

DX2 Series - Tube Heater Specification Sheet

⚠ WARNING: This heater must be installed and serviced by trained gas installation and service personnel only! Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment. Protect yourself and others by observing all safety information. Retain instructions for future reference.



DX2 SERIES TUBE HEATERS

ENGINEERING SUBMITTAL DATA - LOW INTENSITY
GAS FIRED INFRA-RED TUBE HEATERS & ACCESSORIES.

Qty.	<input type="checkbox"/>	Model #	Gas Type (circle one)	BTU's	Length	U-Tube Length	Weight	Stainless Steel Weight	Typ. Mount Height	Field use only	
										"Type" Tube Pkg #1 *	"Type" Tube Pkg. #2 *
		DX-2 20-50	N or LP	50,000	21'-7"	13'-0"	120 #	N/A	9' - 14'	20-4 Alum	N/A
		DX-2 20-60	N or LP	60,000	21'-7"	13'-0"	120 #	N/A	10' - 15'	20-4 Alum	N/A
		DX-2 20-75	N or LP	75,000	21'-7"	13'-0"	120 #	145 #	11' - 18'	20-4 Alum	N/A
		DX-2 20-100	N or LP	96,000	21'-7"	13'-0"	120 #	145 #	12' - 20'	20-4 Alum	N/A
		DX-2 30-50	N or LP	50,000	31'-3"	**17'-10"	160 #	N/A	10' - 15'	30-4 Alum	N/A
		DX-2 30-60	N or LP	60,000	31'-3"	**17'-10"	160 #	N/A	11' - 18'	30-4 Alum	N/A
		DX-2 30-75	N or LP	75,000	31'-3"	**17'-10"	160 #	195 #	12' - 20'	30-4 Alum	N/A
		DX-2 30-100	N or LP	100,000	31'-3"	**17'-10"	160 #	195 #	13' - 23'	30-4 Alum	N/A
		DX-2 30-125	N or LP	125,000	31'-3"	**17'-10"	160 #	195 #	14' - 25'	30-4 Alum	N/A
		DX-2 40-50	N or LP	50,000	40'-11"	22'-8"	190 #	N/A	11' - 18'	40-4 Alum	N/A
		DX-2 40-60	N or LP	60,000	40'-11"	22'-8"	190 #	N/A	11' - 18'	40-4 Alum	N/A
		DX-2 40-75	N or LP	75,000	40'-11"	22'-8"	190 #	235 #	12' - 20'	40-4 Alum	N/A
		DX-2 40-100	N or LP	100,000	40'-11"	22'-8"	190 #	235 #	13' - 23'	40-4 Alum	N/A
		DX-2 40-125	N or LP	125,000	40'-11"	22'-8"	190 #	235 #	14' - 25'	40-4 Alum	N/A
		DX-2 40-150	N or LP	150,000	40'-11"	22'-8"	190 #	235 #	15' - 27'	40-4 Titan	N/A
		DX-2 40-175	N or LP	175,000	40'-11"	22'-8"	190 #	N/A	16' - 30'	40-4 Titan	N/A
		DX-2 50-100	N or LP	100,000	50'-7"	**27'-6"	235 #	290 #	15' - 27'	40-4 Alum	10-4 Alum
		DX-2 50-125	N or LP	125,000	50'-7"	**27'-6"	235 #	290 #	15' - 27'	40-4 Alum	10-4 Alum
		DX-2 50-150	N or LP	150,000	50'-7"	**27'-6"	235 #	290 #	16' - 30'	40-4 Titan	10-4 Alum
		DX-2 50-175	N or LP	175,000	50'-7"	**27'-6"	235 #	N/A	17' - 35'	40-4 Titan	10-4 Alum
		DX-2 50-200	N or LP	200,000	50'-7"	**27'-6"	235 #	N/A	18' - 40'	40-4 Titan	10-4 Alum
		DX-2 60-125	N or LP	125,000	60'-3"	32'-4"	265 #	330 #	16' - 30'	40-4 Alum	20-4 Alum
		DX-2 60-150	N or LP	150,000	60'-3"	32'-4"	265 #	330 #	17' - 35'	40-4 Titan	20-4 Alum
		DX-2 60-175	N or LP	175,000	60'-3"	32'-4"	265 #	N/A	17' - 35'	40-4 Titan	20-4 Alum
		DX-2 60-200	N or LP	200,000	60'-3"	32'-4"	265 #	N/A	18' - 40'	40-4 Titan	20-4 Alum
		DX-2 70-175	N or LP	175,000	69'-11"	**37'-2"	300 #	N/A	19' - 42'	40-4 Titan	30-4 Alum
		DX-2 70-200	N or LP	200,000	69'-11"	**37'-2"	300 #	N/A	19' - 42'	40-4 Titan	30-4 Alum
		DX-2 80-200	N or LP	200,000	79'-7"	42'-0"	330 #	N/A	20' - 45'	40-4 Titan	40-4 Alum

* Type packages refer to the tube package that will ship with models (length, diameter, combustion tube type and radiant tube).

** Model requires 5EA-SUB accessory package.

N/A-This model is not available with this feature.

For additional literature on this and other products, please visit www.reverberray.com.

Project: _____ Date: _____
 Location: _____
 City: _____ State: _____ Zip: _____
 Contractor: _____
 Engineer: _____
 Local Representative: _____
 Customer Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____ Phone #: _____
 Notes: _____



Printed in U.S.A.
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 Form# LSDX2-3M-07/03 (ID)



Specifications & Clearances

APPROVALS

- IAS, CGA, CSA/AGA, (CE-EDX Series).
- Indoor / Outdoor Approval.
- Commercial / Industrial Approval.

BURNER SIGHT GLASS

- For burner inspection.

COMBUSTION AIR INLET & VENT

- 4" Male Duct.

CONTROLS

- 100% Safety shut off.
- Moisture and corrosion resistant ignition module.
- Differential pressure switch.
- Silicon carbide hot surface igniter.
- Flame rod sensing.
- Pre-purge controls.

MOUNTING ANGLE

- 0 to 45 degrees from horizontal.

OPERATIONAL LIGHTS

- Light #1-Indicates switch operation.
- Light #2-Indicates gas valve power.

EMITTER & COMBUSTION TUBES

- 16ga. 4" O.D. aluminized coated steel. High temperature, corrosion resistant black coating .95emissivity. Slip fit connection.
- Titanium coated combustion chamber. (150-200 MBTU/H models).
- Turbulator baffle provided.

ENAMELED CONTROL BOX

- Outside air collar (4") attached.
- Totally enclosed components.

GAS CONNECTION

- 7/8" flare M NPT connection to 1/2"x2' SS (304) flex connector included.
- 1/2" F NPT gas cock included.

GAS SUPPLY-W.C.P. NAT LP

- Manifold pressure 3.5" 10.0"
- Min. Inlet pressure 5.0" 11.0"
- Max. Inlet pressure 14.0" 14.0"

REFLECTOR

- Highly polished aluminum.
- End caps included.
- Anti-rattle spring clips.
- Continuous overlap design.
- One reflector center support per reflector.

POWER SUPPLY

- 120 V.A.C., 60 Hz GRD, 3-wire.
- Ignition current-4.8 amps.
- Running current-1.1 amps.

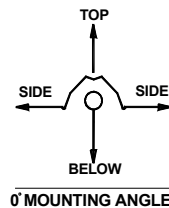
WARRANTY

- 1 year-Burner box components.
- 5 years-Combustion and radiant tubes.
- 10 years-Burner.

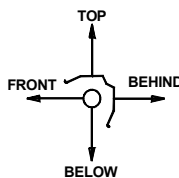
Made in U.S.A.

CLEARANCES TO COMBUSTIBLES (IN.)

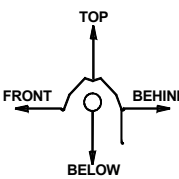
MODEL NO.	MOUNTING ANGLE	SIDE		TOP	BELOW
		FRONT	BEHIND		
DX-2 (20,30,40)-50 [N,P]	0°	9	9	6	47
	45°	39	8	10	47
	W/1 side shield	0°	29	8	6
	W/2 side shields	0°	9	9	6
	20 ft from burner	0°	7	7	6
DX-2 (20,30,40)-60 [N,P]	0°	9	9	6	47
	45°	39	8	10	47
	W/1 side shield	0°	29	8	6
	W/2 side shields	0°	9	9	6
	20 ft from burner	0°	7	7	6
DX-2 (20,30,40)-75 [N,P]	0°	9	9	6	60
	45°	39	8	10	60
	W/1 side shield	0°	29	8	6
	W/2 side shields	0°	9	9	6
	20 ft from burner	0°	7	7	6
DX-2 (20,30,40,50)-100 [N,P]	0°	14	14	6	66
	45°	39	8	10	66
	W/1 side shield	0°	29	8	6
	W/2 side shields	0°	16	16	6
	20 ft from burner	0°	7	7	6
DX-2 (30,40,50,60)-125 [N,P]	0°	20	20	6	76
	45°	58	8	10	76
	W/1 side shield	0°	42	8	6
	W/2 side shields	0°	20	20	6
	20 ft from burner	0°	7	7	6
DX-2 (40,50,60)-150 [N,P]	0°	24	24	6	81
	45°	58	8	10	81
	W/1 side shield	0°	42	8	6
	W/2 side shields	0°	23	23	6
	20 ft from burner	0°	11	11	6
DX-2 (40,50,60,70)-175 [N,P]	0°	34	34	6	92
	45°	63	8	10	92
	W/1 side shield	0°	50	8	6
	W/2 side shields	0°	30	30	6
	20 ft from burner	0°	11	11	6
DX-2 (50,60,70,80)-200 [N,P]	0°	41	41	6	94
	45°	63	8	10	94
	W/1 side shield	0°	54	8	6
	W/2 side shields	0°	30	30	6
	20 ft from burner	0°	11	11	6



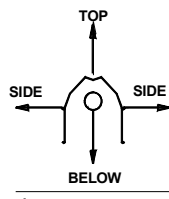
0° MOUNTING ANGLE



45° MOUNTING ANGLE



0° W/1 SIDE SHIELD



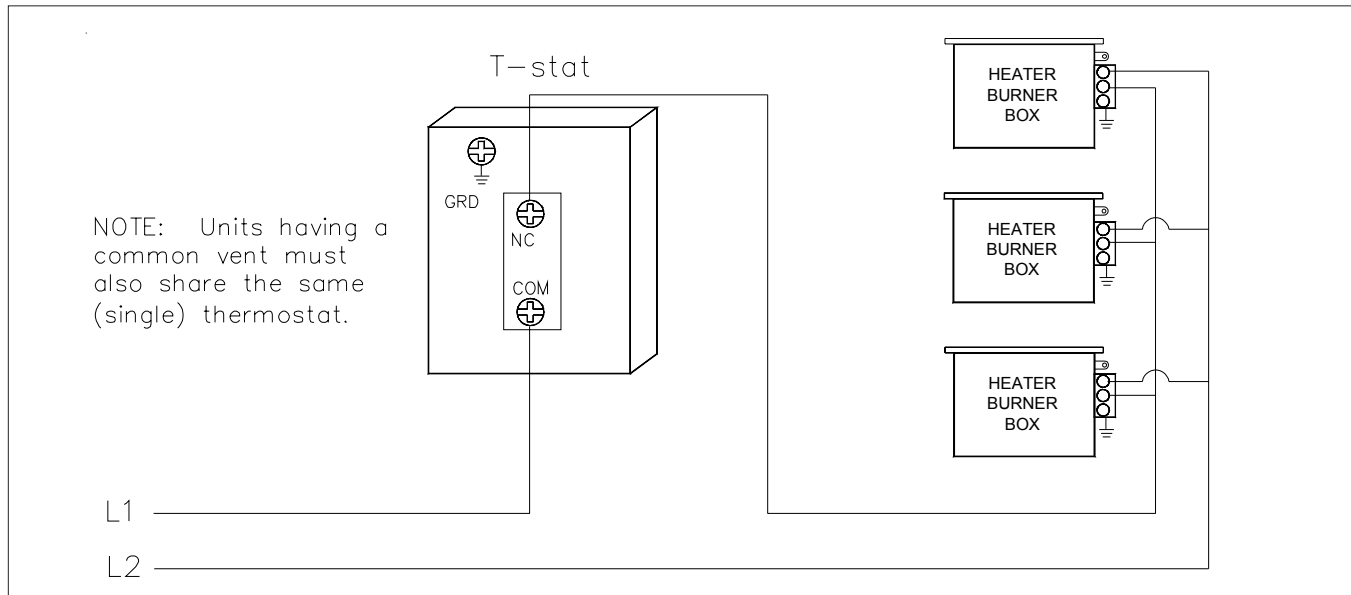
0° W/2 SIDE SHIELDS

OPTIONAL ACCESSORIES

- ☐ **PC-36.** Three prong power cord set. Allows heater to be plugged into 120V grounded outlet.
- ☐ **5EA-SUB.** Substitute one 10' radiant tube and reflector for two 5' pieces. This is ideal for making "U" heaters from 30', 50' and 70' models. Maximum of one per heater.
- ☐ **OD-KIT.** For use when applying heaters outdoors.
- ☐ **24VAO.** Internally mounted 24V, controlled relay with power cord and terminal plug. Allows for separate circuit operation.
- ☐ **Stainless steel upgrades.**
 - ☐ SSCBAO -Control box.
 - ☐ SSRAO -Reflectors.
 - ☐ SSTAO -Tubes (75-150MBH).
 - ☐ SSSTAO -Tubes & Reflectors (75-150MBH).
 - ☐ SSB-## -Mounting Brackets.

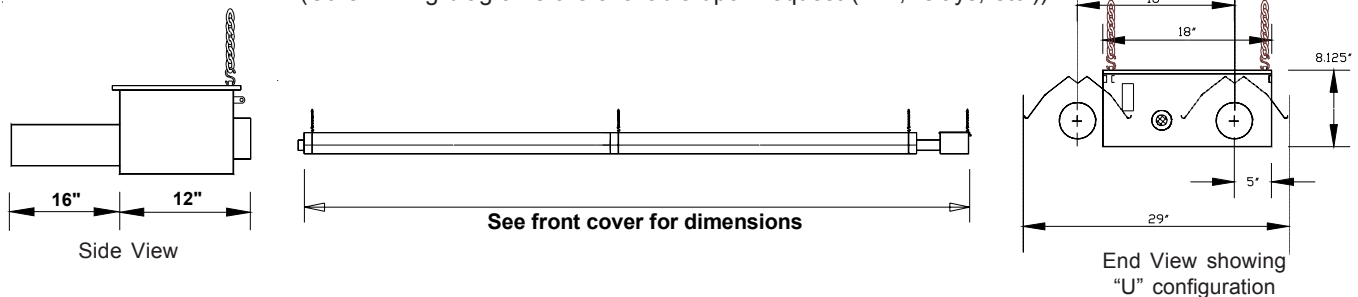


Field Data & Accessories



Typical Field Wiring Diagram

(Other wiring diagrams are available upon request (24V, relays, etc.))



OPTIONAL ACCESSORIES (Consult Tube Heater Accessory Guide (LPKTH) for additional accessories)

QTY.	PART#	DESCRIPTION	NOTES
	WIV-4	4" combustion air intake - sidewall cap	Used to duct fresh (cold) air 0-20ft. to a heater. Sidewall only.
	WVE-GALV	4" unvented exhaust termination cap	Required on all units when operating unvented.
	4-DSK	4" sidewall vent kit	Required for all single sidewall vents. No roof venting.
	6-DSK	6" sidewall vent kit	Required for all common sidewall vents. No roof venting.
	Y	4" x 4" x 6" common Y vent fitting	Used for joining two heaters on one vent. Same T-stat required.
	E6	90 degree, 4" radiant elbow	Used for making a "L" tube shaped heater. Max. two per unit.
	RE	Reflector elbow shield	Reflector and accessories used to cover E6.
	TF1B	180 degree, 4" radiant "U" bend	Used for making a "U" shaped heater. Max. one per unit.
	SMB	Single mount bracket	Provides units with "U" bend uniform mounting points. One per 10'.
	RU	Reflector "U" shield	Reflector and accessories used to cover TF1B.
	TR60	5' x 4" tube & reflector extension	Optional 5' extension package. Max. two per unit.
	10EA	10' x 4" tube & reflector extension	Optional 10' extension package. Max. one per unit.
	SSE	Side shield extension	Reflector side guard used to lower side clearances. Each 5' in length.
	PG	Protective guard	Protects heat exchanger from contact or objects. Each 5' in length.
	PLQ	Warning plaque	Restates the clearance to combustible warning.
	BK	Angle mounting bracket 15-30-45 Deg.	Rotates unit to preset mounting angles.



Written Specifications

HEATER PARAMETERS/SPECIFICATIONS

- Gas fired radiant tube heaters shall be furnished and installed in accordance with governing codes and as shown per drawing(s) provided. Radiant tube heaters shall be **RE-VERBER-RAY DX2 SERIES** of the model numbers and inputs(s) in BTU/H as manufactured by Detroit Radiant Products Company, Warren, MI 48089.
- Radiant tube heaters shall be Design Certified by CSA and comply with current Occupational Safety and Health Act (OSHA) Requirements. The supplier shall provide the CSA Certification Number and the heaters shall bear the CSA Seal of Certification.
- The supplier shall provide a manufacturer's published warranty covering the heater's stainless steel burner for a period of ten (10) years, combustion and radiant emitter tube assembly for a period of five (5) years, and all components utilized in the heater control assembly for a period of one (1) year.
- The supplier shall furnish the owner/contractor with _____ copies of the engineering specification forms, showing physical dimensions, installation detail, recommendations, control wiring diagrams, and spare parts list.
- Radiant tube heaters shall be designed to satisfactorily operate at a minimum inlet pressure of _____ inches W.C.P. to a maximum inlet pressure of _____ inches W.C.P.
- Radiant tube heaters shall be designed to operate without adjustments when burning natural gas having a heat value of _____ BTU per cubic foot with a specific gravity of _____, or when burning propane gas have a heat value of 2500 BTU per cubic foot with a specific gravity of 1.53.
- An Installation, Operation, and Maintenance Manual shall be supplied with each heater.
- The heater's air flow control system shall provide a 45 second pre-purge prior to initiating burner operation.
- No condensation shall form as a result of combustion in the combustion chamber or radiant tubes while at operating temperatures.
- The heater shall incorporate moisture and corrosion resistant circuitry.
- Total heater shutdown shall occur in the event of circuit control lockout. An interruption of power (reset thermostat) will restart the firing sequence.

RADIANT TUBE HEATER CONSTRUCTION

RADIANT TUBE HEATER BURNER CONTROLS

- Heaters shall be equipped with a direct silicon carbide ignition system with a one (1)-time ignition trial to sensing mode and an infinite trial after sensing mode. Power supplied to each burner shall be 120 VAC, 60 Hz. Flame sensing shall be via an independent sensing rod and circuit.
- The main burner shall be constructed of stainless steel.
- The control assembly shall be Design Certified by CSA, shall provide main burner regulation, and shall be of the redundant type.
- Heater controls shall include a safety differential pressure switch to monitor combustion air flow, so as to provide complete burner shutdown due to insufficient combustion air or flue blockage.
- The heater's control system shall be designed to shutoff the gas flow to the main burner in the event either a gas supply or power supply interruption occurs.
- The heater's control housing shall be totally enclosed with a corrosion resistant enameled steel exterior. The controls shall be easily serviceable by removing one (1) panel.
- The heater's combustion chamber shall be 4" O.D. 16ga. titanium alloy (150M-200M) or aluminized steel (50M-125M) finished with a high emissivity rated, corrosion resistant, black coating.
- The heater's radiant emitter tube shall be 4" O.D. 16ga. Aluminized steel finished with a high emissivity rated, corrosion resistant, black coating.
- The heater's combustion chamber and radiant emitter tube shall incorporate a 4" slip fit connection in which the upstream tube slides into the next tube and is held by a bolted clamp.
- The silicon carbide ignitor shall be readily accessible and serviceable without the use of tools.
- Reflectors shall be .025 polished aluminum with a multi-faceted design which includes reflector end caps. Reflectors shall be rotatable from 0 to 45 degrees when required. The heater's reflector hanging system shall be designed to permit expansion while preventing noise and/or rattles. Reflectors shall be assembled to the heater without the use of tools.
- The heaters shall include a downstream turbulator baffle for maximum thermal efficiency, 2' stainless steel flex connector, hanging kit, and 1/2" gas cock shut-off.
- Heaters shall be equipped with a sight glass allowing a visual inspection of ignitor and burner operation from the floor.
- The radiant tube heaters shall be designed such that, at the customer's option, outside combustion air may be supplied without the use of additional supply fans. An air intake collar shall be supplied as part of the burner control assembly to accept a 4" O.D. supply duct.
- Any part, or all of, the heater may be upgraded to 304 series stainless steel (models 75,000- 150,000). Combustion chamber shall be 409 series stainless steel.

