Energy Recovery Start-Up Report

GREENHECK
Building Value in Air.

Please complete and save this guide. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Job Information

Job Name: _____

Unit serial number: _____

Unit model number: _____

Technician Information

Start-up date: _____

Start-up company: _____

Start-up performed by: _____

Start-up contact phone: _____

SPECIAL TOOLS REQUIRED
• Voltage Meter (with wire probes) • Amperage Meter • Pressure Gauges – (refrigerant) • Tachometer • Digital Manometer

☐ **Heating**	☐ **Cooling**
☐ None	☐ None
☐ Hot water coil	☐ Chilled water coil
☐ Electric Post-heat	☐ Packaged DX
	☐ DX Cooling

Air Handler Cabinet Inspection

Exterior Air Handler Inspection

Yes	No	N/A	
☐	☐	☐	Is there shipping damage present? If yes, please send pictures to technical support.
☐	☐	☐	Do all seams have caulking Present?
☐	☐	☐	Do all access doors and handles open properly?
☐	☐	☐	Are all hoods, louvers, and bird screens secure?
☐	☐	☐	Are all shipping covers removed (shipping wrap, duct covers)?
☐	☐	☐	Are unit clearances adequate for service and operation as stated in IOM?
☐	☐	☐	Is all ductwork connected and sealed properly?
☐	☐	☐	Are drain connections and traps present and fabricated in accordance with the IOM?
☐	☐	☐	Is freeze protection present on drains and traps?
☐	☐	☐	Are all hardware fasteners tightened?

Interior Air Handler Inspection

Yes	No	N/A	
☐	☐	☐	Is there shipping damage present?
☐	☐	☐	Do all seams have caulking Present?
☐	☐	☐	Is the interior and drain(s) free of construction debris?
☐	☐	☐	Are all damper seals present?
☐	☐	☐	Are all hardware fasteners tightened?
☐	☐	☐	Do all blower wheels spin freely and smoothly when rotated by hand?
☐	☐	☐	Are all major component hardware tightened?
☐	☐	☐	Are all shipped loose items removed from interior
☐	☐	☐	Are all air filters present?

☐ Outside Air ☐ Supply Air ☐ Return ☐ Exhaust Air

Energy Wheel Start-Up

☐ I have read and followed the vendor-specific operation manual.

Wheel Model: _____ **Wheel Serial #:** _____

Inspection

☐ Cassette is securely mounted.

☐ Rotor is centered within the cassette frame.

☐ Seals lightly contact the full perimeter of the rotor.

☐ Rotor turns freely.

☐ Drive motor and pulley securely mounted.

☐ Drive belt is aligned properly and has sufficient tension.

Start-up

☐ Drive motor controller properly set up.

☐ System controls operate properly.

☐ Establish design airflow through Supply and Exhaust Air streams.

☐ Verify rotor is centered and has proper seal contact.

Supply Power Inspection

☐ Inspect all electrical connections ☐ Phasing correct

Main Voltage		Rated Voltage
L1 - L2		
L2 - L3		
L1 - L3		

Note to owner: Although the motors and electronic devices in this unit can tolerate some variation in the actual supplied voltage relative to the rated voltage, these variations are always a concern. Variations in excess of +/- 4% may result in shortened component life, elevated operating temperatures and/or inconsistent performance. Whenever the supplied voltage varies from the rated voltage by more than this amount, preventive maintenance should be enhanced to include an aggressive inspection of VFDs and electric motors. It is recommended, that if the supplied voltage varies by more than this amount, an electrical contractor be engaged to discover the problem and correct it.

Yes	No	
☐	☐	Does line voltage match Rated Voltage?
☐	☐	Is the line voltage wired correctly into the main disconnect?
☐	☐	Does the Supply Voltage in this unit vary from the Rated Voltage by more than +/- 4%?

Motor Information

☐ **Supply Fan** ☐ **N/A**	Fan RPM					
	Airflow design/actual					
	Belt tension					
	Correct rotation?					
	Motor fuses					
	Motor AMPS					
	L1		L2		L3	
☐ **VFD**	Make					
	Model					
☐ **Motor starter**	Motor manufacturer					
	Frame					
	SF					
	Motor CAP / Model					
	PF					
	Motor HP					
	Voltage					
	RPM					
	FLA					
	Max current					

☐ **Exhaust Fan** ☐ **N/A**	Fan RPM					
	Airflow design/actual					
	Belt tension					
	Correct rotation?					
	Motor fuses					
	Motor AMPS					
	L1		L2		L3	
☐ **VFD**	Make					
	Model					
☐ **Motor starter**	Motor manufacturer					
	Frame					
	SF					
	Motor CAP / Model					
	PF					
	Motor HP					
	Voltage					
	RPM					
	FLA					
	Max current					

☐ **Energy Recovery Wheel** ☐ **N/A**	Fan RPM					
	Airflow design/actual					
	Belt tension					
	Correct rotation?					
	Motor fuses					
	Motor AMPS					
	L1		L2		L3	
☐ **VFD**	Make					
	Model					
☐ **Motor starter**	Motor manufacturer					
	Frame					
	SF					
	Motor CAP / Model					
	PF					
	Motor HP					
	Voltage					
	RPM					
	FLA					
	Max current					

Electric Heat

☐ **Pre** ☐ **Post** ☐ **N/A**

Model	
Serial #	
Staged Control	
Modulation Control	
Voltage	
# of elements	
Fuses	
Total KW	
Total AMPS	
L1	
L2	
L3	
Heather Control	
BAS	
Single type	
Internal controller	

Energy Recovery Optional Accessories Checklist

Frost Control Application / Operation

			Setting	Factory Default
Frost Control set point	☐ Yes	☐ No		E
Differential				2°F
Timer				Refer to IOM
Frost Control Modulating	☐ Yes	☐ No		Refer to IOM

Economizer Application / Operation

			Setting	Factory Default
Economizer (temperature)	☐ Yes	☐ No		
Set point				65°F
Offset				20°F
Differential				2°F
Economizer (enthalpy)	☐ Yes	☐ No		
Set point				B
Economizer (modulation)	☐ Yes	☐ No		Refer to IOM

Optional Accessories

OA Dirty Filter Sensor	☐ Yes	☐ No
CO_2 Sensor	☐ Yes	☐ No
Service Outlet	☐ Yes	☐ No
Remote Control Panel	☐ Yes	☐ No

Damper Section

Outdoor Air Damper	☐ Yes	☐ No
Return/Exhaust Damper	☐ Yes	☐ No

Summary / Analysis of System