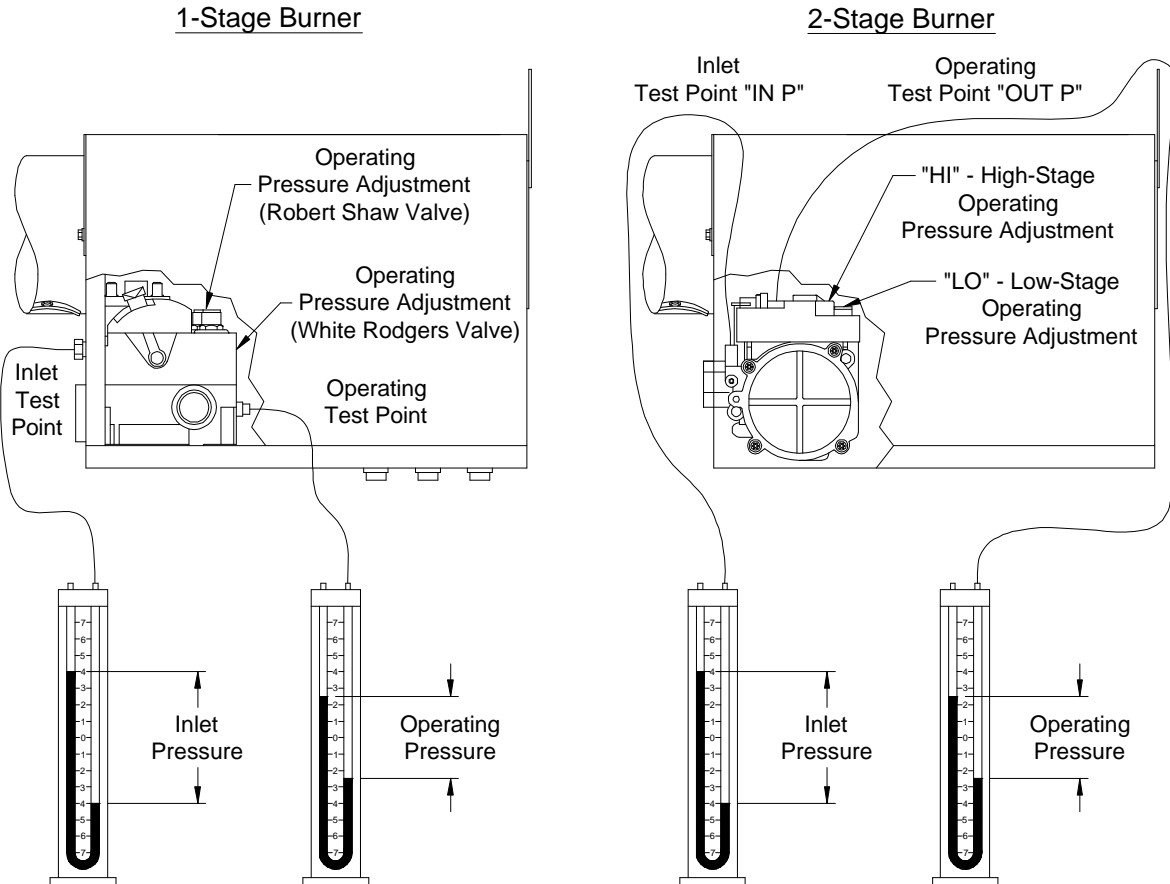


TUBE HEATER - IMPORTANT INSTALLATION TIPS

- See the heater's instruction manual for complete installation instructions.

GAS PRESSURE

- Inlet and Operating gas pressures must be correct.
- Water manometer must be used.
- Set Inlet pressure first.



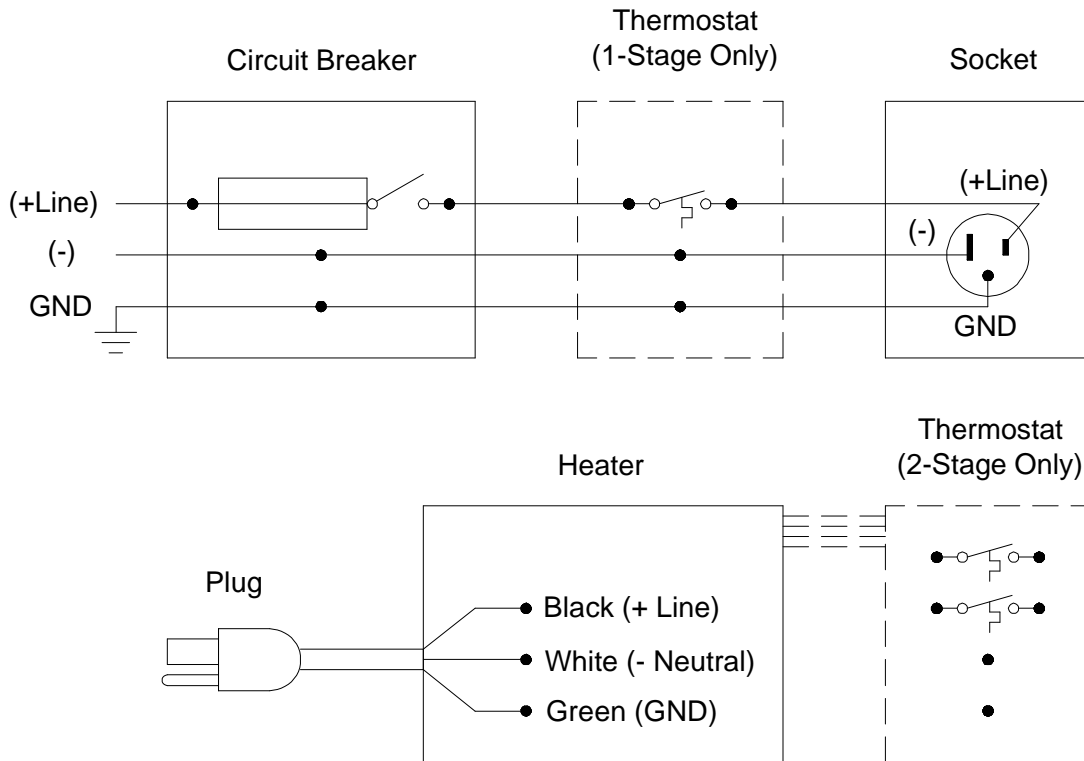
Heater Type	Gas Type	Input Rating (MBTUH = 1000 Btu/hour)	Inlet Pressure (inches of water column)		Operating Pressure (inches of water column)	
			Min.	Max.	High-Stage	Low-Stage
1-Stage	Natural	40 to 100	6	14	3.5	na
		105 to 125	6	14	5.0	na
		130 to 200	7	14	5.0	na
	Propane	40 to 100	11	14	3.5	na
		105 to 200	11	14	5.0	na
2-Stage	Natural & Propane	85/65	7	14	5.0	3.0
		100/65	7	14	5.0	2.3 Natural 2.5 Propane
		125/95	7	14	5.0	3.0
		150/100	7	14	5.0	2.5
		175/125	7	14	5.0	2.6
		200/145	7	14	5.0	2.9

Notes: na = not applicable.

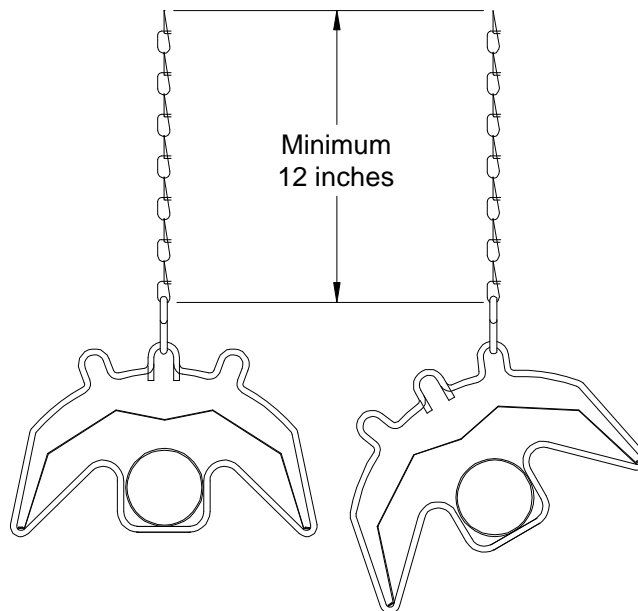
TUBE HEATER - IMPORTANT INSTALLATION TIPS

ELECTRICAL

- **True earth ground** must be provided.
Do not ground to building structures, electrical conduit, gas or water pipelines.
- **Properly polarized.**
Heater controls are polarity sensitive and heater will cycle on and off if not wired correctly.



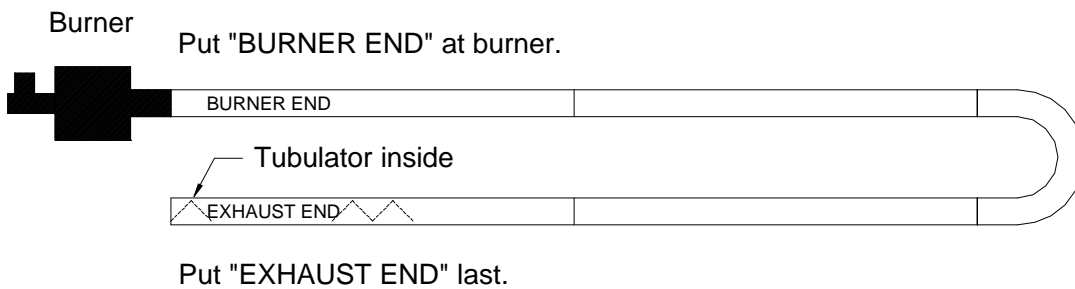
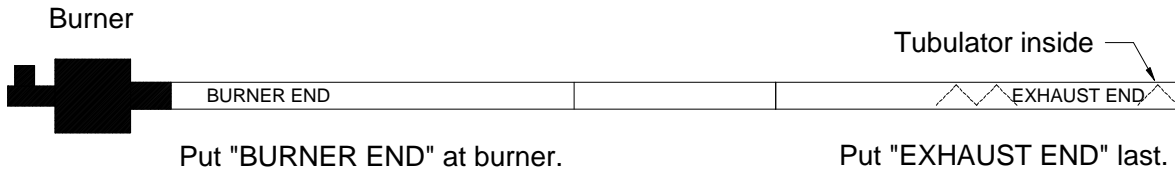
CHAIN LENGTH



TUBE HEATER - IMPORTANT INSTALLATION TIPS

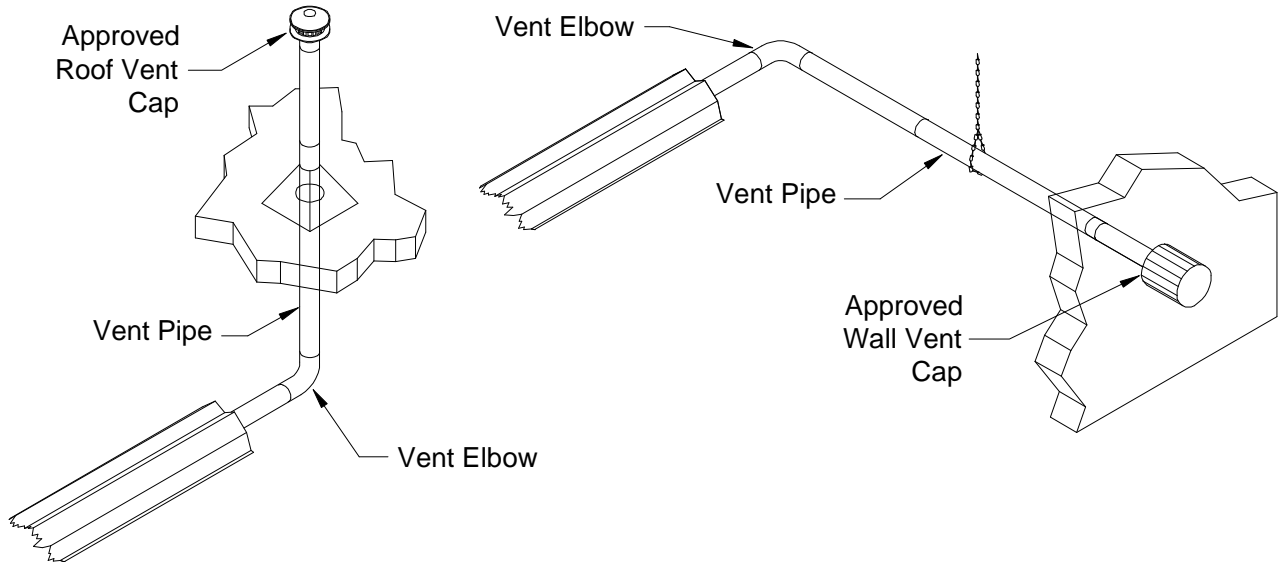
EXHAUST END TUBE & TURBULATOR

- The tube marked "EXHAUST END" must be **put last**.
- Ensure the correct "EXHAUST END" tube is used when different input ratings or heater lengths are at the same location.
- The "EXHAUST END" tube contains one of a variety of formed metal **turbulators** welded inside the end of the tube.



VENTING REQUIREMENTS

- Use only **vent caps approved** by heater manufacturer.



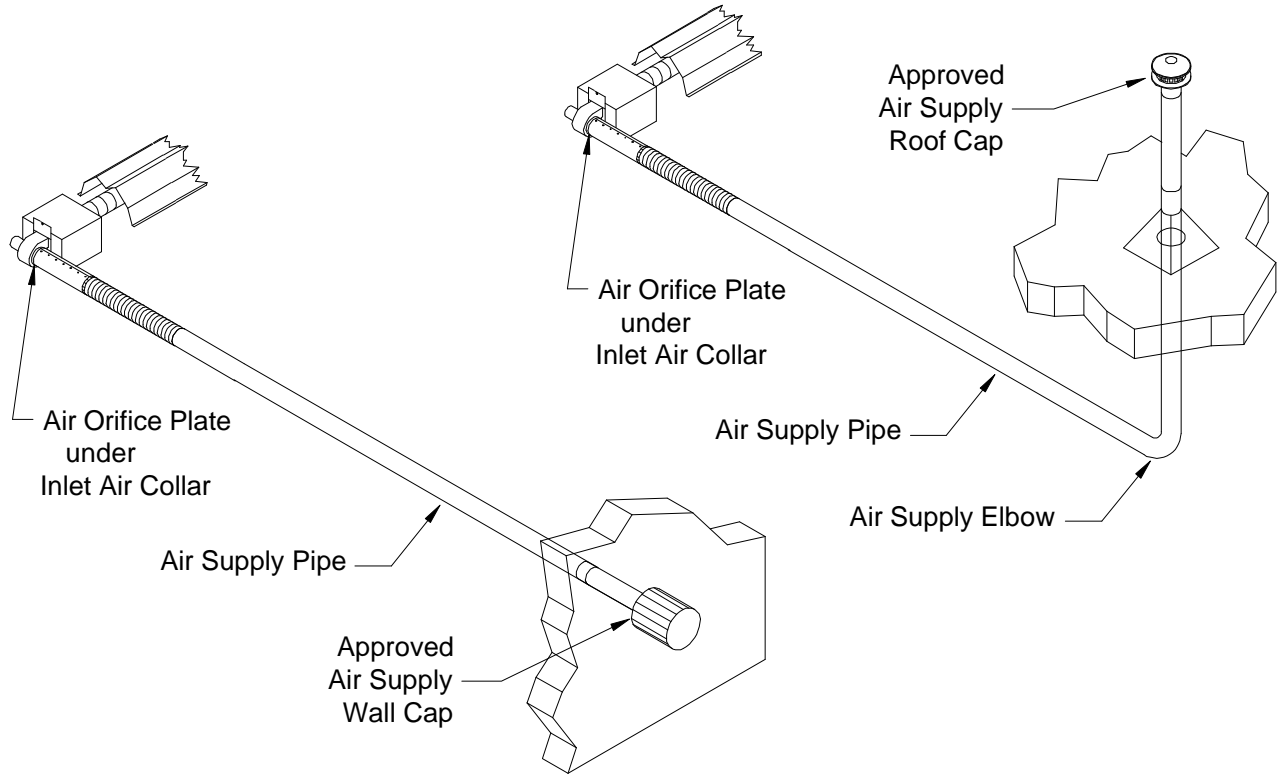
Heater Type	Input Rating (MBTUH = 1000 Btu/hour)	Maximum Vent Pipe Length (feet)		
		No Elbow	With 1 Elbow	With 2 Elbows
1-Stage	40 to 125	35	25	15
	130 to 200	40	30	20
2-Stage	All	20	20	na

Notes: na = not applicable.

TUBE HEATER - IMPORTANT INSTALLATION TIPS

AIR SUPPLY

- Air orifice plate required, *do not* remove.
- Minimum 8 inches straight pipe at inlet air collar before using an elbow.
- Use only air supply caps approved by heater manufacturer.



Heater Type	Input Rating (MBTUH = 1000 Btu/hour)	Maximum Air Supply Pipe Length (feet)		
		No Elbow	With 1 Elbow	With 2 Elbows
1-Stage	40 to 125	35	25	15
	130 to 200	40	30	20
2-Stage	All	20	20	na

Notes: na = not applicable.