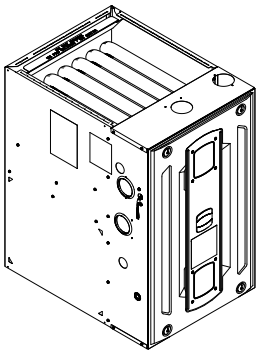
Submittal

Upflow/Horizontal Left/Right
Two Stage Condensing
Gas Fired Furnace
60,000 BTUH

Upflow, Convertible to Horizontal Right or Horizontal Left
S9V2B060U4VSBB



Note: *Graphics in this document are for representation only. Actual model may differ in appearance.*

⚠ WARNING

FIRE HAZARD!

Failure to follow this Warning could result in property damage, severe personal injury, or death.
This Warning applies to installations with a flammable refrigeration system. The furnace must be powered except for service. The furnace shall be installed and connected according to installation instructions and wiring diagrams that are provided with the evaporator coil.

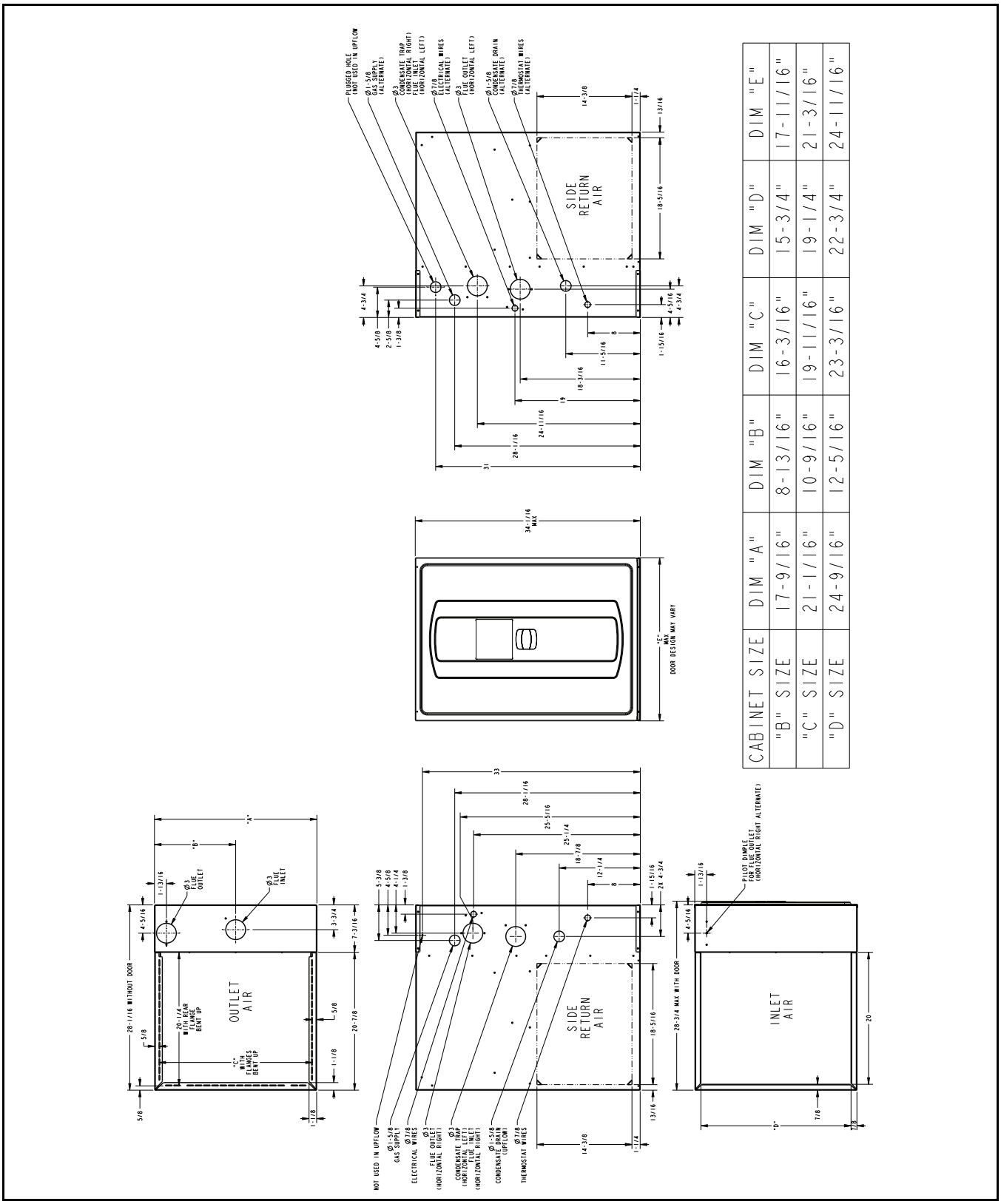
⚠ CAUTION

COIL REQUIREMENT!
Failure to follow this Caution could result in property damage or personal injury. *GXC* and *MXC* coils installed on upflow furnaces in vertical, horizontal left, or horizontal right orientations without a factory installed metal drain pan shield must use a MAY*FERCOLKITAA kit. Coils installed on upflow furnaces must have drain pans that are suitable for 400° F (205°C) or have a metal drain pan shield. Downflow furnaces do not require a metal drain pan shield or the use of the MAY*FERCOLKITAA kit. See Installer's Guide for more information.

September 2024 **S9V2B060U4V-SUB-2A-EN**

Outline Drawings

Table 1. 17.5”, 21” and 24.5” Upflow Cabinets



CABINET SIZE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
"B" SIZE	17-9/16"	8-13/16"	16-3/16"	15-3/4"	17-11/16"
"C" SIZE	21-1/16"	10-9/16"	19-11/16"	19-1/4"	21-3/16"
"D" SIZE	24-9/16"	12-5/16"	23-3/16"	22-3/4"	24-11/16"

Product Specification

Model	S9V2B060U4VSBB [a], [b]
Type	Upflow / Horizontal
RATINGS [c]	
1st Stage Input BTUH	39,000
1st Stage Capacity BTUH (ICS)	38,300
2nd Stage Input BTUH	60,000
2nd Stage Capacity BTUH (ICS) [d]	57,900
1st Stage Temp. Rise (Min. - Max.) °F	25 - 55
2nd Stage Temp. Rise (Min. - Max.) °F	35 - 65
AFUE (%) [d]	97.0
Return Air Temp. (Min. - Max.) °F	45°F - 80°F
BLOWER DRIVE	DIRECT
Diameter - Width (in.)	11 X 8
No. Used	1
Speeds (No.)	Variable
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	3/4
R.P.M.	Variable
Volts / Ph / Hz	120 / 1 / 60
FLA	9.6
COMBUSTION FAN - Type	Variable Speed
Drive - No. Speeds	Direct - Variable
Motor RPM	1/50 - 5000
Volts/Ph/Hz	33 - 110 / 3 / 60 - 180
FLA	0.77
Inducer Orifice	0.79
FILTER - Furnished?	No
Type Recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 16 X 25 - 1 in.

Model	S9V2B060U4VSBB [a], [b]
VENT OUTLET DIAMETER - MIN. (in.) [e]	2 Round
INLET AIR DIAMETER -MIN. (in.) [e]	2 Round
HEAT EXCHANGER – Type	
Fired	409 Stainless Steel
Unfired	29-4C Stainless Steel
Gauge (Fired)	20
ORIFICES - Main	
Nat. Gas (Qty. - Drill Size)	3 - 45
Propane Gas (Qty. - Drill Size)	3 - 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE – TYPE	120 V SiNi Igniter
BURNERS - TYPE - QTY	Inshot - 3
POWER CONN. - V/Ph/HZ [f]	120 / 1 / 60
Ampacity (Amps)	12.9
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (IN.)	1/2
DIMENSIONS	H x W x D
Uncrated (in.)	34 x 17-1/2 x 28-3/4
Crated (in.)	35-1/2 x 19-1/2 x 30-7/8
WEIGHT	
Shipping (Lbs.)/Net (Lbs.)	130/122

[a] Meets Energy Star

[b] Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3 - latest edition.

[c] For U.S. Applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level. For Canadian applications, above input ratings (BTUH) are up to 4,500 feet, derate 4% per 1,000 feet for elevations above 4,500 feet above sea level.

[d] Based on U.S. government standard tests.

[e] Refer to Vent Length Table in the Installer's Guide.

[f] The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.

Heating and Cooling Airflow Tables

Table 2. S9V2B060U4VS Heating Airflow

S9V2B060U4VS Furnace Heating Airflow (CFM), Temp. Rise (°F), and Power (Watts) vs. External Static Pressure with Filter (iwc)								
				1st Stage Capacity = 38,300 2nd Stage Capacity = 57,900				
Heating	Airflow Setting	Target Airflow		External Static Pressure				
				0.1	0.3	0.5	0.7	0.9
Heating 1st Stage	Low	782	CFM	741	741	742	742	742
			Temp. Rise	47	48	48	48	48
			Watts	74	112	151	189	228
	Medium Low	861	CFM	810	811	812	813	814
			Temp. Rise	44	43	43	43	43
			Watts	90	132	175	217	259
	Medium[a]	916	CFM	860	860	859	859	859
			Temp. Rise	41	41	41	41	41
			Watts	105	148	192	236	280
	High	1027	CFM	963	957	951	945	939
			Temp. Rise	37	37	37	37	37
			Watts	141	183	226	268	310
Heating 2nd Stage	Low	990	CFM	975	978	982	986	989
			Temp. Rise	55	55	55	55	55
			Watts	126	174	223	272	321
	Medium Low	1090	CFM	1063	1070	1078	1086	1093
			Temp. Rise	51	51	50	50	49
			Watts	157	210	263	317	370
	Medium[a]	1160	CFM	1120	1133	1146	1159	1172
			Temp. Rise	48	48	47	47	46
			Watts	182	240	299	357	415
	High	1300	CFM	1260	1266	1272	1279	1285
			Temp. Rise	43	43	43	42	42
			Watts	254	312	369	427	484

[a] Factory Setting.

Table 3. S9V2B060U4VS Cooling Airflow

S9V2B060U4VS Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
2.0	450	CFM / WATTS	878 / 90	893 / 135	890 / 179	869 / 223	829 / 266
	420	CFM / WATTS	821 / 76	834 / 119	830 / 161	808 / 202	767 / 244
	400	CFM / WATTS	770 / 66	778 / 105	770 / 144	742 / 182	725 / 230
	370	CFM / WATTS	725 / 57	737 / 96	731 / 134	707 / 172	664 / 211
	350	CFM / WATTS	687 / 51	698 / 88	691 / 124	666 / 161	622 / 199
	330	CFM / WATTS	649 / 45	659 / 80	651 / 115	625 / 151	580 / 188
	310	CFM / WATTS	611 / 39	620 / 73	611 / 107	584 / 142	538 / 177
	290	CFM / WATTS	573 / 34	581 / 67	571 / 99	543 / 133	496 / 168
2.5	450	CFM / WATTS	1097 / 159	1114 / 212	1114 / 265	1097 / 317	1061 / 368
	420	CFM / WATTS	1023 / 133	1040 / 184	1039 / 233	1020 / 282	984 / 331
	400	CFM / WATTS	976 / 117	989 / 166	990 / 214	970 / 261	932 / 308
	370	CFM / WATTS	902 / 97	917 / 142	915 / 187	894 / 232	855 / 276
	350	CFM / WATTS	854 / 84	868 / 128	865 / 171	843 / 214	803 / 257
	330	CFM / WATTS	806 / 73	819 / 115	815 / 157	793 / 198	752 / 239
	310	CFM / WATTS	759 / 63	771 / 103	766 / 143	742 / 182	700 / 222
	290	CFM / WATTS	711 / 55	722 / 93	716 / 130	692 / 168	648 / 206
3.0	450	CFM / WATTS	1319 / 260	1340 / 321	1343 / 382	1328 / 441	1295 / 501
	420	CFM / WATTS	1229 / 215	1249 / 274	1251 / 331	1235 / 387	1201 / 443
	400	CFM / WATTS	1170 / 189	1189 / 245	1190 / 300	1173 / 354	1139 / 408
	370	CFM / WATTS	1082 / 154	1100 / 206	1099 / 258	1081 / 309	1046 / 360
	350	CFM / WATTS	1023 / 133	1040 / 184	1039 / 233	1020 / 282	984 / 331
	330	CFM / WATTS	965 / 114	981 / 163	979 / 210	960 / 257	922 / 304
	310	CFM / WATTS	907 / 98	922 / 144	919 / 189	899 / 234	860 / 278
	290	CFM / WATTS	850 / 83	863 / 127	860 / 170	838 / 212	798 / 255

Table 3. S9V2B060U4VS Cooling Airflow (continued)

S9V2B060U4VS Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	**Airflow Setting - (CFM/ton)**		**EXTERNAL STATIC PRESSURE (IN. W. C.)**				
			0.1	**0.3**	**0.5**	**0.7**	**0.9**
4.0[a]	450	CFM / WATTS	1779 / 585	1806 / 661	1814 / 737	1805 / 812	1778 / 886
	420	CFM / WATTS	1654 / 480	1679 / 552	1686 / 624	1676 / 695	1647 / 765
	400	CFM / WATTS	1572 / 418	1596 / 488	1602 / 557	1590 / 625	1561 / 693
	370	CFM / WATTS	1450 / 335	1472 / 401	1477 / 466	1464 / 530	1433 / 594
	350[a]	CFM / WATTS	1369 / 287	1391 / 350	1394 / 413	1380 / 474	1348 / 535
	330	CFM / WATTS	1289 / 244	1310 / 305	1312 / 364	1297 / 423	1264 / 481
	310	CFM / WATTS	1210 / 206	1229 / 264	1231 / 320	1214 / 376	1180 / 431
	290	CFM / WATTS	1131 / 172	1149 / 227	1150 / 281	1132 / 334	1097 / 386

[a] Factory Setting.

General Features

NATURAL GAS MODELS

Central Heating furnace designs are certified by the Intertek/ETL for both natural and propane gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

SAFE OPERATION

The Integrated Furnace Control is a solid state device which continuously monitors for presence of flame when the system is in the heating mode of operation. Dual solenoid combination gas valve and regulator provide additional safety.

QUICK HEATING

Durable, cycle tested, heavy gauge **tubular stainless steel primary heat exchanger** quickly transfers heat to provide warm conditioned air to the structure. **Low energy power vent blower,** to increase efficiency and provide a positive discharge of gas fumes to the outside.

BURNERS

Multiport Inshot burners will give years of quiet and efficient service. All models can be converted to **Propane** with propane conversion kit.

INTEGRATED FURNACE CONTROL

Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self diagnostics for ease of service. Also contains dry contacts for EAC and HUM.

ENERGY EFFICIENT OPERATION

Furnace is certified by the manufacturer to leak 1% or less of nominal air conditioning CFM delivered when pressurized to 0.5 inch water column with all inlets, outlets, and drains sealed.

AIR DELIVERY

The variable speed blower motor has sufficient airflow for most heating and cooling requirements and will switch from heating to cooling speeds on demand from room thermostat.

SECONDARY HEAT EXCHANGER

The S-Series furnace has a special type 29- 4C™ stainless steel secondary heat exchanger to reclaim heat from flue gases which would normally be lost.

STYLING

Heavy gauge steel and "wrap-around" cabinet construction is used in the cabinet with baked-on enamel finish for strength and beauty. Every orientation has at least two venting options. There are no knockouts on cabinet.

FEATURES AND GENERAL OPERATION

The S-Series furnace utilizes a Silicon Nitride Hot Surface Ignition system, which eliminates the waste of a constant burning pilot. The integrated furnace control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

a. Low energy power venter

b. Vent proving pressure switches.

Features and Benefits

97.0% AFUE ACROSS ALL MODELS

Meets utility rebates

Lowers utility bills

ELECTRICALLY EFFICIENT

Efficient airflow design reduces electrical energy use

34 INCH TALL

Lighter, easier to move and fit into tight spaces like short basements or tight closets

Works great with larger, high-efficiency coils

No knockouts

3–WAY MULTI-POISE / DEDICATED DOWNFLOW

6 SKU's — Upflow / Horizontal Left / Horizontal Right

5 SKU's — Downflow

Added application flexibility and reduction in specification errors

AIRFLOW

At least 400 CFM/ton at 0.5 inch water column external static pressure; setup airflow options down to 290 CFM/ton

REGULATORY

All models are air tight; 1% or less air leakage as per ASHRAE 193

Open vestibule design provides a full 34" high open vestibule

VARIABLE SPEED DRAFT INDUCER MOTOR

Increased efficiency

DIMENSIONS

Width is industry standard: 17.5"

Depth remains approximately 28"

Cabinet will be compatible with industry standard coils, as well as, other accessories

INTEGRATED FURNACE CONTROL

Setup / Status / Diagnostics / Digital Display

No dip switches

Last six errors stored

Dry contact EAC and HUM connections

All multi-pin polarized terminals connections; no spade terminals

Low voltage labeled above and below

TUBULAR STAINLESS STEEL PRIMARY HEAT EXCHANGER
29–4C STAINLESS STEEL SECONDARY HEAT EXCHANGER

Stainless steel is a more durable, corrosive-resistant material than aluminumized steel

Integrated rail system for easy access if required

Reduces or eliminates need for baffles

VORTICA BLOWER, DESIGNED EXCLUSIVELY FOR THE S-SERIES FURNACE

Improved airflow efficiency

Durable, easy to clean, two piece housing

Single piece belly band/ motor arm assembly

Blower deck has full-length rails for easy removal and replacement, regardless of poise

THREE–WAY MULTI-POISE (UPFLOW, HORIZONTAL LEFT AND RIGHT) PLUS DEDICATED DOWNFLOW

Easier to specify

Shipped ready to install (no kits required)

Every model has at least two venting options

Barbed fitting on trap at hose connection and on cabinet transition for hose has barbed fitting and clamps at both ends for leak resistance.

Vent table improvements including longer vent lengths; 2" pipe can be used up to 100K.

About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit www.trane.com or www.americanstandardair.com.

The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

S9V2B060U4V-SUB-2A-EN 30 Sep 2024
Supersedes (New)