

## GMS95 GAS \$AVER

**95% AFUE** 

# Multi-Position, Single-Stage/Multi-Speed Gas Furnace

Heating Capacity: 46,000–115,000 BTUH



## Air Conditioning & Heating





95% AFUE Models Qualify for a \$150 Tax Credit

#### **Standard Features**

- Corrosion-resistant, aluminized-steel tubular heat exchanger and stainless-steel recuperative coil
- Multi-position installation upflow, horizontal right or left
- Energy-saving, reliable Hot Surface Ignition system, featuring a Norton® Mini-Igniter with patented adaptive learning algorithm to maximize igniter life
- Aluminized-steel inshot burners
- Energy-saving PSC, multi-speed, direct-drive blower motor
- Quiet, corrosion-resistant induced draft blower assembly
- Integrated furnace control with diagnostics
- Low-voltage terminal block
- Multiple flame roll-out switches, blower door safety switch, outlet air-limit & pressure switch for proof of combustion air
- 40VA transformer for heating and air conditioning control service
- Combination redundant gas valve and regulator
- Completely assembled, factory run-tested furnace for heating or combination heating/ cooling application
- Dual-certified for direct vent (2-pipe) or nondirect vent (1-pipe) applications

- Convenient left or right connection for gas and electric service
- All models comply with California NOx Standards

#### **Cabinet Features**

- Heavy-gauge, reinforced, fully insulated steel cabinet with durable baked-enamel finish
- Attractive architectural gray paint finish
- Foil-face insulation-lined heat exchanger compartment
- Coil and furnace fit flush for easy installation
- Bottom or side air inlet
- Removable, solid-bottom block-off

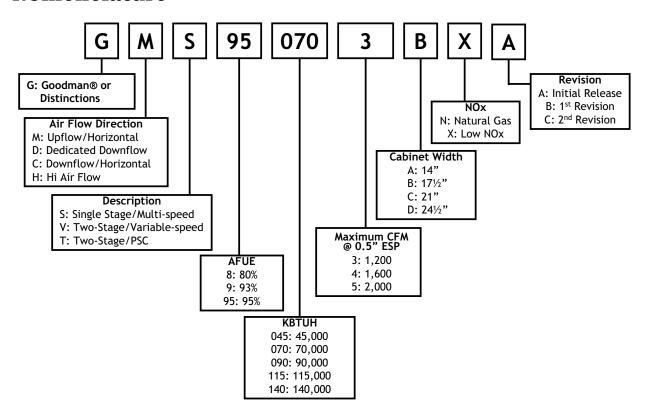
#### **Accessories**

- · L.P. Conversion Kit
- L.P. Gas Low Pressure Kit
- Electronic Air Cleaner (GSAS)
- Media Air Cleaner (GMU)
- High-Altitude Natural Gas/L.P. Kits
- High-Altitude Pressure Switch Kit
- External Filter Rack
- Horizontal/ Vertical Concentric Vent Kit
- Flush-mount Vent Kit
- Internal Filter Retention Kit—upflow, horizontal
- · Thermostats





#### **Nomenclature**



## **Specifications**

	Circula	tor B	lower	/ent ter¹	of ers	Filter S	ize (in²)	Minimum	Maximum	Ship
Model	Size (D x W)	НР	Speed	e	Diamet No. O Permanent		Dispos- able	Circuit Amps <sup>2</sup>	Overcurrent Amps <sup>3</sup>	Weight (lbs)
GMS950453BXA	10" x 7"	1/3	4	2"	2	288	576	9.4	15	132
GMS950703BXA	10" x 8"	1/3	4	2"	3	324	672	9.4	15	135
GMS950704CXA	10" x 10"	1/2	4	2"	3	384	768	13.8	15	136
GMS950904CXA	10" x 10"	1/2	4	2"	4	432	864	13.8	15	158
GMS950905DXA	11" x 10"	3/4	4	3"	4	480	960	13.2	15	172
GMS951155DXA	11" x 10"	3/4	4	3"	5	486	972	13.2	15	175

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.

#### NOTES:

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

## **Performance Ratings**

Model	Heating Cap	pacity BTUH	AFUE <sup>2</sup>	Tons AC @	Temperature
Wiodei	Input <sup>1</sup>	Output	AFUE	0.5" ESP	Rise Range (° F)
GMS950453BXA	46,000	44,600	95.0	3.0	35 - 65
GMS950703BXA	69,000	66,400	95.0	3.0	30 - 60
GMS950704CXA	69,000	66,400	95.0	4.0	35 - 65
GMS950904CXA	92,000	89,000	95.0	4.0	30 - 60
GMS950905DXA	92,000	88,400	95.0	5.0	35 - 65
GMS951155DXA	115,000	110,500	95.0	5.0	35 - 65

<sup>&</sup>lt;sup>1</sup> For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level.

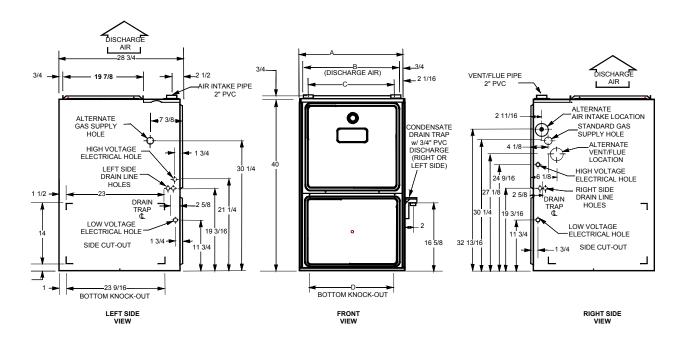
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<sup>&</sup>lt;sup>2</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps.

<sup>3</sup> Maximum Overcurrent Protection refers to maximum recommended fuse or circuit breaker size.

<sup>&</sup>lt;sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS).

#### **GMS95 Dimensions**



Model	Α	В	С	D
GMS950453BXA GMS950703BXA	17½"	16"	131/8"	13⁵⁄₄"
GMS950704CXA GMS950904CXA	21"	19½"	161⁄8"	17½"
GMS950905DXA GMS951155DXA	24½"	23"	205/8"	20%"

#### NOTES:

- 1. 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.
- 2. 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.
- 3. Conversion kits for high altitude natural gas operation are available. Contact your Goodman distributor or dealer for details.
- 4. 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

#### Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Тор
Upflow	0"	0"	3"	С	0"	1"
Horizontal	6"	0"	3"	С	0"	6"

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

#### NOTES:

- For servicing or cleaning, a 36" 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.

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## **GMS95 Blower Performance Specifications**

	CFM & Temperature Rise vs. External Static Pressure														
		Tons AC		External Static Pressure, (Inches Water Column)											
Model	Motor Speed	at 0.5"	0	.1	0.	.2	0.3		0.4		0.5		0.6	0.7	0.8
	·	ESP	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM
X X	HIGH	3.0	1352	29	1318	30	1260	31	1202	33	1128	35	1044	955	853
453E	MED	2.5	1214	32	1172	34	1123	35	1064	37	1012	39	938	859	741
GMS950453BXA	MED-LO	2.0	997	40	994	40	960	41	923	43	884	45	817	741	611
S S	LOW	1.5	757	52	753	52	734	54	704	56	674	59	620	524	438
3XA	HIGH	3.0	1449	41	1409	42	1326	45	1273	47	1201	49	1194	1136	1018
GMS950703BXA	MED	2.5	1192	50	1172	51	1141	52	1094	54	1046	57	973	904	793
S950	MED-LO	2.0	981	61	962	62	943	63	917	65	888	67	830	764	665
S S	LOW	1.5	750	79	730	81	714	83	692	86	657	90	620	570	502
X	HIGH	4.0	2069	29	1965	30	1871	32	1756	34	1661	36	1549	1415	1275
704(	MED	3.5	1752	34	1724	34	1667	36	1603	37	1488	40	1402	1290	1082
GMS950704CXA	MED-LO	3.0	1437	41	1437	41	1417	42	1369	43	1320	45	1256	1140	984
© ©	LOW	2.5	1184	50	1177	50	1161	51	1132	52	1095	54	1047	928	837

- 1. CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer.
- 2. All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling & heating speed as needed.
- 3. For most applications, about 400 CFM per ton when cooling is desirable.
- 4. INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- 5. The chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on the rating plate.
- 6. The above chart is for furnaces installed at 0-2000 feet. At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

## **GMS95 Blower Performance Specifications (cont.)**

	CFM & Temperature Rise vs. External Static Pressure														
		. Tons AC		External Static Pressure, (Inches Water Column)											
Model	Motor Speed	at 0.5"	0	.1	0	.2	0	.3	0	.4	0.	.5	0.6	0.7	0.8
	·	ESP	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM
X	HIGH	4.0	1970	40	1874	42	1757	45	1667	48	1566	51	1431	1334	1182
904(	MED	3.5	1713	46	1650	48	1572	50	1510	52	1418	56	1313	1211	1079
GMS950904CXA	MED-LO	3.0	1439	55	1412	56	1370	58	1327	60	1260	63	1166	1078	956
S S	LOW	2.5	1183	67	1155	69	1122	71	1108	72	1062	75	1011	931	816
ΑX	HIGH	5.0	2147	37	2114	37	2057	39	2030	39	1978	40	1889	1784	1713
GMS950905DXA	MED	4.0	1675	47	1686	47	1640	48	1623	49	1557	51	1501	1455	1360
S950	MED-LO	3.5	1489	53	1470	54	1436	55	1409	56	1361	58	1318	1243	1130
© ©	LOW	3.0	1307	61	1265	63	1234	64	1203	66	1168	68	1096	1053	991
X	HIGH	5.0	2134	46	2103	47	2029	48	1941	51	1906	51	1818	1733	1625
155	MED	4.0	1678	58	1643	60	1643	60	1577	62	1527	64	1489	1423	1339
GMS951155DXA	MED-LO	3.5	1453	68	1440	68	1426	69	1363	72	1349	73	1314	1253	1205
S S	LOW	3.0	1259	78	1239	79	1220	80	1181	83	1159	85	1118	1082	1015

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- 6. The above chart is for furnaces installed at 0-2000 feet. At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

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#### **Accessories**

Model	Description	GMS950453BXA	GMS950703BXA	GMS950704CXA	GMS950904CXA	GMS950905DXA	GMS951155DXA
LPT-00A	L.P. Conversion Kit	√	√	<b>V</b>	<b>V</b>	√	<b>V</b>
LPLP01	L.P. Gas Low Pressure Kit	<b>V</b>	√	$\checkmark$	√	√	<b>V</b>
GSAS	Electronic Air Cleaners (-10, -11, -12, -18)	√	√	√	√	<b>V</b>	<b>V</b>
GMU	Media Air Cleaners (1620, 2020, 1625, 2025)	√	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
HANG11	High Altitude Natural Gas Kit	1	1	1	1	1	1
HANG12	High Altitude Natural Gas Kit	2	2	2	2	2	2
HALP10	High Altitude L.P. Gas Kit	3	3	3	3	3	3
HAPS27	High Altitude Pressure Switch Kit	3	3	3	3	3	3
EFR01	External Filter Rack	<b>V</b>	1	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
DCVK-20	Horizontal/Vertical Concentric Vent Kit (2")	<b>V</b>	1				
DCVK-30	Horizontal/Vertical Concentric Vent Kit (3")	<b>V</b>	1	<b>V</b>	<b>V</b>	<b>V</b>	√
017K00000S	Flush-mount Vent Kit	√	1	<b>V</b>	<b>V</b>	<b>V</b>	<b>√</b>

<sup>√</sup> Available for this model

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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<sup>(1) 7,001&#</sup>x27; to 9,000'

<sup>(2) 9,001&#</sup>x27; to 11,000'

<sup>(3) 7,001&#</sup>x27; to 11,000'