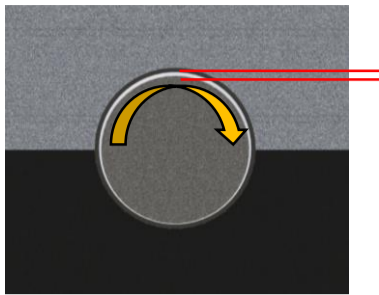


Why Do I Need GDS Gerotors?

Lubrication Demands Increase with Speed & Power



Engine Oil Flow



Increased Flow Through Engine

- Due to increased bearing clearances
- Due to increased engine speed



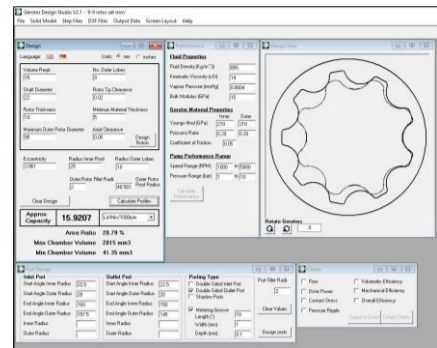
Oil Pressure



Need to Maintain Pressure with this Increased Flow

- Requires Higher Capacity Pump
- Need to package in existing housing
- Improved geometry required

Requires Optimized Capacity



Efficiency Improvements

η

Hydraulic Power is a function of flow & pressure
- It will increase with higher capacity pump



Friction Power (drag) is a function of geometry, porting & surfaces
- This can be reduced by engineering design



Pump Drive Power is a combination of above factors
- The aim is to both improve efficiency and reduce power



Requires Optimized Geometry



Durability



Increased Power & Increased Speed

= More crank flex; Higher torsional vibration
Leads to higher stresses at gerotor lobes



4340 steel up to 10x stronger than sintered!



Debris tolerance

Sintered Gerotor

- BRITTLE
- fails...



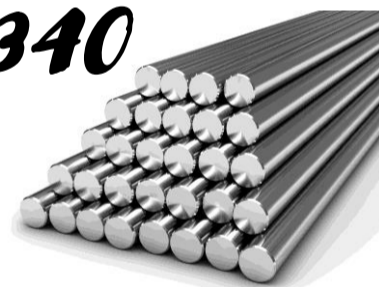
4340 Billet Gerotor

- DUCTILE
- keeps pumping!



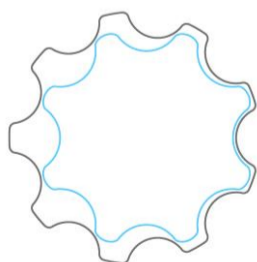
Requires Optimized Material

4340



- GDS Gerotors are designed using our own proprietary software, Gerotor Design Studio.
- Our partnerships with leading CAD/CAE software providers allows for detailed analysis and optimization; improving flow, reducing power consumption and reducing contact stresses at the gerotor lobes. Our software creates highly accurate profile geometry for manufacturing.
- We manufacture ALL our parts on our in-house CNC equipment ensuring exacting tolerances and quality before FREE shipment to our customers.

We Do Gerotors...



Gerotor Design Studio



UK Designed & Manufactured



Order On-line at:

GDSGerotors

www.GDSGerotors.com