

MAGTORQ

Geared to innovate

**Gears of all sizes.
Geared for all businesses.**



www.magtorq.com



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**Magtorq aims to constantly innovate and deliver unique solutions
to your mechanical transmission requirements.**

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MAGTORQ

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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.



IN A DIFFERENT ORBIT

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.



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.

Remote Sensing/ Aeronautical/ Antenna



Azimuth & Elevation - Chandrayan



Azimuth & Elevation - 32m Antenna



Planetary Differential - Antenna

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 of 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.



Gear Motor



Bevel Planetary



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

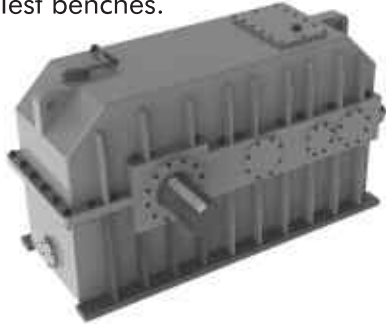


Multi speed Gear boxes

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.



**X over Y
Antenna Drive**



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

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

PRODUCT	APPLICATION
Standard Planetary Gearboxes	All Industries
Shaft Mounted Planetary Helical Gearboxes	All Industries
Creep Units	Material Handling Equipment
Planetary Differentials	Ladle Cranes, Antennae, Mill Drives,
Mill	High Power, High Torque Transmissions
GRPF	Sugar
Screw Jacks and Outriggers	Defense
Bucket Wheel Drives	Mining & Material Handling Equipment
Track Drives (Mining equipments)	Mining & Material Handling Equipment
Drum Mounted Hoist & Winch Drives for Crane	Cranes, Hoists & Material Handling Equipment
Davit Hoist and Slew Drives	Marine Application
Lauter Tun Drives	Brewery
High Speed GBs	Defense & Test equipments
Multi-Speed GBs	Testing Equipments
Anti Backlash	Machine Automation & Antennae
Gear Box for Azimuth & Elevation	Antenna



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.

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

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