

Horizontal Filter/Separator Vessels

HV and HVS Series. Designed Specifically for Hydrant Carts and Refuelers. EI 1581 6th Edition Qualified. Cat C, Type S-LW and Cat M, Type S.

FEATURES

- Reduced Weight is vital in the manufacture of refuelers and hydrant carts. Parker Velcon Filter/Separators drastically reduce the weight of the vessel.
- Reduced Size is another important factor in designing refuelers and hydrant carts. Parker Velcon Filter/Separators reduce the size of the vessel by up to 50%.
- Easier Maintenance. One piece cartridge design provides faster changeout and fewer potential gasket leaks than stacked cartridges.
- Industry Qualified. Parker Velcon HV and HVS Series Horizontal Filters/Separators are fully qualified to EI 1581, 6th Edition. These units incorporate one piece threaded base coalescer elements for easy, reliable installation and reusable one piece PTFE coated screen separators.

SPECIFICATIONS

- 150 psi ASME Code & EI 1596 Construction
- Victaulic Connections (Flanges Optional)
- Swing Bolted Closure
- Buna-N O-ring Cover Seal
- Spider Assembly to stabilize cartridges
- EI 1541 Epoxy Coated Interior, Primed Exterior
- Fittings for Pressure Relief Valve, Air Vent, and Pressure Gauge
- Sump is covered with plywood when shipped. Bolted steel cover is available as an option



Model No. HV1633M
A fully-qualified 300 USGPM Filter/Separator.
End Opening unit is only 16 inches in diameter
and 47 inches long.



Model No. HVS2228M
A fully-qualified 510 USGPM Filter/Separator.
Side Opening unit is only 22 inches in diameter
and 65 inches long.

MOBILE FUELING

HVS SERIES SIDE OPENING VESSELS

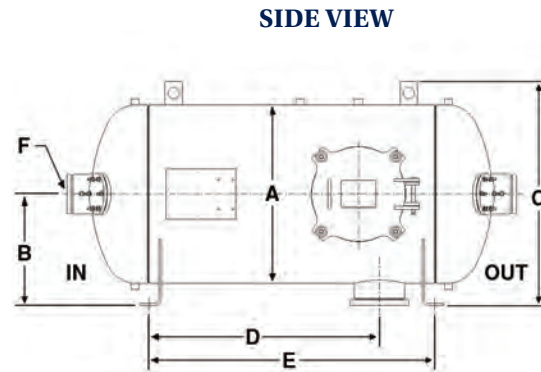
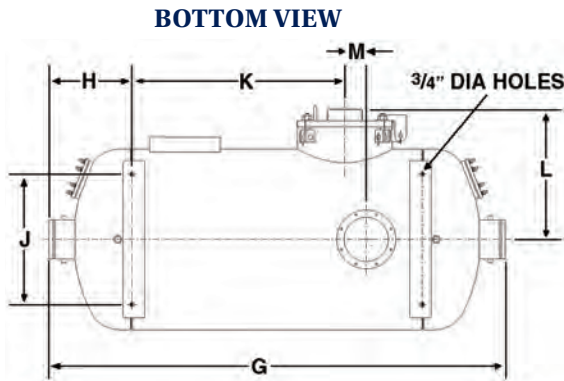
A side opening vessel allows access to the cartridges from the main shell of the vessel. The cartridges are mounted in an “end opposed” configuration, with coalescers mounted on one end of the vessels and separators mounted on the other. These vessels are often used on refueling vehicles that require special orientation of the vessel for servicing the cartridges.

Parker AFD has qualified several side opening vessel configurations, shown below, for EI1581 5th Edition, as follows: Category “C” vessels are for use in commercial applications where minimal amounts of water can be expected in the jet fuel. Type “S-LW” vessels can be used for mobile applications where minimal



Photo courtesy of Rampmaster

amounts of water can be expected in the jet fuel.



SIDE OPENING VESSEL DIMENSIONS**

Vessel Model	Dimensions (in.)												Wt w/Skid (lbs)	Vol (US Gal)
	A	B	C	D	E	F	G	H	J	K	L	M		
HVS2222M	22	14	29	30 ½	41	4	60	9 ½	16	30 ½	16 ½	0	1070	85
HVS2228M	22	14	29	35 ½	46	4	65	9 ½	16	35 ½	16 ½	0	1100	95
HVS2628M	26	16	32	36	45	6	71	13	21	30	19 ½	6	1340	132
HVS2828M	28	18	36	36	45	6	71	13	21	30	19 ½	6	1580	150
HVS3133M	31	19	38 ¼	36	49	6	77	14	22	36	22 ½	0	2000	195

**Dimensions shown are for estimating purposes only. For exact dimensional detail, obtain a certified copy of specific vessel drawing.

**SIDE OPENING VESSELS CARTRIDGE SELECTION
 CATEGORY C, TYPE S-LW**

Vessel Model	Flow Rate (GPM)	Coalescer Element		Separator Element	
		Qty.	Model	Qty.	Model
HVS2222M	380	7	I-622C5TB	3	SO-609V5
HVS2228M	510	7	I-628C5TB	4	SO-609V5
HVS2628M	635	9	I-628C5TB	5	SO-609V5
HVS2828M	730	10	I-628C5TB	6	SO-609V5
HVS3133M	1020	12	I-633C5TB	8	SO-609V5

HV SERIES END OPENING VESSELS

The coalescer and separator cartridges on end opening vessels are mounted on the same end. These vessels are normally used on refueling vehicles.

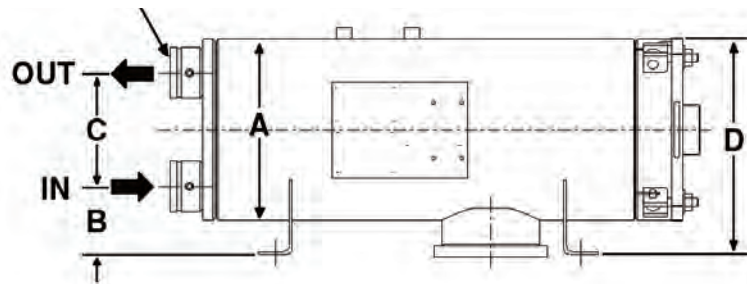
Parker AFD has qualified several end opening vessel configurations, shown below, for EI 1581 6th Edition, as follows: Category "C" vessels are for use in commercial Jet-A or Jet-A1 fuel.

Category "M" vessels are for use in military JP-8 or JP-5 fuel. Testing to Category "M" qualifies for both Category "M" and Category "C".

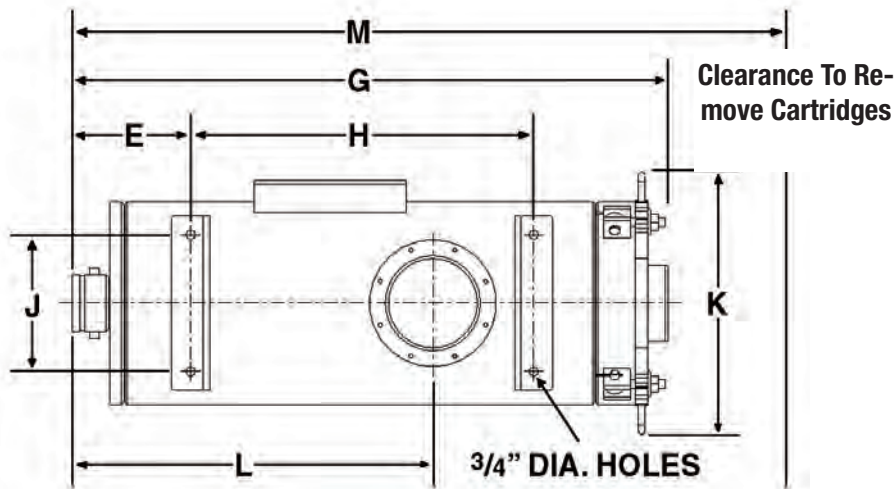
Type "S-LW" vessels are used for mobile applications where minimal amounts of water can be expected in the jet fuel. Type "S" filter/separators are used locations where significant levels of both dirt and water can be expected.



SIDE VIEW



BOTTOM VIEW



*End Opening Vessel Dimensions***

Model	Dimensions (in.)												Wt w/ Skid (lbs)	Vol (US Gal)
	A	B	C	D	E	F	G	H	J	K	L	M		
HV1414M	14	6 ¾	8 ½	17 ¾	4 ⅞	2	28 ¾	18 ¼	10 ¾	18 ⅞	13 ⅞	43	350	17
HV1416M	14	6 ¾	8 ½	17 ¾	4 ⅞	2	30 ¾	20 ¼	10 ¾	18 ⅞	15 ⅞	45	400	18
HV1422M	14	6 ¾	8 ½	17 ¾	4 ⅞	2	36 ⅞	26 ¼	10 ¾	18 ⅞	21 ⅜	51	420	20
HV1622M	16	6	10	19	9 ⅞	4	36 13/16	16	10 ¾	20 ⅞	17 ¼	56	440	32
HV1633M	16	6	10	19	9 ⅞	4	46 ⅞	27	10 ¾	20 ⅞	28 ⅞	79	450	42
HV2233M	22	10 ½	10	30	11 ½	4	52 11/16	29	16	27 1/16	29	85	800	69
HV2238M	22	10 ½	10	30	11 ½	4	55	34	16	27 1/16	37 ¾	92	835	77
HV2244M	24	9	12 ½	30	15	6	63 13/16	31 ½	16	27 1/16	32 ⅞	107	870	87
HV2456M	24	12	11 ½	33	15 ⅞	6	72 11/16	38	18	33 1/2	36 ⅞	125	1255	124
HV2828M	28	10 ½	16 ¾	36	12	6	55 ⅞	22 ½	21	34 ⅞	23 ¼	69	1210	120
HV2833M	28	10 ½	16 ¾	36	12	6	61 1/16	28	21	34 ⅞	23 ¼	83	1255	135
HV2838M	28	10 ½	16 ¾	36	12	6	59 15/16	28	21	34 ⅞	23 ¼	85	1300	150
HV2844M	28	10 ½	16 ¾	36	12	6	64 ½	29	21	34 ⅞	23 ¼	98	1350	166
HV2856M	28	10 ½	16 ¾	36	12	6	75 25/32	41	21	34 ⅞	23 ¼	119	1460	198

**Dimensions shown are for estimating purposes only. For exact dimensional detail, obtain a certified copy of specific vessel drawing.

END OPENING VESSELS CARTRIDGE SELECTION

Vessel Model	Category	Type	Flow Rate GPM(LPM)	Cover Style	Coalescer		Separator	
					Qty	Model	Qty	Model
HV1414M	C	S-LW	70 (265)	Flat	2	I-614C5TB	1	SO-417V5
	M	S	55 (208)			I-614MMTB		
HV1416M	C	S-LW	90 (341)		2	I-616C5TB	1	SO-318V5
	M	S	70 (265)			I-616MMTB		
HV1422M	C	S-LW	125 (473)		2	I-622C5TB	1	SO-324V5
	M	S	100 (379)			I-622MMTB		
HV1622M	C	S-LW	190 (719)		3	I-622C5TB	1	SO-424V5
	M	S	150 (568)			I-622MMTB		
HV1633M	C	S-LW	300 (1136)		3	I-633C5TB	1	SO-436V5
	M	S	240 (908)			I-633MMTB		
HV2233M	C	S-LW	425 (1609)		4	I-633C5TB	2	SO-424V
	M	S	305 (1155)			I-633MMTB		SO-424V5
HV2238M	C	S-LW	495 (1874)		4	I-638C5TB	2	SO-430V
	M	S	365 (1382)			I-638MMTB		SO-430V5
HV2244M	C	S-LW	580 (2196)		4	I-644C5TB	2	SO-436V
	M	S	425 (1609)			I-644MMTB		SO-436V5
HV2456M	C	S-LW	745 (2820)		4	I-656C5TB	2	SO-636V
	M	S	555 (2101)			I-656MMTB		SO-636V5
HV2828M	C	S-LW	615 (2328)		7	I-628C5TB	2	SO-624V
	M	S	405 (1533)			I-628MMTB		SO-624V5
HV2833M	C	S-LW	740 (2801)	7	I-633C5TB	2	SO-636V	
	M	S	550 (2082)		I-633MMTB		SO-636V5	
HV2838M	C	S-LW	865 (3274)	7	I-638C5TB	2	SO-636V	
	M	S	615 (2328)		I-638MMTB		SO-636V5	
HV2844M	C	S-LW	1015 (3842)	7	I-644C5TB	2	SO-640V	
	M	S	690 (2612)		I-644MMTB		SO-640V5	
HV2856M	C	S-LW	1310 (4959)	7	I-656C5TB	2	SO-648V	
	M	S	830 (3142)		I-656MMTB		SO-648V5	

Please contact Parker AFD for additional possible vessel configurations.

Horizontal Filter/Separator Vessels

HV Series - Compact Vessels for Fixed Installations

EI 1581 6th Edition, Cat C/M, Type S

EASIER CARTRIDGE CHANGE

The horizontal filter/separator design provides more convenient access to the cartridges than the vertical design.

EFFLUENT CLEANLINESS

A horizontal filter/separator must be drained to change the elements. This prevents the possibility of getting dirt in the effluent that can occur if the operator does not fully drain a vertical vessel when changing elements. The separator mounting holes on a horizontal vessel are in a vertical plane at the top of the vessel so it is nearly impossible to get dirt in the effluent when cartridges are being changed.

LOWER COST

A horizontal filter/separator will often cost less than a vertical filter/separator of the same rated flow, for the same specifications.

INDUSTRY QUALIFIED

Parker Velcon HV Series Horizontal Filter/Separators are fully qualified to EI 1581, Sixth Edition, Category C, Type S (fixed installations). These units incorporate one piece threaded base coalescer cartridges for easy, reliable installation and reusable one piece PTFE coated screen separators.

SPECIFICATIONS

- 150 psi ASME Code & EI 1596 Construction
- RF Flanged Connections
- Swing Bolted Closure
- Buna-N O-ring Cover Seal
- EI 1541 Epoxy Coated Interior, Primed Exterior



RECOMMENDED ACCESSORIES

The following accessories are recommended for safe effective operation at all installations:

- Automatic Air Vent*
- Pressure Relief Valve*
- Differential Pressure Gauge*
- Sampling Probes
- Interface Control (ballast type float recommended)
- Water Slug Control Valve
- Manual Drain Valve
- ASME Code Stamp
- EI Nameplate

**Required for EI1581 6th edition*

OTHER ACCESSORIES AVAILABLE

- Sump Heater
- Sight Glass

CARTRIDGE SELECTION

Model	Category	Type	Flow Rates GPM (LPM)	Qty	Coalescer Cartridges	Qty	Separator Cartridges
HV1422	C	S	100 (379)	2	I-622C5TB	1	SO-324V5
	M				I-622MMTB		
HV1622	C	S	150 (568)	3	I-622MMTB ⁽¹⁾	1	SO-424V5
	M				I-622MMTB		
HV1633	C	S	240 (908)	3	I-633MMTB ⁽¹⁾	1	SO-436V5
	M				I-633MMTB		
HV2233	C	S	365 (1382)	4	I-633C5TB	2	SO-430V
	M		315 (1192)		I-633MMTB		SO-430V5
HV2244	C	S	495 (1874)	4	I-644C5TB	2	SO-436V
	M		425 (1609)		I-644MMTB		SO-436V5
HV2838	C	S	745 (2820)	7	I-638C5TB	2	SO-636V
	M		615 (2328)		I-638MMTB		SO-636V5
HV2844	C	S	870 (3293)	7	I-644C5TB	2	SO-640V
	M		690 (2612)		I-644MMTB		SO-640V5
HV2856	C	S	1130 (4278)	7	I-656C5TB	2	SO-648V
	M		830 (3142)		I-656MMTB		SO-648V5
HV3456	C	S	1420 (5375)	10	I-656C5TB	5	SO-648V5
	M		1250 (4732)		I-656MMTB	3	

Notes: 1. Testing to Category "M" qualifies for both Category "M" and Category "C".

DIMENSIONAL DATA

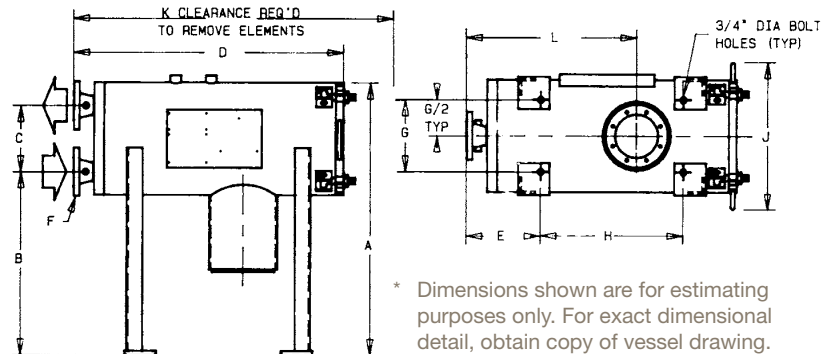
Model No.	Dimensions in.(mm)*										
	A	B	C	D	E	F	G	H	J	K	L
HV1422	35 $\frac{3}{4}$ (10897)	25 $\frac{1}{8}$ (7658)	8 $\frac{1}{8}$ (2477)	35 $\frac{1}{16}$ (906)	9 $\frac{3}{8}$ (238)	2 (51)	9 (229)	18 (457)	18 $\frac{1}{2}$ (470)	56 (1422)	21 $\frac{1}{2}$ (546)
HV1622	36 $\frac{3}{8}$ (11087)	23 $\frac{3}{8}$ (7125)	10 (3048)	35 $\frac{1}{16}$ (891)	9 $\frac{3}{8}$ (238)	4 (102)	13 (330)	16 (406)	20 $\frac{3}{8}$ (524)	58 (1473)	17 $\frac{1}{2}$ (445)
HV1633	36 $\frac{3}{8}$ (11087)	23 $\frac{3}{8}$ (7125)	10 (3048)	45 $\frac{1}{16}$ (1157)	9 $\frac{3}{8}$ (238)	4 (102)	13 (330)	27 (686)	20 $\frac{3}{8}$ (524)	80 (2032)	28 $\frac{3}{8}$ (727)
HV2233	53 (16154)	38 $\frac{1}{2}$ (11735)	10 (3048)	50 $\frac{3}{4}$ (1289)	14 $\frac{7}{16}$ (367)	4 (102)	16 (406)	23 $\frac{1}{2}$ (597)	27 $\frac{1}{16}$ (687)	85 (2159)	29 (737)
HV2244	53 (16154)	38 $\frac{1}{2}$ (11735)	10 (3048)	62 $\frac{1}{4}$ (1581)	14 $\frac{7}{16}$ (367)	4 (102)	16 (406)	29 $\frac{1}{2}$ (749)	27 $\frac{1}{16}$ (687)	105 (2667)	29 $\frac{1}{16}$ (745)
HV2838	55 $\frac{3}{4}$ (16993)	34 $\frac{1}{4}$ (10439)	16 $\frac{3}{4}$ (5105)	57 (1448)	15 (381)	6 (152)	22 (559)	22 (559)	34 $\frac{1}{2}$ (876)	83 (2108)	27 (686)
HV2844	55 $\frac{3}{4}$ (16993)	34 $\frac{1}{4}$ (10439)	16 $\frac{3}{4}$ (5105)	61 (1549)	16 (406)	6 (152)	22 (559)	22 $\frac{1}{2}$ (572)	34 $\frac{1}{2}$ (876)	93 (2362)	33 (838)
HV2856	55 $\frac{3}{4}$ (16993)	34 $\frac{1}{4}$ (10439)	16 $\frac{3}{4}$ (5105)	67 $\frac{3}{4}$ (1721)	15 (381)	6 (152)	22 (559)	42 (1067)	34 $\frac{1}{2}$ (876)	122 (3099)	45 (1143)
HV3456	65 $\frac{3}{8}$ (19926)	38 $\frac{3}{8}$ (11697)	20 (6096)	82 $\frac{1}{2}$ (2096)	18 $\frac{1}{16}$ (468)	6** (152)	28 (711)	38 $\frac{1}{4}$ (972)	39 $\frac{3}{4}$ (1010)	124 (3150)	37 $\frac{1}{2}$ (953)

Notes: HV-14, -16 and -22 series filter/separators have flat covers while the HV-28, and HV-34 series have domed covers.

** If 8 in. flanges are desired, specify P/N 180-CC.

WEIGHTS AND VOLUMES

Model	Weight With Skid lbs(kg)	Volume Gal.(Ltr.)
HV1422	390 (177)	20 (76)
HV1622	435 (197)	28 (106)
HV1633	475 (215)	37 (140)
HV2233	800 (363)	73 (276)
HV2244	860 (363)	90 (341)
HV2838	1050 (476)	130 (492)
HV2844	1100 (499)	145 (549)
HV2856	1200 (544)	176 (666)
HV3456	1800 (816)	290 (1098)



* Dimensions shown are for estimating purposes only. For exact dimensional detail, obtain copy of vessel drawing.