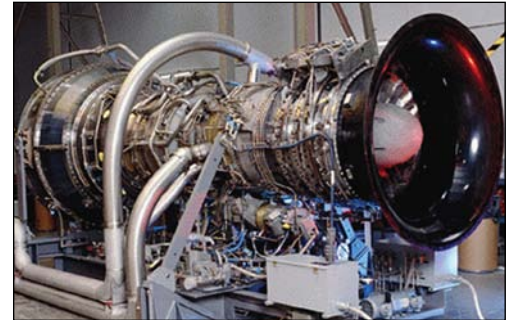


Gas Turbine - Power Gen

The power turbine is derived from one of the most successful and reliable flight engines servicing the commercial aviation industry. A unique twin-turbine, electric generator design provides optimum efficiency for base load and part load power generation ranging from 25 Mw to 50 Mw output. The power turbine is serviced by a lubrication console featuring redundant, electric motor driven oil lubrication and scavenge pumps developed by Cascon.



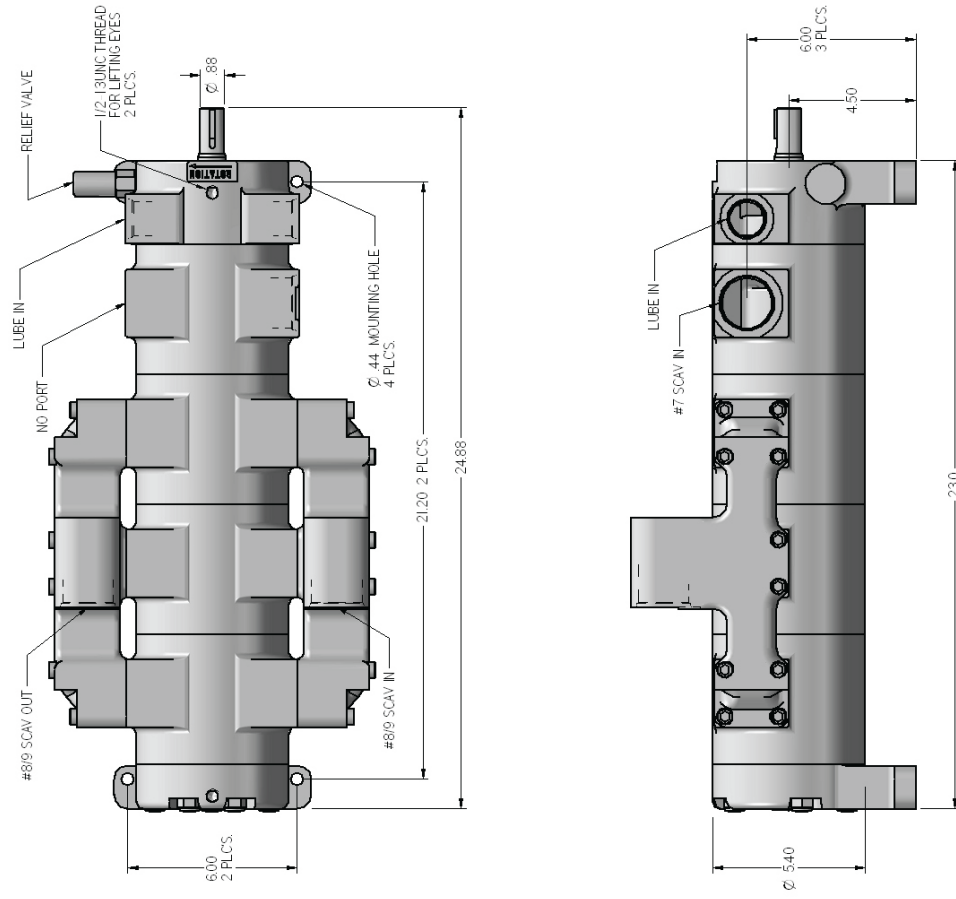
Pump Description:

The positive displacement, multi-circuit, oil lube and scavenge pump is designed to provide three independent pumping functions; lube oil supply to the bearings of the turbine and scavenge of oil from two independent oil sumps. The oil lubrication section consists of a single positive displacement gerotor element with separate oil inlet and discharge ports. This function is protected by a relief valve which is factory set to crack at 120 ± 5 psig. The #1 scavenge section utilizes two gerotor elements in a single housing with a separate inlet port. The #2 scavenge function uses six gerotor elements, two each located in a series of three scavenge housing sections. Inlet and discharge ports for each of the three housing sections are connected by external inlet and discharge manifolds.

Selected Performance Data:

Fluid	MIL-L-23699, MIL-L-7808
Flow Rate - Lube Circuit	14.5 GPM
Flow Rate - Scav #1	55 GPM @ 35 psid
Flow Rate - Scav #2	164 GPM @ 35 psid
Temperature Range	-45 degF to +275 degF
Operating Pressure	100 psid
Operating Speed	100 psid
Relief Valve	Integral - 120 psi crack
MTBF	40,000 hours
Duty Cycle	Continuous





CASE STUDY CS-056 LUBE AND SCAVENGE PUMP