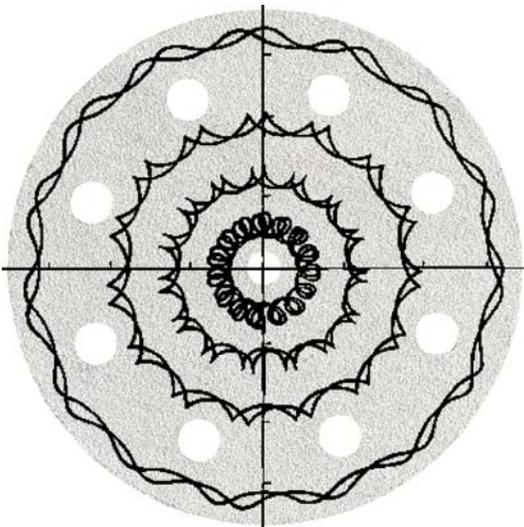


## Understanding the two modes of the Rotex Dual Mode Sander

The Rotex dual mode sander has a **rotary orbital motion** and a **random orbital motion**. Both motions have their advantages for a dedicated sanding task. The gear driven orbital motion is made for aggressive material removal and polishing, the random orbital motion is made for fine sanding.

### 1. Rotary Orbital Motion

The rotary orbital motion is a combination of two movement patterns: The pad both rotates and has an eccentric/orbital pattern at the same time. The aggressiveness results from the fact, that the pad is gear-driven and forced to spin as opposed to the random orbital motion where the pad spins due to centripetal forces



The rotary orbital motion combines a forced rotation with an eccentric/orbital motion.

and can be stopped by hand.

With this pattern the sanding action is almost as aggressive as a belt sander or a grinder. While a belt sander leaves typically deep linear scratches and a grinder deep circular scratches that are hard to sand out with the next grit up, the rotary orbital motion of the Rotex causes a random scratch pattern that erases itself during sanding.

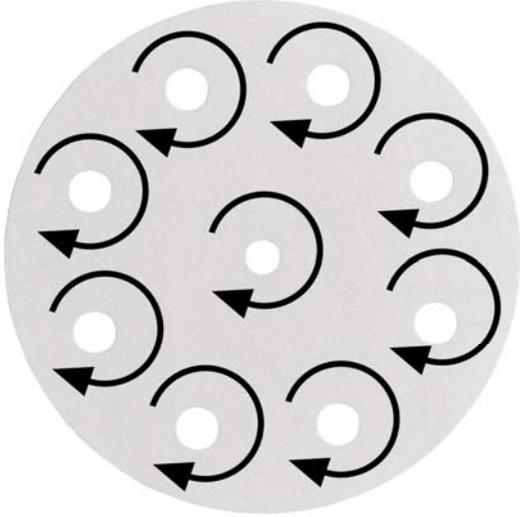
The result is a surface quality in each grit that is by far superior to a surface quality you can achieve with a belt sander or a grinder on the same grit level. And that means that the time needed for the next sanding steps with higher grits is cut down significantly.

Bottom-line: Sanding with the Rotex in rotary orbital motion saves a lot of time since material is removed in an aggressive, yet smart way, providing always the best surface for the next sanding steps.

### 2. Random orbital motion

In the random orbital mode the main pattern is an eccentric pattern. In addition the centripetal force resultant from the crankshaft offset causes the pad to spin. This is a weak force and pad rotation can be stopped if too much hand pressures is exerted on the sander. Due to the eccentric motion and

the rotation, the tiny orbits are stretched into long curved loops, which, when interlaced, tend to eliminate any signs of swirl marks.



**The random orbital mode combines small orbits with an unforced rotation.**

The Rotex leaves a very fine finish in the random orbital mode. If a finer finish is desired, the ETS150/3 is the sander of choice. Both are using the same abrasives, so they complement each other very well.