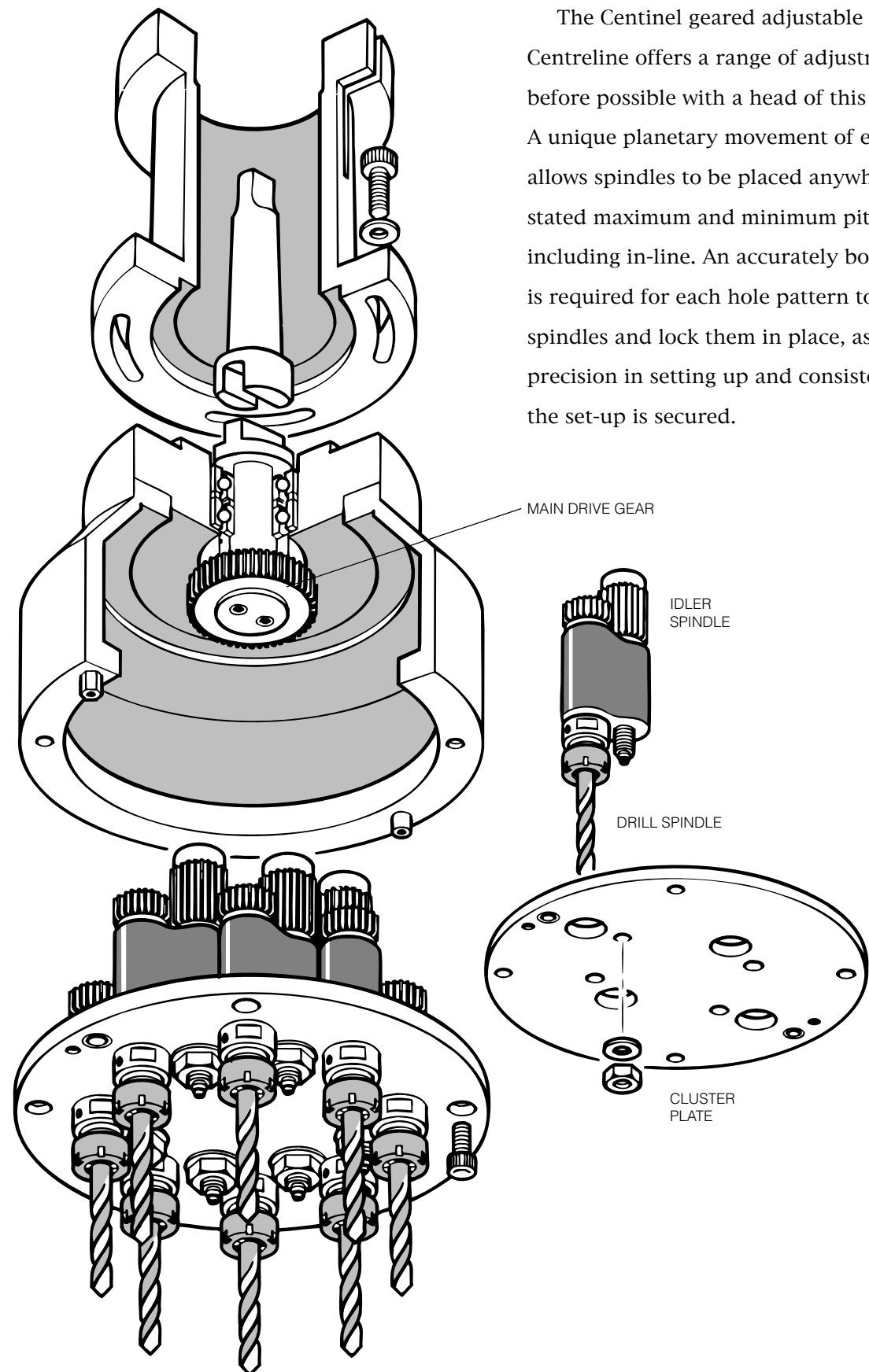


THE CENTINEL SYSTEM

The Centinel geared adjustable multi-head from Centreline offers a range of adjustment never before possible with a head of this size and weight. A unique planetary movement of each spindle allows spindles to be placed anywhere within the stated maximum and minimum pitch circles, including in-line. An accurately bored cluster plate is required for each hole pattern to mount the spindles and lock them in place, assuring speed and precision in setting up and consistent accuracy once the set-up is secured.



THE CENTINEL SYSTEM

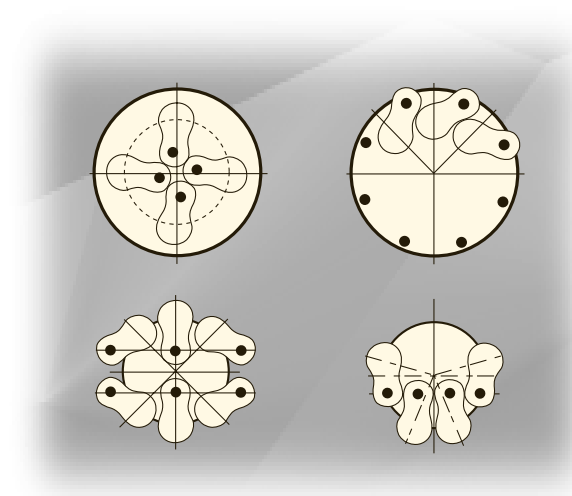
The Centinel's planetary adjustment is unique in multi-spindle heads, but the idea may be said to be universal as it parallels the movement of the moon around the earth and the earth around the sun. The cut-away diagram demonstrates how this idea is applied to the Centinel.

The drill spindle is able to rotate a full 360° around the axis of the idler spindle which is secured to the jig-bored cluster plate - moon around the earth. The complete spindle assembly can also rotate 360° around the main drive gear - earth around the sun. Thus the drill or tap can be positioned anywhere within the designated maximum and minimum pitch circles of the head, the appropriate cluster plate holding each hole pattern firmly in place.

Spindles can be removed or added as required and adjustment is quick and simple: for a new pattern, just bore a new cluster plate and re-assemble. Up to ten spindles can be mounted in this way, depending on the model.

Simple in concept and simple to use, but leading the field in multi-head design.

- fully adjustable head
- gear driven for reliability
- add or subtract spindles in minutes
- up to ten spindles on one head
- jig-bored positioning plate ensures fast & accurate set-ups
- adaptable for practically any machine - manual or Automatic Tool Change (ATC)
- position spindles ANYWHERE within the min & max PCD's of the unit



Examples of spindle configurations