

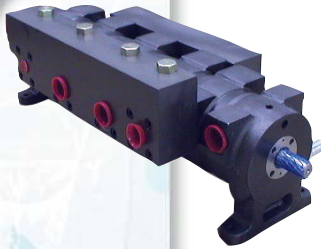
## Gas Turbine - Power Generation

The design of this gas turbine engine is derived from a triple shaft commercial aviation turboprop power plant. This lightweight, fuel efficient engine, can be configured to meet a wide variety of mechanical and electric drive configurations, such as a trailer mounted power-pack designed for rapid deployment in urban areas. The engine can deliver up to 6,025 bhp or from 3.7 to 4.2 Mw when used for electrical power generation.



### Pump Description:

A custom designed, multi-circuit gerotor pump provides six independent functions; lube oil supply to the turbine bearings, and oil scavenge from six oil sumps. The positive displacement pump is a modular construction that can be easily adapted to support different engine configurations such as marine propulsion or power generation. A circuit are construction from cast ductile iron housings with gerotors carried on a single hardened steel shaft. Dowel pins provide precise positional alignment of adjoining housings, which are then clamped together with a series of tie-rods. Scavenge inlets are routed through a manifold block containing blow-down valves, which act as check valves to bypass a portion of the scavenge flow by the pump during engine start up. The discharge of all five scavenge circuits are connected by manifold to a common discharge port.



### Selected Performance Data:

Fluid	MIL-L-23699, MIL-L-7808
Lube Circuit Flow	21 GPM @ 208 psid
Scavenge #1	30 GPM @ 40 psid
Scavenge #2, #3	65 GPM @ 40 psid
Scavenge #4	44 GPM @ 40 psid
Scavenge #5	17 GPM @ 40 psid
Ambient Temp. Range	-45 degF to +275 degF
Operating Speed	2950-3600 rpm
Lube Relief Valve	Integral - 250 psid crack
Drive Interface	Electric Motor
MTBO	20,000 hours
Duty Cycle	Continuous
Weight	180 lbs

