### **Universal Low NOx Water Heaters**



# Universal<sup>™</sup> low NOx is a family of commercial gas water heaters that are designed to fit into tight retrofit applications

### **Features & Benefits**

The tighter the commercial retrofit, the more you will appreciate how the Universal's compact size and multiple water connections simplify low NOx installations. Choose from 80% thermal efficiency models that range from 125,000-399,900 BTU/h and have maximum temperature setting of 180 degrees Fahrenheit.

### **Space Saver Design**

The short heights and narrow jacket diameters, plus the top, front and rear water inlets/outlets offer the ultimate in installation flexibility.

### System Sentinel<sup>™</sup> LED Diagnostic System

Our exclusive diagnostic system, with glowing LED lights, verifies system operation sequence by sequence.

### **Patented Technology**

Universal's proprietary steel formulation, patented multi-flue design, combined with two coats of porcelain enamel, results in a superior heat exchanger design.

#### Low NOx Burner

The power assist burner design incorporates stainless steel multi-port burner tubes for long term low NOx performance, less than 40 ng/J. A sight glass allows for burner observation. A blower guard provides protection against potential post-installation damage. The entire design is removable and it is highly resistant to the effects of negative air pressure common in modern commercial buildings.

# Low Profile Automatic Flue Damper

Low profile damper minimizes overall product height. Heavy duty vent hood supports are designed to withstand the rigors of installation.

### Full-port, Full-flow Drain Valve

Factory installed brass drain valve allows for faster draining and servicing.

# Direct Spark-to-Pilot Ignition System

Energy saving ignition that ignites pilot only when there is a call for heat.

#### Altitude Certifications

Universal low NOx is certified up to 2,000 feet. High altitude certification for models GN76-200 and GN91-200 is 5,000 feet; and model GN100-200(A) is 8,000 feet.

### **Patented Anode Rods**

Anode design utilizes multiple magnesium rods to ensure corrosion resistance for a long tank life.

### Warranty

3-Year limited tank warranty
See Commercial Warranty Certificate for
complete information.

Efficiency | All models tested according to ANSI test procedures, and meet or exceed the thermal efficiency and standby loss requirements of ASHRAE standard (EPact). Also exceeds energy efficiency codes of all states including California Energy Commission (CEC).

Safety and Construction | Design certified by CSA: For operation at 180 degrees; meets all safety and construction requirement of ANSI Z21.10.3; as an automatic storage or instantaneous water heater; as an automatic circulating tank water heater; and for operation on combustible floors and in alcove installations. Certified for 150 PSI maximum working pressure (160 PSI for ASME models).

**Optional Construction |** ASME construction is available on designated models.



### Ruud Universal Low NOx

35 to 100-Gallon Capacities 125,000-399,900 BTU/h Natural Gas Top-Front-Rear Inlet/Outlet Water Connections





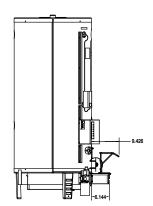
Models)



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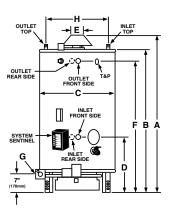


RECOVERY CAPACITIES (80% thermal efficiency)															
MODEL	INPUT BTU/H	GPH													
NUMBER		40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F			
GN75-125	125,000	303	242	202	173	152	135	121	110	101	93	87			
GN82-156	156,000	378	303	252	216	189	168	151	138	126	116	108			
GN37-200*	199,900	485	388	323	277	242	215	194	176	162	149	138			
GN76-200	199,900	485	388	323	277	242	215	194	176	162	149	138			
GN91-200	199,900	485	388	323	277	242	215	194	176	162	149	138			
GN100-200(A)	199,900	485	388	323	277	242	215	194	176	162	149	138			
GN72-250(A)	250,000	606	485	404	346	303	269	242	220	202	186	173			
GN100-250(A)	250,000	606	485	404	346	303	269	242	220	202	186	173			
GN100-270(A)	270,000	655	524	436	374	327	291	262	238	218	201	187			
GN65-360(A)	360,000	873	698	582	499	436	388	349	317	291	269	249			
GN100-400(A)	399,900	969	776	646	554	485	431	388	353	323	298	277			



Recovery ratings are based on thermal efficiencies obtained in a CSA certified laboratory. (A) indicates available ASME model.

FIRST TIME DELIVERY (Includes useable storage and recovery for indicated times.)													
			TEMP. RISE AT 100°F IN GALLONS MIN										
MODEL NUMBER	TANK CAP. GALLONS	INPUT BTU/H	5 MIN.	10 MIN.	15 MIN.	20 MIN.	30 MIN.	45 MIN.	60 MIN.	120 MIN.	180 MIN.	TO REC.	
GN75-125	75	125,000	63	73	83	93	113	143	174	295	416	37	
GN82-156	82	156,000	70	83	95	108	133	171	209	360	511	33	
GN37-200*	35	199,900	41	56	72	88	119	167	214	403	562	11	
GN76-200	76	199,900	69	86	102	118	150	199	247	441	635	24	
GN91-200	91	199,900	80	96	112	128	161	209	258	451	645	28	
GN100-200(A)	100	199,900	86	102	118	135	167	215	264	458	652	31	
GN72-250(A)	72	250,000	71	91	111	131	172	232	293	535	778	18	
GN100-250(A)	100	250,000	90	110	131	151	191	252	312	555	797	25	
GN100-270(A)	100	270,000	92	114	135	157	201	266	332	594	855	23	
GN65-360(A)	65	360,000	75	104	133	162	220	307	395	744	1093	11	
GN100-400(A)	100	399,900	102	135	167	199	264	361	458	846	1233	15	



DIMENSIONS (Inches)														
									WATER	CONNEC	TIONS	APPROXIMATE		
MODEL	Λ.	В	C	ח			G	Н	TOP	FRONT	REAR	SHIPPING		
NUMBER	A	D	)	ט			G		IN/OUT	SIDE	SIDE	STD.	ASME	
GN75-125	65-1/2	61	26-1/4	25	5	56	3/4	20	1-1/2	1-1/2	1-1/2	480 lbs.	N/A	
GN82-156	68-13/16	64	26-1/4	25	6	58-5/8	3/4	20	1-1/2	1-1/2	1-1/2	490 lbs.	N/A	
GN37-200*	49-1/4	43-3/8	26-1/4	25	6	37-5/8	3/4	20	1-1/2	1-1/2	1-1/2	405 lbs.	N/A	
GN76-200	68-13/16	64	26-1/4	25	6	58-5/8	3/4	20	1-1/2	1-1/2	1-1/2	540 lbs.	N/A	
GN91-200	76-5/16	71-13/16	26-1/4	30-5/8	6	66-3/8	3/4	20	1-1/2	1-1/2	1-1/2	600 lbs.	N/A	
GN100-200(A)	73-1/16	66-1/8	30-1/4	23-1/4	6	57-1/2	3/4	23	1-1/2	2	2	780 lbs.	835 lbs.	
GN72-250(A)	71-1/16	64-1/2	26-1/4	25	6	58-5/8	3/4	20	1-1/2	1-1/2	1-1/2	590 lbs.	630 lbs.	
GN100-250(A)	73-1/4	66-1/8	30-1/4	23-1/4	6	57-1/2	3/4	23	1-1/2	2	2	795 lbs.	835 lbs.	
GN100-270(A)	73-7/8	66-1/8	30-1/4	23-1/4	6	57-1/2	3/4	23	1-1/2	2	2	805 lbs.	845 lbs.	
GN65-360(A)	70-11/16	64-1/2	26-1/4	25	8	58-5/8	3/4	N/A	N/A	1-1/2	1-1/2	640 lbs.	680 lbs.	
GN100-400(A)	76	68-1/2	30-1/4	32-1/4	8	61-3/4	1	23	1-1/2	2	2	770 lbs.	810 lbs.	

All Models Require a 120V / 1.5 Amp Power Source. (A) Suffix Indicates ASME Tank Construction Available.

<sup>\*</sup>Automatic circulating tank water heater

CLEARANCE TO COMBUSTIBLES (inches)										
MODEL NUMBER	SIDE	REAR	ТОР							
GN75-125	2	2	12							
GN82-156	2	2	12							
GN37-200	2	2	12							
GN76-200	2	2	12							
GN91-200	2	2	12							
GN100-200(A)	2	4	12							
GN72-250(A)	6	6	12							
GN100-250(A)	2	4	12							
GN100-270(A)	2	4	12							
GN65-360(A)	6	6	12							
GN100-400(A)	6	6	12							

### Recommended Specifications (for trade reference only)

Water heater(s) shall be Universal low NOx model \_\_\_\_\_\_\_, manufactured by Ruud, having gas input of \_\_\_\_\_\_BTU/h and a recovery rate of \_\_\_\_\_\_\_GPH at a 100°F temperature rise when tested and certified at \_\_\_\_\_\_thermal efficiency. Water heater(s) shall have a storage capacity of \_\_\_\_\_\_gallons. Water heater(s) shall have the CSA seal of certification and supplied with a factory installed CSA/ASME rated temperature and pressure relief valve. Tank(s) shall be furnished with a tube bundle having a double coating of high temperature porcelain enamel and furnished with magnesium anode rods rigidly supported. Water heater(s) shall meet or exceed the thermal efficiency and standby loss requirements of ASHRAE Standard 90.1b-2001. Tanks shall have a working pressure rating of 150 psi, and shall be completely factory assembled, including a pressure regulator properly adjusted for operation on \_\_\_\_\_gas with stainless steel burners. Controls will be arranged for safety shutoff in event of pilot failure. Water heater(s) with inputs less than 360,000 BTU/h shall have top, front and rear side inlet/outlet water connections. Water heater(s) shall be covered by a three year limited warranty against tank leaks.

### When ordering ASME construction, place (A) after the model number (for trade reference only)

Water heater(s) shall be constructed in accordance with the requirements of the ASME Boiler and Pressure Vessel Code, Section IV Part HLW.

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

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