

TECH NOCRAFT ENGINEERS

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COMPANY PROFILE

We are pleased to introduce our self as Manufacturers and Concept development Engineers along with consultancy and Design.

The firm is headed by Mr. Ravindra Shembekar, A Graduate in Mechanical Engineering from VJTI, Mumbai with 23 years experience in various industries.

We have specialized ourselves in Design and Manufacturing of Gear Boxes and Geared Units by using theories that have been approved by Indian Institute of Technology as well as many industries like Larsen and Toubro Ltd. By virtue of these we are able to decide the parameters most economically depending upon the application.

We have with us most advanced softwares like Solid edge by virtue of which we can make Three dimensional models, solid modeling, animation and other new techniques.

Following are the fields, in which we offer our services,

Manufacturing of Special Purpose Precision Gear Boxes of any desired ratio and size such as, Spur Gear Boxes, Helical Gear Boxes, Worm Gear Box, Bevel Gear Boxes.

Design, Engineering and manufacturing of Custom-built Fractional Horse Power Geared Motors, being used as import substitutes by many Original Equipment Manufacturers.

Design, Engineering and manufacturing of Rotary Mechanisms involving Gear Boxes involving Lead Screw Mechanisms, Geneva Mechanism and many other Kinematics Linkages.

Our SSI Registered firm having infrastructure which includes following

A full-fledged manufacturing/assembly shop of approx. 700 sq. ft. at Wagle Estate,

Thane Quality machinery including Kirloskar and Reputed make Lathes, Various measuring and testing equipments/jigs/fixtures.



We have with us a separate dedicated shop where in we have installed LMW Smarturn CNC lathe along with Capstan lathe and a metal cutting band saw machine. We are catering to export oriented requirements by way of doing Job work. A separate gear hobbing/cutting shop of approx. 350 sq. ft at Wagle Estate, Thane.

Design and drafting facility including Computers, Printers with Auto CAD compatibility.

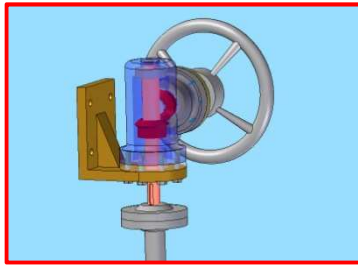
Three Dimensional Solid Modeling software - Solid Edge.

Some Of The Prestigious Projects Executed By Us

1) Design and Manufacturing of complete Transmission system for the vertical movement of 10 ton Platform of 200 Ton stamping press for pressing of Transformer Stampings, Client: - ABB - Baroda

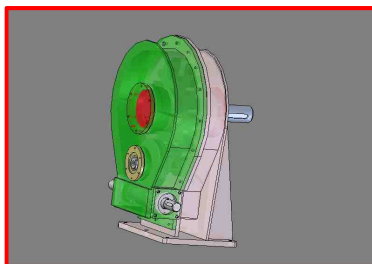
2) Design and Manufacturing of special purpose geared units for the limbs of Robot. Application: Synchronized Movement of the Limbs of Robot to be used for Nuclear Material Handling, (Named as "NATARAJ")
Client Indian Institute Of Technology, IIT Mumbai and B.A.R.C.

3) Design and Manufacturing of Long shaft synchronous operation for Portal Bridge for Stage as well as Geared Motors for vertical movement of curtains, known as Contour Curtain.
Application: Movement of vertical movement of stage equipments used in Drama,
Client: NCPA (Tata Theatre) at Nariman Point, Mumbai.



4) Design and Manufacturing of complete Rod Gearing Mechanism for Damage Control Simulator. (D.C.S. PROJECT)
Flood / drain Valves situated at various places for simulation are operated thro' Staff Control Room manually by Hand wheels and the motion is transmitted by means of specially designed bevel Gear Boxes to the valves at rear End. The simulator is being used for training to fight in case of calamity by Indian Navy.

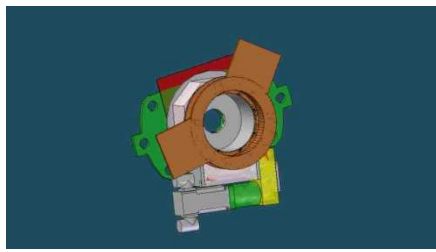
Client: Electropneumatics and Hydraulics Ltd. Mumbai,
End User: Indian Navy (DCTF) - INS Shivaji- Lonavala and Kochi.



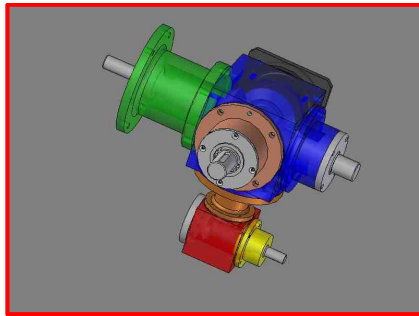
5) Design and Manufacturing of Special Purpose Gear Box with Geneva Mechanism to deliver Output Torque of 3.2 KN-Mt with 10 H.P. Motor, intermittently, used for Electroforged Welding Machine as import substitute.
Client: Indiana Gratings Ltd. Mumbai and Various Grating Manufacturers in India.

6) Technical Audit for Safety in Design for Screw Gate Mechanism used in Irrigation Dam project For CIDCO at Hetawane, New Mumbai.

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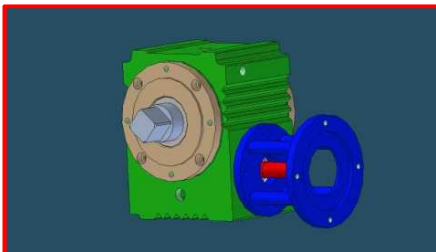
7) Design and Manufacturing of Special Purpose Drive Units for Welding Automation
Application: Non-distortion continuous welding of pressure vessels, Client: L & T, Mumbai



8) Design and Manufacturing of Special Purpose Bevel Gear Boxes having Four Output Shafts, transmitting motion synchronously at various stages.
Application: Blister Packing Machine.
Client: ACG pam



9) This was a first of its kind activity in the world executed for L&T and in turn for the final customer NPCIL, on their KGS 3 Atomic Reactor at Kaiga - Karnataka state. The task involved was to automate the grinding and welding operation on a Weld joint in a live Atomic Reactor. The critical part of the activity was to execute grinding and welding in an ID of 145 mm from a distance of 2.5 meters making use of cameras for vision. The entire design of drive system, (consisting of planetary gear box, DC Motors, AC servo Motors & all related controllers etc.) manufacturing of the system components & trials was the scope taken up and executed successfully.



10) Design and Manufacturing of Complete Drive System with Self Locking Characteristic for rotating entire Rotor Assembly while inserting wound coils.
Application Automation of Winding process of Rotors for 15 KW and above Generators.
Client: Siemens India Ltd. Kalwa Plant.

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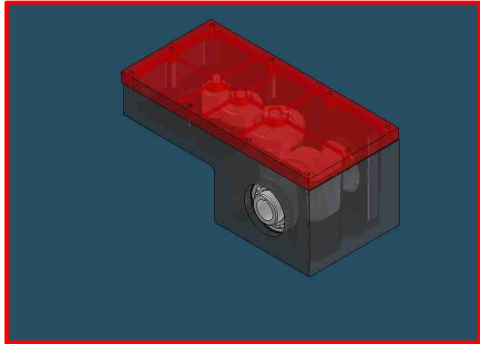
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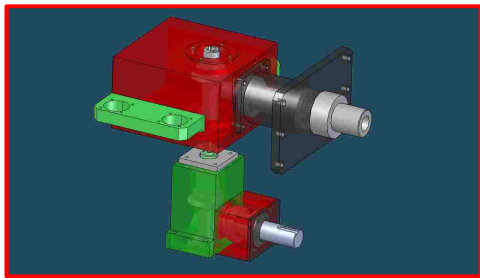
- 11} Design and Manufacturing of Special Purpose Gear Box with Self Locking Characteristic for Engine Mounting Trolley (Engine Overhauling Stand)
This is a Hand operated Gear Box, with extended shaft. Automobile engine to be overhauled is mounted on the shaft by means of special adapters fitted either at Bell Housing or at Exhaust manifold. This facilitates easy assembly of parts on the engine body.

Used at automobile dealers/ Service stations.

End User: Fiat India Ltd. / TATA MOTORS. Besides We have also developed various Service Tools for the similar applications.



- 12} Design and Manufacturing of Special Purpose Hoist Mechanisms used in Television and other Studios.
Motorized Gear Box with Self Locking Characteristic along with Rope winding mechanisms with different capacities have been used for handling Lighting Grids and other equipments used for Photography and Shooting. This facilitates easy adjustments as per the requirement.



- 13} Design and Manufacturing of complete Mechanism wherein Assembly of Two Bevel Gear Boxes with Splined Input and Output shafts to transmit Rotational Motion along with facility of Linear Movement between the two separate units.
Used in Packaging Machine.
(ROTARY PICK-UP MECHANISM)

Besides these we have successfully handled several other Projects related to Design and Manufacturing various types of assemblies. Photographs of few are as below.

