

# High-Efficient Direct-Vent Wall Furnace - Exceeds 80% AFUE

EMPIRE



DV-40E

- State-of-the-Art Technology Ensures Exceptional Fuel Efficiency
- Electronic Thermistor Thermostat Maintains Temperature Range
- Standard Wall Thermostat Hook-up Accepts Any 24-Volt Wall Thermostat – Including Efficient Programmable Thermostats (purchased separately)
- Total Comfort for a Fraction of the Cost of Electric Heat
- Sealed Combustion Chamber Maintains Indoor Air Quality
- Discreet Vent Termination minimizes disruptions to home's exterior
- Filtered Air System
- Standard Unit Vents Through a Wall up to 10 inches Deep and up to 32 inches with the DVT-2 accessory kit
- Extended Horizontal and Vertical Vent Run Accessories for 20,000 and 40,000 Btu Wall Furnaces allow up to 15 feet of venting
- Built-in Blower Enhances Heat Distribution for Added Comfort
- Hot Surface Ignition Ensures Quiet Starts and Saves Gas – Up To \$20 Per Month
- Three Btu Sizes to Heat Any Space
- Peace of Mind Safety Features Built into Furnace
- Mobile Home Certified

Surround Yourself with Comfort



# Inner Beauty Comes Standard On These Great Looking Wall Furnaces:

*With sleek designs, soft corners and beige finish, all three models blend in discreetly with any decor.*



- **Attractive Styling Easy Operation**

The Empire High-Efficient DV-20E (20,000 Btu), DV-40E (40,000 Btu) and DV-55E (55,000 Btu) furnaces' attractive styling gives any room a contemporary look. Space-efficient and easy to use, the unique design



makes them cool to the touch, meeting or exceeding all American National Standards Institute temperature tests.

The top-mounted control compartment allows you to simply flip the switch to "on" and turn to your desired temperature range. Empire offers the only high-efficient wall furnaces that can operate with optional thermostats – a traditional 24-Volt model and a wireless remote wall model – to provide set-it-and-forget-it heating control.

- **More Efficient Heating Means More Savings**

Zone heating – using a gas-fired system in the room where you need the heat – is the most cost-effective way to improve the energy efficiency of a home undergoing remodeling or weatherization upgrades.

Almost any gas system can heat your home for a fraction of the cost of electric heat, but advanced technology drives these clean-burning wall furnaces to more than 80% efficiency (AFUE).

Empire's High-Efficient Direct-Vent Wall Furnaces are available in sizes to fit most home applications. The 20,000 Btu DV-20E is ideal for maintaining a comfortable temperature in a basement or small family room. Empire offers the only high-efficient systems to exceed 40,000 Btu. The 40,000 Btu DV-40E and 55,000 Btu DV-55E are perfect for heating large family rooms, offices, apartments, or even entire homes – up to 2,000 square feet. Your dealer can help you select the appropriate Empire heater to suit your home and your local climate.

All three models come in LP or Natural Gas. Your dealer can convert the gas types if needed, using the included conversion kit.

Quiet, efficient blowers (350 cfm for the DV-20E and DV-40E, 400 cfm for the DV-55E) help circulate the warm air throughout the room.

These features deliver greater energy savings for a quicker return on your heating investment than with any conventional system.

# Surround Yourself With Comfort

Dual Circulation Blowers force air around the heat exchanger and out the bottom louvers at floor level.



Embossed Steel Outer Casing with durable powder paint finish resists fingerprints and stays cool to the touch.



Tubular Heat Exchanger provides a combustion passageway while extracting 80+% heat from gas.



Electronically Controlled Hot Surface Ignitor assures consistent and quiet ignition.



Inshot Burners facilitate smooth operation.



Control Compartment features an electronic thermistor sensing thermostat.



Electronic Circuit Board controls automatic ignition, circulating air blowers, fan inducer run time and operates on-board diagnostics.



Electronically Controlled Fan Inducer works with inshot burners to pull outside air into the tubular heat exchanger.

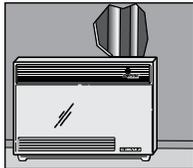


## Simple, Flexible Venting

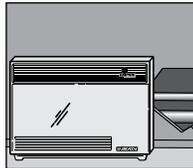
An Empire High-Efficient Wall Furnace is ideal for heating a room addition – especially where running central furnace ductwork is impractical. With optional venting that allows runs of up to 15 feet vertically or horizontally, the DV-20E and DV-40E Wall Furnaces can be installed on almost any wall – including on the main floor, basement, or upstairs. The higher input DV-55E must be installed along an outside wall only.

Each wall furnace includes a vent termination for basic installation on an outside wall up to 10 inches thick. The optional DVT-2 vent extension accommodates walls up to 32 inches thick.

See back page or owner's manual for venting accessories and specifications.



DV-40E With Optional Vertical Venting



DV-40E With Optional Horizontal Venting

### • Power-Venting Delivers More Efficient Heat

Inside the High-Efficient Direct-Vent Wall Furnace, a state-of-the-art power-vent inducer draws outdoor air into the combustion chamber at the optimal rate to support clean combustion. The hot combustion gases are forced through the inside of the unique tubular heat exchanger toward the exhaust. Outside the heat exchanger, a dual-fan air circulation system blows room air across the tubing to extract the maximum available heat. This counterflow action starts at the top of the unit and exits at floor level so that the warm air will rise naturally in your living space to provide the greatest comfort. Because room air always stays separated from combustion air, you enjoy cleaner, healthier heat, without creating negative pressure within the home that can draw in cold air.

### • Green Heating with Gas

According to the US Environmental Protection Agency, heating with any gas appliance generates far less particulate pollution than heating with any other common fuel. The worst polluter, a wood fireplace, generates 28 pounds of particulates (measuring 2.5 microns or more) for every million Btu of fuel you put in. Heating with gas generates a tiny fraction of that (just 0.0083 pound) for every million Btu input. Compared to an EPA-certified wood stove, gas heat still generates less than 1 percent of the particulate pollution. And gas produces less than 2 percent of the pollution emitted by a pellet stove.

Particulate Pollution Generated by Heat Source	PM 2.5 lb/million BTU	Percentage Compared to a Wood Fireplace
Fireplaces Burning Wood	28	
Uncertified Wood Stove	4.6	16.43%
EPA-certified Wood Stove	1.4	5.00%
Pellet Stove	0.49	1.75%
Oil Furnace	0.013	0.05%
Gas Furnace	0.0083	0.03%

### • Built-In Safety

We build safety into every Empire High-Efficient Wall Furnace. All three models feature state-of-the-art electronics that monitor furnace operation and provide continuous self-diagnostics. An automatic shut-off valve cuts off the gas in the event of a power outage. Once power is restored, your High-Efficient Wall Furnace will automatically restart.

### • Simplified Diagnosis and Maintenance

If your High-Efficient Wall Furnace does require service, a green LED light in the control compartment flashes a code that tells the service person the nature of the problem, so repairs can be handled quickly.

### • Empire's Excellent Warranty

Empire backs these superior wall furnaces with a superior warranty. The combustion chamber carries a 10-year limited warranty. All other parts carry a 5-year limited warranty with a 2-year limited labor warranty.



# High-Efficient Direct-Vent Wall Furnace 20,000, 40,000 and 55,000 Btu Models

## Specifications

Model	DV-20E	DV-40E	DV-55E
Color: Cabinet and Front Panels	Beige	Beige	Beige
Btu Input	20,000	40,000	55,000
Btu Output	16,300	32,600	44,825
<b>Overall Dimensions</b>			
Width	37"	37"	37"
Depth	15 3/4"	15 3/4"	15 3/4"
Height	26"	26"	26"
Shipping Weight, Lbs. (One Carton)	128	135	146
<b>Temperature Control</b>			
Electronic Control	Yes	Yes	Yes
Blower, tangential type, one speed	350 cfm	350 cfm	400 cfm
<b>Minimum Clearance to Combustible From:</b>			
Top	10"	10"	10"
Each Side			
Left Side	3"	3"	3"
Right Side*	3"	3"	3"
*Note: 10" Right Side Clearance Suggested for Serviceability of Right Side Panel Area.			
Bottom of Unit to Floor Covering	0"	0"	0"
<b>Gas Inlet</b>			
Type of Gas (State on Order)	Natural or LP	Natural or LP	Natural or LP
Iron Pipe Size (N.P.T.)	1/2"	1/2"	1/2"
<b>Venting</b>			
Wall Depth			
Minimum	2"	2"	2"
Maximum	10"	10"	10"
See accessories for thicker walls.			
Vent Opening in Wall	3 1/4"	3 1/4"	3 1/4"
<b>Venting Options</b>			
Maximum Length			
15' with 2 Elbows	Yes	Yes	No
10' with 3 Elbows	Yes	Yes	No
Note: Intake/exhaust extensions may be used in combination to a maximum of 15 ft. in length and two elbows.			
<b>Accessories (State on Order)</b>			
Intake/Exhaust Extension Kits:			
54" Kit with 2 Elbows	DVE-1	DVE-1	N/A
54" Kit for Extended Vent Runs	DVE-2	DVE-2	N/A
Extended Vent Terminal*	DVT-2	DVT-2	DVT-2
* Standard vent terminal for wall up to 10" thick is included with unit.			
Floor Pad	DVP-1	DVP-1	DVP-1
24-Volt Thermostat	T24V	T24V	T24V
Wireless Remote Wall Thermostat	TRW	TRW	TRW

**Safety Controls**  
Automatic Shut-off for Main Burner  
Over Temperature Safety Limit Switch

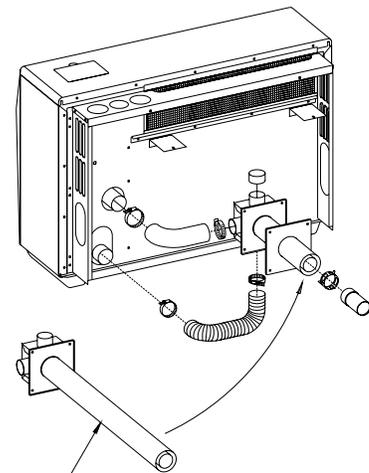
**Warranty**  
Combustion chamber carries a 10-year limited warranty.  
All other parts carry a 5-year limited warranty with a 2-year limited labor warranty.

Note: Empire has a policy of constantly improving quality and performance of its appliances, therefore, materials and specifications are subject to change without notice.

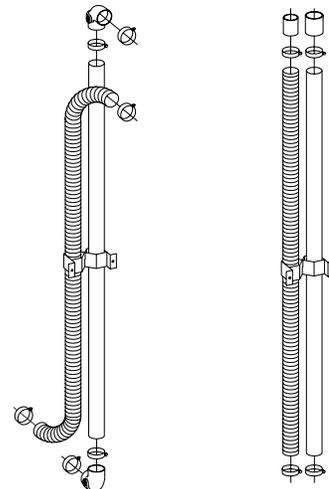


Standard Concentric Vent

Standard Intake/Exhaust Venting for up to 10" thick wall.



**DVT-2, EXTENDED VENT TERMINAL**  
Replaces standard vent assembly for up to 32" thick maximum wall.



**DVE-1 Extension Kit**  
54" in length with 2 elbows, for vertical or horizontal runs.

**DVE-2 Extension Kit**  
54" in length, use with DVE-1 kit for vent runs in excess of 54".

**Please Note:** DVE-1 and DVE-2 are not available for DV-55E.

## For Your Safety

Read your Owner's Manual for complete installation and safety information.

Installation and repair should be done by a qualified service person.

This series is design certified in accordance with American National Standards Institute Z21.86 (latest standard) and the National Standard of Canada CSA 2.32 (latest standard) by the American Gas Association and the Canadian Gas Association as a Fan Type Direct-Vent Wall Furnace.

The installation must conform to local codes. In the absence of local codes, the installation must conform with American National Standard (National Fuel Gas Code) known as NFPA 54 and ANSI Z223.1 (latest edition) available from the American National Standards Institute, Inc., 11 West 42nd St., New York, N.Y. 10036, or from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.



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