



**DAIKIN**

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**UNIVERSITY**

**90 Plus AFUE Furnace  
Applications**

**Participant Guide**



## 90 Plus AFUE Furnace

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### Daikin 90 Plus AFUE Furnace

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- **Reduced cabinet height** from 40" to 34.5"
- **Reduced cabinet width**
- All models have **3 position installation:**
  - Upflow, Horizontal (L & R)
  - Downflow, Horizontal (L & R)
- **97%, 96%, and 92% AFUE**
- **One piece** heat exchanger
- Durable **silicon nitride igniter** standard in all models

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## External Cabinet Features

- **Embossed single piece wrapper** provides added cabinet strength
- **Cabinet width reduced to 17.5"** for 80K BTH/h models
- **Cabinet width reduced to 21"** for 100K BTH/h models
- **Cabinet leakage is less than < 2%**
- **Pan head screws** used to minimize scratches on door frames
- **Thumbscrews** for easy door access
- **Additional Air Inlet Options**
  - Top and both sides

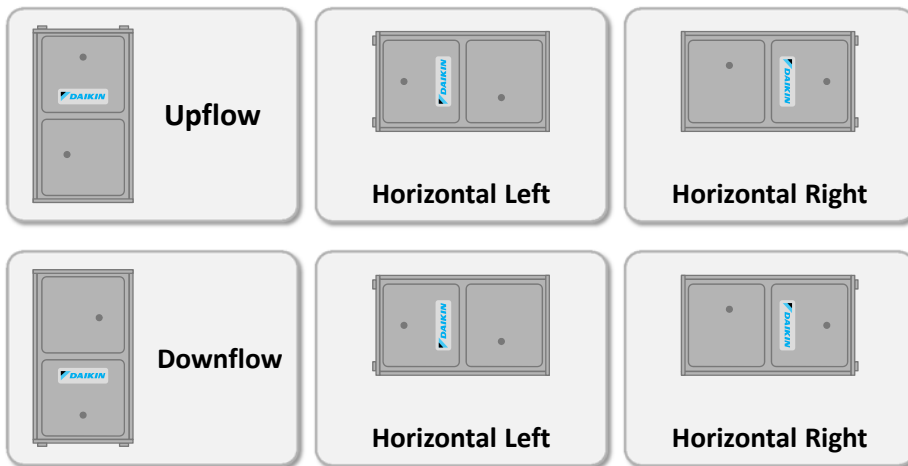


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## External Cabinet Features

### Three Position Installation



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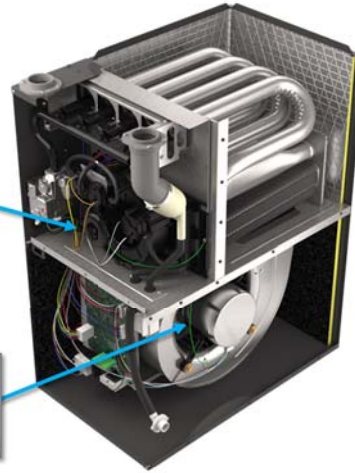
## Internal Cabinet Features

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New **raised wire penetration area** to prevent condensate from dripping down to control board



New **"D" shaped blower hub** guarantees that the blower set screw always aligns correctly to the flat area on the motor shaft.



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## Internal Cabinet Features

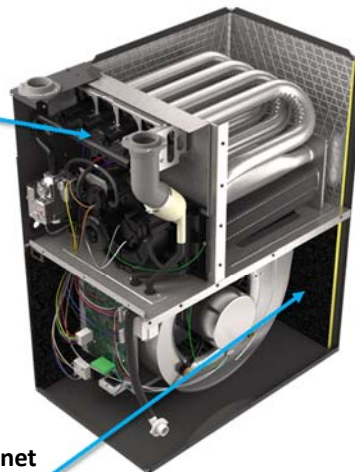
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**Improved burner bracket design** for enhanced burner support and alignment.

- Burner alignment critical to combustion.

**Improved Cabinet Insulation**



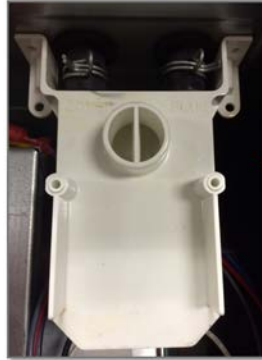
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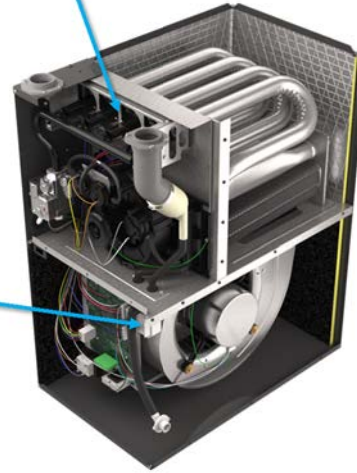
## Internal Cabinet Features

### Condensate

- Factory installed internal condensate trap for vertical “upflow” models
- Condensate easily removed and reinstalled for horizontal applications



### Silicon Nitride Igniter



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## Service Features

- Improved access to the flame sensor and igniter
- Vertical gas valve for easy field connections to either side of the cabinet



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## Service Features



- Electrical components mounted to the front of the control board for easy access
- Self- diagnostics control board
- Door sight glass aligns with control board LED display

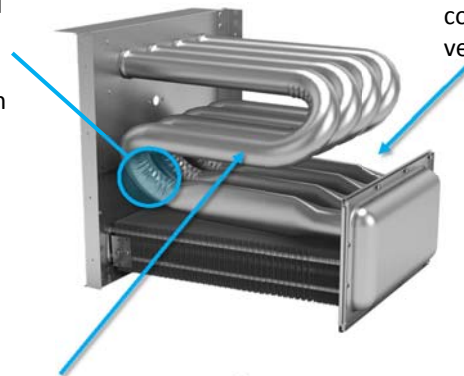


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## Heat Exchanger

Daikin uses **“wrinkle bend” technology** that maintains wall thickness in all bends and provide turbulence for improved heat transfer



**Optimizer designed into heat exchanger tubing** for improved combustion air velocity

**Tubing joint eliminated** in new model furnaces

One piece **primary heat exchanger** constructed of **stainless steel**

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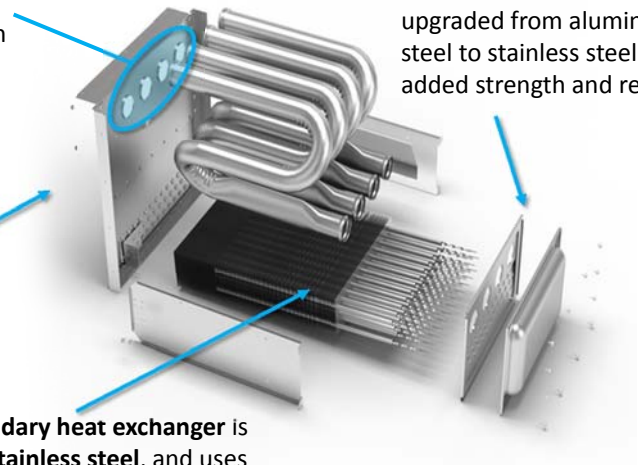
## Heat Exchanger

Firing rate of 20,000 BTU/h per burner

Rear header has been upgraded from aluminized steel to stainless steel for added strength and reliability.

Delivers capacities from 40,000-120,000 BTU/h

The secondary heat exchanger is made of stainless steel, and uses 3/8 inch stainless steel tubes



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## Models Available

New Family	Position	Gas Valve	AFUE	BTU Range	Motor	Inducer	Controls	Fan Efficiency
DM97MC DC97MC	Up/Horizontal Dn/Horizontal	Modulating	Up to 97%	60-120 60-100	Variable Speed ECM	Variable Speed	ComfortNet 2-Stage Single Stage	AMACF Little "e"
DM96VC DC96VC	Up/Horizontal Dn/Horizontal	2-Stage	Up to 96%	40-120	Variable Speed ECM	2-Speed	ComfortNet 2-Stage Single Stage	AMACF Little "e"
DM96VE	Up/Horizontal	2-Stage	Up to 96%	30-120	Multi Speed ECM	2-Speed	2-Stage Single Stage	AMACF Little "e"
DM96HS DC96HS	Up/Horizontal Dn/Horizontal	2-Stage Convertible	Up to 96%	40-120	Multi Speed	Single Speed	2-Stage Single Stage	
DM92SS DC92SS	Up/Horizontal Dn/Horizontal	Single Stage	Up to 92%	40-120 40-100	Multi Speed	Single Speed	Single Stage	

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## Limited Warranty\* Information



DM97MC  
DC97MC  
DM96VC  
DC96VC



DM96VE  
DM96HS  
DC96HS



DM92SS  
DCS92SS



All Daikin  
furnace  
models

\*Complete warranty details available from your local dealer or at [www.daikincomfort.com](http://www.daikincomfort.com). To receive the 12- Year or 6- Year Unit Replacement Limited Warranty, Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home) and 12- Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Additional requirements for annual maintenance are required for the Unit Replacement Limited Warranty. Online registration is not required in California and Quebec.

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## Review

- 1 The **heat exchanger** in the new Daikin 90 Plus furnace is **constructed** of \_\_\_\_\_.
- 2 **Cabinet leakage** in the new Daikin 90 Plus furnace is **less than** \_\_\_\_\_.
- 3 The new \_\_\_\_\_ **shaped blower hub** guarantee's that the blower set screw always aligns correctly to the flat area on the motor shaft.
- 4 The **gas valve** in the new Daikin 90 Plus furnace is **mounted in** the \_\_\_\_\_ **position**.
- 5 The **rear header** on the new Daikin 90 Plus furnace is **constructed** of \_\_\_\_\_.
- 6 **Firing rate of each burner** in the new Daikin 90 Plus furnace is \_\_\_\_\_.
- 7 All new Daikin 90 Plus furnace models have a \_\_\_\_\_ **year limited parts warranty**.
- 8 The variable speed motors in the new Daikin 90 Plus 96% and 97% AFUE furnaces will utilize the \_\_\_\_\_ **control/ thermostat**.

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QUESTIONS?