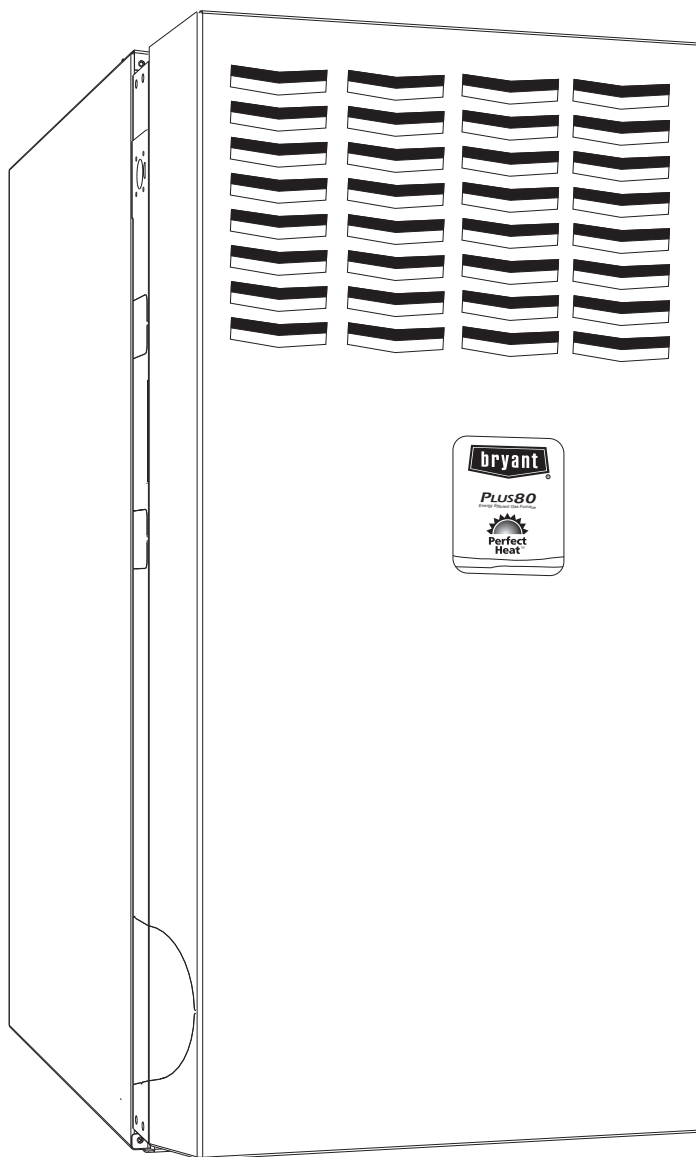




4-Way Multipoise Induced Combustion Gas Furnace

312AAV/312JAV

Sizes 045 thru 155
Series A



A02181

The 312AAV/JAV Two-stage 4-way Multipoise Gas Furnace offers outstanding comfort in an 80% AFUE furnace. You get the benefits of Perfect Heat™: reduced drafts, reduced sound levels, longer cycles, less temperature swings between cycles, less temperature differences between rooms, and improved indoor air quality. Plus, it features a dehumidify mode and the ability to change continuous fan speeds from the thermostat. The 312AAV/JAV furnaces are approved for use with natural or propane gas, and the 312JAV is approved for use in Low NOx Air Management Districts.

STANDARD FEATURES

- **Perfect Heat™ operation**

Two-stage heating

Very low operating sound through low-stage operation and noise elimination combustion system

- **Four-position furnace: upflow, horizontal right, horizontal left, downflow**

Thirteen different vent options

- **Shorter in height - only 33¹/₃" tall**

- **Media Filter Cabinet included**

- **Microprocessor based "smart" control center**

Adapts heating stages to meet demand

Continuous Fan speed adjustable from thermostat

Adjustable heating air temperature rise

LED diagnostics, non-volatile fault code memory, and self test feature

- **Patented blocked vent safeguard to ensure proper furnace venting**

- **All models are Chimney Friendly when used with accessory vent kit**

- **Insulated blower compartment**

- **Heat pump compatible**

- **Hot surface Ignition (HSI)**

- **Residential installations eligible for consumer financing through the Comfort Credit Program**

LIMITED WARRANTY

- 20-year warranty on "Super S™" heat exchanger

- 5-year parts warranty on all other components

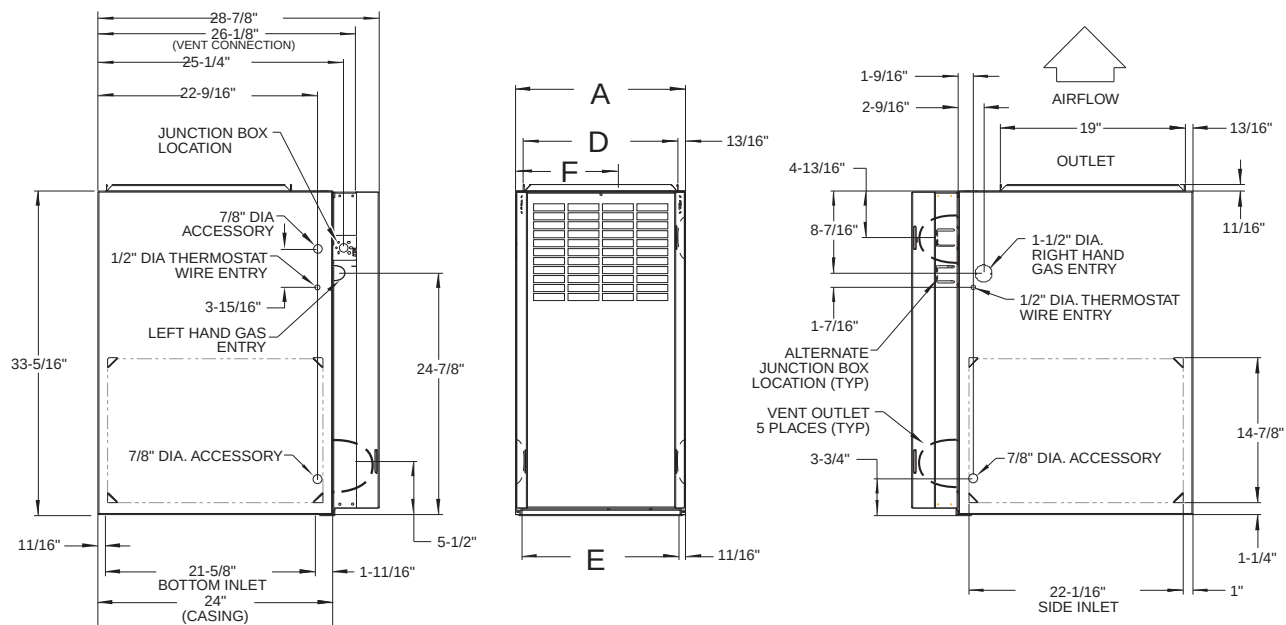


REGISTERED
QUALITY SYSTEM



**MEETS DOE RESIDENTIAL CONSERVATION
SERVICES PROGRAM STANDARDS.**

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

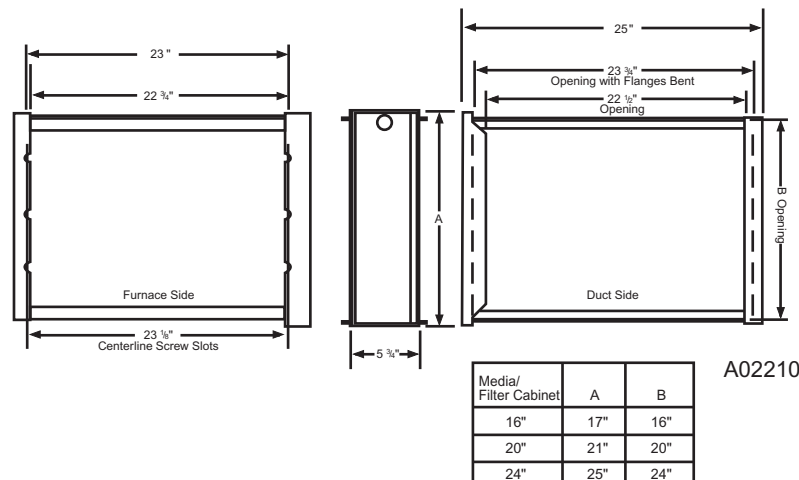


- NOTES:**
- Two additional $\frac{7}{8}$ -in. dia knockouts are located in the top plate.
 - Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
 - Minimum return-air opening at furnace:
 - For 800 CFM-16-in. round or $14\frac{1}{2}$ x 12-in. rectangle.
 - For 1200 CFM-20-in. round or $14\frac{1}{2}$ x $19\frac{1}{2}$ -in. rectangle.
 - For 1600 CFM-22-in. round or $14\frac{1}{2}$ x $22\frac{1}{16}$ -in. rectangle.
 - For airflow requirements above 1800 CFM, see Air Delivery table in Product Data literature for specific use of single side inlets. The use of both side inlets, a combination of 1 side and the bottom, or the bottom only will ensure adequate return air openings for airflow requirements above 1800 CFM.

312AAV/312JAV UNIT SIZE	A (CABINET WIDTH)	D (SUPPLY WIDTH)	E (BOTTOM RETURN WIDTH)	F (C.L. TOP & BOTTOM VENT OUTLET)	VENT CONNECTION SIZE (see notes 1 & 2)	SHIPPING WEIGHT
024045	14-3/16	12-9/16	12-11/16	9-5/16	4	116
036045	14-3/16	12-9/16	12-11/16	9-5/16	4	119
024070	14-3/16	12-9/16	12-11/16	9-5/16	4	120
036070	14-3/16	12-9/16	12-11/16	9-5/16	4	124
048070	17-1/2	15-7/8	16-1/8	11-9/16	4	138
042090	17-1/2	15-7/8	16-1/8	11-9/16	4	136
048090	21	19-3/8	19-1/2	13-5/16	4	151
060090	21	19-3/8	19-1/2	13-5/16	4	156
036110	17-1/2	15-7/8	16-1/8	11-9/16	4	144
048110	21	19-3/8	19-1/2	13-5/16	4	158
066110	21	19-3/8	19-1/2	13-5/16	4	163
048135	21	19-3/8	19-1/2	13-5/16	4 (note 1)	163
066135	24-1/2	22-7/8	23	15-1/16	4 (note 1)	174
060155	24-1/2	22-7/8	23	15-1/16	4 (note 1)	181

1) 135 and 155 size furnaces require five-inch vents. Use a 4-5 inch vent adapter between furnace and vent stack.

2) See Installation Instructions for complete installation requirements.



INSTALLATION

**MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION
DISTANCE MINIMALE EN POUCES AUX CONSTRUCTIONS COMBUSTIBLES**

This forced air furnace is equipped for use with natural gas at altitudes 0-10,000 ft (0-3,050m). An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

This furnace is for indoor installation in a building constructed on site.

This furnace may be installed on combustible flooring in alcove or closet at minimum clearance as indicated by the diagram from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas-fired appliances.

This furnace is approved for UPFLOW, DOWNFLOW, and HORIZONTAL installations.

Cette fournaise est approuvée pour l'installation HORIZONTALE et la circulation d'air VERS LE HAUT et VERS LE BAS.

Cette fournaise à air pulsé est équipée pour utilisation avec gaz naturel et altitudes comprises entre 0-3,050m (0-10,000 pi).

Utiliser une trousse de conversion, fournie par le fabricant, pour passer au gaz propane ou pour certaines installations au gaz naturel.

Cette fournaise est prévue pour être installée dans un bâtiment construit sur place.

Cette fournaise peut être installée sur un plancher combustible dans une alcôve ou dans un garde-robe en respectant le minimum d'espace libre des matériaux combustibles, tel qu'indiqué sur le diagramme.

Cette fournaise peut être utilisée avec un conduit d'évacuation de Type B-1 ou connectée au conduit commun d'autres appareils à gaz.

Clearance arrows do not change with furnace orientation.

Les flèches de dégagement ne changent pas avec l'orientation de la fournaise.

Vent Clearance to combustibles:
For Single Wall vents 6 inches (6 po).
For Type B-1 vent type 1 inch (1 po).

Dégagement de l'évent avec combustibles:
Pour conduit d'évacuation à paroi simple 6 po (6 inches).
Pour conduit d'évacuation de Type B-1 1 po (1 inch).

Clearance in inches
Dégagement (po).

MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

DOWNFLOW POSITIONS:

† Installation on non-combustible floors only.
For Installation on combustible flooring only when installed on special base, Part No. KGASB0201ALL, Coil Assembly, Part No. CD5 or CK5, or Coil Casing, Part No. KCAKC.

Ø 18 inches front clearance required for alcove.

* Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing.

DÉGAGEMENT MINIMUM EN POUCES AVEC ÉLÉMENTS DE CONSTRUCTION COMBUSTIBLES

POUR LA POSITION COURANT DESCENDANT:

† Pour l'installation sur plancher non combustible seulement.
Pour l'installation sur un plancher combustible seulement quand on utilise la base spéciale, pièce n° KGASB0201ALL, l'ensemble serpentin, pièce n° CD5 ou CK5, ou le carter de serpentin, pièce n° KCAKC.

Ø Dans une alcôve, on doit maintenir un dégagement à l'avant de 18 po (450 mm).

* La position indiquée concerne le côté d'entrée ou de retour quand la fournaise est dans la position horizontale.
Le contact n'est permis qu'entre les lignes formées par les intersections du dessus et des deux côtés de la chemise de la fournaise et les solives, montant sous cadre de charpente.

327590-101 REV. B

CONTROLS-THERMOSTATS AND ZONING

THERMOSTAT- NON-PROGRAMMABLE	Auto Changeover, °F/°C, 1-Stage Heat/1-Stage Cool - TSTATBBNAC01-B Auto Changeover, °F/°C, 2-Stage Heat/1-Stage Cool - TSTATBBNHP01-B Auto Changeover, °F/°C, 2-Stage Heat/2-Stage Cool in AC Mode, 3-Stage Heat/2-Stage Cool in HP Mode Air Conditioner, 1-Stage Heat/1-Stage Cool, Manual Changeover, °F/°C - TSTATBBBAC01 Heat Pump, 2-Stage Heat/1-Stage Cool, Manual Changeover, °F/°C - TSTATBBBHP01 *
THERMOSTAT- PROGRAMMABLE	Auto Changeover, 7-Day Programmable, °F/°C, 1-Stage Heat/1-Stage Cool - TSTATBBBPAC01-B Auto Changeover, 7-Day Programmable, °F/°C, 2-Stage Heat/1-Stage Cool - TSTATBBBPHP01-B Auto Changeover, 7-Day Programmable, °F/°C, 2-Stage Heat/2-Stage Cool - TSTATBBP2S01-B in AC Mode, 3-Stage Heat/2-Stage Cool in HP Mode Dual Fuel Thermostat, includes Outdoor Air Temperature Sensor - TSTATBBPDF01-B * Thermostat Control - Non-Programmable/Programmable Thermostat - TSTATBBPRH01-B * with Humidity Control (For use in Dual Fuel, AC, HP, and 2S applications. Includes Outdoor Air Temperature Sensor.)
ZONING- 2-ZONE	ZONEBB2KIT01-B, ZONEKIT2ZBDP
ZONING- 4-ZONE	ZONEBB4KIT01-B
ZONING- 8-ZONE	ZONEBB8KIT01-B

* Do not use in zoning heat pump applications.

SPECIFICATIONS

UNIT SIZE		024045	036045	024070	036070	048070	042090	048090	
RATINGS AND PERFORMANCE									
Input Btuh* Nonweatherized ICS	312JAV Upflow; all 312AAV	-High	44,000	44,000	66,000	66,000	66,000	88,000	88,000
		-Low	29,000	29,000	43,500	43,500	43,500	58,000	58,000
	312JAV Downflow/Horizontal	-High	42,000	42,000	63,000	63,000	63,000	84,000	84,000
		-Low	29,000	29,000	43,500	43,500	43,500	58,000	58,000
Output Capacity (Btuh) † Nonweatherized ICS	312JAV Upflow; all 312AAV	-High	35,000	36,000	54,000	54,000	53,000	71,000	71,000
		-Low	23,000	23,000	36,000	36,000	35,000	47,000	47,000
	312JAV Downflow/Horizontal	-High	34,000	34,000	51,000	51,000	51,000	68,000	68,000
		-Low	23,000	23,000	36,000	36,000	35,000	47,000	47,000
AFUE †			80.0	80.0	80.0	80.0	80.0	80.0	80.0
Certified Temperature Rise Range °F		High	30-60	20-50	40-70	30-60	25-55	40-70	30-60
		Low	20-50	15-45	30-60	30-60	15-45	25-55	25-55
Certified External Static Pressure		Heat/Cool	0.10/0.50	0.10/0.50	0.12/0.50	0.12/0.50	0.12/0.50	0.15/0.50	0.15/0.50
Airflow CFM ‡		Heating High/Low	820/725	1030/860	790/685	885/695	1570/1045	1375/1195	1265/1030
		Cooling	895	1175	955	1240	1605	1385	1755
ELECTRICAL									
Unit Volts-Hertz-Phase			115-60-1						
Operating Voltage Range		Min-Max	104-127						
Maximum Unit Amps			5.4	7.1	5.1	7.3	10.1	8.1	9.9
Maximum Wire Length (Measured 1 Way in Ft)			49	38	51	37	27	34	28
Minimum Wire Size			14						
Maximum Fuse or Ckt Bkr Size (Amps)**			15						
Transformer (24v)			40va						
External Control		Heating	12va						
Power Available		Cooling	35va						
Air Conditioning Blower Relay			Standard						
CONTROLS									
Limit Control			SPST						
Heating Blower Control			Solid-State Time Operation						
Burners (Monoport)			2	2	3	3	3	4	4
Gas Connection Size			1/2-in. NPT						
GAS CONTROLS									
Gas Valve (Redundant)			White Rodgers						
		Min Inlet Pressure (In. wc)	4.5 (Natural Gas)						
		Max Inlet Pressure (In. wc)	13.6 (Natural Gas)						
Ignition Device			Hot Surface						
BLOWER DATA									
Direct-Drive Motor HP (PSC)			1/5	1/3	1/5	1/3	1/2	1/3	1/2
Motor Full Load Amps			2.8	5.1	2.8	5.1	7.4	5.1	7.4
RPM (Nominal)-Speeds			1075-4	1075-5	1075-4	1075-5	1075-5	1075-4	1075-5
Blower Wheel Diameter x Width (In.)			10 x 6	10 x 6	10 x 6	10 x 6	11 x 8	10 x 8	10 x 10

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4 percent for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4 or furnace Installation Instructions. In Canada, derate the unit 10 percent for elevations 2000 ft to 4500 ft above sea level.

** Time-delay type is recommended.

† Capacity in accordance with U.S. Government DOE test procedures.

‡ Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7% may occur when using the factory-specified 4-5/16-inch wide, high efficiency media filter.

ICS-Isolated Combustion System

N/A-Not Applicable

SPECIFICATIONS

UNIT SIZE		060090	036110	048110	066110	048135	066135	060155	
RATINGS AND PERFORMANCE									
Input Btuh* Nonweatherized ICS	312JAV Upflow; all 312AAV	-High	88,000	110,000	110,000	110,000	132,000	132,000	154,000
		-Low	58,000	72,500	72,500	72,500	87,000	87,000	101,500
	312JAVDownflow/Horizontal	-High	84,000	105,000	105,000	105,000	126,000	126,000	147,000
		-Low	58,000	72,500	72,500	72,500	87,000	87,000	101,500
Output Capacity (Btuh) † Nonweatherized ICS	312JAV Upflow; all 312AAV	-High	71,000	89,000	89,000	89,000	107,000	107,000	124,000
		-Low	47,000	59,000	59,000	59,000	70,000	70,000	82,000
	312JAVDownflow/Horizontal	-High	68,000	85,000	85,000	85,000	102,000	102,000	119,000
		-Low	47,000	59,000	59,000	59,000	70,000	70,000	82,000
AFUE †			80.0	80.0	80.0	80.0	80.0	80.0	
Certified Temperature Rise Range °F	High	25-55	50-80	40-70	30-60	50-80	40-70	45-75	
	Low	15-45	30-60	25-55	20-50	30-60	25-55	30-60	
Certified External Static Pressure		Heat/Cool	0.15/0.50	0.20/0.50	0.20/0.50	0.20/0.80	0.20/0.50	0.20/0.50	
Airflow CFM ‡	Heating High/Low		1580/1325	1335/1180	1290/1045	1555/1295	1525/1320	1865/1640	1790/1565
	Cooling		2005	1355	1695	2200	1710	2110	2230
ELECTRICAL									
Unit Volts-Hertz-Phase			115-60-1						
Operating Voltage Range		Min-Max	104-127						
Maximum Unit Amps			12.8	8.1	10.1	13.6	10.0	14.4	15.0
Maximum Wire Length (Measured 1 Way in Ft)			34	34	27	32	28	31	29
Minimum Wire Size			12	14		12	14	12	
Maximum Fuse or Ckt Bkr Size (Amps)**			20	15		20	15	20	
Transformer (24v)			40va						
External Control	Heating		12va						
	Cooling		35va						
Air Conditioning Blower Relay			Standard						
CONTROLS									
Limit Control			SPST						
Heating Blower Control			Solid-State Time Operation						
Burners (Monoport)			4	5	5	5	6	6	7
Gas Connection Size			1/2-in. NPT						
GAS CONTROLS									
Gas Valve (Redundant)	Min Inlet Pressure (In. wc)		White Rodgers						
			4.5 (Natural Gas)						
	Max Inlet Pressure (In. wc)		13.6 (Natural Gas)						
Ignition Device			Hot Surface						
BLOWER DATA									
Direct-Drive Motor HP (PSC)			3/4	1/3	1/2	3/4	1/2	3/4	3/4
Motor Full Load Amps			11.0	5.2	7.4	11.0	7.9	11.1	11.1
RPM (Nominal)-Speeds			1075-5	1075-4	1075-5	1075-5	1075-4	1075-4	1075-4
Blower Wheel Diameter x Width (In.)			11 x 11	10 x 8	10 x 10	11 x 11	10 x 10	11 x 11	11 x 11

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4 percent for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4 or furnace Installation Instructions. In Canada, derate the unit 10 percent for elevations 2000 ft to 4500 ft above sea level.

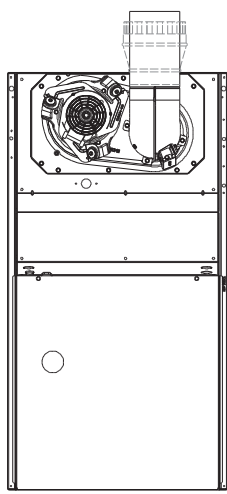
** Time-delay type is recommended.

† Capacity in accordance with U.S. Government DOE test procedures.

‡ Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7% may occur when using the factory-specified 4-5/16-inch wide, high efficiency media filter.

ICS-Isolated Combustion System

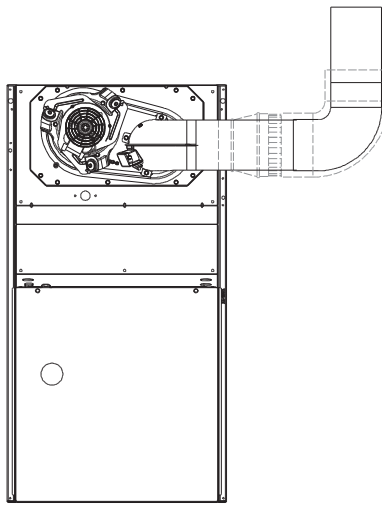
N/A-Not Applicable



SEE NOTES: 1,2,4,7,8,9

UPFLOW

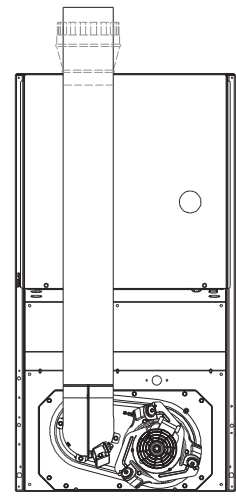
A02058



SEE NOTES: 1,2,3,4,7,8,9

UPFLOW

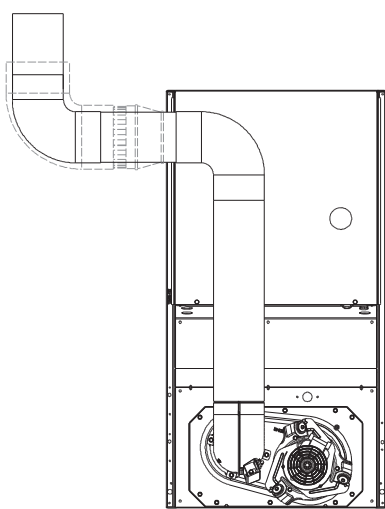
A02059



SEE NOTES: 1,2,4,5,7,8,9

DOWNFLOW

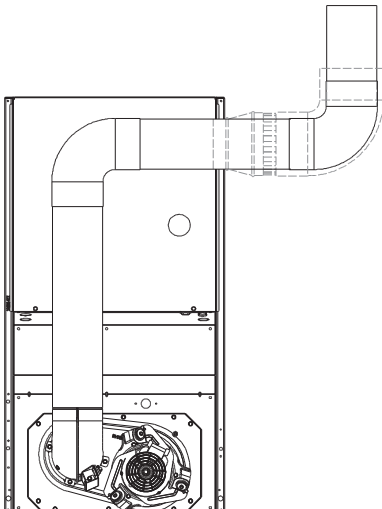
A02061



SEE NOTES: 1,2,3,4,5,7,8,9

DOWNFLOW

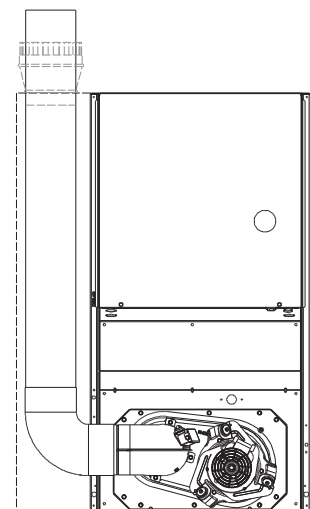
A02060



SEE NOTES: 1,2,3,4,5,7,8,9

DOWNFLOW

A02063



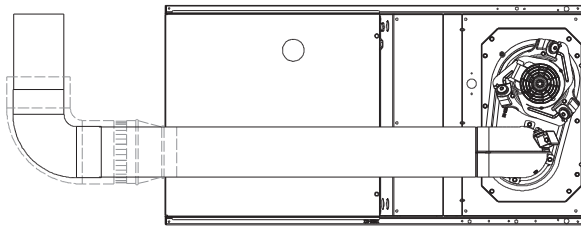
SEE NOTES: 1,2,4,5,6,7,8,9

DOWNFLOW

A02062

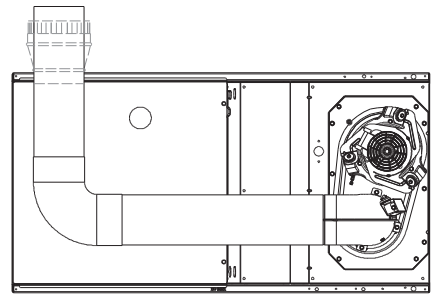
Venting Notes

1. For common vent, vent connector sizing and vent material: United States, latest edition of the National Fuel Gas Code (NFPA), ANSI Z223.1/NFPA 54. In Canada, latest edition of the National Standards of Canada, Natural Gas and Propane Installation Code (NSCNGPIC), CSA B149.1-00.
2. Immediately increase to 5-inch vent connector outside furnace casing when 5-inch vent connector required, refer to Note 1.
3. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when KGAVG0101DFG is used in downflow position.
4. Type B vent where required, refer to Note 1.
5. 4" single wall vent must be used inside furnace casing and the KGAVG0101DFG Downflow Vent Guard Kit.
6. Accessory Downflow Vent Guard Kit, KGAVG0101DFG required in downflow installations with bottom vent configuration.
7. Chimney Adapter Kit required for exterior masonry chimney applications. Refer to Chimney Adapter Kit, KGACA02014FC and KGACA02015FC for sizing and complete application details.
8. Secure vent connector to furnace elbow with (2) corrosion-resistant sheet metal screws, space approximately 180° apart.
9. Secure all other single wall vent connector joints with (3) corrosion-resistant screws spaced approximately 120° apart. Secure Type B vent connectors per vent connector manufacturer's recommendations.



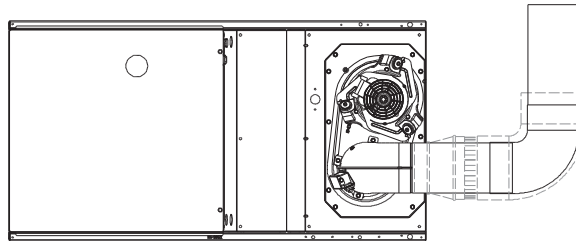
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT

A02068



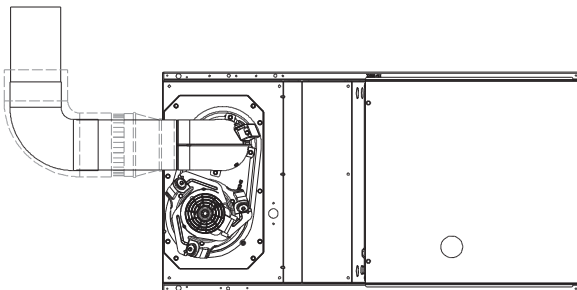
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT

A02070



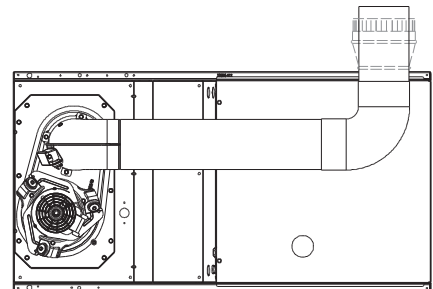
SEE NOTES: 1,2,4,7,8,9
HORIZONTAL RIGHT

A02069



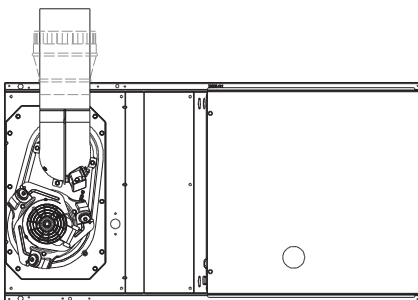
SEE NOTES: 1,2,4,7,8,9
HORIZONTAL LEFT

A02064



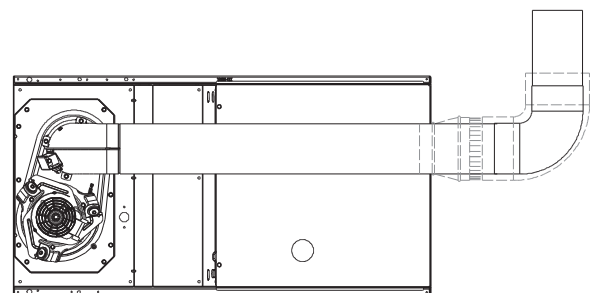
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL LEFT

A02065



SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL LEFT

A02066



SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL LEFT

A02067

FACTORY-AUTHORIZED DEALER-INSTALLED ACCESSORIES															
DESCRIPTION	PART NO.	024045	036045	024070	036070	048070	042090	048090	060090	036110	048110	066110	048135	066135	060155
EZ Flex Media Filter with end caps - 16 i n. (9 pack)	EXPXXUNV0016	x	x	x	x	x	x			x					
EZ Flex Media Filter with end caps - 20 i n. (9 pack)	EXPXXUNV0020							x	x		x	x	x		
EZ Flex Media Filter with end caps - 24 i n. (6 pack)	EXPXXUNV0024													x	x
Replacement EZ Flex Filter - 16 in. (10 pack)	EXPXXFIL0016	x	x	x	x	x	x			x					
Replacement EZ Flex Filter - 20 in. (10 pack)	EXPXXFIL0020							x	x		x	x	x		
Replacement EZ Flex Filter - 24 in. (10 pack)	EXPXXFIL0024													x	x
Unframed filter, one inch - 16x25	KGAWF1301UFR KGAWF1306UFR (6-pack)	x	x	x	x	x	x	s	s	x	s	s	s	s	s
Unframed filter, one inch - 20x25	KGAWF1401UFR KGAWF1406UFR (6 pack)							x	x		x	x	x		
Unframed filter, one inch - 24x25	KGAWF1501UFR KGAWF1506UFR (6 pack)													x	x
Twining Kit	KGATW0601HSI	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Combustible Floor Base (not required when evaporator coil case is used)	KGASB0201ALL	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Downflow Vent Guard (not required when vent is routed through cabinet)	KGAVG0101DFG	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Vent Extension Kit (may be used when vent is routed through cabinet in downflow)	KGAVE0101DNH	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Chimney Adapter Kit - 4 i nch vent	KGACA02014FC	x	x	x	x	x	x	x	x	x	x	x			
Chimney Adapter Kit - 5 i nch vent	KGACA02015FC												x	x	x
Natural-to-Propane Gas Conversion Kit (Single Kit) *	KGANP2901ALL	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Propane-to-Natural Gas Conversion Kit (Single Kit)	KGAPN2301ALL	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Gas Orifice Kit (Qty 50) Size 42	KGAHA0150N42	See Installation Instructions for model, altitude, and heat value usages.													
Gas Orifice Kit (Qty 50) Size 43	KGAHA0250N43														
Gas Orifice Kit (Qty 50) Size 44	KGAHA0350N44														
Gas Orifice Kit (Qty 50) Size 45	KGAHA0450N45														
Gas Orifice Kit (Qty 50) Size 46	KGAHA0550N46														
Gas Orifice Kit (Qty 50) Size 47	KGAHA1550N47														
Gas Orifice Kit (Qty 50) Size 48	KGAHA1650N48														
Gas Orifice Kit (Qty 50) Size 54	KGAHA0650P54														
Gas Orifice Kit (Qty 50) Size 55	KGAHA0750P55														
Gas Orifice Kit (Qty 50) Size 56	KGAHA0850P56														
Gas Orifice Kit (Qty 50) 1.25 mm	KGAHA5750125														
Gas Orifice Kit (Qty 50) 1.30 mm	KGAHA5750130														

* Factory-authorized and field installed. Gas conversion kits are A.G.A./C.G.A. recognized.

s 16x25 filters suitable for side return on all furnace sizes.

AIR DELIVERY-CFM (With Filter)*

UNIT SIZE	RETURN-AIR SUPPLY	SPEED	EXTERNAL STATIC PRESSURE (In. wc)									
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
024045	Bottom or Side(s)	High	1120	1075	1020	960	895	815	720	605	455	340
		Med-High	930	890	850	805	750	680	600	500	345	195
		Med-Low	820	785	750	700	650	585	505	400	235	---
		Low	725	690	655	605	555	495	405	305	---	---
036045	Bottom or Side(s)	High	1465	1400	1325	1250	1175	1085	980	860	725	560
		Med-High	1295	1260	1210	1155	1090	1015	930	830	700	545
		Medium	1150	1120	1085	1040	985	920	835	740	620	510
		Med-Low	1030	1010	980	945	895	835	765	685	570	345
024070	Bottom or Side(s)	High	1140	1105	1055	1010	955	885	815	715	545	390
		Med-High	915	885	855	825	785	725	655	530	420	280
		Med-Low	795	770	740	700	655	600	510	420	325	---
		Low	690	665	630	590	550	475	415	340	245	---
036070	Bottom or Side(s)	High	1440	1400	1355	1300	1240	1170	1090	1000	890	745
		Med-High	1180	1165	1150	1125	1085	1030	970	890	785	645
		Medium	1015	1020	1010	990	965	925	875	800	700	560
		Med-Low	885	885	880	865	845	815	770	700	605	475
048070	Bottom or Side(s)	High	1840	1790	1730	1670	1605	1530	1450	1370	1275	1170
		Med-High	1610	1575	1535	1485	1435	1370	1305	1230	1145	1055
		Medium	1460	1430	1400	1360	1315	1260	1205	1130	1055	965
		Med-Low	1260	1240	1215	1180	1145	1100	1040	985	915	835
042090	Bottom or Side(s)	High	1650	1600	1535	1465	1385	1285	1175	1055	895	645
		Med-High	1515	1485	1440	1380	1300	1220	1115	990	830	600
		Med-Low	1385	1360	1320	1260	1195	1120	1025	915	710	565
		Low	1205	1180	1160	1120	1065	1005	925	810	630	510
048090	Bottom or Side(s)	High	2060	2000	1930	1835	1755	1620	1490	1315	1115	910
		Med-High	1710	1695	1665	1585	1480	1390	1245	1110	955	775
		Medium	1470	1475	1450	1390	1335	1230	1120	1005	855	690
		Med-Low	1260	1265	1245	1225	1165	1090	995	880	750	600
060090	Bottom Only	High	2380	2295	2205	2105	2005	1900	1775	1650	1510	1335
		Med-High	2185	2115	2045	1960	1875	1770	1655	1535	1400	1240
		Medium	1905	1865	1815	1740	1670	1590	1490	1390	1245	1110
		Med-Low	1595	1565	1530	1485	1430	1355	1275	1160	1055	920
	Both Sides or 1 Side & Bottom	High	2485	2415	2330	2230	2135	2030	1920	1790	1645	1485
		Med-High	2175	2130	2070	2000	1930	1840	1740	1620	1495	1345
		Medium	1845	1815	1770	1720	1655	1580	1500	1395	1270	1090
		Med-Low	1540	1515	1475	1435	1385	1335	1270	1175	1045	915
	1 Side Only	High	2420	2345	2265	2165	2070	1960	1850	1720	1570	1420
		Med-High	2160	2110	2045	1960	1885	1790	1695	1570	1445	1305
		Medium	1850	1815	1765	1710	1635	1560	1480	1380	1250	1110
		Med-Low	1530	1490	1455	1420	1375	1320	1250	1160	1055	905
036110	Bottom or Side(s)	High	1625	1575	1515	1445	1355	1260	1165	990	785	595
		Med-High	1510	1470	1415	1355	1285	1185	1070	890	725	530
		Med-Low	1360	1335	1295	1250	1180	1100	985	810	670	475
		Low	1195	1180	1155	1115	1065	980	860	740	605	410
048110	Bottom or Side(s)	High	2055	1990	1910	1815	1695	1575	1425	1230	1090	910
		Med-High	1750	1725	1670	1605	1515	1400	1255	1120	975	785
		Medium	1545	1525	1490	1445	1355	1260	1135	1020	880	750
		Med-Low	1300	1290	1275	1235	1165	1085	1005	895	750	620
		Low	1050	1045	1015	975	935	880	815	715	610	515

* A filter is required for each return-air supply. Airflow performance includes 1" washable filter media such as contained in factory-authorized accessory filter rack.

To determine airflow performance without this filter, assume an additional .1 available external static pressure.

-Indicates unstable operating conditions.

AIR DELIVERY-CFM (With Filter)*

UNIT SIZE	RETURN-AIR SUPPLY	SPEED	EXTERNAL STATIC PRESSURE (In. wc)													
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0				
066110	Bottom Only	High	2530	2460	2380	2285	2200	2085	1970	1835	1695	1545				
		Med-High	2225	2190	2135	2075	1995	1910	1805	1695	1565	1430				
		Medium	1895	1885	1865	1820	1770	1700	1610	1520	1410	1290				
		Med-Low	1565	1555	1535	1505	1465	1410	1350	1265	1175	1050				
		Low	1320	1295	1265	1235	1205	1160	1105	1035	950	870				
	Both Sides or 1 Side & Bottom	High Med-High	--- 2205	--- 2175	2415 2120	2330 2065	2235 1975	2125 1900	1995 1790	1860 1685	1735 1580	1605 1460				
1 Side Only	High Med-High Medium Med-Low Low	2485 2155 1830 1520 1275	2430 2135 1830 1505 1260	2360 2100 1810 1490 1240	2270 2040 1780 1470 1210	2175 1970 1730 1430 1180	2070 1885 1665 1385 1135	1950 1790 1595 1330 1090	1825 1680 1505 1250 1025	1685 1560 1395 1165 930	1535 1420 1275 1055 840					
	048135	Bottom or Side(s)	High Med-High Med-Low Low	2090 1790 1545 1325	2010 1755 1525 1320	1930 1705 1500 1295	1835 1640 1450 1265	1710 1550 1380 1210	1590 1465 1315 1150	1470 1360 1215 995	1335 1210 1005 865	1025 945 855 745	835 785 670 540			
			066135	Bottom Only	High Med-High Med-Low Low	2485 2195 1880 1640	2400 2150 1850 1635	2310 2090 1820 1615	2215 2000 1780 1585	2110 1920 1715 1530	2000 1825 1635 1465	1880 1720 1540 1370	1725 1565 1415 1255	1535 1405 1290 1150	1355 1255 1160 1040	
					Both Sides or 1 Side & Bottom	High Med-High Med-Low Low	--- 2180 1880 1640	--- 2145 1850 1635	2385 2060 1820 1615	2305 2010 1780 1585	2195 1945 1715 1530	2085 1865 1635 1465	1960 1765 1540 1370	1825 1660 1415 1255	1670 1515 1290 1150	1465 1325 1160 1040
						1 Side Only	High Med-High Med-Low Low	2320 2125 1845 1640	2250 2065 1825 1620	2155 1995 1765 1580	2055 1910 1710 1540	1970 1815 1650 1485	1855 1710 1570 1410	1725 1610 1475 1330	1600 1490 1370 1220	1450 1340 1240 1080
060155							Bottom Only	High Med-High Med-Low Low	2465 2115 1800 1570	2430 2105 1790 1565	2375 2075 1770 1551	2305 2030 1735 1525	2230 1980 1695 1495	2110 1910 1640 1445	2000 1830 1570 1370	1865 1725 1465 1270
	Both Sides or 1 Side & Bottom	High Med-High		--- 2155				--- 2135	2375 2095	2285 2040	2200 1975	2105 1895	1995 1790	1870 1685	1730 1550	1570 1400
		1 Side Only	High Med-High	--- 2140	--- 2095			2260 2040	2180 1975	2085 1890	1975 1810	1865 1705	1740 1595	1605 1480	1455 1325	

* A filter is required for each return-air supply. Airflow performance includes 1" washable filter media such as contained in factory-authorized accessory filter rack.

To determine airflow performance without this filter, assume an additional .1 available external static pressure.

-Indicates unstable operating conditions.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancels: PDS 312A.45.1