

HEATER TECHNICAL INFORMATION

GAS PIPE SIZING

Hayward heaters use a full gas fire design. To ensure adequate gas firing and proper performance, the following guidelines should be used to size gas piping.

1. Make sure the 1st and 2nd stage regulators are large enough to handle the BTU listed for each model.
2. Reduction of the gas supply pipe or tubing to the inlet of the valve must be made at the valve only – Natural or Propane.
3. Do not use flexible connectors on any gas connections.
4. If more than one appliance is installed on the gas line, contact your local gas company or Hayward for proper pipe size.
5. If you have any question concerning the installation of the proper gas line size, call Hayward before you install the line.

Low Pressure Natural Gas Pipe Sizing (Pipe or Tubing):

Distance from meter to inlet of gas valve	Model	H150	H200	H250	H300	H350	H400
	BTU	150,000	200,000	250,000	300,000	350,000	400,000
0 to 50 feet		3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"
50 to 100 feet		1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
100 to 200 feet		1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"
200 to 300 feet		1 1/4"	1 1/4"	1 1/2"	2"	2"	2"

"Single Stage" Low Pressure Propane Pipe Sizing:

Distance from outlet of tank regulator to inlet of gas valve	Model	H150		H200		H250		H300		H350		H400	
	BTU	150,000		200,000		250,000		300,000		350,000		400,000	
	Line Material	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing
0 to 50 feet		3/4"	7/8"	3/4"	7/8"	1"	1 1/8"	1"	1 1/8"	1"	1 1/8"	1"	—
50 to 100 feet		3/4"	1 1/8"	1"	1 1/8"	1"	1 1/8"	1"	—	1 1/4"	—	1 1/4"	—
100 to 200 feet		1"	1 1/8"	1"	—	1 1/4"	—	1 1/4"	—	1 1/4"	—	1 1/4"	—
200 to 300 feet		1"	—	1 1/4"	—	1 1/4"	—	1 1/4"	—	1 1/4"	—	1 1/2"	—

It is **VERY IMPORTANT**, when installing a Hayward **Full Fired** propane heater on a two (2) stage regulation system, to follow the gas line sizing chart below — without exception.

"First Stage" High Pressure Propane Gas Pipe Sizing:

Distance from outlet of 1st stage regulator to inlet of 2nd stage regulator	Model	H150		H200		H250		H300		H350		H400	
	BTU	150,000		200,000		250,000		300,000		350,000		400,000	
	Line Material	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing
0 to 50 feet		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
50 to 100 feet		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	1/2"	5/8"
100 to 150 feet		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	1/2"	5/8"	1/2"	5/8"

"Second Stage" Low Pressure Propane Gas Pipe Sizing:

Distance from outlet of 2nd stage regulator to inlet of gas valve	Model	H150		H200		H250		H300		H350		H400	
	BTU	150,000		200,000		250,000		300,000		350,000		400,000	
	Line Material	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing	Pipe	Tubing
0 to 10 feet		1/2"	5/8"	1/2"	5/8"	1/2"	3/4"	3/4"	3/4"	3/4"	7/8"	3/4"	7/8"