registered a growth of 16 % over the previous year. China, as always, led the pack with 15.4 billion US Dollars, averaging a growth of 17 % last year. One out of every four machine tools that were installed anywhere in the world, were plugged into China.

Elsewhere, while other big consumers - Japan, United States and South Korea showed little or no growth in machine tool consumption, Germany expanded by 29 %, Italy by 22 % and Taiwan by 31 %.

An interesting aspect of imports was that these seven countries cornered 70 % of the global machine tool consumption in the year 2007.

Global Machine Tool Production

Rank	Country	2007 (Value in US \$ million)			2006 (Value in US \$ million)	Change in US Dollars
		Total	Cutting	Forming	Total	
1.	Japan	14,443.6	88 %	12 %	13,557.6	07 %
2.	Germany *	12,725.4	76 %	24 %	10,120.3	26 %
3.	People's Republic of China	10,090.0	71 %	29 %	7,060.0	43 %
4.	Italy *	7,272.7	49 %	51 %	5,707.5	27 %
5.	Republic of Korea	4,550.0	68 %	32 %	4,112.0	11 %
6.	Taiwan (ROC)	4,378.0	80 %	20 %	3,841.0	14 %
7.	United States	3,578.0	79 %	21 %	3,688.9	-03 %
8.	Switzerland *	3,323.8	85 %	15 %	2,964.2	12 %
9.	Spain *	1,436.8	67 %	33 %	1,226.8	17 %
10.	Brazil	1,157.8	81 %	19 %	956.9	21 %
11.	France *	1,087.8	64 %	36 %	1,010.2	08 %
12.	Austria *	1,023.5	60 %	40 %	728.5	40 %
13.	United Kingdom *	682.2	76 %	24 %	774.2	-12 %
14.	Czech Republic *	677.1	93 %	7 %	468.0	45 %
15.	Turkey *	532.7	30 %	70 %	426.2	25 %
16.	The Netherlands *	511.5	20 %	80 %	425.9	20 %
17.	India	483.6	88 %	12 %	370.6	30 %
18.	Belgium *	422.5	10 %	90 %	356.0	19 %
19.	Canada	357.4	60 %	40 %	470.5	-24 %
20.	Finland *	329.8	10 %	90 %	275.7	20 %
21.	Sweden *	232.6	51 %	49 %	199.9	16 %
22.	Russia	202.2	75 %	25 %	182.0	11 %
23.	Mexico	166.4	45 %	55 %	122.4	36 %
24.	Australia	160.0	66 %	34 %	147.8	08 %
25.	Denmark *	105.4	40 %	60 %	91.5	15 %
26.	Croatia	98.0	43 %	57 %	98.0	00 %
27.	Romania	69.4	53 %	47 %	63.6	09 %
28.	Portugal *	67.6	06 %	94 %	58.9	15 %
29.	Argentina	31.8	45 %	55 %	28.8	10 %
Total		70,985.9			60,209.1	18 %

Credit & Source : Gardner Publications, Inc.

* European Union countries.

Global Machine Tool Consumption

Rank	Country	2007 (Value in US \$million)	2006	Change in US Dollars
1.	People's Republic of China	15,390.0	13,113.0	17 %
2.	Japan	7,619.4	7,858.6	-03 %
3.	Germany	7,252.1	5,139.7	41 %
4.	United States	6,171.8	6,361.2	-03 %
5.	Italy	5,056.0	3,786.2	34 %
6.	Republic of Korea	4,150.0	4,020.0	03 %
7.	Taiwan (ROC)	3,785.0	2,887.0	31 %
8.	Brazil	1,822.2	1,423.2	28 %
9.	India	1,774.8	1,191.2	49 %
10.	Mexico	1,669.6	1,245.9	34 %
11.	France	1,621.5	1,441.3	13 %
12.	Switzerland	1,282.9	1,081.7	19 %
13.	Spain	1,260.9	1,105.1	14 %
14.	Turkey	1,161.4	1,067.1	09 %
15.	Canada	967.7	1,063.8	-09 %
16.	United Kingdom	938.2	816.7	15 %
17.	Austria	795.0	636.7	25 %
18.	Czech Republic	652.4	450.9	45 %
19.	Russia	601.7	604.0	00 %
20.	Belgium	561.5	435.7	29 %
21.	The Netherlands	498.2	414.8	20 %
22.	Australia	370.0	370.8	00 %
23.	Sweden	338.0	317.3	07 %
24.	Finland	223.0	188.0	19 %
25.	Romania	313.4	255.9	22 %
26.	Argentina	163.8	145.4	13 %
27.	Croatia	159.0	159.0	00 %
28.	Denmark	146.4	139.1	05 %
29.	Portugal	124.4	108.5	15 %

Apparent Consumption = Country's Production *less* Exports *plus* Imports.

Credit & Source : Gardner Publications, Inc.

TRENDS IN INDIAN MACHINE TOOL INDUSTRY

Production of Metalworking Machine Tools

Machine Tools	Year 2005-2006		Year 2006-2007		Year 2007-2008	
	Qty.	Value (in Rs. million)	Qty.	Value (in Rs. million)	Qty.	Value (in Rs. million)
Metal-Forming						
CNC	196	557.723	248	409.803	304	525.640
Conventional	728	1,231.190	367	1,550.684	272	1,801.730
Total Metal-Forming	924	1,788.913	615	1,960.487	576	2,327.370
Metal-Cutting						
CNC	4,127	8,885.223	5,114	11,677.720	5,181	12,253.800
Conventional	2,511	2,846.961	2,158	3,667.613	2,673	4,438.800
Total Metal-Cutting	6,638	11,732.177	7,272	15,345.363	7,854	16,692.600
Total Metalworking	7,417	13,498.070	7,887	17,306.850	8,430	19,019.970
of which :						
• CNC is	4,323	9,442.939	5,362	12,087.360	5,485	12,779.440
• Conventional is	3,094	4,055.131	2,525	5,219.490	2,945	6,240.530

Members reporting data

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Export of Metalworking Machine Tools

Machine Tools	Year 2005-2006		Year 2006-2007		Year 2007-2008	
	Qty.	Value (in Rs. million)	Qty.	Value (in Rs. million)	Qty.	Value (in Rs. million)
Metal-Forming						
CNC	10	18.824	6	13.651	1	1.370
Conventional	4	79.225	13	94.459	26	467.830
Total Metal-Forming	14	98.049	19	108.110	27	469.200
Metal-Cutting						
CNC	133	269.541	201	437.069	229	463.200
Conventional	75	133.985	74	185.361	101	534.270
Total Metal-Cutting	208	403.526	275	622.430	330	997.470
Total Metalworking	222	501.575	294	730.540	357	1,466.670
of which :						
• CNC is	143	288.370	207	450.720	230	464.570
• Conventional is	79	213.210	87	279.820	127	1,002.100

Consumption of Metalworking Machine Tools

(Figures in Bracket indicate value in Rs. million)

(Figures in % indicate share in Indian market for machine tools)

□ Indigenous
□ Imports



NEW PRODUCTS DEVELOPED BY MEMBERS IN 2007 - 2008

Abhijat Equipments Private Limited

1. Single spindle automatic lathe [Model AL - 60].
2. CNC chucker - dia. 200.
3. Lapping machine for mining valves.

Amount spent on R&D : Rs. 2.5 million.

Accurate Engineering Company Private Limited

1. 3 D coordinate measuring machine [Model Aria].
2. Auto gauging with differential weighing, marking and sorting for connecting rod.
3. Roundness measuring machine [Model Precirond 1000].
4. Tool presetting machine [Model Toolscan].

Amount spent on R&D : Rs. 3.0 million.

Ace Designers Limited

1. CNC lathe [Model SLC - 16].
2. CNC lathe [Models SLC - 20].

Amount spent on R&D : Rs. 1.5 million.

Airtorq India

1. Pneumatic multi-disc clutch of 1,00,000 kg/m torque capacity.
2. Pneumatically-released fail-safe brake of torque capacity 80,000 kg/m.
3. Oil-immersed, pneumatic clutch and brake unit for 110 and 160 ton presses.

Anjani Technoplast Limited

1. CNC waterjet cutting machine.

Arihant Industrial Corporation Limited

1. Three-in-one machine for honing, burnishing and auto-gauging operation for auto components in one cycle.

Amount spent on R&D : Rs. 0.5 million.

Ashok Manufacturing Company Private Limited

1. CNC in situ PU foam gasketing machine for flat sheet metal parts.
2. CNC turret punch press - HS - super high speed model.

Amount spent on R&D : Rs. 1.5 million.

Batliboi Limited

1. Sprint 16 TC with flat bed (CNC lathe).
2. Sprint 16 TC linear (CNC lathe).
3. Automatic pallet changer on Chetak machines (VMC).
4. Digital readout system for BVR - 3 (radial drilling machine).
5. Moving column radial drilling machine [Model BMCR 618].
6. Chetak 55 / 75 (VMC) with twin atm ATC.
7. Sprint 20 TC with 1 Mt ABC, (CNC lathe).
8. New guarding design for aesthetic, ergonomical improvement on VMCs (Chetak / Pushpak) series machines.

Amount spent on R&D : Rs. 7.4 million.

Bhagwansons

1. CNC centreless grinder [Model CNC 250].
2. Auto loading and unloading system for engine valves.

Bharat Fritz Werner Limited

1. CNC vertical machining centre [Model Vayu].
2. CNC vertical machining centre [Model Gaurav].
3. CNC vertical turret lathe [Model Sudarshan].
4. CNC serration milling machine.
5. CNC rack teeth milling machine.
6. CNC crankshaft thrust burnishing machine.
7. CNC rotor hub fine boring machine for windmills.

Amount spent on R&D : Rs. 43.6 million.

Bombay Machines

1. Equalising machine for engine block castings before loading to CNC machining centre.
2. Finish line boring machine for 2, 3, 4 cylinder block.
3. U-drilling special purpose machine for sleeve yokes and flange yokes.
4. Finish boring special purpose machines for sleeve yokes and flange yokes.
5. Line boring machines for crank and CAM bores for engine block and head-2 machines.

Amount spent on R&D : Rs. 1.0 million.

Bosch Limited

1. V-seat area leak testing machine.
2. Retainer cotter sub-assembly machine.
3. Valve seat and stem pressing machine.
4. Vertical sound testing machine with thread master.
5. Rotary cage single-chamber multi-stage ultrasonic aqueous cleaning machine.
6. Special cap nut assembly nut runner machine [Model OP 290].
7. Nut runner and plug fitment machine [Model OP 210].
8. Brushing machine for CAM core [Model OP 330].
9. CAM housing bolts opening machine.
10. Spring seat and valve seal stem pressing machine.
11. Crankshaft counterweight assembly machine.
12. Engine water and gasoline circuit leak testing machine.
13. Drive head assembly test rig, for testing or drive head component.
14. Washing and pressing machine.
15. Main shaft sub-assembly.
16. Front hub assembly pressing line.
17. Gear pump performance test bench.
18. Gear pump running in bench.

Cadem Technologies Private Limited

1. Shopfloor intelligence tool for SHOPtrack v 2.2.
2. Automatic idle time reason capturing system for SHOPtrack v 2.3.
3. Production scheduling system for discrete manufacturing industries.

Amount spent on R&D : Rs. 3.3 million.

Elscent Automation

1. Elscint high speed vibratory feeder for thin parts.
2. Elscint vibratory drive [Model 160 D].
3. Elscint vibratory drive [Model 400 HD].

Amount spent on R&D : Rs. 1.8 million.

Electronica Machine Tools Limited

1. 5-axes large-size submerged-type CNC wire-cut electro-discharge machine [Model Ultracut S3].
2. 5-axes state-of-the-art submerged-type CNC wire-cut electro-discharge machine [Model Newcut S0].
3. 4-axes large size CNC electro-discharge machine with automatic tool changer [Model Xpert II].
4. Economical 3-axes CNC electro-discharge machine [Model Smart CNC EDM].
5. Large size 1000 amp. electric discharge saw [Model EDS-1000].

Amount spent on R&D : Rs. 16.5 million.

Electropneumatics & Hydraulics (India) Private Limited

1. Tube bender with rotary pipe chucking and indexing for dia. 325 mm pipes [Model 325NCXR].
2. Boost bender [Model 65CNC2X-B].
3. Three-axes CNC tube bender with two-axes electric servo [Model 30CNC3X, 65CNC3X].
4. 3500 T hydraulic press for SS plate pressing.
5. 2 T electric servo press.
6. 8-axes CNC fully-automated powder compacting press.
7. Special purpose tube end forming machine.

Amount spent on R&D: Rs. 64.35 million.

Fluro Engineering Private Limited

1. CNC loading and unloading unit with servo worm gear boxes and linear guideways for turning centre.
2. Single axis CNC robot for factory automation application.
3. Gantry system assembled.

Amount spent on R&D : Rs. 0.3 million.

Geeta Machine Tools Private Limited

1. CNC 14 metres travelling column horizontal boring and milling machine.
2. CNC ram-type milling machine [Model RM 1500].
3. CNC 6-axis horizontal boring machine (table type) [Model BFT 110 / 6].
4. Heavy duty radial drilling machine having drilling capacity 80 mm in steel and drilling radius 3,500 mm [Model RDM 80 / 3500].

Amount spent on R&D : Rs. 4.0 million.

HMT Machine Tools Limited

1. CNC slant-bed turning centre with automation and post processor [Model SB CNC 40].
2. Axle manufacturing machining centre [Model VMC 400M].
3. 5-axes CNC heavy-duty cylindrical machine [Model HCG 56 CNC].
4. 3-axes CNC crankshaft pin grinding machine with auto hydraulic clamping and de-clamping of crankshaft.
5. Centreless grinding machine and face chamfer grinding machine.

Amount spent on R&D : Rs. 13.5 million.

Hi-Life Machine Tools (Private) Limited

1. CNC cylindrical grinding machine with angular wheel head.

Amount spent on R&D : Rs. 2.0 million.

Hindustan Hydraulics Private Limited

1. New CNC punching machine 1,250 x 2,500 with higher speed.
2. New improved 6-axis back-gauge for CNC hydraulic press brake.
3. Improvement of tandem CNC press brake solution for 8 to 12 metre length.
4. CNC folding machine.

Amount spent on R&D : Rs. 1.5 million.

I S G E C

1. 2000 T mechanical transfer press having five stations and robotised transfer of parts.
2. Robotised automatic tandem press line comprising two numbers 1000 T and three numbers 600 T mechanical presses, equipped with automatic die transfer and storage system.

IMEXSU (India)

1. Deburring solutions on vertical machining centre, horizontal machining centre, flexible machining centre, CNC machines and special purpose machines.

Ind-Sphinx Precision Limited

1. Tools for micro machining [Model AXIS].

Amount spent on R&D : Rs. 1.0 million.

Intelmac Machine Tools Private Limited

1. CNC linear tooling lathe [Model Turn SLC - 450].
2. CNC vertical lathe [Model Turn HT - 600].
3. CNC slant bed lathe [Model Turn - Mint].
4. Flexi-arm tapping machines [Model V3 - 18, V12 - 30, HV3 - 18].

Amount spent on R&D : Rs. 2.5 million.

Jai Balaji Control Gears Private Limited

1. Digital AC and DC voltmeter, ammeter 3-digit and 4-digit.
2. Engineering plastic industrial heavy duty junction boxes.
3. Engineering plastic industrial heavy duty plugs, sockets and connectors.

Jyoti CNC Automation Private Limited

1. Auto loader for turning centre for shaft machining.
2. CNC lathe for the small components [Model DX 100].
3. High speed CNC cam profile turning machine with auto loading.
4. Five-axis high speed machining centre [Model K2X8].

Amount spent on R&D : Rs. 26.0 million.

Kawa Press Systems Private Limited

1. Straight side 63 ton power press with 250 special purpose machine.
2. CNC press brake capacity 2,500 x 10 mm.
3. CNC guillotine shearing machine 3,100 x 13 mm.

Amount spent on R&D : Rs. 2.0 million.

Kirpekar Engineering Private Limited

1. Twin tubes to cooling fins automatic resistance welding special purpose machine.
2. Tube to flange flash butt resistance welding special purpose machine.
3. Two point (at a time) armature fusing machine.
4. Table mounted moving arm spot welding machine.
5. Tube to pins semi-automatic resistance welding special purpose machine.
6. Eight points (at a time) projection welding special purpose machine.
7. Transformer radiator cooling fins multi spot DC welding special purpose machine.
8. Transformer radiator cooling fins dual seam DC welding special purpose machine.
9. Special purpose resistance welding transformers.
10. Special purpose resistance welding controllers.

Amount spent on R&D : Rs. 15.0 million.

Kristeel - Shinwa Industries Limited

1. Feeler gauge [Model FG - 27 & FG - 13].
2. Screw pitch gauge [Model SPG and APG].
3. Metal sliding bevel gauge [Model MSBG].
4. Vernier calliper columbus [Model VCC].
5. Pocket calliper and slide calliper [Model PC and SC].
6. Multi user rule and gauge, hair gauge and tyre depth gauge [Model MURG, HG and TDG].

7. Brass rosewood square [Model BRW].
8. 12 inch and 24 inch height gauge [Model HG - 12 and HG - 24].
9. Universal bevel protractor [Model UBP].
10. Four piece combination try meter square [Model 1516 - C].

Amount spent on R&D : Rs. 1.0 million.

Lokesh Machines Limited

1. CNC vertical machining centre [Model VML - 1200].
2. CNC turning lathe [Model TL - 160].

Amount spent on R&D : Rs. 10.0 million.

Micromatic Grinding Technologies Limited

1. CNC piston ring profile grinder.
2. Hydraulic cylindrical grinder with ABC 2000 mm.
3. CNC roll grinding machine for printer rolls with ABC 1600 mm.
4. CNC internal grinder with motorised disc dresser for CBN wheel.
5. CNC edge grinding machine with direct driven spindle on work head.
6. Cam grinding function on CNC cylindrical grinder.
7. CNC ball track grinding machine.

Amount spent on R&D : Rs. 9.0 million.

Mistry Laxman Kadava Machines Private Limited

1. Semi-automatic swing-type band-saw machine with electro-mechanical developed for metal-cutting.

Amount spent on R&D : Rs. 0.2 million.

Miven Mayfran Conveyors Private Limited

1. Overhead chip and coolant transportation system - - Viavent.
2. Stand alone filtration system for grinding machines.
3. Consep 2000 II.

Amount spent on R&D : Rs. 0.3 million.

Modern Precision Tools Private Limited

1. Auto profile grinder with auto profile grinding attachment [Model AGH 650 / 320].
2. Centreless grinding machine [Model CLGM 85].

Amount spent on R&D : Rs. 1.0 million.

Premier Limited

1. CNC vertical turning centre - 400 mm dia.
2. Vertical turning centre with moving cross rail - 1,500 mm dia.
3. Vertical turning centre - 5,000 mm dia.
4. Gear hobbing machine with electronic gear-box - 400 mm dia.
5. Gear shaving machine - 250 mm dia.

Amount spent on R&D : Rs. 27.4 million.

Productivity Elements Private Limited

1. Integrated 2-station broaching line for internal and external on a single component.

Amount spent on R&D : Rs. 2.5 million.

Rimaco Machines

1. CNC rotary drilling machine.
2. Hydraulically-actuated horizontal slitting machine.
3. Double-disc grinding machine vertical with 660 mm diameter grinding wheel.

Amount spent on R&D : Rs. 3.5 million.

SRB Machines Private Limited

1. Heavy-duty CNC cylindrical grinding machine to grind dia up to 500 mm.
2. 2-axis CNC bore-cum-face grinding machine for gear manufacturer industries.
3. CNC cam lobe grinding machine CAM 1250 with high speed grinding.

Amount spent on R&D : Rs. 0.3 million.

State Engineering Corporation

1. 2-jaw indexing hydraulic chuck.

Amount spent on R&D : Rs. 1.5 million.

TAL Manufacturing Solutions Limited

1. CNC vertical machining centre [Model V 400 PLUS].
2. CNC horizontal machining centre [Model H 500 PLUS].
3. CNC vertical machining centre with BT 50 spindle [Model V 500 PLUS].
4. Drill tap centre with BT 40 spindle [Model DYNA T - 40].

Amount spent on R&D : Rs. 5.8 million.

Threadaid

1. CNC rack rolling machine [Model Quick Roll 25].

Amount spent on R&D : Rs. 1.4 million.

Trishul Machine Tools Private Limited

1. 5-axis NC polygon turning machine for machining double chamfers on pinion teeth [Model TPT - 5S].

Amount spent on R&D : Rs. 0.5 million.

Uday Computer Aided Manufacturing (Private) Limited

1. CNC rotary table dia 1,600 mm with five tons load capacity.
2. CNC tilting rotary table with ISO 50 taper centre bore.
3. 4-spindle rotary table dia 170.

Amount spent on R&D : Rs. 3.0 million.

Unique Saws & Machinery Private Limited

1. Safety cutters.
2. Spray systems.

Weldor Engineering Private Limited

1. Hydraulic shearing machine variable rake angle-type size 6,300 x 8 mm (MS).
2. 4-roll hydro-mechanical pre-pinch-type plate bending machine size 2,500 x 25 mm (MS).

Amount spent on R&D : Rs. 3.0 million.

Wendt (India) Limited

1. Horizontal spindle rotary table CNC surface grinding machine of table size 1,200 mm.
2. High speed testing machines for testing rotating parts.
3. High precision diamond dressing rolls.
4. Infiltrated form rotary dressers for dressing and generating various profiles.
5. Resin bonded CBN wheels for hob re-sharpening.
6. Resin bonded CBN wheels for peeler blades grinding.
7. CBN honing sticks for fuel injection components / Rocker arms.
8. Thin section honing sticks for honing smaller bores of < 8 mm.
9. Metal bonded diamond wheels for flute grinding of solid carbide end mills.
10. Vitrified CBN grinding wheels for cam shaft / cam lobe grinding.
11. Vitrified CBN grinding wheels for drive shafts / pump claw grinding.
12. Vitrified CBN grinding wheels for internal grinding of auto components.

Amount spent on R&D : Rs. 13.7 million.

ISO CERTIFIED IMTMA MEMBERS

- ◆ Abhijat Equipments Private Limited
- ◆ Abro Balancing Private Limited
- ◆ Ace Designers Limited
- ◆ Airtorq India
- ◆ Arihant Industrial Corporation Limited
- ◆ Artech Welders Private Limited
- ◆ Ashok Manufacturing Company Private Limited
- ◆ Batliboi Limited
- ◆ Bharat Fritz Werner Limited
- ◆ Birla Kennametal Limited
- ◆ Bosch Rexroth (India) Limited
- ◆ CMH Tools Limited
- ◆ Carborundum Universal Limited
- ◆ Crane-Bel International Private Limited
- ◆ Denison Hydraulics India Limited
- ◆ EFD Induction Limited
- ◆ EPE Process Filters & Accumulators Private Limited
- ◆ Electronica Machine Tools Limited
- ◆ Electropneumatics & Hydraulics (India) Private Limited
- ◆ Fenwick and Ravi
- ◆ Fluid Logic Systems Private Limited
- ◆ Fluro Engineering Private Limited
- ◆ Geeta Machine Tools Private Limited
- ◆ Godrej & Boyce Manufacturing Company Limited
- ◆ Guindy Machine Tools Limited
- ◆ HMT Machine Tools Limited
- ◆ Hasolon Nylon Products Private Limited
- ◆ Heavy Engineering Corporation Limited
- ◆ Hi-Life Machine Tools (Private) Limited
- ◆ Hindustan Hydraulics Private Limited
- ◆ I S G E C
- ◆ Imperial Products of India
- ◆ Ind-Sphinx Precision Limited
- ◆ Jyoti CNC Automation Private Limited
- ◆ Jyoti Enterprise
- ◆ Kennametal India Limited
- ◆ Kirpekar Engineering (Private) Limited
- ◆ Kulkarni Power Tools Limited
- ◆ Lakshmi Machine Works Limited
- ◆ Lokesh Machines Limited
- ◆ Machine Tool Prototype Factory
- ◆ Machine Tools Traders (Madras)
- ◆ Macpower CNC Machines (Private) Limited
- ◆ Micro Engineering Works
- ◆ Micromatic Grinding Technologies Limited
- ◆ Mikronix Gauges Private Limited
- ◆ Miven Mayfran Conveyors Private Limited
- ◆ Modern Machine Tools
- ◆ Modern Precision Tools Private Limited
- ◆ Mogora Cosmic Private Limited
- ◆ Motor Industries Company Limited
- ◆ Neel Controls
- ◆ Nugen Machineries Limited
- ◆ Oriental Engineering Works Private Limited
- ◆ PMT Machines Limited
- ◆ Parishudh Machines Private Limited
- ◆ Praga Tools Limited
- ◆ Precihole Machine Tools Private Limited
- ◆ Premier Limited
- ◆ Presswel Industries
- ◆ Pricol Limited
- ◆ Quality Engineering (Baroda) Private Limited
- ◆ Rattan Hammers
- ◆ Ravjeet Engineering Specialities Private Limited
- ◆ SRB Machines Private Limited
- ◆ Sandvik Asia Limited
- ◆ Seco Tools India (Private) Limited
- ◆ Shri Balaji Engineering Works
- ◆ Speedfam (India) Private Limited
- ◆ State Engineering Corporation
- ◆ Stuser Tools Private Limited
- ◆ Suhas Hydrosystems Private Limited
- ◆ Sunmas Machine Tools Private Limited
- ◆ TAL Manufacturing Solutions Limited
- ◆ TMC Measuring Instruments Private Limited
- ◆ Taegutec India Limited
- ◆ Uday Computer Aided Manufacturing (Private) Limited
- ◆ Unique Instruments & Manufacturers Private Limited
- ◆ Unique Saws & Machinery Private Limited
- ◆ Uttam Power Tools Private Limited
- ◆ Wendt (India) Limited
- ◆ Yuken India Limited

NEW MEMBERS ENROLLED DURING 2007 - 2008

Members Enrolled from April 2007 to March 2008

ANJANI TECHNOPLAST LIMITED

6 - A
Sector 40 - 41
Greater Noida - 201 306
UTTAR PRADESH.

[Manufacturer : Accessories for machine tools]

ASSOCIATED ENGINEERS

879 / 5
Road No. 67
G. I. D. C. Industrial Estate
Makarpura
Vadodara - 390 010
GUJARAT.

[Manufacturer : Accessories for machine tools, cutting tools, metrology and measuring equipment]

BHAGWANSONS

Gill Road
Opposite ITI
Ludhiana - 141 003
PUNJAB.

[Manufacturer : Metal-cutting machine tools]

BLASER SWISSLUBE INDIA PRIVATE LIMITED

C - 4
First Floor, SCO
Safdarjung Development Area
New Delhi - 110 016.
NCT.

[Distributor : Accessories for machine tools]

CAPITAL ENGINEERING CORPORATION

A - 7
Ambey Garden
Samaypur Extensive Industrial Area
Delhi - 110 042
NCT.

[Manufacturer : Accessories for machine tools]

DALAL ENGINEERING PRIVATE LIMITED

Kavesar
Thane - Ghodbunder Road
Thane - 400 601
MAHARASHTRA.

[Manufacturer : Metal-forming machine tools]

DEVENDRA EXPORTS PRIVATE LIMITED

No. 35 - B / 2
2nd Main Road
Industrial Estate
Ambattur
Chennai - 600 058
TAMIL NADU.

[Distributor : Metal-cutting machine tools]

ELECTRONICA HITECH ENGINEERING PRIVATE LIMITED

Electra Chambers
44 Mukund Nagar
Pune - 411037
MAHARASHTRA.

[Distributor : Metal-cutting machine tools, accessories for machine tools & cutting tools]

EMUGE INDIA PRIVATE LIMITED

Plot No. 92 & 128
AP Kondhanpur
Taluka Haveli
District Pune - 412 205
MAHARASHTRA.

[Manufacturer : Cutting tools and tooling systems]

FORGING MACHINERY MANUFACTURING COMPANY (NKH)

Old NKH Building
Link Road
Ludhiana - 141 003
PUNJAB.

[Manufacturer : Metal-forming machine tools]

FORMS & GEARS

L - 3
Industrial Estate
Guindy
Chennai - 600 032
TAMIL NADU.

[Manufacturer : Accessories for machine tools]

GUDEL INDIA PRIVATE LIMITED

14 Commerce Avenue
Mahaganesh Colony
Paud Road
Kothrud
Pune - 411 038
MAHARASHTRA.

[Manufacturer : Accessories for machine tools]

HEGDE PRECISION ENGINEERING WORKS

54 / 12 D II Block
M. I. D. C., Chinchwad
Pune - 411 019
MAHARASHTRA.

[Manufacturer : Accessories for machine tools]

INDO SERVICES

38
7th A Main, Muthyalanagar
Gokula Post
Bangalore - 560 054
KARNATAKA.

[Distributor : Accessories for machine tools]

INDUCTION EQUIPMENT (INDIA) PRIVATE LIMITED

T - 117
Bhosari Industrial Estate
Pune - 411 026
MAHARASHTRA.

[Manufacturer : Accessories for machine tools]

IZAR MACHINES & EQUIPMENT PRIVATE LIMITED

74 Gen Block
M. I. D. C.
Bhosari
Pune - 411 026
MAHARASHTRA.

[Manufacturer : Metalworking machine tools]

JAI BALAJI CONTROLGEARS PRIVATE LIMITED

Plot No. 89, (New No. 107)
SIDCO Industrial Estate
Ambattur
Chennai - 600 098
TAMIL NADU.

[Manufacturer : Accessories for machine tools]

KRISTEEL SHINWA INDUSTRIES LIMITED

'Krislon House'
Saki Vihar Road
Saki Naka
Mumbai - 400 072
MAHARASHTRA.

*[Manufacturer : Accessories for machine tools
& measuring equipment]*

LEX TECHNOAID

Shed No. 1
Badrappa Industrial Estate
Kamakshipalya
Bangalore - 560 079
KARNATAKA.

[Manufacturer : Accessories for machine tools]

MAG INDIA INDUSTRIAL AUTOMATION SYSTEMS PRIVATE LIMITED

G 1, No. 22
"Cunningham Classic"
Cunningham Road
Bangalore - 560 052
KARNATAKA.

[Distributor : Accessories for machine tools]

MMC HARDMETAL INDIA PRIVATE LIMITED

10, First Floor
80 Feet Road
RMV 2nd Stage
Bangalore - 560 094
KARNATAKA.

[Distributor : Cutting tools and tooling systems]

NICKUNJ EXIMP ENTERPRISES PRIVATE LIMITED

'Sri Joravar Bhawan'
93 Maharshi Karve Road
Marine Lines
Mumbai - 400 020
MAHARASHTRA.

[Distributor : Cutting tools and tooling systems]

NRB BEARINGS LIMITED

'Dhannur'
15 Sir P. M. Road
Fort
Mumbai - 400 001
MAHARASHTRA.

[Manufacturer & Distributor : Accessories for machine tools]

ORCAN PRODUCTS OF INDIA

Plot No. 51
Industrial Area
Opposite Eicher Tractor
N. I. T.
Faridabad - 121 001
HARYANA.

[Manufacturer : Accessories for machine tools]

PIONEER COMPUTING TECHNOLOGIES

No. 706
Second floor, 9th Cross
Modi Hospital Road
Basaveshwaranagar 2nd Stage
Bangalore - 560 086
KARNATAKA.

[Manufacturer : Accessories for machine tools]

PRECISION INTERNATIONAL

108 Aashirwad
Green Park (Main)
New Delhi - 110 016
NCT.

[Distributor : Accessories for machine tools]

PRECITEC

No. 22
Nagappa Street
P. G. Halli
Bangalore - 560 003
KARNATAKA.

*[Manufacturer : Metal-cutting machine tools
& accessories for machine tools]*

PRECOMP TOOLS PRIVATE LIMITED

Plot No. 108 D
Ranje
Taluka Bhor
District Pune - 412 205
MAHARASHTRA.

[Manufacturer : Accessories for machine tools]

PRIDE MACHINE TOOLS PRIVATE LIMITED

No. 89 / 1
7th Main, 3rd Phase
Peenya Industrial Area
Bangalore - 560 058
KARNATAKA.

[Manufacturer : Metal-cutting machine tools]

PRODUCTION AIDS & CONSULTANTS (PRIVATE) LIMITED

FA - 18
First Floor, 'Crown Plaza'
Sector 15 A, Mathura Road
Faridabad - 121 007
HARYANA.

[Distributor : Metal-cutting machine tools]

RADICAL INSTRUMENTS

123 HSIDC Industrial Estate
Ambala - 133 006
HARYANA.

[Manufacturer : Accessories for machine tools]

ROSA UCAM GRINDTECH PRIVATE LIMITED

A 11 / 1
First Stage, 1st Cross
Peenya Industrial Area
Bangalore - 560 058
KARNATAKA.

[Manufacturer : Metal-cutting machine tools]

S & T ENGINEERS

No. 22
Vasanth Nagar
Opposite Ulavar Santhai
Singanallur
Coimbatore - 641 005
TAMIL NADU.

[Distributor : Metal-cutting machine tools]

SUYASH PRECI-LAP AIDS

C - 57
M. I. D. C. Area
Waluj
Taluk Gangapur
District Aurangabad - 431 136
MAHARASHTRA.

[Manufacturer : Tooling systems]

TRIMOS METROLOGY (INDIA) PRIVATE LIMITED

205 / 207
Hamilton - A
Hiranandani Business Park
Ghodbunder Road
Thane (West) - 400 607
MAHARASHTRA.

[Distributor : Accessories for machine tools]

TUSSOR MACHINE TOOLS INDIA PRIVATE LIMITED

1 / 247
Avanashi Road
Neelambur Post
Coimbatore - 641 014
TAMIL NADU.

*[Manufacturer : Metal-cutting machine tools
& accessories for machine tools]*

U-TECH ASSOCIATE

3 / 1
M. N. Complex
Law College Road
Nagarabhavi
Bangalore - 560 072
KARNATAKA.

[Distributor : Accessories for machine tools]

VIKAS INDUSTRIAL SUPPLIER

Plot No. P - 26
'MIA House'
Block No. 2 / 3 / 4
Hingna Industrial Estate
M. I. D. C.
Nagpur - 440 028
MAHARASHTRA.

[Distributor : Tooling systems]

WESTERN INDUSTRIAL APPLICATION

B - 3081 / 82
Oberoi Garden Estate
B Wing, Third Floor
Chandivli
Andheri (East)
Mumbai - 400 072
MAHARASHTRA.

*[Distributor : Metal-cutting machine tools & accessories for
machine tools]*

WICKMAN MACHINE TOOLS (INDIA) PRIVATE LIMITED

No. 812
Barton Center
84 M. G. Road
Bangalore - 560 001
KARNATAKA.

[Distributor : Metal-cutting machine tools]

Total Membership of IMTMA : 410 members



Machine tool park
Centre urged to set up machine tool park
IMTMA unveils machine shop expo
Bimbatore turns to machine tool hub
IN THE NEWS

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నాస్కం

Our Bureau
Bangalore, Jan 18
The week-long ex-
posed by the
would



Indian Machine Tool Manufacturers' Association

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Plot No. 249 F, Phase IV, Udyog Vihar,
Sector - 18, Gurgaon - 122 015, Haryana (India).
T : +91-124-4014101 to 4104. F : +91-124-4014108.
E : imtma.gurgaon@imtma.in

Regional Office (West)

503 South Block, "Sacred Block"
S. No. 75 / 2 / 2, Opp. Sacred Heart Town
Wanorie, Pune - 411 040, Maharashtra (India).
T : +91-20-40091501. T/F : +91-20-26852047.
E : imtma.pune@imtma.in