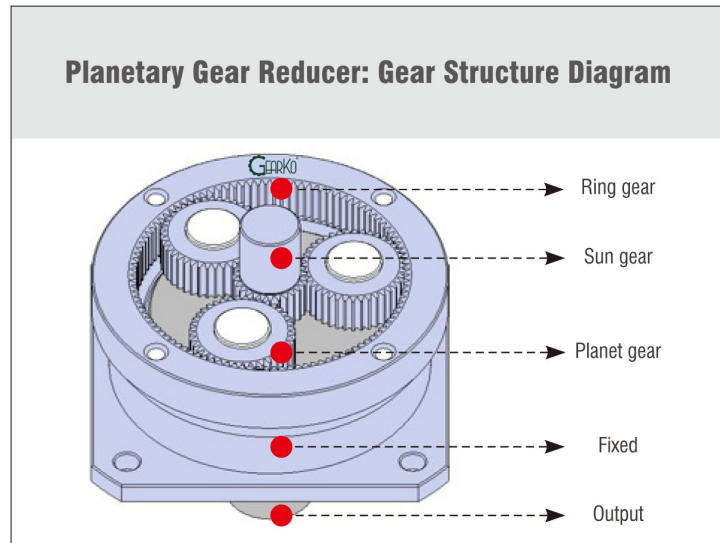


The Working Principles of Planetary Gearboxes and Reducers

Two important points

1. Planetary Gearbox and Gear Reducer components cannot be rewelded or reprocessed.
2. Many tolerances for components (such as gears) are greater than three decimal places. If there is wear, replacing the components is the recommended solution.

The principle of the planetary gearboxes and reducers consists of sun gears, planet gears, and internal gears. The sun gear is surrounded by planet gears, which have the same profile as the sun gear, while the internal gear is inside the casing. When the sun gear rotates, the planet gears revolve around it while also rotating along the internal gear path, generating planetary self-rotation. The gear ratio determines the output speed and torque, which can be achieved by adjusting the number and teeth of the planet gears for different output ratios.



Benefits of using planetary gearboxes and reducers include:

1. High Efficiency: Increases output speed without sacrificing torque.
2. Compactness: Compact structure suitable for space-constrained applications.
3. Precise Control: Allows precise control of output speed and torque, ideal for machine tools and automated production lines.
4. High Torque Density: Provides high torque output in small devices, suitable for machine tool applications.

GearKo focuses on the research and development of high-quality planetary gear boxes and reducers, committed to providing customers with the best products and solutions. If you wish to learn more about how our precision planetary gearboxes or reducers can enhance the performance of your equipment, please feel free to [contact us](#).