

FiboTec

0 1 1 2 3 5 8 13 21 34



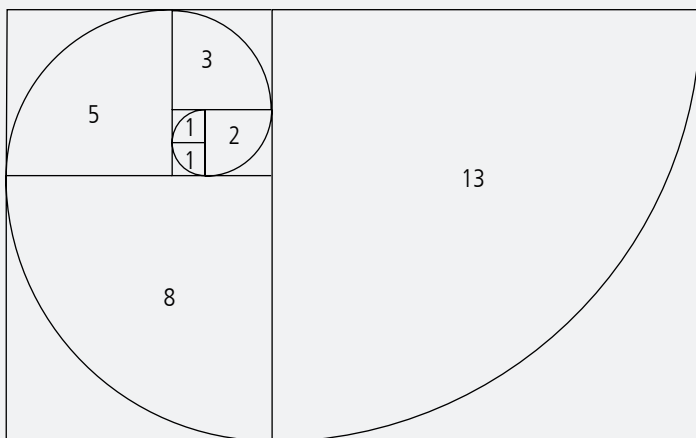
Fibonacci

FiboTec multi-hole

An idea borrowed from nature. The innovation by sia Abrasives.



The Fibonacci Principle



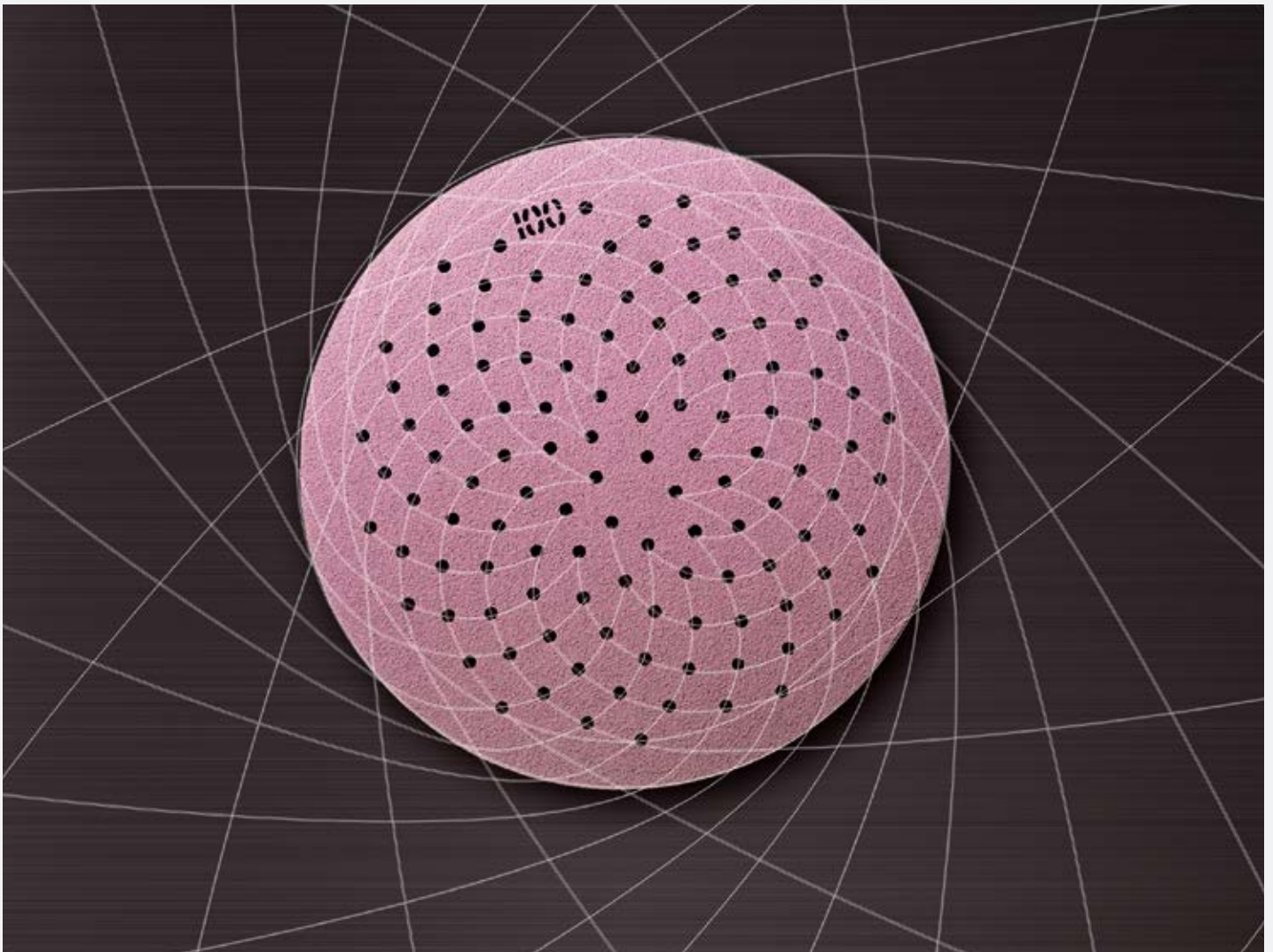
The sunflower principle

Nature is a master of engineering. For all nature's diversity, there is one shape which crops up time and time again. This pattern consists of a spiral structure and is based on a string of numbers known as the Fibonacci Sequence, where each successive number is equal to the sum of the two preceding numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21,...

Spirals such as this occur throughout nature, from the tiniest things to the biggest – from snails and flowers to hurricanes and entire galaxies.

The arrangement of the seeds on a sunflower is anything but random. Quite the opposite, in fact: the seeds grow in opposing, intersecting spirals to create an offset effect. This allows the sunflower to accommodate the greatest possible number of seeds without any of these seeds blocking each other's sunlight.

The result: maximum light yield!



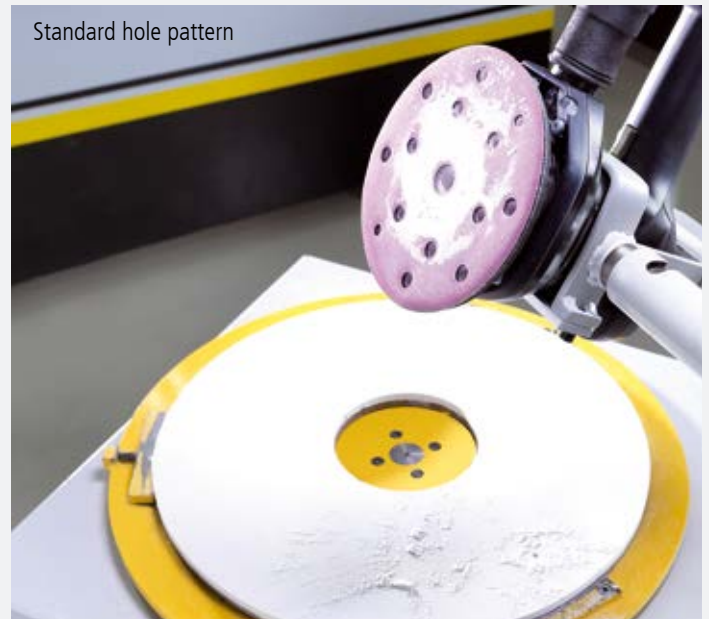
Used for FiboTec

Taking inspiration from nature and the Fibonacci Sequence, via Abrasives has developed a groundbreaking new hole pattern for its abrasives. The holes in the abrasive disc are arranged on opposing spirals, such as are found on a sunflower. In sanding applications this hole pattern provides superior dust extraction, significantly reduced clogging and longer life of abrasive materials.

Compared to standard hole patterns, FiboTec offers up to 50% faster removal rate with less dust residue on the workpiece and in the workspace.

The result: higher abrasive performance thanks to maximum dust extraction!

The proof



Proven in nature. Tried and tested.

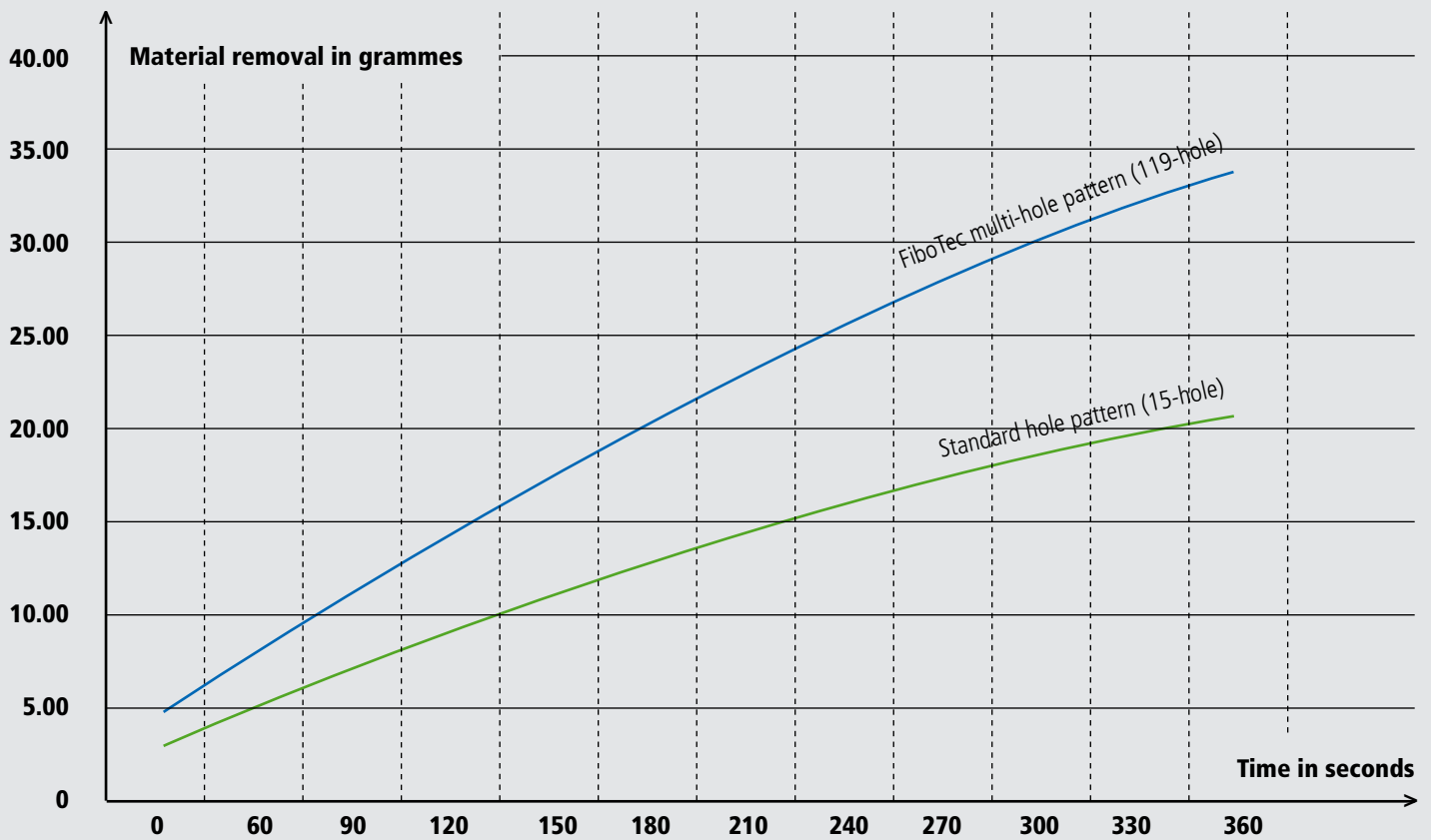
As with all our innovations, FiboTec underwent stringent robot-aided testing. Conducted under laboratory conditions, these tests produced

the following result: FiboTec is much more efficient than standard hole patterns. A real innovation!

Performance comparison

The special FiboTec multi-hole pattern provides better abrasive performance. Depending on grit and material, it achieves much faster material removal rates throughout its lifetime.

Depending on material and application, FiboTec works four times longer than standard abrasive discs.



This data was obtained under the following conditions:

Abrasive: 1950 siaspeed, Ø 150 mm. Grit: 400. Material: soft body filler.

Machine: eccentric, 150 mm, 5 mm stroke. Backing pad: 103-hole, soft. Robotised machine under laboratory conditions.



Best dust extraction rates

The offset between the holes on the opposing spirals ensures reliable dust extraction across almost the entire surface of the abrasive while the disc is rotating.



Minimal clogging

FiboTec has a big advantage, especially when working with materials that easily clog. Thanks to its superior extraction capacity, the abrasive performs measurably better even under extreme conditions and, above all, for longer than abrasives with a standard hole pattern.

Works up to 50% faster than standard hole systems thanks to:

- Better dust extraction
- Less clogging



Simple handling

The FiboTec multi-hole system allows easy attachment of the abrasive disc to the backing pad, since the holes in the disc do not have to be matched up with the holes in the pad.

Keeps working interruptions to a minimum.



Easy grit size recognition

With FiboTec, the grit size is easy to identify – even after sanding. From 100 grit upwards, the grit size is cut into the disc by laser. That way, the grit size can be reliably determined even after use and even if the back of the abrasive disc is completely covered with dust.

Collectively, these advantages make for:

- Higher productivity
- Higher process stability
- Better occupational health and safety

FiboTec range



1950 siaspeed, FiboTec 41-hole disc,

Ø 125 mm, grit: 40, 60, 80

Art. ID: 4800.6167.xxxx



1950 siaspeed, FiboTec 86-hole disc

Ø 125 mm, grit: 100 - 600

Art. ID: 0973.4197.xxxx



1950 siaspeed, FiboTec 59-hole disc

Ø 150 mm, grit: 40, 60, 80

Art. ID: 2279.5390.xxxx



1950 siaspeed, FiboTec 119-hole disc

Ø 150 mm, grit: 100 - 600

Art. ID: 8420.1301.xxxx



1950 siaspeed, FiboTec 59-hole disc

Ø 185 mm, grit: 40, 60, 80

Art. ID: 6054.4417.xxxx



1950 siaspeed, FiboTec 119-hole disc

Ø 185 mm, grit: 100 - 600

Art. ID: 9124.7139.xxxx



Multi-hole backing pad 54-hole, yellow, 5/16"

Ø 125 mm, soft

Art. ID: 0020.6728.01

Ø 125 mm, hard

Art. ID: 0020.6729.01



Multi-hole backing pad 54-hole, yellow, 5/16"

Ø 150 mm, soft

Art. ID: 0020.6734.01

Ø 150 mm, hard

Art. ID: 0020.6735.01



Multi-hole backing pad 103-hole, 5/16" + M8

Ø 150 mm, soft

Art. ID: 0020.5740.01

Ø 150 mm, extra-soft

Art. ID: 0020.5742.01

Ø 150 mm, hard

Art. ID: 0020.5741.01



103-hole intermediate pad

Ø 150 mm

Art. ID: 0020.5886.01

Less dust



Less clogging



Faster removal rate



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Switzerland

Art. ID: 0020.7161.01

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