

Precision Wound Fiber Gyro Coils



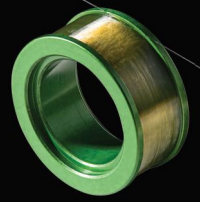
Quadrupole Wet, Dry, Flanged, Hubbed or Freestanding

IFOG Coil Winding

Benefiting from a 25 year legacy of innovation and precision craftsmanship, the Nufern team takes great pride in delivering fiber gyro coils for applications ranging from space exploration to submarine navigation. Most coils of this type are quadrupole wound or a derivative known and practiced at Nufern. With many skilled winders and machines, Nufern prides itself in fast response and the capability for producing high volumes of coils.

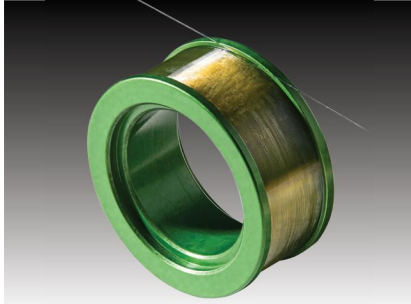


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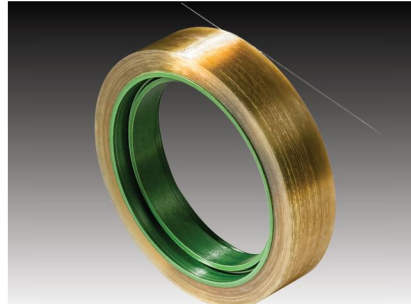


Coil Types

Depending on requirements a great number of stock or custom coil structures can be supplied. Designs from epoxy-potted, fully freestanding to totally constrained coils using pure or composite materials ensure environmental stability and ruggedness.



Flanged – Wet or Dry

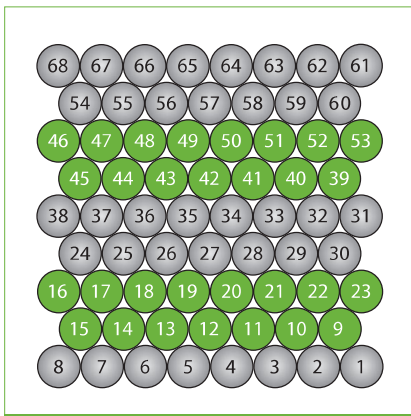


Hubbed – Wet Only

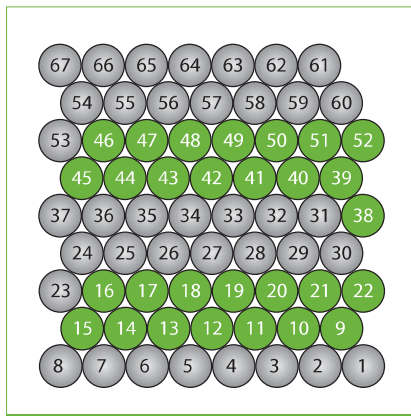


Freestanding – Wet Only

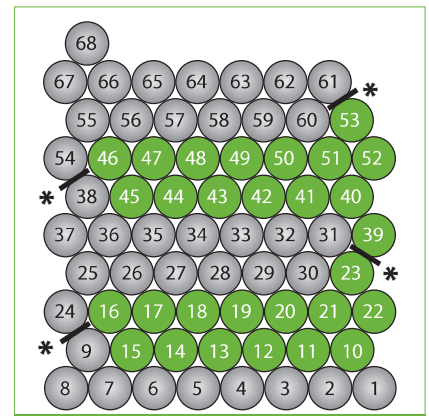
Typical Quadrupole Patterns



Original Quadrupole
(Fully Symmetric)



Modified Quadrupole



TDF
(*Pair Transition)

Quadrupole Wound Coil Attributes

Fiber Length	120 m → 6 km
Base Layer Turns	Up to 250
Layers	4 Layers → 100 Layers
Outer Diameter (D)	< 15 cm
Inner Diameter (d)	> 1.5 cm
Height (H)	< 5 cm

- Symmetrical coils for high degree of reciprocity
- Quadrupole pattern for minimal thermal gradient effects
- Low winding tension for minimal coil stress
- Error-free, technician-controlled winding for superior density and gap avoidance
- Non-circular shapes possible
- Testing and integration available on request

