



OPTI(Cx)  
PLATFORM

## CHILLER DIAGNOSTICS

SamfordAL: SamfordAL

September 2018

### Samford Campus LOOP Chiller 1

---

Manufacturer: York  
Model: YKPP4K2-FBG  
Capacity: 1500 Tons  
Constant/Variable: Variable Speed  
Refrigerant: Positive Pressure

#### Summary

	MONTHLY TOTAL/AVERAGE		NUMBER OF RULE VIOLATIONS	AVERAGE WHEN RULE VIOLATED	PERCENT OF RUN TIME WHEN RULE VIOLATED
Starts	1	■	0	-	-
Evaporator Approach (deg F)	-1.17	■	1	3.7	0.01%
Condenser Approach (deg F)	2.4	■	0	-	-
Discharge Superheat (deg F)	11.69	■	0	-	-
VSD Speed (%)	86.17	■	0	-	-
Inlet Vane Position (%)	70.18	■	0	-	-

#### Statistics

---

Run Hours	657
Average Chilled Water Supply temperature (deg F)	44.27
Average Chilled Water Return temperature (deg F)	52.67
Average Condenser Water Supply temperature (deg F)	76.73
Average Condenser Water Return temperature (deg F)	84.18
Average Chiller Efficiency (kW/Ton)	0.5

#### Recommended Action

---



No current recommendations

# Samford Campus LOOP Chiller 2


Manufacturer:	York
Model:	YKPP4K2-FBG
Capacity:	1500 Tons
Constant/Variable:	Variable Speed
Refrigerant:	Positive Pressure

Summary	MONTHLY TOTAL/AVERAGE		NUMBER OF RULE VIOLATIONS	AVERAGE WHEN RULE VIOLATED	PERCENT OF RUN TIME WHEN RULE VIOLATED
Starts	9	■	0	-	-
Evaporator Approach (deg F)	0.57	■	0	-	-
Condenser Approach (deg F)	0.56	■	0	-	-
Discharge Superheat (deg F)	11.6	■	0	-	-
VSD Speed (%)	83.25	■	0	-	-
Inlet Vane Position (%)	78.95	■	0	-	-

## Statistics

Run Hours	231
Average Chilled Water Supply temperature (deg F)	44.13
Average Chilled Water Return temperature (deg F)	52.65
Average Condenser Water Supply temperature (deg F)	76.38
Average Condenser Water Return temperature (deg F)	83.74
Average Chiller Efficiency (kW/Ton)	0.46

## Recommended Action



No current recommendations

# Samford Campus LOOP Chiller 3

Manufacturer:	York
Model:	YKPP4K2-FBG
Capacity:	1500 Tons
Constant/Variable:	Variable Speed
Refrigerant:	Positive Pressure

Summary	MONTHLY TOTAL/AVERAGE		NUMBER OF RULE VIOLATIONS	AVERAGE WHEN RULE VIOLATED	PERCENT OF RUN TIME WHEN RULE VIOLATED
Starts	75	■	4	-	-
Evaporator Approach (deg F)	-1.58	■	0	-	-
Condenser Approach (deg F)	0.15	■	0	-	-
Discharge Superheat (deg F)	11.26	■	0	-	-
VSD Speed (%)	84.61	■	0	-	-
Inlet Vane Position (%)	79.42	■	0	-	-

## Statistics

Run Hours	231
Average Chilled Water Supply temperature (deg F)	44.26
Average Chilled Water Return temperature (deg F)	52.72
Average Condenser Water Supply temperature (deg F)	77.41
Average Condenser Water Return temperature (deg F)	85.16
Average Chiller Efficiency (kW/Ton)	0.47

## Recommended Action



Check lead lag chiller sequencing and low chiller loading (<15%).

# Samford Campus LOOP Chiller 4


Manufacturer:	York
Model:	YKPFP4K2-FBG
Capacity:	1500 Tons
Constant/Variable:	Variable Speed
Refrigerant:	Positive Pressure

Summary	MONTHLY TOTAL/AVERAGE		NUMBER OF RULE VIOLATIONS	AVERAGE WHEN RULE VIOLATED	PERCENT OF RUN TIME WHEN RULE VIOLATED
Starts	1	■	0	-	-
Evaporator Approach (deg F)	1.63	■	1	5.58	2.79%
Condenser Approach (deg F)	0.17	■	0	-	-
Discharge Superheat (deg F)	11.16	■	0	-	-
VSD Speed (%)	85.13	■	0	-	-
Inlet Vane Position (%)	92.71	■	0	-	-

## Statistics

Run Hours	424
Average Chilled Water Supply temperature (deg F)	44.22
Average Chilled Water Return temperature (deg F)	52.71
Average Condenser Water Supply temperature (deg F)	76.63
Average Condenser Water Return temperature (deg F)	85.19
Average Chiller Efficiency (kW/Ton)	0.49

## Recommended Action



No current recommendations