



# Algas-SDI™

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

ISO 9001  
Certified

# Azeovaire

*Steam Heated Vaporizer; Models: A160S through A4400S*



- *100% turndown capability.*
- *Both LPG and steam fabrication are stamped in accordance with ASME.*
- *Explosion Proof configuration meets Class I, Division 1, Group D as defined by NFPA pamphlet 70.*
- *Factory Mutual (FM) approved.*
- *Two safety devices to ensure dry superheated vapor.*
- *Bayonet style tubes allow stress-free expansion unlike other designs.*
- *Fully insulated for maximum thermal efficiency.*
- *Ready to connect to plant facilities.*
- *Strainer included.*
- *Stainless steel outer heat exchanger tubes standard.*

# Specifications

|                                       | MODEL                | A160S | A320S | A480S | A640S | A800S | A960S                  | A1120S                     | A1650S | A2200S | A3300S | A4400S |
|---------------------------------------|----------------------|-------|-------|-------|-------|-------|------------------------|----------------------------|--------|--------|--------|--------|
| <b>Vaporization Capacity**</b>        | kg/hr                | 305   | 610   | 920   | 1,230 | 1,535 | 1,840                  | 2,150                      | 3,170  | 4,220  | 6,330  | 8,450  |
|                                       | MM BTU/hr            | 15    | 29    | 44    | 58    | 73    | 87                     | 102                        | 150    | 200    | 300    | 400    |
|                                       | MM kcal/hr           | 3.7   | 7.3   | 11    | 15    | 18    | 22                     | 26                         | 38     | 50     | 76     | 101    |
| <b>Nominal Capacity</b>               | U.S. Gal/hr          | 160   | 320   | 480   | 640   | 800   | 960                    | 1,120                      | 1,650  | 2,200  | 3,300  | 4,400  |
| <b>Heat Exchanger Surface Area</b>    | ft <sup>2</sup>      | 8     | 16    | 23    | 31    | 39    | 50                     | 58                         | 83     | 110    | 167    | 267    |
|                                       | m <sup>2</sup>       | .75   | 1.5   | 2.1   | 2.9   | 3.6   | 4.6                    | 5.4                        | 7.7    | 10.2   | 15.5   | 20.5   |
| <b>Shipping Weight</b>                | lbs                  | 600   | 700   | 800   | 1100  | 1,150 | 1,500                  | 1,750                      | 2,000  | 2,400  | 3,000  | 3,400  |
|                                       | kg                   | 272   | 318   | 369   | 506   | 529   | 690                    | 805                        | 920    | 1,090  | 1,364  | 1,545  |
| <b>Heat Exchanger Design Pressure</b> | psig                 | 250   | 250   | 250   | 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   | 17.6   | 17.6   | 17.6   |
| <b>Heat Exchanger Test Pressure</b>   | psig                 | 375   | 375   | 375   | 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   | 26.3   | 26.3   | 26.3   |
| <b>Steam Requirements</b>             | psig                 | 15    | 15    | 15    | 15    | 15    | 15                     | 15                         | 15     | 15     | 15     | 15     |
|                                       | kg/cm <sup>2</sup>   | 1     | 1     | 1     | 1     | 1     | 1                      | 1                          | 1      | 1      | 1      | 1      |
| <b>Electrical</b>                     | Vltg, 1 Ph Frequency |       |       | ←     |       |       | 110/50 Hz<br>110/60 Hz | 220/50 Hz<br>208-240/60 Hz | →      |        |        |        |

For larger models please contact ASDI for more information.

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

| STEAM CONSUMPTION REQUIRED FOR LPG VAPORIZATION  | STEAM CONSUMPTION |                       |       |                            |       |
|--|-------------------|-----------------------|-------|----------------------------|-------|
|  | Model             | Vaporization Capacity |       | Steam Required @ 100% Load |       |
|  |                   | GPH                   | kg/hr | lbs/hr                     | kg/hr |
| <p>AZEOVAIRE<sup>®</sup> Steam Heated LPG vaporizers require a quantity of steam proportional to usage. A simple rule when estimating steam consumption is 1lb. of steam to vaporize 1 gallon of LPG.</p> <p>For example, an AZEOVAIRE<sup>®</sup> model A2200S with a maximum LPG vaporization capacity of 2200 GPH, (4202 kg/hr), but with a plant usage of only 1100 GPH (2120 kg/hr) will consume approximately 1100 lbs. of steam per hour (509 kg/hr).</p> <p>A phase separator may be required if the condensate is recirculated.</p> | A160S             | 160                   | 306   | 160                        | 73    |
|  | A320S             | 320                   | 611   | 320                        | 145   |
|  | A480S             | 480                   | 917   | 480                        | 218   |
|  | A640S             | 640                   | 1222  | 640                        | 291   |
|  | A800S             | 800                   | 1528  | 800                        | 364   |
|  | A960S             | 960                   | 1834  | 960                        | 436   |
|  | A1120S            | 1120                  | 2139  | 1120                       | 509   |
|  | A1650S            | 1650                  | 3152  | 1650                       | 750   |
|  | A2200S            | 2200                  | 4202  | 2200                       | 1000  |
|  | A3300S            | 3300                  | 6303  | 3300                       | 1500  |
|  | A4400S            | 4400                  | 8404  | 4400                       | 2000  |

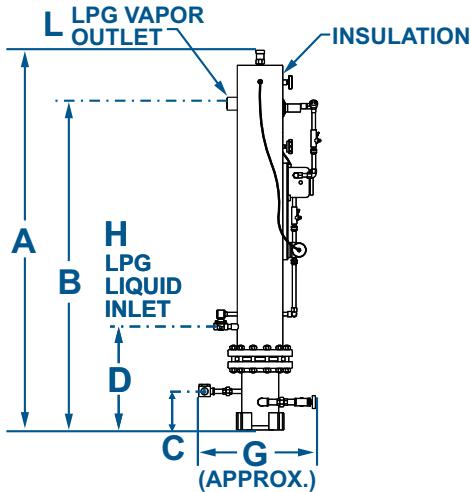
## Features

- LPG pressure vessel is fabricated and stamped in accordance with ASME Pressure Vessel Code, Section VIII, Division 1.
- LPG pressure vessel rating: 250 psig at 650°F (17.6 kg/cm<sup>2</sup> at 343°C).
- U.L. stamped external relief valve: 250 psig (17.6 kg/cm<sup>2</sup>).
- All wiring, controls, electrical components and their installation comply with recognized code standards defined in NFPA pamphlet 58 and NFPA pamphlet 70.
- Pressure balanced LPG supply/delivery operation.
- Fully insulated.
- Two safety devices prevent liquid carryover - low vapor temperature switch and high liquid level float switch.
- Inlet safety solenoid valve.
- Steam trap with strainer.
- Steam temperature gauge.
- All exposed metal surfaces are mechanically cleaned, primed and painted.
- Factory tested and packaged.

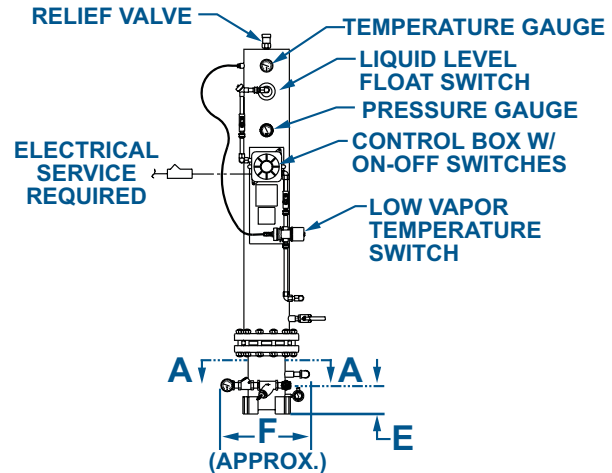
### Options

- Stainless steel heat exchanger tubes.

# Dimensions

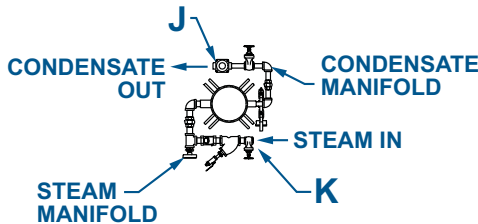


**LEFT SIDE VIEW**

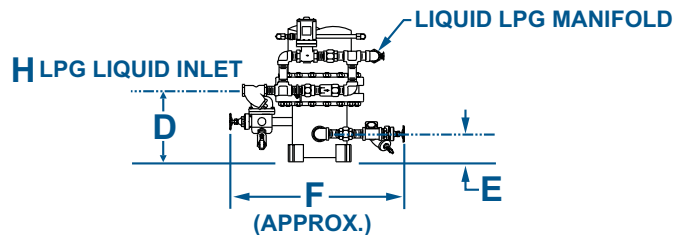


**FRONT VIEW**

(MODELS A160S THROUGH A1120S)



**LOWER SECTIONAL VIEW**



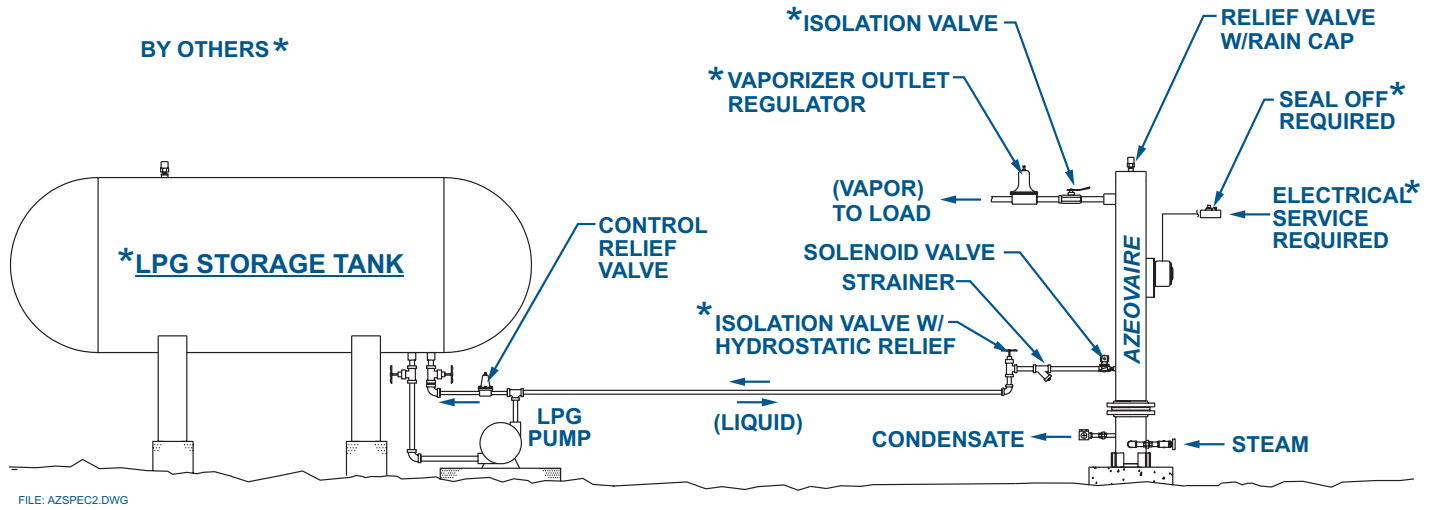
**LEFT SIDE VIEW**

(MODELS A1650S THROUGH A4400S)

FILE: AZSPEC1C.DWG

| MODEL         | A                   | B                  | C                  | D                 | E                | F                  | G                  | H              | J              | K              | L              |
|---------------|---------------------|--------------------|--------------------|-------------------|------------------|--------------------|--------------------|----------------|----------------|----------------|----------------|
| <b>A160S</b>  | 88"<br>2235 mm      | 75 3/4"<br>1924 mm | 9 1/4"<br>235 mm   | 23 3/4"<br>603 mm | 6 1/2"<br>165 mm | 18 1/2"<br>470 mm  | 25 1/2"<br>648 mm  | 3/4"<br>FNPT   | 3/4"<br>FNPT   | 3/4"<br>FNPT   | 1"<br>FNPT     |
| <b>A320S</b>  | 88"<br>2235 mm      | 75 3/4"<br>1924 mm | 9 1/4"<br>235 mm   | 23 3/4"<br>603 mm | 6 1/2"<br>165 mm | 18 1/2"<br>470 mm  | 25 1/2"<br>648 mm  | 3/4"<br>FNPT   | 3/4"<br>FNPT   | 3/4"<br>FNPT   | 2"<br>FNPT     |
| <b>A480S</b>  | 88 1/2"<br>2248 mm  | 76"<br>1930 mm     | 9 1/4"<br>235 mm   | 24"<br>610 mm     | 6 1/2"<br>165 mm | 21"<br>533 mm      | 27"<br>685 mm      | 3/4"<br>FNPT   | 3/4"<br>FNPT   | 1"<br>FNPT     | 2"<br>FNPT     |
| <b>A640S</b>  | 88 1/2"<br>2248 mm  | 76"<br>1930 mm     | 9 1/4"<br>235 mm   | 24"<br>610 mm     | 6 1/2"<br>165 mm | 21"<br>533 mm      | 27"<br>685 mm      | 3/4"<br>FNPT   | 3/4"<br>FNPT   | 1"<br>FNPT     | 2"<br>FNPT     |
| <b>A800S</b>  | 88 1/2"<br>2248 mm  | 76"<br>1930 mm     | 9 1/4"<br>235 mm   | 24"<br>610 mm     | 6 1/2"<br>165 mm | 21"<br>533 mm      | 27"<br>685 mm      | 1"<br>FNPT     | 1"<br>FNPT     | 1 1/2"<br>FNPT | 2"<br>FNPT     |
| <b>A960S</b>  | 92"<br>2337 mm      | 76 3/8"<br>1940 mm | 9 3/8"<br>238 mm   | 24 1/4"<br>616 mm | 6 1/2"<br>165 mm | 27"<br>686 mm      | 36 1/2"<br>927 mm  | 1"<br>FNPT     | 1"<br>FNPT     | 1 1/2"<br>FNPT | 2"<br>FNPT     |
| <b>A1120S</b> | 92"<br>2337 mm      | 76 3/8"<br>1940 mm | 9 3/8"<br>238 mm   | 24 1/4"<br>616 mm | 6 1/2"<br>165 mm | 27"<br>686 mm      | 36 1/2"<br>927 mm  | 1"<br>FNPT     | 1"<br>FNPT     | 1 1/2"<br>FNPT | 2"<br>FNPT     |
| <b>A1650S</b> | 93 1/4"<br>2369 mm  | 76 3/8"<br>1940 mm | 9 3/8"<br>238 mm   | 16 1/2"<br>419 mm | 6 1/2"<br>165 mm | 30"<br>762 mm      | 38 1/2"<br>978 mm  | 1 1/2"<br>FNPT | 1 1/2"<br>FNPT | 1 1/2"<br>FNPT | 2"<br>FNPT     |
| <b>A2200S</b> | 101 3/4"<br>2584 mm | 76 3/8"<br>1940 mm | 9 3/4"<br>248 mm   | 16 1/2"<br>419 mm | 6 1/2"<br>165 mm | 33 1/2"<br>851 mm  | 42 1/2"<br>1080 mm | 1 1/2"<br>FNPT | 1 1/2"<br>FNPT | 1 1/2"<br>FNPT | 2 1/2"<br>FNPT |
| <b>A3300S</b> | 103 1/2"<br>2662 mm | 76 5/8"<br>1940 mm | 9 11/16"<br>246 mm | 16 1/2"<br>419 mm | 6 1/2"<br>165 mm | 38 1/2"<br>978 mm  | 42"<br>1092 mm     | 2"<br>FNPT     | 1 1/2"<br>FNPT | 2"<br>FNPT     | 3" 300#<br>FLG |
| <b>A4400S</b> | 105 1/2"<br>2680 mm | 76 5/8"<br>1940 mm | 9 11/16"<br>246 mm | 16 1/2"<br>419 mm | 6 1/2"<br>165 mm | 41 1/2"<br>1054 mm | 50"<br>1270 mm     | 2"<br>FNPT     | 1 1/2"<br>FNPT | 2 1/2"<br>FNPT | 4" 300#<br>FLG |

Product improvement is a continuing goal at Algas-SDI. Designs and specifications are subject to change without notice or obligation.  
 \* Size may depend upon steam conditions. Refer to factory for specific size.



Note: No check valves in the propane liquid line; liquid must be able to flow both directions.

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



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Form AS0401