

RANSOME

MANUFACTURING

Engineering and Equipment Manufacturing

RW Series Water-Bath LP-Gas Vaporizers



Standard Features

- Mechanical liquid inlet valve provides positive control of LP-Gas liquid level on all RW 100 units. RW 180 thru RW 900, use a reliable float switch and electric inlet valve to prevent liquid carryover.
- Millivolt-powered gas control system maintains proper water bath temperature under changing load conditions.
- Gas control valve is located inside the protective dry cabinet with the regulator mounted on the exterior providing for total ventilation.
- Precision operating temperature switch, factory-set and tamper resistant, incorporates precious metal contacts for extended service life.
- Two-stage pressure regulation provides accurate burner gas burner pressures and performance regardless of changes in inlet pressure.
- ASME code vaporizing tubes with integral heat exchange vanes and internal water chamber provide efficient vaporization with minimum burner input.
- Integral circulating pumps enhance heat transfer and temperature control capabilities.
- Modular design provides maximum capacity in a compact, rectangular unit.
- Double-Louvered combustion air baffles assure freedom from outages even during adverse weather conditions. (For extreme conditions, optional electric pilot reignitors are available).
- All sizes are capable of infinite turndown and will maintain a ready supply of vapor from zero load to full capacity. At no load, only enough heat will be generated to maintain water temperature and to prevent condensation.

Models are available in a complete range of sizes from 100 GPH to 900 GPH propane capacity, allowing you to buy precisely the vaporization you need.

Standard models are built to conform with requirements of National Fire Protection Association pamphlet 58,

American Society of Mechanical Engineers Section VIII and California Code of Regulations Title 8. All models are Factory Mutual System and Railroad Commission of Texas approved.

**Factory
Mutual
System**

Selection Chart

If your max. propane load requirements are up to *				Height		Width		Depth		Shipping Weight		RANSOME MODEL
GAL/HR	MILLIONS OF BTU/HR	CF/HR	KG/HR	IN.	CM.	IN.	CM.	IN.	CM.	LB.	KG.	
100	9.16	3645	192	48	122	16.5	42	20.75	53	450	204	RW100
180	16.49	6561	345	67.5	172	16.5	42	20.75	53	750	340	RW180
360	32.98	13122	690	69.5	177	28	71	26.25	67	1390	630	RW360
540	49.46	19683	1035	69.5	177	42	107	26.25	67	1950	883	RW540
720	65.95	26244	1380	69.5	177	56	142	26.25	67	2510	1137	RW720
900	82.44	32805	1725	69.5	177	70	178	26.25	67	3070	1391	RW900

(1) Units may be paralleled to achieve greater capacities. NOTE: For usage with other gases, consult factory for sizing information. (i.e. C3H6, NH3, SO2, C12)

Theory of Operation

The RW Series vaporizer consists of a verticle ASME rated pressure vessel which is submerged in a water bath. The water is heated by a gas fired burner which consumes a small amount of vapor from the vessel to develop the heat required for vaporization.

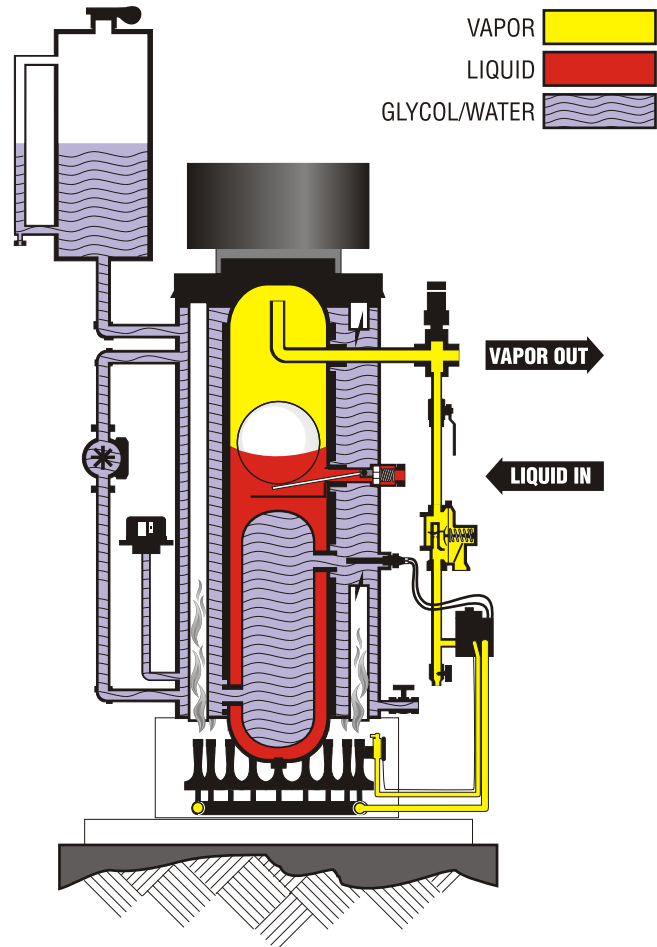
As liquid enters the vessel, it begins to vaporize, absorbing the heat stored in the water causing its temperature to decrease.

The operating temperature switch monitors water temperature and signals the gas control valve to fire the burner when water temperature drops below set point (175 degrees F).

The circulating pump keeps the water and glycol properly mixed and assists in heat transfer by circulating the water throughout the tube, eliminating hot spots.

Ransome Model RW100 uses a mechanical liquid inlet valve that is actuated by a stainless steel ball located inside the vessel. If the liquid level rises above the inlet connection, the float will lift off the inlet valve allowing it to close, stopping the liquid flow. Once the liquid drops, the valve will re-open.

Ransome Models RW180 thru RW900 use an external float switch and electrically operated solenoid valve to stop the liquid flow. Once the liquid drops to a safe level, the float switch will re-open the valve.



RW Options

Option	Description	Add Suffix
Electric Pilot Reignitor	Protects against pilot outage due to unusually turbulent winds and eliminates need for matches to start vaporizer. 110v. required.	E

Warranty

Ransome Manufacturing, 3495 South Maple Avenue, Fresno, California, warrants to all parties all equipment manufactured and sold by it to be free from defects in material or workmanship under normal use and service, when installed and used in accordance with all applicable state and local codes, regulations and laws in accordance with National Fire Protection Pamphlet 58. Ransome Manufacturing agrees to repair or replace any equipment which its examination reveals to have been defective due to faulty workmanship or material, if returned to factory, transportation charges prepaid. Deviations from recommended applications, system design, installation and service practices, as well as deterioration or wear due to foreign materials or contamination present in LP-Gas or air shall be considered as abuses and render this warranty void. This warranty applies for a period of one year from date of installation, but not more than eighteen months after shipment from factory.

This warranty is expressly in lieu of all other warranties expressed or implied, and of all obligations or liabilities on its part for damages including but not limited to consequential damages, following the use or misuse of equipment sold by it. No agent is authorized to assume any liability for Ransome Manufacturing, except as set forth above.

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