

IMPORTANT INFORMATION: Product must be installed and used in strict conformance with NFPA Pamphlet 58 and/or NFPA Pamphlet 54 and all other codes, regulations and manufacturer recommendations.

Failure to follow these codes, regulations and recommendations could result in hazardous installation, bodily injury and/or death.

PRODUCT TRAINING SCHOOLS AVAILABLE. Contact a GEC customer service representative for more information.

WARNING: LP Gas is extremely flammable and explosive. Devices used for handling LP Gas and Anhydrous Ammonia must be installed and used in strict conformance with NFPA Pamphlet 58 and 54 and all other codes, regulations and manufacturer recommendations.

Ransome RH Series Direct-Fired LPG Vaporizers

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 electronic inlet valve to prevent liquid carryover.
- Millivolt-powered gas control system maintains consistent vapor temperature under changing load conditions.
- Modular design provides maximum capacity in a compact, rectangular unit.
- All sizes are capable of infinite turndown and 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 prevent condensation.
- "E" option available for electronic ignition.

Models are available in a complete range of sizes from 50 GPH to 1,000 GPH propane capacity.

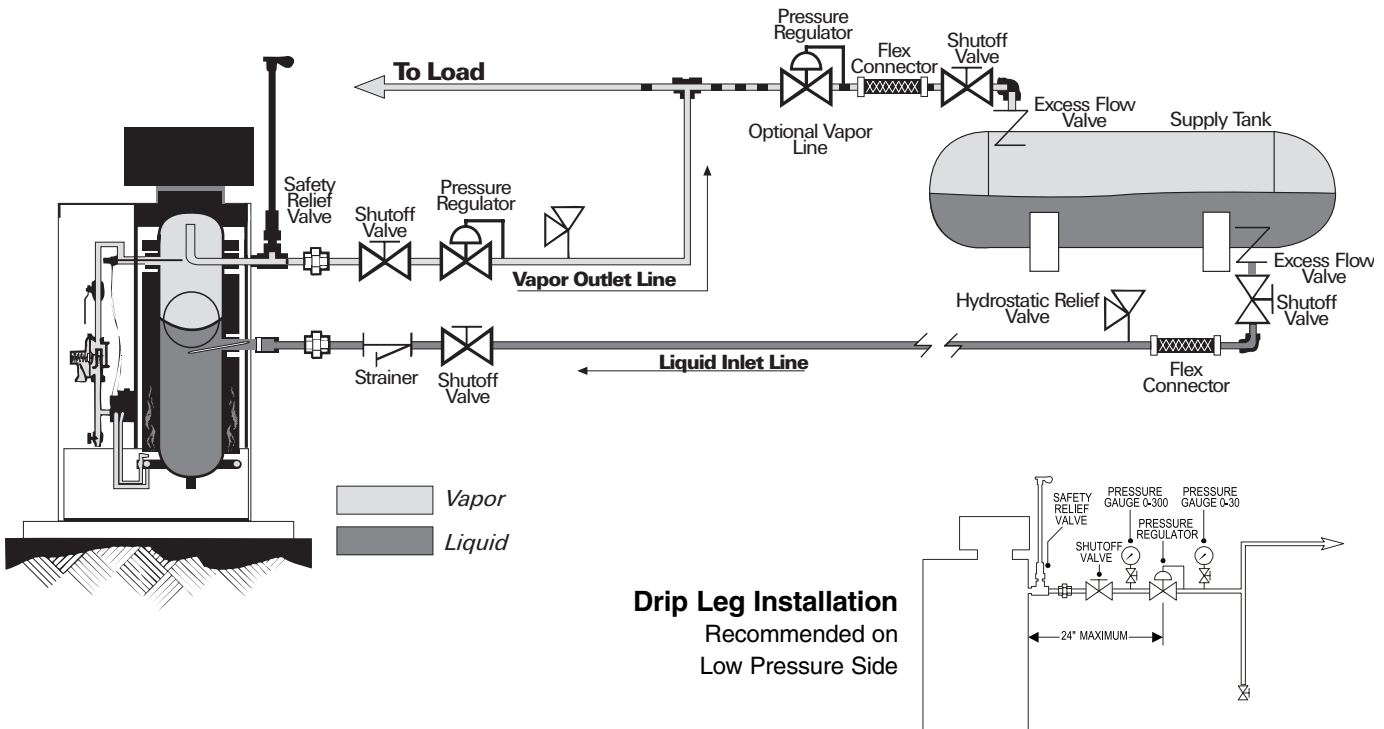
Standard models are built to conform with requirements of National Fire Protection Association pamphlet 58, American Society of Mechanical Engineers Section VIII and California Code of Regulations Title 8. All models are U.L. Factory Mutual System & Railroad Commission of Texas approved.



RH50

| Part # | GPH Propane | CF/hr. | Millions of BTU/hr. | Shipping Weight (lb.) | Connections | |
|---------|-------------|--------|---------------------|-----------------------|-------------|-----------|
| | | | | | Inlet | Outlet |
| RH 50 | 50 | 1,823 | 4.58 | 205 | 3/4" FNPT | 3/4" FNPT |
| RH 80 | 80 | 2,916 | 7.32 | 245 | | |
| RH 120 | 120 | 4,374 | 10.98 | 285 | | |
| RH 200 | 200 | 7,290 | 18.30 | 380 | 1" FNPT | 2" FNPT |
| RH 400 | 400 | 14,580 | 36.60 | 920 | | |
| RH 600 | 600 | 21,870 | 54.90 | 1,380 | | |
| RH 800 | 800 | 29,160 | 73.20 | 1,840 | 1" FNPT | 2" FNPT |
| RH 1000 | 1000 | 36,450 | 91.50 | 2,300 | | |

Typical Vaporizer Installation - Principal Features



Ransome PAM Series Direct-Fired LPG Vaporizers/Mixers

PAM Series Direct-Fired Vaporizer-Mixers provide an economical, dependable source of propane-air mixture to replace natural gas for any industrial or commercial use up to 73,500 SCFH at as high as 30 PSI.

Applications include factories, hospitals, schools, office buildings, small utilities and many others. They are individually factory-tested and calibrated on propane and shipped ready for use.

Why a Mixer?

LP-Gas is a highly concentrated source of energy, with 2516 BTU's per cubic foot gross heat content. It is too rich to use as a substitute for natural gas without dilution. The Ransome mixer blends in just the right amount of air for an equivalent mixture. A mixture with specific gravity of 1.31 (1480 BTU/Cu. Ft.) will approximately match 0.6 specific gravity natural gas with 1000 BTU/Cu. Ft. gross heat content.



| If your Peak Load Requirements are up to ¹ | | | RANSOME MODEL | | Air Required SCFM (for 10-30 PSI Only) | Vaporization Capacity Required (for M Series Only) GPM Propane |
|---|--|--|-----------------|------------|--|--|
| Millions of BTU/hr. | Thousands of SCFH Natural Gas ² | Thousands of SCFH Mixed Gas ³ | Vaporizer Mixer | Mixer Only | | |
| 14.75 | 14.75 | 10 | PAM200-10 | M10 | 75 | 180 |
| 29.50 | 29.50 | 20 | PAM400-20 | M20 | 150 | 360 |
| 44.25 | 44.25 | 30 | PAM600-30 | M30 | 225 | 540 |
| 59.00 | 59.00 | 40 | PAM800-40 | M40 | 300 | 720 |
| 73.75 | 73.75 | 50 | PAM1000-50 | M50 | 375 | 900 |

1. Units maybe parralled to achieve greater capacities. 2. Natural Gas; S.G.U. = 8 Gross Heat Content 1000 BTU/Cu.Ft.
3. Mixed Gas; Propane-Air S.G.U. = Gross Heat Content 1480 BTU/Cu.Ft.

Ransome RW Series Water-Bath LPG Vaporizers

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° 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 reopen the valve.

| Part # | GAL/hr. | CF/hr. | Millions of BTU/hr. | Shipping Weight (lb.) |
|--------|---------|--------|---------------------|-----------------------|
| RW100 | 100 | 3645 | 9.16 | 450 |
| RW180 | 180 | 6561 | 16.49 | 750 |
| RW360 | 350 | 13122 | 32.98 | 1390 |
| RW540 | 540 | 19683 | 49.46 | 1950 |
| RW720 | 720 | 26244 | 65.95 | 2510 |
| RW900 | 900 | 32805 | 82.44 | 3070 |

1. Units maybe parralled to achieve greater capacities.



Algas Direct Gas-Fired LP Gas Vaporizer

The Direct Fired vaporizers are small (40 gph) to medium (120 gph) capacity vaporizers which are used on a wide variety of applications.

Features:

- Simple to Install - small & lightweight with only two piping connections required for installation.
- No electricity required.
- Steady gas supply over a broad temperature range.
- Sturdy all weather construction provides for maximum durability and resistance to the elements and eliminates the need for a shelter.
- Easy access to operating controls.
- Capacity control valve included on standard unit.
- Versatile modular construction allows additional vaporizers to be added to the system as demand grows.
- Operates at low temperatures.
- Capacity remains the same for propane or any LPG Supply.
- Complete with all operating and safety controls.
- Includes 3/4" inlet strainer with all models.
- Design pressure 250 psig.
- FM Approved.
- UL & ULC Approved. CRN's for all Canadian provinces.
- Standard unit has ASME Section I pressure vessel and is "S" code stamped.
- Standard unit is CE marked and the pressure vessel is PED stamped



40/40H



80/40H

| Part # | GPH Rating | MMBH Rating | Shipping Weight (lbs.) | Shipping Dimensions (in.) |
|--------|------------|-------------|------------------------|---------------------------|
| 40/40H | 40 | 3.64 | 155 | 22"L x 21"W x 41"H |
| 80/40H | 80 | 7.28 | 220 | 22"L x 35"W x 41"H |

Accessories

| Part # | Description |
|-----------|---------------------------------------|
| ALG-41011 | Auto-Reignitor, 9VDC Battery Operated |
| 3-8683 | Auto-Reignitor, 110/220VAC |
| 1501-5016 | Pipe-Away Adapter for Relief Valve |

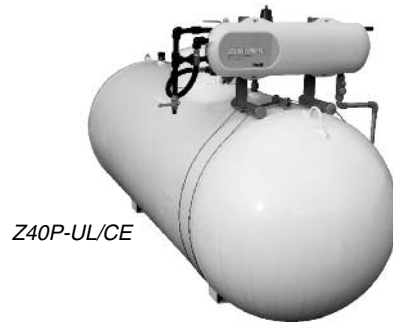
Algas-SDI's standard options for this product line are shown above. Non-standard options (not listed here) will be priced by Algas-SDI on a case by case basis, may involve longer lead times and may not be supported with documentation.

Algas Electric LP/Propane Gas Vaporizer

The ZIMMER vaporizer is a compact wall-mountable electric LPG or Propane vaporizer.

Features:

- Simple, wall mount installation or tank mount with optional tank mounting kit.
- One model tolerates 100-240 volts AC or DC.
- Explosion-proof design allows for limited space installation.
- Self limiting heating elements require no additional electrical controls or thermostats.
- Metal to metal inverted valve seat prevents clogging.
- Light weight and easy to handle.
- Easy, low cost installation.
- Injection molded outer plastic shell with anti-static ground.
- Thermodynamic control valve modulates LPG or propane flow to ensure a minimum level of superheat.
- Reliable, very few parts to maintain or fail.
- Lower maintenance requirements than any other vaporizer.
- Replaceable heaters.
- Add more Zimmer vaporizers with no special parts needed.
- Non UL/CE marked units are supplied standard with factory explosion-proof electrical seal.
- UL/CUL/Demko Approved. CE and ATEX marked. Pressure Equipment Directive - SEP.



| Part # | GPH Rating | KG/HR Rating | MMBH Rating | MMKcal/HR Rating | Shipping Weight (lbs.) | Shipping Dimensions (in.) |
|------------|------------|--------------|-------------|------------------|------------------------|---------------------------|
| Z40P-UL/CE | 20 | 40 | 1.82 | 0.448 | 60 | 35"L x 15"W x 12"H |

NOTE: Capacity is 15 GPH@115V.
UL/CE model needs explosion proof electrical seal-off installed in the field.

Accessories

| Part # | Description |
|---------|--|
| 80885 | Wall Mount Kit (Includes: unistrut and hardware package for concrete, brick or wood frame wall mount.) |
| 80892 | Strainer & Piping Kit (Includes: 0-300 PSI gauge, angle valve, hydrostatic relief valve, ball valve, and 1/2" strainer.) |
| 80890 | Regulator & Gauge Kit (Includes: high temp REGO regulator X1584MN and 0-30 PSI gauge.) |
| 80887* | Tank Mount Kit (Includes: bracket and all mounting hardware for horizontal tanks up to 51" diameter.) |
| 80888** | Tank Mount Piping Kit (Includes: all inlet and outlet piping for connecting to 3/4" Check Lock valves.) |
| 20556 | Filtaire, F0.5 |
| 80895 | Electrical Seal Kit, UL |
| 80896 | Electrical Seal Kit, ATEX (CE) |

* Tank Mount Kit P/N 80887 includes all mechanical hardware to mount the ZIMMER directly on top of any horizontal tank up to 51" diameter. Larger diameter tanks can be easily accommodated by replacing the nylon coated galvanized wire rope with a longer section. Combine with 80888 for a complete installation kit with all components. Piping attaches directly to the bracket assembly for proper support. Powder coated bracket. Does not require welding.

** Tank Mount Piping Kit P/N 80888 includes: Check lock adapter, 0-300 PSI gauge, angle valve, hydrostatic relief valve, ball valve, and 1/2" strainer, high temp REGO regulator X1584MN, 0-30 PSI gauge, and pipe nipples and fittings to connect.

Algas-SDI's standard options for this product line are shown above. Non-standard options (not listed here) will be priced by Algas-SDI on a case by case basis, may involve longer lead times and may not be supported with documentation.

Sam Dick Electric Power XP Series Vaporizers

The Power[®] XP Series electric vaporizers safely vaporize LP Gas for commercial and industrial applications. Easy installation, low-cost maintenance and safe operation makes the Power Series ideal for hazardous locations like grain dryers.

Features

- Explosion proof configuration meets Class 1, Division 1, Group D as defined by NFPA pamphlet #70.
- UL stamped external relief valve: 250 PSIG (17.6 Kg/CM²).
- Easily accessible control housing allows simple maintenance.
- Compact footprint size of approximately 1 ft.².

| Part # | GP | Kg/hr. | Million BTU/hr. |
|--------|------|--------|-----------------|
| XP12.5 | 12.5 | 25 | 1.14 |
| XP25 | 25 | 50 | 2.28 |
| XP50 | 50 | 100 | 4.55 |
| XP80 | 80 | 160 | 7.28 |
| XP120 | 120 | 240 | 10.93 |
| XP160 | 160 | 320 | 14.57 |



Example of Regulator with a balance line in a Vaporizer Application



Line Sizing Chart for Liquid Propane

Based on Pressure drop of 1 PSI

To Use Chart

1. Having determined the required flow at point of use, locate this flow in the left hand column. If this fall between two figures, use the larger of the two.
2. Determine total length of piping required from source to point of use.
3. Read across chart from left (required flow) to right to find the total length which is equal to or exceeds the distance from source to use.
4. From this point read up to find the correct size of pipe required.

| Liquid Propane Flow GPH | Iron Pipe (Feet) | | | | | | | | | | | | | | | |
|-------------------------|------------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|
| | 1/4" | | 3/8" | | 1/2" | | 3/4" | | 1" | | 1-1/4" | | 1-1/2" | | 2" | |
| | Schedule 40 | 80 | Schedule 40 | 80 | Schedule 40 | 80 | Schedule 40 | 80 | Schedule 40 | 80 | Schedule 40 | 80 | Schedule 40 | 80 | Schedule 40 | 80 |
| 10 | 729 | 416 | | | | | | | | | | | | | | |
| 15 | 324 | 185 | | | | | | | | | | | | | | |
| 20 | 182 | 104 | 825 | 521 | | | | | | | | | | | | |
| 40 | 46 | 26 | 205 | 129 | 745 | 504 | | | | | | | | | | |
| 60 | 20 | 11 | 92 | 58 | 331 | 224 | | | | | | | | | | |
| 80 | 11 | 6 | 51 | 32 | 187 | 127 | 735 | 537 | | | | | | | | |
| 100 | 7 | 4 | 33 | 21 | 119 | 81 | 470 | 343 | | | | | | | | |
| 120 | | | 23 | 15 | 83 | 56 | 326 | 238 | | | | | | | | |
| 140 | | | 15 | 9 | 61 | 41 | 240 | 175 | 813 | 618 | | | | | | |
| 160 | | | 13 | 8 | 47 | 32 | 184 | 134 | 623 | 473 | | | | | | |
| 180 | | | | | 37 | 25 | 145 | 106 | 491 | 373 | | | | | | |
| 200 | | | | | 30 | 20 | 118 | 86 | 399 | 303 | | | | | | |
| 240 | | | | | 21 | 14 | 81 | 59 | 277 | 211 | | | | | | |
| 280 | | | | | 15 | 10 | 60 | 44 | 204 | 155 | | | | | | |
| 300 | | | | | 13 | 9 | 52 | 38 | 177 | 135 | 785 | 623 | | | | |
| 350 | | | | | | | 38 | 28 | 130 | 99 | 578 | 459 | | | | |
| 400 | | | | | | | 30 | 22 | 99 | 75 | 433 | 344 | 980 | 794 | | |
| 500 | | | | | | | 19 | 14 | 64 | 49 | 283 | 225 | 627 | 508 | | |
| 600 | | | | | | | | | 44 | 33 | 197 | 156 | 435 | 352 | | |
| 700 | | | | | | | | | 32 | 24 | 144 | 114 | 320 | 259 | | |
| 800 | | | | | | | | | 25 | 19 | 110 | 87 | 245 | 198 | 965 | 795 |
| 900 | | | | | | | | | 19 | 14 | 87 | 69 | 194 | 157 | 764 | 630 |
| 1000 | | | | | | | | | 16 | 12 | 71 | 56 | 157 | 127 | 618 | 509 |
| 1500 | | | | | | | | | | | 31 | 25 | 70 | 57 | 275 | 227 |
| 2000 | | | | | | | | | | | 18 | 14 | 39 | 32 | 154 | 127 |
| 3000 | | | | | | | | | | | 8 | 6 | 17 | 14 | 69 | 57 |
| 4000 | | | | | | | | | | | | | 10 | 8 | 39 | 32 |
| 5000 | | | | | | | | | | | | | | | 25 | 21 |
| 10000 | | | | | | | | | | | | | | | 6 | 5 |