VENTING DIAGRAMS

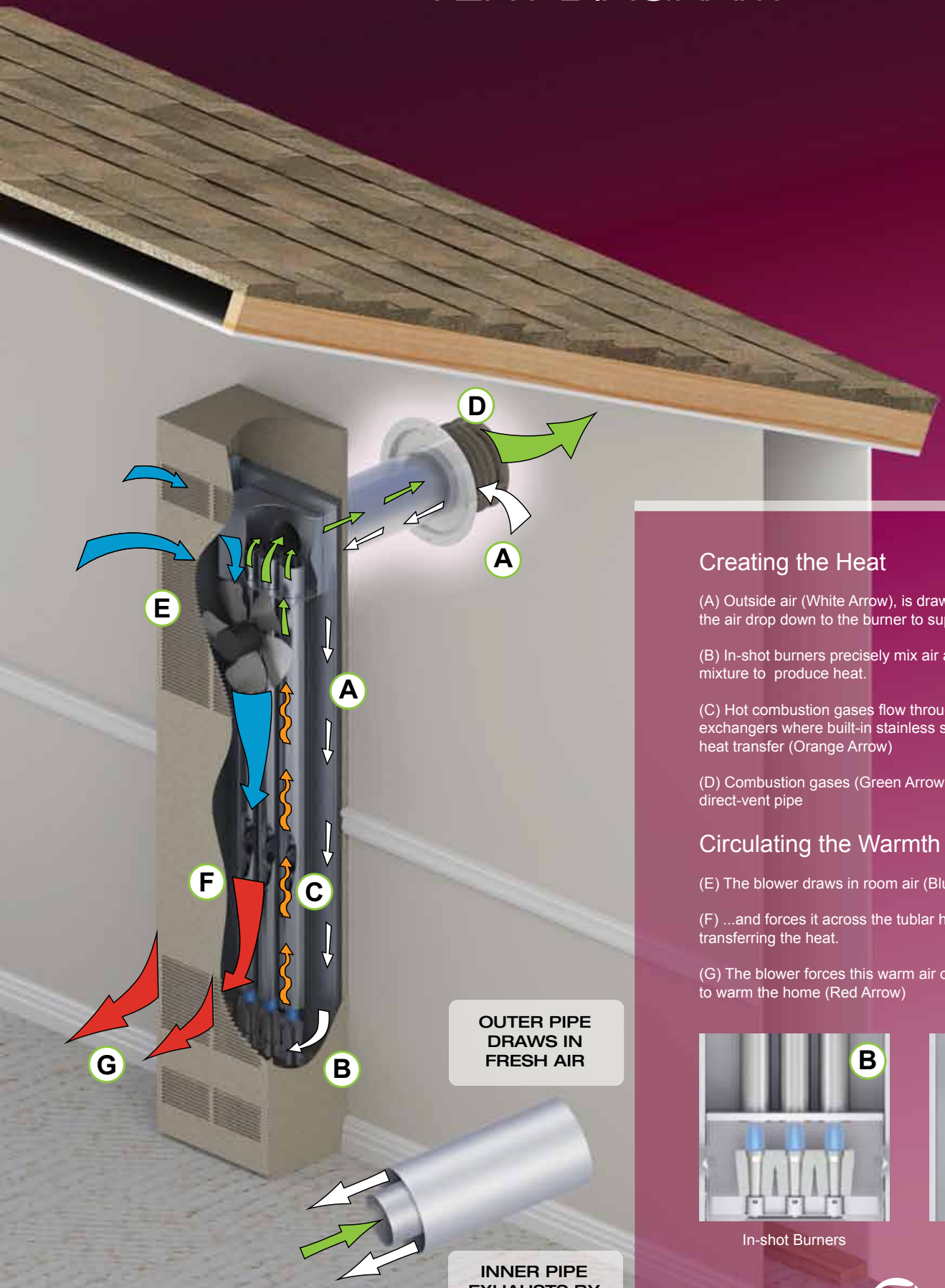
EMPIRE

COMFORT SYSTEMS

SINCE 1932

DIRECT-VENT WALL FURNACE VENT DIAGRAM

EMPIRE COMFORT SYSTEMS SINCE 1932



DV35 unit displayed above

Creating the Heat

(A) Outside air (White Arrow), is drawn in channeled through the air drop down to the burner to support combustion.

(B) In-shot burners precisely mix air and gas, burning this mixture to produce heat.

(C) Hot combustion gases flow through the tubular heat exchangers where built-in stainless steel turbulators maximize heat transfer (Orange Arrow)

(D) Combustion gases (Green Arrow) exit through a coaxial direct-vent pipe

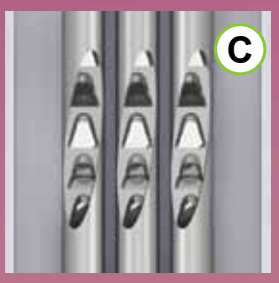
Circulating the Warmth

(E) The blower draws in room air (Blue Arrow)...

(F) ...and forces it across the tublar heat exchanger, transferring the heat.

(G) The blower forces this warm air out through lower louvers to warm the home (Red Arrow)

In-shot Burners



Turbulator

EMPIRE® Heating Systems

B-VENT WALL FURNACE VENT DIAGRAM

FAW40 unit displayed above

Creating the Heat

(A) Room air (White Arrow) is drawn in to support combustion.

(B) In-shot burners precisely mix air and gas, burning this mixture to produce heat.

(C) Hot combustion gases flow through the tubular heat exchangers (Orange Arrows) where built-in stainless steel turbulators maximize heat transfer.

(D) The combustion gases (Green Arrow) exit the through a B-vent pipe.

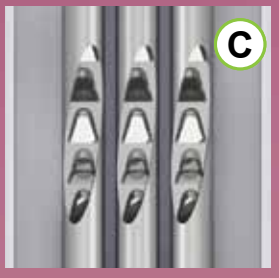
Circulating the Warmth

(E) The blower draws in room air (Blue Arrow)...

(F) ...and forces it across the tubular heat exchanger, transferring the heat.

(G) The blower forces this warm air out through the lower louvers to warm the home (Red Arrow)

In-shot Burners



Turbulator

GRAVITY B-VENT WALL FURNACE VENT DIAGRAM

GWT35 unit displayed above

Creating the Heat

(A) Room air (White Arrow) is drawn in to support combustion.

(B) In-shot burners precisely mix air and gas, burning this mixture to produce heat.

(C) Hot combustion gases flow through the crimped tubular heat exchangers which maximize heat transfer (Orange Arrows)

(D) Combustion gases (Green Arrows) exit through a B-vent pipe

Circulating the Warmth

(E) Air inside the heater (Blue Arrows) contacts the hot crimped tube heat exchanger, warming the air and creating natural convection (hot air rising).

(F) The air - warmed by the crimped tube heat exchangers - rises and exits the heater (Red Arrows)...

(G) ...drawing cool room air into the heater at the bottom. (An available blower accessory will enhance air circulation)

In-shot Burners

Crimped Tube Heat Exchangers