

GAS FURNACES



ACHIEVER® 90 PLUS HIGH EFFICIENCY DOWNFLOW/ HORIZONTAL GAS FURNACES

The Ruud® Achiever® 90 Plus High Efficiency line of downflow/horizontal gas furnaces are designed for utility rooms, closets, alcoves, attics or crawl spaces. The RGTA is shipped in the downflow configuration and is easily converted for horizontal **left-hand** airflow applications.

The design is certified by CSA.

Features

- Heat exchanger is constructed of all stainless steel for maximum corrosion resistance and thermal fatigue reliability.
- Low profile "34 inch" design is lighter and easier to handle and leaves room for optional accessories.
- Top electrical connections, left or right gas and condensate drainage connections on downflow models.
- Condensate drain for horizontal application provided standard.
- Integrated control board manages all operational functions and provides hookups for humidifier and electronic air cleaner.
- An insulated blower compartment, a slow-opening gas valve and a specially designed inducer system make it one of the quietest furnaces on the market today.
- Pre-paint galvanized steel cabinet.
- Molded permanent filters.
- Optional indoor or outdoor combustion air.
- Transformer and control fuse protection.
- Control board diagnostics.

A variety of cooling coils and plenums designed to use with the Achiever® 90 Plus gas furnaces are available as optional accessories for air conditioning models.

†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.

RGTA- SERIES

**Models with Input Rates
from 45,000 to 120,000 BTU/HR
[13.19 to 35.17 kW]**

(All Models 90% A.F.U.E.† or Above)





ACHIEVER® 90 PLUS HIGH EFFICIENCY DOWNFLOW/HORIZONTAL GAS FURNACE



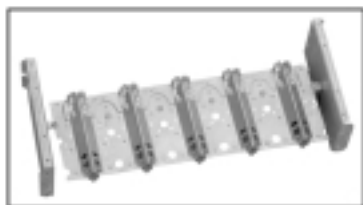
FUSE PROTECTION



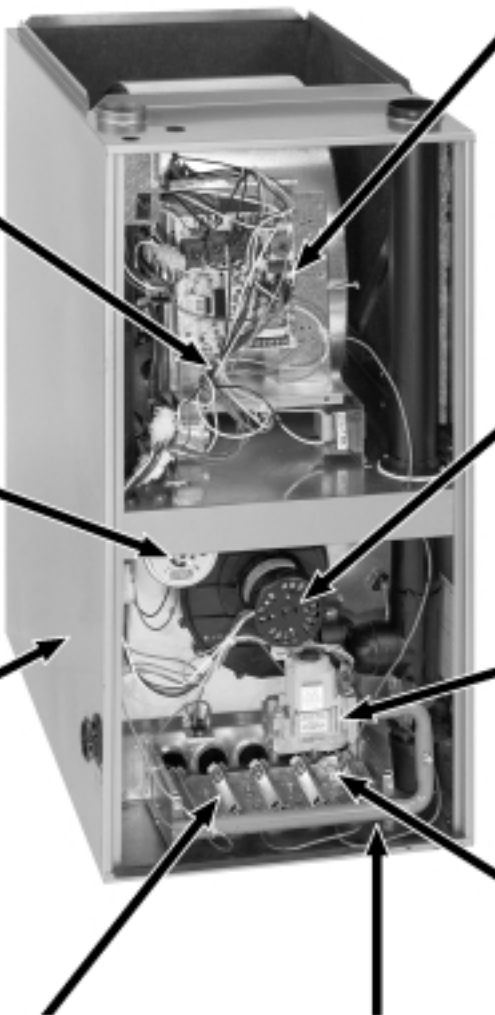
PRESSURE SWITCH



PRIMARY AND SECONDARY
HEAT EXCHANGER



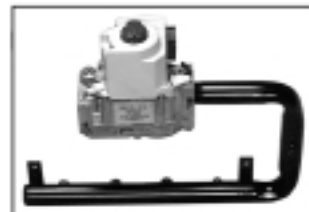
IN-SHOT BURNERS



INTEGRATED
FURNACE
CONTROL



DRAFT INDUCER



GAS VALVE AND
MANIFOLD



DIRECT SPARK IGNITION



REMOTE SENSOR

STANDARD EQUIPMENT

Completely assembled and wired; heat exchanger; primary: 409 and aluminized 409 stainless steel, secondary: 29-4C stainless steel; induced draft; pressure switch; redundant main gas control; blower compartment door safety switch; solid state time on/off blower control; limit controls; manual shut-off valve; 100% safety lock out; cool fan off delay; field selectable heat fan off delay; one hour automatic retry; power and self-test diagnostics; flame sense current diagnostics; electronic air cleaner connections; twinning (built-in) features; humidifier connections; humidifier on/off delay; low speed continuous fan option; single speed option for heating and cooling applications; transformer; direct drive, multi-speed blower motor. (Please note: a thermostat is not included as standard equipment.)

OPTIONAL EQUIPMENT

NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

All models can be converted by a qualified distributor or local service dealer to use L.P. (propane) gas without changing burners. Factory approved kits must be used to convert from natural to L.P. (propane) gas and may be ordered as optional accessories from a parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form.

WARNING
THIS FURNACE IS NOT APPROVED
OR RECOMMENDED
FOR USE IN MOBILE HOMES

PHYSICAL DATA AND SPECIFICATIONS

DOWNFLOW/HORIZONTAL MODELS U.S. and Canadian Models

MODEL NUMBERS	RGTA-04EMAES	RGTA-06EMAES	RGTA-07EMAES	RGTA-07EYBGS	RGTA-09EZAJS	RGTA-10EZAJS	RGTA-12ERAJS
INPUT-BTU/HR [kW] ①	45,000 [13.19]	60,000 [17.58]	75,000 [21.98]	75,000 [21.98]	90,000 [26.38]	105,000 [30.77]	120,000 [35.17]
HEATING CAPACITY BTU/HR [kW]	41,000 [12.02]	56,000 [16.41]	69,000 [20.22]	69,000 [20.22]	84,000 [24.62]	97,000 [28.43]	112,000 [32.82]
HIGH ALTITUDE INPUT [kW] ②	40,500 [11.87]	54,000 [15.83]	67,500 [19.78]	67,500 [19.78]	81,000 [23.74]	94,500 [27.70]	108,000 [31.65]
HIGH ALTITUDE OUTPUT CAPACITY [kW] ②	37,000 [10.84]	50,400 [14.77]	63,000 [18.46]	63,000 [18.46]	75,000 [21.98]	87,500 [25.64]	100,500 [29.45]
BLOWER (D x W) [mm]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	12 x 7 [305 x 178]	12 x 11 [305 x 279]	12 x 11 [305 x 279]	11 x 10 [279 x 254]
MOTOR H.P. [W] SPEEDS-TYPE	1/2 [373]-4-PSC	1/2 [373]-4-PSC	1/2 [373]-4-PSC	3/4 [559]-4-PSC	3/4 [559]-4-PSC	3/4 [559]-4-PSC	3/4 [559]-4-PSC
MOTOR FULL LOAD AMPS	6.8	6.8	6.8	9.5	9.5	9.5	9.5
HEATING SPEED	MED-LO	MED-LO	MED-HI	MED-LO	MED-LO	MED-LO	MED-LO
COOLING SPEED	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
HEAT EXT. STATIC PRESSURE (IN. W.C.) [kPa]	.10 [.025]	.12 [.029]	.12 [.029]	.12 [.029]	.15 [.037]	.20 [.049]	.20 [.049]
RATED EXT. STATIC PRESSURE (IN. W.C.) [kPa]	.50 [.124]	.50 [.124]	.50 [.124]	.50 [.124]	.50 [.124]	.50 [.124]	.50 [.124]
HEATING CFM @ .2" W.C. E.S.P. [L/s]	890 [420]	885 [418]	1060 [500]	1375 [649]	1400 [661]	1425 [673]	1565 [739]
COOLING CFM @ .5" W.C. E.S.P. [L/s]	1220 [576]	1180 [557]	1150 [543]	1625 [767]	1850 [873]	1820 [859]	2040 [963]
TEMPERATURE RISE RANGE °F [°C]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	45-75 [25-41.7]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	50-80 [27.8-44.4]	50-80 [27.8-44.4]
STANDARD FILTER [mm]	(2) 12" x 20" [305 x 508]	(2) 12" x 20" [305 x 508]	(2) 12" x 20" [305 x 508]	(2) 12" x 20" [305 x 508]	(2) 12" x 20" [305 x 508]	(2) 12" x 20" [305 x 508]	(2) 14" x 20" [356 x 508]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	111	117	123	123	148	152	160
AFUE ③	92.0%	92.4%	92.0%	92.3%	92.4%	92.0%	92.1%
CALIFORNIA SEASONAL EFFICIENCY ③	84.9%	86.8%	86.4%	85.7%	86.7%	87.0%	87.4%

NOTES: All models are 115V, 60HZ, 1Ø. Gas connection size for all models is 1/2" [13 mm] N.P.T.

① See Conversion Kit Index Form for high altitude derate.

② Canadian installations only.

③ In accordance with D.O.E. test procedures.

MODEL IDENTIFICATION

R	G	T	A	—	07E	M	A	E	S
Ruud	Gas Furnace	Downflow/ Horizontal Condensing Gas Furnace	Design Series		Heating Input Designation Electric Ignition	Blower Size M = 11 x 7 [279 x 178 mm] R = 11 x 10 [279 x 254 mm] Z = 12 x 11 [305 x 279 mm] Y = 12 x 7 [305 x 178 mm]	Variations A = Std. B = Wide Cabinet	Heat/Cool Designation E = 1100-1300 CFM [519-613.5 L/s] G = 1500-1700 CFM [707.9-802.3 L/s] J = 1900-2100 CFM [896.7-991.1 L/s]	Fuel Code S = U.S. and Canadian Natural Gas
					04E 45,000 [13 kW] 06E 60,000 [17.6 kW] 07E 75,000 [20.5 kW] 09E 90,000 [26.4 kW] 10E 105,000 [30.7 kW] 12E 120,000 [35.2 kW]				

[] Designates Metric Conversions

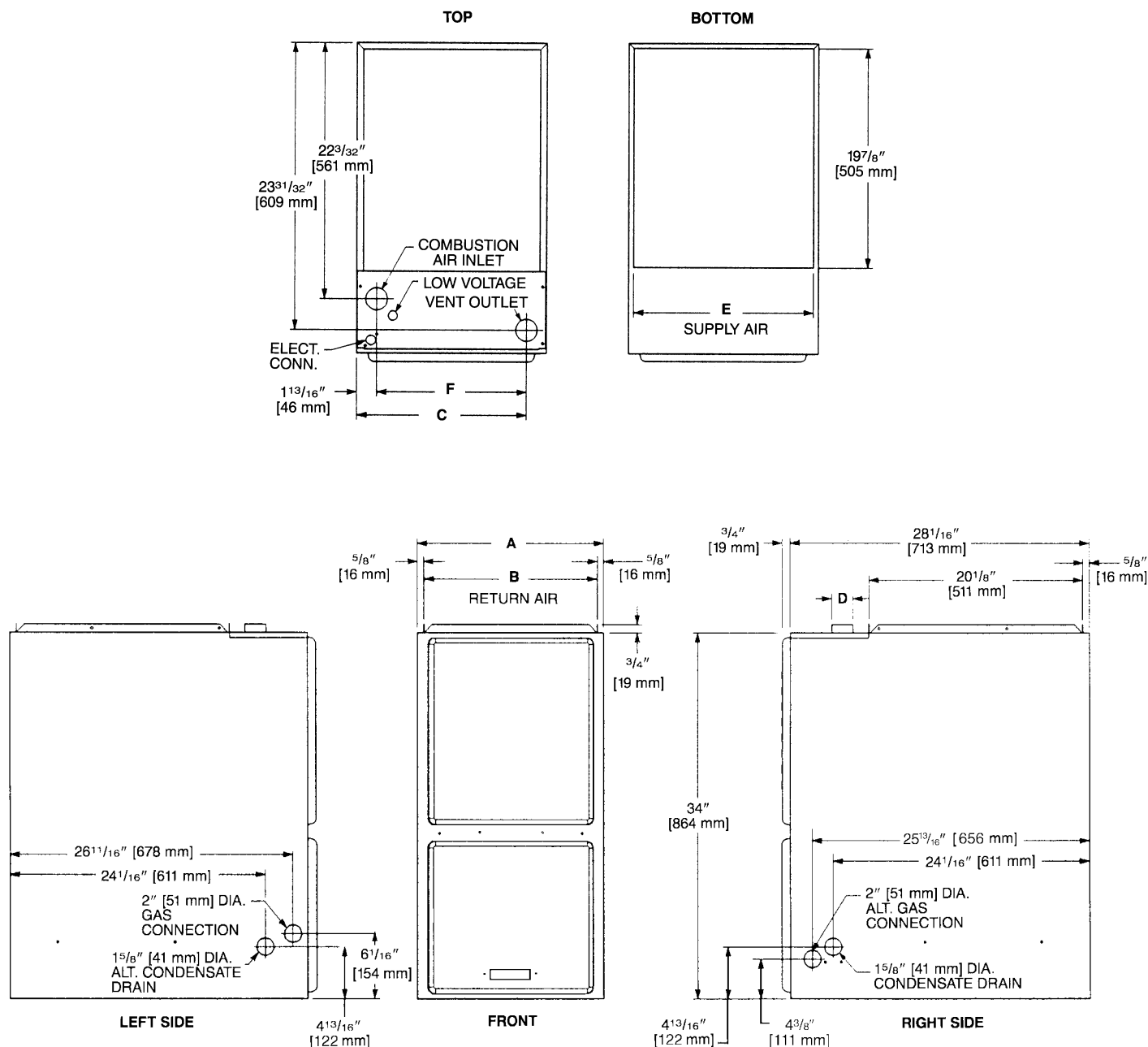
GENERAL TERMS OF LIMITED WARRANTY

Ruud will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

Primary and Secondary Heat Exchanger.....Limited Lifetime
Conditional Parts* (Registration Required)Ten (10) Years

***For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.**

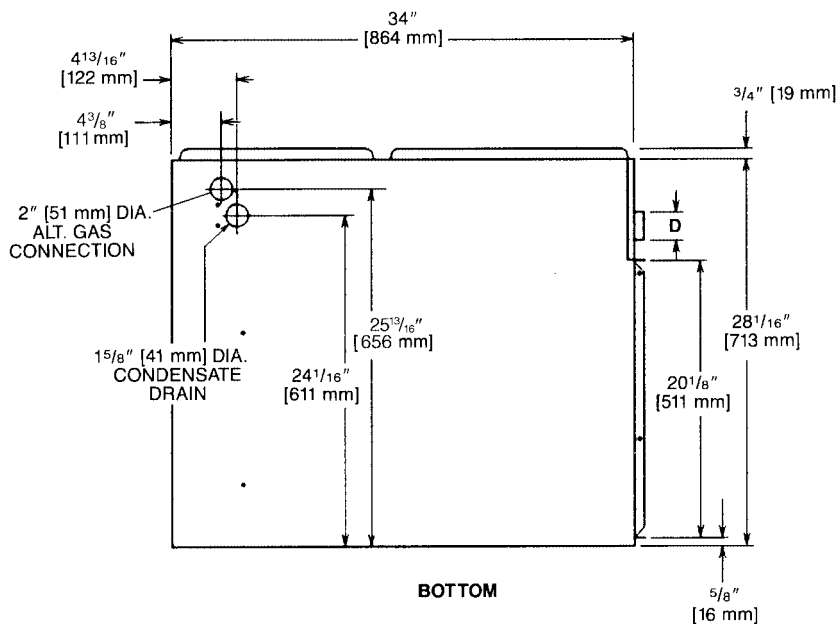
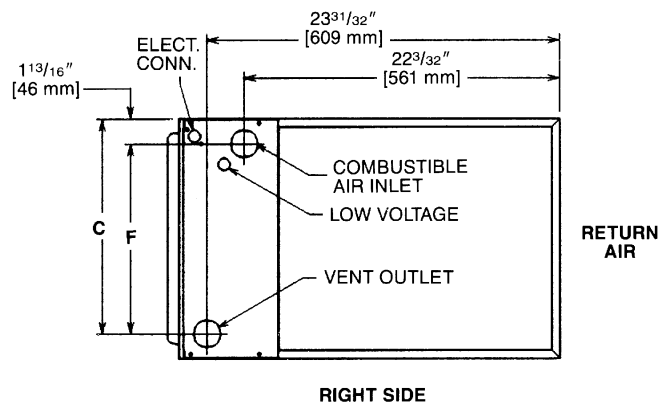
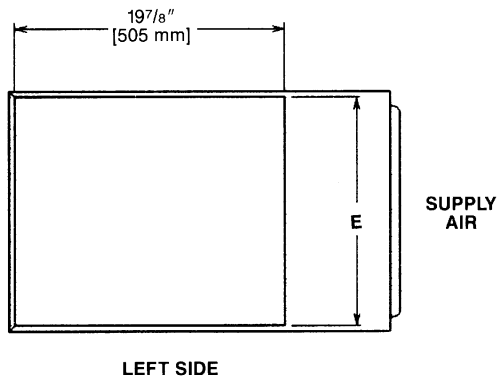
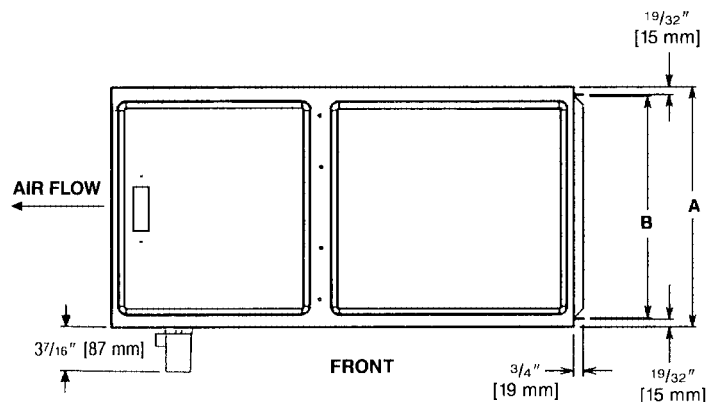
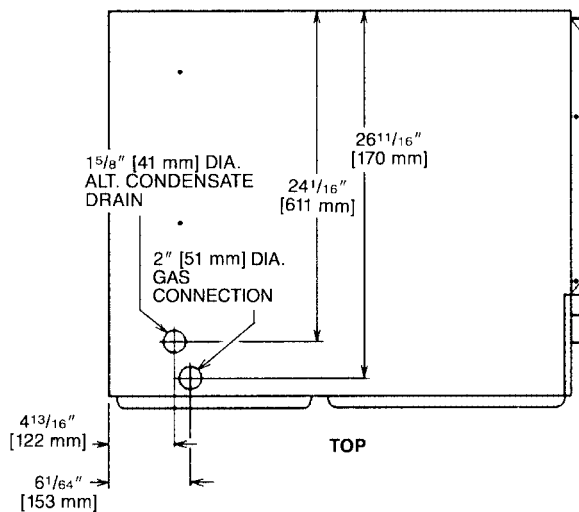
DOWNFLOW MODELS



MODEL RGTA-	A	B	C	D	E	F	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]					SHIP WGTS. [kg]
								RIGHT SIDE	BACK	TOP	FRONT	VENT	
04	17 ¹ / ₂ [445]	16 ¹ / ₃₂ [415]	15 ⁵ / ₈ [397]	2 [51]	16 ⁵ / ₈ [422]	13 ⁷ / ₈ [352]	0	0	0	1 [25]	2 [51]	0	111 [50]
06	17 ¹ / ₂ [445]	16 ¹ / ₃₂ [415]	15 ⁵ / ₈ [397]	2 [51]	16 ⁵ / ₈ [422]	13 ⁷ / ₈ [352]	0	0	0	1 [25]	2 [51]	0	117 [53]
07EM	17 ¹ / ₂ [445]	16 ¹ / ₃₂ [415]	15 ⁵ / ₈ [397]	2 [51]	16 ⁵ / ₈ [422]	13 ⁷ / ₈ [352]	0	0	0	1 [25]	2 [51]	0	123 [56]
07EY	21 [533]	19 ²⁷ / ₃₂ [504]	19 ³ / ₁₆ [486]	2 [51]	20 ¹ / ₈ [511]	17 ³ / ₈ [441]	0	0	0	1 [25]	2 [51]	0	123 [56]
09	21 [533]	19 ²⁷ / ₃₂ [504]	19 ³ / ₁₆ [486]	2 [51]	20 ¹ / ₈ [511]	17 ³ / ₈ [441]	0	0	0	1 [25]	2 [51]	0	148 [67]
10	21 [533]	19 ²⁷ / ₃₂ [504]	19 ³ / ₁₆ [486]	2 [51]	20 ¹ / ₈ [511]	17 ³ / ₈ [441]	0	0	0	1 [25]	2 [51]	0	152 [69]
12	24 ¹ / ₂ [622]	23 ¹ / ₃₂ [593]	22 ⁵ / ₈ [575]	2 [51]	23 ⁵ / ₈ [600]	20 ⁷ / ₈ [530]	0	0	0	1 [25]	2 [51]	0	160 [73]

IMPORTANT NOTE: Horizontal furnace may be installed for horizontal left hand air supply **ONLY**. The condensate trap provided for horizontal application must be installed in the field beneath the unit as directed in the furnace Installation & Operating Instructions.

HORIZONTAL MODELS



IMPORTANT NOTE: Horizontal furnace may be installed for horizontal left hand air supply **ONLY**. The condensate trap provided for horizontal application must be installed in the field beneath the unit as directed in the furnace Installation & Operating Instructions.

BLOWER PERFORMANCE DATA—RGTA MODELS

MODEL RGTA-	BLOWER SIZE IN. [mm]	MOTOR H.P. [W]	BLOWER SPEED	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES WATER COLUMN [kPa]						
				0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]
04	11 x 7 [279 x 178]	1/2 [373]	LOW	820 [387]	790 [373]	760 [359]	725 [342]	690 [326]	650 [306]	610 [288]
			MED-LO	930 [439]	890 [420]	850 [401]	815 [384]	785 [370]	750 [354]	720 [340]
			MED-HI	1150 [543]	1120 [528]	1090 [514]	1045 [493]	1002 [473]	950 [448]	900 [425]
			HIGH	1414 [667]	1365 [644]	1320 [622]	1270 [599]	1220 [576]	1165 [550]	1115 [526]
06	11 x 7 [279 x 178]	1/2 [373]	LOW	795 [375]	760 [359]	730 [344]	695 [328]	660 [311]	615 [290]	570 [269]
			MED-LO	910 [429]	885 [418]	860 [406]	815 [384]	770 [363]	725 [342]	680 [321]
			MED-HI	1115 [526]	1080 [510]	1045 [493]	1005 [474]	965 [455]	920 [434]	875 [413]
			HIGH	1365 [644]	1315 [620]	1270 [600]	1225 [578]	1180 [557]	1125 [531]	1070 [505]
07EM	11 x 7 [279 x 178]	1/2 [373]	LOW	780 [368]	750 [354]	720 [339]	675 [318]	635 [300]	595 [281]	555 [262]
			MED-LO	890 [420]	860 [406]	835 [394]	790 [373]	750 [354]	705 [332]	660 [311]
			MED-HI	1100 [519]	1060 [500]	1025 [484]	980 [462]	940 [443]	890 [420]	845 [399]
			HIGH	1340 [632]	1295 [611]	1250 [590]	1200 [566]	1150 [543]	1090 [514]	1025 [484]
07EY	12 x 7 [305 x 178]	3/4 [559]	LOW	1185 [559]	1160 [547]	1140 [538]	1115 [626]	1095 [517]	1065 [503]	1040 [491]
			MED-LO	1405 [663]	1375 [649]	1350 [637]	1310 [618]	1270 [599]	1235 [583]	1195 [564]
			MED-HI	1595 [753]	1560 [738]	1525 [720]	1480 [698]	1440 [679]	1380 [651]	1325 [625]
			HIGH	1835 [866]	1780 [840]	1730 [816]	1675 [791]	1625 [767]	1555 [734]	1480 [698]
09	12 x 11 [305 x 279]	3/4 [559]	LOW	1155 [545]	1125 [531]	1100 [519]	1080 [510]	1060 [500]	1000 [472]	940 [443]
			MED-LO	1420 [670]	1400 [661]	1380 [651]	1365 [644]	1350 [637]	1260 [594]	1175 [554]
			MED-HI	1605 [757]	1575 [743]	1550 [732]	1560 [736]	1570 [740]	1480 [698]	1390 [656]
			HIGH	2005 [946]	1965 [927]	1930 [910]	1890 [892]	1850 [873]	1765 [833]	1680 [793]
10	12 x 11 [305 x 279]	3/4 [559]	LOW	1180 [557]	1150 [543]	1120 [528]	1100 [519]	1080 [510]	1025 [484]	970 [458]
			MED-LO	1460 [689]	1425 [672]	1390 [656]	1375 [649]	1360 [642]	1280 [604]	1200 [566]
			MED-HI	1680 [793]	1645 [776]	1615 [762]	1585 [748]	1560 [736]	1490 [703]	1420 [670]
			HIGH	2055 [970]	2000 [944]	1940 [915]	1880 [887]	1820 [859]	1745 [823]	1675 [790]
12	11 x 10 [279 x 254]	3/4 [559]	LOW	1285 [606]	1250 [590]	1215 [573]	1235 [582]	1260 [595]	1230 [580]	1200 [566]
			MED-LO	1590 [750]	1565 [738]	1540 [727]	1505 [710]	1475 [696]	1425 [672]	1375 [649]
			MED-HI	1840 [868]	1820 [860]	1800 [850]	1750 [826]	1700 [802]	1645 [776]	1590 [750]
			HIGH	2315 [1093]	2250 [1062]	2185 [1031]	2110 [996]	2040 [963]	1965 [927]	1890 [892]

NOTE: Recommended blower speeds are in bold.

ACCESSORIES—DOWNFLOW

VENT TERMINATION KITS CONCENTRIC: HORIZONTAL/ VERTICAL =

RXGY-E03A (US & Canadian Installations)

HORIZONTAL TWO PIPE: RXGY-D02, RXGY-D03, RXGY-D04
(US Installations)

RXGY-D02A, RXGY-D03A, RXGY-D04A (Canadian Installations)

RXGY-G02 (US Only)

CONDENSATE PUMP KIT: RXGY-B01

NEUTRALIZER KIT: RXGY-A01

COMBUSTIBLE FLOOR BASE: RXGC-B17
RXGC-B21
RXGC-B24

EXTERNAL FILTER RACK: RXGF-CC

FILTER RACK FILTER SIZES* INCHES [mm]	
MODEL RGTA-	RXGF-CC
04	(2) 12 x 20 [305 x 508]
06	(2) 12 x 20 [305 x 508]
07	(2) 12 x 20 [305 x 508]
09	(2) 12 x 20 [305 x 508]
10	(2) 12 x 20 [305 x 508]
12	(2) 14 x 20 [305 x 508]

*Filter racks are shipped without filters.
Filters shipped with furnace may be used or a suitable 1" [25.4 mm] filter.

PLENUM DATA FOR “A” COILS

Plenum adapters are required in some instances for use on downflow applications when plenum and furnace size do not match.

FURNACE WIDTH IN. [mm]	PLENUM WIDTH IN. [mm]	PLENUM ADAPTER DOWNFLOW	COIL PLENUM
17 1/2 [445]	16 1/4 [413]	RXAA-C186	RXAL-B16BU
17 1/2 [445]	20 1/4 [514]	RXAA-C173	RXAL-B20BU
17 1/2 [445]	21 5/8 [549]	RXAA-C187	RXAL-B21BU
17 1/2 [445]	25 1/4 [641]	RXAA-C174	RXAL-B25BU
21 [533]	25 1/4 [641]	RXAA-C175	RXAL-B25BU
21 [533]	22 1/4 [565]	RXAA-C176	RXAL-B22BU
21 [533]	21 5/8 [549]	RXAA-C188	RXAL-B21BU
24 1/2 [622]	25 1/4 [641]	RXAA-C177	RXAL-B25BU
24 1/2 [622]	21 5/8 [549]	RXAA-C187	RXAL-B21BU

NOTE: See Form Number C22-206 for MultiFlex® coil data.

FOSSIL FUEL KIT: RXPF-F01 RXPF-F02 (TVA)

[] Designates Metric Conversions

ACCESSORIES—DOWNFLOW (cont.)

FOR HIGH ALTITUDES

***HIGH ALTITUDE KIT:** RXGY-F04-105 KBTU/H
RXGY-F06-45/60/90 KBTU/H
RXGY-F05-120 KBTU/H
RXGY-F07-75 KBTU/H

***For installations over 5000 ft.**

OPTION CODE FOR HIGH ALTITUDE: US & Canada – 278

NOTE: High altitude kits and options do **NOT** include additional burner orifices. If a burner orifice change is necessary, they must be ordered through PROSTOCK®. See Installation Instructions for more information.

Option – 278 furnaces are shipped with #51 DMS orifices installed. This is one drill size smaller than standard furnaces to account for expected average elevations and heating values typically seen in these areas.

CAUTION: Always follow National Fuel Gas Code (NFPA) guidelines when converting furnaces for high altitudes.

For all installations above 2000 ft. (including all option – 278 models), the burner orifice size needs to be recalculated and verified. A burner orifice change may still be required. See Installation Instructions for more information.

NOTE: For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations.

FOR LEFT SIDE (ALTERNATE) CONDENSATE

DRAIN KIT: RXGY-H01 (All Models)

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

**Ruud Heating,
Cooling and
Water Heating**

P.O. Box 17010, Fort Smith, AR 72917



"In keeping with its policy of continuous progress and product improvement, Ruud reserves the right to make changes without notice."