

Steam driven HP pump stimulation Interface

T0C 32

Operating

Description	Inputs		
	M(Kg)	P(bar)	T(°C)
Boiling Feed Water entering HP pump	68	pressure Enter pressure for BFW entering HP pump 2.4	
Boiling Feed Water leaving HP pump	68	pressure Enter pressure for BFW leaving HP pump 5.8	
High Pressure Steam entering HP pump	24	48	409
Medium Pressure Steam leaving HP pump	24	16.5	274

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compare

T0C: 32.0				T0K : 305.0				Name : Operating		
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DESCRIPTION	M(Kg)	P(bar)	Pkpa	T(°C)	T(k)	H(kj/Kg)	S(kj/KgK)	e(kj/Kg)	E(kj/(MJ/s))	EX(kj/(MJ/s))
BFW entering HP pump	68.0	2.4	240.0	None	None	632.25	1.8569	65.8955	42.993	4.4809
BFW leaving HP pump	68.0	5.8	580.0	None	None	691.07	1.984	85.95	46.9928	5.84
SH entering HP pump	24.0	48.0	4800.0	409.0	682.0	3221.846	6.6963	1179.4745	77.3243	28.3074
SM leaving HP pump	24.0	16.5	1650.0	274.0	547.0	2973.634	6.7606	911.651	71.3672	21.8796

Main Output	
ENERGY EFFICIENCY OF HP PUMP(%)	67.1434
ENERGY LOSS OF HP PUMP(MW)	1.9573
EXERGY EFFICIENCY OF HP PUMP(%)	21.1441
EXERGY DESTRUCTION OF HP PUMP(MW)	5.0687

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Steam driven HP pump stimulation Interface : comparing to *Operating*

Operating ▼		T0C 32 ▴ ▾	
Description	Inputs		
	M(Kg)	P(bar)	T(°C)
Boiling Feed Water entering HP pump	66 ▴ ▾	pressure ▼ Enter pressure for BFW entering HP pump 2.4 ▴ ▾	
Boiling Feed Water leaving HP pump	66 ▴ ▾	pressure ▼ Enter pressure for BFW leaving HP pump 5.6 ▴ ▾	
High Pressure Steam entering HP pump	24 ▴ ▾	48 ▼	409 ▴ ▾
Medium Pressure Steam leaving HP pump	24 ▴ ▾	16.5 ▼	274 ▴ ▾

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Operating VS Operating

Operating

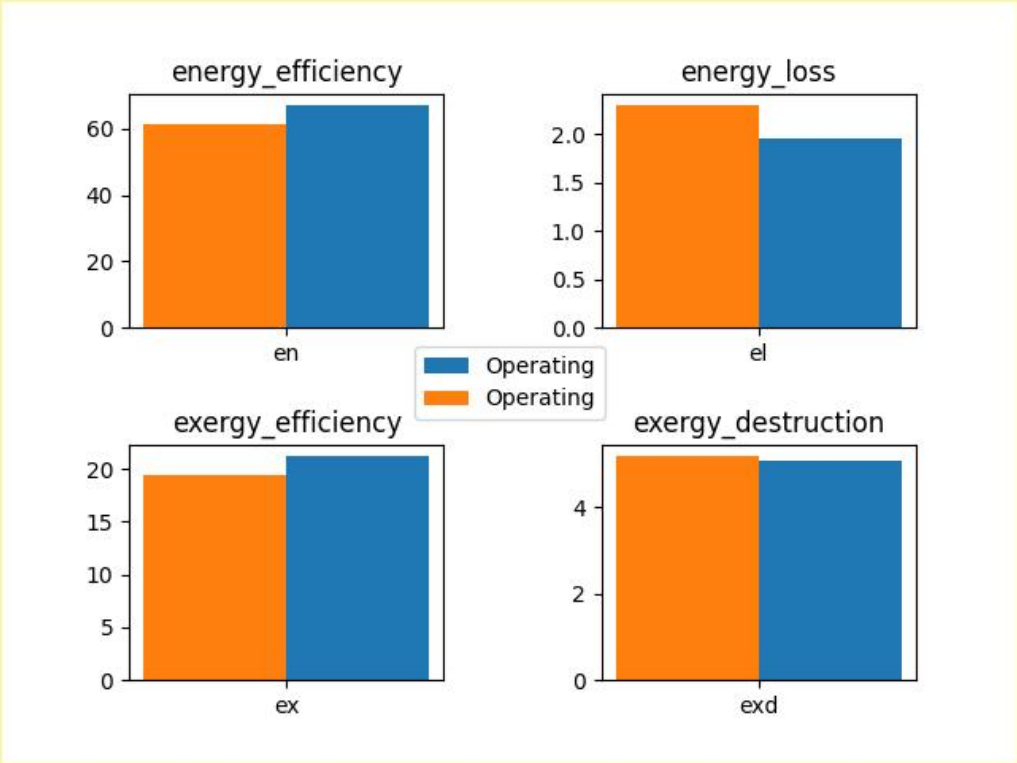
T0C: 32.0			T0K : 305.0			Name : Operating				
Description	M(Kg)	P(bar)	Pkpa	T(°C)	T(k)	H(kJ/Kg)	S(kJ/KgK)	e(kJ/Kg)	E(kJ/(MJ/s))	EX(kJ/(MJ/s))
BFW entering HP pump	68.0	2.4	240.0	None	None	632.25	1.8569	65.8955	42.993	4.4809
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Operating

T0C: 32.0			T0K : 305.0			Name : Operating				
Description	M(Kg)	P(bar)	Pkpa	T(°C)	T(k)	H(kJ/Kg)	S(kJ/KgK)	e(kJ/Kg)	E(kJ/(MJ/s))	EX(kJ/(MJ/s))
BFW entering HP pump	66.0	2.4	240.0	None	None	632.25	1.8569	65.8955	41.7285	4.3491
BFW leaving HP pump	66.0	5.6	560.0	None	None	687.61	1.9765	84.7775	45.3823	5.6
SH entering HP pump	24.0	48.0	4800.0	409.0	682.0	3221.846	6.6963	1179.4745	77.3243	28.3074
SM leaving HP pump	24.0	16.5	1650.0	274.0	547.0	2973.634	6.7606	911.651	71.3672	21.8796

Comparison between final outputs:

DESCRIPTION	Operating	Operating	Difference	Percentage error(%)
ENERGY EFFICIENCY(%)	67.1434	61.3352	5.8082	9.47
ENERGY LOSS OF HP PUMP(MW)	1.9573	2.3033	0.346	15.02
EXERGY EFFICIENCY OF HP PUMP(%)	21.1441	19.4608	1.6833	8.65
EXERGY DESTRUCTION OF HP PUMP(MW)	5.0687	5.1769	0.1082	2.09



Operating VS Operating

Operating

TBC: 32.0			TBC : 305.0			Name : Operating				
Description	M(Kg)	P(har)	P(kpa)	T(°C)	T(K)	P(h)(Kg)	S(k)(KgK)	w(h)(Kg)	E(h)(MJ/n)	E(S)(MJ/n)
BTW entering HP pump	68.0	2.4	240.0	None	None	632.25	1.8509	61.8955	42.983	4.4809
BTW leaving HP pump	68.0	3.8	580.0	None	None	693.07	1.984	85.95	48.9528	5.84
SH entering HP pump	24.0	48.0	4800.0	400.0	682.0	3221.846	6.6963	1379.4745	77.3243	28.3074
SM leaving HP pump	24.0	16.5	1650.0	274.0	547.0	2973.834	6.7806	911.651	71.3672	21.8796

Operating

TBC: 32.0			TBC : 305.0			Name : Operating				
Description	M(Kg)	P(har)	P(kpa)	T(°C)	T(K)	P(h)(Kg)	S(k)(KgK)	w(h)(Kg)	E(h)(MJ/n)	E(S)(MJ/n)
BTW entering HP pump	68.0	2.4	240.0	None	None	632.25	1.8509	61.8955	41.7283	4.3491
BTW leaving HP pump	68.0	5.6	560.0	None	None	697.61	1.9785	84.7775	45.3823	5.6
SH entering HP pump	24.0	48.0	4800.0	400.0	682.0	3221.846	6.6963	1379.4745	77.3243	28.3074
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