

# ADDISON™

## UHD[X][S][R]-SERIES TUBULAR DUCT FURNACES

- 82% efficiency with use of tubular heat exchangers and inshot burners.
- Reliable ignition with direct spark ignition burners.
- Installation and operation flexibility with rear or top air and flue connections (Models 75 - 125 only).
- Help reduce dirt build-up on burners and help extend heat exchanger life with separated combustion units.
- Longer life and less maintenance with optional stainless steel heat exchangers.
- Install downstream of refrigeration system with optional stainless steel heat exchangers and drain pan (Models 150 - 400 only).

**Models 150 - 400**

**Models 75 - 125**



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# UHD[X][S][R]-SERIES

## ADDISON™ UHD[X][S][R]75 - UHD[X][S][R]400 TECHNICAL DATA AND CLEARANCES

MODEL		75	100	125	150	175	200	225	250	300	350	400
<b>TOTAL INPUT</b>	<b>Btu/h x 1000</b>	75	100	125	150	175	200	225	250	300	350	385
<b>TOTAL OUTPUT</b>	<b>Btu/h x 1000</b>	61.5	82	102.5	123	143.5	164	184.5	205	246	288.6	315.7
<b>EFFICIENCY</b>		82% - All Models										
<b>NUMBER OF BURNERS</b>		5	6	7	7	8	9	10	11	12	14	14
<b>GAS CONNECTION</b>	<b>in</b>	½	½	½	½	½	½	½	¾	¾	¾	¾
<b>INLET PRESSURE (in wc)</b>	<b>NG Min.</b>	5- All Models										
	<b>LPG Min.</b>	12 - All Models										
	<b>NG &amp; LPG Max.</b>	14 - All Models										
<b>ELECTRICAL SUPPLY</b>		120 V/1 Ø/ 60 Hz - All Models										
<b>FULL LOAD AMPS @ 120 V</b>		1	2	2	2	2	2	2	2	2	6	6

<b>MINIMUM INLET DUCT LENGTH</b>	<b>in</b>	32	37	37	52	52	60	60	60	75	75	75
	<b>cm</b>	81	94	94	132	132	152	152	152	191	191	191
<b>MINIMUM AIR VOLUME</b>	<b>CFM</b>	850	950	1020	1360	1400	2050	2100	2350	2700	3120	3420
<b>TEMPERATURE RISE @ MINIMUM AIR VOLUME</b>	<b>°F</b>	68	78	92	83	95	73	80	80	86	86	86
	<b>°C</b>	37	43	51	46	52	40	44	44	47	47	47
<b>HEAT EXCHANGER PRESSURE DROP @ MINIMUM AIR VOLUME</b>	<b>in wc</b>	0.06	0.05	0.06	0.02	0.03	0.025	0.035	0.05	0.02	0.03	0.04
<b>MAXIMUM AIR VOLUME</b>	<b>CFM</b>	2650	3660	4750	5800	6850	7750	8300	8850	10200	13600	14200
<b>TEMPERATURE RISE @ MAXIMUM AIR VOLUME</b>	<b>°F</b>	22	22	20	20	20	20	20	22	23	22	22
	<b>°C</b>	12	12	11	11	11	11	11	12	13	12	12
<b>HEAT EXCHANGER PRESSURE DROP @ MAXIMUM AIR VOLUME</b>	<b>in wc</b>	0.36	0.55	0.98	0.16	0.29	0.163	0.253	0.35	0.27	0.48	0.53
<b>FLUE DIAMETER</b>	<b>in</b>	4 - All Models										
	<b>cm</b>	10- All Models										
<b>AIR INTAKE DIAMETER</b>	<b>in</b>	4	4	4	4	4	4	4	4	5	5	5
	<b>cm</b>	10	10	10	10	10	10	10	10	13	13	13
<b>APPROXIMATE NET WEIGHT</b>	<b>lb</b>	81	92	97	191	211	239	249	254	325	345	345
	<b>kg</b>	37	42	44	87	96	108	113	115	147	156	156

### INSTALLATION CLEARANCES AND CLEARANCES TO COMBUSTIBLES

		LOW PROFILE RANGE (MODELS 75-125)	STANDARD RANGE (MODELS 150-400)
<b>TOP</b>	<b>in</b>	1	6
	<b>cm</b>	2.5	15
<b>BOTTOM</b>	<b>in</b>	1	6
	<b>cm</b>	2.5	15
<b>RIGHT</b>	<b>in</b>	1	31*
	<b>cm</b>	2.5	79*
<b>LEFT</b>	<b>in</b>	18*	6
	<b>cm</b>	46*	15
<b>VENT</b>	<b>in</b>	2	2
	<b>cm</b>	5	5

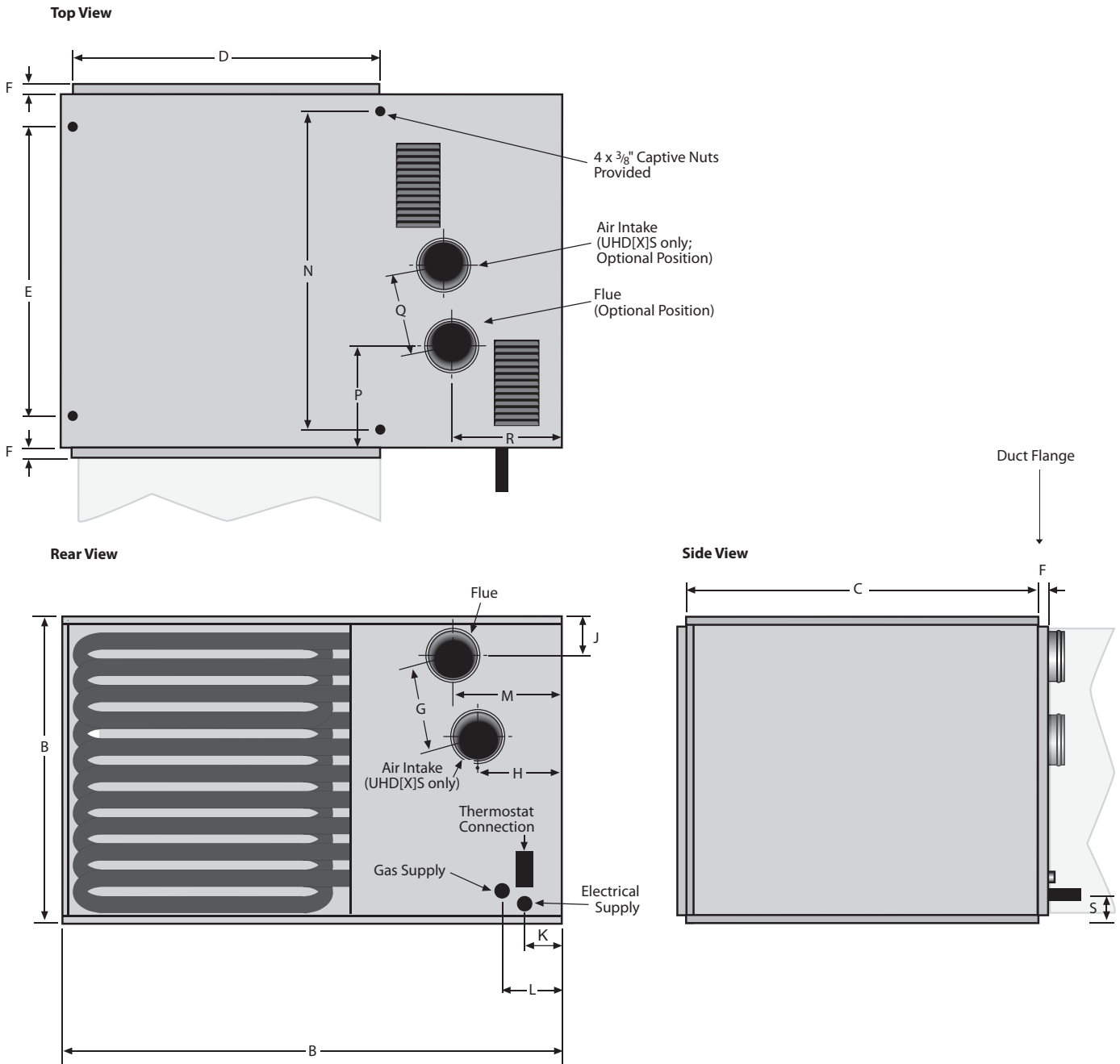
\* Clearances for servicing.

# UHD[X][S][R]-SERIES

## ADDISON™ UHD[X][S]75 - UHD[X][S]125 DIMENSION DATA

DIMENSION DATA - LOW PROFILE RANGE (MODELS 75 - 125)																		
MODEL		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
UHD [X][S]75	in	28.5	17.6	20.3	17.6	16.6	1.25	6.3	6.1	2.8	1.6	3.4	6.7	18.2	5.5	4.4	6.8	1.8
	cm	72.4	44.7	51.6	44.7	42.2	3.2	16.0	15.5	7.1	4.1	8.6	17.0	46.2	14.0	11.2	17.3	4.6
UHD [X][S]100	in	28.5	22.6	20.3	17.6	16.6	1.25	7.0	6.0	2.4	1.6	3.4	6.7	18.2	6.3	4.4	6.8	1.8
	cm	72.4	57.4	51.6	44.7	42.2	3.2	17.8	15.2	6.1	4.1	8.6	17.0	46.2	16.0	11.2	17.3	4.6
UHD [X][S]125	in	28.5	22.6	20.3	17.6	16.6	1.25	7.0	6.0	2.4	1.6	3.4	6.7	18.2	6.3	4.4	6.8	1.8
	cm	72.4	57.4	51.6	44.7	42.2	3.2	17.8	15.2	6.1	4.1	8.6	17.0	46.2	16.0	11.2	17.3	4.6

### LOW PROFILE MODEL RANGE

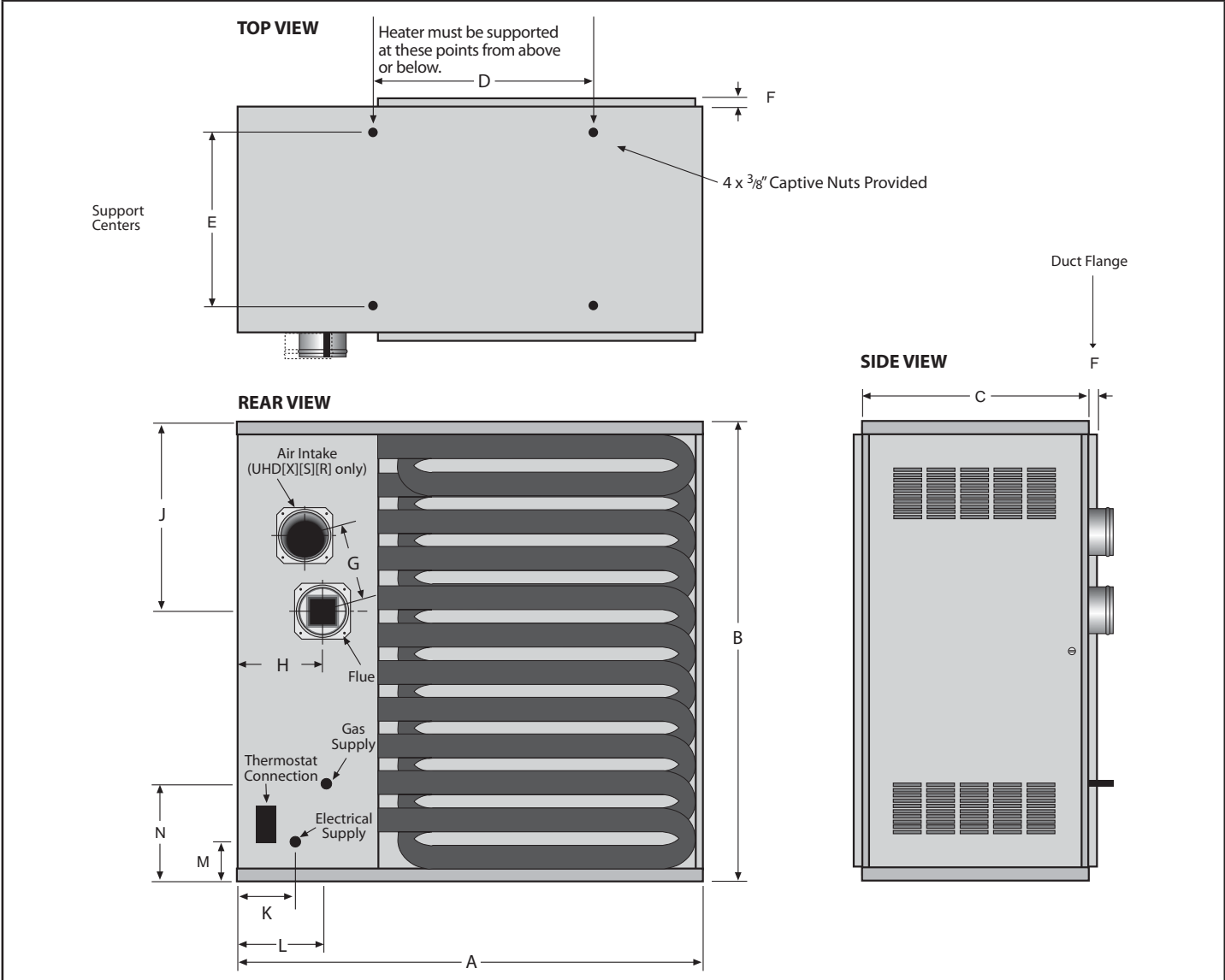


# UHD[X][S][R]-SERIES

## ADDISON™ UHD[X][S][R]150 - UHD [X][S][R]400 DIMENSION DATA

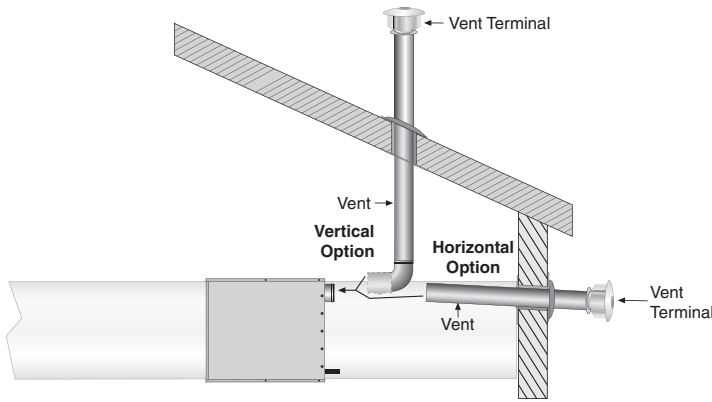
DIMENSION DATA - STANDARD PROFILE RANGE (MODELS 150 - 400)														
MODEL		A	B	C	D	E	F	G	H	J	K	L	M	N
UHD [X][S][R]150	in	42.4	26.7	25.5	17.6	19.4	1.25	6.0	8.6	15.3	3.4	5.9	2.4	6.5
	cm	107.7	67.8	64.8	44.7	49.3	3.2	15.2	21.8	38.9	8.6	15.0	6.1	16.5
UHD [X][S][R]175	in	42.4	26.7	25.5	17.6	19.4	1.25	6.0	8.6	15.3	3.4	5.9	2.4	6.5
	cm	107.7	67.8	64.8	44.7	49.3	3.2	15.2	21.8	38.9	8.6	15.0	6.1	16.5
UHD [X][S][R]200	in	42.4	35.0	25.5	17.6	19.4	1.25	6.0	8.3	17.2	3.4	5.9	2.4	6.5
	cm	107.7	88.9	64.8	44.7	49.3	3.2	15.2	21.1	43.7	8.6	15.0	6.1	16.5
UHD [X][S][R]225	in	42.4	35.0	25.5	17.6	19.4	1.25	6.0	8.3	17.2	3.4	5.9	2.4	6.5
	cm	107.7	88.9	64.8	44.7	49.3	3.2	15.2	21.1	43.7	8.6	15.0	6.1	16.5
UHD [X][S][R]250	in	42.4	35.0	25.5	17.6	19.4	1.25	6.0	8.3	17.2	3.4	5.9	2.4	6.5
	cm	107.7	88.9	64.8	44.7	49.3	3.2	15.2	21.1	43.7	8.6	15.0	6.1	16.5
UHD [X][S][R]300	in	52.3	43.2	25.5	24.7	19.4	1.25	7.0	11.2	13.8	6.2	8.7	2.4	6.5
	cm	132.8	109.7	64.8	62.7	49.3	3.2	17.8	28.4	35.1	15.7	22.1	6.1	16.5
UHD [X][S][R]350	in	52.3	43.2	25.5	24.7	19.4	1.25	7.0	11.2	13.8	6.2	8.7	2.4	6.5
	cm	132.8	109.7	64.8	62.7	49.3	3.2	17.8	28.4	35.1	15.7	22.1	6.1	16.5
UHD [X][S][R]400	in	52.3	43.2	25.5	24.7	19.4	1.25	7.0	11.2	13.8	6.2	8.7	2.4	6.5
	cm	132.8	109.7	64.8	62.7	49.3	3.2	17.8	28.4	35.1	15.7	22.1	6.1	16.5

### STANDARD PROFILE MODEL RANGE



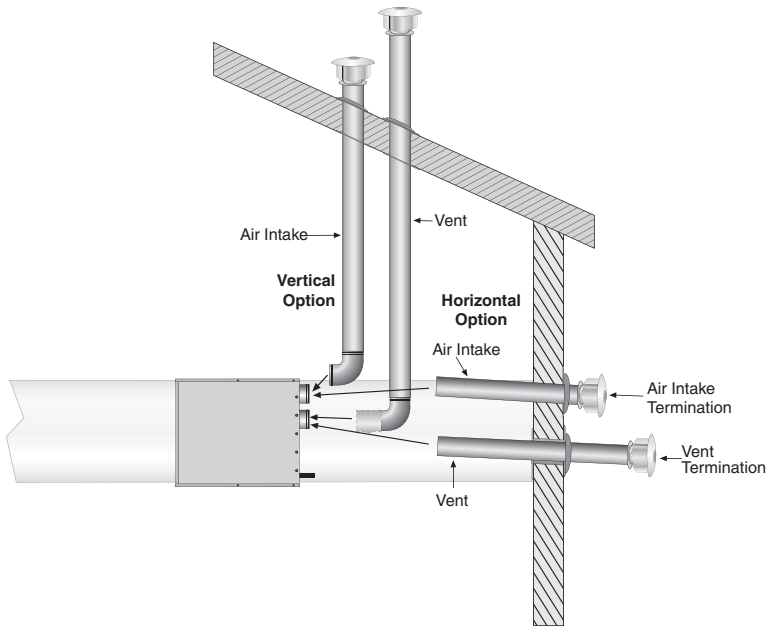
# UHD[X][S][R]-SERIES VENTING

## NON-SEPARATED COMBUSTION HEATER



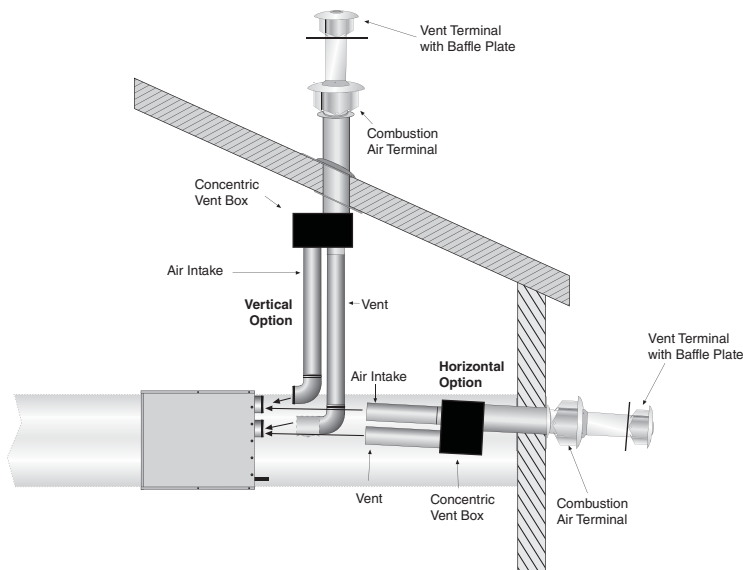
Non-separated combustion heaters use air from the heated space for combustion. The combustion air is drawn into the unit through openings in the access door and then into the open burner box. The products of combustion must be vented to the outdoors. Flue can be run either vertically through a roof penetration or horizontally through a wall penetration.

## SEPARATED COMBUSTION HEATER WITHOUT CONCENTRIC VENT KIT



Separated combustion heaters use air from outside of the heated space for combustion. The combustion air is drawn into the unit's enclosed burner box through a piece of ductwork that is extended out to a flange mounted on the heater's cabinet. Ductwork must be run from that flange either vertically through a roof penetration or horizontally through a wall penetration to allow the intake of combustion air. The products of combustion must be vented to the outdoors. Flue can be run either vertically through a roof penetration or horizontally through a wall penetration. Venting a separated combustion heater without a concentric vent kit will result in two building penetrations, one for the air intake ductwork and one for the flue ductwork.

## SEPARATED COMBUSTION HEATER WITH CONCENTRIC VENT KIT



Separated combustion heaters use air from outside of the heated space for combustion. The combustion air is drawn into the unit's enclosed burner box through a piece of ductwork that is extended out to a flange mounted on the heater's cabinet. Ductwork must be run either vertically or horizontally to the concentric vent box. The products of combustion must be vented to the outdoors. Flue can be run either vertically or horizontally to the concentric vent box. The air intake and flue ductwork will be combined into a single concentric vent at the concentric vent box. This single piece of concentric vent will then continue horizontally or vertically to a single building penetration.



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**Installation Code and Quarterly Inspections:** All installation and service of ADDISON™ equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Addison and conform to all requirements set forth in the ADDISON™ manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Addison recommends that a qualified contractor conduct quarterly inspections of your ADDISON™ equipment and perform service where necessary, using only replacement parts sold and supplied by Addison.

**Further Information:** Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through ADDISON™ representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

**These products are not for residential use.**

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