Model P4800 Pedestal Features

- Heavy Duty Tracking Pedestal
- Dual Gear Driven with Bias, to Eliminate Backlash
- Up to 30 deg/sec Velocity
- Servo Driven Twin Motors on Elevation and Azimuth
- Precision Resolvers or Position Encoders for Angular Feedback
- 4000 Pound Payload Weight
- Environmentally Sealed

Model P4800 Pedestal

Ideal for applications such as tracking radars, satellite tracking antennas, communications systems, ELINT antennas, and EW simulators, the Kratos Model P4800 Post Pedestal features dual, geared drives in azimuth and elevation. Drive systems are biased electronically to eliminate mechanical backlash in the gearing. The resulting system provides high reliability and accurate pointing for RF antennas. Pedestal and control electronics produce wide bandwidth servo performance with very low jitter suitable for automatic tracking. The pedestal will support balanced loads of up to 4000 pounds at velocities of 30 deg/sec. Optional features include slip rings, rotary joints, and custom load support structures.

Only tested, field-proven components are used in the design of this pedestal. Hardware is military-temperature rated, and mechanical design is rugged. Reliability and long life are the hallmarks of this pedestal.

Features

Dual Drives
Each axis contains dual, opposed drives consisting of DC servo motors operating through reduction gears. Axes have failsafe friction brakes and manual drives. By electronically biasing the amplifiers, the drive motors keep the gear trains constantly in contact, eliminating geartrain backlash.

Position Encoders
The position encoder in each axis is a resolver transmitter driven by anti-backlash gearing. Optional optical encoders or rotary inductosyns may also be used.

Bearings
The bearings are large diameter bull gear bearing with overturning moment capacity of 85,000 ft-lbs. This ensures a very high safety margin; yet provides necessary stiffness to meet the specifications of highly accurate systems.
Seals
Teflon lip seals environmentally protect the rotating interfaces of the positioned, effectively designed to exclude water, dirt, and dust while producing minimum system friction.

Materials
The positioned is constructed of the highest quality materials, selected to provide maximum corrosion resistance with minimum weight. Typical components include 6061 aluminum alloy for structural material and cadmium plated 300 series CRES fasteners.

Axis Travel
Physical stops limit the rotation in each axis. The elevation axis travel is $-10^\circ$ to $+95^\circ$, while the azimuth axis travel is $+180^\circ$ plus over-travel. Continuous azimuth travel is available with optional slip rings.

Riser
Customer requirements determine riser height.

Stow Pins
Stow pins are mounted on each axis to lock the axes in position for storage or transportation.

Load Platform (Optional)
Custom-designed platforms are bolted to the load supports of the elevation axis.

Amplifiers
The pedestal can be controlled with a Model 3200 Servo Amplifier.

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