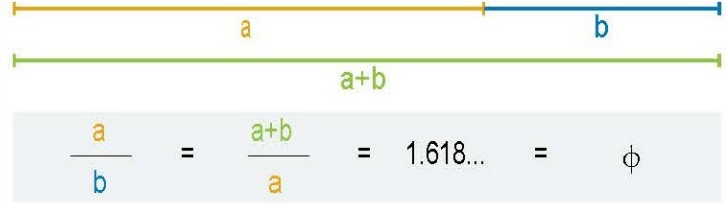


# THE SCIENCE BEHIND THE DESIGN

## The Golden Ratio

If you divide a line into two parts so that:  
 the longer part divided by the smaller part  
*is also equal to*  
 the whole length divided by the longer part  
 then you will have the golden ratio.



Cyclones, galaxies, and sea shells all have inherent spiral shapes that conform almost perfectly to the 'Golden Spiral', which is a logarithmic spiral based on a series of identically proportioned golden rectangles, each having a golden ratio of 1.618 of the length of the long side to that of the short side of the rectangle.



## WHAT DOES A CYCLONE HAVE TO DO WITH SANDING?



Mother Nature has had millions of years to fine tune sea shells, galaxies and cyclones to be as perfect as can be. Norton applied the laws of nature to create the most perfect and powerful sanding disc.

The power and velocity of air movement in a cyclone is hard to conceive. Yet, the A975 Norton Multi-Air Cyclonic disc designed on the same cyclone pattern using the Golden Spiral which is why it is the most effective disc when it comes to keeping your shop free of contaminants.

Dust is constantly being pulled away through multi-holes (5" 246 holes, 6" 346 holes) for more controlled sanding, which is critical for thinner waterborne coatings. The Golden Spiral configuration of the holes allows the vacuum to pull the dust through the pad creating an upward force, like a cyclone, and the random orbital motion of the sander provides the lateral force creating an ideal balance between the abrasive surface and the dust-extraction holes.

