GAS-FIRED PATIO HEATER

Engineering & Application Guide









Equipment selection, system design, and sample applications for outdoor patios.

A WARNING



Consult the Installation, Operation, and Maintenance Manual(s) for specific requirements regarding clearances to combustibles, minimum mounting heights, and system design guidelines.

Guide to Selecting the Right Outdoor Heater

Excessive Air Movement

Wind is perhaps the largest variable when trying to achieve comfortable heating in an outdoor or spot-heating environment. The use of barricades such as wind curtains is highly recommended whenever possible.

Mounting Heights

Traditionally, outdoor or spot heating requires the heating equipment to be mounted lower or closer to the people enjoying the heat. Lowering the equipment may result in less coverage but will offer a more focused heat pattern to the desired area. The final mounting height of the heater may need to be adjusted to achieve the results desired by the customer.

Customer Expectations

Depending on the needs of the customer, more or fewer heaters may be required for a given application. There is rarely a "one size fits all" solution to properly size an outdoor or spot-heating application. Some customers may seek maximum comfort in extreme conditions while others may be looking to simply take the chill off for short exposure periods, such as in a designated smoking area.

Look to the Experts in Outdoor Heating

Since 1955, Detroit Radiant Products Company has been setting the standard for high-quality, cost-effective, energy-efficient infrared heaters. Re-Verber-Ray® brand products are recognized as a solution for most commercial, industrial, and specialty applications. Our manufacturing flexibility and efficiencies are a key element in providing optimal customer service and application-specific heating solutions.

Stylish and easy to install, the patio heater series offered by Re-Verber-Ray® have been designed specifically to add warmth to outdoor environments. Whether you are looking to extend your local season, have a designated smoking area, or need to make additional room for peak crowds, our broad offering can provide a solution that will fit your outdoor heating needs.

Gas-Fired Infrared Patio Heaters

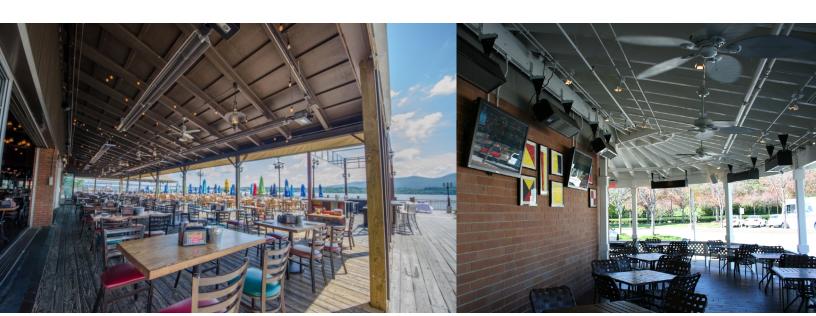
Gas-fired patio heaters have long been a popular choice for patio heating. Gas is often a less expensive alternative to electric, and there have never been as many gas-fired options as there are in today's marketplace. Whether you're looking for spot heating over tables or comfort heating for a larger area, there is bound to be a gas-fired option perfect for your application.

PROS

- Larger heat patterns
- Higher BTU inputs
- Two stage or single stage firing modes
- Less expensive to buy, install, and operate vs. electric infrared

CONS

- Requires both gas and electric connections
- Can require greater clearances to combustibles
- Heaters often vent directly into space
- Can be hard to fit into smaller patio applications



Outdoor Heating Questionnaire

Please make copies of this sheet for additional questionnal	aires.
Is this application commercial or residential?	Residential Commercial
What is the available gas type?	☐ Natural Gas ☐ Propane
What are the dimensions of the area being hea	ited?
What is the material of the roof/deck structure	e above the heater?
What is the height of the structure above the h	neater?
Will the area be closed in with curtains or glass	s during usage months?
What is the main purpose of heating? (lounge,	smoking area, dining, etc.)
What is your expectation for heat? (comfort, ye	ear-round heating**, etc.) ther conditions, particularly during colder and breezier periods.
Any additional information:	
Please sketch your patio below including wher	e obstacles/furnishings will be located.
Floor Plan (Include dimensions, location of a	all doors and windows)
Elevation Details: (Note dimensions and in	nterior obstructions such as fans or lights)
Top Co with Ki	

FEATURES		DST SERIES	DSRL SERIES	DSRS SERIES	HL3 SERIES	MP3 SERIES
Operates on natural gas or propane supply and requires a 120 volt power supply		•	•	•	•	•
Operates on natural gas or propane supply and requires a 24 volt power supply	•					
Appliance is certified for indoor or outdoor use		60 MBH Only			*	*
Delivers a broad heat pattern for more coverage with less heat intensity		•	•	•	•	•
Delivers a focused heat pattern for specific areas such as an entryway or dining tables						
Compact design allows for installing in areas that have space constraints		•	•	•		
Combustion gases can be vented away from the environment		60 MBH Only			•	•
Wind-resistant burner design to enhance operational performance and reliability		•	•	•	•	•
Two stage operation allows for enhanced comfort while reducing energy costs		•	•	•	•	Modulating
Stainless steel for increased longevity and aesthetics ¹	Optional	•			Optional	

[•] Standard Feature * Certified for outdoor use with the optional outdoor construction option (OD-Kit).

FEATURES	DSC SERIES	DST SERIES	DSRL SERIES	DSRS SERIES	HL3 SERIES	MP3 SERIES
BTU Range	31,000 and 34,000 BTU/h	60,000 to 80,000 BTU/h	65,000 to 100,000 BTU/h	50,000 BTU/h	50,000 to 200,000 BTU/h	75,000 to 200,000 BTU/h
Gas Type	Natural or Propane	Natural or Propane	Natural or Propane	Natural or Propane	Natural or Propane	Natural or Propane
Voltage	Voltage 24 VAC primary required		120 VAC primary, 24 VAC controls	120 VAC primary, 24 VAC controls	120 VAC primary, 24 VAC controls	120 VAC primary, 0-10 VDC controls
Amp Draw	.65 starting; .48 running [DSCS]/.61 starting; .55 running [DSCD]	5.2 starting, .70 running	4.8 starting; 1.1 running	4.8 starting; 1.1 running	4.8 starting, 1.1 running	4.8 starting, 1.1 running
Certification	c Us Intertek	© US	C Us	C∰® US	© US	C∰® US
Limited Warranty	1-year components, 5-year ceramic burner	3-year components, 5-year tubes, 10-year burner	3-year components, 5-year tubes, 10-year burner	3-year components, 5-year tubes, 10-year burner	3-year components, 5-year tubes, 10-year burner	3-year components, 5-year tubes, 10-year burner
Outdoor Approval	Standard— Commercial, Industrial, & Residential	Standard— Commercial, Industrial, & Residential (60 MBH)	Standard— Commercial, Industrial, & Residential	Standard— Commercial, Industrial, & Residential	With optional OD-KIT add-on— Commercial & Industrial	With optional OD-KIT add-on— Commercial & Industrial
Typ. Height Above Patrons ²	2 to 6 feet	2 to 5 feet	2 to 6 feet	2 to 5 feet	2.5 to 6 feet	2 to 5 feet

²Typ. Height Above Patrons are recommended and are provided as a guideline only. Actual conditions will dictate variations from the above data. Clearances to combustibles must always be maintained.

¹ When upgrading model HL3 to stainless steel, the appliance will be fitted with a version 2 control box.

DSC Series High Intensity Infrared Patio Heater

Specifically designed for comfort, reliability, and ease of installation, the DSC Series high intensity patio heater was designed to provide outdoor comfort heating. Mounted out of the way, without the hassle of refilling costly propane tanks, this infrared patio heater is an ideal solution to stylishly extend the outdoor season for many commercial and residential

applications, such as restaurant patios and outdoor living spaces. Features include an exclusive and durable stainless steel decorative grille, choice of housing materials, and single stage or two stage options, making this heater an excellent solution for your outdoor heating needs.



Available in natural gas and propane and black or stainless steel finishes

KEY FEATURES

- Decorative stainless egg crate grille
- Wind- and rain-protected design
- Reliable direct-spark ignition
- Available in two BTU inputs and single stage or two stage
- Even level of heat distribution
- Versatile mounting options
- Black-coated aluminized or brushed stainless housing

Available BTU Range

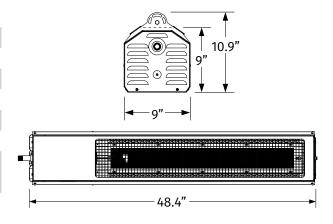
BTU/h	Gas Type
31,000	Natural
31,000	Propane
34,000	Natural

Specifications

SPECIFICATIONS	DSC-31	DSC-34				
Gas Type	Natural or Propane	Natural				
Heat Input (BTU/h)	31,000	34,000				
Voltage	24 VAC-60 Hz					
Dimensions (LxWxH)	48.4" x 9" x 10.9"					
^Rcmd. Mounting Height	8 ft. to 12 ft. 8.5 ft. to 13					
*Approx. Area Heated	8' x 8'	9' x 9'				
Weight	59 lbs	5.				
Approvals	Outdoor Commercial/Industrial Outdoor Residential					
Limited Warranty	1-year components 5-year ceramic burner					

[^] Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variations from this data.

^{*} Based upon lab conditions with no wind and targeted 15° temperature rise. Site conditions may vary.



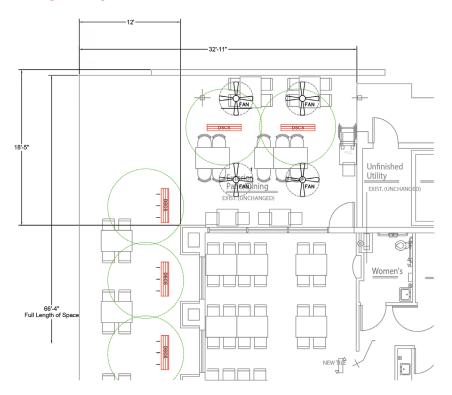
Model No.	BTU/h	Voltage	Mounting Angle*	Sides	Back	Тор	Below**	Ends	Front
DSC-31	31,000	24 VAC	0°	18"	N/A	13"	48"	12"	N/A
			30°	N/A	18"	18"	40"	12"	36"
DSC-34 34,000 24 VAC	27.7400	0°	18"	N/A	13"	48"	12"	N/A	
	34,000	24 VAC	30°	N/A	18"	18"	40"	12"	36"

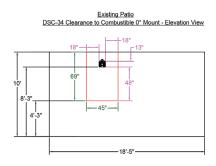
^{*} Heaters mounted on an angle between 0° and 30° must maintain clearances posted for 0° or 30°, whichever is greater.

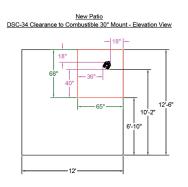
Important! If the heater is mounted beneath a non-combustible surface an 8 in. minimum top clearance must be maintained from the top of the heater to prevent overheating the controls.

Clearances to combustibles distances represent a surface temperature of 90°F (50°C) above ambient temperature. Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the factory or the building material manufacturer for additional information.

Sample Layout







TIPS:

- Use 1 heater per two tables.
- Best placed in aisleways to allow customer comfort.
- Verify bottom of heater placement is not too low for visual obstructions or clearance issues.

^{**}Heater must be installed at least 6 1/2 ft. above the finished floor.

DST Series Low Intensity Infrared Patio Heater

The DST Series is a top-ofthe-line patio heater with an aesthetically pleasing, modern design featuring our patented two stage technology. This heater was designed specifically with the outdoor market in mind. Not only does the DST Series deliver an even heat pattern throughout its 10-foot span, but it also comes equipped with a smart LED self-diagnostic light and a decorative modular grille. Certified for indoor[†] and outdoor commercial applications and outdoor residential applications, the DST Series patio heater is an excellent choice for heating a wide variety of applications.



Available in natural gas and propane

KEY FEATURES

- Highly decorative stainless housing
- 3/4" decorative modular grille
- Smart LED self-diagnostic light
- 30 linear feet of radiant tube in a 10-foot span
- Unified control panel with easy access and serviceability

Available BTU Range

BTU/h	Gas Type
60,000 High Fire; 40,000 Low Fire	Natural
60,000 High Fire; 50,000 Low Fire	Propane
80,000 High Fire; 50,000 Low Fire [†]	Natural

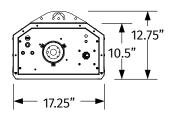
^{†80,000} model is not certified for indoor commercial applications.

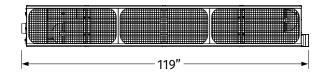
Specifications

SPECIFICATIONS	DST-60	DST-80			
Gas Type	Natural or Propane	Natural			
Heat Input (BTU/h)	60,000 High Fire 40,000 Low Fire (Nat.) 50,000 Low Fire (Prop.)	80,000 High Fire 50,000 Low Fire			
Voltage	120 VAC-60 Hz				
Dimensions (LxWxH)	119" x 17.25" x 12.75"				
^Rcmd. Mounting Height	8 ft. to 14 ft.	9 ft. to 15 ft.			
*Approx. Area Heated (LxW)	20'	x 12'			
Weight	150	lbs.			
Approvals	Outdoor/Indoor Commercial Outdoor Residential	Outdoor Commercial Outdoor Residential			
Limited Warranty	3-year components 5-year tubes				

[^] Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variations from this data.

10-year burner





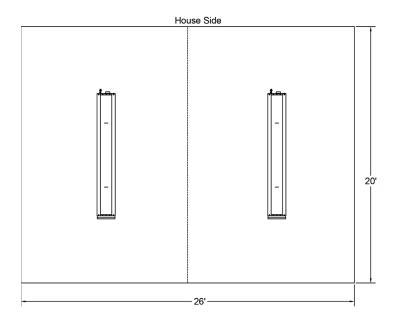
^{*} Based upon lab conditions with no wind and targeted 15° temperature rise. Site conditions may vary.

Model	Mounting	⊢ Sides − − − −					
Number	Angle*			Ends	Below**		
DCT CO	0°	12"	19"	19"	16"	66"	
DST-60	30°	14"	45"	24"	16"	45"	
202.00	0°	15"	26"	26"	16"	77"	
DST-80	30°	16"	74"	31"	16"	74"	

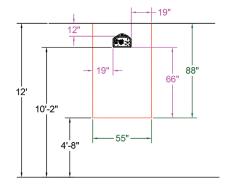
^{*} Heaters mounted on an angle between 0° and 30° must maintain clearances posted for 0° or 30°, whichever is greater.

Clearances to combustibles distances represent a surface temperature of 90°F (50°C) above ambient temperature. Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the factory or the building material manufacturer for additional information.

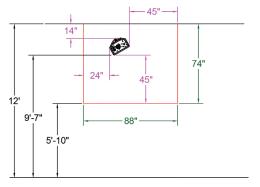
Sample Layout



DST-60 Clearance to Combustible 0° Mount - Elevation View



DST-60 Clearance to Combustible 30° Mount - Elevation View



TIPS:

 If clearance window is too low to the ground, consider an alternate patio heater product or, if new construction, adjust patio application dimensions.

^{**}Heater must be installed at least 6 1/2 ft. above the finished floor in outdoor applications and 8 ft. above the finished floor in indoor commercial/industrial applications.

DSR Series Low Intensity Infrared Heater

The DSR Series is the preferred heater for high-end applications such as driving ranges and restaurant patios. This heater comes equipped with our patented two stage technology, a decorative modular grille, and 13 linear feet (DSRS) or 28 linear feet (DSRL) of radiant pipe throughout its aesthetically pleasing housing. The DSR Series

offers four different BTU options, along with an even heat pattern that is perfect for a multitude of applications.



Available in natural gas and propane

KEY FEATURES

- Patented two stage operation
- Highly decorative housing with modular grille
- 13 linear feet (DSRS) or 28 linear feet (DSRL) of radiant tube
- Pre- and post-purge controls
- Self-diagnostic LED, microprocessor-based circuitry

DCDI SEDIES

Available BTU Range

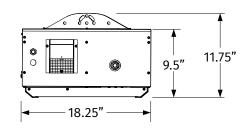
BTU/h	Gas Type
50,000 High Fire; 35,000 Low Fire	Natural
50,000 High Fire, 45,000 Low Fire	Propane
65,000 High Fire; 50,000 Low Fire	Nat./Prop.
80,000 High Fire; 52,000 Low Fire	Nat./Prop.
100,000 High Fire; 65,000 Low Fire	Nat./Prop.
NOT CERTIFIED FOR INDOOR APPLICATIONS.	

Specifications

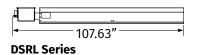
SDECIEICATIONS

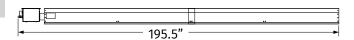
SPECIFICATIONS	D2K2 2EKIE2	D2KF 2FKIF2			
Gas Type	Natural or Propane	Natural or Propane			
Heat Input (BTU/h)	50,000 High Fire 35,000 Low Fire (Nat.) 45,000 Low Fire (Prop.)	65,000 High Fire; 50,000 Low Fire 80,000 High Fire; 52,000 Low Fire 100,000 High Fire; 65,000 Low Fire			
Voltage	120 VAC-60 Hz				
Dimensions (LxWxH)	107.63" x 18.25" x 11.75"	195.5" x 18.25" x 11.75"			
^Rcmd. Mounting Height	9 ft. to 16 ft.	9 ft. to 16 ft.			
*Approx. Area Heated (LxW)	16' x 10'	26' x 12'			
Weight	115 lbs.	170 lbs.			
Approvals	Outdoor Commercial Outdoor Residential				
Limited Warranty	3-year components 5-year tubes 10-year burner				
^ Tunical or recommended mount	ting baighta ara pravidad	an a guidalina Astual			

DCDC CEDIEC



DSRS Series





[^] Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variations from this data.

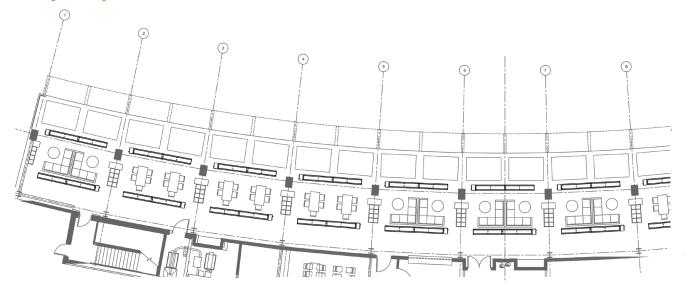
^{*} Based upon lab conditions with no wind and targeted 15° temperature rise. Site conditions may vary.

Mounting ├──── Sides ────						
Model Number	Angle*	Front	Behind	Тор	Below**	End
DCDC 45 50 [N D]	0°	14"	14"	10"	50"	12"
DSRS-15-50 [N, P]	30°	25"	10"	12"	40"	12"
	0°	25"	25"	6"	60"	12"
DSRL-30-65 [N, P]	30°	36"	10"	9"	47"	12"
DCDL 20 00 [N D]	0°	25"	25"	6"	60"	12"
DSRL-30-80 [N, P]	30°	36"	10"	9"	47"	12"
DCD1 20 400 [N D]	0°	25"	25"	6"	77"	12"
DSRL-30-100 [N, P]	30°	45"	10"	9"	64"	12"

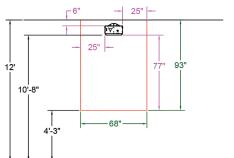
^{*} Heaters mounted on an angle between 0° and 30° must maintain clearances posted for 0° or 30°, whichever is greater.

Clearances to combustibles distances represent a surface temperature of 90°F (50°C) above ambient temperature. Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the factory or the building material manufacturer for additional information.

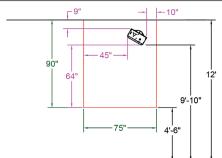
Sample Layout



DSRL-30-100 Clearance to Combustible 0° Mount - Elevation View



DSRL-30-100 Clearance to Combustible 30° Mount - Elevation View



^{**}Heater must be installed at least 6 1/2 ft. above the finished floor.

HL3 Series Low Intensity, Infrared Tube Heater

The HL3 Series, packed with quality features, represents today's most energy efficient line of infrared tube heaters. Our patented two stage technology, incorporated into the HL3 Series, provides more comfort while saving valuable energy dollars. In addition, the highest quality materials and construction features ensure years of reliable and efficient operation. No other

infrared heater can match the performance and quality. And with available lengths from 20 ft. to 70 ft., plus configuration options such as straight or U-tube, the HL3 Series is a versatile choice for many patio applications.



Available in natural gas and propane

KEY FEATURES

- Wide range of lengths and BTUs
- Pre- and post-purge controls
- Self-diagnostic LED, microprocessorbased circuitry
- Reliable hot surface ignition
- Independent control-air-gas compartments with tool-free access

ALL MODELS

Available BTU Range

BTU/h	Gas Type
65,000 High Fire; 50,000 Low Fire	Nat./Prop.
75,000 High Fire; 50,000 Low Fire	Nat./Prop.
100,000 High Fire; 65,000 Low Fire	Nat./Prop.
125,000 High Fire; 82,000 Low Fire	Nat./Prop.
150,000 High Fire; 100,000 Low Fire	Nat./Prop.
175,000 High Fire; 125,000 Low Fire	Nat./Prop.
200,000 High Fire; 145,000 Low Fire	Nat./Prop.

Specifications

SPECIFICATIONS

Gas Type Natural or Propane Heat Input (BTU/h) Varies Voltage 120 VAC-60 Hz; 24 VAC Controls

Dimensions (LxWxH)

*Rcmd. Mounting Height

*Approx. Area Heated

Weight

Varies with model from 9' to 42'

Varies based on length, BTU, & configuration

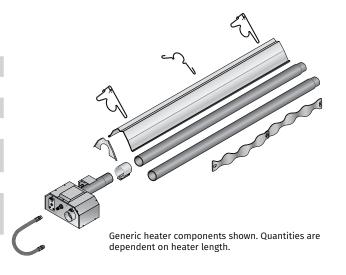
Varies based on length, BTU, & configuration

Approvals
Outdoor Commercial
Indoor Commercial

3-year components

Limited Warranty 5-year tubes
10-year burner

^{*} Based upon lab conditions with no wind and targeted 15° temperature rise. Site conditions may vary.



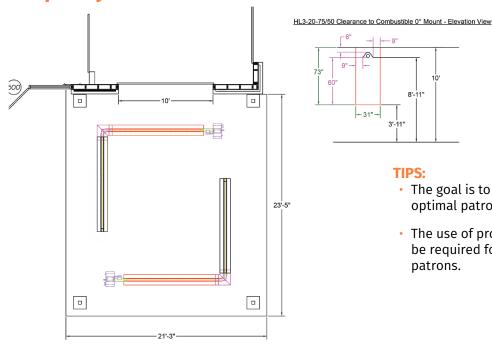
[^] Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variations from this data.

	Mounting	Mounting Sides ——			
Model Number	Angle*	Front	Behind	Тор	Below**
HL3-(20, 30, 40) - (65, 75) [N, P]	0°	9"	9"	6"	60"
	45°	39"	8"	10"	60"
with 1 side shield	0°	29"	8"	6"	60"
with 2 side shields	0°	9"	9"	6"	60"
20 ft. from burner	0°	7"	7"	6"	30"
HL3-(30, 40) - 100 [N, P]	0°	14"	14"	6"	66"
	45°	39"	8"	10"	66"
with 1 side shield	0°	29"	8"	6"	66"
with 2 side shields	0°	16"	16"	6"	66"
20 ft. from burner	0°	7"	7"	6"	30"
HL3-(30, 40, 50) - 125 [N, P]	0°	20"	20"	6"	76"
	45°	58"	8"	10"	76"
with 1 side shield	0°	42"	8"	6"	76"
with 2 side shields	0°	20"	20"	6"	76"
20 ft. from burner	0°	7"	7"	6"	30"
HL3-(40, 50, 60) - 150 [N, P]	0°	24"	24"	6"	81"
	45°	58"	8"	10"	81"
with 1 side shield	0°	42"	8"	6"	81"
with 2 side shields	0°	23"	23"	6"	81"
20 ft. from burner	0°	11"	11"	6"	44"
HL3-(40, 50, 60, 70) - 175 [N, P]	0°	34"	34"	6"	92"
	45°	63"	8"	10"	92"
with 1 side shield	0°	50"	8"	6"	92"
with 2 side shields	0°	30"	30"	6"	92"
20 ft. from burner	0°	11"	11"	6"	44"
HL3-(50, 60, 70) - 200 [N, P]	0°	41"	41"	6"	94"
	45°	63"	8"	10"	94"
with 1 side shield	0°	54"	8"	6"	94"
with 2 side shields	0°	30"	30"	6"	94"
20 ft. from burner	0°	11"	11"	6"	44"

^{*} Heaters mounted on an angle between 0° and 45° must maintain clearances posted for 0° or 45°, whichever is greater.

Clearances to combustibles distances represent a surface temperature of 90°F (50°C) above ambient temperature. Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the factory or the building material manufacturer for additional information.

Sample Layout



TIPS:

- The goal is to create an even heat pattern for optimal patron comfort.
- The use of protective guards (P/N: PG) may be required for lower mounting heights near patrons.

^{**}Heater must be installed at least 8 ft. above the finished floor.

MP3 Series Low Intensity, Infrared Tube Heater

The MP3 Series Modulating
Plus Low Intensity Tube
Heater raises the bar with
modulating technology. This
full air and gas modulation
line of heaters incorporates
cutting edge technology
for increased energy
efficiency to meet extreme
environmental demands in a

myriad of applications, and the heater is compatible with BACnet, Modbus, & Zigbee with the use of the TH-PC-M controller.



Available in natural gas and propane

KEY FEATURES

- Wide range of lengths and BTUs
- Fully modulating
- Modulation can be automatically or manually controlled.
- Reliable hot surface ignition
- Independent control-air-gas compartments with tool-free access

Available BTU Range

BTU/h (Modulating Range)	Gas Type
65,000 to 75,000	Nat./Prop.
65,000 to 80,000	Nat./Prop.
85,000 to 115,000	Nat./Prop.
110,000 to 150,000	Nat./Prop.
135,000 to 200,000	Nat./Prop.

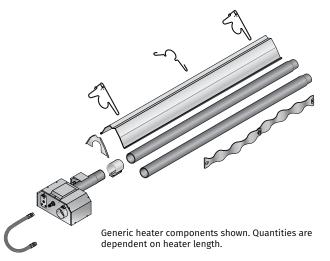
Specifications

SPECIFICATIONS ALL MODELS Gas Type Natural or Propan

Gas Type	Natural or Propane		
Heat Input (BTU/h)	Varies		
Voltage	120 VAC-60 Hz; 0-10 VDC Controls		
Dimensions (LxWxH)	Varies		
^Rcmd. Mounting Height	Varies with model from 12' to 42'		
*Approx. Area Heated	Varies based on length, BTU, & configuration		
Weight	120 to 300 lbs.		
Approvals	Outdoor Commercial Indoor Commercial		
Limited Warranty	3-year components 5-year tubes 10-year burner		

[^] Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variations from this data.

^{*} Based upon lab conditions with no wind and targeted 15° temperature rise. Site conditions may vary.

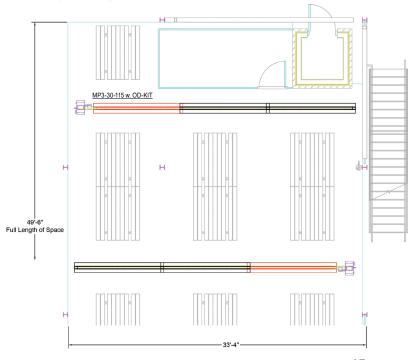


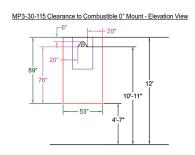
	Mounting	Sides —		1	
Model Number	Angle*	Front	Behind	Тор	Below
MP3-(20,25,30,40)-(75,80)[N,P]	0°	14	14	6	66
	45°	39	8	10	66
with 1 side shield	0°	29	8	6	66
with 2 side shields	0°	16	16	6	66
20 ft. from burner	0°	7	7	6	30
MD2 (20 40 E0) 44E[N D]	0°	20	20	6	76
MP3-(30,40,50)-115[N,P]	45°	58	8	10	76
with 1 side shield	0°	42	8	6	76
with 2 side shields	0°	20	20	6	76
20 ft. from burner	0°	7	7	6	30
MP3-(40,50,60)-150[N,P]	0°	24	24	6	83
	45°	58	8	10	83
with 1 side shield	0°	42	8	6	83
with 2 side shields	0°	23	23	6	83
20 ft. from burner	0°	11	11	6	46
MP3-(50,60,70)-200[N,P]	0°	41	41	6	100
	45°	63	8	10	100
with 1 side shield	0°	54	8	6	100
with 2 side shields	0°	30	30	6	100
20 ft. from burner	0°	11	11	6	50

^{*} Heaters mounted on an angle between 0° and 45° must maintain clearances posted for 0° or 45°, whichever is greater.

Clearances to combustibles distances represent a surface temperature of 90°F (50°C) above ambient temperature. Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the factory or the building material manufacturer for additional information.

Sample Layout





TIPS:

- When determining heater placement and configuration, keep in mind clearances to combustibles are reduced at 20 ft. downstream of the burner box.
- The goal is to create an even heat pattern for optimal patron comfort.
- The use of protective guards (P/N: PG) may be required for lower mounting heights near patrons.

^{**}Heater must be installed at least 8 ft. above the finished floor.

