



# Algas-SDI™

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

ISO 9001  
Certified

## Aquavaire

Vertical Waterbath Vaporizer Models: Q320V through Q1650V

***Easiest and most reliable  
vaporizer you will ever use!***



- *Simple push button start - no hassle operation.*
- *Push to prime feature added for cold-start days.*
- *Heavy duty Eclipse industrial fixed-air burner requires no adjustments, even at high elevations.*
- *Designed for extreme weather conditions. Proven reliability to -40°F.*
- *Built-in heavy ends separation chamber - prevents clogging of regulators and other downstream devices.*
- *Best in class, double protected cabinet - powder coating over heavy duty galvanized sheet steel.*
- *Eight point annunciator display panel provides up to the minute visual status.*

# Specifications

	MODEL	Q320V	Q480V	Q640V	Q800V	Q960V	Q1120V	Q1375V	Q1650V
<b>Rated Capacity</b>	Kg/hr	614	921	1,230	1,535	1,840	2,150	2,640	3,332
	Million BTU/hr	29.1	43.7	58.2	72.8	87.4	102.0	125.1	150.2
	Million kcal/hr	7.3	11.0	14.7	18.4	22.0	25.7	31.5	37.8
<b>Nominal Capacity</b>	US Gallons/hr	320	480	640	800	960	1,120	1,375	1,650
<b>Heat Exchanger Surface Area</b>	ft <sup>2</sup>	30.5	40.6	58.6	90.5	90.5	99	99	140.7
	m <sup>2</sup>	2.83	3.77	5.45	8.41	8.41	13.07	13.07	13.07
<b>Heat Exchanger Design Pressure</b>	psig	250	250	250	250	250	250	250	250
	kg/cm <sup>2</sup>	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
<b>Heat Exchanger Test Pressure</b>	psig	375	375	375	375	375	375	375	375
	kg/cm <sup>2</sup>	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
<b>Waterbath Water Volume</b>	US Gallons	107	128	221	279	279	475	475	475
	liters	405	485	836	1,056	1,056	1,798	1,798	1,798
<b>Waterbath Operating Temperature (Adjustable)</b>	°F	160	160	160	160	160	160	160	160
	°C	71	71	71	71	71	71	71	71
<b>Firetube Surface Area</b>	ft <sup>2</sup>	37.4	51.3	66.7	89.2	89.2	115	115	150.8
	m <sup>2</sup>	3.47	4.76	6.19	8.32	8.32	14	14	14
<b>Burner Fuel Input (Min)</b>	BTU/hr	370,000	550,000	710,000	880,000	999,000	1,240,000	1,520,000	1,825,000
	kcal/hr	93,240	138,600	178,920	221,760	251,748	312,480	383,040	459,890
<b>Burner Fan Motor</b>	Horsepower	1/3	1/3	3/4	3/4	3/4	3/4	3/4	1
<b>Shipping Weight</b>	lbs	1,770	2,025	2,690	2,900	2,900	3,200	3,200	3,400
	kg	803	919	1,220	1,315	1,315	1,452	1,452	1,542
<b>Operating Weight with 50/50 Glycol/Water</b>	lbs	2,740	3,200	4,700	5,430	5,430	7,500	7,500	7,700
	kg	1,250	1,450	2,130	2,460	2,460	3,400	3,400	3,493
<b>Electrical</b> <i>Specify 50 Hz or optional voltage if required</i>	Voltage	120	120	120	120	120	120	120	120
	Hz	60	60	60	60	60	60	60	60
	Phase	1	1	1	1	1	1	1	1
	Amperage	10.9	10.9	13.4	15.5	15.5	16.9	16.9	26.5

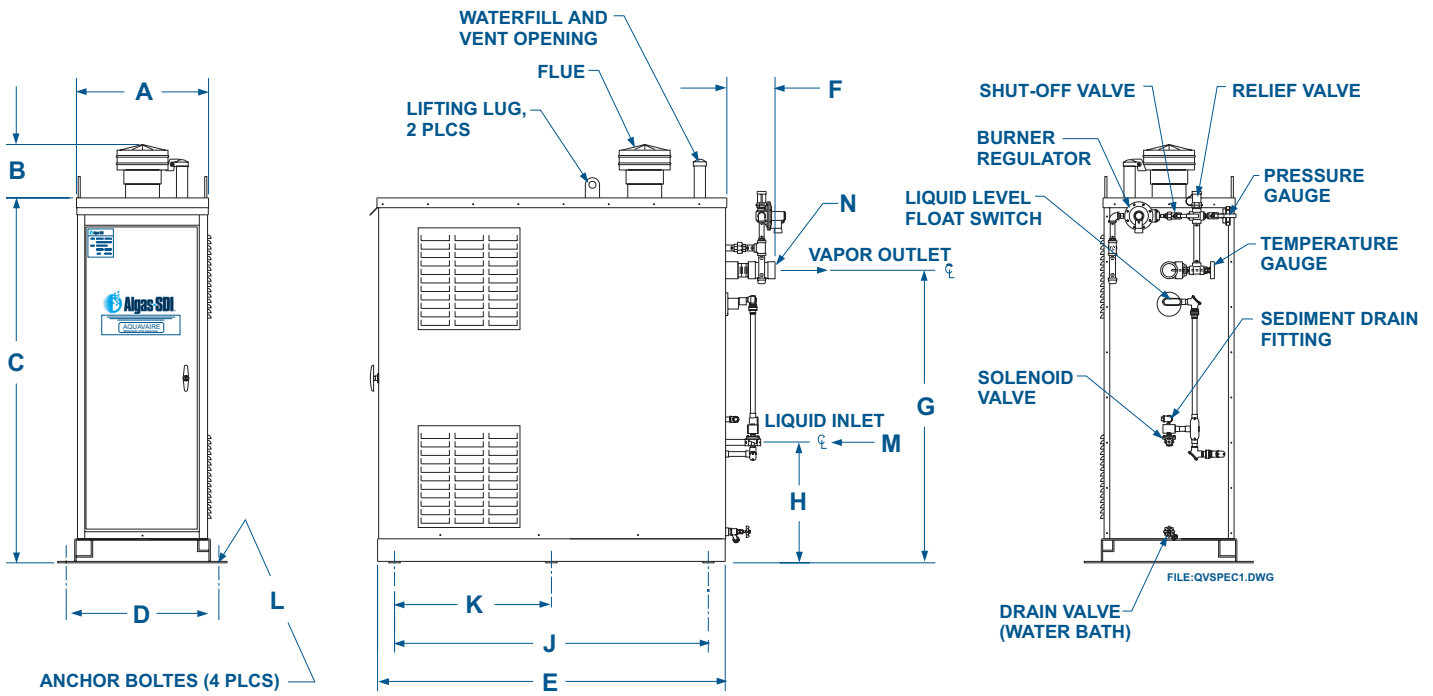
\*Vaporization capacity ratings at 100 psig (7.0 kg/cm<sup>2</sup>) and at 0°F (-17.8°C) liquid propane.

\*Consult factory for elevations greater than 6,800ft.

## Features

- Meets the design requirements of NFPA Pamphlet 58 for gas fired waterbath vaporizers.
- 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 recognized standards defined in NFPA 58 and 70.
- Industrial duty fixed air forced draft power burner provides optimum exhaust stack temperatures and fast response to load changes.
- Float activated high LPG liquid level shutdown switch.
- LPG heat exchanger design pressure rating: 250 psig at 650°F (17.6 kg/cm<sup>2</sup> at 343°C).
- Minimum 15°F [8.4°C] superheat @ 100% capacity.
- Water level sight gauge.
- Powder coated enclosure for durability with fully insulated waterbath for greater efficiency.
- Lifting lugs provided for ease of field installation.
- Water circulation pump standard on all models to eliminate thermal stratification and increase vaporizer efficiency.
- Electronic flame safeguard assures positive and safe ignition.
- Two electronically operated main fuel safety shutoff valves in gas train.

# Dimensions



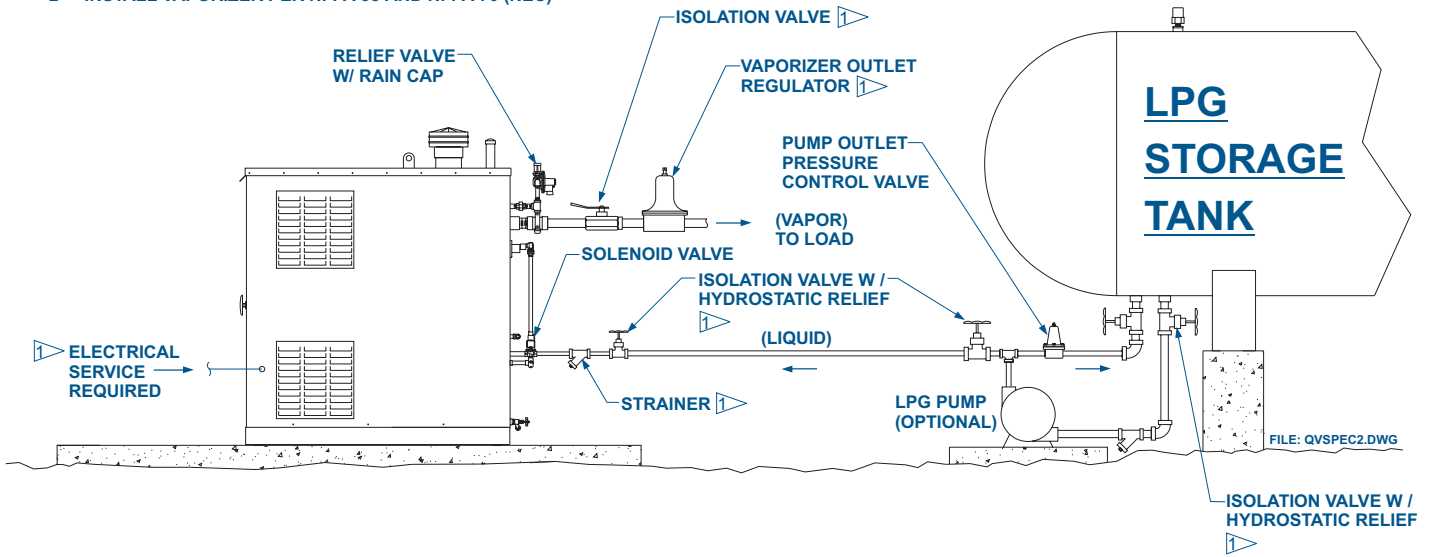
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
<b>Q320V</b>	2'-0"	0'-10"	5'-4 1/2"	2'-3"	5'-1 1/2"	0'-7"	4'-3 3/4"	1'-9 3/8"	4'-7 1/2"				
	24"	10"	64 1/2"	27"	61 1/2"	7"	51 3/4"	21 3/8"	55 1/2"	N/A	5/8"	3/4" FNPT	2" FNPT
	610mm	254mm	1632mm	686mm	1562mm	178mm	1315mm	543mm	1410mm				
<b>Q480V</b>	2'-0"	1'-4 1/4"	6'-1 3/4"	2'-3"	5'-1 1/2"	0'-7"	5'-1 3/8"	1'-9 1/2"	4'-7 1/2"				
	24"	16 1/4"	73 3/4"	27"	61 1/2"	7"	61 3/8"	21 1/2"	55 1/2"	N/A	5/8"	3/4" FNPT	2" FNPT
	610mm	412mm	1873mm	686mm	1562mm	178mm	1559mm	546mm	1410mm				
<b>Q640V</b>	3'-0"	1'-5 3/4"	5'-5 1/4"	3'-3"	6'-6 1/4"	0'-7"	4'-7 3/4"	1'-11 1/8"	6'-1/4"				
	36"	17 3/4"	65 1/4"	39"	78 1/4"	7"	55 3/4"	23 1/8"	72 1/4"	N/A	5/8"	3/4" FNPT	2" FNPT
	914mm	450mm	1657mm	991mm	1988mm	178mm	1416mm	587mm	1835mm				
<b>Q800V</b>	3'-0"	1'-6"	6'-6 1/4"	3'-3"	6'-6 1/4"	0'-7"	5'-9"	1'-11 13/16"	6'-1/4"				
	36"	18"	78 1/4"	39"	78 1/4"	7"	69"	23 13/16"	72 1/4"	N/A	5/8"	1" FNPT	2" FNPT
	914mm	457mm	1988mm	991mm	1988mm	178mm	1753mm	605mm	1835mm				
<b>Q960V</b>	3'-0"	1'-6"	6'-6 1/4"	3'-3"	6'-6 1/4"	0'-7"	5'-9"	1'-11 13/16"	6'-1/4"				
	36"	18"	78 1/4"	39"	78 1/4"	7"	69"	23 13/16"	72 1/4"	N/A	5/8"	1" FNPT	2" FNPT
	914mm	457mm	1988mm	991mm	1988mm	178mm	1753mm	605mm	1835mm				
<b>Q1120V</b>	4'-3 5/8"	1'-7"	6'-6 1/2"	4'-6 1/2"	7'-2 5/8"	0'-7"	4'-11"	2'-8 7/8"	6'-8 5/8"	3'-4 5/16"			
	51 5/8"	19"	73 1/2"	54 1/2"	86 5/8"	7"	59"	32 7/8"	80 5/8"	40 5/16"	5/8"	1" FNPT	2" FNPT
	1311mm	482mm	1867mm	1384mm	2200mm	178mm	1499mm	835mm	2048mm	1024mm			
<b>Q1375V</b>	4'-3 5/8"	1'-7"	6'-6 1/2"	4'-6 1/2"	7'-2 5/8"	0'-7"	4'-11"	2'-8 7/8"	6'-8 5/8"	3'-4 5/16"			
	51 5/8"	19"	73 1/2"	54 1/2"	86 5/8"	7"	59"	32 7/8"	80 5/8"	40 5/16"	5/8"	1" FNPT	2" FNPT
	1311mm	482mm	1867mm	1384mm	2200mm	178mm	1499mm	835mm	2048mm	1024mm			
<b>Q1650V</b>	4'-3 5/8"	1'-7"	6'-6 1/2"	4'-6 1/2"	7'-2 5/8"	0'-7"	4'-11"	2'-8 7/8"	6'-8 5/8"	3'-4 5/16"			
	51 5/8"	19"	73 1/2"	54 1/2"	86 5/8"	7"	59"	32 7/8"	80 5/8"	40 5/16"	5/8"	1" FNPT	2" FNPT
	1311mm	482mm	1867mm	1384mm	2200mm	178mm	1499mm	835mm	2048mm	1024mm			

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

**NOTES**

▶ BY OTHERS

2 INSTALL VAPORIZER PER NFPA 58 AND NFPA 70 (NEC)



**AQUAVAIRE®** is a registered U.S. trademark of **Algas-SDI**



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