



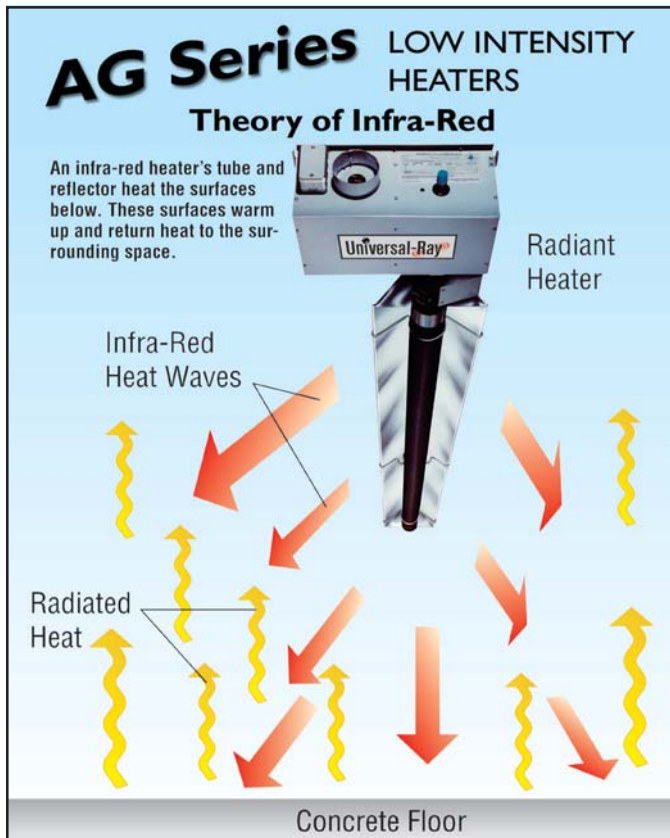
Universal-Ray

GAS-FIRED INFRA-RED HEATERS

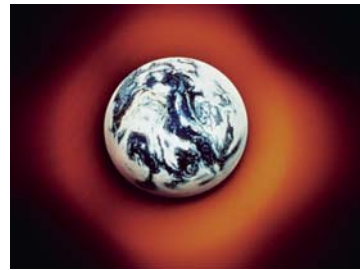


Ideal for heating:

- Aircraft Hangars
- Atriums
- Auto Body Shops
- Firehouses
- Hockey Rinks
- Loading Docks
- Pole Barns
- Machine Shops
- Manufacturing
- Stores
- Truck Facilities
- Warehouses
- Tool Shops & Sheds
- And Many More...



The Efficiency of Infra-Red Heating



Universal-Ray Infra-Red Heaters emulate the true efficiency of the sun. Infra-red heaters generate energy which is converted into heat when absorbed by the floors, animals, people and objects. The energy is then "re-radiated" to warm

the surrounding area by convection. This is the most efficient and effective method of heating under the diverse and challenging conditions present in most commercial and industrial applications.



INFRA-RED HEATING SYSTEM

Universal-Ray AG Series infra-red tube heaters offer more than economy. Quality construction and operational features make the Universal-Ray system the best in this class of equipment. The AG Series utilizes hot surface ignition, mirror finished aluminum reflectors and end caps. Choose from natural or propane gas, 50 to 150 MBTU/H, 20 to 60 foot lengths in straight, 'U' or 'L' shaped configurations.

PRODUCT SPECIFICATIONS

- **BTU/H Range:** 50-150 MBTU/H
- **Length:** 20-60 feet per system
- **Warranty:** 1/3/5.
(Components/Tubes/Burner)
- **Combustion Tube:** 4" Aluminized or titanium treated steel.
- **Radiant Tube(s):** 4" hot-rolled black steel (optional aluminized).
- **Electrical:** 120V AC, 60 HZ, hot surface ignition 4.8 amp startup.

STANDARD EQUIPMENT

- 24" stainless flex connector.
- Gas cock.
- Reflector center support.
- Hanging accessories.
- Silicone sealed burner assembly.
- Weather-proof power cord.

OPTIONAL EQUIPMENT

- Upgrade burner box, tubes or reflectors to 304 stainless steel.
- U or L shaped configurations.
- Outdoor approval kit.



fra-Red Heaters

TWO STAGE TECHNOLOGY

Universal-Ray AG2 Series Two Stage Infra-Red Tube Heaters are characterized by a "high" fire and "low" fire mode. The high fire mode has a rated BTU/H input which is 35% greater than the low fire mode. Traditional sizing of heater units has always been based on the maximum or high fire mode. However, as can be seen in the charts to the right, the high fire mode is only required 7-15% of the total heating hours.

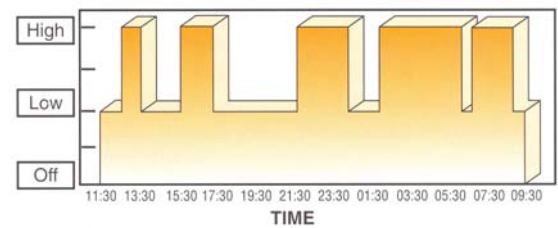
Universal-Ray AG2 Series Infra-Red Tube Heaters will more accurately meet the needs of today's industrial and commercial buildings. It has been documented that the high/low feature of the AG2 Series can save a minimum of 12% (based on an independent study) over single stage systems.

TWO STAGE BENEFITS

- Documented 12% minimum fuel savings over single stage infra-red heaters.
- Faster heat loss recoveries.
- Improved comfort levels.
- 35% reduction in equipment cycles.
- Design protection benefits.

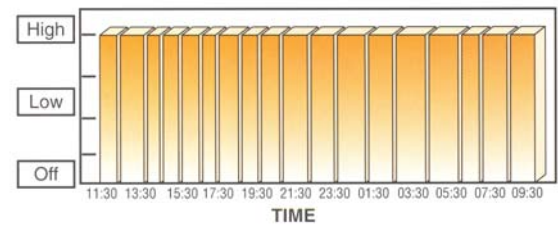
TWO-STAGE (HIGH & LOW FIRE)

Unit 2, Jan. 20, 1994, Avg. -13.5°C (-9, -18)



SINGLE STAGE (HIGH FIRE ONLY)

Unit 2, Jan. 19, 1994, Avg. -17.5°C (-11, -24)

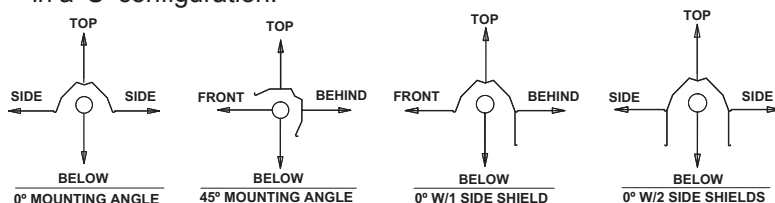


AG SERIES MODEL & SAFETY INFORMATION

Model #	Gas Type (circle one)	BTU'S High Fire	BTU's Low Fire*	Length	U-Tube Length	Weight	Suggested Mounting Height
AG1-20-50	N or LP	50,000	N/A	21'-7"	13'-0"	120 #	9' - 14'
AG1-20-60	N or LP	60,000	N/A	21'-7"	13'-0"	120 #	10' - 15'
AG1-20-75	N or LP	75,000	N/A	21'-7"	13'-0"	120 #	11' - 18'
AG1-30-50	N or LP	50,000	N/A	31'-3"	**17'-8"	160 #	10' - 15'
AG1-30-60	N or LP	60,000	N/A	31'-3"	**17'-8"	160 #	11' - 18'
AG1-30-75	N or LP	75,000	N/A	31'-3"	**17'-8"	160 #	12' - 20'
AG1-30-100	N or LP	100,000	N/A	31'-3"	**17'-8"	160 #	13' - 23'
AG1-40-50	N or LP	50,000	N/A	40'-11"	22'-8"	190 #	11' - 18'
AG1-40-60	N or LP	60,000	N/A	40'-11"	22'-8"	190 #	11' - 18'
AG1-40-75	N or LP	75,000	N/A	40'-11"	22'-8"	190 #	12' - 20'
AG1-40-100	N or LP	100,000	N/A	40'-11"	22'-8"	190 #	13' - 23'
AG1-40-125	N or LP	125,000	N/A	40'-11"	22'-8"	190 #	14' - 25'
AG1-40-150	N or LP	150,000	N/A	40'-11"	22'-8"	190 #	15' - 27'
AG1-50-100	N or LP	100,000	N/A	50'-7"	**27'-4"	235 #	15' - 27'
AG1-50-125	N or LP	125,000	N/A	50'-7"	**27'-4"	235 #	15' - 27'
AG1-50-150	N or LP	150,000	N/A	50'-7"	**27'-4"	235 #	16' - 30'
AG1-60-125	N or LP	125,000	N/A	60'-3"	32'-4"	270 #	16' - 30'
AG1-60-150	N or LP	150,000	N/A	60'-3"	32'-4"	270 #	17' - 35'
AG2-20-65	N or LP	65,000	50,000	21'-7"	13'-0"	120 #	9' - 14'
AG2-20-75	N or LP	75,000	50,000	21'-7"	13'-0"	120 #	10' - 15'
AG2-30-65	N or LP	65,000	50,000	21'-7"	13'-0"	120 #	10' - 15'
AG2-30-75	N or LP	75,000	50,000	31'-3"	**17'-8"	160 #	11' - 18'
AG2-30-100	N or LP	100,000	65,000	31'-3"	**17'-8"	160 #	12' - 20'
AG2-40-65	N or LP	65,000	50,000	40'-11"	22'-8"	190 #	11' - 18'
AG2-40-75	N or LP	75,000	50,000	40'-11"	22'-8"	190 #	11' - 18'
AG2-40-100	N or LP	100,000	65,000	40'-11"	22'-8"	190 #	12' - 20'
AG2-40-125	N or LP	125,000	95,000	40'-11"	22'-8"	190 #	13' - 23'
AG2-40-150	N or LP	150,000	100,000	40'-11"	22'-8"	190 #	14' - 25'
AG2-50-100	N or LP	100,000	65,000	50'-7"	**27'-4"	235 #	15' - 27'
AG2-50-125	N or LP	125,000	95,000	50'-7"	**27'-4"	235 #	15' - 27'
AG2-50-150	N or LP	150,000	100,000	50'-7"	**27'-4"	235 #	15' - 27'
AG2-60-125	N or LP	125,000	95,000	60'-3"	32'-4"	270 #	16' - 30'
AG2-60-150	N or LP	150,000	100,000	60'-3"	32'-4"	270 #	16' - 30'

* The AG1 Series does not have a reduction for low fire.

** Specify 5EA-SUB accessory package when using these models in a 'U' configuration.



Suggested mounting heights listed above are provided as a guideline. Actual conditions may dictate variations from the above data. Visit www.detroitradiant.com for product specifications and other data.

MODEL NO.	MOUNTING ANGLE	SIDE		TOP	BELOW	
		FRONT	BEHIND			
AG (20,30)-50 [N,P]	0°	9	9	6	47	
	45°	39	8	10	47	
	W/1 side shield	0°	29	8	6	47
	W/2 side shields	0°	9	9	6	47
	20 ft from burner	0°	7	7	6	30
AG (20,30,40)-(60,65) [N,P]	0°	9	9	6	47	
	45°	39	8	10	47	
	W/1 side shield	0°	29	8	6	47
	W/2 side shields	0°	9	9	6	47
	20 ft from burner	0°	7	7	6	30
AG (20,30,40)-75 [N,P]	0°	9	9	6	60	
	45°	39	8	10	60	
	W/1 side shield	0°	29	8	6	60
	W/2 side shields	0°	9	9	6	60
	20 ft from burner	0°	7	7	6	30
AG (30,40,50)-100 [N,P]	0°	14	14	6	66	
	45°	39	8	10	66	
	W/1 side shield	0°	29	8	6	66
	W/2 side shields	0°	16	16	6	66
	20 ft from burner	0°	7	7	6	30
AG (40,50,60)-125 [N,P]	0°	20	20	6	76	
	45°	58	8	10	76	
	W/1 side shield	0°	42	8	6	76
	W/2 side shields	0°	20	20	6	76
	20 ft from burner	0°	7	7	6	30
AG (40,50,60)-150 [N,P]	0°	24	24	6	81	
	45°	58	8	10	81	
	W/1 side shield	0°	42	8	6	81
	W/2 side shields	0°	23	23	6	81
	20 ft from burner	0°	11	11	6	44

Always maintain published clearances to combustibles. Failure to comply with the stated clearance to combustibles could result in personal injury, death and/or property damage.

HIGH INTENSITY GAS-FIRED INFRA-RED HEATERS

IR Series

HIGH INTENSITY HEATERS

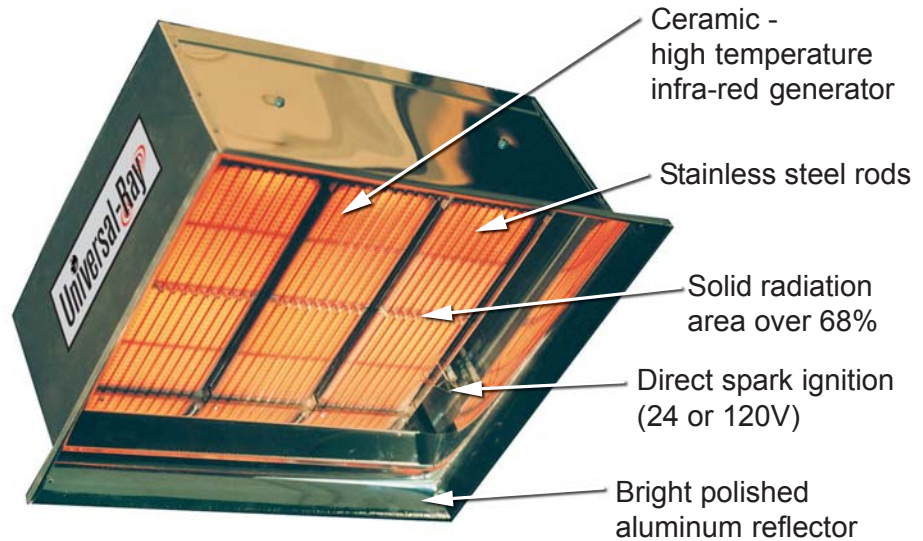
The IR Series is commonly used in areas with high air infiltration, high ceilings and/or spot heating applications. The IR Series is available in several configurations including four different control options.

NOT FOR RESIDENTIAL USE!

IR Series Offering

MODEL NO.	BTU/H	GAS TYPE	VOLTAGE	CERAMIC OPERATING TEMP	SQ. IN. OF RADIATING SURFACE	DIMENSIONS (L x W x H)	TYPICAL MTG. HGT. (FT.)	CLEARANCE TO COMBUSTIBLES (IN.)				NET WEIGHT
								SIDES	BEHIND	TOP	BELOW	
IR-30(S)	30,000	N or LP	24 or 120	1780°F	85 SQ. IN.	13"x23"x15"	12' - 14'	30	18	28	72	18#
IR-30	30,000	N or LP	24 or 120	1780°F	85 SQ. IN.	23"x13"x15"	12' - 14'	30	18	28	72	18#
IR-60	60,000	N or LP	24 or 120	1780°F	170 SQ. IN.	23"x19"x15"	14' - 16'	32	18	40	72	27#
IR-90	90,000	N or LP	24 or 120	1780°F	255 SQ. IN.	23"x26"x15"	16' - 18'	48	30	42	98	36#

NOTE: When ordering, specify IR-BTU-GAS TYPE-VOLTAGE (ex. IR60N 24).



BAH Series ELECTRIC INFRA-RED HEATERS



Electric Infra-Red heaters are the cleanest method of heating, taking nothing from the air and adding nothing to the air. The BAH Series features a glass encased "quartz" tube heating element to provide virtually instant heat, so there is no need to wait for heat buildup. The BAH Series is ideal for applications where gas is not available or is impractical.

MODEL NO.	VOLTS	KW	WATTS	AMPS	EQUIV. BTU'S	DIMENSIONS			MOUNTING HEIGHT	WEIGHT	APPROXIMATE COVERAGE
						L	W	H			
BAH-35-A-17*	120	1.7	1,750	14	5,900	35"	6.75"	6.4"	8' - 11'	13#	11.5' x 14.5'
BAH-35-C-17*	240	1.7	1,750	7	5,900	35"	6.75"	6.4"	8' - 11'	13#	11.5' x 14.5'
BAH-45-C-25*	240	2.5	2,500	10	8,500	45"	6.75"	6.4"	10' - 12'	16#	12.5' x 16.0'
BAH-60-C-40*	240	4	4,000	16.5	13,500	60"	6.75"	6.4"	10' - 12'	20#	15.0' x 20.0'

* Maintain top clearance of 12 in., 18 in. to sides and 24 in. from the bottom of electric heater to combustibles. Mount heater 8 ft. above grade of floor.

PT Series GAS FIRED, PORTABLE INFRA-RED HEATERS

Portable units are the perfect heater for use in buildings under construction, alteration or repair. Portable units are available in 16 or 32 MBTU/H and feature a patented safety tip over device for extra safety.

These units also include:

Mounting bracket,
L.P. hose
and regulator.



NOT FOR RESIDENTIAL USE!



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