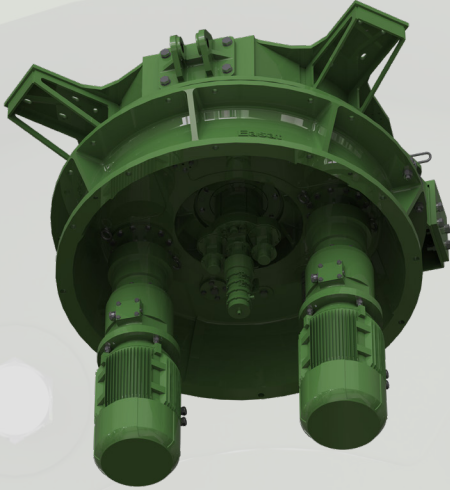




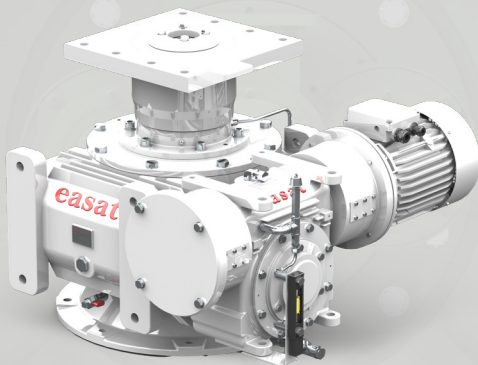
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RADAR SYSTEMS

EPI 643 DRIVE PEDESTAL



EP0509 DUAL STAGE REDUCTION GEARBOX



EP0711 SINGLE STAGE REDUCTION GEARBOX



PEDESTALS

EPI 643 Suitable for use with

- Easat Co-Located Primary & Secondary Surveillance Radar Systems
- Easat Stand-Alone Mono-Pulse Secondary Surveillance Radar Systems
- Easat 7.5m Reflector Coastal Surveillance Radar Systems

Advantages of Easat's EPI 643 Pedestal:

- Drive Speeds from 6 to 22 RPM;
- Single or Dual Drive Options;
- Gearbox Heaters;
- Variety of Optical Encoder Available;
- X-Band, S-Band & L-Band Rotary Joints Available;
- Unique Holroyd Tooth Profile for Maximum Torque Capacity and Ability to Transmit True Uniform Angular Velocity when Running under all Load Conditions;
- Dry-Well feature to Create a Non-Oil Leak Unit;
- Two Piece Close-Grain Cast Iron Gear Case for Strength and Absorption of Vibrations for Quiet, Smooth Running;
- Heavy Duty Taper Roller Bearings for Maximum Load Capacity and Long Life;
- Phosphor Bronze Worm-Wheel Rim Electron Beam Welded Directly onto the Cast Iron Centre for Maximum Strength under Shock Load Conditions;
- Suitable for Operation in Extreme Environmental Conditions.

EP0509 Suitable for use with

- Easat Stand-Alone Mono-Pulse Secondary Surveillance Radar Systems
- Easat 5.4m Reflector Coastal Surveillance Radar Systems

Advantages of Easat's EP0509 Gearbox:

- Drive Speeds from 6 to 22 RPM;
- Single or Dual Drive Options;
- Gearbox Heaters;
- Variety of Optical Encoder Available;
- Unique Holroyd Tooth Profile for Maximum Torque Capacity and Ability to Transmit True Uniform Angular Velocity when Running under all Load Conditions;
- Dry-Well feature to Create a Non-Oil Leak Unit;
- Two Piece Close-Grain Cast Iron Gear Case for Strength and Absorption of Vibrations for Quiet, Smooth Running;
- Heavy Duty Taper Roller Bearings for Maximum Load Capacity and Long Life;
- Phosphor Bronze Worm-Wheel Rim Electron Beam Welded Directly onto the Cast Iron Centre for Maximum Strength under Shock Load Conditions;
- Suitable for Operation in Extreme Environmental Conditions.

EP0711 Suitable for use with

- Easat Stand-Alone Mono-Pulse Secondary Surveillance Radar Systems
- Easat 5.4m Reflector Coastal Surveillance Radar Systems

Advantages of Easat's EP0711 Gearbox:

- Drive Speeds from 6 to 22 RPM;
- Single or Dual Drive Options;
- Gearbox Heaters;
- Variety of Optical Encoder Available;
- Unique Holroyd Tooth Profile for Maximum Torque Capacity and Ability to Transmit True Uniform Angular Velocity when Running under all Load Conditions;
- Dry-Well feature to Create a Non-Oil Leak Unit;
- Two Piece Close-Grain Cast Iron Gear Case for Strength and Absorption of Vibrations for Quiet, Smooth Running;
- Heavy Duty Taper Roller Bearings for Maximum Load Capacity and Long Life;
- Phosphor Bronze Worm-Wheel Rim Electron Beam Welded Directly onto the Cast Iron Centre for Maximum Strength under Shock Load Conditions;
- Suitable for Operation in Extreme Environmental Conditions.

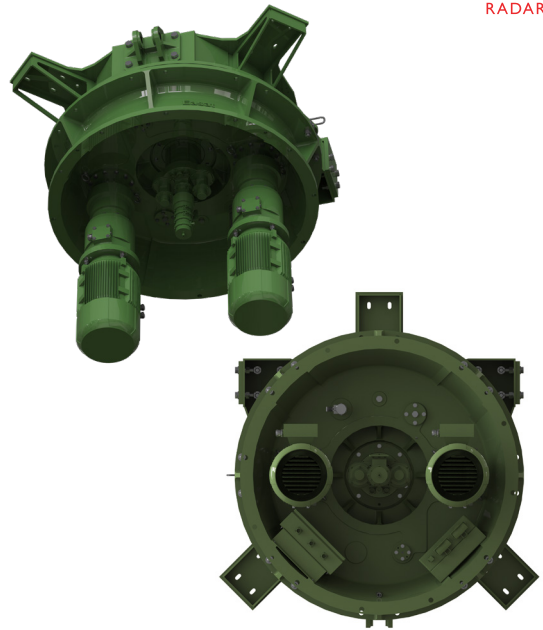
EPI 643 DRIVE PEDESTAL

Easat's EPI 643 Drive Pedestal is a proven design used worldwide by civil and military users. Some units are still in operation after 30 years with minimal maintenance and no oil leakage. It comprises of:

Pedestal: This is a Cast Base Supporting the Turntable Bearing and Under-Slung Drive Units. The Pedestal Main Bearings do not require Maintenance other than Lubricant Supply for at Least 15 Years;

Antenna Support: It is a Fabricated Steel Structure that Support the Antenna;

Antenna Braking / Locking: It is a Stow-Pin Arrangement that Secures the Rotating Section of the Antenna to the Static Pedestal Assembly for Maintenance Activates, this Stow-Pin also includes a Safety Interlock that prevents Rotation of the Drive Units when Engaged and the status of this Safety Interlock can be seen on the CMS Screen.



EP0509 DUAL STAGE REDUCTION GEARBOX

Easat's EP0509 Dual Stage Reduction Gearbox is for use with Stand-Alone Secondary Surveillance and Coastal Surveillance Radars and has been designed to reduce noise and keep vibration to a minimum.

The use of a worm drive produces a smooth rotation and dip lubricated from an oil bath and to prevent oil leakage a dry-well system is incorporated negating the need for dynamic seals. The gearbox is fitted with rod heaters to warm the oil to minimise the torque required to start the antenna rotating during extreme cold conditions.

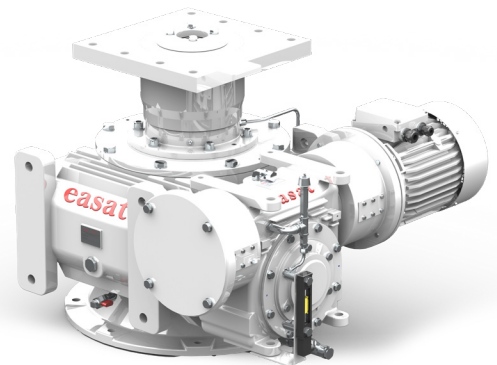
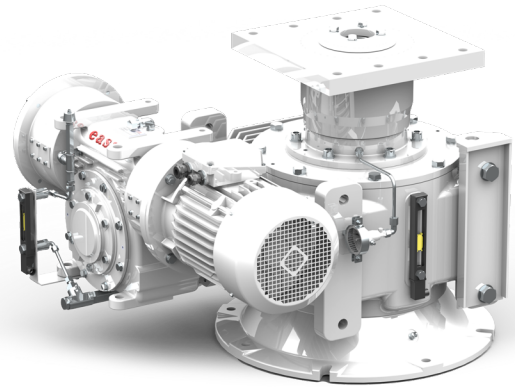
The main output shaft bearings are opposed taper rollers with high load capacity to give the required design life. These bearings are grease fed using an automatic canister system requiring only an annual maintenance charge.

To give ultimate protection from the elements, the unit has grease filled labyrinth seals at the top and the bottom of the main shaft output. This protects the internal shaft grease seals from external debris entering the gearbox. The gearbox also has an oil level probe fitted to give warning of low oil level. The waveguides, rotating joint, angle position generator (encoder) and motor are all conveniently accessible for maintenance.

The angle position generator is driven directly from the output shaft. An optional second angle position generator can be fitted to provide redundancy and various options of angle position generator are available; a precision optical encoder is fitted, having at least 8,192 pulse / revolution output with a north reference pulse. Inside the rotary joint housing a thermostatically controlled heater is fitted.

The gearbox case is constructed from close grain cast iron with a hardened and ground worm working with a phosphor bronze wheel.

A single or dual 7.5 kW motor is fitted and is rated to IP55 for environmental protection. The windings are fitted with thermistors and are tropicalised as standard making it suitable for use in extreme climatic conditions.



EP071 | SINGLE STAGE REDUCTION GEARBOX

Easat's EP071 | Single Stage Reduction Gearbox is for use with Surface Movement and Coastal Surveillance Radars and has been designed to reduce noise and keep vibration to a minimum thereby making it ideally suited for mounting on top of noise and vibration sensitive control rooms.

The use of a worm drive produces a smooth rotation. The worm unit incorporates a 2-start worm with lead angles which permit a high degree of back driving to prevent excessive inertia loading and to allow the antenna to weather vane in the non-driving (survival) conditions thereby minimising forces. The gearbox is fitted with rod heaters to warm the oil to minimise the torque required to start the antenna rotating during extreme cold conditions.

The worm drive is dip lubricated from an oil bath and to prevent oil leakage a dry-well system is incorporated negating the need for dynamic seals.

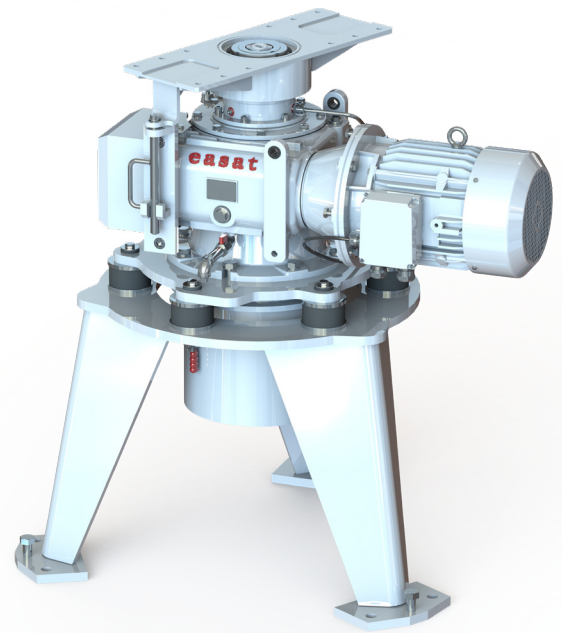
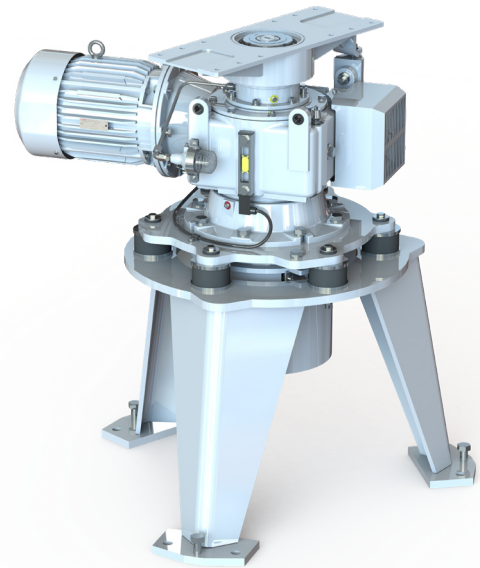
The main output shaft bearings are opposed taper rollers with high load capacity to give the required design life. These bearings are grease fed using an automatic canister system requiring only an annual maintenance charge.

To give ultimate protection from the elements, the unit has grease filled labyrinth seals at the top and the bottom of the main shaft output. This protects the internal shaft grease seals from external debris entering the gearbox. The gearbox also has an oil level probe fitted to give warning of low oil level. The waveguides, rotating joint, angle position generator (encoder) and motor are all conveniently accessible for maintenance.

The angle position generator is driven directly from the output shaft. An optional second angle position generator can be fitted to provide redundancy and various options of angle position generator are available; a precision optical encoder is fitted, having at least 8,192 pulse / revolution output with a north reference pulse. Inside the rotary joint housing a thermostatically controlled heater is fitted.

The gearbox case is constructed from close grain cast iron with a hardened and ground worm working with a phosphor bronze wheel.

A single or dual 5.5 kW motor is fitted and is rated to IP55 for environmental protection. The windings are fitted with thermistors and are tropicalised as standard making it suitable for use in extreme climatic conditions.



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