

Two-Stage Vertical Coalescer Separator Housings

VCS Series



Facet VCS Series two-stage vertical coalescer separator housings are mechanical devices designed to filter solids and separate two immiscible liquids. Using Facet's first-stage coalescer cartridges and second stage separator cartridges, they provide the highest degree of water and solids removal available.

These quality Facet products are designed for installations in petrochemical plants, refineries, power plants, bulk storage terminals, offshore platforms, manufacturing plants and many other industrial applications.

Standard Housing Designs

- Body: Welded carbon steel construction — other materials available by request
- ASME Code, Section VIII, Div. 1, stamped and certified
- Designed for 150 psi @ 250 °F (10.34 bar @ 121 °C) — higher pressures and temperatures available by request
- Inlet and outlet permanently marked
- Exterior: Prime coated
- Swing bolt head closures
- Head Gasket: Buna-N o-ring —other materials available by request
- Head lift furnished on 18" (457 mm) OD and larger

Standard Connections

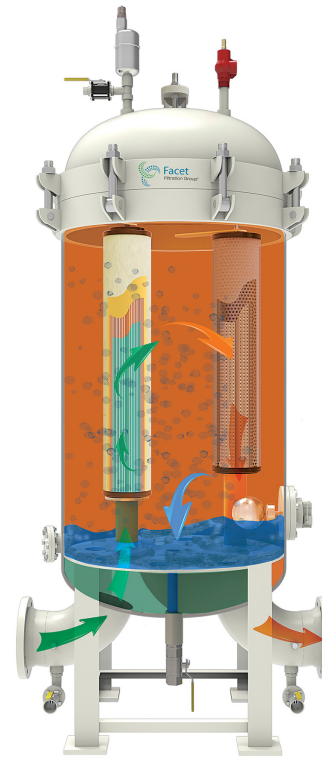
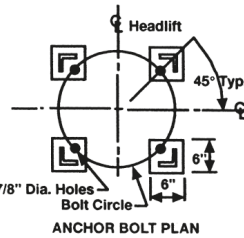
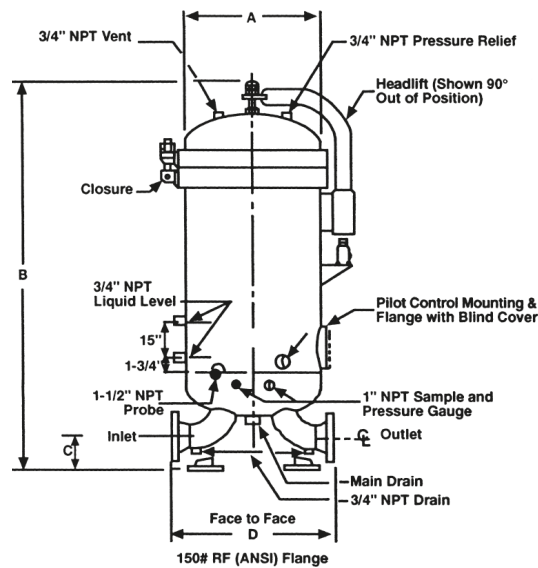
- Inlet and outlet: 150# RF (ANSI) flanged
- All other connections are 3000# NPT couplings

Options

- Automatic air eliminator
- Differential pressure gauge
- Immersion heaters
- Liquid level gauge
- Pressure relief valve
- Sampling probe
- Special connections available
- Drain valves
- Blind cover for pilot control mounting flange
- Interior epoxy coating

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DIMENSIONS

MODEL NUMBER	HEAD STYLE	CONNECTIONS				DIMENSIONS								DRY WEIGHT W/ CTGS.		HOUSING LIQUID VOLUME		GASKET PART NUMBER
		INLET / OUTLET		MAIN DRAIN		A		B		C		D						
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm					
VCS-222-122	Flat	2	51	1	25	16	406	51 5⁄8	1311	6	152	17	432	600	272	34	129	609919
VCS-243-222	Flat	3	76	1	25	18	457	76 5⁄8	1946	6	152	23	584	700	318	58	220	697181
VCS-328-222	Flat	3	76	1	25	20	508	63 5⁄8	1616	6	152	23	584	750	340	60	227	609920
VCS-343-228	Flat	4	102	1	25	20	508	77 3⁄4	1975	6	152	28	711	845	383	78	295	609920
VCS-443-328	Flat	4	102	1	25	24	610	80	2032	6	152	28	711	995	451	110	416	694956
VCS-456-428	Flat	6	152	1	25	24	610	96 3⁄8	2448	7 1⁄2	191	36	914	1050	476	137	519	694956
VCS-643-428	Flat	6	152	1	25	26	660	85 1⁄4	2165	7 1⁄2	191	37	940	1100	499	132	500	678775
VCS-743-433	Dome	6	152	1	25	28	711	93 7⁄8	2384	7 1⁄2	191	36	914	1300	590	165	625	676384
VCS-656-533	Dome	6	152	1 1⁄2	38	28	711	107 5⁄8	2734	7 1⁄2	191	36	914	1375	624	200	757	676384
VCS-843-533	Dome	6	152	1 1⁄2	38	30	762	95 1⁄4	2419	7 1⁄2	191	36	914	1450	658	195	738	691977
VCS-1043-633	Dome	8	203	1 1⁄2	38	34	864	99 3⁄8	2524	9	229	48	1219	1950	885	250	946	604459
VCS-856-733	Dome	8	203	1 1⁄2	38	32	813	113 1⁄2	2883	9	229	46	1168	1850	839	265	1003	697801
VCS-1243-733	Dome	8	203	1 1⁄2	38	36	914	101 3⁄8	2575	9	229	48	1219	2150	975	290	1098	678228
VCS-1343-833	Dome	8	203	2	51	38	965	102 1⁄4	2597	9	229	48	1219	2350	1066	330	1249	678725
VCS-1643-1033	Dome	10	254	2	51	42	1067	107 1⁄4	2724	10	254	54	1372	3250	1474	425	1609	678677
VCS-1943-1528	Dome	10	254	2	51	48	1219	104 1⁄2	2654	10	254	60	1524	3662	1661	458	1734	693058
VCS-1656-1728	Dome	10	254	2	51	48	1219	119	3023	10	254	60	1524	3788	1718	571	2161	693058
VCS-2056-2228	Dome	12	305	2	51	54	1372	124 11⁄16	3167	12	304	69	1753	4400	1996	890	3369	679052
VCS-2456-2628	Dome	12	305	2	51	60	1524	128 1⁄2	3264	12	305	71	1803	5625	2551	1155	4372	681407
VCS-2856-3028	Dome	14	356	2	51	66	1676	142 7⁄8	3629	14	356	80	2032	6450	2926	1380	5223	679054

NOTES: Dimensions shown are intended for estimating purposes only. Contact your Facet representative for certified drawings.



FLOW RATES

(Subject to Limitations Contained in Footnotes)

MODEL NUMBER	MAXIMUM FLOW RATES RECOMMENDED FOR VISCOSITIES SHOWN ⁽²⁾																							
	PERF. ⁽¹⁾		31 SSU		33.0 SSU		36.0 SSU		39.0 SSU		42.3 SSU		45.5 SSU		52.0 SSU		58.8 SSU		97.5 SSU		150.0 SSU		200.0 SSU	
	Solids	Water	1 CS		2.2 CS		3.0 CS		4.0 CS		5.0 CS		6.0 CS		8.0 CS		10.0 CS		20.0 CS		32.0 CS		43.0 CS	
	Micron	ppm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
VCS-222-122	25 5 2 0.5	40 10 <10 <5	145	549	120	454	90	341	65	246	50	189	45	170	30	114	25	95	10	38	OA OA 8 6	OA OA 30 23	OA OA 6 4	OA OA 23 15
VCS-243-222	25 5 2 0.5	40 10 <10 <5	270	1022	225	852	165	625	125	473	100	379	80	303	60	227	50	189	25	95	OA OA 14 11	OA OA 53 42	OA OA 10 7	OA OA 38 27
VCS-328-222	25 5 2 0.5	40 10 <10 <5	270	1022	225	852	165	625	125	473	100	379	80	303	60	227	50	189	25	95	OA OA 14 11	OA OA 53 42	OA OA 10 7	OA OA 38 27
VCS-343-228	25 5 2 0.5	40 10 <10 <5	400	1514	335	1268	245	927	185	700	145	549	120	454	90	341	75	284	35	132	OA OA 20 15	OA OA 76 57	OA OA 15 10	OA OA 57 38
VCS-443-328	25 5 2 0.5	40 10 <10 <5	535	2025	445	1684	325	1230	245	927	195	738	160	606	120	454	100	379	50	189	OA OA 27 20	OA OA 102 76	OA OA 20 14	OA OA 76 53
VCS-456-428	25 5 2 0.5	40 10 <10 <5	720	2725	600	2271	440	1665	330	1249	265	1003	215	814	160	606	130	492	65	246	OA OA 37 28	OA OA 140 106	OA OA 27 18	OA OA 102 68
VCS-643-428	25 5 2 0.5	40 10 <10 <5	805	3047	670	2536	490	1855	370	1400	295	1117	240	908	180	681	145	549	70	265	OA OA 41 31	OA OA 155 117	OA OA 31 21	OA OA 117 80
VCS-743-433	25 5 2 0.5	40 10 <10 <5	935	3539	780	2952	570	2157	430	1628	345	1306	280	1060	210	795	170	643	85	322	OA OA 48 36	OA OA 182 136	OA OA 36 27	OA OA 136 102
VCS-656-533	25 5 2 0.5	40 10 <10 <5	1075	4069	895	3388	655	2479	490	1855	395	1495	320	1211	240	908	195	738	95	360	OA OA 55 42	OA OA 208 159	OA OA 41 28	OA OA 155 106
VCS-843-533	25 5 2 0.5	40 10 <10 <5	1075	4069	895	3388	655	2479	490	1855	395	1495	320	1211	240	908	195	738	95	360	OA OA 55 42	OA OA 208 159	OA OA 41 28	OA OA 155 106
VCS-1043-633	25 5 2 0.5	40 10 <10 <5	1340	5072	1115	4220	815	3085	615	2328	490	1855	400	1514	300	1136	245	927	120	454	OA OA 69 52	OA OA 261 197	OA OA 51 35	OA OA 193 133
VCS-856-733	25 5 2 0.5	40 10 <10 <5	1435	5431	1195	4523	870	3293	655	2479	525	1987	430	1628	325	1230	265	1003	130	492	OA OA 74 56	OA OA 280 212	OA OA 55 21	OA OA 208 80
VCS-1243-733	25 5 2 0.5	40 10 <10 <5	1610	6094	1340	5072	980	3709	735	2782	590	2233	480	1817	360	1363	295	1117	145	549	OA OA 83 62	OA OA 314 235	OA OA 62 42	OA OA 235 159
VCS-1343-833	25 5 2 0.5	40 10 <10 <5	1740	6586	1450	5488	1060	4012	800	3028	640	2422	520	1968	390	1476	320	1211	160	606	OA OA 90 68	OA OA 341 257	OA OA 67 45	OA OA 254 170
VCS-1643-1033	25 5 2 0.5	40 10 <10 <5	2140	8100	1785	6756	1605	6075	980	3709	785	2971	645	2441	480	1817	395	1495	195	738	OA OA 110 35	OA OA 416 133	OA OA 83 56	OA OA 314 215

NOTE: The above flow rates are sizing guides only. Calculations of specific service conditions may result in units with flow rates other than those shown above.

OA = On Application

(1) Nominal Micron rating is based on removing 96 to 98% of all solids larger than the rating shown in one pass through a clean cartridge.

(2) Flow rates are based on normal conditions where the interfacial tension between the water and the continuous phase is not less than 36 dynes per centimeter, operating temperature does not exceed 240°F, and pH value between 5 and 9.