

## Specification Guide

# UHRS & UHCM Series

## Unit Heaters

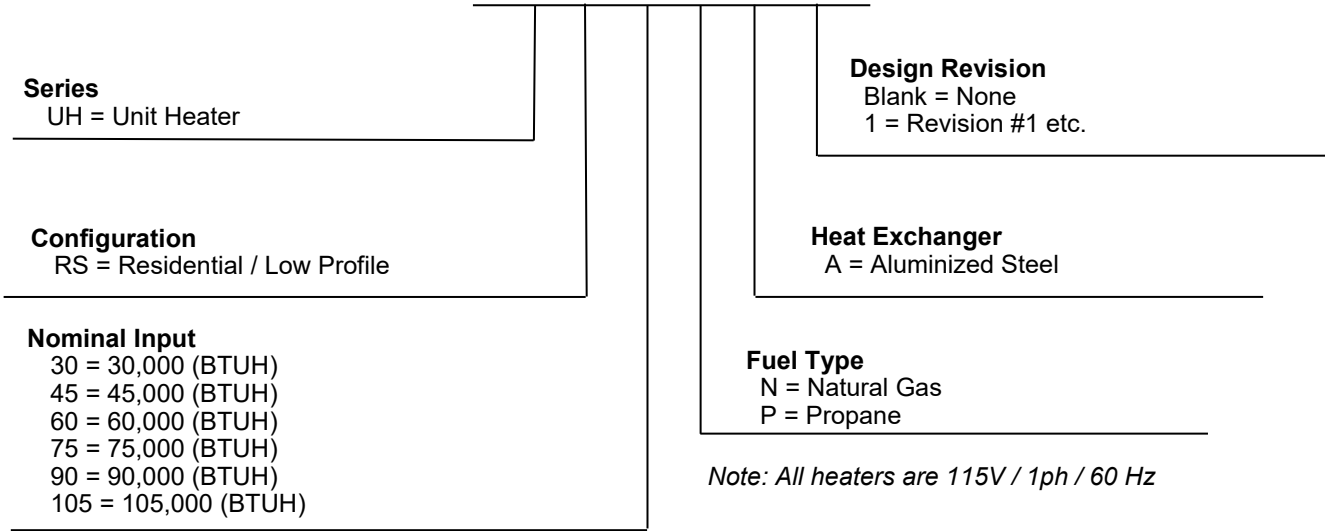


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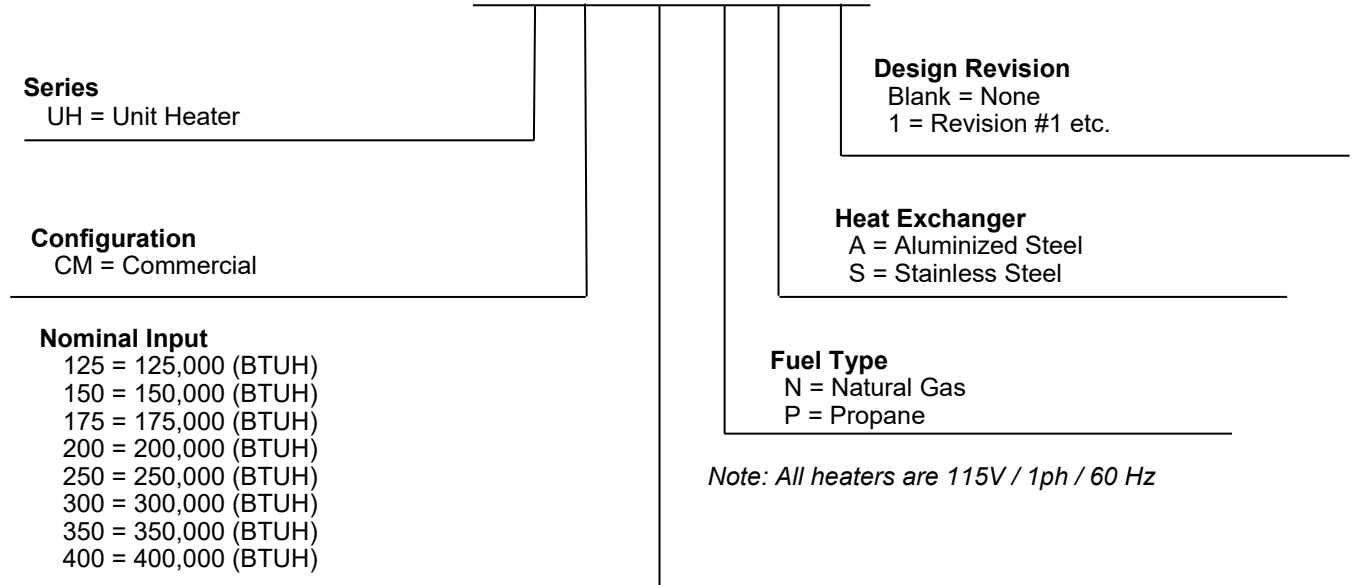
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# PRODUCT NOMENCLATURE

## UH RS - 45 N A - 1



## UH CM -175 N A - 1



# PRODUCT FEATURES

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## ***Efficiency***

ADP gas-fired unit heaters deliver between 83% and 82% thermal efficiency. This excellent efficiency sets a new standard when using gas-fired unit heaters.

## ***Reliability***

ADP heater designs have proven superior for over a decade and during hundreds of thousands of hours in the toughest winter climates of North America and under extreme conditions in laboratory life cycle testing. ADP unit heaters have been designed to provide a long, trouble free service life.

## ***Quality***

Every heater undergoes continuous quality checks at all stages of manufacturing. After assembly, each heater is test fired and functionally tested to provide final assurance that it is performing in accordance with ADP's rigorous quality standards.

## ***Approvals***

All ADP heaters are built in the USA in an ISO 9001:2008 facility. The rating plate of each heater carries the mark signifying that the heater is design certified by CSA. In addition, the heater series is listed by the California Energy Commission (CEC).

## ***Warranty***

ADP unit heaters feature a standard 2-year limited warranty. For UHRS, and UHCM Series, the warranty provides extended coverage on aluminized heat exchangers for 10 years. For UHCM Series, the warranty provides extended coverage on stainless steel heat exchangers for 15 years.

## ***Power Exhaust***

All heaters have a sealed flue collector and a power exhaust system which enable conventional vertical venting or horizontal venting. Power exhaust, when used with horizontal venting, lowers operating cost because it reduces stack losses. It also allows the option of not penetrating the roof, or multiple floors. The versatile power exhaust (on some models) reduces installation cost further by allowing the exhaust to be directed upward, left or right, just by rotating the exhaust assembly.

## ***In Shot Burners***

These lightweight aluminized steel burners are maintenance-free and never require adjustment. The burner venturi mixes air and gas in the correct proportion for efficient combustion. The entire burner assembly is removable as one piece for ease of service.

## ***Patented Tubular Heat Exchangers***

Constructed of aluminized steel for superior resistance to corrosion and oxidation; for additional protection, some models have an optional stainless steel heat exchanger. The patented curving design provides for complete exposure of the heating surface to the supply air stream. Rounded surfaces minimize air resistance and permit air to surround all heat transfer surfaces for excellent heat transfer. Tubular design means lighter weight and significantly longer service life due to lower thermal-induced stresses. .

## ***Direct Spark Ignition***

In combination with the 24-volt main gas valve with 100% shutoff for safety, the direct spark ignition control provides positive, reliable and safe main burner ignition. This eliminates the need for a pilot light, improving system efficiency and reliability. A separate flame sensor provides proof of main burner ignition. If loss of main burner flame should occur, the control will reinitiate ignition three times before locking out, thus reducing nuisance service calls. The unit will reinitiate ignition after the one hour lockout. The prepurge operation safety removes all gas and flue products from the system prior to ignition.

## ***Cabinet***

Constructed heavy gauge painted steel, each cabinet has a two-point suspension system for easy installation (larger and two-fan models have four-point suspensions). The wiring junction box is conveniently located on the side of the cabinet (UHCM only) for easy access and adequate protection.

## Product Features

- Residential – low profile units.
- Great for garages & shops.
- Sidewall venting eliminates roof penetrations.
- Wiring junction box is located inside of unit.
- 1" clearance from ceiling for easy installation.
- Now with 30% quieter operation compared to previous models.
- Heating capacities from 30,000 – 105,000 BTUH.
- Up to 85% thermal efficiency.
- Self-diagnostic board with LED display improves troubleshooting.
- Power exhaust system allows horizontal venting to 25 ft.
- Patented tubular heat exchangers made of aluminized steel.
- Aluminized steel in shot burners provide efficient trouble free operation.
- Direct drive propeller fans are dynamically balanced for quiet and smooth operation.



## Technical Data

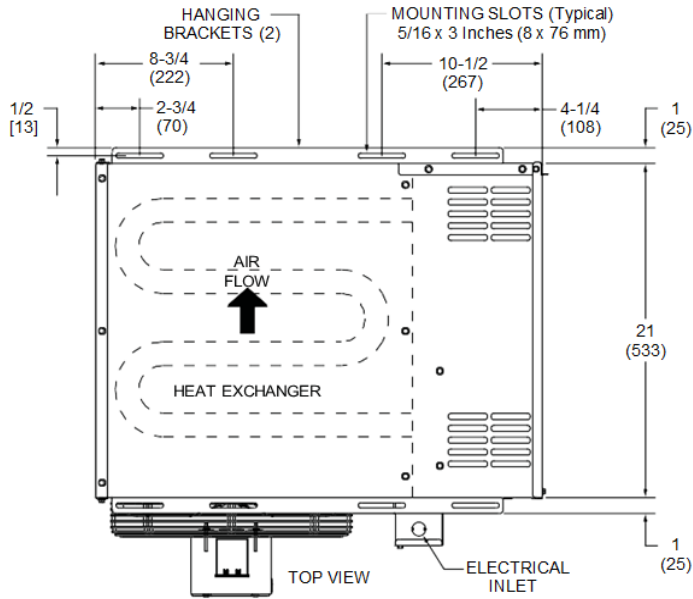
	Model	UHRS -30 <sup>[1]</sup>	UHRS -45 <sup>[1]</sup>	UHRS -60	UHRS -75	UHRS -90	UHRS -105
<b>Gas Heating Performance</b>	Heating Capacity Input (BTUH)	30,000	45,000	60,000	75,000	90,000	105,000
	NG Heating Output (BTUH)	25,020	37,665	50,220	62,550	75,420	87,675
	LP Heating Output (BTUH)	25,560	38,385	51,180	63,825	77,130	89,250
	Steady State Efficiency -- Natural Gas	83%	83%	83%	83%	83%	83%
	Steady State Efficiency -- LPG / Propane	85%	85%	85%	85%	85%	85%
	Temp Rise (deg F)	37	52	47	65	43	59
<b>Connections</b>	Flue Size Round (in)	4 <sup>[2]</sup>	4 <sup>[2]</sup>	4 <sup>[2]</sup>	4 <sup>[2]</sup>	4 <sup>[2]</sup>	4 <sup>[2]</sup>
	Gas Piping Size (in, NPT)	1/2	1/2	1/2	1/2	1/2	1/2
<b>Fan Data</b>	Num of Fans	1	1	1	1	1	1
	Diameter (in)	10	10	14	14	16	16
	Num of Blades	4	4	4	4	4	4
	Motor Output (hp)	1/25	1/25	1/15	1/15	1/10	1/10
	Motor Full Load Amps	0.45	0.45	0.9	0.9	1.5	1.5
	Motor RPMs	1550	1550	1075	1075	1075	1075
	Air Volume (CFM)	625	665	1000	1200	1600	1500
	Throw Ft.	27	29	34	41	46	43
<b>Physical Data</b>	Overall Dimensions H x W x D (in)	12.375 x 29 x 27.5	12.375 x 29 x 27.5	17.5 x 29 x 27.5	17.5 x 29 x 27.5	23 x 29 x 28.875	23 x 29 x 28.875
	Ship Weight (lbs)	60	65	90	95	120	125

[1] Sold in pallet quantities of four(4) per model. No mix or match of models.

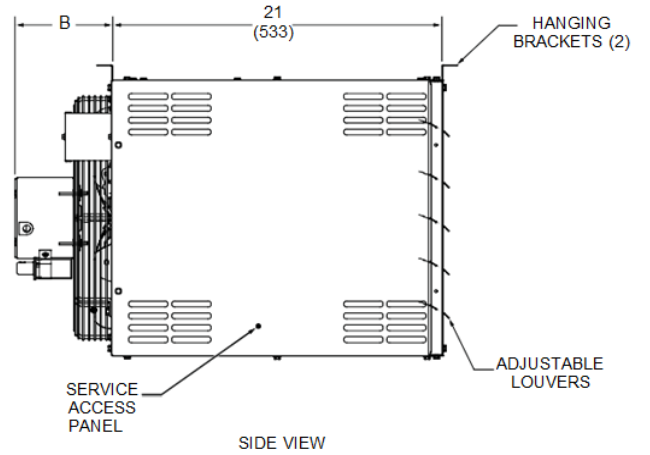
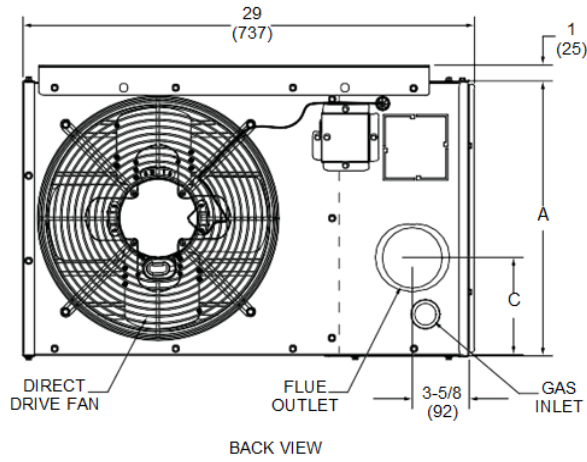
[2] 2 x 4 in. (51 x 102 mm) diameter adaptor is furnished with unit for flue connection.

Note: All models have aluminized steel heat exchanger; all models are 115 V, 60 Hz, 1 phase.

Dimensions



**NOTE:** Unit may be rotated 180° top for bottom to change gas, electrical and flue positions. Hanging brackets may be installed on either top or bottom of unit.



Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
UHRS-030A UHRS-045A	12-3/8	314	6-1/2	165	3-7/8	98
UHRS-060A UHRS-075A	17-1/2	445	6-1/4	159	6-1/8	156
UHRS-090A UHRS-105A	23	584	7-7/8	200	9-1/8	232

## Product Features

- Heating capacities from 125,000 – 400,000 BTUH.
- Up to 85% thermal efficiency.
- Stainless steel heat exchanger is available for longer product life.
- 2-stage models (see chart below) provide improved efficiency and system cycle reduction.
- Patented tubular heat exchangers made of aluminized steel or stainless steel.
- Aluminized steel in shot burners provide efficient trouble free operation.
- Sidewall venting eliminates roof penetrations.
- Now with 30% quitter operation compared to previous models.
- Wiring junction box is located outside of unit.
- Safe direct spark ignition. No standing pilot light.
- Self-diagnostic board with LED display improves troubleshooting efficiency and accuracy.
- 3/8 x 16 rivet nuts are located on the top of cabinet for suspending unit using threaded rod.
- Power exhaust system with a sealed flue collector allows conventional vertical or horizontal venting to 35 ft (depends on unit size).
- Direct drive propeller fans are dynamically balanced for quiet, smooth operation.



## Technical Data

	Model	UHCM -125	UHCM -150	UHCM -175	UHCM -200	UHCM -250	UHCM -250-1	UHCM -300	UHCM -300-1	UHCM -350	UHCM -350-1	UHCM -400	UHCM -400-1
<b>Gas Heating Performance</b>	Heating Capacity Input BTUH (High Heat)	125,000	150,000	175,000	200,000	250,000	250,000	300,000	300,000	350,000	350,000	400,000	400,000
	Heating Capacity Input BTUH (Low Heat)	-	-	-	-	-	162,500	-	195,000	-	225,000	-	254,000
	Output Natural Gas (BTUH)	103,750	124,500	145,250	166,000	207,500	207,500	246,000	246,000	290,500	290,500	328,000	328,000
	Output LPG/Propane (BTUH)	106,250	127,500	148,750	170,000	212,500	212,500	252,000	252,000	294,000	294,000	336,000	336,000
	Steady State Efficiency -- Natural Gas	83%	83%	83%	83%	83%	83%	82%	82%	83%	83%	82%	82%
	Steady State Efficiency -- LPG / Propane	85%	85%	85%	85%	85%	85%	84%	84%	84%	84%	84%	84%
<b>Connections</b>	Flue Size Round (in)	4 <sup>[1]</sup>	4 <sup>[1]</sup>	5 <sup>[2]</sup>	5 <sup>[2]</sup>	5 <sup>[2]</sup>	5 <sup>[2]</sup>	5 <sup>[2]</sup>	5 <sup>[2]</sup>	6 <sup>[3]</sup>	6 <sup>[3]</sup>	6 <sup>[3]</sup>	6 <sup>[3]</sup>
	Gas Piping Size (in, NPT)	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
<b>Fan Data</b>	Number of Fans	1	1	1	1	2	2	2	2	2	2	2	2
	Diameter (in)	16	16	18	18	16	16	16	16	18	18	18	18
	Stages	1	1	1	1	1	2	1	2	1	2	1	2
	Number of Blades	4	4	5	5	4	4	4	4	5	5	5	5
	Motor Output (hp)	1/5	1/5	1/3	1/3	1/5	(2) 1/5	1/5	(2) 1/5	1/3	(2) 1/3	1/3	(2) 1/3
	Motor Full Load Amps	5	5	7	7	8	8	8	8	11	11	11	11
	Motor RPMs	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075
	Air Volume (CFM)	1950	1950	2350	2650	3400	4000	4000	4000	4500	5500	4750	5500
Throw Ft.	49	49	52	59	60	60	71	71	70	70	78	78	
<b>Physical Data</b>	Overall Dimensions H x W x D (in)	35-1/4 x 24 x 42-1/2	35-1/4 x 24 x 42-1/2	35-1/4 x 29-1/2 x 42-1/2	35-1/4 x 29-1/2 x 42-1/5	35-1/4 x 41-1/8 x 42-1/2	35-1/4 x 41-1/8 x 42-1/2	35-1/4 x 41-1/8 x 42-1/2	35-1/4 x 41-1/8 x 42-1/2	35-1/4 x 51-1/2 x 42-1/2	35-1/4 x 51-1/2 x 42-1/2	35-1/4 x 51-1/2 x 42-1/2	35-1/4 x 51-1/2 x 42-1/2
	Ship Weight (lbs)	167	177	190	200	310	310	330	330	340	340	380	380

[1] 2-1/8 x 4 in. (54 x 102 mm) diameter adaptor is furnished with unit for flue connection.

[2] 2-1/4 x 2-3/4 in. (57 x 70 mm) rectangular to 5 in. (127 mm) round adaptor is furnished with unit for flue connection.

[3] 2-1/4 x 2-3/4 in. (57 x 70 mm) rectangular to 6 in. (152 mm) round adaptor is furnished with unit for flue connection.

All models are 115 volts, 60 Hz, 1 phase.

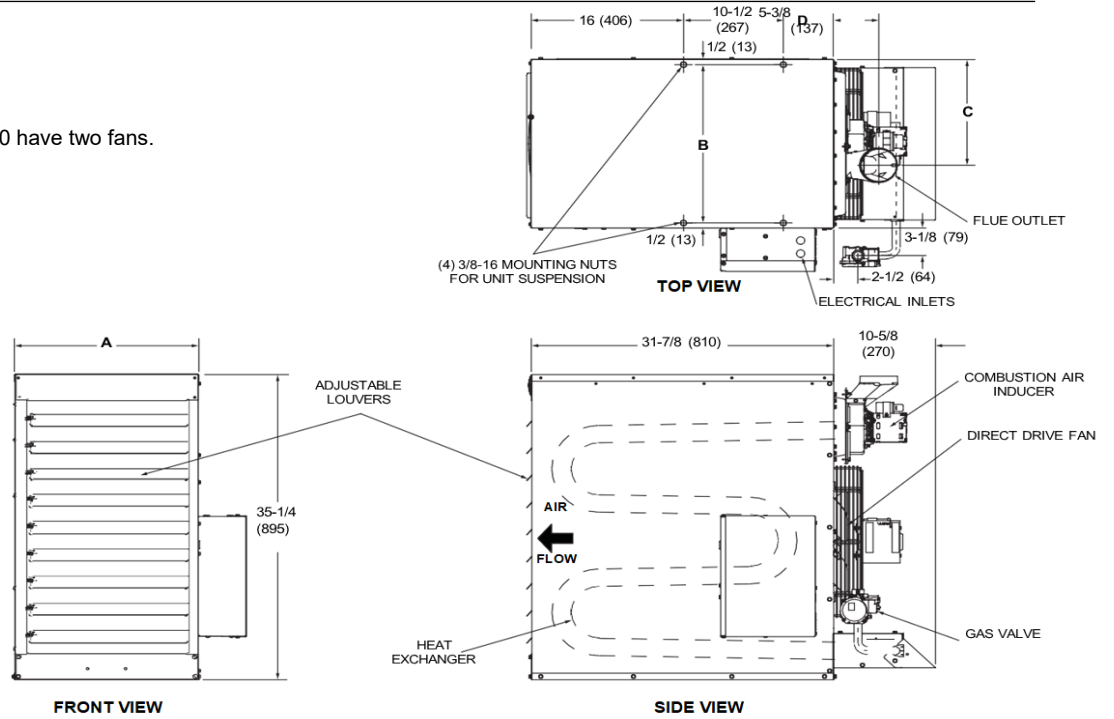
Note: UHCM unit heaters are not approved for residential applications.

# UHCM SERIES

# Commercial Unit Heaters

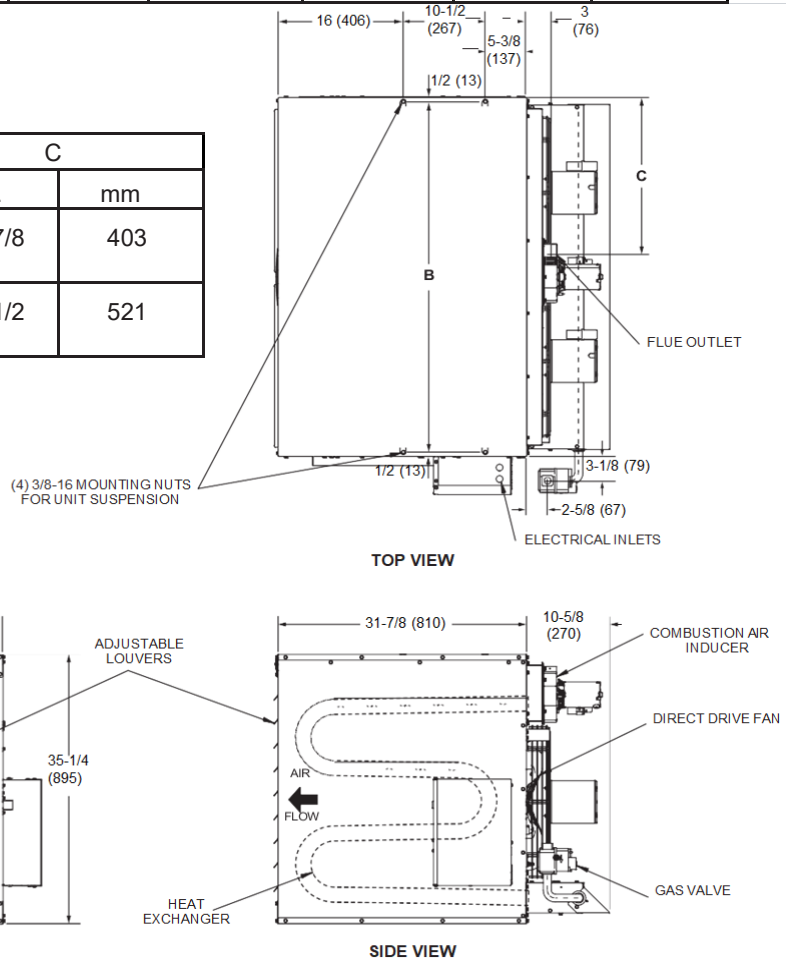
## Dimensions

**NOTE:** Single fan model shown.  
UHCM models 250, 300, 350 and 400 have two fans.



Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
UHCM-125 UHCM-150	19-1/2	495	18-1/2	470	12-1/4	311	4-3/4	121
UHCM-175 UHCM-200	25	635	23-3/4	603	9-1/2	241	3	76

Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
UHCM-250 UHCM-300	37-5/8	956	36- 1/2	927	15- 7/8	403
UHCM-350 UHCM-400	47	1194	45- 3/4	1162	20-1/2	521





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