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Gas Heat Pump and AHU Commissioning Checklist

These guidelines are provided to ensure the successful commissioning of the Anesi 80K gas absorption heat pump (GAHP) with the Anesi air handler unit (AHU) and the optional indirect storage tank (IST). They assume that the installation contractor or professional has read and understood the installation and operation manuals, including all minimum and maximum guidelines for all Anesi products.

System Details				**Date:**
Location Address				
GAHP Model		GAHP S/N		IMEI:
AHU Model		AHU S/N		
IST Model		IST S/N		
Contractor Company				
Contractor Name			Mobile #	

GAHP			
	Placement and Installation		***Condensate Disposal***
☐	Installation on a flat and level (within 2°) surface	☐	Condensate management is functional
☐	Clearance requirements are met for unit and flue pipe	☐	Self-regulating heat trace installed and functioning
☐	Visual confirmation of clean installation: nothing disconnected or damaged	☐	Photo collected for commissioning team
☐	Proper installation of flue pipe and external antenna		
☐	Photo collected for commissioning team		
	Hydronic Lines		***Electric Service***
☐	All hydronic line isolation valves are open	☐	120VAC circuit is hot
☐	All outdoor hydronic lines are insulated with minimum R-8 insulation	☐	120VAC polarity is correct
☐	Photo collected for commissioning team	☐	Low voltage wires are routed separately from line voltage wires
		☐	Control wiring is correctly installed in the control box*
		☐	Photos collected for commissioning team: internal unit and external connections

** Refer to Appendix A within the installation and operation manual*

	Fuel Service
☐	Manual shut-off valve installed upstream of required drip tee
☐	Line purged of air
☐	Photo collected for commissioning team

AHU			
Placement and Installation		***Hydronic Lines***	
☐	Access clearance requirements are met	☐	All hydronic lines connected and without leaks
☐	Visual confirmation of clean installation: nothing damaged	☐	All indoor hydronic lines are insulated with minimum R-4 insulation
☐	Duct work is sealed and without leaks	☐	Glycol level in plastic feeder tank AND expansion tank are FULL
☐	Filter is installed	☐	Check valve between plastic feeder tank and expansion tank installed and in correct orientation
☐	Photo collected for commissioning team	☐	Photo collected for commissioning team
		☐	All hydronic lines filled and purged, including lines to and from the IST when applicable
		☐	Inhibited Propylene Glycol Brand
		☐	Inhibited Propylene Glycol % Measured

	Electric Service		
☐	120VAC installed with correct polarity	☐	Photos collected for commissioning team
☐	Control wiring is correctly installed in the control box^		
	☐ Thermostat Signals (R, C, W1, W2, G, Y1, Y2)	☐ Aquastat Signal	☐ Modbus (3-wire, CAT5 cable) ☐ (Low) Tank Temperature

^ *If applicable*

Running the System		***IST (if applicable)***	
☐	Connect and confirm remote access software functionality	☐	Confirm water fill level
		☐	Valves: hot water is closed AND cold-water inlet valve is open
		☐	Expansion tank connected
		☐	Disconnect control wire from IST water heater Aquastat
Entire system			
☐	Set space-heating thermostat to initiate a space-heating call (Stage 1)	☐	Confirm blower initiation in AHU at hydronic supply temperature of 90°F (32.2 °C)
☐	Confirm burner lights in GAHP	☐	Confirm no leaks within the flue transition of the GAHP while unit is in operation

	System Readings		
	Using an industry-standard combustion analyzer, measure combustion emissions at the flue gas vent based on full/min fire rates^^:		
		Full Fire	**Min Fire**
☐	Oxygen		
☐	Excess Air		
☐	Carbon Monoxide		
☐	Calculate firing rate based on local barometric pressure and an HHV(_____):		

System Readings using ANESI App					
Collect the following data points after adjusting the firing rates with the ANESI App					
	Full Fire (54,500 +/- 1000) Bth			**Min Fire (13,500 +/- 1000) Bth**	
☐	Final firing rate measured		☐	Final firing rate measured	
☐	Percentage to achieve		☐	Percentage to achieve	

	Entire System
☐	Reconnect control wire from the IST water heater Aquastat and a tank call will be initiated IF the space heating call from the thermostat is not stage 2 (W2)
☐	Verify the hydronic 3-way valve in the AHU is open and flow is active through the indirect coil, i.e., supply line feeding tank is warm
☐	Verify the AHU switches back to space heating (if a call is still present) after the IST Aquastat is satisfied
☐	Open the domestic hot water valve once the IST is fully heated

^^*Altitude and propane fuel scenarios require alternate acceptable reference ranges. Refer to Section 2.10 of the manual.*