



MACHT TECHNOLOGIES (P) Ltd.





Macht Technologies Pvt. Ltd.

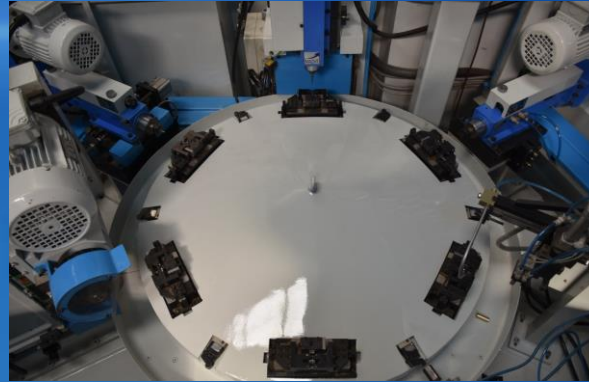
e-Profile

www.macht-technologies.com

Please click on  to watch the Particular Video.



Our Products & Services



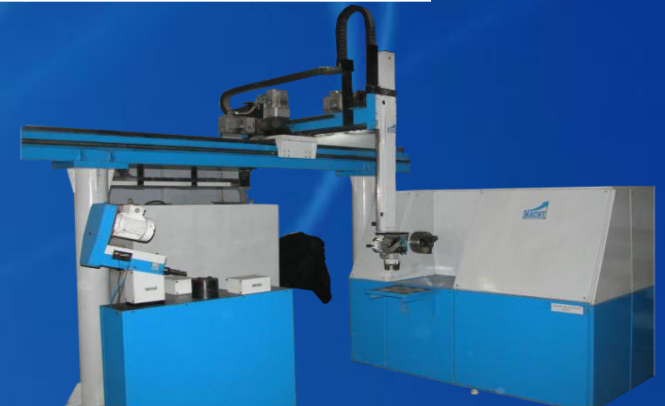
“Made to Order” CNC Turning & Multi Axes Rotary Transfer Machines



Precision Machined Components for Exports



Modular Units for Machine Building



Industrial Automation Solutions : Multi Axes Linear Robot



Our Major Customers





ABOUT MACHT



MACHT Technologies Pvt. Ltd is an Engineering Company founded in Year 1994 by a **Father and Son Team of Technocrats**. We provide solutions to the Automobile, and Precision Engineering industry, in design and manufacture of:

- ➔ **“Made to Order CNC & Rotary Transfer Machines**
- ➔ **Modular Units for Machine Building like Spindles, Slides Facing Heads including Self Feed Spindles,**
- ➔ **Automation Systems : Robotic Automation Solutions using our own Linear Robot and 6 Axis Robot of Customers Choice**
- ➔ **Jigs & Fixtures Gauges**
- ➔ **Tooling for CNC as well as Conventional machines**
- ➔ **Precision Machined Parts in small to medium batch quantities**

Our Core Strength lies in the Technical experience of our Founder Directors, who have an excellent Experience in the Automotive and Machine Tool industry and laid down the foundations of **MACHT** on principles of quality & Kaizen. Both have been trained in **Germany**, with companies of world repute, are conversant with the International Standards and are fluent in **German and English Language**. We have a strong **Team of Engineers**, led by our **MD & CEO**, who supports him in bringing the **concepts to life**



Machine Tool Division



In Year 1997 we started Special Purpose Machines Division within our Company and provide innovative solutions in Machining & Assembly. So far more than 250 Machines from us are running successfully at our customers end. **Our main thrust in Machine Development is :**

- Design Machines that are **Simple to Build, Operate & Maintain**
- To Achieve **Quality** beyond **Customer's expectations**
- To **minimize Setup Time** and **improve Productivity**
- To Provide **Low Cost Machine Automation** thereby increasing **Efficiency** of the Machine



2 Axes CNC Cage Pocket Milling Machine



4 Axes Rotary Transfer Machine



3 Axes Rotary Drilling Machine



Design Department

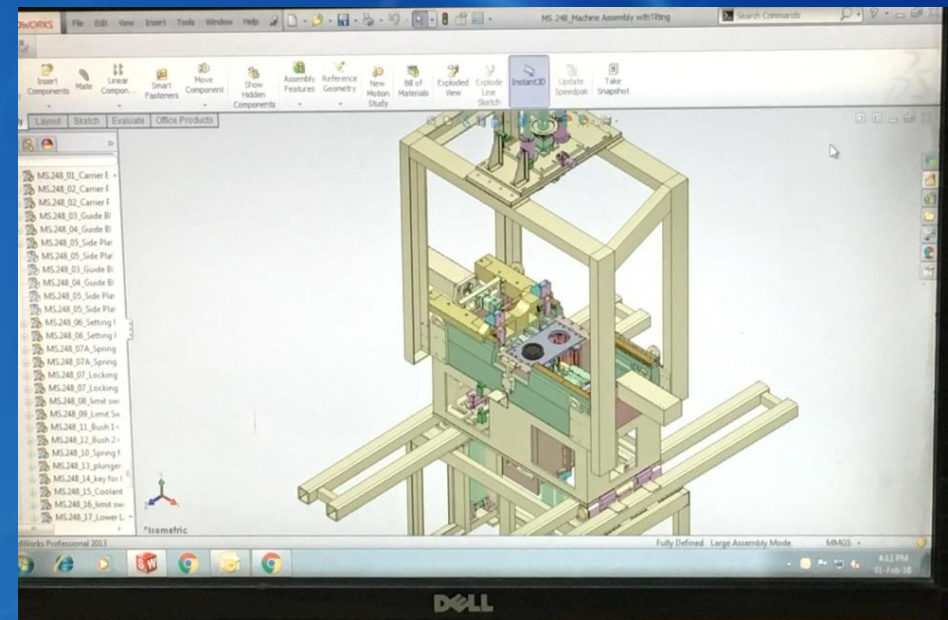


MACHT has a team of Engineers in both Mechanical & Electronics Design. We have a culture of Training our Team Members to continuously upgrade their skills. Equipped with 3D & 2D Softwares we have the skills & infrastructure to take care of our customers need for special machines equipment and automation

Solidworks : 3 Stations

SolidEdge : 2 Stations

Autocad LT : 5 Licences





Rotary Transfer Machines The Machines for the Future



Rotary Transfer Machines also known as the **Dial Indexer Machines** are right solutions for parts that have **very High Volumes**, which can be met by the Customer only by investing in **multiple Standard & Special Machines**. The **Rotary Transfer Machines** in such cases have definite advantage over the Transfer Lines :

1. **Cycle Time** of the complete process is the **longest time of a Particular Station** on the machine plus the idle time of indexing and Spindles reference to home. The Loading Unloading time is also masked in the Cycle Time of the Machine. Thus making it most productive of all concepts.
2. **Space Saving** : Today Space is at a premium and a Rotary Transfer Machine occupies much less space compared to the Standard Machines required for the same Production Volume
3. **Manpower** : There is a definite saving on Manpower in a Rotary Transfer Machine, for a machine to run Optimally only 1 Person required for Operation/Shift. The Setter & Programmer are usually utilized from common pool.
4. **Higher Accuracy** : Because part is manufactured in single clamping accuracies achieved are much higher than compared to Linear Transfer Lines



Rotary Transfer Machines The Machines for the Future

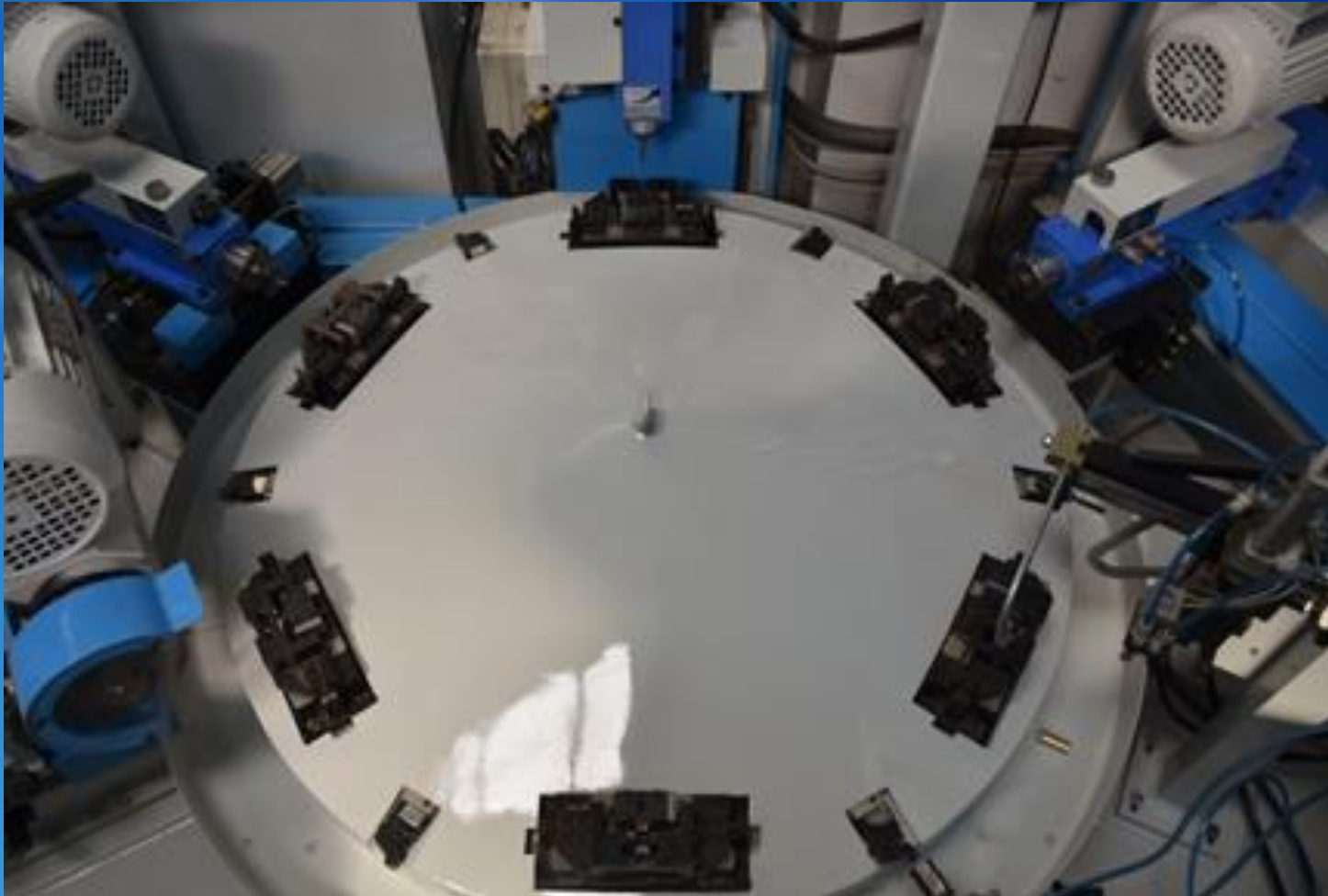


Other Added Benefits of this Concepts are :

- a) **Material Movement** : The movement of material from machine to machine is almost eliminated. The Rotary Indexing Table Transfers the part from one Station to another
- b) **Material Management** : The need of maintaining buffers between the machines is also eliminated as the operations are performed in sequence one after the other
- c) **Reductions in Rejections** : As both Set-Ups of the part are being done one after another and Buffers are reduced the chances of a batch being rejected due to wrong production are minimized as the Quality Assurance Engineers can inspect the part in totality before they give the Set Up Approval to the Machine
- d) **Effective Resource Utilization**: The Peripherals like the Hydraulics, Lubrication Systems etc are common for all Stations.



Machines for the Future Rotary Transfer Machines



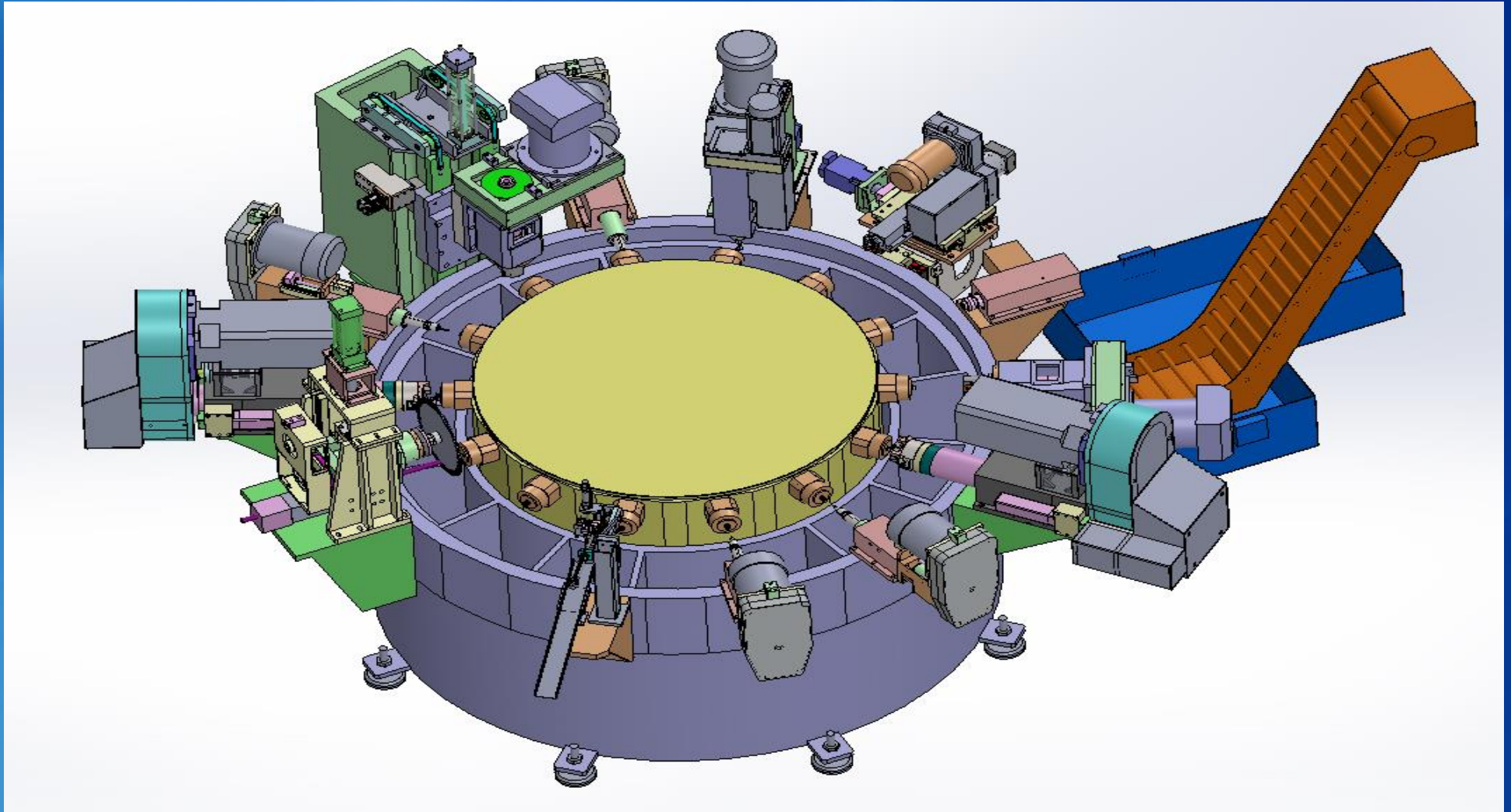
**MACHT's Rotary Indexing Table with 3 Pc Hirth Coupling Lock
The Heart of a Rotary Transfer Machine**



Machines for the Future Rotary Transfer Machines



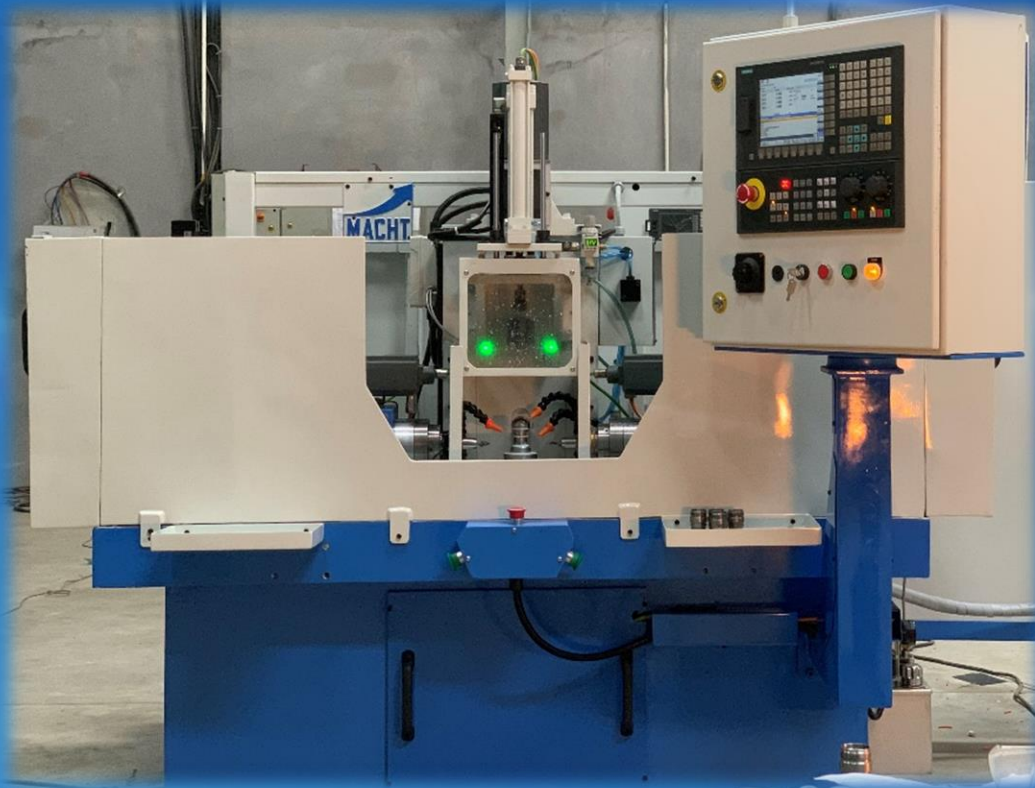
Our Multi Axes Rotary Transfer Machines



**ISOMETRIC VIEW OF a
ROTARY TRANSFER MACHINE
Designed for Round/Polygon Parts
to be Machined from Bar**



“Made to Order” CNC Machines



3 Axes Rotary Drilling Machine for QRC Couplings



3 Axes “Made to Order” Drilling Machine”



"Made to Order" CNC Machines



Duplex Milling Machine with Loading & Unloading Automation



5 Axes Diff Case Machine for Cross Hole Fine Boring & Spherical Milling



“Made to Order Machines”
for Assembly Automation



**2 Stage Automatic Hydraulic Press
for Bearing Pressing & Pre-
loading
Customer : Harley Davidson**



**2 Stage Automatic Hydraulic Press
for Rivetting
Customer : Sanden Vikas**



“Made to Order” CNC Turning Machines



In the year 2011 we decided to develop our own Range of Machines and did a Market Survey and realized that even though there are many manufacturers of Standard Machines, there was a need for **something “More”**. We have been in the **Specials Business** for the last 25 Years and realize that every customer / the components have their own unique needs. Hence we decided to launch our **“Made To Order”** Turning Program. We have based the design of our machines on the Modular Concept so as to impart flexibility to take on variety of components as well as build machines based on the Customer or their Components specific requirements.

Each Machine shall be suited to the family of components you wish them for, based on their Size, Accuracy as well as the Productivity required.

Our **“Made to Order”** Turning Machines Product Program includes :

- **End Turning for Shafts (with Centering Facing and Clamping Diameter Generation)**
- **Middle Drive CNC Lathes with Multi Axes for Simultaneous Machining of Shafts**
- **Single Spindle Lathes (Horizontal or Vertical)**
- **Multi Spindle CNC Lathes**



CNC Lathe MT-15

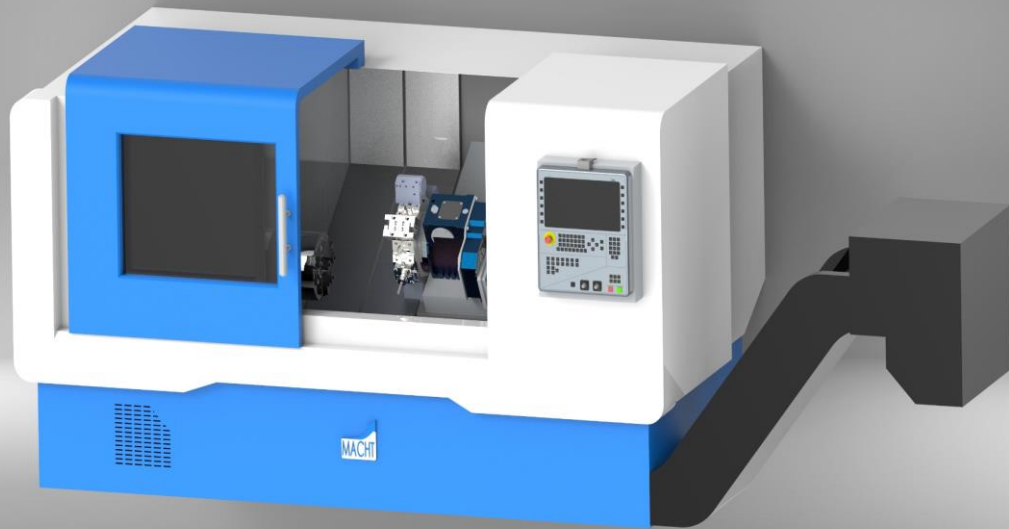


We develop Machines, which have a good **Chip Producing Capacity** and is **Rigid & Accurate** enough to perform in the toughest of conditions. With **MT 15** we believe we have developed a **Work Horse** with **toughness & precision** to match. Machines are all **Automation Ready** which we see as the coming future. Having used the machine in our own Exports Department for over 9 Years and having convinced ourselves with the Built and Quality of the Machine, we **“Now”** offer **CNC Turning Centers** to our Valued Customers.

A smaller model of this machine the **MT-15s** has also been developed and inducted in our CNC Machine Shop in September 2013. Model MT-15s as the name denotes is a machine with smaller foot print but still true to its Pedigree it **“packs quite a punch”** and is in no way less in either Sturdiness or Performance.

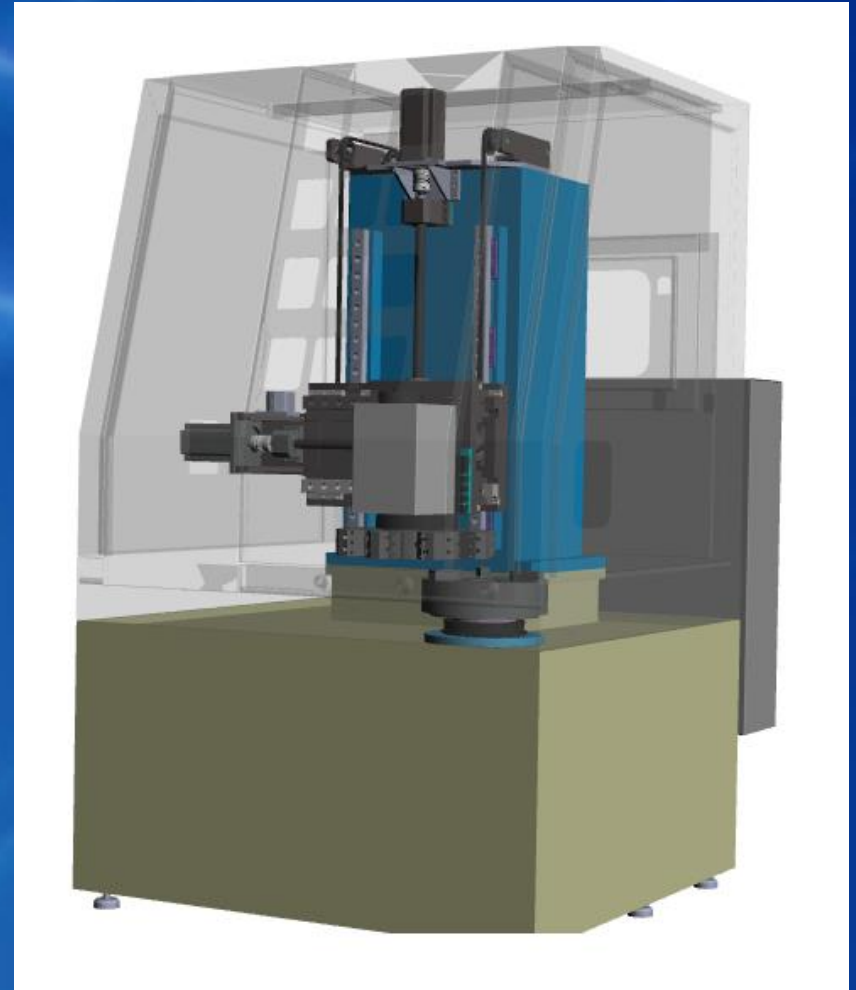


“Made to Order” CNC Turning Machines



MT 30-1200

For larger Parts. The Machine has a Chuck of dia 300 and Admit between Centre 1200 mm

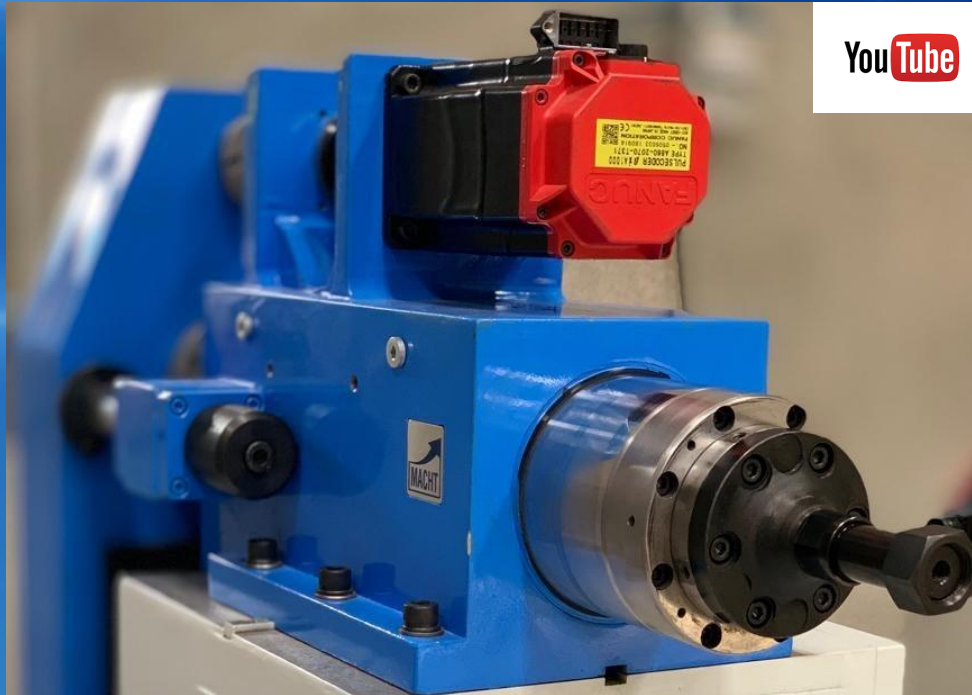


MVTC 300

Vertical Turning Lathe 300 Dia Chuck 600 mm Length



MACHT's Modular Units "The Building Blocks for Machines"



A Machine is a combination of “Modular Units” put together to perform a certain task, very similar to “**LEGO**” which we all played during our childhood days. We at **MACHT** began developing **Modular Units** since 1997 and have over the years developed many import substitution **Spindle Units** such as the **Self Feed Spindle Units**. Today we have a wide variety of “**standardized**” **Modular Units**, which we use to manufacture our machines. These Units we offer to other Machine Tool Builders too



MACHT's Modular Units "The Building Blocks for Machines"



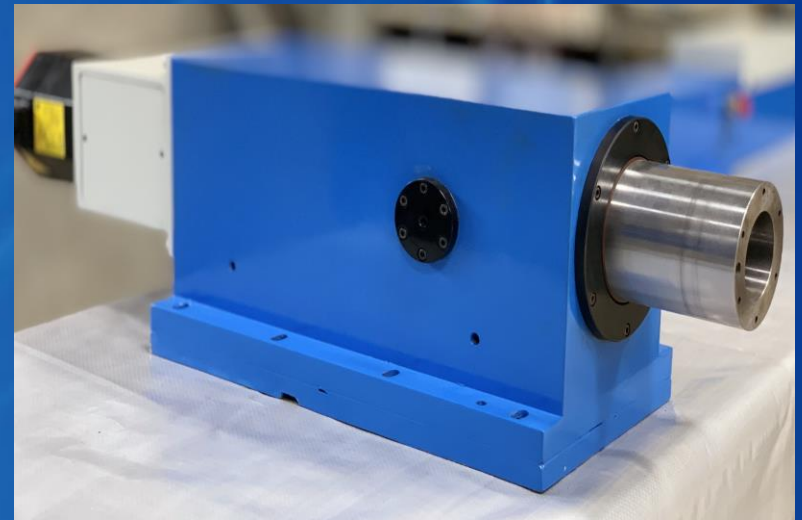
Pneumatic Self Feed Spindle Unit



Servo Self Feed Spindle Unit



CNC Lathe Spindle A2-5 Size



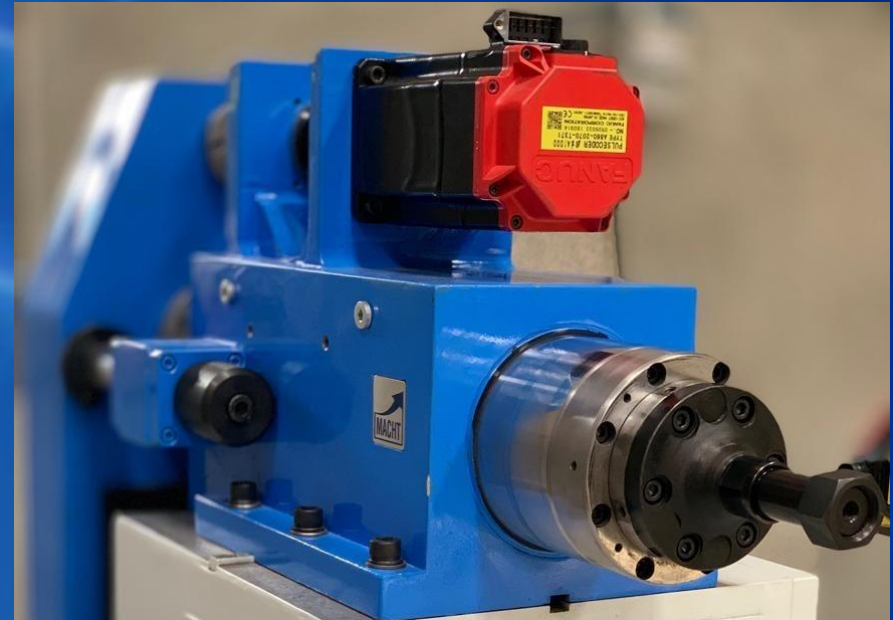
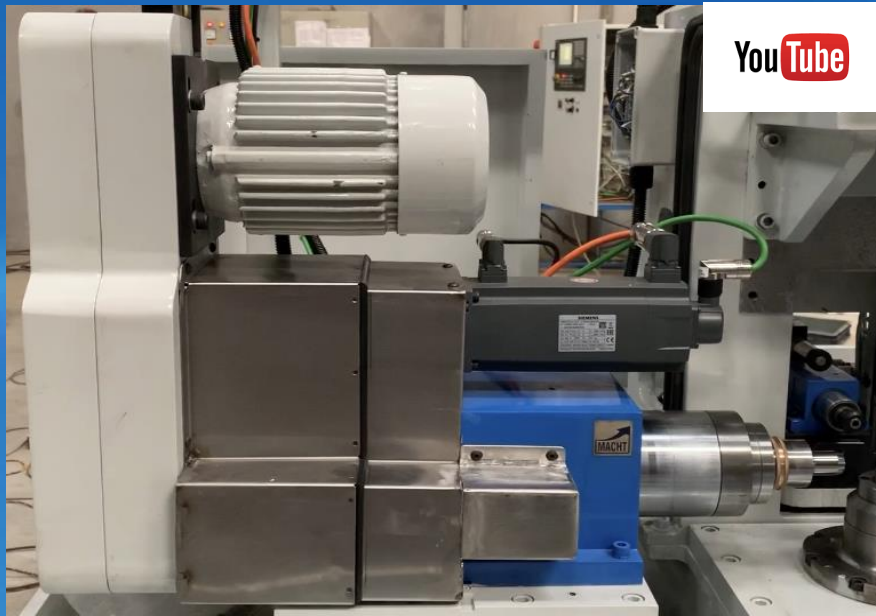
Servo Ram / Cylinder Unit



MACHT's Modular Units "The Building Blocks for Machines"



Servo Self Feed Spindle Units with Universal Nose Adaptor



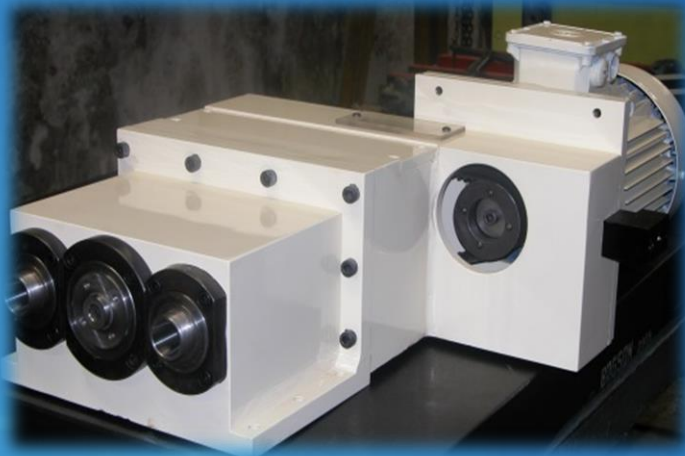
We began developing the **Next Generation Spindles Units** in 2009~2011 as we saw the need for Self Feed Spindles which could do **more than just Drilling / Light Machining** and are easily adaptable for variety of operations. We are pleased to present to you our **NexGen Spindle Units MSSF NexGen series**, which are **Robust** and have a **Universal Nose Adaption** and have a feature to adjust **TIR of the Tool** so that the same Spindle can be tooled up for variety of operations. The above pictures are of the same Spindle, one on the left has a **HSK 50C Adaptor** and the one on the Right has a Adaptor for a **CBN Grinding Wheel**. The Spindles can have automatic tool clamping and Coolant Thru System and much more. These Spindles are available from **HSK 32C Size till HSK 100C sizes**



Multi Spindle Heads



7- Spindle Boring Head for Tractor Gear box



3 Spindle Boring Head for Con Rod



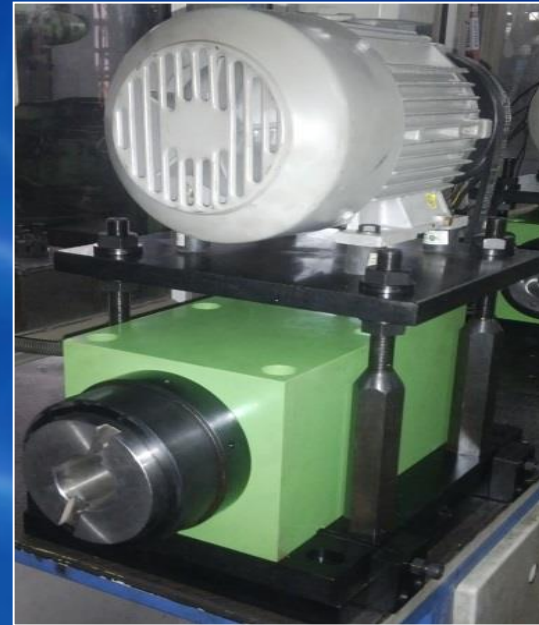
3-Spindle Drill Head



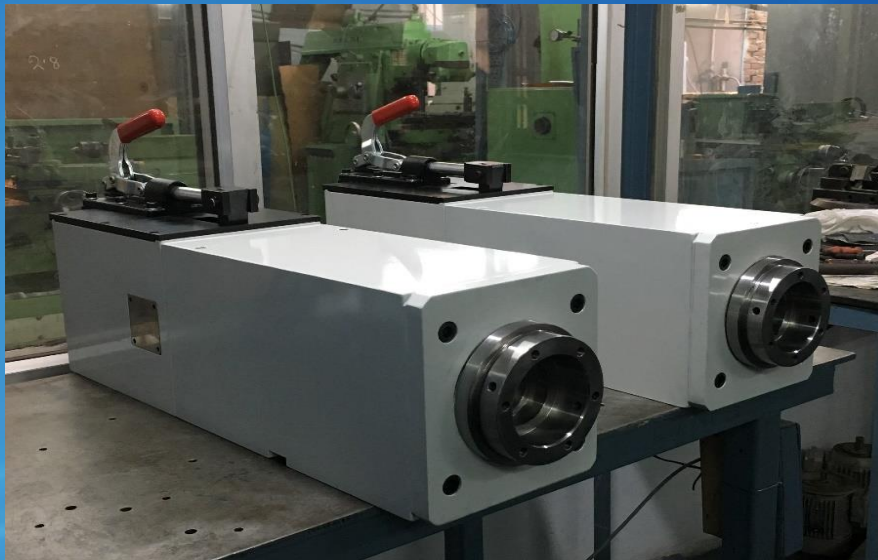
Various Spindle Units as per Customers requirements



CNC Lathe A2-5 Spindle Unit



SK 40 Size Fine Bore Spindle Unit



HSK 100 Size Spindle Units for Export



High RPM Micro Drilling Spindle



Automation Division



When the Need is to Create More from Less !!!!

The rising demands on production has put pressure on the process engineers to increase productivity. However once the optimization of a manufacturing process has been achieved the only way **create more from less** is to **minimize idle times** and improve production efficiency. **Automation** not only increases **Machine Utilization** thereby increasing overall efficiency of the Process but also is consistent and contributes in maintaining Quality of the process to same levels if not improving them

MACHT Technologies is geared to provide solutions in Automation such as:

- ❖ **Auto Loading / Unloading on Machines**
- ❖ **Machines Integration with Linear Robots**
- ❖ **Robotic Welding Automation**
- ❖ **Die Casting Automation HPDC Robotic Cells, Gravity Die Casting Pouring Automation etc**
- ❖ **Auto Gauging Systems for In and Post Process Inspection**
- ❖ **Assembly Automation**



MACHT's Linear Robots with upto 80 Kg Payload, 9 Meters Span and 6 Axes Control can be adapted to give many solutions in **Industrial Automation** such as :

- ✓ **Machine Tending**
- ✓ **HPDC Automation**
- ✓ **Palletization**
- ✓ **Cutting & Welding Automation etc**



Linear Robotic Automation System with 3 Axes Robot & Input and Output Conveyors by MACHT



Loading / Unloading Automation for Duplex Milling Machine



MACHT has the capability of Designing and Implementing Automation Solutions for not only Machines developed by us. The Duplex Milling Machine is equipped with a Linear Loading / Unloading System to perform this task for 8 Components Simultaneously.

The Complete System with the Input / Output Conveyors along with the Gripper and Orientation System was designed and implemented by our Team





We thank you for your time and do hope you find our Solutions to your expectation and we look forward to forge a long lasting mutually beneficial Business Relationship between our companies



Head Office & Works

Mr. Ashwin Dhingra, MD & CEO
D-137 & 137/2 , Site # 1,
Bulandshahar Road Industrial Area
Ghaziabad – 201009. India

Tel: +91-120-2866567 , +91-120-2866259

Fax : +91-120-4157536

Mobile: - +91-9810157046

E-mail: ashwin@macht-technologies.com

www.macht-technologies.com