# ELECON
# RANGE OF TRANSMISSION PRODUCTS




ELECON
GEARING THE FUTURE

Catalogue no. 208/EECL/G/01/18 - R5

# 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."

ELECON
GEARING THE FUTURE

# India's largest manufacturer of industrial gears

In the year 1951, Elecon set out on is 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, ISOI 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 extened to 28" in closed worm gearbox and worm pair upto 54".



Bird eye view of Elecon Gear Division

# HELICAL













## 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.

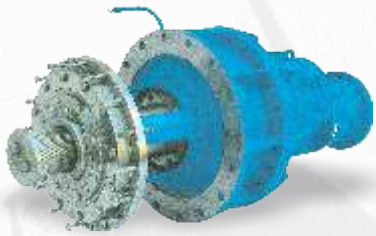
Ratio : 31.5.....630
Power : 250.....9000 kW
Torque : 2240 KNm

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

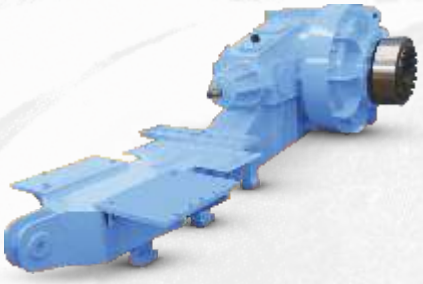
Ratio : 80/1.....450/1
Power : 80.....2500 kW
Torque : 7800 KNm



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



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



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



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





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





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



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



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

    (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



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



## 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



## 17. WORM TUBE MILL GEAR BOX (SFUO)

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



## 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

- 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



## 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



## 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

# COUPLINGS



## 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

# LOOSE GEARS



## 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.

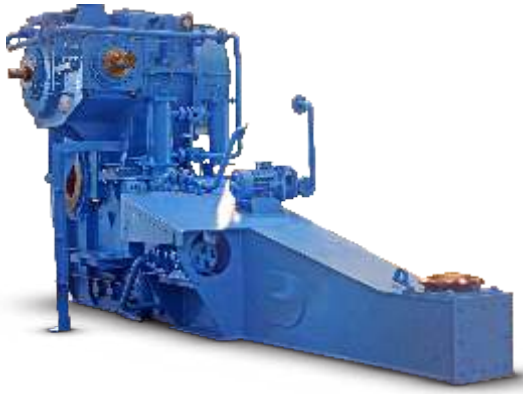
Model : ETM - 045 for Elevators having Passenger Capacity upto 6 persons.

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

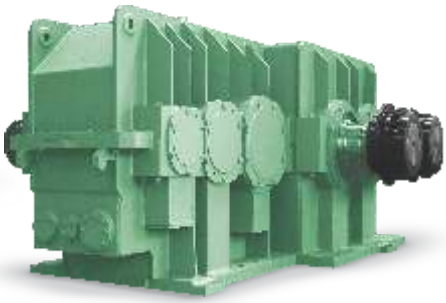
# RANGE OF PRODUCTS

ELECON GEARING THE FUTURE

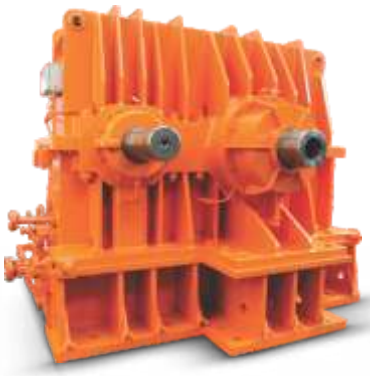
## ELECON SPECIAL GEARS



Bucket Wheel Excavator Drive Gear Box



Rubber Mixer Drive Gear Box



Hydel Gear Box



PQF Mill Drive Vertical Gear Box



Vertical Pinion Stand Gear Box



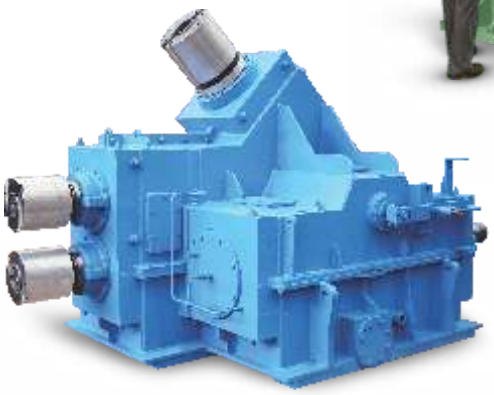
Complete Drive System



Pinion Stand Gear Box



18 Output Shaft Gear Box for SRM



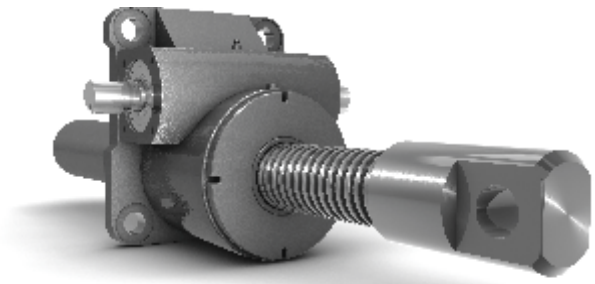
Pinion Stand Gear Box

benzlers radicon

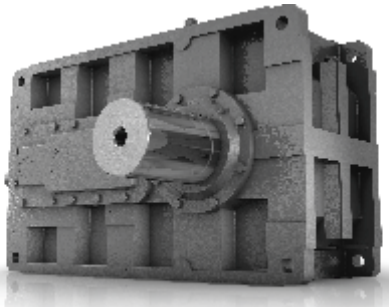
Benzlers and Radicon have over 60 years of experience and have a reputation for being market leaders in the design and manufacture of screw jacks, shaft mounted gearboxes and industrial reducers. The company comprises of 4 business units: UK based Radicon; Sweden & Europe based Benzlers and Thailand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



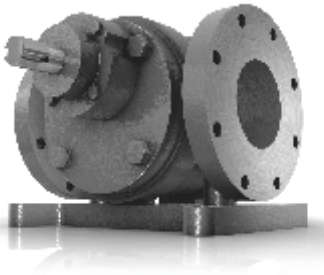
**BD Screw Jack**



**Benzlers - Series G**
**Industrial Reducer**



**Series J**
**For excellence - For safety**



**Roloid Gear Pump**



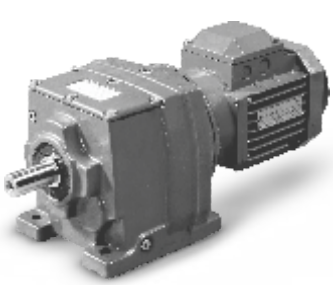
**Series AM**
**Worm Gear**

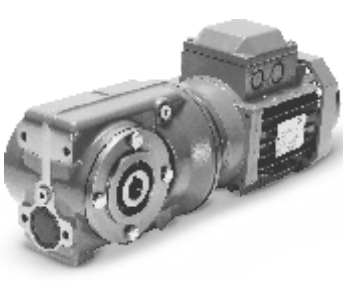


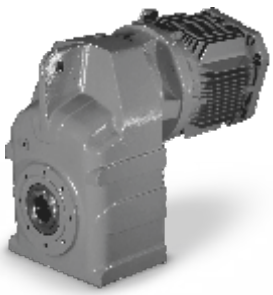
**Series BS**
**Worm Gear**

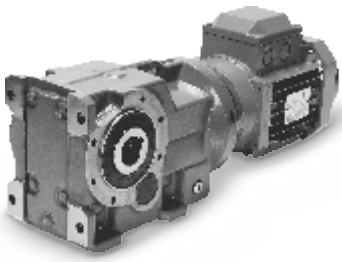


**Series AJ**
**Worm Gear**









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



# APPLICATIONS







# INFRASTRUCTURE



## WORLD'S MOST TECHNOLOGICALLY ADVANCED GEAR MANUFACTURING FACILITY








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