

Introduction

Oil separators are used in refrigeration systems that require the compressor lubricating oil to be returned directly to the compressor crankcase under all operating conditions. Using an oil separator will prevent lubricating oil from circulating throughout the system with the refrigerant making the condenser and evaporator more efficient.

Heldon Oil separators are designed for maximum flow with minimal pressure drop while efficiently removing oil from suspension in the refrigerant. Oil removal is achieved using stainless steel membranes that have been optimised for both flow and oil removal. A baffle plate allows separated oil to de-aerate while remaining warm and viscous. A stainless steel float and precision needle and seat are used to achieve automatic oil return to the compressor crankcase.

Heldon Oil separators are constructed from steel with solid copper connections.



Features and Benefits

- Designed for maximum flow and minimal pressure drop.
- Solid copper connectors.
- Optimised separation membrane per mass flow.
- Precision needle and seat, allows only the correct amount of oil to return to the crankcase.
- Internal baffle plate.
- Hermetically sealed stainless steel float.
- Powder coated finish

Manufacturing Standards

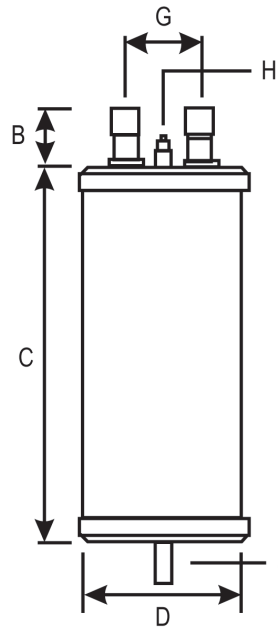
Manufactured in accordance with AS 2971
Safe Working Pressure: 3,200 kPa

Dimensions and Capacities

Nominal Capacity (kw) at Evaporating Temperature °C

Part Number	R22					R404A					R134a				
	-30	-20	-10	0	5	-30	-20	-10	0	5	-30	-20	-10	0	5
3210-6406S	3.0	3.2	3.6	3.8	4.2	3.0	3.2	3.6	3.8	4.2	2.7	2.9	3.2	3.4	3.8
3210-6406	4.1	4.3	5.0	5.1	5.4	4.1	4.3	5.0	5.1	5.4	3.7	3.9	4.5	4.6	4.9
3210-6408	5.8	6.2	6.5	6.8	7.0	5.8	6.2	6.5	6.8	7.0	5.2	5.6	5.9	6.1	6.3
3210-6410	16.9	17.5	18.2	18.8	19.3	15.4	16.4	17.5	18.5	19.3	15.2	15.8	16.4	16.9	17.4
3210-6414	25.4	26.2	26.9	27.6	28.1	24.0	25.2	26.6	28.0	28.8	22.9	23.8	24.2	24.8	25.3
3210-6418	33.1	34.3	35.3	36.4	37.0	31.7	33.4	35.0	36.6	37.4	29.8	30.9	31.8	32.8	33.3
3210-6422	42.1	43.6	44.8	46.3	47.5	40.1	43.3	47.5	47.7	49.0	37.9	39.2	40.3	41.7	42.8
3210-9622	46.7	47.4	48.0	48.6	49.3	43.1	45.2	48.3	49.5	50.8	42.0	42.7	43.2	43.8	44.4
3210-9626	57.7	58.9	60.5	62.0	63.2	54.2	57.3	60.5	63.6	65.1	51.9	53.0	54.4	55.8	56.9
3210-9634	100.1	102.3	103.5	104.6	105.5	93.4	98.4	102.2	106.0	108.6	90.0	92.0	93.1	94.1	95.0

Capacity figures based on:
 Evaporator temperature $t_e = 5^\circ\text{C}$
 Condensing temperature $t_c = 30^\circ\text{C}$
 Pressure drop $P = 7\text{kpa (1 psi)}$



Note: Oil separators must be installed vertically.

Connection	Part No	Dimensions						Weight kg	Carton qty	Oil required ml
		B	C	D	G	H MSAE	J THREAD			
3/8	3210-6406S	32	148	103	48	1/4	M10 x 1.5	1.8	9	480
3/8	3210-6406	32	247	103	48	1/4	M10 x 1.5	2.2	4	480
1/2	3210-6408	33.5	245	103	48	1/4	M10 x 1.5	2.5	4	480
5/8	3210-6410	38.5	300	103	48	1/4	M10 x 1.5	2.9	4	480
7/8	3210-6414	40	344	103	48	1/4	M10 x 1.5	3.2	4	480
1 1/8	3210-6418	45	370	103	48	1/4	M10 x 1.5	3.6	4	480
1 3/8	3210-6422	49	475	103	48	1/4	M10 x 1.5	4.5	4	480
1 3/8	3210-9622	43	352	153	75	3/8	M10 x 1.5	3.2	4	1230
1 5/8	3210-9626	50	429	153	75	3/8	M10 x 1.5	3.5	4	1230
2 1/8	3210-9634	55	432	153	75	3/8	M10 x 1.5	3.6	4	1230

* Oil quantity must be added to separator prior to use