

Selection Chart

If your Peak Load Requirements are up to (1)			Ransome Model	Air Required SCFM (for 10-30 PSI Only)	Approx. Bath Capacity Gallon
Millions of BTU/HR	Thousands of SCFH Natural Gas (2)	Thousands of SCFH Mixed Gas (3)	Vaporizer Mixer		
14.75	14.75	10	PAMW180-10	75	10
29.50	29.50	20	PAMW360-20	150	20
44.25	44.25	30	PAMW540-30	225	30
59.00	59.00	40	PAMW720-40	300	40
73.75	73.75	50	PAMW900-50	375	50

Selection Chart - SI Conversion

If your Peak Load Requirements are up to (1)			Ransome Model	Air Required M3/M (for 10-30 PSI Only)	Approx. Bath Capacity Liter
M KCAL/HR	M3/HR Natural Gas (2)	M3/HR Mixed Gas (3)	Vaporizer Mixer		
3.72	413	280	PAMW180-10	2.1	38
7.43	826	560	PAMW360-20	4.2	76
11.15	1239	840	PAMW540-30	6.3	114
14.87	1652	1120	PAMW720-40	8.4	151
18.59	2065	1400	PAMW900-50	10.5	189

(1) Units may be paralleled to achieve greater capacities. (2) Natural Gas: S.G.U. = .6 Gross Heat Content 1000 BTU/Cu. Ft. (3) Mixed Gas: Propane-Air, S.G.U. = Gross Heat Content 1480 BTU/Cu. Ft.

Standard Specifications

Standard units are venturi-type, built in accordance with Factory Mutual. **SPECIFY DESIRED SETTING.** Factory tested and calibrated to deliver 1.31 specific gravity(1480 BTU/Cu. Ft.) **propane**-air mix. Other Gases can be utilized such as butane, butane-propane mixes, natural gas, etc. Consult the factory for their application. 110V AC, 1PH control voltage standard; other voltages available on request.

Selection Chart

Option	Description	Add Suffix
High Pressure (10-30 PSI) Using Blower	Units require clean, dry air at constant pressure approximately 2 PSI less than that of mixed gas. Specify desired mixed gas pressure.	HB
High Pressure (10-30 PSI) Using Plant Air or Compressor	Units require clean, dry air at a minimum pressure of 2 PSI over mixed gas pressure. Specify desired mixed gas pressure.	HP
Electric Pilot Reignitor	Protects against pilot outage caused by unusually turbulent winds, and eliminates need for matches to start vaporizer. 110V required.	E
Outage Panel	Provides key start, and tells cause of safety shutdown, to simplify service. Includes alarm lights for high and low propane and mixed gas pressures, high and low air pressures (HB and HP models), high vapor and low mixed gas temperatures, a warning light for pilot outage and alarm acknowledge switch.	C
Inlet Air Filter	For all PAMW Series machines to 10 PSI. Includes washable dry filter with housing and weather cap, mounting bracket and piping.	F

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 or 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 abuse 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.



PAMW Series
Water-Bath
LP-Gas
Vaporizer-Mixers



The PAM Series Vaporizer-Mixers

PAMW Series Water-Bath 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?

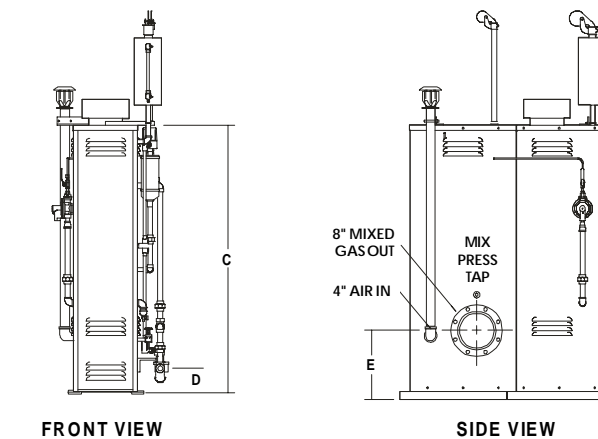
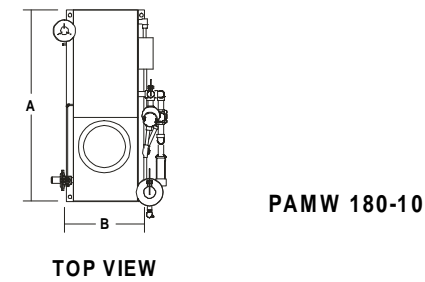
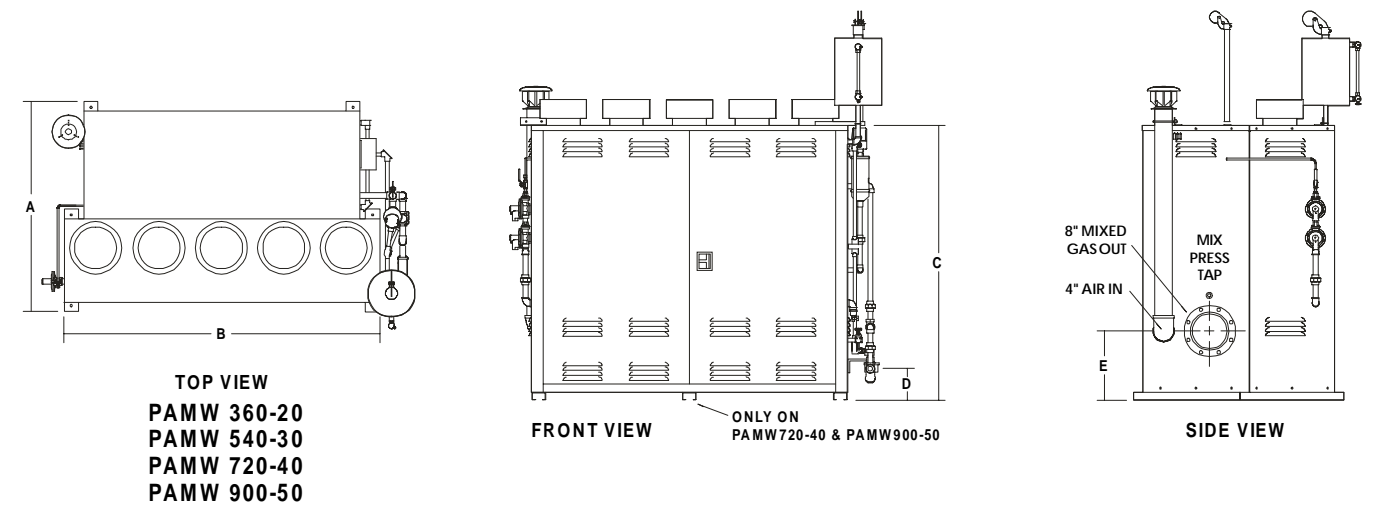
LP-Gas is a highly concentrated source of energy, with 2516 BTU's per cubic foot gross heat content. It is too rich to use as a substitute for natural gas without dilution. The Ransome mixer blends in just the right amount of air for an equivalent mixture. A mixture with specific gravity of 1.31 (1480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

Features

1. Exclusive Ransome Manufacturing Gasonic venturis maintain close control of air-gas mixture.
2. Safety shutdown interlocks protect installation from damage or hazard due to excessive or insufficient temperatures and pressures. Complete complement of safety shutdown interlocks is provided with standard models including: high propane vapor pressure; low propane vapor pressure; high mixed gas pressure; low mixed gas pressure; high vaporizer temperature; low mixed gas temperature.
3. Simple, safe electrical control system, properly grounded and fused, for long, dependable service life.
4. Dual air valves on each venturi prevent leakage of mixed gas into air inlet system.
5. Multiple venturis provide quieter operation, with much smaller surge tanks than larger, single venturi systems.
6. Gas-Air mixture is adjustable over a wide range to match natural gases with different specific gravities and heat contents.
7. Same dependable, compact, multiple-tube vaporizer construction as used in RW Series.
8. Each machine is tested and calibrated on propane under field conditions. Certified Test Data Report is provided.
9. Modular design provides maximum capacity in a compact, rectangular unit. Nearly 74,000 SCFH natural gas can be replaced by a single PAMW900-50 occupying less than 24 square feet.
10. Models are available in a complete range of sizes from 10,000 to 50,000 SCFH mixed gas, eliminating the need to buy more capacity than required.
11. All sizes are capable of infinite turndown and will maintain a ready supply of mixed gas from zero load to full capacity. At zero load, only enough heat will be generated to maintain temperature and prevent condensation.



**Factory
Mutual
System**



MODEL	DIMENSIONS, IN.					Approximate Shipping Weight LB.
	A	B	C	D	E	
PAMW180-10	47.5	15.25	67.5	8	17.5	1800
PAMW360-20	48.5	28	69.5	8	17.5	2825
PAMW540-30	48.5	42	69.5	8	17.5	3810
PAMW720-40	48.5	56	69.5	8	17.5	4800
PAMW900-50	48.5	70	69.5	8	17.5	6150

MODEL	DIMENSIONS, CM.					Approximate Shipping Weight KG.
	A	B	C	D	E	
PAMW180-10	121	39	171	20	44	816
PAMW360-20	123	71	177	20	44	1218
PAMW540-30	123	107	177	20	44	1728
PAMW720-40	123	142	177	20	44	2177
PAMW900-50	123	178	177	20	44	2790

Simple Installation

1. Place unit on a simple concrete pad.
2. Provide adequate supply of propane liquid to vaporizer inlet. Minimum inlet pressure as shown on chart below must be maintained. Use pressurizing pump as necessary.
3. Premix 75% water with 25% good quality ethylene glycol and fill tank to within 2" of top of gauge glass.
4. Provide Ransome Model No. ST750 or other suitable 100 cubic ft. surge tank (750 gal. minimum capacity).
5. Connect mixed gas outlet of PAMW Series to surge tank with 8" 150# flange sch. 40 spool. (5' length needed in California only).
6. Provide 110V AC, 60 Hz, 1 ph control power supply.
7. Provide piping from surge tank to natural gas line tie-in.

Mixed Gas Pressure PSIG	5	6	7	8	9	10-30 (Air Boosted)
Required Minimum Inlet Pressure PSIG	90	100	120	135	140	100