

DETROIT RADIANT

RE-VERBER-RAY

RADIANT GAS HEATERS®

PRODUCTS COMPANY

COMMERCIAL & INDUSTRIAL

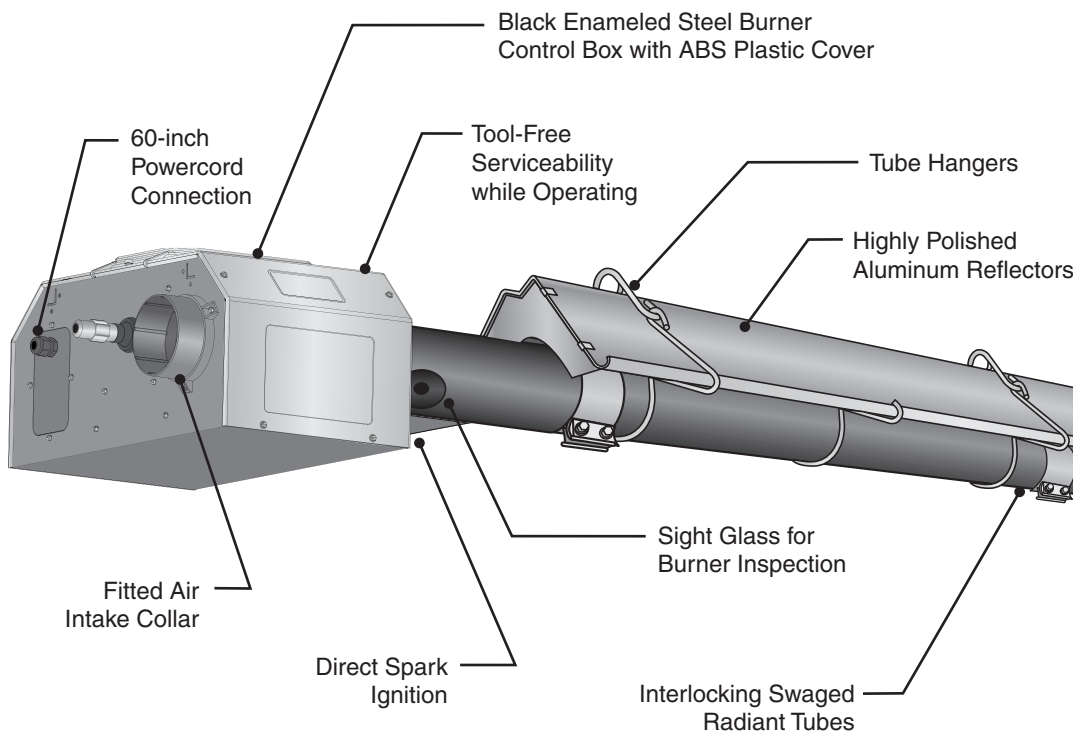
SERIES ○ HL3 ○ DX3 ○ XTS3 ○ DET3 ● DES3

DES3 SERIES

GAS-FIRED, SINGLE STAGE, ECONOMY INFRA-RED HEATERS

Streamlined for economy and designed without sacrificing performance, the DES3 Series represents quality at an economical price. Utilizing a direct spark ignition system and hot-rolled steel emitter tubes, this series is the best in this class of equipment.

PRODUCT FEATURES



SPECIFIC FEATURES



- Tool-free access to controls.
- Serviceability while unit is operating.
- Separated air and gas burner chamber.
- Symmetrical placement of ignition tube.
- Hinged control compartment provides ease in servicing.
- 3-piece independent compartment cover.
- ABS plastic air intake collar for connection to 4" PVC/DWV pipe.

PRODUCT FEATURES COMPARISON CHART

	HL3	DX3	XTS3	DET3	DES3
Highly Polished Aluminum Reflectors	•	•	•	•	●
Coated Titanium or Aluminized Combustion Chamber	•	•	•	•	●
Coated Aluminized Radiant Tubes	•	•			
Hot Surface Ignition	•	•	•		
Stainless Steel Flexible Gas Connector	•	•	•	•	●
Ball Valve (1/2" Brass) with Pressure Tap	•	•			
Two-stage Technology	•			•	
Interlocking Swaged Tubes	•	•	•	•	●
Stainless Steel Models Available*	•	•			
Reflector End Caps	•	•	•		
Optional 'U' or 'L' Configurations Available	•	•	•	•	●

* Select upgrades available; full stainless models are available in the HL2 and DX2 Series offering.

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VISIT OUR WEBSITE FOR:

- Product Specs
- Parts Support
- Dealer Locator
- Applications
- C.A.D. Library
- Design Guidelines
- Theory of Infra-red
- and More!

DES3 SERIES

SPECIFICATIONS

PRODUCT SPECIFICATIONS

BTU Range:	50-200 MBH
Lengths:	20-60 Ft.
Gas Type:	Natural or Propane
Combustion Chamber:	Coated Aluminized or Titanium
Radiant Tubes:	Hot-Rolled Steel
Certification:	CSA, IAS
Limited Warranty:	1-2-3 (Components-Tubes-Burner)

OPTIONAL EQUIPMENT

"U" or "L" Configurations:	Available (RU, RE)
Stainless Steel Upgrades:	Available (SSRAO, SSC, SSB)
24V Controls:	Requires Optional R8385B Relay
Indicator Lights:	Available (IND-LT)
Protective Guards:	Available (PG)
Side Shield Extensions:	Available (SSE)
Outdoor Approval:	Not Available



ELECTRICAL

- 120V, 60Hz, 3-wire
- 1.7A starting, 1.1A running

CONTROL BOX

- Potted circuitry
- 120V thermostat control
- ABS plastic cover

TUBE CONSTRUCTION

- As shown at left
- 4" x 10' 16 ga. construction
- Labor saving, interlocking swaged tube design

REFLECTORS

- Highly polished aluminum
- 0° - 45° rotatable angle

IGNITION/SENSE

- Direct spark ignition
- Flame rod sense

VENTING

- 4" single vent
- 6" common vent (with single thermostat)

GAS CONNECTION

- 1/2" NPT flexible connector

GAS PRESSURES

- MAN. - 3.5" NAT or 10.0" LP
- MIN. - 5.0" NAT or 11.0" LP
- MAX. - 14.0" NAT or 14.0" LP

COMBUSTION AIR

- Equipped for ducted air intake from roof or sidewall

KIT CONTENTS

- All hangers & couplers
- Turbulator baffle(s)

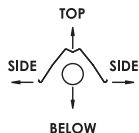
AVAILABLE DES3 MODELS & CLEARANCES

MODEL #	GAS*	BTU/H	LENGTH	WEIGHT	RECOMMENDED MOUNTING HEIGHTS**
DES3-20-50	N or LP	50,000	21' - 8"	120#	9' - 14'
DES3-20-60	N or LP	60,000	21' - 8"	120#	10' - 15'
DES3-20-75	N or LP	75,000	21' - 8"	120#	11' - 18'
DES3-30-50	N or LP	50,000	31' - 4"	160#	10' - 15'
DES3-30-60	N or LP	60,000	31' - 4"	160#	11' - 18'
DES3-30-75	N or LP	75,000	31' - 4"	160#	12' - 20'
DES3-30-100	N or LP	100,000	31' - 4"	160#	13' - 23'
DES3-40-50	N or LP	50,000	41' - 0"	190#	11' - 18'
DES3-40-60	N or LP	60,000	41' - 0"	190#	11' - 18'
DES3-40-75	N or LP	75,000	41' - 0"	190#	12' - 20'
DES3-40-100	N or LP	100,000	41' - 0"	190#	13' - 23'
DES3-40-125	N or LP	125,000	41' - 0"	190#	14' - 25'
DES3-40-150	N or LP	150,000	41' - 0"	190#	15' - 27'
DES3-50-100	N or LP	100,000	50' - 8"	235#	15' - 27'
DES3-50-125	N or LP	125,000	50' - 8"	235#	15' - 27'
DES3-50-150	N or LP	150,000	50' - 8"	235#	16' - 30'
DES3-50-175	N or LP	175,000	50' - 8"	235#	17' - 35'
DES3-50-200	N or LP	200,000	50' - 8"	235#	18' - 40'
DES3-60-125	N or LP	125,000	60' - 4"	265#	16' - 30'
DES3-60-150	N or LP	150,000	60' - 4"	265#	17' - 35'
DES3-60-175	N or LP	175,000	60' - 3"	265#	17' - 35'
DES3-60-200	N or LP	200,000	60' - 4"	265#	18' - 40'

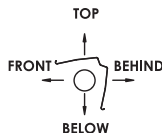
* Specify natural (N) or propane (LP) gas.

** Recommended mounting heights are provided as a guideline. Actual conditions may dictate variations from the above data.

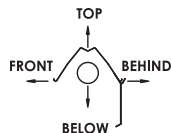
0° Mounting Angle



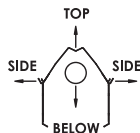
45° Mounting Angle



0° W/ 1 Side Shield



0° W/ 2 Side Shields



DISTRIBUTED BY:



DES3 CLEARANCES TO COMBUSTIBLES (IN.)

MODEL NO.	MOUNTING ANGLE	SIDE				
		FRONT	BEHIND	TOP	BELOW	
DES3-(20,30,40)-(50,60)	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
DES3-(20,30,40)-75	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
DES3-(30,40,50)-100	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
DES3-(40,50,60)-125	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
DES3-(40,50,60)-150	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
DES3-(50,60)-175	0°	34	34	6	92	
	45°	63	8	10	92	
	W/1 Side Shield	0°	50	8	6	92
	W/2 Side Shields	0°	30	30	6	92
	20 ft. from Burner	0°	11	11	6	44
DES3-(50,60)-200	0°	41	41	6	94	
	45°	63	8	10	94	
	W/1 Side Shield	0°	54	8	6	94
	W/2 Side Shields	0°	30	30	6	94
	20 ft. from Burner	0°	11	11	6	44

Always maintain the published clearances to combustibles. Clearances published in DES3 Series manual and on warning label supersede data shown on this brochure.