



Ambient Vaporizer for Liquid Cylinders (AV600)

SPECIFICATION

Operation of Ambient Vaporizers

Ambient air vaporizers (AV600) use the heat of atmospheric air to convert cryogenic liquid into gas. The cryogenic liquid travels in extruded aluminum pipe. The heat exchange between the cryogenic liquid and the ambient air is facilitated by a series of fins that are part of the extruded aluminum piping. The heat exchange capacity (i.e. vaporizer capacity) is determined by several factors:

- Total length of “finned” extruded aluminum pipes;
- Ambient temperature;
- Air convection in the area surrounding the vaporizer;
- Exposure of the ambient vaporizer to sunlight.

Description

BeaconMedaes’ ambient vaporizers for liquid cylinders are mounted and secured to the floor. They are designed to withstand pressures up to 600 psig [41 barg] of either liquid argon, liquid nitrogen or liquid oxygen.

Extruded aluminum finned pipes are mounted vertically.

Vaporizer Hose Kit

The ambient vaporizers are used in conjunction with BeaconMedaes’ the VHK Series Vaporizer Hose Kit. Vaporizer Hose Kits are sold separately. The vaporizer hose kit contains one (1) non-vacuum insulation cryogenic flexible hose, one (1) inlet adaptor and one (1) outlet adaptor with thermal expansion pressure relief valve.

Technical Data	
Maximum Working Pressure	600 PSIG [41 BARG]
Maximum Flow	See Part Number Matrix
Inlet / Outlet Ports	1/2” M.NPT
Working Temperature Range	-425°F to +100°F -254°C to + 38°C
Discharge Gas Temperature	Within 20°F [7°C] of Ambient Temperature

Materials	
Wetted Components	Type 6063 Aluminum
Frame Assembly	Type 6061 Aluminum

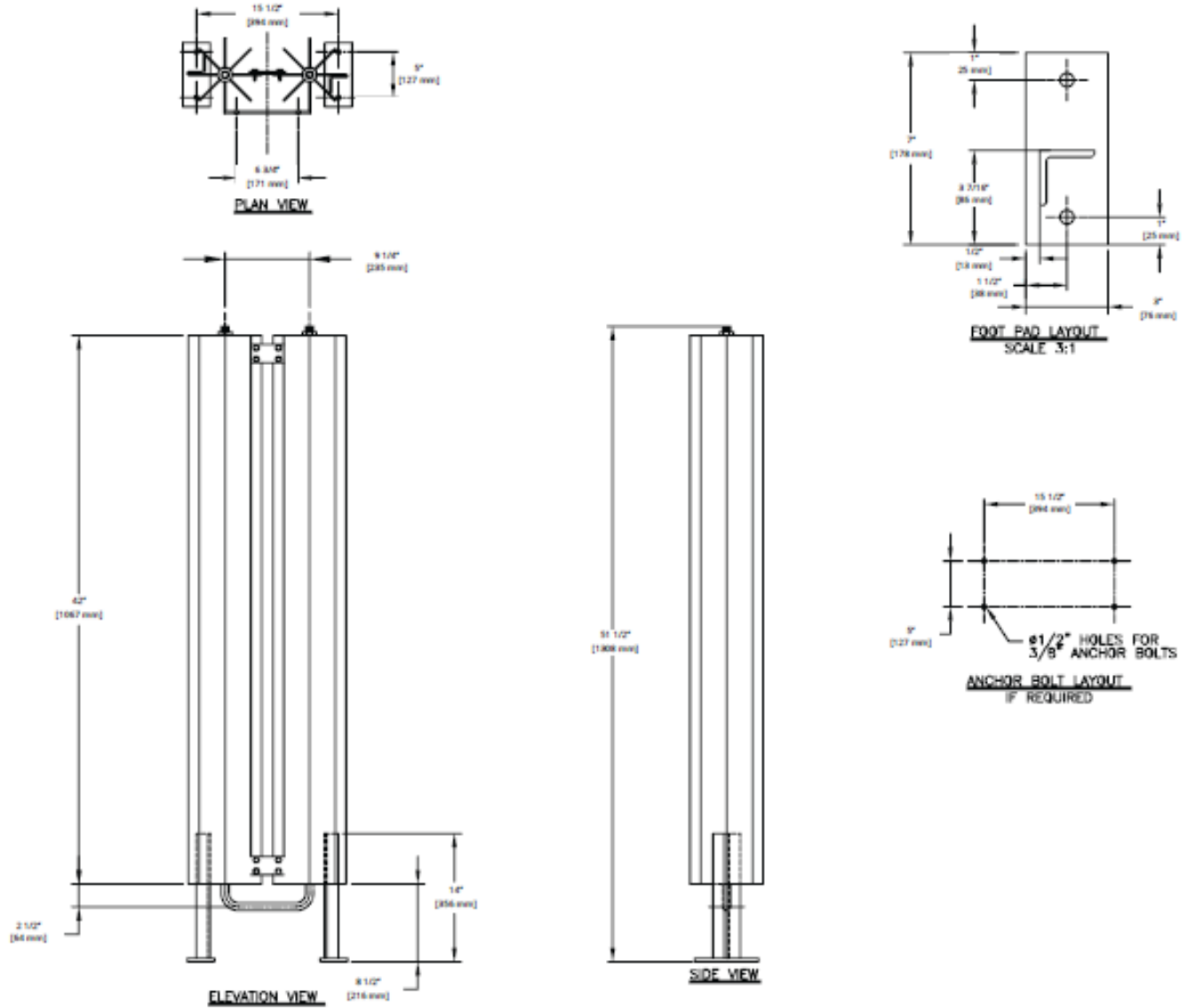
Ordering information

AV600 - - -
 A B C

BeaconMedaes AV600 Series Model Number Matrix			
Variable	Definition	Allowable Value	Description
A	Inlet Pressure	600	600 PSIG [41 BARG]
B	Fluid	580A	Argon
		580N	Nitrogen
		540	Oxygen
C	Fin Assembly	A2ALB	500 SCFH [14.2 m³/h]
		A4ALB	1000 SCFH [28.3 m³/h]
		A6ALB	1500 SCFH [42.5 m³/h]
		A8ALB	2000 SCFH [56.6 m³/h]
		A10ALB	2500 SCFH [70.8 m³/h]
		A12ALB	3000 SCFH [85.0 m³/h]
		A16ALB	4000 SCFH [113.3 m³/h]

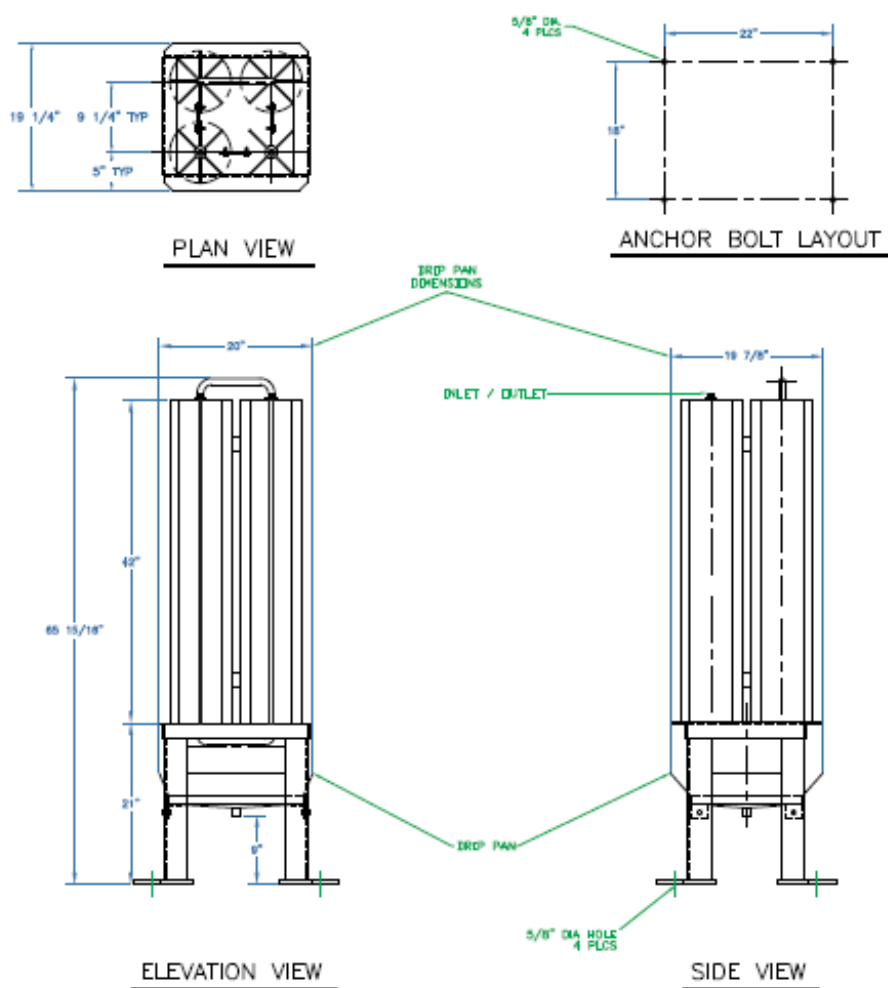
Fin Assembly Details			
Assembly	Extrusions	Footprint (inches)	Footprint (mm)
A2ALB	2	12 x 20	305 x 508
A4ALB	4	20 x 20	508 x 508
A6ALB	6	20 x 30	508 x 762
A8ALB	8	20 x 40	508 x 1016
A10ALB	10	20 x 50	508 x 1270
A12ALB	12	30 x 40	762 x 1016

Typical Dimensions (Model Shown: AV600-A2ALB)



All vaporizers in the AV600 Series are the same height, 51 1/2" [1308 mm].

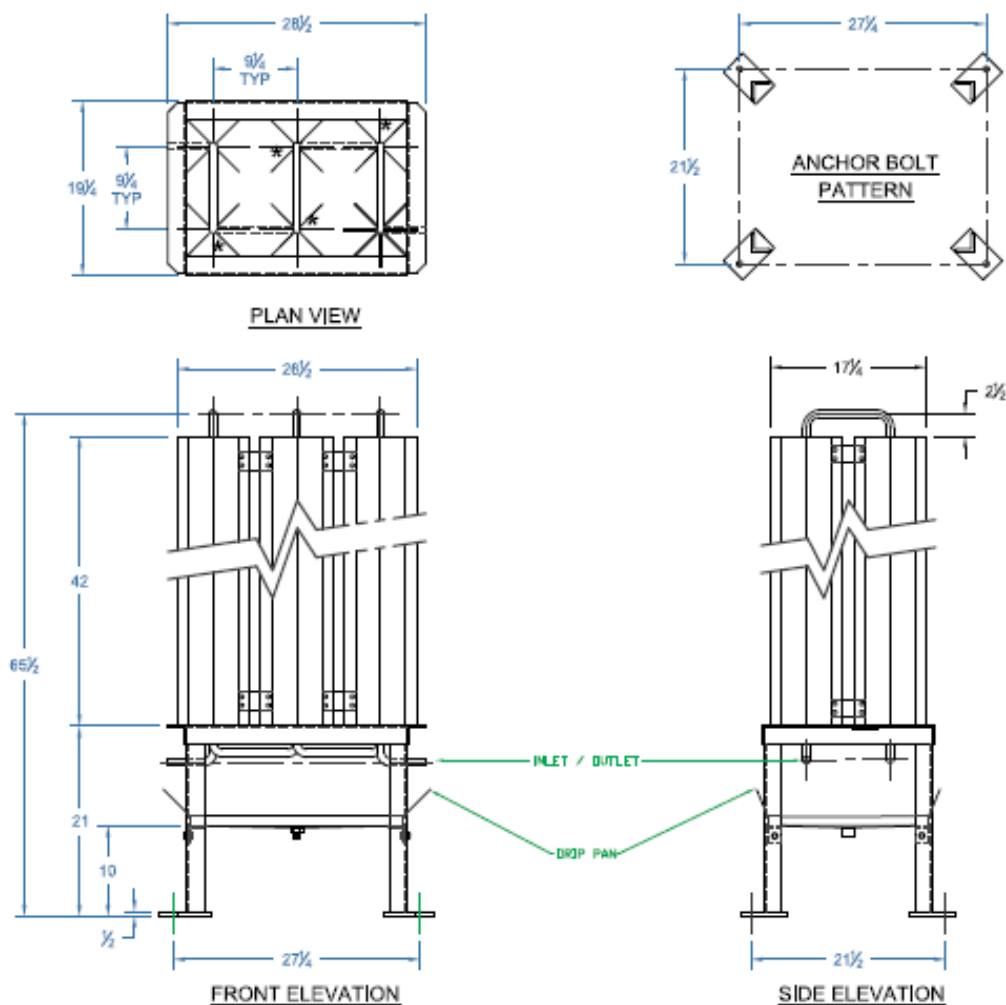
Dimensions



AV600 - - **A4ALB** -
 A **B** **C** **D**

BeaconMedaes AV600 Series Model Number Chart			
Variable	Definition	Allowable Value	Description
A	Inlet Pressure	600	600 psig [41 barg]
B	Fluid	580A	Argon
		580N	Nitrogen
		540	Oxygen
C	Fin Assembly	A4ALB	1000 scfh [28.3 m ³]
D	Option	DP	Drip Pan (Built-In)
		CFOS	Cleaned for Oxygen Service

Dimensions



AV600 - A - B - C - D

BeaconMedaes AV600 Series Model Number Chart			
Variable	Definition	Allowable Value	Description
A	Inlet Pressure	600	600 psig [41 barg]
B	Fluid	580A	Argon
		580N	Nitrogen
		540	Oxygen
C	Fin Assembly	A6ALB	1500 scfh [42.5 m ³]
D	Option	DP	Drip Pan (Built-In)
		CFOS	Cleaned for Oxygen Service

Height Comparison

