

# Algas-SDI™

*...Innovative liquid vaporizing and gas mixing solutions*

ISO 9001  
Certified

## QM

*Packaged Natural Gas Replacement System  
Models QM28 - QM150*



- *Produces an alternate fuel capable of replacing or supplementing natural gas.*
- *Allows you to take advantage of interruptible natural gas rates.*
- *Guarantees your fuel supply when your neighbor gets cut off.*
- *Combination of the AQUAVAIRE gas fired waterbath vaporizer and VAPORAIRE venturi LPG/Air mixer.*
- *A fixed air forced draft burner efficiently keeps the waterbath at optimum vaporizing temperature.*
- *Venturis mix the LPG vapor with air giving it combustion characteristics of natural gas.*
- *Responding to different loads, a PLC controls the heating and mixing process maintaining a steady mixed gas pressure in an accumulator tank (by others).*
- *Delivery pressures up to 15 psig for propane and 8 psig for butane are available with capacities up to 150 million BTU/hr. - See inside for details.*

# Specifications

Capacity MMBTU/hr	QM Model	Mixed Gas Pressure	Min. LPG Pressure	Number of Venturi's	Vaporizer Model	Shipping Weight (lbs)	Required Accumulator Tank Capacity (Gallons)
28	QM28-15	15	166	2	Q480V	2,300	500
35	QM35-12	12	125	3	Q480V	2,300	240
39	QM39-10	10	118	3	Q480V	2,300	240
42	QM42-5	5	60	3	Q480V	2,300	240
	QM42-8	8	90	3	Q480V	2,300	240
	QM42-12	12	131	3	Q640V	3,000	240
	QM42-15	15	166	3	Q640V	3,000	500
52	QM52-10	10	118	4	Q640V	3,000	240
56	QM56-5	5	60	4	Q640V	3,000	240
	QM56-8	8	90	4	Q640V	3,000	240
	QM56-12	12	131	4	Q800V	3,100	240
	QM56-15	15	166	4	Q800V	3,100	500
65	QM65-10	10	118	5	Q800V	3,100	240
70	QM70-5	5	60	5	Q800V	3,100	240
	QM70-8	8	90	5	Q800V	3,100	240
	QM70-12	12	131	5	Q960V	3,100	240
	QM70-15	15	166	5	Q1120V	3,700	500
75	QM75-10	10	118	6	Q960V	3,100	240
84	QM84-5	5	60	6	Q960V	3,100	240
	QM84-8	8	90	6	Q960V	3,100	240
	QM84-12	12	131	6	Q1120V	3,700	240
	QM84-15	15	166	6	Q1375V	3,700	500
100	QM100-5	5	37	4	Q1120V	3,900	500
	QM100-8	8	73	4	Q1120V	3,900	500
	QM100-12	12	126	4	Q1375V	3,900	500
125	QM125-5	5	37	5	Q1375V	3,900	500
	QM125-8	8	73	5	Q1375V	3,900	500
	QM125-12	12	126	5	Q1650V	4,100	500
150	QM150-5	5	37	6	Q1650V	4,200	500
	QM150-8	8	73	6	Q1650V	4,200	500

1 Capacity is based on a nominal mixed gas gross heating value of 1450 BTU/SCF +/- 5% with commercial grade propane. Actual capacity and mixed gas heating value may vary slightly based on installation and operating conditions.

2 Delivery pressures shown are valid up to 2,000 ft elevation. Contact factory for information regarding applications at higher elevations.

3 Various voltages available on request. Contact factory for additional information.

4 Capacities are based on 100% propane. For butane models, contact factory.

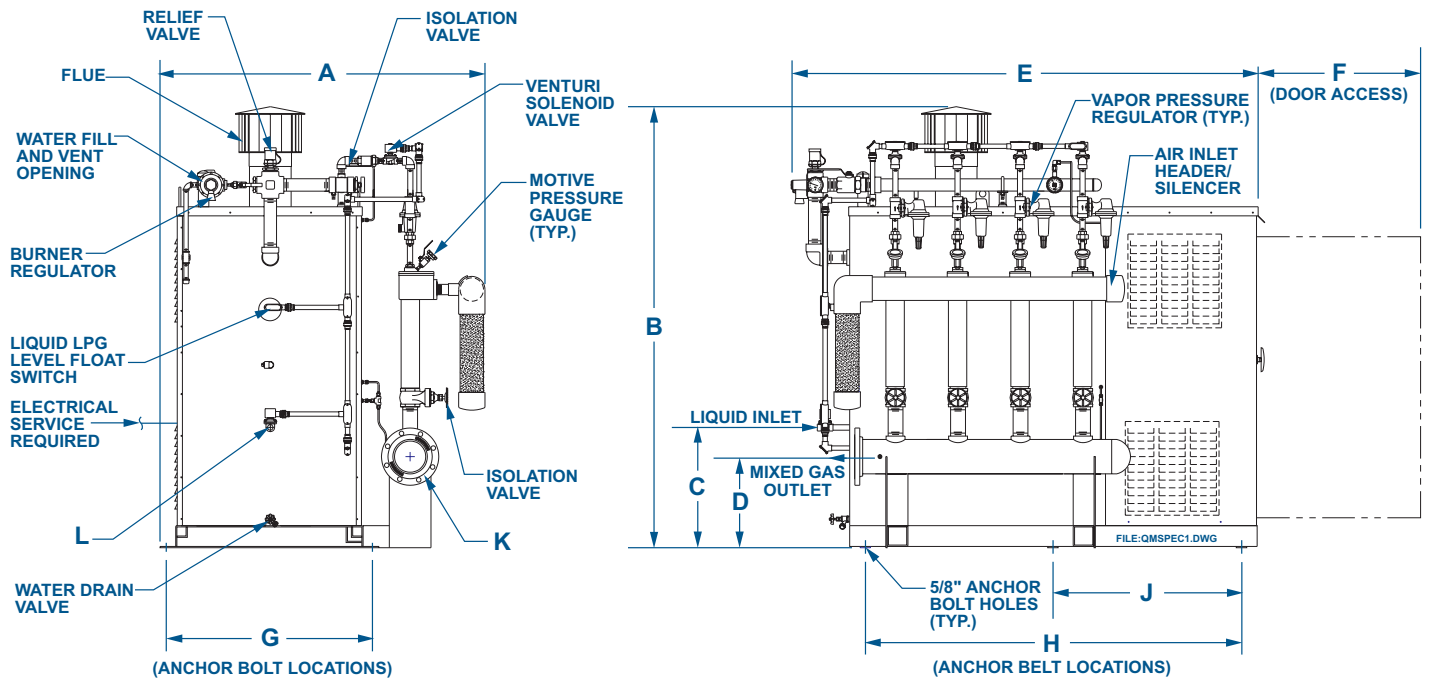
## Features

- ◆ Meets the design requirements of NFPA Pamphlet 58 for gas fired waterbath vaporizers and LPG/Air mixers.
- ◆ The LPG heat exchanger is designed and constructed to conform with ASME Pressure Vessel Code, Section VIII, Division 1.
- ◆ All wiring, controls, electrical components and their installation comply with the recognized standard defined in NFPA 70.
- ◆ Suitable for operation down to -40°F (-40°C).
- ◆ Integrated PLC controlled operating system with user interface and on/off/standby modes.
- ◆ Component cycle and runtime display.
- ◆ Self-diagnostic system shows trouble shooting information.
- ◆ Monitored Alarm Display Points:
  - Flame failure
  - High liquid LPG level
  - Low water level
  - High water temperature
  - High burner gas pressure
  - High mixed gas pressure
  - Low inlet LPG pressure
- ◆ Industrial duty fixed air forced draft power burner provides optimum exhaust stack temperatures and fast response to load changes.
- ◆ Electronic flame safeguard guarantees positive and safe burner ignition.
- ◆ LPG heat exchanger design pressure rating: 250 psig at 650°F (17.6 kg/cm<sup>2</sup> at 343°C).
- ◆ Water circulation pump eliminates thermal stratification and increases heat transfer.
- ◆ Air intake header with silencer insures quiet operation.
- ◆ Automatic LPG pump control feature.
- ◆ Accepts 4-20mA input with user adjustable set point for economy pump control.
- ◆ Powder coated enclosure for durability, and fully insulated waterbath for greater efficiency.
- ◆ Packaged, skid mounted and fully tested. Ready to connect to plant facilities.

### Options

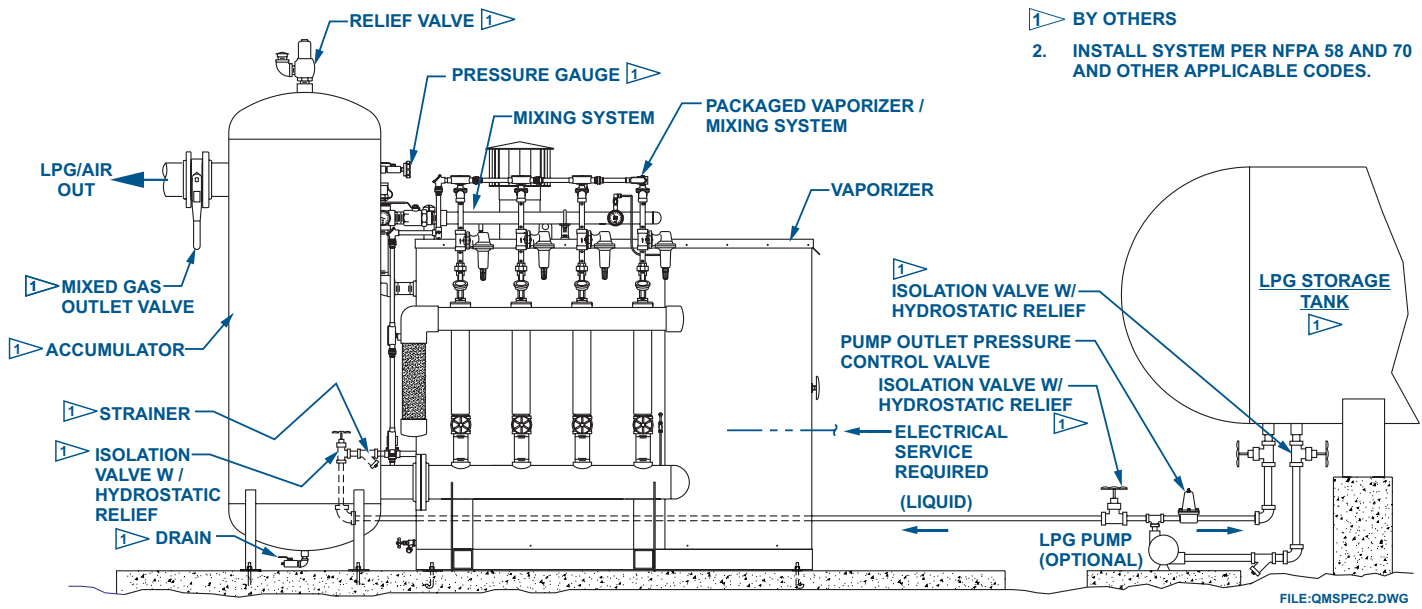
- ◆ Remote control interface to operate via modem or plant PC.
- ◆ Touch screen control panel.
- ◆ Natural gas burner.
- ◆ Accumulator tank assembly.
- ◆ Gas train suitable for CSA, IRI, and the state of Minnesota.

# Dimensions



MODEL	Outlet Pressure	A	B	C	D	E	F	G	H	J	K	L
QM28	15	45½"	87"	21½"	17½"	75½"	19½"	27"	58½"	N/A	6" 150# RFF	¾"
QM35	12	45½"	87"	21½"	17½"	75½"	19½"	27"	58½"	N/A	6" 150# RFF	¾"
QM39	10	45½"	87"	21½"	17½"	75½"	19½"	27"	58½"	N/A	6" 150# RFF	¾"
QM42	5, 8	45½"	87"	21½"	17½"	75½"	19½"	27"	58½"	N/A	6" 150# RFF	¾"
	12, 15	57½"	78¼"	23"	17½"	89½"	31½"	39"	72¼"	N/A	6" 150# RFF	¾"
	10	57½"	78¼"	23"	17½"	89½"	31½"	39"	72¼"	N/A	6" 150# RFF	¾"
QM56	5, 8	57½"	78¼"	23"	17½"	89½"	31½"	39"	72¼"	N/A	6" 150# RFF	¾"
	12, 15	57½"	91¼"	23"	17½"	89½"	31½"	39"	72¼"	N/A	6" 150# RFF	1"
QM65	10	57½"	91¼"	23"	17½"	89½"	31½"	39"	72¼"	N/A	6" 150# RFF	1"
QM70	5, 8, 12	57½"	91¼"	23"	17½"	89½"	31½"	39"	72¼"	N/A	6" 150# RFF	1"
	15	72½"	94"	32 7/8"	17½"	103½"	36"	54½"	72"	40 5/16"	6" 150# RFF	1"
QM75	10	57½"	96"	24"	17½"	89"	31½"	39"	72"	N/A	6" 150# RFF	1"
QM84	5, 8	57½"	96"	24"	17½"	89"	31½"	39"	72"	N/A	6" 150# RFF	1"
	12	73"	93¼"	32 7/8"	17½"	86 5/8"	36"	54½"	72"	40 5/16"	6" 150# RFF	1"
	15	72½"	94"	32 7/8"	17½"	103½"	36"	54½"	72"	40 5/16"	6" 150# RFF	1"
QM100	5, 8, 12	72½"	94"	32 7/8"	17½"	103½"	36"	54½"	72"	40 5/16"	8" 150# RFF	1"
QM125	5, 8	72½"	94"	32 7/8"	17½"	103½"	36"	54½"	72"	40 5/16"	8" 150# RFF	1"
QM150	5, 8	72½"	94"	32 7/8"	17½"	103½"	36"	54½"	72"	40 5/16"	8" 150# RFF	1"

Product improvement is a continuing goal at Algas-SDI. Designs and specifications are subject to change without notice or obligation.



QM is a registered U.S. trademark of Algas-SDI.





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