

# ELECON RANGE OF TRANSMISSION PRODUCTS



## Panoramic view of Bhanubhai Memorial Centre of Excellence (BMCE)



### **BHANUBHAI MEMORIAL CENTRE OF EXCELLENCE (BMCE)**

We have built a new state-of-the-art manufacturing plant as our attempt to move towards evolution. This modern engineering plant has been built to double the gear box manufacturing capacity to provide world class quality and to ensure on-time delivery.

In last five decades, we have done lots of research and innovations in gear technology. We have developed variety of products in transmission business from worm gear to helical, from planetary to vertical planetary, variable speed couplings, etc. This development always demanded overall progress in gear manufacturing technology, right from cutting to carburizing, gear grinding. The extract of learning is used in layout, machine selection as well in process improvement of gear manufacturing. The new plant will produce internal components of the helical gear box and has a capacity of manufacturing 1000 gear boxes per month.

This new plant is a tribute to our founder Chairman Lt. SHRI BHANUBHAI PATEL who wanted to remain "ALWAYS A STEP AHEAD IN TECHNOLOGY."

In the year 1951, Elecon set out on its maiden journey to attain new heights of technical excellence and knowhow, creating landmarks, from Elevators and Conveyors, to high quality Gearboxes and Material Handling Equipment.

Elecon set up an independent Gear Division in the year 1976, also known for pioneering in India. The first to introduce modular design concept, case-hardened and ground gear technology in India. These path-breaking efforts backed by full-fledged departments employing a strong, skilled work force. It has supplied hi-tech equipment to major core sectors such as Fertilizers, Cement, Coal and Lignite mining, Power, Textile, Plastic, Steel and Port Mechanization in India and abroad.

### **MODERN INFRASTRUCTURE**

Elecon designs and manufactures a comprehensive range of worm, parallel shaft, right angle shaft helical and spiral bevel helical gears with horizontal and vertical output shafts in various sizes, from single to quadruple stage reduction. These gears are compact and light, save space, reducing foundation structure costs and other expendables.

Elecon Gear Division is acknowledged as the most modern in the industry, deploying the latest technological innovations. All of Elecon's machinery is Computer Controlled (CNC) ensuring high degree of precision on manufacturing, design and quality testing of gear components to DIN / AGMA international specifications.

Elecon also inaugurated "**Bhanubhai Memorial Center of Excellence (BMCE)**" - an ultramodern, purpose-built facility for manufacturing standard helical and bevel-helical gears with a higher volume of production and greater accuracy, utilizing the latest in manufacturing innovations, creating a benchmark in the industry.

Elecon has unmatched expertise in providing Custom-made Gearboxes for Steel Mills, High Speed Turbine, Sugar Mills, Marine Applications, Plastic Extrusions, Cement Mills, Rubber Mills, Hydro Turbine, Windmill Gearboxes and many more.

It is made possible through highly on-line computerized system of advanced Planning and Scheduling softwares, Elecon is prepared to deliver within timelines.

### **CUSTOMER SATISFACTION**

ELECON – Gear Division has achieved ISO 9001 in November 1994 for quality management system.

Achieved IMS ISO 9001:2015, ISO 14001:2015 & OHSAS: 2007 certification in Jan 2018! It means our customers have complete assurance that ELECON operates to the highest quality standards and that all regulatory requirements are met for our products and services while we continually strive to maintain and improve these standards that set us apart.

Customer satisfaction has always been a fundamental part of our business but implementing IMS (Integrated Management System) standards ensures we identify all present customer needs and identify and assess future requirements. It also helps us to measure client satisfaction and enables us to continually improve our processes.

**An Integrated Management System** can benefit our organization through increased efficiency and effectiveness, and cost reductions while minimizing the disruption caused by several external audits. It also shows our commitment to increased performance, employee and customer satisfaction, and continuous improvement.

### **NEW GENERATION TECHNOLOGY**

Elecon recently introduced EON/EOS series Industrial Gearboxes for all standard applications. This new series features a variety of enhancements such as higher torque ratings, better thermal characteristics, universal mounting options and multiple accessories to enable adaptation to the most stringent requirements

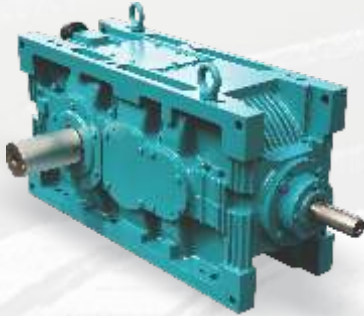
Elecon now provides spiral bevel skiving (hard cutting) technology and infrastructure to make spiral bevel pairs up to 1100 diameter.

Super NU Series supplied with factory, 'Fill and Forget' concept using Synthetic long life lubrication, increased Power Transmitting Capacity in sizes 1.5/8", 1.3/4", 2.1/4" and 3".....

Worm gear unit range sizes upto 17" has now been extended to 28" in closed worm gearbox and worm pair upto 54".



Bird eye view of Elecon Gear Division



**1. ELECON EON/EOS HELICAL/BEVEL HELICAL GEAR UNIT WITH SOLID/HOLLOW OUTPUT**

Helical gear units

Ratio : 1.25.....560  
Power : 1.7.....4825 kW  
Torque : 132 KNm

Bevel Helical Gear Units

Ratio : 1.25.....560  
Power : 0.8.....1850 kW  
Torque : 132 KNm

**3. ELECON - EXTRUDER GEAR UNITS.**

(A) Elecon : Single Screw Extruder Gear Units.

Ratio : 4.....160  
Power : 4.7.....1000 kW  
Torque : 3.....164 KNm

(B) Elecon : Twin Series Extruder Gear Box.

Size : ETS 65, ETS 72, ETS 90, ETS 107

Output Shaft Centre Distance(mm): 55, 64, 75, 90

**5. ELECON - VRM (VERTICAL ROLLER MILL DRIVE) FOR CEMENT & POWER**

(A) Bevel Helical Gear

Ratio : 12/1.....45/1  
Power : up to 2800 kW

(B) Bevel Planetary Gear Box B1PV

Ratio : 16/1.....50/1  
Power : up to 2000 kW  
Torque : 1040 KNm

(C) Bevel Planetary Gear Box B2PV

Ratio : 30/1.....45/1  
Power : up to 5500 kW  
Torque : 2500 KNm



**2. HIGHER SERIES EXTENDED EON SERIES**

Helical gear units

Ratio : 2/1.....400/1  
Power : 140 KNm...400 KNm

Bevel Helical Gear Units

Ratio : 5/1.....355/1  
Power : 132 KNm...140 KNm

**4. ELECON - DUAL TANDEM GEAR UNIT FOR HIGH OUTPUT TORQUE.**

Ratio : 31.5.....630  
Power : 250.....9000 kW  
Torque : 2240 KNm

**6. ELECON - HEAVY DUTY PLANETARY GEAR BOX FOR SUGAR MILL DIRECT DRIVE**

Ratio : 80/1.....450/1  
Power : 80.....2500 kW  
Torque : 7800 KNm



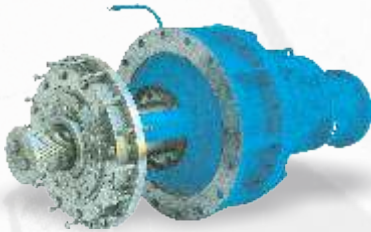
7. ELECON - HIGH SPEED GEAR BOX  
 Ratio : 1.5.....10  
 Power/Speed : 0.25.....15 kW/rpm



11. ELECON - WIND MILL GEAR BOX FOR POWER GENERATION.  
 (A) Ratio : 1/25.....1/60  
 Power : 2 MW  
 (B) Ratio : 1/40.....1/120  
 Power : 660 kW



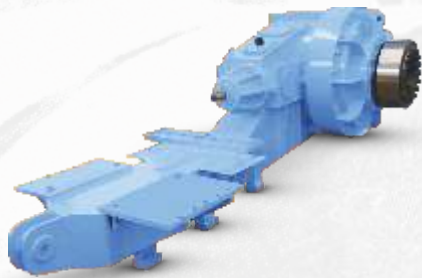
13. UNDER DRIVEN (SNU-U), OVER DRIVEN (SNU-O)



8. ELECON - PLANETARY GEARBOX FOR SLEWING DRIVE OF STACKER/RECLAIMER.  
 Ratio : 100.....2500  
 Power : 2.....50 kW  
 Torque : 120 KNm



14. (A) VERTICAL OUTPUT SHAFT UP/DOWN (SNU-V)



9. ELECON - PLANETARY GEAR FOR BUCKET WHEEL DRIVE OF STACKER/RECLAIMER WITH INTEGRAL MOTOR BASE FRAME.  
 Ratio : 140.....480  
 Power : 40.....560 kW  
 Torque : 716 KNm



12. ELECON - MARINE REDUCTION GEAR BOX for FPP & CPP Drive.  
 Ratio : 1.6.....7.1  
 Power : 10000 kW

(B) HOLLOW OUTPUT SHAFT (SNU-SM)  
 Modular universal mounting super NU series worm gear units

Factory filled synthetic lubricant (user has not to fill any grade of oil).  
 Size (Inch) : 1 5/8, 1 3/4, 2, 2 1/4 & 3  
 Ratio : 5.....70  
 Power : 0.10.....8 kW

Without Factory filled lubricant

Size (Inch) : 3.5, 4, 5, 6, 7, 8, 9 & 10.5

Ratio : 5.....70  
 Power : 0.8.....140 kW



10. ELECON - ET SERIES SPIRAL BEVEL CUM HELICAL GEARBOX WITH VERTICALLY UPWARD OUTPUT SHAFT FOR COOLING TOWER APPLICATION.  
 Ratio : 8.....16  
 Power : 14.....1000 kW  
 Torque : 80 KNm





15. UNDER DRIVEN DERV (SFU),  
OVER DRIVEN DERO (SFO)



18. DOUBLE REDUCTION.  
(WORM - WORM)

- Under Driven (SNU - UD)
- Over Driven (SNU - OD)
- Vertical Output Shaft up/down (SNU-VD)
- Hollow Output Shaft (SNU-SMD)

Size (Inch) : 1 3/4/30, 2 1/4/40, 2 1/4/50, 3/60, 3/70, 4/80, 4/90 & 5/105  
Ratio : 75.....4900  
Power : 0.12.....50 kW



19. HEAVY DUTY STIRRER UNITS.

Heavy Duty stirrer unit incorporates as extended bearing housing to accommodate a larger bottom bearing and increased shaft size, absorb high bending load during stirrer application.

Facility for mounting motor on top.

- SNU - CVDM  
Size (Inch) : 4, 5, 6, 7, 8, 9 & 10.5

- CVDM  
Size (Inch) : 12  
Ratio : 5.....70  
Power : 5.....350 kW



16. VERTICAL OUTPUT SHAFT  
UP/DOWN DERV (FVM),  
HOLLOW OUTPUT SHAFT (SSM)

HEAVY DUTY SPLIT HOUSING  
WORM GEAR UNITS.

Size (Inch) : 10, 12, 14 & 17  
Ratio : 5.....70  
Power : 10.....350 kW

- Under Driven (SFUD)
- Over Driven (SFOD)
- Vertical Output Shaft up/down (SFVD)
- Hollow Output Shaft (SSMD)

Size (Inch) : 5/120, 6/140 & 7/170  
Ratio : 75.....4900  
Power : 15.....65 kW

DOUBLE REDUCTION  
(HELICAL - WORM)

Combination with first pair helical gear unit and second pair with worm gear unit.

- Under Driven (HSFU)
- Over Driven (HSFO)
- Vertical output shaft up/down (HSFV)
- Hollow output shaft (HSSM).

Size (Inch) : 7, 8, 9, 10, 10.5, 12  
Ratio : 440 max.  
Power : 5.....70 kW



17. WORM TUBE MILL GEAR BOX (SFUO)

Size (Inch) : 3.....14  
Ratio : 5.....70  
Power : 6 .....250 kW



20. COOLING TOWER FAN DRIVE GEAR UNIT.

Cooling Tower Fan Drive Gear Unit incorporates and extended top bearing housing to accommodate the larger wheel shaft bearing.

- SNU - CTU  
Size (Inch) : 4, 5, 6, 7, 8, 9 & 10.5

- CTU  
Size (Inch) : 12, 14 & 17  
Ratio : 5.....70  
Power : 5.....350 kW



## 21. FLUID COUPLING

Size : 185.....870  
 Power : 0.20.....1000 kW  
 Available with flexible coupling unit, brakedrum & pully (motor / machine) mounting.



## 22. ELFLEX - FLEXIBLE COUPLING

Sizes : (A) EFC-01.....EFC-17  
 (B) FC 630.....FC 1600  
 Power : 0.007 kW/rpm.....44.77 kW/rpm  
 Torque: .070 KNm.....430 KNm



## 23. ELIGN GEARED COUPLING

Sizes : 130....627000  
 Power : 0.136 kW/rpm....656.55 kW/rpm  
 Torque : 1.3 KNm....6,270 KNm



## 24. SCOOP CONTROLLED-VARIABLE SPEED FLUID COUPLING

Size : ESC-480.....ESC-1030  
 Power : 20.....2320 kW



## 25. HELICAL/SPUR GEAR WHEEL

Dia. : Up to 3000 mm  
 Width : Up to 600 mm  
 Module : Up to 32 mm



## 26. DOUBLE HELICAL GEAR WHEEL

Dia. : Up to 3000 mm  
 Width : Up to 600 mm  
 Module : Up to 32 mm



## 27. INTERNAL GEAR / ANNULUS

Dia. : Up to 3000 mm  
 Width : Up to 500 mm  
 Module : Up to 32 mm



## 28. LARGE WORM PAIR.

(A) Small & Medium Size : up to 17"  
 (B) Special Size: 27" to 54" Worm pair for Coal pulverized mill of Coal fired Thermal Power Station.



## 29. PINION SHAFT

Dia. : Up to 1100 mm  
 Length : Up to 2800 mm  
 Module : Up to 32 mm



## 30. SPIRAL BEVEL GEAR - HARD CUT

Wheel Dia. : Up to 1100 mm  
 Module : Up to 14 mm

# LIFT GEAR BOX



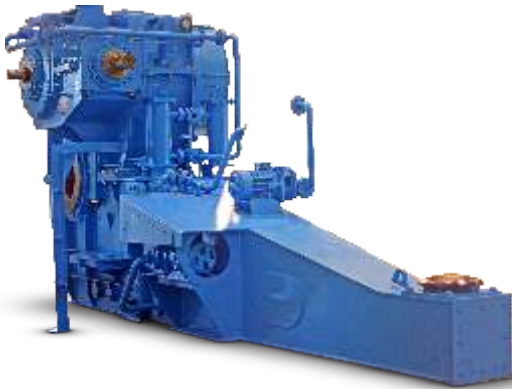
## 31. LIFT GEAR BOX.

Model : ETM - 045 for Elevators having Passenger Capacity upto 6 persons.

Model : EH 130 to EH 250K for Elevators having Passenger Capacity from 8 to 26 persons.

# RANGE OF PRODUCTS

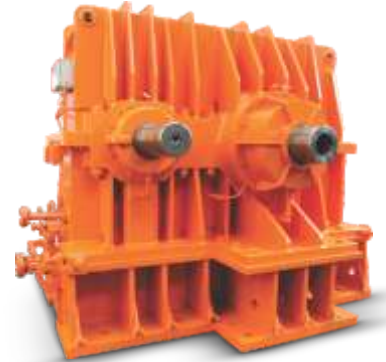
## ELECON SPECIAL GEARS



**Bucket Wheel Excavator Drive Gear Box**



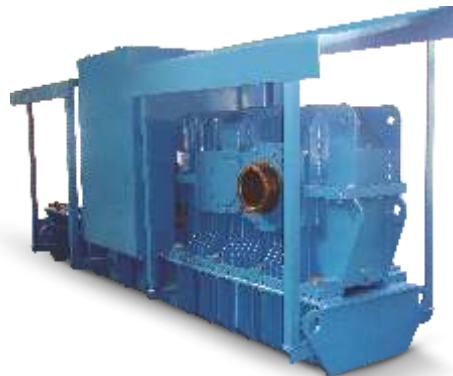
**Rubber Mixer Drive Gear Box**



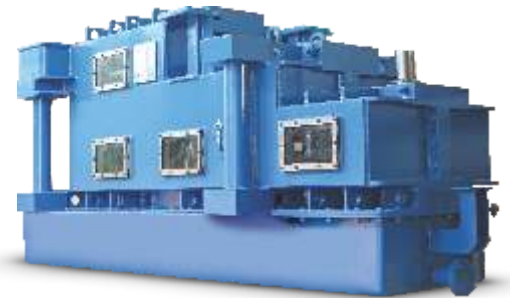
**Hydel Gear Box**



**PQF Mill Drive Vertical Gear Box**



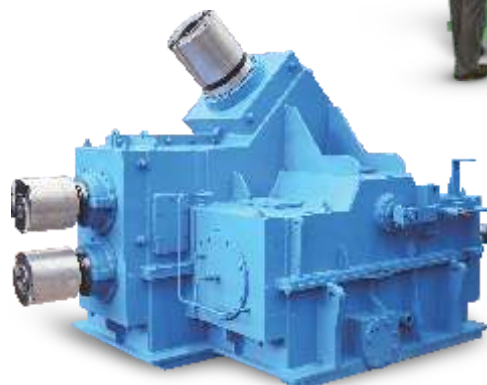
**Complete Drive System**



**Vertical Pinion Stand Gear Box**



**Pinion Stand Gear Box**



**Pinion Stand Gear Box**



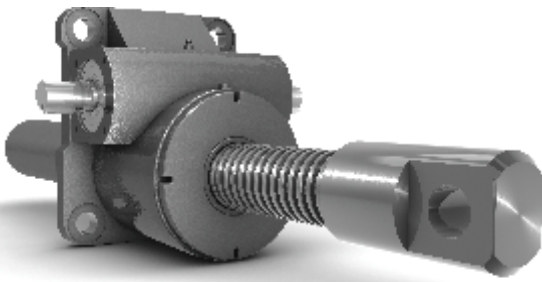
**18 Output Shaft Gear Box for SRM**



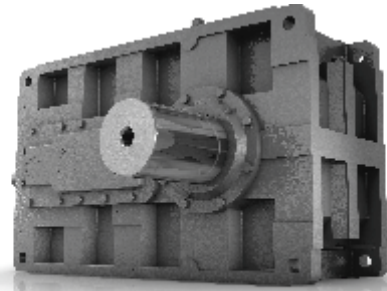
Benzlers and Radicon have over 60 years of experience and have a reputation for being market leaders in the design and manufacture of screw jacks, shaft mounted gearboxes and industrial reducers. The company comprises of 4 business units: UK based Radicon; Sweden & Europe based Benzlers and Thailand based Radicon.

Both Benzlers and Radicon sell product across the world and are differentiated from the competition through an engineered solutions led approach and high levels of customer service.

Industrial Reducers | Geared Motors | Screw Jacks | Couplings | Geared Pumps | Worm Gears



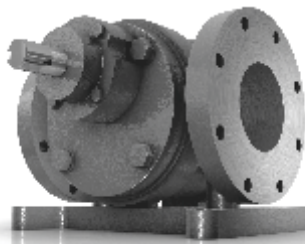
**BD Screw Jack**



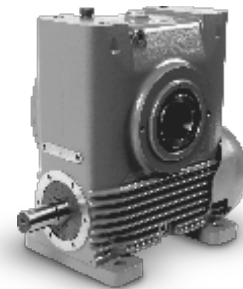
**Benzlers - Series G Industrial Reducer**



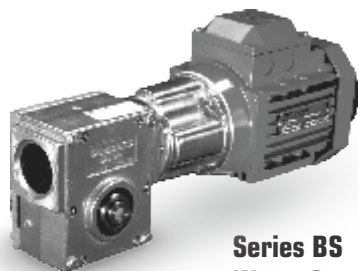
**Series J**  
For excellence - For safety



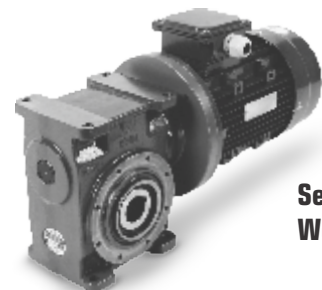
**Roloid Gear Pump**



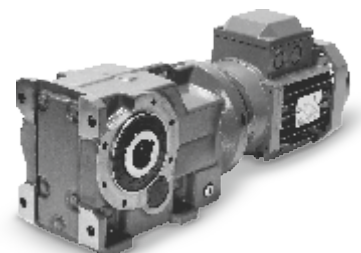
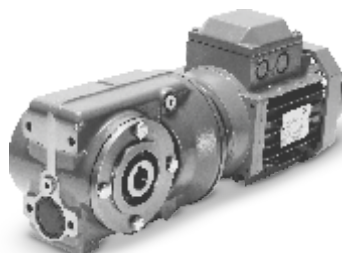
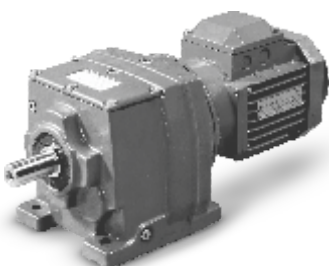
**Series AM**  
Worm Gear



**Series BS**  
Worm Gear



**Series AJ**  
Worm Gear



**Series M, C, F and K Geared Motors For availability - For performance**



A P P L I C A T I O N S



# INFRASTRUCTURE



WORLD'S MOST TECHNOLOGICALLY ADVANCED GEAR MANUFACTURING FACILITY



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