Non-Backlash
New System Rack & Pinion

ノンバックラッシュ / Non-backlash
● 常時歯(ローラーピン)が2〜3箇所が接触しているので
  正逆方向にバックラッシュが発生しません。
● Trochoidal profiled tooth enables us to make a plurality of mutual teeth mesh at one time. The teeth always mesh via two or three portions and eliminate backlash when rotated in one or another direction.

高精度 / High accuracy
● 送り精度(回転一直線比)と位置決め精度は精密ボールネジに迫ります。
● Instead of gears, a combination of cam and roller makes a positioning accuracy and feeding accuracy (rotation-linearity ratio) as nearly as that of the ball-screw structure.

低騒音・低振動 / Low noise and low vibration
● トロコイド歯車上をベアリングで支持されたローラが円滑に回転します。
  耳ざわりな音を少し発生せずに、従って振動も少なくなります。
● Rollers smoothly mesh with the optimized trochoidal tooth surface so as to avoid rattling noise, tooth striking noise and rotating noise from being induced together with the least amount of vibration.

低発塵 / Low dust
● 円滑な転がり接触と回転部が小径低速のため、低塵度で発熱・発塵が微少です。
● Due to the smooth rotation, the structure dispenses with a least amount of heat and dust generated and cope with a clean room operation.

長尺・高速化を実現 / Extended length line and high speed rolling
● 継足し治具を使い長尺が可能。また、180m/min以上の高速走行も可能です。
● Extendable with use of addition jig. Capable of high speed rolling of 180 m/minute or more.
Trochoid Cam Gear

- **ローラーピン／Roller pins**
  Roller pins supported by bearing at both ends smoothly roll.

- **接触部／Contact Region**
  All-time engagement against two or three roller pins eliminates backlash in dual direction.

- **歯形／Tooth profile**
  Trochoidal profile makes plural teeth mesh at one time.

かみ合部／Meshing portions