

Service First GP (Pty) Ltd

Unit 206 Flaming Rock Road, Northlands
Business Park, Newmarket Road
Northriding, Johannesburg, 2169
Tel: +27 11 704 2024
Fax: +27 11 704 1695
Email: service@sfgp.co.za
Website: www.sfirst.co.za

PRE-COMMISSIONING - START UP CHECK LIST

Company:	HVAC Installation
Attention:	Stephan Smit
Project:	83J819 FNB Ferndale
Chiller Model & Quantity:	2* CGAF 150 SE SN
Chiller Serial Number:	TBA

In order for SFGP Service to commission your Trane equipment, please confirm that the items listed below are complete.

	Items to be completed prior to commissioning (Please sign off each item):	
1.	Unit fully inspected and any damages notified to Trane prior to arranging a commissioning date	yes
2.	Unit installed level	yes
3.	Service clearances according to specifications	yes
4.	Isolators installed	yes
5.	Thermometer wells installed on the inlet and outlet water pipes of the chiller	yes
6.	Water pressure gauges installed on the inlet and outlet water pipes of the chiller	yes
7.	Balancing valves installed on leaving water piping (Condenser and Evaporator)	yes
8.	Flow switches installed on the leaving pipes and wired directly to the chiller	yes
9.	Water systems flushed and clean prior to piping up to the chiller	yes
10.	All strainers cleaned after flushing	yes
11.	Water treated accordingly by a professional water treatment company (customer to provide a water treatment certificate)	No
12.	Water flow checked and balanced at units' design specification	Trane
13.	Control wiring pump interlocks installed and wired into the chillers panel	Trane
14.	Power cables installed and sized correctly to allow a maximum allowed voltage drop of 2% at start up amperage.	yes
15.	Power to unit connected and proven (should be within a maximum of 2% margin)	yes
16.	Phase rotation to be verified in the clockwise direction	yes
17.	Unit powered up 24 hours prior to commissioning date	yes
18.	Ensure heaters are on after unit is powered up	yes
19.	Cooling load available for 4 to 6 hours (minimum 60% of chiller capacity)	yes
20.	A member of your commissioning Team available to verify water flows and electrical interlocks	yes
21.	All access arranged and commissioning agent notified of any specific security or medical requirements	yes
22.	Pumps controlled by either a BMS system or directly from chiller (No pump may be in manual operation)	yes

Managing Director: D. W. Viljoen
Company Registration No.: 2016/384405/07
Vat Registration No.: 4310195922



Authorized Distributor of

TRANE

For ice making units only:

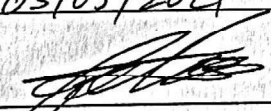
23.	Certification of correct glycol concentration according to the chillers design specifications	N/A
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Once the site is ready as per the above requested items, please send this form to the email address listed below to schedule a commissioning date. (Commission date to be allocated in a 14-day period from completed pre-commissioning sheet)

Please note:

Should this list be fully signed off and our staff arrive for commissioning and identify discrepancies or items not done on the list we will then charge for extra hours spent on site or return trip while waiting for items to be correctly completed.

Email: service@sfgp.co.za
Please cc mark@sfgp.co.za
Carey carey@sfgp.co.za

Date:	30/04/2021
Contact Name:	Jacques
Contact number:	073 741 6926
Commissioning date required:	03/05/2021
Signature:	



Tuesday, May 25, 2021
03:41:50 PM SAST

ASHRAE Chiller Report

Prepared for: FNB Ferndale



Technician: Ryan Kemp
Chiller Name: Chiller 1
Model Number: CGAF150DEAGNC2XXWXN
BNNX3XB1EBXF1LXXXXXX
XX1EA8XXXX1AXXAA1XX
Serial Number: ELD04920
Job Name: FNB Ferndale
Work Order Number: Commissioning
Location: Ferndale
Sales Office Name: Service First GP (Pty) Ltd
Sales Order Number: 83J819
Sales Office Address: 206 Flaming Rock Road, Northands
business park
Newmarket Street, Northriding
Johannesburg, Gauteng, 2174
Sales Office Phone Number: 0117042024
Customer Name: HVAC
Customer Address:
Customer Phone Number:

- Notes:**
- Checked phase rotation on incomer. Clockwise
 - Checked unit supply voltage. AB=400V BC=401V AC=399V
 - Checked Vibration pads have been installed.
 - Checked unit for any visible signs of damage.
 - Check for leaks, no visible leaks found.
 - Checked and verified configuration and settings.
 - Verified all LLID's.
 - Tested all compressor motors.
 - Physically checked connection for loose connection.
 - Evaporator pressure drop was measured at 40kPa.
 - Tested all heaters and operation all in order.
 - Tested flow switch operation all in order.
 - Wired in Flow switch interlock with pump contactor.
 - Checked all fans for damage and their direction.
 - Charged both circuits with R410a refrigerant as per Subcooling (measured at 10°C at full load).
 - Test chiller at full load.

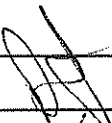
Chiller Status

EmptyPlaceHolder

Active Chilled Water Setpoint	6.0	°C
Active Chilled Water Setpoint Source	BAS	
Active Demand Limit Setpoint	100.0%	
Air Flow Ckt1	100.0%	
Air Flow Ckt2	100.0%	
Evaporator Water Flow Switch	Flow	
Condenser Refrigerant Pressure Ckt1	2484.0	kPaG
Condenser Refrigerant Pressure Ckt2	2562.0	kPaG
Condenser Saturated Rfgt Temp Ckt1	42.7	°C
Condenser Saturated Rfgt Temp Ckt2	43.9	°C
Differential Refrigerant Pressure Ckt1	1712.2	kPaD
Differential Refrigerant Pressure Ckt2	1774.2	kPaD
Evaporator Approach Temperature Ckt1	3.6	°C
Evaporator Approach Temperature Ckt2	3.0	°C
Evaporator Entering Water Temperature	11.4	°C
Evaporator Leaving Water Temperature	6.0	°C
Evaporator Refrigerant Pressure Ckt1	771.8	kPaG
Evaporator Refrigerant Pressure Ckt2	787.8	kPaG
Evaporator Saturated Rfgt Temp Ckt1	2.4	°C
Evaporator Saturated Rfgt Temp Ckt2	3.0	°C
Evaporator Water Flow Status	Flow	
Outdoor Air Temperature	19.4	°C
Running Time Cprsr1A	01:33	Hr:Min
Running Time Cprsr1B	01:37	Hr:Min
Running Time Cprsr1C	01:35	Hr:Min
Running Time Cprsr2A	01:46	Hr:Min
Running Time Cprsr2B	01:41	Hr:Min
Running Time Cprsr2C	01:40	Hr:Min
Starts Cprsr1A	6	
Starts Cprsr1B	6	
Starts Cprsr1C	6	
Starts Cprsr2A	6	
Starts Cprsr2B	6	
Starts Cprsr2C	6	
Top Level Mode	Running	
Top Level Mode Ckt1	Running	

Signed:

Date:


25/05/2021

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Wednesday, May 26, 2021
01:16:18 PM SAST

ASHRAE Chiller Report

Prepared for: FNB Ferndale



Technician: Ryan Kemp
Chiller Name: Chiller 2
Model Number: CGAF150DEAGNC2XXWXN
BNNX3XB1EBXF1XLXXXXX
XX1EA8XXXX1AXXAA1XX
Serial Number: ELD04919
Job Name: FNB Ferndale
Work Order Number: Commissioning
Location: Ferndale
Sales Office Name: Service First GP (Pty) Ltd
Sales Order Number: 83J819
Sales Office Address: 206 Flaming Rock Road, Northands
business park
Newmarket Street, Northriding
Johannesburg, Gauteng, 2174
Sales Office Phone Number: 0117042024
Customer Name: HVAC
Customer Address:
Customer Phone Number:

- Notes:**
- Checked phase rotation on incomer. Clockwise
 - Checked unit supply voltage. AB=400V BC=401V AC=399V
 - Checked Vibration pads have been installed.
 - Checked unit for any visible signs of damage.
 - Check for leaks, no visible leaks found.
 - Checked and verified configuration and settings.
 - Verified all LLID's.
 - Tested all compressor motors.
 - Physically checked connection for loose connection.
 - Evaporator pressure drop was measured at 45kPa.
 - Tested all heaters and operation all in order.
 - Tested flow switch operation all in order.
 - Wired in Flow switch interlock with pump contactor.
 - Checked all fans for damage and their direction.
 - Charged both circuits with R410a refrigerant as per Subcooling (measured at 10°C at full load).
 - Test chiller at full load.


Chiller Status

EmptyPlaceholder

Active Chilled Water Setpoint	6.0	°C
Active Chilled Water Setpoint Source	BAS	
Active Demand Limit Setpoint	100.0%	
Air Flow Ckt1	100.0%	
Air Flow Ckt2	100.0%	
Evaporator Water Flow Switch	Flow	
Condenser Refrigerant Pressure Ckt1	2577.6	kPaG
Condenser Refrigerant Pressure Ckt2	2624.8	kPaG
Condenser Saturated Rfgt Temp Ckt1	44.2	°C
Condenser Saturated Rfgt Temp Ckt2	44.9	°C
Differential Refrigerant Pressure Ckt1	1786.2	kPaD
Differential Refrigerant Pressure Ckt2	1836.0	kPaD
Evaporator Approach Temperature Ckt1	3.1	°C
Evaporator Approach Temperature Ckt2	3.2	°C
Evaporator Entering Water Temperature	11.8	°C
Evaporator Leaving Water Temperature	6.2	°C
Evaporator Refrigerant Pressure Ckt1	791.4	kPaG
Evaporator Refrigerant Pressure Ckt2	788.8	kPaG
Evaporator Saturated Rfgt Temp Ckt1	3.1	°C
Evaporator Saturated Rfgt Temp Ckt2	3.0	°C
Evaporator Water Flow Status	Flow	
Outdoor Air Temperature	20.6	°C
Running Time Cprsr1A	01:03	Hr:Min
Running Time Cprsr1B	01:01	Hr:Min
Running Time Cprsr1C	01:01	Hr:Min
Running Time Cprsr2A	01:26	Hr:Min
Running Time Cprsr2B	01:23	Hr:Min
Running Time Cprsr2C	01:49	Hr:Min
Starts Cprsr1A	5	
Starts Cprsr1B	4	
Starts Cprsr1C	5	
Starts Cprsr2A	5	
Starts Cprsr2B	4	
Starts Cprsr2C	5	
Top Level Mode	Running	
Top Level Mode Ckt1	Running	

Signed:

Date:


26/05/2021

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