

# RANSOME

## MANUFACTURING

Engineering and Equipment Manufacturing

## RH Series Direct-Fired LP-Gas Vaporizers



### Standard Features

- Mechanical liquid inlet valve provides positive control of LP-Gas liquid level on all RH 50, 80 and RH 120 sizes. Larger sizes use reliable float switch and electric inlet valve to prevent liquid carryover.
- Millivolt-powered gas control system maintains consistent vapor 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 sealed against tampering, incorporates precious metal contacts for extended service life.
- Two-stage pressure regulation provides accurate burner gas pressures and performance regardless of changes in inlet pressure.
- ASME code vaporizing tubes with integral heat exchange vanes and insulated ducts provide efficient vaporization with minimum burner input.
- 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 vapor temperature and to prevent condensation.

Models are available in a complete range of sizes from 50 GPH to 1,000 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 Underwriters Laboratories, 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.	
50	4.58	1823	96	31	79	16.5	42	20.5	52	205	92.8	RH50
80	7.32	2916	154	41	104	16.5	42	20.5	52	245	110.9	RH80
120	10.98	4374	231	48.5	123	16.5	42	20.5	52	285	129.1	RH120
200	18.30	7290	384	67.5	171	16.5	42	20.5	52	380	172.1	RH200
400	36.60	14580	768	69.5	177	28	71	26.25	67	920	416.7	RH400
600	54.90	21870	1152	69.5	177	42	107	26.25	67	1380	625.1	RH600
800	73.20	29160	1536	69.5	177	56	142	26.25	67	1840	833.5	RH800
1000	91.50	36450	1920	69.5	177	70	178	26.25	67	2300	1041.9	RH1000

(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

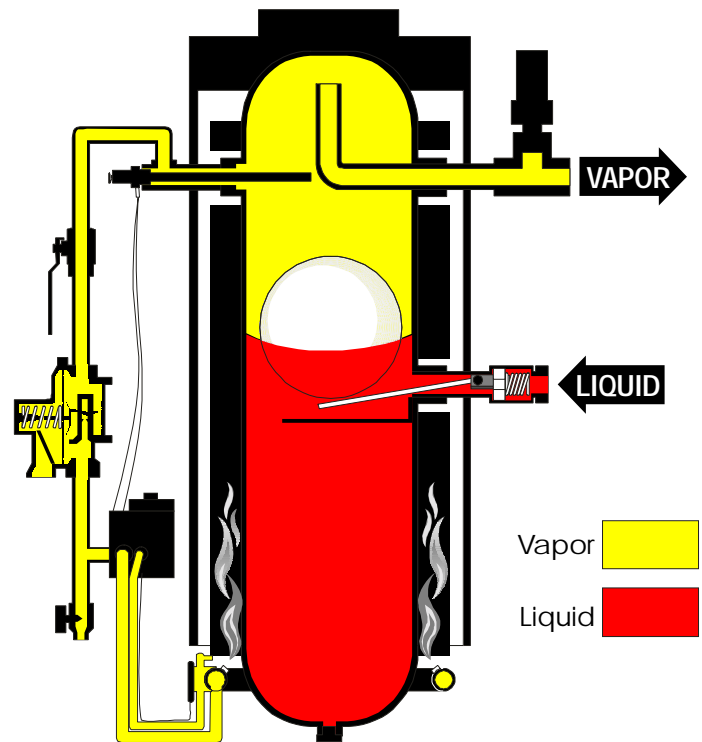
The RH Series vaporizer consists of a vertical ASME rated pressure vessel which is directly heated by a gas fired burner. The burner consumes a small portion of vapor from the vessel to develop the heat required for vaporization.

As liquid enters the vessel, it begins to vaporize as heat is absorbed from the warm heat exchanger. This causes the vapor temperature to decrease.

The operating temperature switch monitors vapor temperature and signals the gas control valve to fire the burner when vapor temperature drops below set point (120 degree F).

Ransome Models RH50 thru RH120 use a mechanical liquid level control system that consists of a mechanical liquid inlet valve, which is actuated by a stainless steel ball located inside the vessel. If the liquid level rises above the desired level, the float will lift off the inlet valve lever allowing it to close, preventing a liquid carryover. Once the level drops, the inlet valve will re-open.

Ransome Models RH200 thru RH1000 use an electrically operated liquid level control system which consists of an external float switch and solenoid valve. If the liquid rises above the desired level, the float will close the solenoid valve to prevent a liquid carryover.



## RH 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.

**RANSOME**  
MANUFACTURING

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