

D-Series Vacuum Compatible Stepper Motors Materials Used in Construction

APPLICATION NOTES

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1. Materials Used in Construction

The materials used, in approximate descending order of exposed surface area are:

- Polyimide
- Diamond-like Carbon
- Stainless Steel (End Caps) 304L, 316L
- Silicon Steel
- Stainless Steel (Rotor Shaft) 1Cr18Ni9Ti
- Stainless Steel (Bearings) X65Cr13, X105CrMo17, X5CrNi18.10
- Neodymium
- Aluminium Alloy 6061
- PEEK (Poly Ether Ether Ketone) 1000 (450G)
- Alumina Ceramic
- Silicon Nitride Ceramic (*Hybrid Bearing Option*)
- Silver
- Fluorinated Ethylene Polymer (FEP) *Not used on radiation-hard motors*
- Copper
- Chromel/Alumel *Chromel and Alumel are registered trademarks of Hoskins Manufacturing Co.*

Bearing lubrication: NyeTorr® 6300 Ultra-low outgassing UHV grease.