Startup Checklist: No Callbacks

Leave every job with readings, not guesses

1. Before You Start It

- **Pressure test:** Pressure-test the line set with dry nitrogen and make sure it holds.
- **Vacuum:** Pull to 500 microns or lower. Isolate the pump. It must stay under 1,000 microns for 10 minutes. If it climbs, find the leak or the moisture.
- **Electrical:** Breaker and wire match the nameplate MCA/MOCP. All lugs are tight, and voltage is within +/-10% of the nameplate. Check 3-phase rotation.
- **Condensate:** Drain is trapped, primed, and sloped at least 1/8 in. per foot. Pour water in and test the float switch.

2. Airflow (do this BEFORE you set the charge)

- **Filter:** Right size, installed, with the size written on the unit.
- **Static pressure:** Measure total external static and check it against the blower table. Over the rating means fix it now.
- **CFM:** Target about 400 CFM per ton for cooling, unless the manufacturer says otherwise. Set blower taps or speeds to match.

3. Charge

- **Let it run:** Run at least 15 minutes before you trust any readings.
- **TXV/EEV:** Charge by subcooling to the manufacturer's target. Piston: charge by superheat using a target superheat chart.
- **Line set:** Adjust the charge for line length per the install manual, and write down the length and how much you added.

4. Heat and Controls

- **Gas furnace:** Set gas pressure to the rating plate, check the temperature rise is within the plate range, and check draft and CO.
- **Heat pump:** Run it in heat. Check the reversing valve, test defrost, and check aux heat staging and outdoor lockouts.
- **Thermostat:** Set up for the right equipment type, stages and fan. Test every mode: cool, heat, fan, aux/emergency.

5. Before You Drive Away

Record these	Reading	Record these	Reading
Volts / amps		Superheat / subcooling	
Total external static		Supply / return temp	
Line-set length / charge added		Temp rise (heat)	

- **Close it up:** All panels on and every screw in. Clean the work area.
- **Hand-off:** Show the customer the thermostat and the filter, and leave a copy of your readings. Register the warranty.

A callback costs you the profit on the job and the customer's trust. Fifteen extra minutes at startup is the cheapest insurance you'll ever buy.

Always follow the equipment manufacturer's instructions and local codes. This guide is a field reference, not a substitute for them.