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NOMENCLATURE

M masic flow rate

E	Energy
P_c	Compressor power
P_p	Lost Power
Q_p	Lost heat flow to the environment
S_{Qp}	Entropy lost to the environment
S	Entropy
\dot{m}_e	Masic flow rate exiting the system
\dot{m}_a	Masic flow rate entering the system
Q	Thermal power
w	Speed
h	Entalpy
g	gravitational acceleration, m.s ⁻²
Z	Elevation
\dot{L}_t	Mechanical Power
\dot{S}_{gen}	generated Entropy
T	Temperature
T_0	environment temperature

Greek symbols

τ time, s

Subscripts

a	Air
o	Oil
a+o	air and oil
i	Input
e	Exit