

BANANZA

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 75 - 125

Models 150 - 400



1.800.255.3416
www.bananza.com



BANANZA® UHD[X][S][R]-SERIES

Technical Data (All Models)

Model		75	100	125	150	175	200	225	250	300	350	400
Total Input	Btu/h x 1000	75	100	125	150	175	200	225	250	300	350	385
Total Output	Btu/h x 1000	61.5	82	102.5	123	143.5	164	184.5	205	246	288.6	315.7
Efficiency		82% - All Models										
Number of Burners		5	6	7	7	8	9	10	11	12	14	14
Gas Connection	in	½	½	½	½	½	½	½	¾	¾	¾	¾
Inlet Pressure (in wc)	NG Min.	5 - All Models										
	LPG Min.	12 - All Models										
	NG & LP Propane Max.	14 - All Models										
Electrical Supply		120 V/ 60 Hz/1 Ø - All Models										
Full Load Amps @ 120V		1	2	2	2	2	2	2	2	2	6	6
Minimum Inlet Duct Length	in	32	37	37	52	52	60	60	60	75	75	75
	cm	81	94	94	132	132	152	152	152	191	191	191
Duct Size (Width)	in	16¾	21¾	21¾	28	28	28	28	28	35	35	35
	cm	43	55	55	71	71	71	71	71	89	89	89
Duct Size (Height)	in	157/8	157/8	157/8	24	24	32½	32½	32½	40½	40½	40½
	cm	40	40	40	61	61	83	83	83	103	103	103
Minimum Air Volume	CFM	850	950	1020	1360	1400	2050	2100	2350	2700	3120	3420
Temperature Rise @ Minimum Air Volume	°F	68	78	92	83	95	73	80	80	86	86	86
	°C	37	43	51	46	52	40	44	44	47	47	47
Heat Exchanger Pressure Drop @ Minimum Air Volume	in wc	0.06	0.05	0.06	0.02	0.03	0.025	0.035	0.05	0.02	0.03	0.04
Maximum Air Volume	CFM	2650	3660	4750	5800	6850	7750	8300	8850	10200	13600	14200
Temperature Rise @ Maximum Air Volume	°F	22	22	20	20	20	20	20	22	23	22	22
	°C	12	12	11	11	11	11	11	12	13	12	12
Heat Exchanger Pressure Drop @ Maximum Air Volume	in wc	0.36	0.55	0.98	0.16	0.29	0.163	0.253	0.35	0.27	0.48	0.53
Flue Diameter	in	4 - All Models										
	cm	10 - All Models										
Air Intake Diameter	in	4	4	4	4	4	4	4	4	5	5	5
	cm	10	10	10	10	10	10	10	10	13	13	13
Approximate Net Weight	lb	81	92	97	191	211	239	249	254	325	345	345
	kg	36.7	41.7	44.0	86.6	95.7	108.4	112.9	115.2	147.4	156.5	156.5

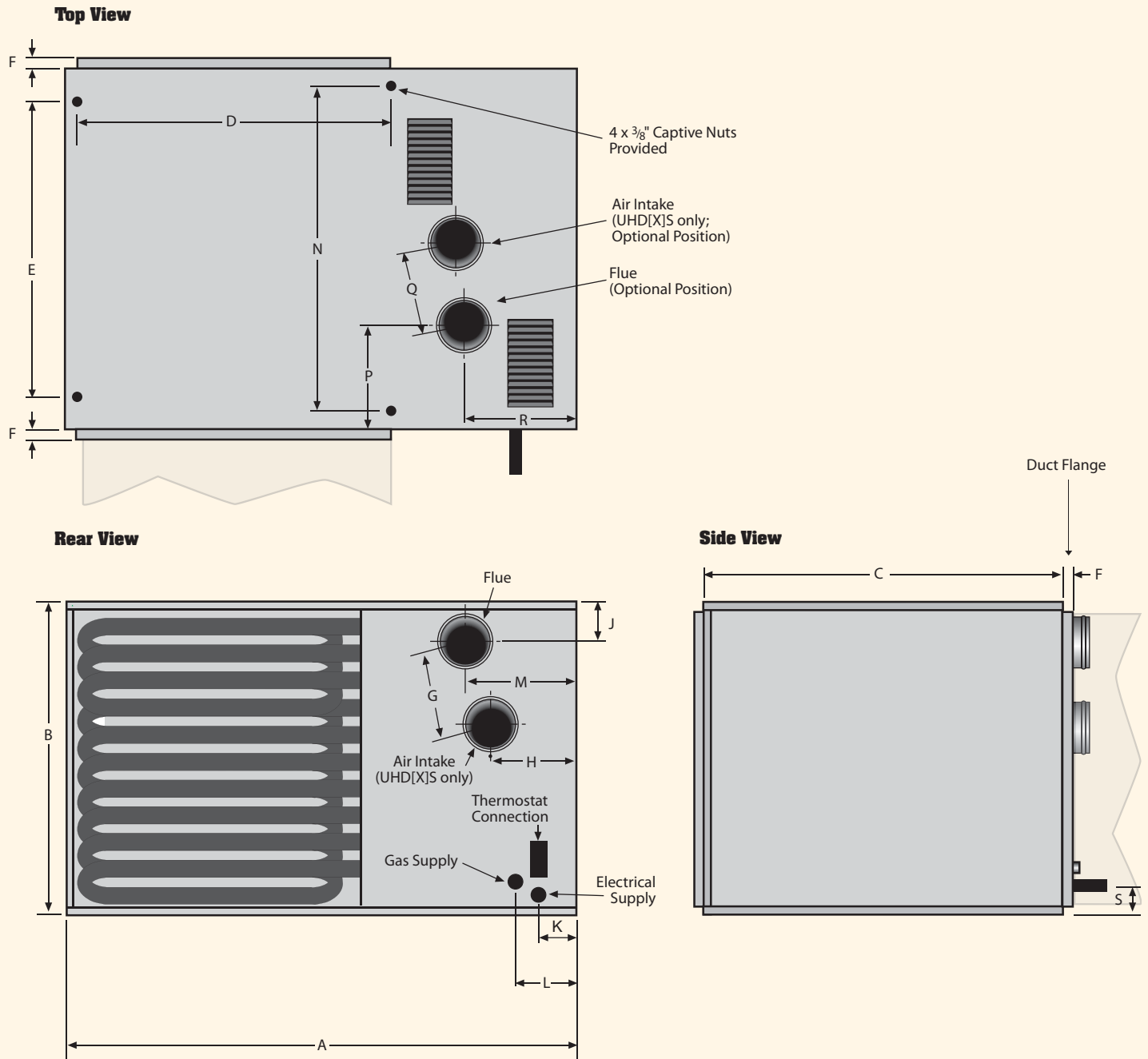
Clearances to Combustibles (All Models)

		Low Profile Range (Models 75-125)	Standard Profile Range (Models 150-400)
Top	in	1	6
	cm	2.5	15
Bottom	in	1	6
	cm	2.5	15
Right	in	1	31*
	cm	2.5	79*
Left	in	18*	6
	cm	46*	15
Vent	in	2	2
	cm	5	5

* Clearances for servicing.

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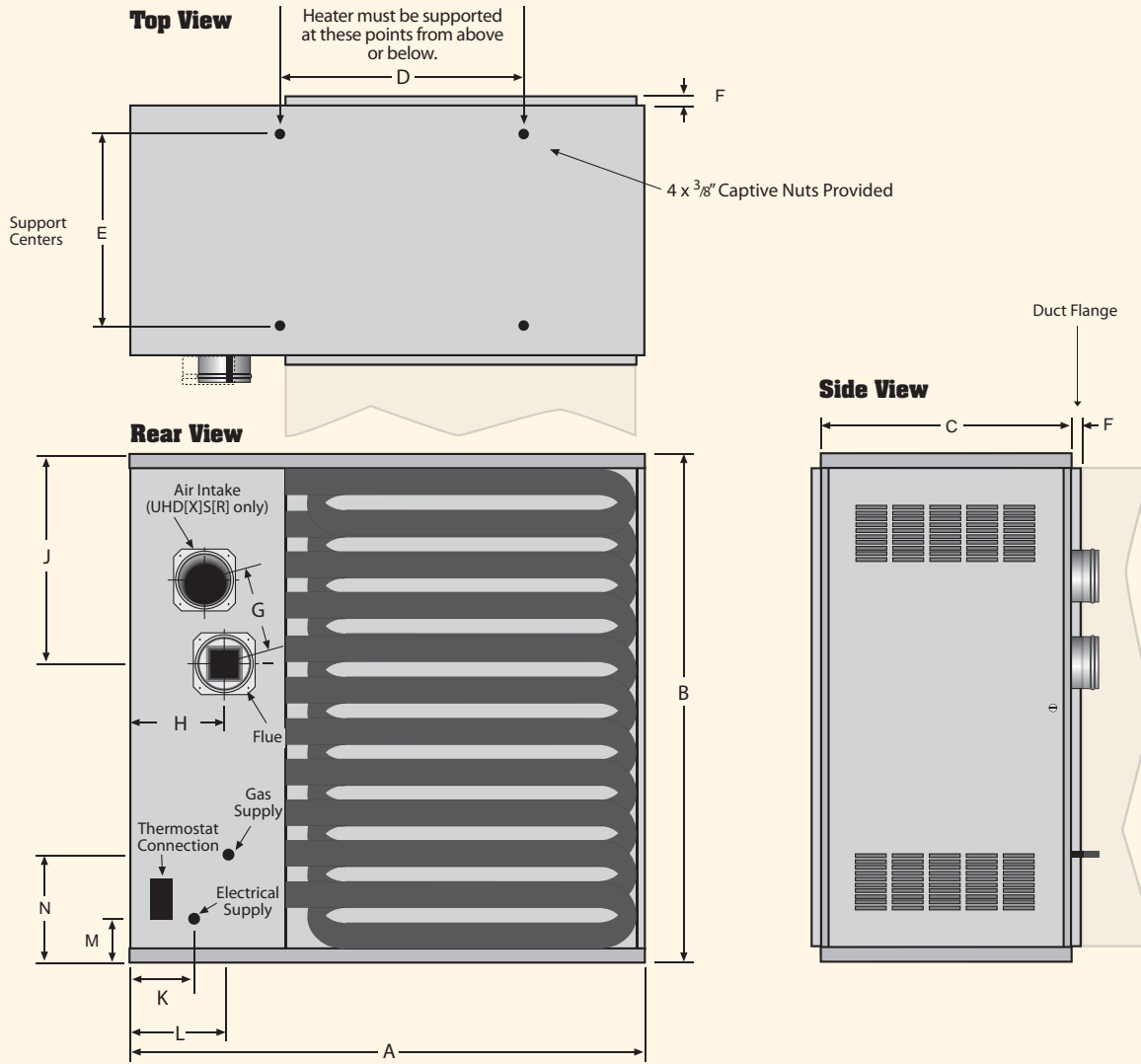
Dimension Data - Low Profile Range (Models 75 - 125)



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

BANANZA® UHD[X][S][R]-SERIES

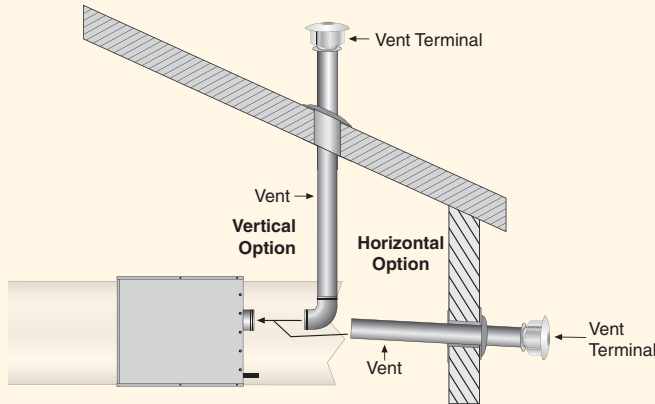
Dimension Data - Standard Profile Range (Models 150 - 400)



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

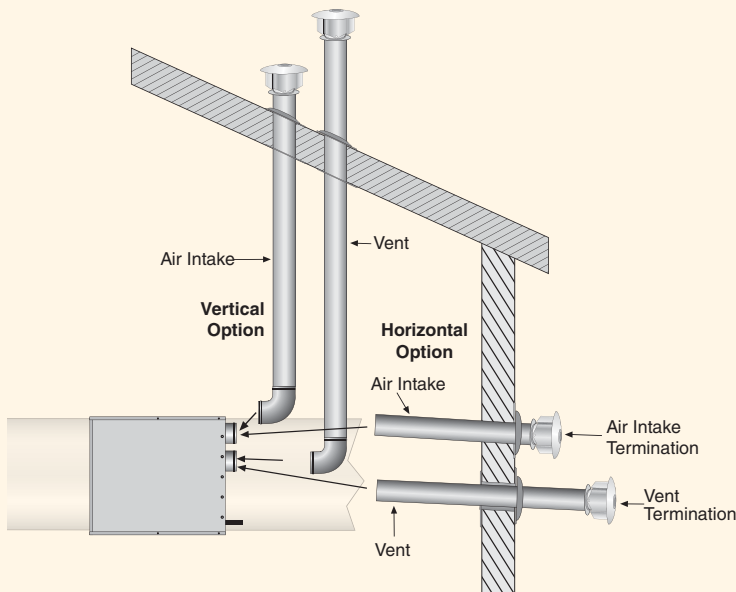
BANANZA® UHD[X][S][R]-SERIES VENTING

Non-Separated Combustion Heater



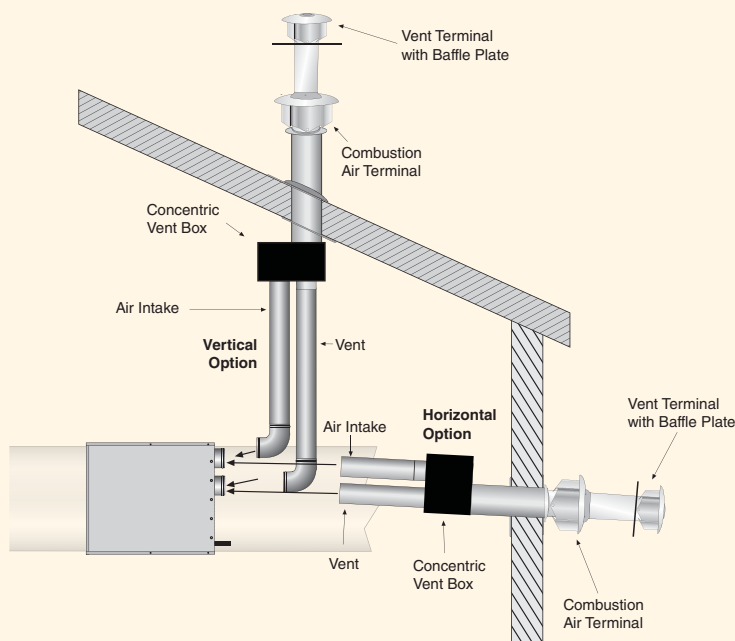
Non-separated combustion heaters use air from the heated space for combustion. The combustion air is drawn into the unit through openings in the access door and then into the open burner box. The products of combustion must be vented to the outdoors. Flue can be run either vertically through a roof penetration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

Thank You for Your Business!

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

Further Information: Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through BANANZA® 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.

This document is intended to assist licensed professionals in the exercise of their professional judgment.

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