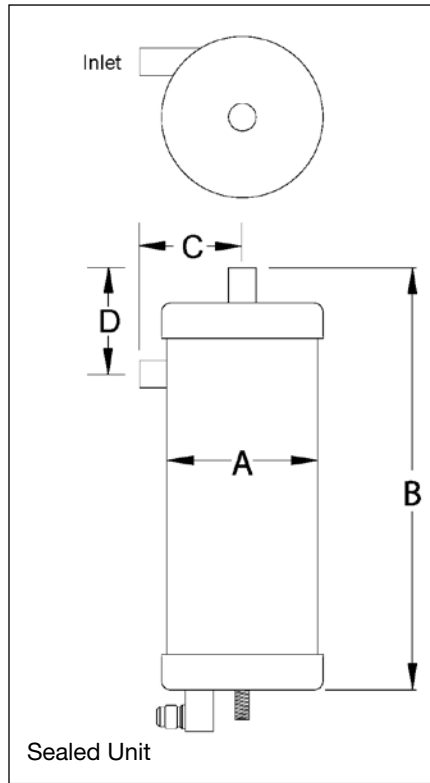


High Pressure Centrifugal Oil Separators

Maximum Working Pressure—675 psig



High Pressure Centrifugal Oil Separators

High pressure centrifugal oil separators are designed to remove large quantities of oil at a wide range of operating capacities. Field tests have shown these oil separators are up to 99% effective—even in high oil loading conditions. For screw compressor applications, a high pressure oil separator/reservoir **without internal float valve** must be used (see page 5).

Select an oil separator based on the system's tonnage under normal operating conditions. This is the capacity or compressor(s) BTUs based on refrigerant gas at the saturated suction and condensing temperatures of the operating system. For optimum sizing, select an oil separator with a capacity closest to the system's load at evaporating temperature. Minimum tonnage is 30% of the rated capacity.

For refrigerants and conditions not listed, see our sizing calculator at www.westermeyerind.com or contact Westermeyer Industries for assistance.

Features

- Welded design for higher strength
- Nitrogen tested for cleanliness
- Powder paint finish
- 675 psig maximum working pressure



	Catalog Number	ODS Conn. Size	Dimensions				Max. Capacity in Tons of Refrigeration		Maximum Discharge (CFM)	Precharge Amount (oz.)
			A	B	C	D	CO ₂	R-410A		
							-20°F	+40°F		
Sealed Units	OSH4-04C	1/2	4"	13"	3"	3.5"	5	3	1.5	15
	OSH4-05C	5/8	4"	15"	3"	3.5"	17	10	5	15
	OSH4-07C	7/8	4"	17"	3"	4"	25	16	7.5	15
	OSH4-11C	1-1/8	4"	19"	3"	4"	33	21	10	15
	OSH6-13C	1-3/8	6"	15"	4.5"	5"	43	27	13	40
	OSH6-15C	1-5/8	6"	17"	4.5"	5"	57	35	17	40

See page 15 for oil separator sizing information. All capacities shown for R-410A are based on 100°F condensing temperature. All capacities shown for CO₂ are based on 20°F condensing temperature.

Centrifugal, Coalescing, and Conventional Oil Separator

Discharge CFM Sizing Chart

Example of Use

Find the DCFM value for the refrigerant being used at the appropriate evaporating and condensing temperature. Then, multiply this value by the system tonnage at the operating conditions. Use this value to select an oil separator with the nearest maximum DCFM value to the calculated DCFM.

i.e. R-134A, 20 Tons @ 20F/110F = 1.02 DCFM. Total DCFM = 20.40 (20 tons x 1.02 DCFM)

For refrigerants and conditions not listed, see our sizing calculator at www.westermeyerind.com or contact Westermeyer Industries for assistance.

Evaporating Temperature										
		-40°F	-30°F	-20°F	-10°F	0°F	10°F	20°F	30°F	40°F
R-134A Condensing Temperature	80°F	1.60	1.56	1.52	1.48	1.45	1.42	1.39	1.36	1.33
	90°F	1.44	1.40	1.37	1.33	1.30	1.27	1.24	1.22	1.19
	100°F	1.31	1.27	1.24	1.21	1.17	1.15	1.12	1.09	1.07
	110°F	1.20	1.17	1.13	1.10	1.07	1.04	1.02	0.99	0.97
	120°F	1.11	1.08	1.04	1.01	0.98	0.95	0.93	0.91	0.88
R-22 Condensing Temperature	80°F	1.03	1.01	1.00	0.98	0.97	0.96	0.94	0.93	0.92
	90°F	0.93	0.91	0.90	0.89	0.87	0.86	0.85	0.84	0.83
	100°F	0.84	0.83	0.81	0.80	0.79	0.78	0.77	0.76	0.75
	110°F	0.77	0.75	0.74	0.73	0.72	0.71	0.70	0.69	0.68
	120°F	0.71	0.69	0.68	0.67	0.65	0.64	0.63	0.62	0.61
R-404A Condensing Temperature	80°F	1.02	1.00	0.96	0.94	0.92	0.89	0.87	0.85	0.83
	90°F	0.95	0.92	0.89	0.86	0.84	0.81	0.80	0.78	0.76
	100°F	0.88	0.85	0.81	0.79	0.76	0.74	0.72	0.70	0.68
	110°F	0.83	0.80	0.77	0.74	0.71	0.69	0.67	0.65	0.63
	120°F	0.77	0.75	0.71	0.68	0.66	0.63	0.61	0.59	0.58
R-410A Condensing Temperature	80°F					0.62	0.62	0.61	0.60	0.60
	90°F					0.56	0.55	0.55	0.54	0.53
	100°F					0.50	0.50	0.49	0.49	0.48
	110°F					0.46	0.45	0.44	0.44	0.43
	120°F					0.42	0.41	0.40	0.40	0.39
CO₂ Condensing Temperature	20°F	0.37		0.37		0.37				
	40°F	0.30		0.30		0.30				
	60°F	0.23		0.23		0.23				