

Vaporizers



Dewar Side Hanging Vaporizer

Specifications for Vaporizer

- 500 cubic feet per hour for 8 hours
- 500 psi operating pressure
- Inlet & Outlet size for male fitting is 1/2" MNPT
- 9" L x 19" W x 66" H

Part #	Description
VAP35-500SCFH	Vaporizer 3.5, 500 SCFH



INDEX

Ambient Vaporizers

- Ambient **4A-3**
 - Low Pressure 500 PSI..... **4A-2**
 - High Pressure 4000 PSI..... **4A-2**
 - Extra Gap..... **4A-4**
 - Forced Draft Ambient Fan Vaporizer **4A-5**
 - Ambient Pressure Builder..... **4A-6**
 - Cycling System **4A-7**

Electric Cast Aluminum

- Electric Cast Aluminum..... **4A-9**
 - Pressure Building Unit **4A-10**
 - Miniature Series **4A-11**
 - Electric Trim Heaters **4A-12**

Regulators & Steam

- Final Line Regulators..... **4A-8**
- Shell & Tube Vaporizers
 - Steam **4A-13**
 - Energy Miser..... **4A-14**

Call us with your application and CFM per hour needs. We'll help you choose the right equipment.

AMBIENT VAPORIZERS

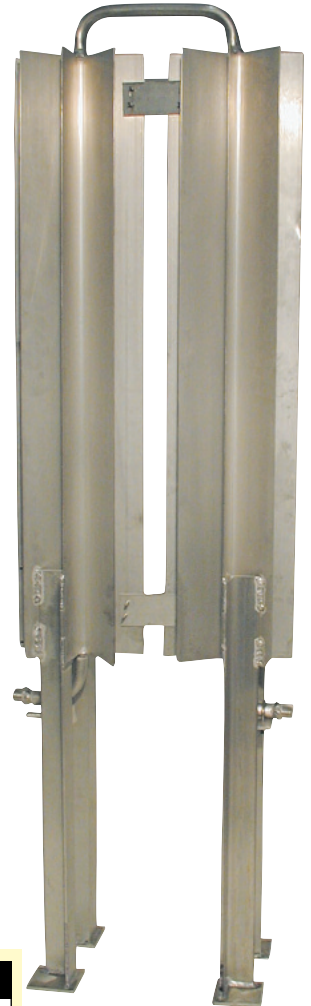
LOW PRESSURE 500 PSI

Low Pressure Ambient Vaporizers are 500 PSIG MAWP. The capacity ratings are based on an 8 hour day at 70° F and 70% RH. The capacity ratings are also based on Oxygen or Nitrogen. The Carbon Dioxide rating is 25 pounds/hour per extrusion. For Hydrogen add 35% capacity. Methane/Natural Gas – 335 SCFH/extrusion Helium – 1000 SCFH/extrusion

Extrusion Length: 7 feet
 External Surface Area per Linear Foot of Extrusion: 5 square feet
 Internal Surface Area per Linear Foot of Extrusion: 0.334 square feet

Part #	Standard Cubic Feet / Hour	Dimensions	Connection
VAP-2LP	1,000	10" L x 18.5" W x 108" H	1/2" x 1/2" MPT
VAP-4LP	2,000	19.25" L x 19.25" W x 108" H	1/2" x 1/2" MPT
VAP-6LP	3,000	19.25" L x 28.5" W x 108" H	1/2" x 1/2" MPT
VAP-8LP	4,000	19.25" L x 37.75" W x 108" H	1/2" x 1/2" MPT
VAP-10LP	5,000	19.25" L x 47" W x 108" H	1/2" x 1/2" MPT
VAP-12LP	6,000	28.5" L x 37.75" W x 108" H	1/2" x 3/4" MPT
VAP-16LP	8,000	37.75" L x 37.75" W x 108" H	1/2" x 3/4" MPT
VAP-20LP	10,000	37.75" L x 47" W x 108" H	1/2" x 3/4" MPT
VAP-24LP	12,000	37.75" L x 56.25" W x 108" H	1/2" x 1" MPT
VAP-30LP	15,000	47" L x 56.25" W x 108" H	1/2" x 1 1/2" MPT
VAP-36LP	18,000	56.25" L x 56.25" W x 108" H	1/2" x 1 1/2" MPT
VAP-40LP	20,000	47" L x 74.75" W x 108" H	1/2" x 1 1/2" MPT
VAP-42LP	21,000	56.25" L x 65.5" W x 108" H	1" x 1 1/2" MPT
VAP-48LP	24,000	56.25" L x 74.75" W x 108" H	1" x 1 1/2" MPT
VAP-56LP	28,000	65.5" L x 74.75" W x 108" H	1" x 1 1/2" MPT
VAP-64LP	32,000	74.75" L x 74.75" W x 108" H	1" x 1 1/2" MPT
VAP-72LP	36,000	74.75" L x 84" W x 108" H	1" x 1 1/2" MPT
VAP-81LP	40,500	84" L x 84" W x 108" H	1/2" x 1/2" MPT
VAP-90LP	45,000	84" L x 93.25" W x 108" H	1" x 1 1/2" MPT
VAP-100LP	50,000	93.25" L x 93.25" W x 108" H	1" x 2" MPT

Call for Pricing Info



Tank Mount Vaporizers	Part #	Standard Cubic Feet / Hour	Dimensions	Connection
	VAP-500TM	500	10" L x 18.5" W x 47" H	1/2" x 1/2" MPT
	VAP-1000TM	1,000	19.25" L x 19.25" W x 47" H	1/2" x 1/2" MPT

HIGH PRESSURE 4000 PSI

High Pressure Ambient Vaporizers are 4,000 PSIG MAWP. The capacity ratings are based on an 8 hour day at 70° F and 70% RH. The capacity ratings are also based on Oxygen or Nitrogen.

Extrusion Length: 7 feet
 External Surface Area per Linear Foot of Extrusion: 5 square feet
 Internal Surface Area per Linear Foot of Extrusion: 0.1052 square feet

Part #	Standard Cubic Feet / Hour	Dimensions	Connection
VAP-2HP	1,000	10" L x 18.5" W x 108" H	1/2" x 1/2" MPT
VAP-4HP	2,000	19.25" L x 19.25" W x 108" H	1/2" x 1/2" MPT
VAP-6HP	3,000	19.25" L x 28.5" W x 108" H	1/2" x 1/2" MPT
VAP-8HP	4,000	19.25" L x 37.75" W x 108" H	1/2" x 1/2" MPT
VAP-10HP	5,000	19.25" L x 47" W x 108" H	1/2" x 1/2" MPT
VAP-12HP	6,000	28.5" L x 37.75" W x 108" H	1/2" x 1/2" MPT
VAP-16HP	8,000	37.75" L x 37.75" W x 108" H	1/2" x 1/2" MPT
VAP-20HP	10,000	37.75" L x 47" W x 108" H	1/2" x 1/2" MPT
VAP-24HP	12,000	37.75" L x 56.25" W x 108" H	1/2" x 1/2" MPT
VAP-30HP	15,000	47" L x 56.25" W x 108" H	1/2" x 1/2" MPT
VAP-36HP	18,000	56.25" L x 56.25" W x 108" H	1/2" x 1/2" MPT
VAP-40HP	20,000	47" L x 74.75" W x 108" H	1/2" x 1/2" MPT
VAP-42HP	21,000	56.25" L x 65.5" W x 108" H	1/2" x 1/2" MPT
VAP-48HP	24,000	56.25" L x 74.75" W x 108" H	1/2" x 1/2" MPT
VAP-56HP	28,000	65.5" L x 74.75" W x 108" H	1/2" x 1/2" MPT
VAP-64HP	32,000	74.75" L x 74.75" W x 108" H	1/2" x 1/2" MPT
VAP-72HP	36,000	74.75" L x 84" W x 108" H	1/2" x 1/2" MPT
VAP-81HP	40,500	84" L x 84" W x 108" H	1/2" x 1/2" MPT
VAP-90HP	45,000	84" L x 93.25" W x 108" H	1/2" x 1/2" MPT
VAP-100HP	50,000	93.25" L x 93.25" W x 108" H	1/2" x 1/2" MPT

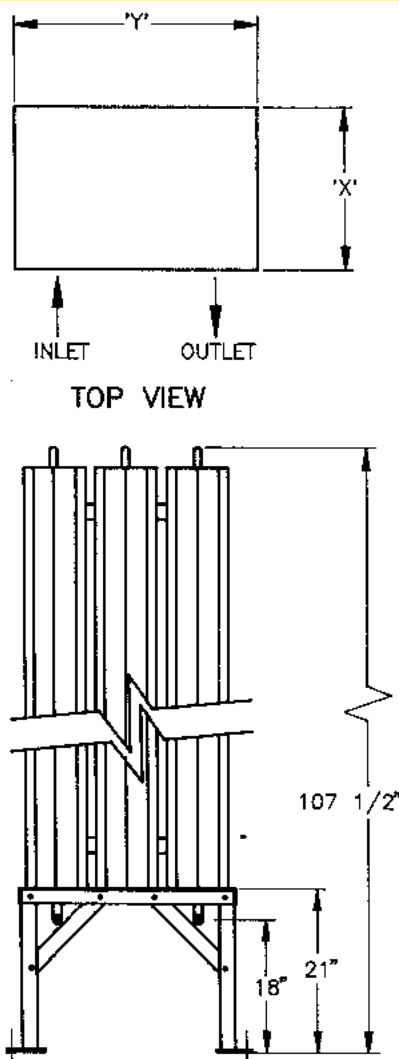
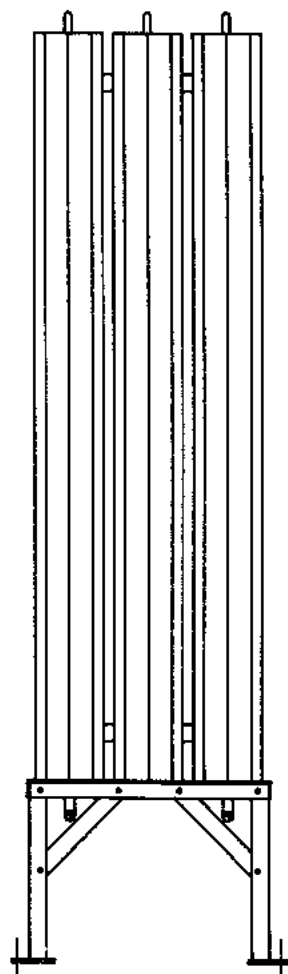
Call for Pricing Info

AMBIENT VAPORIZER

Vaporizers

Section

4A



Specifications

Extra fins – 6063 Aluminum alloy

Fluid passages – Aluminum 304 or 316 stainless steel, Monel, electro-polished 316L tubing

Frame assembly – Type 6061 aluminum alloy

Working temperature – -425° F to +100° F

Working pressure – to 10,000 PSIG

Discharge Gas Temperature – Within 20° F of ambient conditions (standard)

*Dimensions are Approximate for Certified Drawings
Contact Customer Service*

Standard Connections are MPT, ANSI or Mueller Flanges are Available.

Rating based on (8) Hours Service with 70° F 70% RH

Standard Features

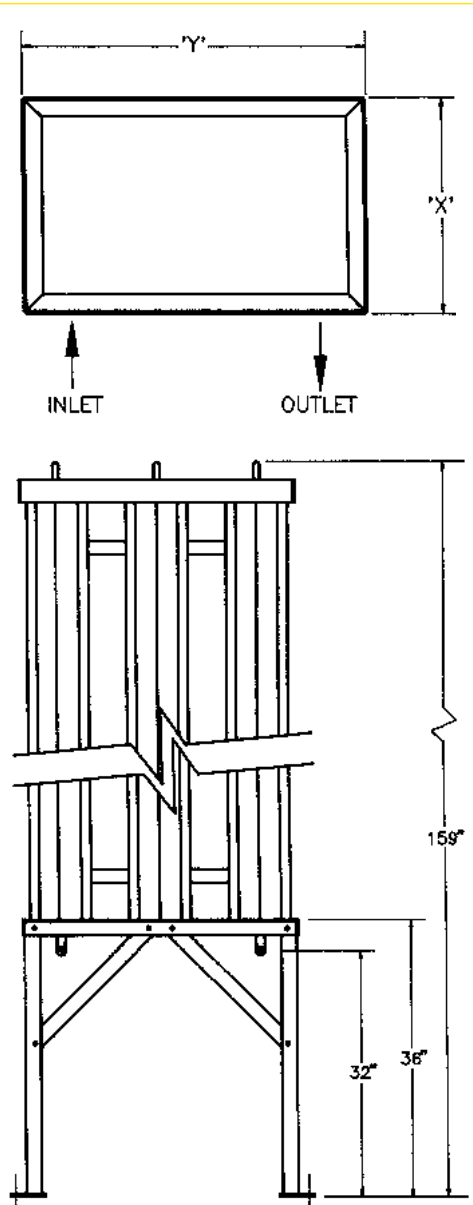
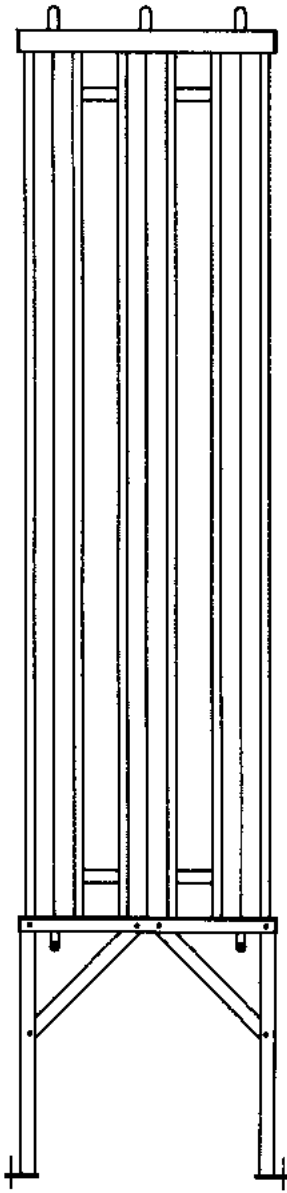
- Aluminum or stainless fluid passages
- Design pressure to 10,000 PSIG
- Capacities to 50,000 SCFH in single assemblies
- Manifold designs to suit pressure drop specifications
- Removable legs

Options

- Special fluid passages
- Special in and out connections
- Anodized finish
- Special frames
- Special sizes including height
- Special designs for gas cooling / heating applications
- Auto-cycling vaporizing systems complete with manifolding, valves and temperature control systems

Part #	SCFH O ₂ , N ₂ , AR	LBS/HOUR CO ₂	X"	Y"	Z"	INLET	OUTLET	APPX. WT. (LBS.)
VAP-2LP	1,000	50	10	19	9	1/2"	1/2"	90
VAP-4LP	2,000	100	19	19	9	1/2"	1/2"	145
VAP-6LP	3,000	150	19	29	19	1/2"	1/2"	210
VAP-8LP	4,000	200	19	38	28	1/2"	1/2"	275
VAP-10LP	5,000	250	19	47	37	1/2"	1/2"	340
VAP-12LP	6,000	300	29	38	28	1/2"	3/4"	405
VAP-16LP	8,000	400	38	38	28	1/2"	3/4"	535
VAP-20LP	10,000	500	38	47	37	1/2"	3/4"	665
VAP-24LP	12,000	600	38	56	46	1/2"	1"	795
VAP-30LP	15,000	750	47	56	46	1/2"	1 1/2"	987
VAP-36LP	18,000	900	56	56	46	1/2"	1 1/2"	1,180
VAP-40LP	20,000	1000	47	75	65	1/2"	1 1/2"	1,310
VAP-42LP	21,000	1050	56	66	55	1"	1/2"	1,375
VAP-48LP	24,000	1200	56	75	65	1"	1 1/2"	1,570
VAP-56LP	28,000	1400	66	75	65	1"	1 1/2"	1,646
VAP-64LP	32,000	1600	75	75	65	1"	1 1/2"	1,876
VAP-72LP	36,000	-	75	84	-	1"	1 1/2"	-
VAP-81LP	40,500	2025	84	84	74	1/2"	1/2"	2,365
VAP-90LP	45,000	-	84	94	-	1"	1 1/2"	-
VAP-100LP	50,000	2500	94	94	83	1"	2"	3,000

AMBIENT VAPORIZER EXTRA GAP



Specifications

Extra fins – Type 6063 Aluminum alloy

Fluid passages – Aluminum 304 or 316 stainless steel, Monel, electro-polished 316L tubing

Working temperature – -425° F to +100° F

Frame assembly – Type 6061 aluminum alloy

Working pressure – 500 PSIG to 10,000 PSIG

Discharge Gas Temperature – Within 20° F of ambient

Standard Connections are MNPT, ANSI or Mueller Flanges Optional.

All Dimensions are Approximate

*Rating based on 24 Hours of Continuous Service, for Continuous Service (multiply 24 hour days), decrease rating by 50%. For 8 hour Rating Multiply Model No x 714

Advantages

- Improved resistance to ice bridging
- Longer service ratings
- Design pressure to 10,000 PSIG
- Capacities to 51,408 SCFH in a single module

Standard Features

- Aluminum, stainless, or Monel fluid passages
- Removable legs
- Longer extrusion length
- Extra wide spacing between extrusions
- Manifold to suit required pressure drop

Part #	* SCFH	X"	Y"	INLET	OUTLET	APPX. WT. (LBS.)
VAP-2LPEG	1,000	10	23	1/2"	1/2"	100
VAP-4LPEG	2,000	23	23	1/2"	1/2"	200
VAP-6LPEG	3,000	23	36	1/2"	1/2"	310
VAP-8LPEG	4,000	23	49	1/2"	1/2"	390
VAP-10LPEG	5,000	23	62	1/2"	1/2"	475
VAP-12LPEG	6,000	36	49	1/2"	3/4"	570
VAP-16LPEG	8,000	49	49	1/2"	3/4"	740
VAP-20LPEG	10,000	49	62	1/2"	3/4"	940
VAP-24LPEG	12,000	49	75	1/2"	1"	1110
VAP-30LPEG	15,000	62	75	1/2"	1 1/2"	1370
VAP-36LPEG	18,000	75	75	1/2"	1 1/2"	1640

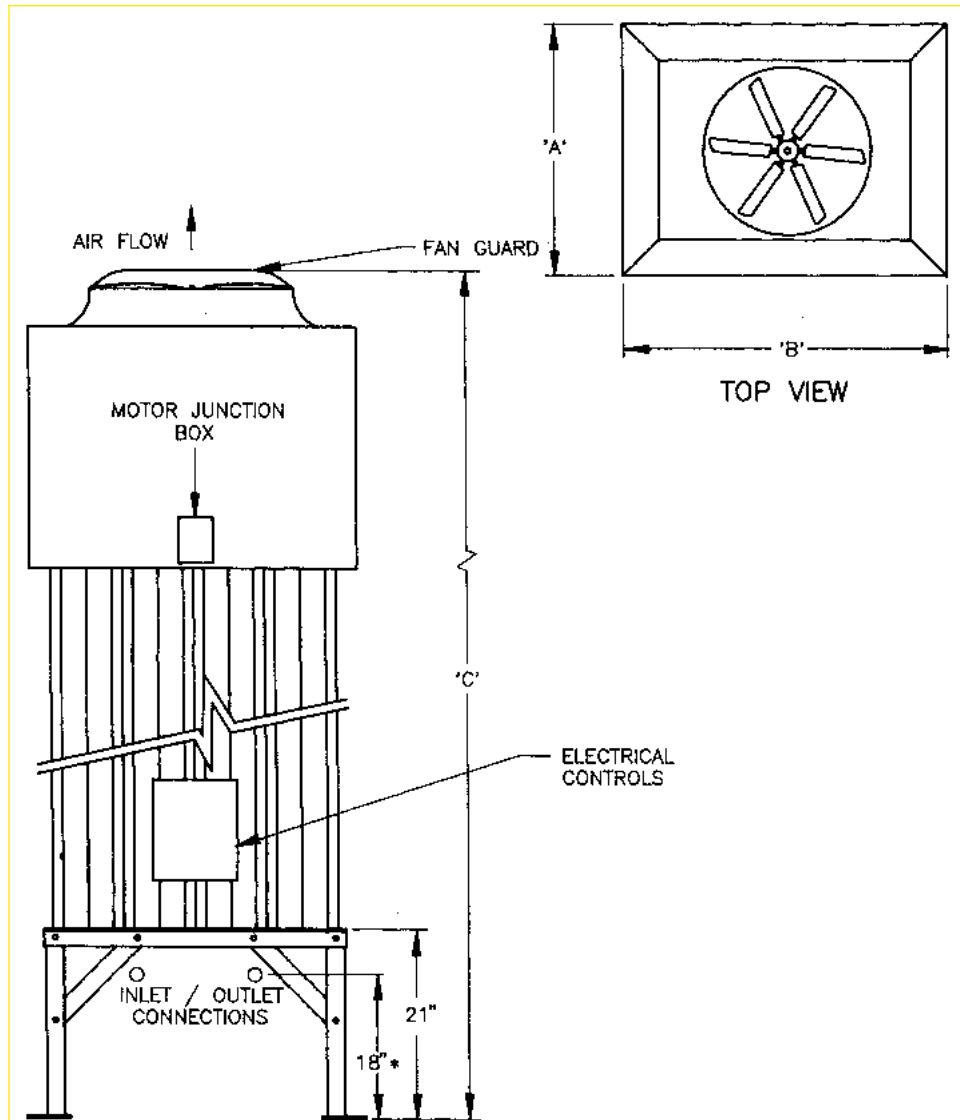
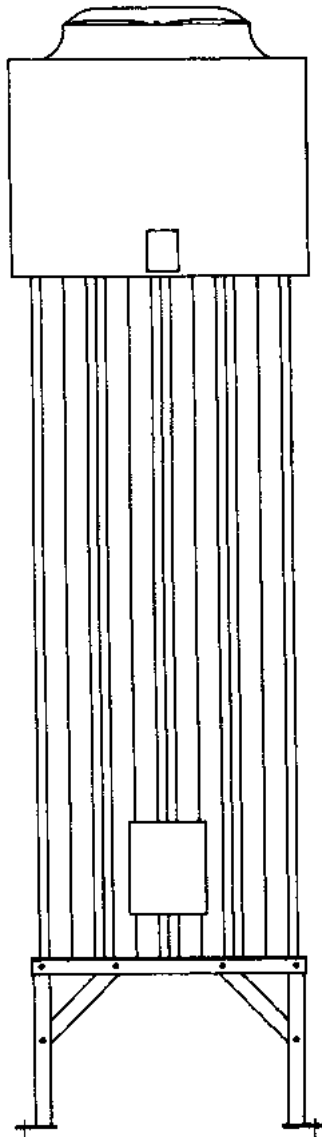
AMBIENT VAPORIZER

FAN VAPORIZER – FORCED DRAFT AMBIENT

Vaporizers

Section

4A



Advantages

- Greater capacity in less space
- Rugged construction
- Fast defrost times
- Pressures to 15,000 PSIG
- Flow ratings to 200,000 SCFH
- Superior air flow characteristic for improved performance

Standard Features

- Aluminum or stainless steel fluid passages
- Removable legs
- Available in 575, 440, or 220 volts
3 phase – 60 cycles
- Fan with fan guard
- Fan motor
- Motor starter
- Temperature controller
- Inlet temperature sensor
- Fan automatically controlled via temperature controller

Standard Connections are MNPT, ANSI or Mueller Flanges Available.

304, 316 Stainless Steel, Inconel or Monel passages available.

**Dimensions may vary according to connections.*

All Dimensions are Approximate

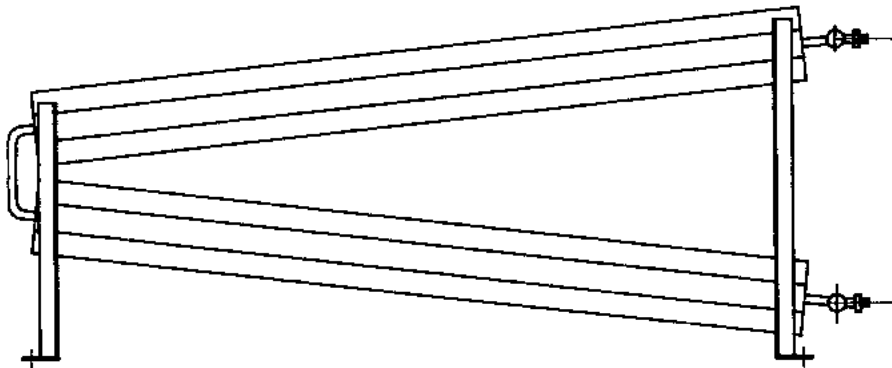
FORCED AMBIENT

MODEL	SCFH	A"	B"	C"	APPX. WT. (LBS.)	FAN H/P
AF9	6,750	29	29	141	600	3/4
AF16	12,000	38	38	143	800	1
AF25	18,750	48	48	147	1100	3
AF36	27,000	48	48	150	1300	5
AF48	36,000	60	60	151	1800	7 1/2
AF64	48,000	70	70	155	2500	10
AF81	60,750	70	70	160	3200	10
AF100	75,000	84	84	160	3900	15

AMBIENT VAPORIZER

AMBIENT PRESSURE BUILDER

Inclined pressure building vaporizers are used to build pressure in closed loop pressure systems vaporizing any cryogenic liquid.

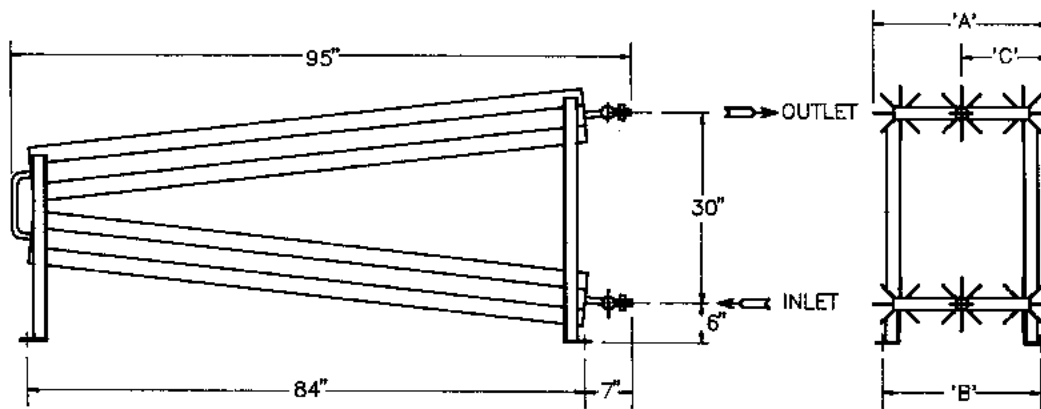


Advantages

- 1** Inexpensive initial cost
- 2** Requires no additional heating energy
- 3** Easy installation
- 4** Maintenance free
- 5** No pressure drop

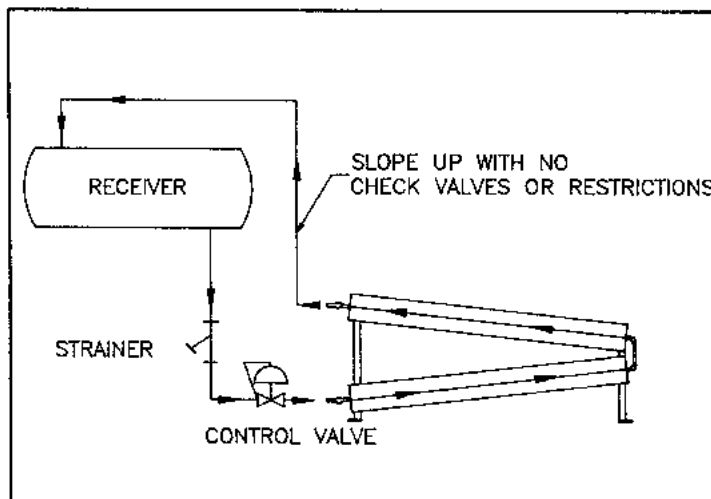
Features

- Aluminum construction
- Stainless steel or Monel passages available
- Pressure to 10,000 PSIG
- Capacities to 90,000 SCFH
- Automatic control available
- Used in conjunction with Cash Acme series regulators



Standard Connections are MNPT, ANSI or Mueller Flanges are optional.
 Flow rates vary with application.
 For general rule of thumb use 100 X Model number for AR, O₂, N₂

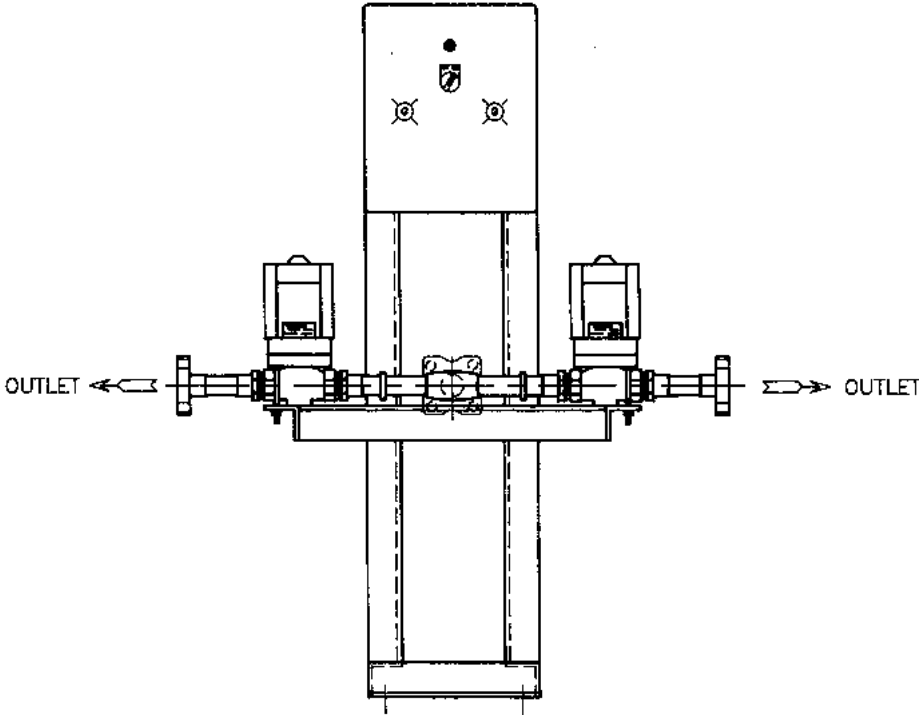
MODEL	A"	B"	C"	APPX. WT. (LBS.)
PBA2A	12	13	4	70
PBA3A	17	14	9	105
PBA4A	17	14	9	140
PBA6A	27	24	13	210
PBA8A	36	33	18	280
PBA10A	45	42	23	350
PBA12A	54	51	27	420
PBA14A	64	61	32	490
PBA16A	73	70	36	560
PBA18A	82	79	41	630
PBA20A	91	88	46	700



All Dimensions are approximate, for certified drawings contact Customer Service.

AMBIENT VAPORIZER

CYCLING SYSTEM FOR AMBIENT VAPORIZERS



Fluids

- Liquid Argon
- Liquid Oxygen
- Liquid Nitrogen

Advantages

- Simplifies field installation
- Fully piped and checked out
- Reduces number of Ambient Vaporizers required

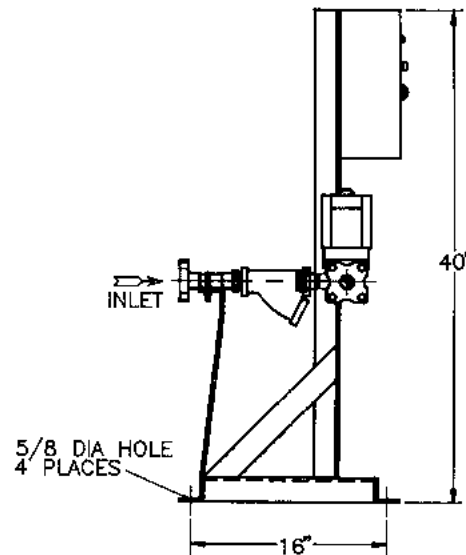
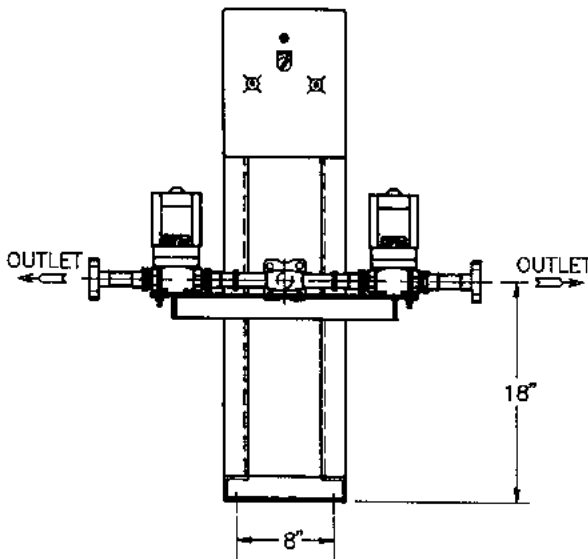
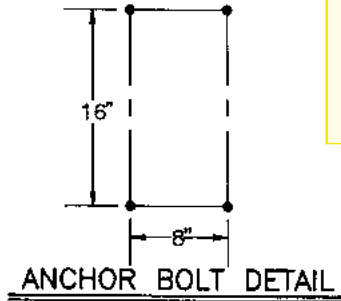
Standard Features

- Copper piping
- Inlet strainer
- Mueller flange connections
- 0-100 hour cycle time
- 120 vac operation
- 500 PSIG working pressure

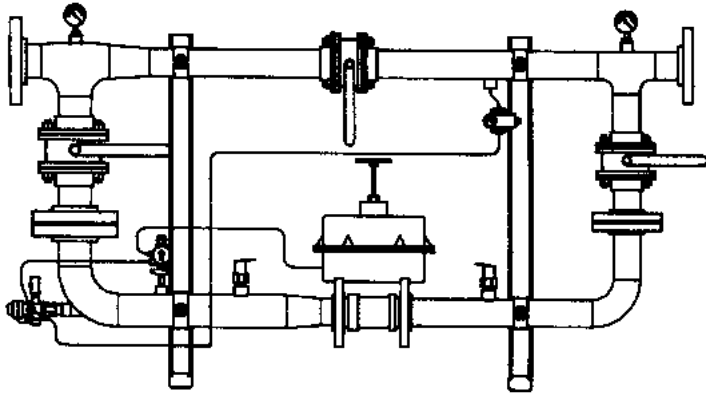
Options

- Ansi flange connections
- Explosion proof electrical
- All stainless steel fluid passages
- Block and bypass valves
- Normally open or normally closed valve

SIZE	FLOW	MAWP	MOPD	AMPS	VOLTS
1/2"	25,000	500	500	2AMPS	120
3/4"	40,000	500	500	3AMPS	120
1"	80,000	500	500	3AMPS	120
1 1/2"	170,000	500	500	7AMPS	120
2"	250,000	500	500	7AMPS	120



FINAL LINE REGULATORS



Fluids

- Oxygen
- Argon
- Nitrogen
- CO₂

Standard Features

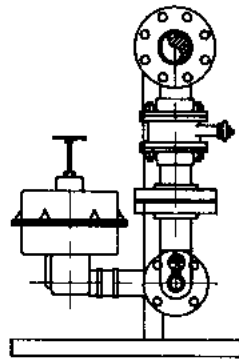
- Block and bypass valves
- Quick change trim in the control valve
- All stainless steel piping

Advantages

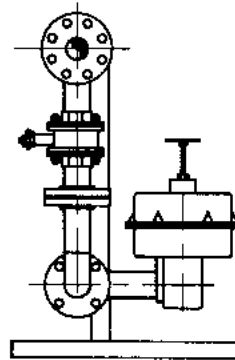
- Maintains constant line pressure over wide range of flows

Options

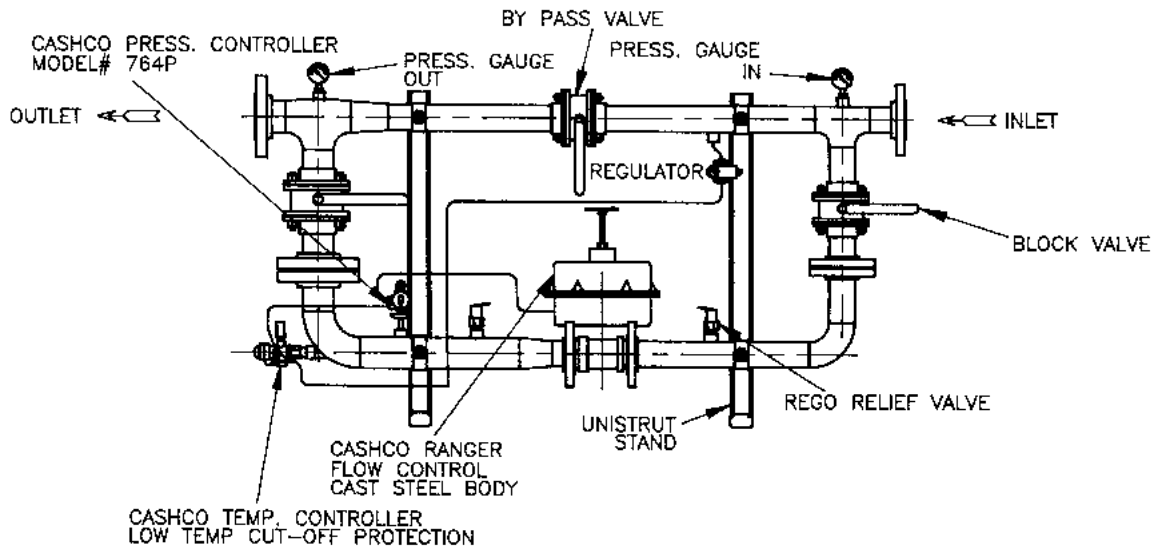
- Inlet and outlet pressure gauges
- Temperature control
- Special stand arrangements
- High purity applications



LEFT END VIEW



RIGHT END VIEW



ELEVATION VIEW

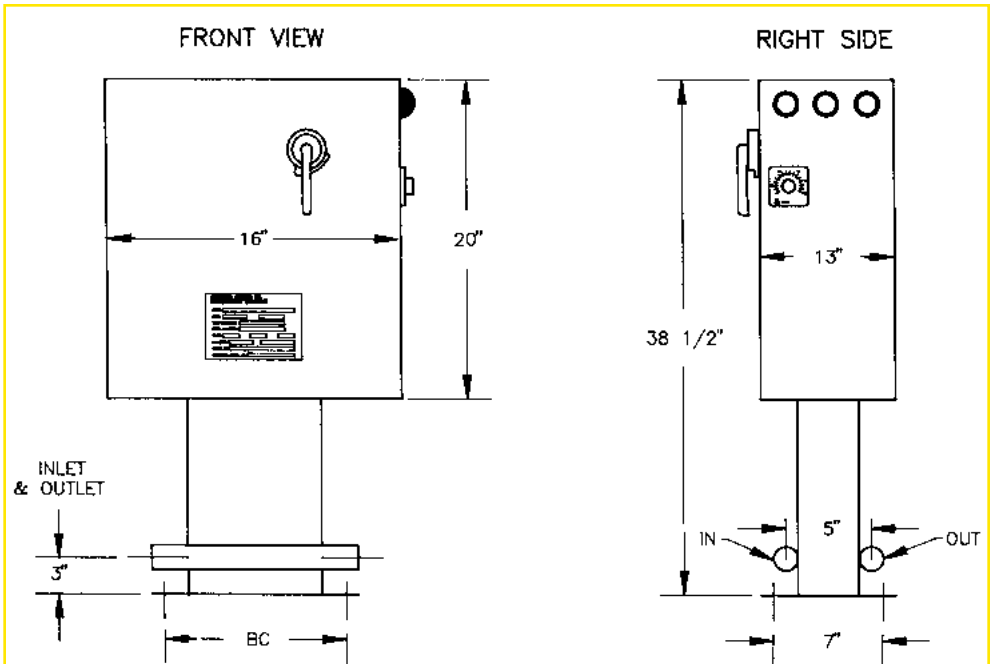
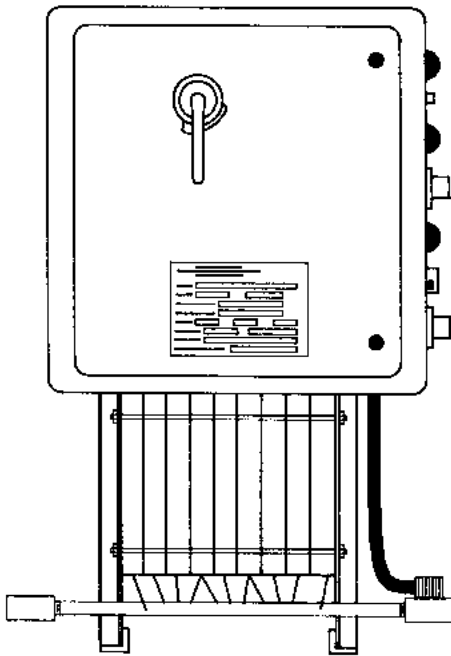
FLows FROM 10,000 SCFH TO 500,000 SCFH
PRESSURES FROM 15 PSIG TO 500 PSIG

ELECTRIC CAST ALUMINUM VAPORIZERS

Vaporizers

Section

4A



Standard Features

- Replaceable heating elements
- Weather proof cabinets
- Complete separation of electrical and plumbing systems
- Accurate temperature control
- Silicone rubber sealed heater terminals
- Circuit breaker with door interlock
- High temperature limit protection on each heater segment
- Capacities to 200 Kw in single cabinet
- Pilot lite indicators

Options

- Safety lo-temp shut off valve electric or "Magic Pipe"
- Special fittings in and out
- Temperature indicating controller
- Automatic bypass
- Special temp controls from -350° to +600° F
- Special non-standard voltages and frequencies

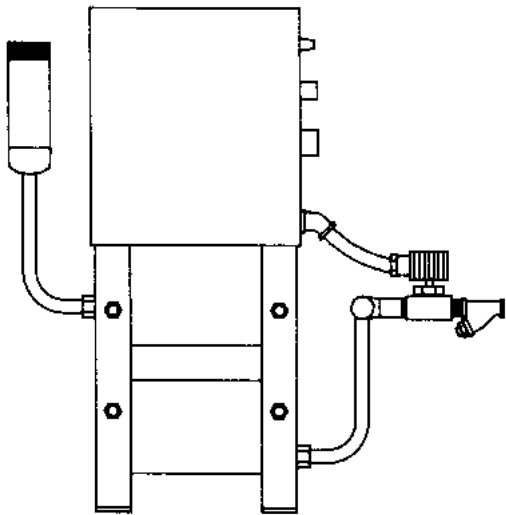
N.P.T. 15 TO 60 KW SHOWN

KW	IN*	OUT*	VOLTS	AMPS	BC	CAPACITY		
						LB./HR. CO ₂	SCFH N ₂ /O ₂ /AR	WT LBS
15	1/2	1/2	220/440	40/20	6	375	3750	100
30	3/4	3/4	220/440	80/40	8 1/8	750	7500	150
45	3/4	3/4	220/440	120/60	10 1/4	1125	11250	180
60	1	1	220/440	160/80	13	1500	15000	210
75	1	1	220/440	200/100	15 1/4	1800	18750	240
90	1	1	440	120	17 1/2	2100	22500	275
105	1	1	440	140	19 3/4	2500	26500	310
120	1	1	440	160	22	2900	30000	345
135	1	1	440	180	24 1/8	3200	33750	375
150	1	1 1/2	440	200	26 3/8	3600	37500	405
165	1	1 1/2	440	220	28 1/2	4000	41250	440
180	1	1 1/2	440	240	30 3/4	4300	45000	575
195	1	1 1/2	440	260	33	4700	48750	605

*Dimensions are Approximate for Certified Drawings
Contact Customer Service.*

* Inlet and outlet varies with fluid and pressure.

ELECTRIC CAST ALUMINUM VAPORIZERS PRESSURE BUILDING UNIT

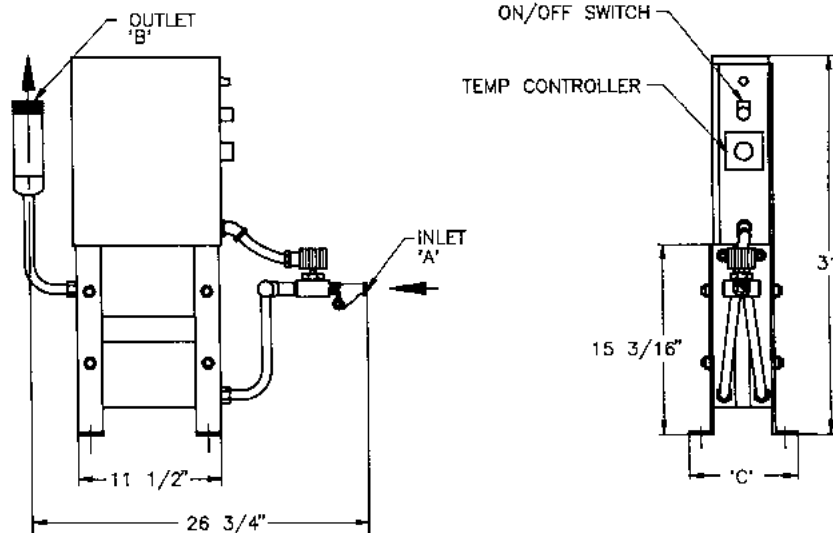


Advantages

- Extremely low pressure drop
- No heat input when unit is not in use
- Heater casting replaceable without breaking into fluid passages
- U.L. listed components
- No frost build-up around heater terminals

Standard Features

- Nema 3R electrical enclosure
- On/off switch
- Control circuit transformer
- Contactor
- Control circuit fuses
- Pressure switch
- Solenoid valve
- Inlet strainer
- Connection for blow down valve
- Casting temperature controls



(Model PBU 240/480C-15-.5-CO2-DC shown)

CO₂ PRESSURE BUILDERS

MODEL PBU	'A'	'B'	'C'	FLOW	KW	AMPS	APPX WT. (LBS.)
PBU 240/480C-15-.5-CO2	1/2" FPT	1" MPT	7 1/8"	200#/HR	15	36/18	100
PBU 240/480C-15-.5-CO2-DC	3/4" FPT	2" MPT	8 11/16"	400#/HR	15	36/18	120
PBU 240/480C-30-.5-CO2	3/4" FPT	2" MPT	11 7/16"	800#/HR	30	72/36	300
PBU 240/480C-45-.5-CO2	1" FPT	2" MPT	14 3/16"	1200#/HR	45	108/55	450
PBU 240/480C-60-.5-CO2	1 1/2" FPT	2" MPT	16 15/16"	1600#/HR	60	144/72	500

CRYOGENIC PRESSURE BUILDERS

MODEL PBU	'A'	'B'	'C'	FLOW (SCFH)	KW	AMPS	APPX WT. (LBS.)
PBU 240/480C-15-.5-CRY-DC	3/4" FPT	2" MPT	8 11/16"	7,000	15	36/18	120
PBU 240/480C-30-.5-CRY	3/4" FPT	2" MPT	11 7/16"	14,000	30	36/18	300
PBU 240/480C-45-.5-CRY	1" FPT	2" MPT	14 3/16"	21,000	45	72/36	450
PBU 240/480C-60-.5-CRY	1 1/2" FPT	2" MPT	16 15/16"	29,000	60	108/55	500

All Dimensions Shown are Approximate

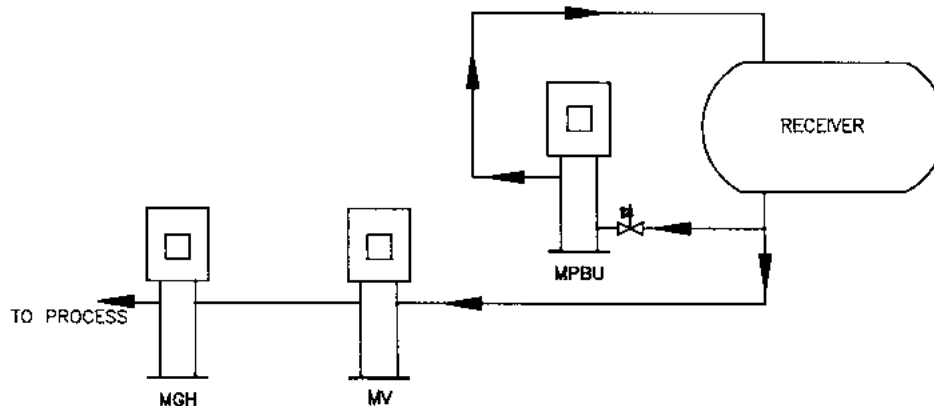
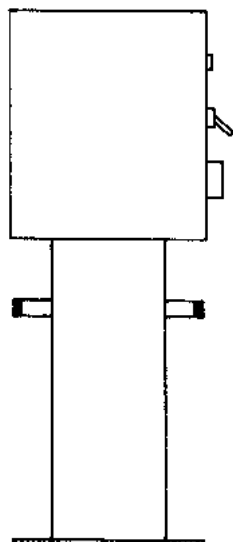
ELECTRIC CAST ALUMINUM VAPORIZERS

MINIATURE SERIES

Vaporizers

Section

4A



Advantages

- Designed for cryogenic applications where minimal power is required
- Low Kw units can be easily upgraded to higher Kw ratings
- Compatible with all cryogenic fluids
- Stocked in three types –
Pressure Builder
Vaporizer
Gas Heater
- Ideal for small flow applications
- Available in 120, 230, and 460V configurations with power ratings from 1 to 12 Kw

Features

- Standard design pressure 500 PSIG
- Fluid path type 304 stainless steel
- Nema 12 electrical enclosure
- Adjustable temperature range from 0° F to +110° F (*higher temperature ranges available up to 400° F*)

Options

- Explosion proof housings
- Low temperature shut-off
- Indicating controllers
- High pressure applications to 10,000 PSI
- High purity applications

MODEL	CAPACITY CO2 #/HR	CAPACITY AR,N2,O2 SCFH	KW
MV-2	50	500	2
MV-3	75	750	3
MV-4	100	1,000	4
MV-6	150	1,500	6

INLET: 1/2" MPT OUTLET: 1/2" MPT

MODEL	CAPACITY CO2 #/HR	CAPACITY AR,N2,O2 SCFH	KW
MPBU-2	55	1,000	2
MPBU-3	85	1,500	3
MPBU-4	115	2,000	4
MPBU-6	170	3,000	6

NOTE: MPBU MODELS EQUIPPED WITH PRESSURE SWITCH & SOLENOID VALVE SUITABLE FOR 350 PSI.

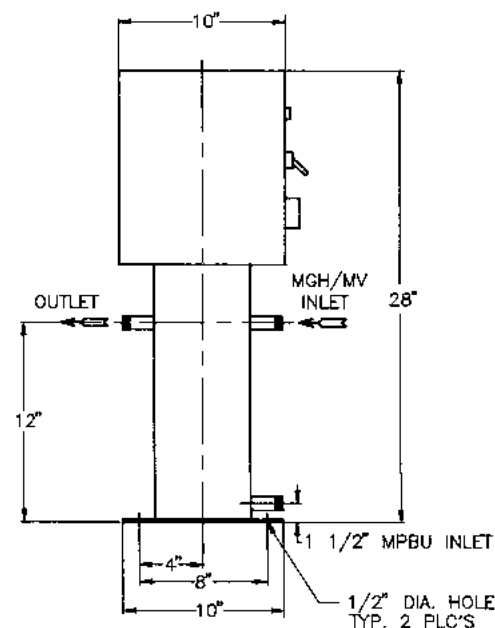
INLET: 1/2" FPT OUTLET: 3/4" MPT

MODEL	CAPACITY CO2 #/HR	CAPACITY AR,N2,O2 SCFH	KW
MGH-2	400	4,500	2
MGH-3	600	6,750	3
MGH-4	800	9,000	4
MGH-6	1,000	11,250	6

NOTE: MGH SERIES FLOW RATES BASED ON 80°F TEMPERATURE RISE.

FOR LOW PRESSURE APPLICATIONS SPECIFY 'MGH-DT' SERIES.

INLET: 1" MPT OUTLET: 1" FPT



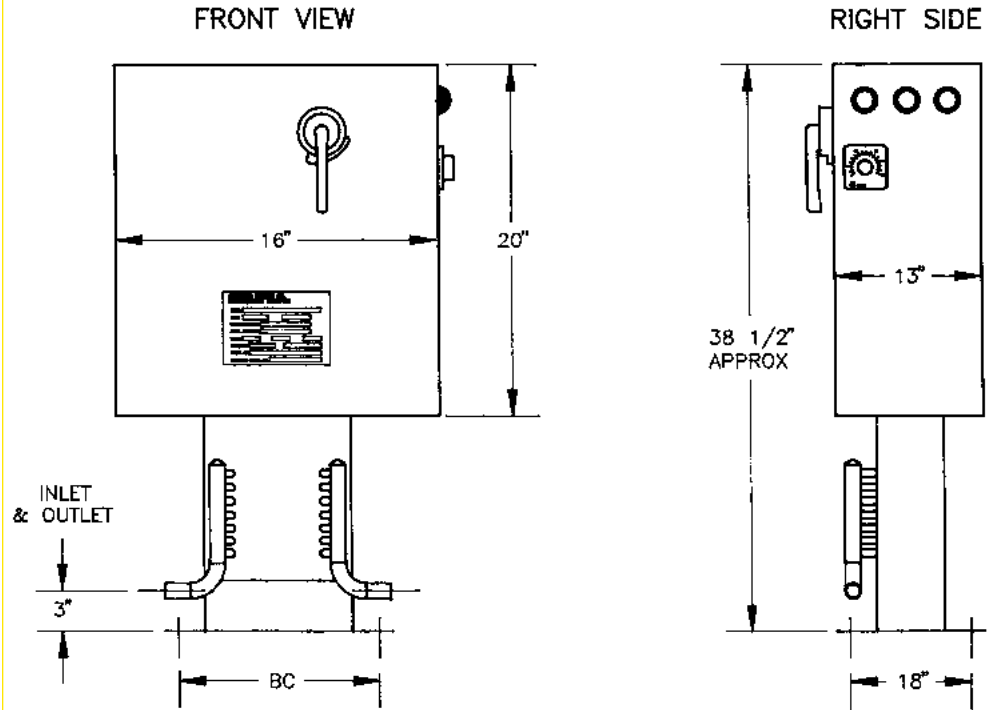
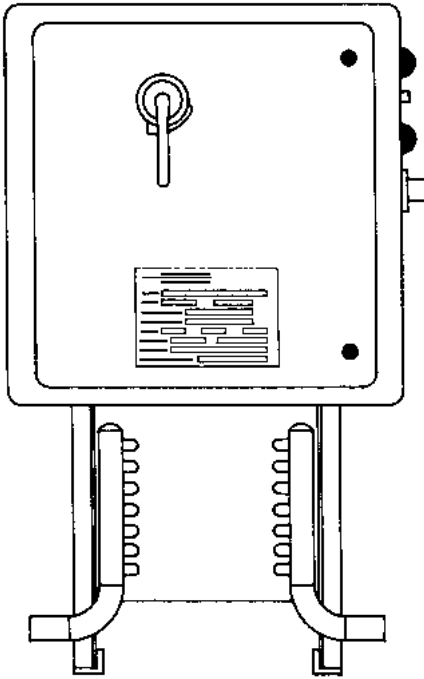
Dimensions Shown are Approximate
Flow rates based on 300 PSIG inlet pressure.

Lower pressure will result in higher
differential pressure at listed flow.

Inlet/outlet connection configurations are standard.
Other configurations available upon request.

ELECTRIC CAST ALUMINUM VAPORIZERS

ELECTRIC TRIM HEATERS



15 TO 30 KW SHOWN

Standard Features

- Spare heating elements
- Weather proof cabinets
- Accurate temperature control
- Silicone rubber sealed heater terminals
- Circuit breaker with door interlock
- Hi temperature limit protection
- Pilot lite indicators

Options

- Special fittings in and out
- Temperature indicating controller
- Special temp controls from -350° F to +600° F
- Replaceable heating elements
- Special non-standard voltages and frequencies

N.P.T.

CAPACITY

KW	IN*	OUT*	VOLTS	AMPS	BC	#/HR CO ₂	SCFH AR/N ₂ /O ₂
12	1"	1"	240/480	29/14.5	18"	2,800	32,000
15	1"	1"	240/480	36/18	18"	3,595	40,000
18	1 1/2"	1 1/2"	240/480	44/22	18"	4,300	48,000
21	1 1/2"	1 1/2"	240/480	51/26	18"	5,000	56,000
24	2"	2"	240/480	58/29	18"	5,720	64,000
27	2"	2"	240/480	65/32	18"	6,440	73,000
30	2"	2"	240/480	72/36	18"	7,150	81,000

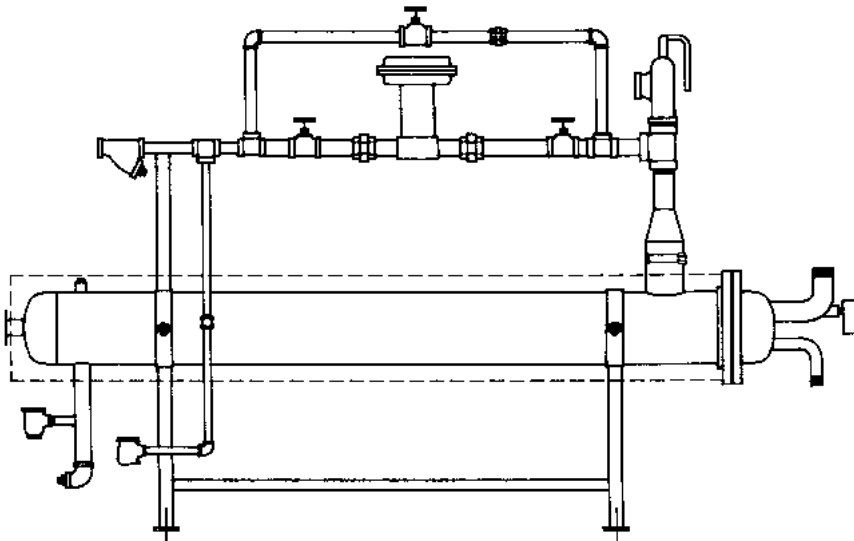
Dimensions are Approximate for Certified Drawings
Contact Customer Service.

* Inlet and outlet varies with fluid and pressure.

Sizing based on 70° F temperature rise (80° F outlet temp)

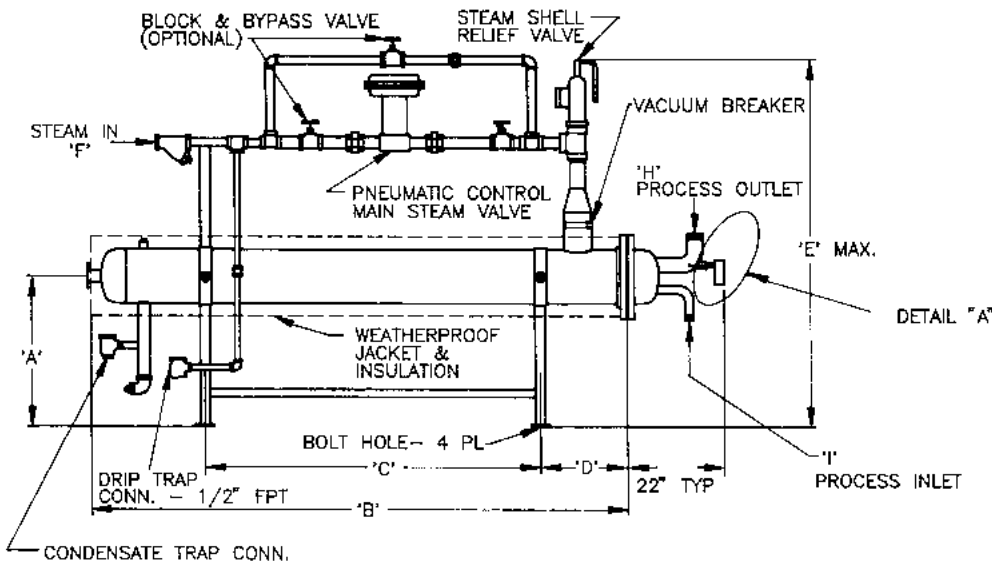
SHELL AND TUBE VAPORIZERS

STEAM VAPORIZERS



Advantages

- Simple to install
- Weatherproof
- No electrical controls
- Low pressure drop
- Minimum energy waste
- ASME and TEMA compliance
- Easy tube bundle removal
- Delivery on your schedule
- No external electrical power required
- Designs available for any gas at any pressure
- Modular shell & tube type heat exchanger
- Flow rates to 2,000,000 SCFH available
- For all gases
- Fast response
- Compact size
- Complete package
- No maintenance

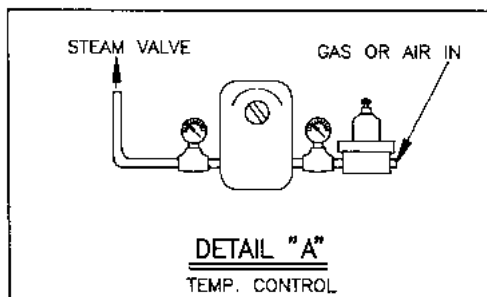


(NOMINAL DIMENSIONS— INCHES)

MODEL SV	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'
-4x8x7	24	102	54	12	50	3/4	1/2	1	3/4
-6x8x28	24	103	54	12	50	1	1/2	2	1 1/2
-8x8x50	24	103 1/2	54	12	56	1 1/2	3/4	3	2
-10x8x85	30	104 1/2	54	18	66	2	1	4	2
-12x8x130	30	105 1/2	54	18	72	3	1 1/2	4	3
-14x8x155	36	106	54	18	78	4	2	6	3

* Note: Connections may vary depending on design parameters.

Dimensions are Approximate for Certified Drawings
Contact Customer Service.



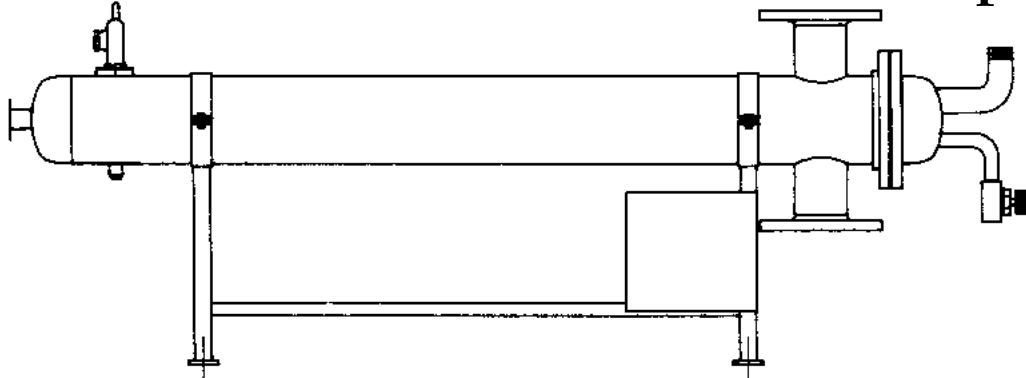
MODEL SV	NOMINAL FLOW CAPACITY			
	SCFH X 1000	POUNDS/HR		
GAS	N ₂ , O ₂ , AR	H ₂	LNG	CO ₂
-4x8x7	28	36	19	2600
-6x8x28	96	125	52	10,500
-8x8x50	200	260	108	18,750
-10x8x85	340	442	231	31,875
-12x8x130	520	676	354	48,750
-14x8x155	620	806	422	58,125

* Note: Capacities vary with pressure and gas. Outlet gas temperature based on 75° F.

SHELL AND TUBE VAPORIZERS

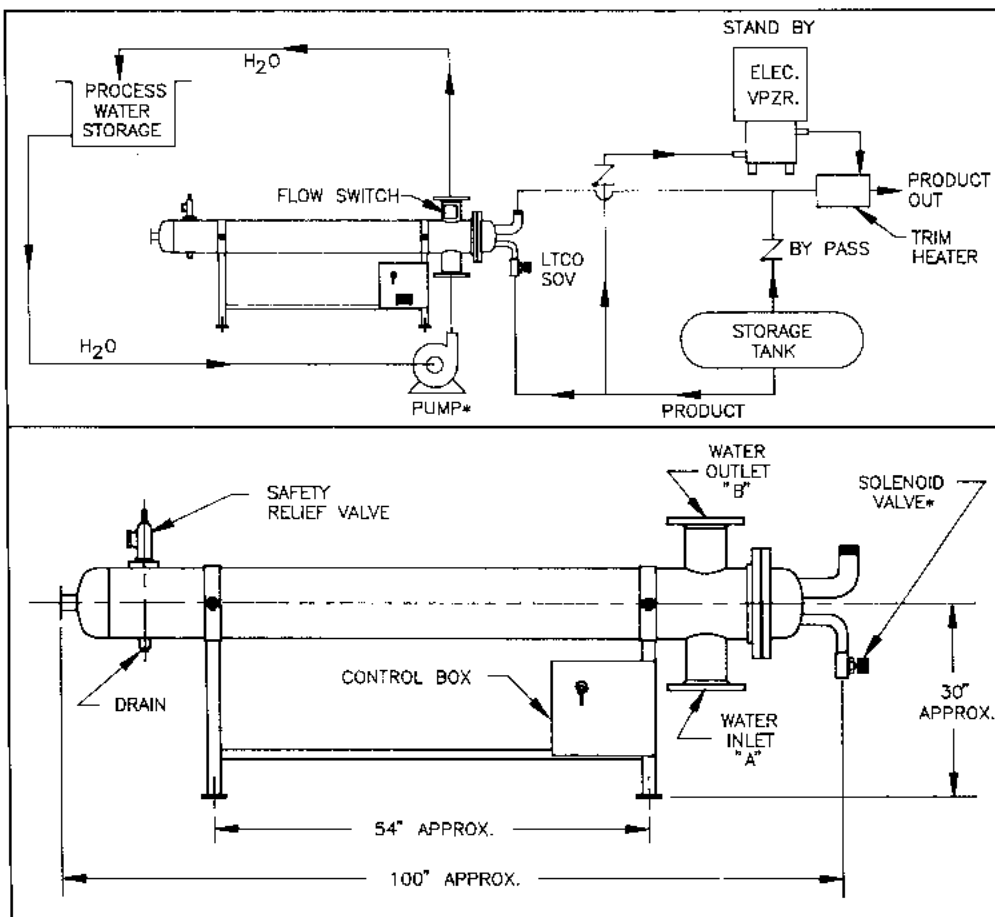
ENERGY MISER

Save \$1,000.00 a Month on Electricity
with our Water Heated Vaporizer



Advantages

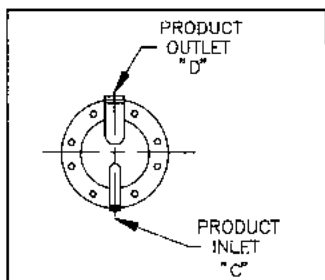
- Energy-free vaporization
- Automatic controls prevent freeze-up
- Stainless steel tube bundle
- Simple installation and low maintenance



* Options: Low temperature safety shut down system. (LTCO) Recirculating pump & controls. ASME code stamp.

Flow rates to 50,000 #/hr available.

ENERGY MISER



MODEL NO.	CAPACITY LB/HR	SCFH	"A"	"B"	"C"	"D"	GPM	APPROX. WT.#
3X8X1	500	6,000	2	2	1/2	3/4	35	100
3X8X2	1000	12,000	2	2	3/4	3/4	70	150
4X8X3	1500	18,000	2	2	3/4	3/4	105	175
5X8X4	2000	24,000	3	3	1	1	140	220
6X8X5	2500	30,000	3	3	1	1	175	250
6X8X6	3000	36,000	3	3	1	1	210	260
6X8X7	3500	56,000	4	4	1	1 1/2	245	325