



# Amiad's Spin Klin™ Disc Filtration Solutions





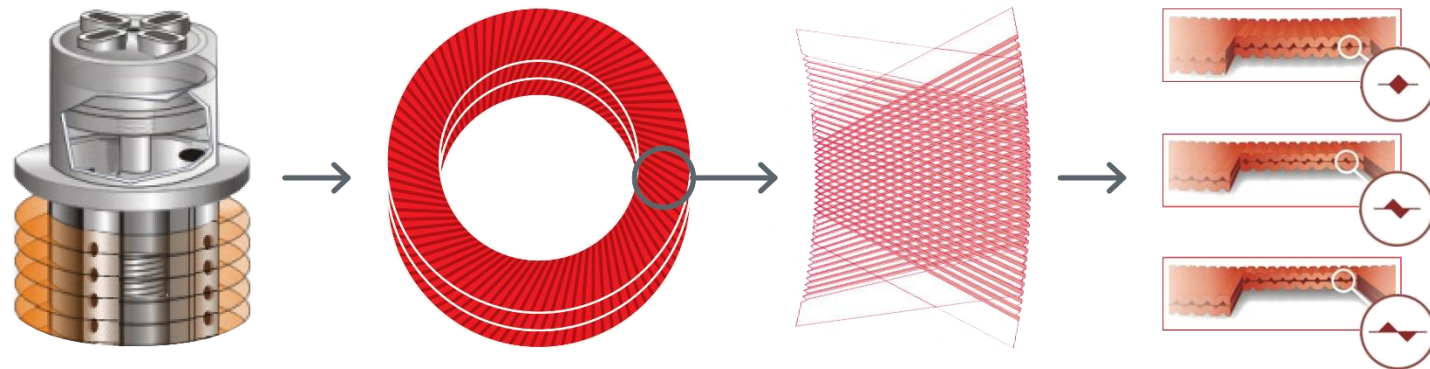
## DESIGN & WORKING PRINCIPLE

# Disc Filtration Technology - Spin Klin™ Disc

Grooved plastic discs provide a large filtration volume for retention of organic and inorganic matters by providing depth filtration with high dirt holding capacity.

**Spin Klin™ disc technology operates using thin, color-coded discs of a specific micron size. The discs are grooved on both sides, in opposite directions, creating a series of crossing points which form multiple particle traps.**

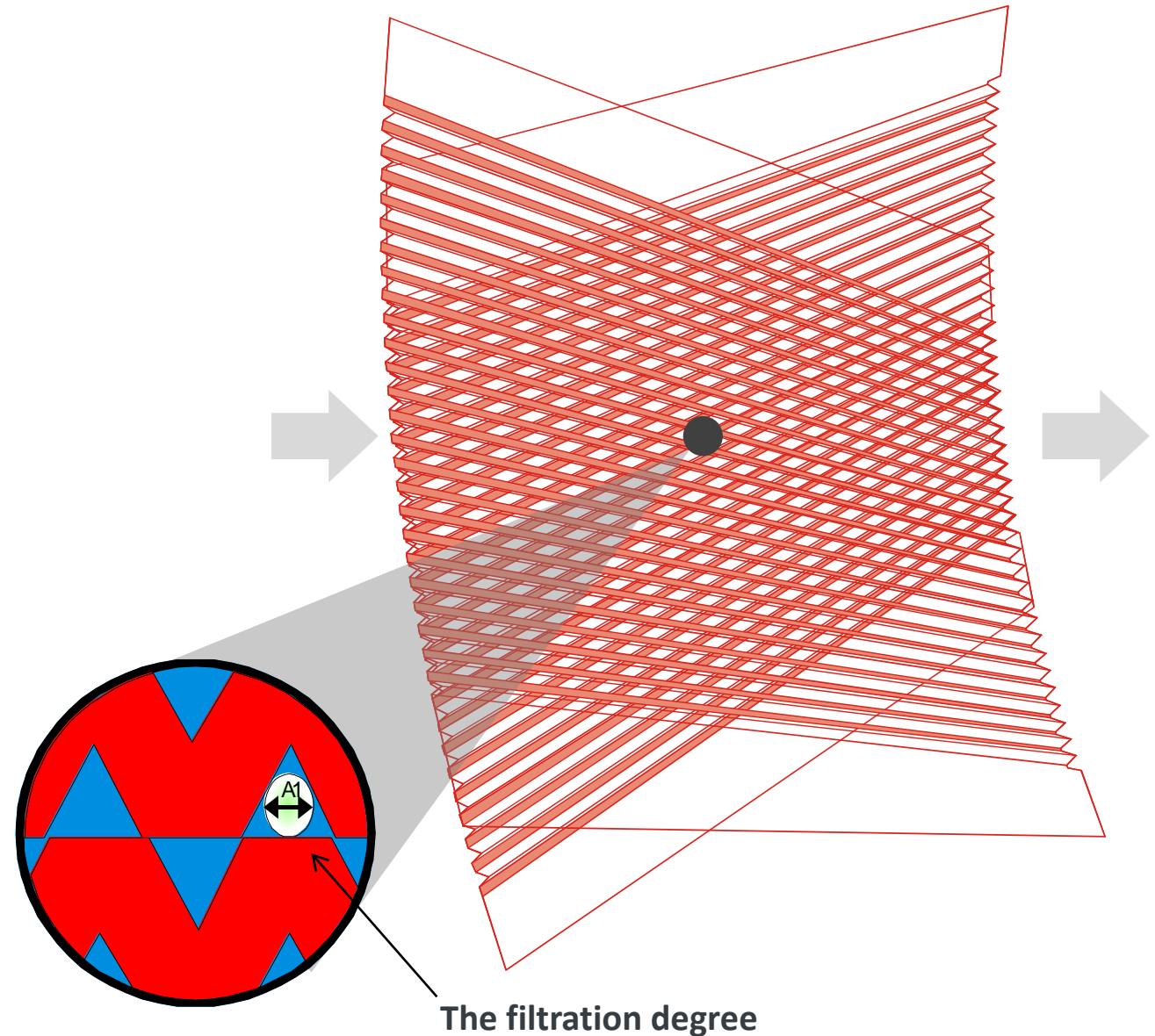
The discs are stacked and compressed on a specially designed spine, producing a matrix of consecutive crossing points which trap the particles, thus creating a **depth filtration element**.



# The Grooved Disc Surface

The grooves of any two adjacent discs, when pressed together, create a series of crossing points which form multiple particle traps.

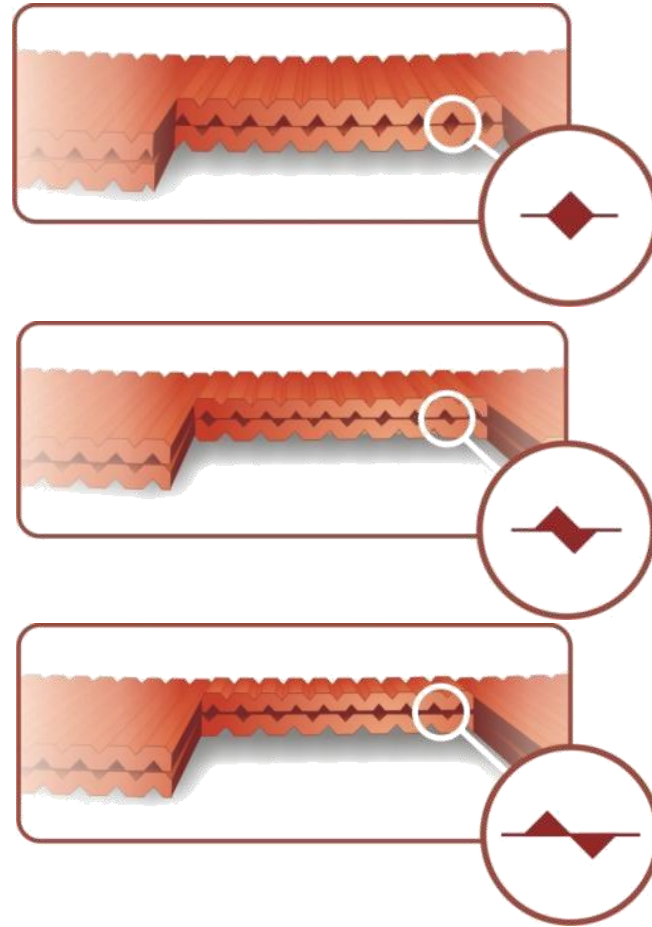
- Precise filtration of solids
- Long term operation with minimal maintenance





# Disc Shape

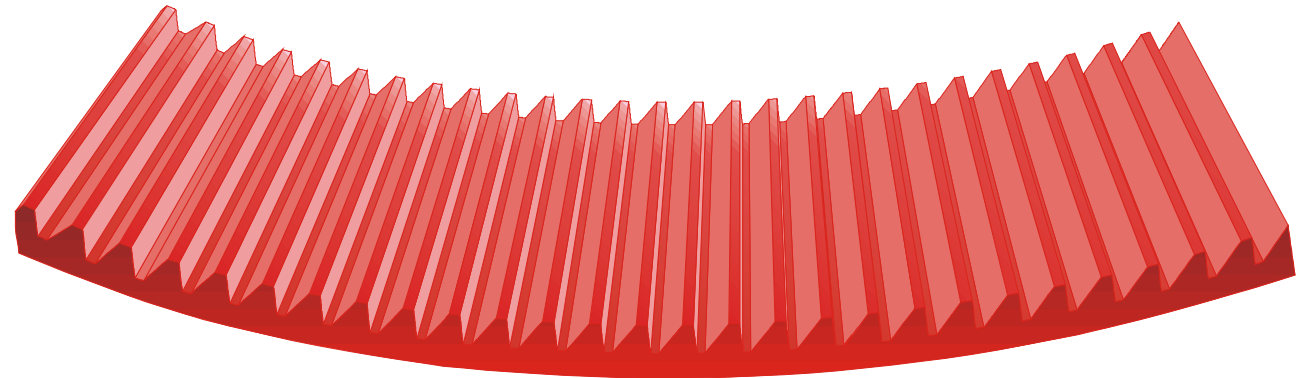
The discs are compressed to create the filtration element



# Particle Filtration is a Statistical Process

Due to elongated biological bodies and compressible particle materials, the filtration process is one of statistical probability.

In order to achieve high filtration efficiency, we use depth filtration, as created by the openings between stack of discs.



Since 2018

## Reduced Discs - Final Results

### Goal:

Increasing open area per filter element => both on black and red discs

### Results:

	Standard Black	Reduced Black	Standard Red	Reduced Red
No. of Discs Per Spine	416	473	381	447
Filtration cycle ratio	1	1.13	1	1.18

- As expected the increase in open area is in linear correlation to the increase in the filtration cycle . In the black discs, 14% increase results in 13% longer cycles. In the red discs, 17% increase results in 18% increase in filtration cycle.
- Filtration cycle is the end result of the total increase in dirt holding capacity of the reduced filter elements.
- Non to slightly lower Dp was measured on the reduced filtration elements



# Improved Red Discs 130um

The main feature of the improved discs are **more grooves** per discs and per filter element, resulting in a significantly **increased dirt holding capacity of the filter element**, **at the same, excellent filtration performance.**

**Improved discs have about 40% more grooves per filter element**

More grooves = more water passages

More grooves = more intersections for particle retention

More grooves = higher dirt holding capacity





# Spin Klin™ Disc – Highlights

- From 10 to 50,000 m<sup>3</sup>/h (44 to 220,000 gpm)
- Polymeric construction = No corrosion
- No moving parts = No wear
- High holding capacity & cleanability
- No power is required to operate the system



Color Code	Gray	Purple	Green	Brown	Black	Red	Yellow	Blue
Micron	20	40	55	70	100	130	200	400
PP Disc PA (Nylon) Disc	PP, PA	PP	PP, PA	PP, PA	PP, PA	PP, PA	PP, PA	PP



## Benefits

- Depth filtration
- High dirt holding capacity
- Low operating pressure
- Modular structure
- Minimal parts, easy to maintain
- Corrosion resistant



[Product animation - short clip \(1:37 min\)](#)



[Product animation - video with narration \(3:36 min\)](#)



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Thank *You*

spin klin filters and spare parts online orders and support

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