High Pressure Centrifugal Oil Separators/Reservoirs

Maximum Working Pressure—675 psig

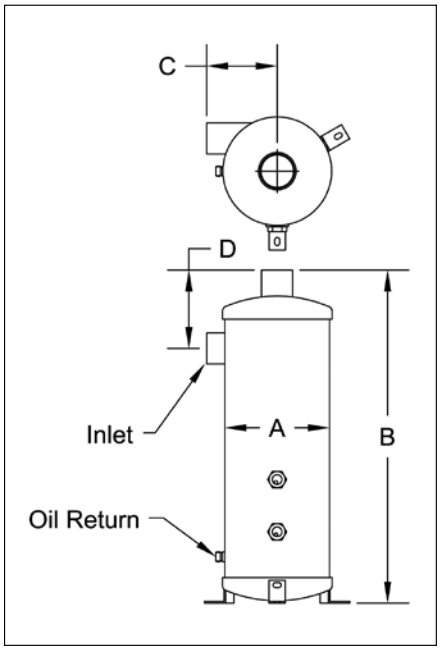
High Pressure Centrifugal Oil Separators/Reservoirs

This product is designed to remove large quantities of oil at a wide range of operating capacities. Field tests have shown these oil separators to be up to 99% effective—even in high oil loading conditions. **This separator/reservoir is particularly effective for use with screw compressor systems.**

The oil separator portion is divided from the reservoir by an internal baffle, which protects the oil in the reservoir from the turbulent action of the oil separator. Two sight glasses provide visual indication of the oil level. It is best to maintain the oil level between the two glasses. A 3/8" ODS Rotolock valve is included for installation on the oil return port.

Select an oil separator based on the system's tonnage under normal operating conditions. This is the capacity or compressor(s) BTUs based on the 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 the evaporating temperature. Minimum tonnage is 30% of the rated capacity.

- 675 psig maximum working pressure



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

Catalog Number	ODS Conn. Size	Dimensions				Max. Capacity in Tons of Refrigeration		Maximum Discharge (CFM)	Oil Capacity in gallons
						CO_2	R-410A		
		A	B	C	D	-20°F	+40°F		
OSH4-07RES	7/8	4"	33"	3"	4"	25	16	7.5	2
OSH4-11RES	1-1/8	4"	33"	3"	4"	33	21	10	2
OSH6-13RES	1-3/8	6"	33.5"	4.38"	5"	43	27	12	1.50
OSH6-15RES	1-5/8	6"	33.5"	4.5"	5"	57	35	17	1.50
OSH6-21RES	2-1/8	6"	33.5"	5.25"	5.9"	90	56	27	1.50
OSH8-21RES	2-1/8	8"	25.5"	5.41"	6"	127	79	38	2.00
OSH10-25RES	2-5/8	10"	30"	6.34"	6.5"	253	158	76	2.50
OSH12-31RES	3-1/8	12.75"	30"	7.75"	9"	393	245	118	4.00

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 CO_2 are based on 20°F condensing temperature. **Note: These oil separators must be used with an oil pressure reducing valve. The oil pressure will be the same as discharge pressure.**

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)

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		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
CO_2 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				