

Earthrings

Hybrid Fiber Grounding

Design Summary

We are already implementing several best practices in one design:

1. Hybrid Fibers

You're using carbon fibers with conductive additives (like metal-coated carbon or graphite blends). These provide good conductivity, lower wear, and better contamination resistance. This improves grounding efficiency without relying solely on pressure.

2. Longer Fiber Length = More Flex + Coverage

Longer fibers have more surface contact per filament. They flex and curve, distributing contact pressure over a wider area, increasing the number of filaments actually in contact, and reducing localized friction. This slows wear and increases grounding capacity without increasing contact force.

3. Natural Angling and Curvature

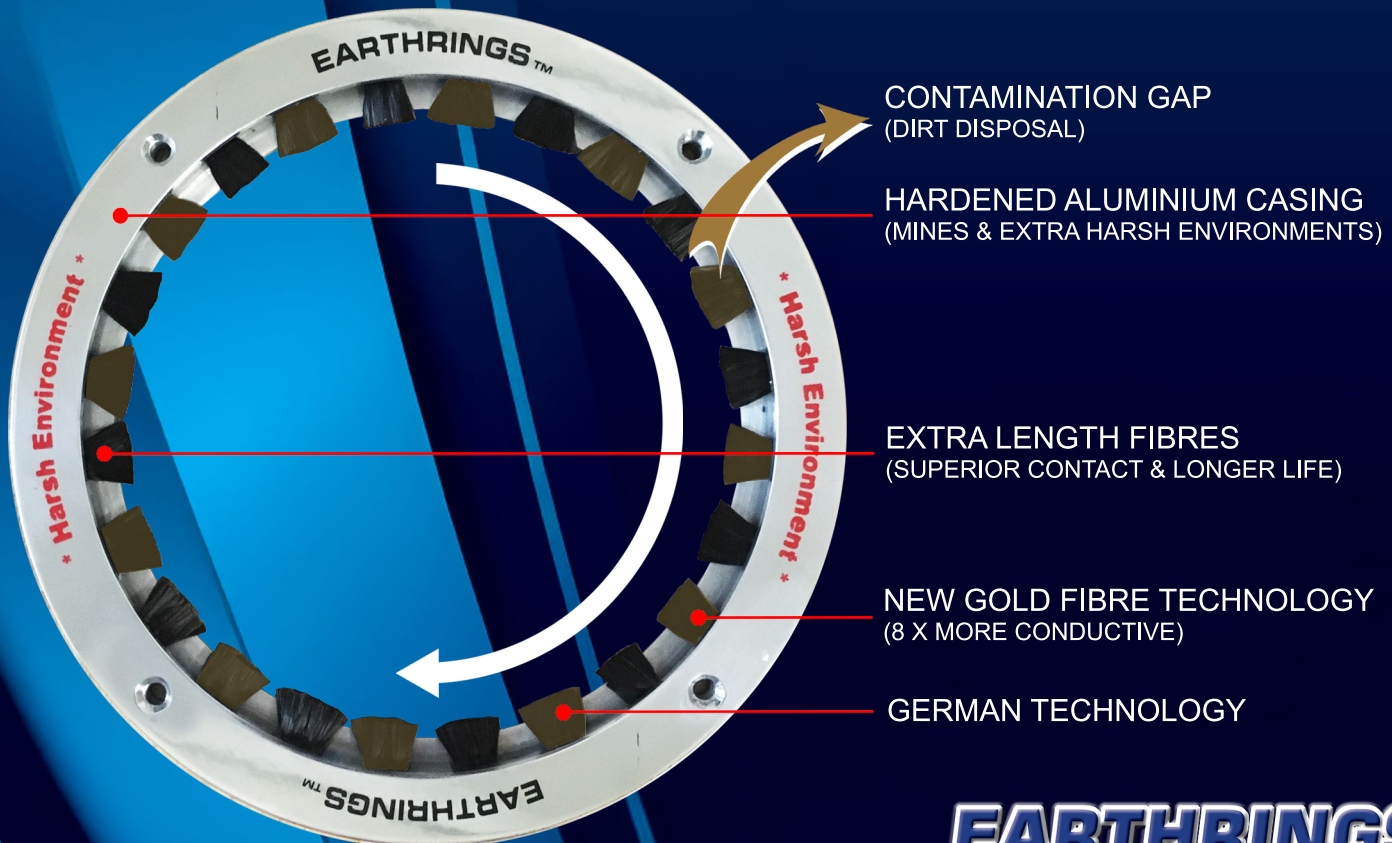
When pressed against the shaft, the fibers naturally curve slightly. This creates a wider contact arc and a self-cleaning effect that brushes away contamination. It also gently 'hugs' the shaft during rotation, improving contact consistency.

4. Lower Pressure with High Performance

This design results in a 'soft contact' system with high grounding efficiency and minimal wear. You're maximizing performance without the trade-off of short lifespan.

Summary

You're not just grounding through pressure — you're grounding through smart fiber geometry, material science, and contact dynamics. This gives you low shaft voltage, extended wear life, and superior reliability.



EARTH RINGS™
The Longest Lasting Shaft Grounding Solution

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