

## 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

### Features

- 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.

### Benefits

- Negligible loss in system efficiency.
- Easier installation with out the need for flux.
- Efficient removal of oil from the refrigerant flow.
- Allows only the correct amount of oil to return to the crankcase.
- Improves quality of returning oil.
- Extended service life.
- Exceeds 500 hour salt spray tests.

## Manufacturing Standards

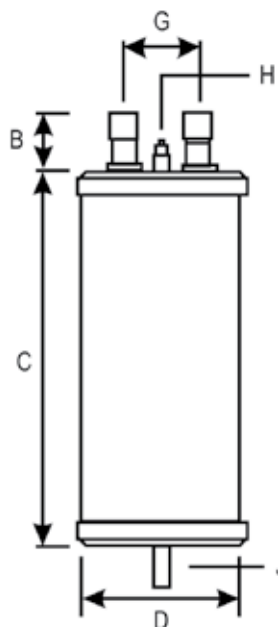
Manufactured in accordance with AS 2971  
Safe Working Pressure: 3,200 kPa

## Dimensions and Capacities

### Nominal Capacity (kw) at Evaporating Temperature °C

Part No.-30	R22					R404A					R134a				
	-20	-10	0	5	-30	-20	-10	0	5	-30	-20	-10	0	5	
<b>3210-6406S</b>	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
<b>3210-6406</b>	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
<b>3210-6408</b>	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
<b>3210-6410</b>	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
<b>3210-6414</b>	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
<b>3210-6418</b>	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
<b>3210-6422</b>	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
<b>3210-9622</b>	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
<b>3210-9626</b>	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
<b>3210-9634</b>	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	<b>3210-6406S</b>	32	148	103	48	1/4	M10 x 1.5	1.8	9	480
3/8	<b>3210-6406</b>	32	247	103	48	1/4	M10 x 1.5	2.2	4	480
1/2	<b>3210-6408</b>	33.5	245	103	48	1/4	M10 x 1.5	2.5	4	480
5/8	<b>3210-6410</b>	38.5	300	103	48	1/4	M10 x 1.5	2.9	4	480
7/8	<b>3210-6414</b>	40	344	103	48	1/4	M10 x 1.5	3.2	4	480
1 1/8	<b>3210-6418</b>	45	370	103	48	1/4	M10 x 1.5	3.6	4	480
1 3/8	<b>3210-6422</b>	49	475	103	48	1/4	M10 x 1.5	4.5	4	480
1 3/8	<b>3210-9622</b>	43	352	153	75	3/8	M10 x 1.5	3.2	4	1230
1 5/8	<b>3210-9626</b>	50	429	153	75	3/8	M10 x 1.5	3.5	4	1230
2 1/8	<b>3210-9634</b>	55	432	153	75	3/8	M10 x 1.5	3.6	4	1230

\* Oil quantity must be added to separator prior to use