

AGK Mindsheet

General

P(ower) = **F**(orce) / **A**(rea)

P = F / A

W(ork) = **F**(orce) x **D**(istance)

W = F x D

V(olume) = **A**(rea) x **D**(istance)

V = A x D

Gas Turbine Engines

R(otor) vs. **S**(tator)

	Compressor Stage			Turbine Stage	
R:	P +	V +	S:	P -	V +
S:	P +	V -	R:	P -	V -

C: R ++ S + -

T: S - + R - -

Nozzle vs. Rotor

	Nozzle	Rotor
I:	D (ecrease)	C (onstant)
R:	C (onstant)	D (ecrease)

IDC

RCD

Piston Engines

Oil Pumps

W (et)	P (ressure pump)	I (ntegrated reservoir)
D (ry)	S (cavanger pump)	S (eparate reservoir)

WPI

DSS

Linear **P**iston **R**otary

LPR

Hydraulics

Demand Pump	Pressure: Constant	Volume: Variable
Constant delivery	Pressure: Variable	Volume: Fixed

DCV

CVF

Fluid leaving = leak

Electrics

P(ower) = **V**(oltage) x **C**(urrent)

P = V x C

P(ower) = **E**lectrical Work (W) / **t**ime

P = E / t

V(oltage) = **C**(urrent) x **R**(esistance)

V = C x R

AC/DC

AC to DC: Rectifier

AC DC: Rocks

DC to AC: Inverter

DC AC: Inverted

AC in parallel

Voltage, Frequency and **P**hase

AC = VFR (R=P)

Pole Pairs

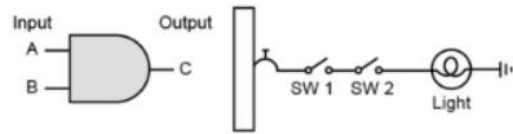
Frequency x 60 / RPM = Number of Pole Pairs

Freq. X 60 / RPM = PP

- If 'individual': **8**, if 'required': **4**.

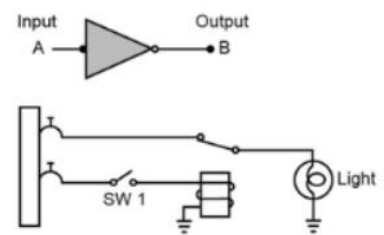
Logic Gates

AND



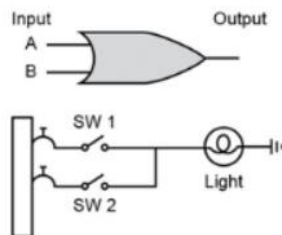
A	B	C
0	0	0
0	1	0
1	0	0
1	1	1

NOT



Inputs	Output
A (SW 1)	B (Light)
0	1
1	0

OR



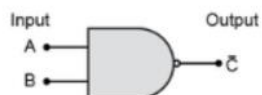
Inputs		Output
SW1	SW2	Light
0	0	0
0	1	1
1	0	1
1	1	1

NOR



Inputs		Output
A	B	C
0	0	1
0	1	0
1	0	0
1	1	0

NAND



Inputs		Output
A	B	C
0	0	1
0	1	1
1	0	1
1	1	0