Gears of all sizes. Geared for all businesses.
Magtorq aims to constantly innovate and deliver unique solutions to your mechanical transmission requirements.
At Magtorq we create usable products from concept often without going through the path of proving through prototype. We endeavor to make our design calculations, design engineering, production and testing to be authentic with relevant standards, engineering practices and specifications to achieve desired results in application.

We appreciate the co-operation of all our customers in sharing with us their concerns, operational requirements, environments and their contribution to effective design, which has contributed immensely to the success of our product in the field. It is this association that has brought us to partner on various challenging and prestigious projects with leading design and project houses.

We continue developmental work while supplying the standardized and catalogued products for general applications.

We thank you for the confidence you have instilled in us, which is the strength we derive to face the challenging work ahead.
MAGTORQ PRIVATE LIMITED was established in 1989 as a contract manufacturing unit. Our desire to have a product bearing our name was very strong and our search for the same ended up with the decision to make planetary gearboxes. This was based on the findings that the demand for planetary gearboxes was moderate and its advantage over conventional gearboxes promised a good future.

The need of the hour was a design capability, manufacturing facility and an effective marketing set-up. We associated ourselves with IIT Madras for guidance in design. Our association with them gave us the required jump start in design.

While it took us nearly two years to complete the range of standard planetary gearboxes, we got orders from various organizations which helped us gain experience in manufacturing planetary transmission systems and get a feel of the prospective market.

The first order came from ITC for 3 small gearboxes for cigarette packing machines. Hundreds followed soon. The repeat orders were the exact replica of the first three numbers we supplied. This gave us the confidence to make the working model straight from the drawing board without going through the path of expensive and time consuming prototyping.
We crossed many milestones thereafter, few of them are:
In the year 1993 Bacau-Wolf (currently known as Thyssen Krupp Industries), Pune, wanted 10 compact sized gearboxes for Paddle Feeders for coal handling. We manufactured these units and commissioned the same successfully. This association continues and has progressed to more complex applications like Bucket Wheel and Slew gearboxes for Stacker-Reclaimers.

Our association with L&T started as a supplier of special transmissions for Defense equipments for the Indian armed forces. This association spread to other business units like L&T ECC, L&T Hydraulics and L&T Marine joining in to procure gearboxes for their varied applications. This relationship was further elevated to a strategic partnership with their equity participation.

**ISRO/ISTRAC**
Started with the development of antenna drives in 1992/93. Since then we have supplied a number of antenna drives including differential planetary for multi pinion power transfer to the SRB gear ensuring perfect load sharing. They with their associates and business partners like NRSC, ECIL etc continue to trust us with gearboxes for their requirements. We are happy to state that the antennae for the Chandrayan project and their tracking antennas around the world are driven by Magtorq Gearboxes.

**Remote Sensing/Aeronautical/Antenna**

- Azimuth & Elevation - Chandrayan
- Azimuth & Elevation - 32m Antenna
- Planetary Differential - Antenna

**NRSC GEAR BOX**
Antennae drive gear boxes with X & Y axis moment. High precision, compact with gear box, drive motor, brake and position sensors are enclose in the casing. Suitable for operation up to - 30Deg.C.
STEEL
In steel our presence is in the areas of Strand Pullers, Ladle Crane and Ladle Cars, Torpedo Cars, Converters, Mixers, Decanters etc.

HEAVY ENGINEERING
Association with major players in the field gave us confidence to design and supply more critical applications which were being sourced from abroad. We succeeded in competing in product quality, delivery and price in the application areas of:
For Bucket Wheel Excavator
- Track Drivers
- Slew Drives
- Rotary Plates
For For Stacker reclaimer
- Slew
- Bucket Wheel

SUGAR INDUSTRIES
Starting with crystallizer drives, low speed shaft mounted units, gave a boost to increase in efficiency in boiler division which resulted to increased electricity output from co-generations plants. Magtorq has gained acceptance in other areas like Cane Carriers, Bagass Conveyors, Clarifiers, and has reached the high power application of GRPF and Mill drives.

The above journey from a humble start to a respectable position as a reliable supplier to various types of industry and leading engineering enterprises in the country is the result of a dedicated team of employees Magtorq has and the recognition of our customers on the quality or our products and services. We are humbled by the realization that there is much to learn in this vast subject of gears and their applications.

We dedicate ourselves for the progress of this technology.
PRODUCTS

STANDARD PLANETARY Series:
- Ratios: From 3.75 : 1 to 1772 : 1
- Torque: From 50 Nm to 4,72,000 Nm.
- Application: General applications.
- Available in foot mounted / flange mounted.
- Special mounting configurations, higher ratios and torque rating can be catered to on request.

PLANETARY HELICAL
M3 & M4 series Crystallizers
- Standard range
- Torque: 50 - 500,000 Nm
- Ratio: 3.75 - 1772 in planetary
  5 - 2363 in Bevel planetary
- Power: 900kW

MILL GEARBOXES
- Full Planetary with sq. shaft (up to 63,00,000 Nm speed 3-7rpm)

Sugar Mill Gear Boxes
- Power Rating: 150 kW – 1200kW
- Torque: 400 kNm – 85000 kNm.
**GRPF (12,00,000 Nm 3-7rpm)**

Power Rating -
75 kW – 250 kW

Torque Rating -
300 kNm – 800 kNm

Special Feature -
Shaft mount units with compensating torque arm.

The gearbox is mounted directly to the specially made half coupling positioned on the GRPF shaft. This method is found to be more convenient for dismantling the Gearbox from the shaft compared to shrink disc.

**Shaft Mounted Planetary helical gear motors.**

Power rating - 0.18 kW – 45 kW  
Speed Range - 0.03 rpm - 12 rpm.  
Application - Stoker Drives/ Crystallisers/ Pug mills/ Magma mixers/ Inter Rake Carriers / Clarifiers.

This arrangement is found very convenient as it avoid shaft coupling, bedplate, alignment efforts etc.

**CRANES HOISTS WINCHES**

**Creep Speed Units**

Torque Rating - 100 Nm – 2500 Nm.

Reduction Ratios -
4.5 : 1 to 40 : 1

Drum Diameters -
160 – 500 mm

**Planetary Differential Kits.**

Power - 55 kW – 900 kW  
Ratios - As required  
Application - Laddle Cranes/ Grab Cranes  
Made to Specifications  
Dual Speed with Planetary differential kit for Ladle cranes and grab cranes

**Grab Crane Gear Box**

**Planetary winch gear reducer**

Ratio : 4 - 1700  
Torque : From 2000 Nm to 60000 Nm
MINING & MASS MATERIAL HANDLING

Bucket wheel Drives
Power Rating - upto 250 kW
Special Feature - Shaft Mounted Bevel-Helical – Planetary gear unit.

Slew Drive
Bevel/ Worm - Planetary gear units with extended output shaft and pinion to match slew ring bearings. These units are designed and manufactured to specifications.

Application: Slew drive of Stacker/ Reclaimers, Bucket Wheel Excavators, Material Transfer conveyors, Dock side cranes etc.

Track Drives
Worm planetary shaft mounted with torque arm support for track drives of Bucket Wheel Excavators/ Spreaders.

SPECIALS

Outrigger Jacks
Tonnage - Upto 30 Tons
Stroke Lengths - Upto 1500 mm.
Special Features - End Limit sensors with potential free contacts, position sensors for system automation.

Actuators with ball screw or lead screws
(Made to specifications)

There are precision class linear actuators for accurate positioning systems.

TESTING

High speed Gear boxes
Power Ratings - 1 Mw
Speeds - 32,000 rpm.
Applications - Test benches..

Used by Air Bus Industries, France for testing Airbus components
**Multi speed Gear boxes**
Power Rating - 250 kW
Speeds - Multiple speeds as required with change over.
Application - Test benches.

**Torquing devices** (vehicle elements and gearbox testing)

**Dual pinion Drives**
High precision, stiff units designed to transmit equal torque to a single gear. Used in antenna drives and slew applications. Load sharing is perfect and the load per mesh on the shew gear is reduced to half. This can enable reducing the Slew gear size.

*We are geared to innovate and provide engineering solutions to enterprising engineers.*

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**Quality Policy**

1. Design, develop, manufacture and deliver products as per customer’s requirements and satisfy them through:
   - Appropriate technical interaction with them at design, development, manufacturing, testing and sales.
   - Being proactive in providing customer with information during manufacturing, testing and dispatch for his associated activities.
   - Motivating the employees by providing appropriate training and education to enhance their effectiveness.
   - Achieving product quality through quality of design, process control and validation.
   - Making timely delivery.
   - Providing prompt after sales service.

2. Continually improve product performance through innovation and use of latest technical information.

3. Continually improve systems and processes to avoid wasteful practices and reduce cost of production for the benefit of customer and stakeholders.
### Range of Products at a Glance

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Snapshots of Magtorq’s capabilities

Your advantages with Magtorq

- In-house design strength.
- Wide range of quality products.
- Customized solutions.
- Product validation capabilities.
- Effective customer interaction from concept to commissioning.
- Willingness to accept challenging developments.

MAGTORQ
Geared to innovate

To address you gear needs and to get answers for your queries, you can contact us at the below mentioned address.

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