



Air Conditioning & Heating



## PRODUCT SPECIFICATIONS

### GKS9 SERIES

92.1% AFUE

UPFLOW/MULTI-POSITION,  
SINGLE-STAGE/MULTI-SPEED  
GAS FURNACE

HEATING INPUT:  
46,000-115,000 BTU/H



#### Standard Features

- Patented TuffTube™ dual-diameter tubular heat exchanger with lifetime limited warranty plus 10-year furnace replacement limited warranty\*
- Single-stage combination redundant gas valve
- Hot-Surface Ignition System with Norton Mini-Igniter and patented adaptive learning routine for maximum igniter life
- Energy-saving, quiet four-speed direct-drive circulator blower motor
- Integrated electronic furnace control board with self-diagnostics and low-voltage terminal block
- Dual-certified for sealed combustion direct vent (2-pipe) or non-direct vent (1-pipe) applications
- Easy-to-install top venting is standard
- Quiet single-speed, induced-draft blower
- All models comply with California NOx emissions standards

#### Cabinet Features

- Foil-faced insulation lines heat exchanger compartment
- GKS9 designed for upflow installation and can be converted to horizontal left or right with pressure switch kit 0270K00012
- Airtight solid bottom for side-return applications and easy-cut tabs for effortless removal in bottom air-inlet applications
- Coil and furnace fit flush for most installations

#### Accessories

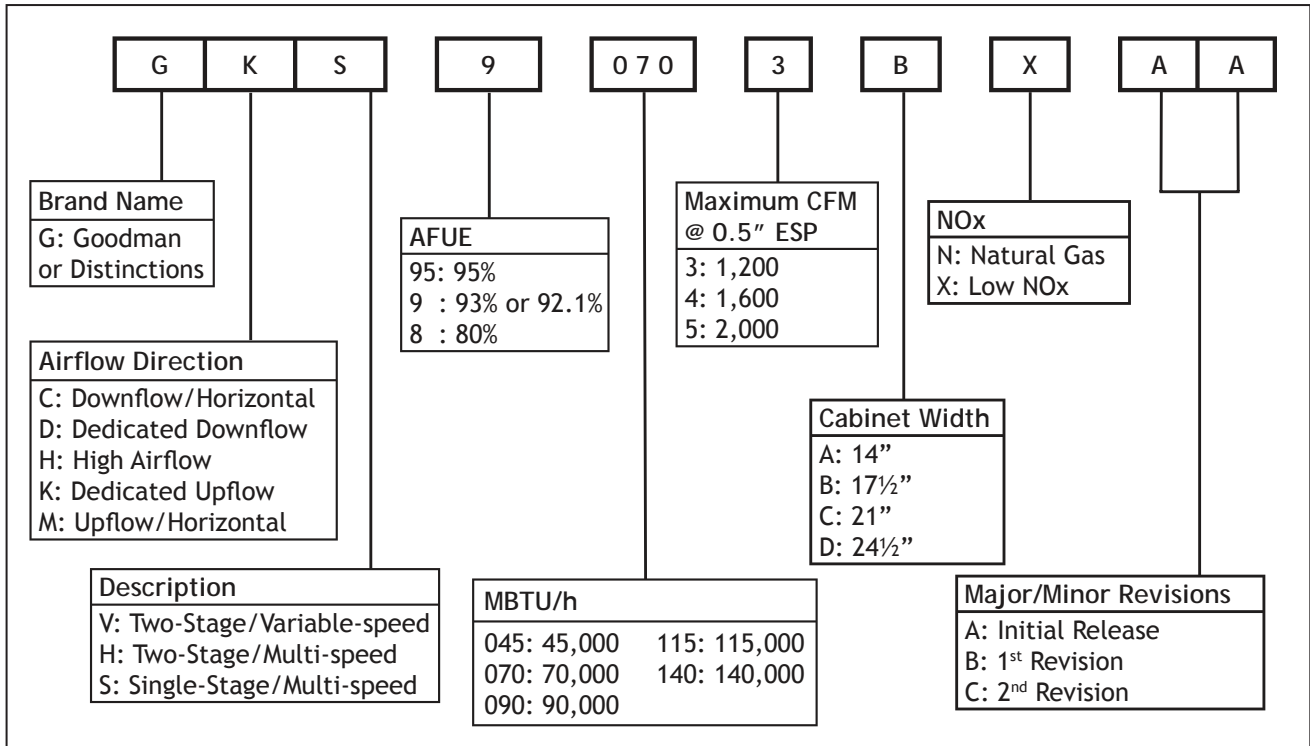
- LP Conversion Kit; LP Gas Low-Pressure Kit
- High-Altitude Natural Gas/LP Kits
- High-Altitude Pressure Switch Kit
- External Filter Rack
- Internal Filter Retention Kit: upflow, horizontal, or downflow
- Horizontal Concentric Vent Kit
- Vertical Concentric Vent Kit
- Thermostats

\* For full warranty details, visit [www.goodmanmfg.com](http://www.goodmanmfg.com).



# PRODUCT SPECIFICATIONS

## NOMENCLATURE



## SPECIFICATIONS

	GKS9 0453BXA	GKS9 0703BXA	GKS9 0704CXA	GKS9 0904CXA	GKS9 0905DXAA	GKS9 1155DXA
<b>Heating Capacity</b>						
Input <sup>1</sup>	46,000	69,000	69,000	92,000	92,000	115,000
Natural Gas Output <sup>1</sup>	42,800	64,400	64,400	86,000	86,000	106,500
LP Gas Output <sup>1</sup>	38,502	57,753	57,753	77,004	77,004	96,255
AFUE <sup>2</sup>	92.1					
Available AC @ 0.5" ESP	3	3	4	4	5	5
Temperature Rise Range (°F)	35 - 65	35 - 65	35 - 65	35 - 65	35 - 65	35 - 65
<b>Circulator Blower</b>						
Size (D x W)	10" x 8"	10" x 8"	10" x 10"	10" x 10"	11" x 10"	11" x 10"
Horsepower @ 1750 RPM	1/3	1/3	1/2	1/2	3/4	3/4
Speed	4	4	4	4	4	4
Vent Diameter <sup>3</sup>	2"	2"	2"	2"	2"	2"
No. of Burners	2	3	3	4	4	5
<b>Filter Size (in<sup>2</sup>)</b>						
Permanent	288	282	376	376	470	470
Disposable	576	564	752	752	940	940
<b>Electrical Data</b>						
Min. Circuit Ampacity <sup>4</sup>	9.4	9.4	13.8	13.8	13.2	13.2
Max. Overcurrent Device (amps) <sup>5</sup>	15					
Ship Weight (lbs)	132	135	153	158	170	175

1- Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level.

2- DOE AFUE based upon Isolated Combustion System (ICS)

3- Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

4- Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

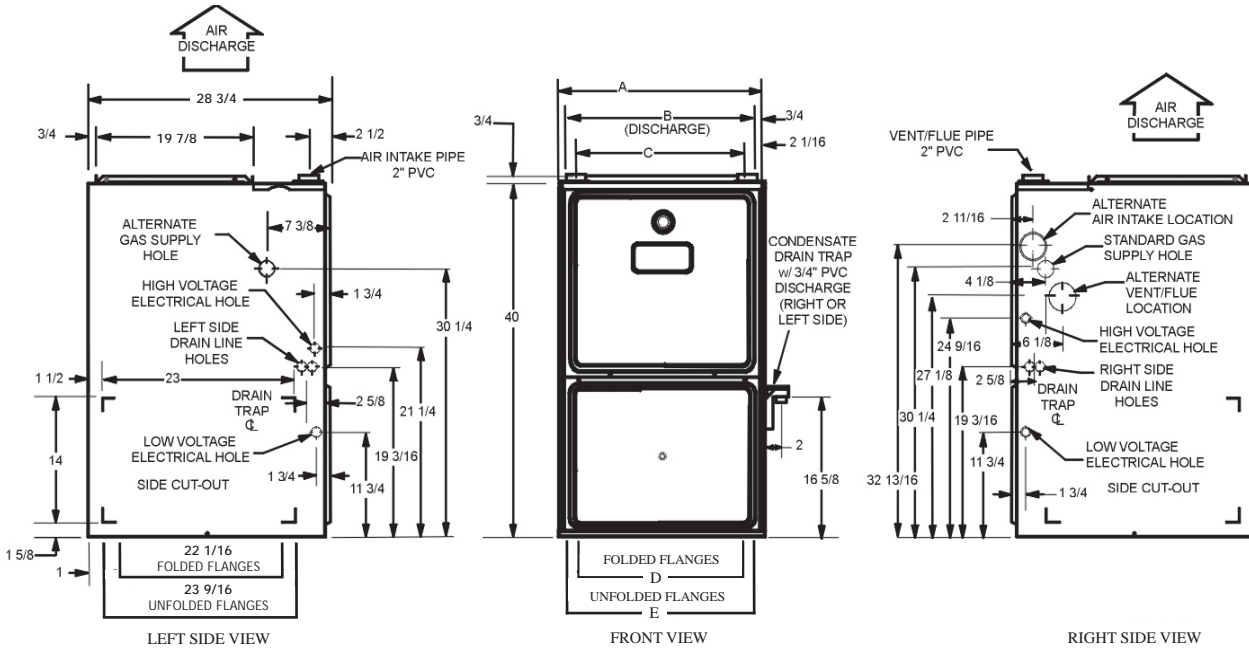
5- Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

**Notes:**

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection 1/2" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

# PRODUCT SPECIFICATIONS

## DIMENSIONS



Model	A	B	C	D	E
GKS90453BXA	17½"	16"	13⅞"	12⅞"	13⅝"
GKS90703BXA	17½"	16"	13⅞"	12⅞"	13⅝"
GKS90704CXA	21"	19½"	16⅞"	16"	17½"
GKS90904CXA	21"	19½"	16⅞"	16"	17½"
GKS90905DXAA	24½"	23"	20⅝"	19⅝"	20⅞"
GKS91155DXA	24½"	23"	20⅝"	19⅝"	20⅞"

### Notes:

- Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.
- Line voltage wiring can enter through the right or left side of the furnace. Low voltage wiring can enter through the right or left side of furnace.
- Conversion kits for high altitude natural gas operation are available. Contact your Goodman distributor or dealer for details.
- Installer must supply following gas line fittings, according to which entrance is used:  
 Left—Two 90° elbows, one close nipple, straight pipe  
 Right—Straight pipe to reach gas valve
- For bottom return: Failure to unfold flanges may reduce airflow of up to 18%. This could result in performance and noise issues.

## DIMENSIONS (CONT.)

### MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	3"	C	0"	1"
Horizontal	6"	0"	3"	C	0"	4"

C = If placed on combustible floor, the floor MUST be wood ONLY.

Notes:

- For servicing or cleaning, a 24" front clearance is recommended.
- Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed below.
- In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

# PRODUCT SPECIFICATIONS

## GKS9 BLOWER PERFORMANCE SPECIFICATIONS

(CFM & Temperature Rise vs. External Static Pressure)															
Model	Motor Speed	Tons AC at 0.5" ESP	External Static Pressure, (Inches Water Column)												
			0.1		0.2		0.3		0.4		0.5		0.6	0.7	0.8
			CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM
GKS9 0453BXA	High	3	1,352	29	1,318	30	1,260	31	1,202	33	1,128	35	1,044	955	853
	Med	2.5	1,214	32	1,172	34	1,123	35	1,064	37	1,012	39	938	859	741
	Med-Lo	2	997	40	994	40	960	41	923	43	884	45	817	741	611
	Low	1.5	757	52	753	52	734	54	704	56	674	59	620	524	438
GKS9 0703BXA	High	3	1,449	41	1,409	42	1,326	45	1,273	47	1,201	49	1,194	1,136	1,018
	Med	2.5	1,192	50	1,172	51	1,141	52	1,094	54	1,046	57	973	904	793
	Med-Lo	2	981	61	962	62	943	63	917	65	888	67	830	764	665
	Low	1.5	750	79	730	81	714	83	692	86	657	90	620	570	502
GKS9 0704CXAA	High	4	2,069	29	1,965	30	1,871	32	1,756	34	1,661	36	1,549	1,415	1,275
	Med	3.5	1,752	34	1,724	34	1,667	36	1,603	37	1,488	40	1,402	1,290	1,082
	Med-Lo	3	1,437	41	1,437	41	1,417	42	1,369	43	1,320	45	1,256	1,140	984
	Low	2.5	1,184	50	1,177	50	1,161	51	1,132	52	1,095	54	1,047	928	837
GKS9 0904CXA	High	4	1,970	40	1,874	42	1,757	45	1,667	48	1,566	51	1,431	1,334	1,182
	Med	3.5	1,713	46	1,650	48	1,572	50	1,510	52	1,418	56	1,313	1,211	1,079
	Med-Lo	3	1,439	55	1,412	56	1,370	58	1,327	60	1,260	63	1,166	1,078	956
	Low	2.5	1,183	67	1,155	69	1,122	71	1,108	72	1,062	75	1,011	931	816
GKS9 0905DXA	High	5	2,147	37	2,114	37	2,057	39	2,030	39	1,978	40	1,889	1,784	1,713
	Med	4	1,675	47	1,686	47	1,640	48	1,623	49	1,557	51	1,501	1,455	1,360
	Med-Lo	3.5	1,489	53	1,470	54	1,436	55	1,409	56	1,361	58	1,318	1,243	1,130
	Low	3	1,307	61	1,265	63	1,234	64	1,203	66	1,168	68	1,096	1,053	991
GKS9 1155DXA	High	5	2,134	46	2,103	47	2,029	48	1,941	51	1,906	51	1,818	1,733	1,625
	Med	4	1,678	58	1,643	60	1,643	60	1,577	62	1,527	64	1,489	1,423	1,339
	Med-Lo	3.5	1,453	68	1,440	68	1,426	69	1,363	72	1,349	73	1,314	1,253	1,205
	Low	3	1,259	78	1,239	79	1,220	80	1,181	83	1,159	85	1,118	1,082	1,015

**Notes:**

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- The chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on the rating plate. The shaded area indicates ranges in excess of maximum static pressure allowed when heating.
- The above chart is for U.S. furnaces installed at 0-2000 feet. At higher altitudes, a properly de-rated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

## ACCESSORIES

Accessory	Description	GKS9 0453BXA	GKS9 0703BXA	GKS9 0704CXA	GKS9 0904CXA	GKS9 0905DXA	GKS9 1155DXA
LPT-00A	LP Conversion Kit	/	/	/	/	/	/
LPLP01	LP Gas Low Pressure Kit	/	/	/	/	/	/
HALP10	High-Altitude LP Gas Kit	3	3	3	3	3	3
HANG11	High-Altitude Natural Gas Kit	1	1	1	1	1	1
HANG12	High-Altitude Natural Gas Kit	2	2	2	2	2	2
017K000005	Flush-Mount Vent Kit	/	/	/	/	/	/
0270K00012	Horizontal Conversion Pressure Switch Kit	/	/	/	/	/	/
AFE18-60A	Fossil Fuel Kit	/	/	/	/	/	/
FTK-03A	Twinning Kit	/	/	/	/	/	/
GSAS	Electronic Air Cleaner	/	/	/	/	/	/
GMU	Media Air Cleaner	/	/	/	/	/	/
EFR01	External Filter Rack	/	/	/	/	/	/
DCVK-20	2" Horizontal/Vertical Concentric Vent Kit	/	/	/	-----	-----	-----
DCVK-30	3" Horizontal/Vertical Concentric Vent Kit	-----	-----	-----	/	/	/

/ Available for this model

1 7,001' to 9,000'

2 9,001' to 11,000'

3 7,001' to 11,000'

Note:

- All installations above 7,000' require a pressure switch change. For installation in Canada, furnaces are certified only to 4,500'.

## THERMOSTATS

Model	Description
CHT18-60	Cooling/Heating, Mechanical
CH70TG	Cooling/Heating, Digital, Non-programmable
CHSATG	Cooling/Heating, Mechanical
H20TWR	Heating Only, Mechanical



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