

## LIQUID RECEIVERS

### Introduction

Liquid Receivers collect the condensed liquid refrigerant exiting the condenser. Their internal volume allows them to store this refrigerant during fluctuating load conditions. Sized correctly they can store the entire refrigerant charge of a system during pump down. A pickup tube at the vessels outlet guarantees that a liquid seal is established ensuring only liquid refrigerant enters the liquid line.

Heldon manufacture a wide range of Liquid Receivers in both Vertical and Horizontal configurations. A Standard range of Vertical Receivers is available from 1.4 litres through to 14.5 litres. Larger Vertical or Horizontal configurations up to 250 litres in volume can be manufactured to suit individual customer needs, all with short lead times.

Built to either AS 1210 or AS 2971 standards, Heldon's manufacturing plant has the capability to produce pressure vessels with shell diameters ranging from 100mm through to 508mm. Suitable for use with all current refrigerants, vessels can be specifically made to suit R410A, CO<sub>2</sub> or Ammonia applications.

Made to order receivers can be fitted with a range of service valves, sight glass combinations, liquid level sensors and pressure relief valve access ports. Custom bracketery to suit customer specifications is also available.



### Features

1. Designed for Maximum Flow & Minimum Pressure Drop.
2. Manufactured & Tested to all relevant pressure vessel codes
3. In stock or short lead times for manufacture.
4. MTO Shell Diameters available: 100mm, 114mm, 165mm, 219mm 273mm, 323mm, 357mm, 406mm, 457mm and 508mm.
5. Large vessels can feature Full Flow Rotalock Valves with copper tails up to 1-5/8 ID.
6. Cast Iron Service Valves with 1-5/8 or 2-1/8 ID Flange sweat connections available.
7. Copper or Steel Pickup Tubes available in diameters of: 1/2, 3/4, 1-3/8 & 1-5/8 inches.
8. 3/8 or 1/2 NPT Couplings available on larger vessels.
9. Rotalock Sight Glasses or 2-1/4 Liquid Indicators can be specified on larger vessels.
10. Custom bracketery available for larger vessels.
11. Standard Operating Pressure's available for Heldon Liquid Receivers can be up to 4,800 kPa.

### Benefits

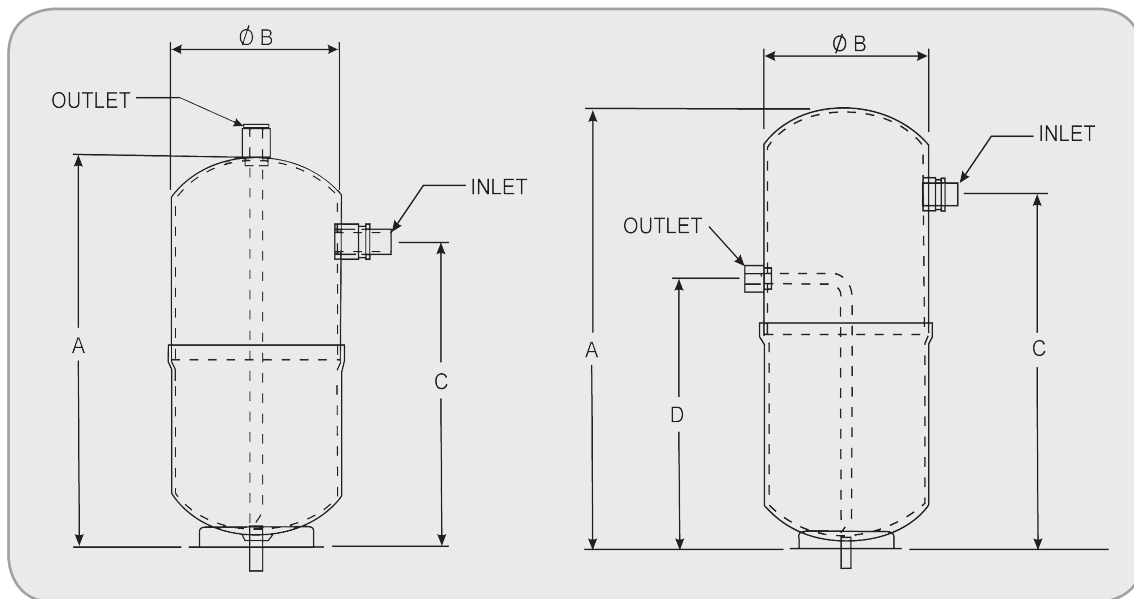
1. Negligible loss in system efficiency.
2. Verified vessel integrity and quality.
3. Availability or quick turn-around guaranteed.
4. Vessels can be made to suit your specific application.
5. Offers flexibility of choice.
6. Heavy Duty Service Valves for the toughest conditions.
7. Custom made to your specifications.
8. Liquid Level Alarms & Pressure Relief Valves can be installed easily.
9. Visual inspection of liquid level provides valuable information of plant performance.
10. Liquid Receiver can become the platform for system auxiliaries.
11. Suitable for use with a wide range of refrigerants.

### Manufacturing Standards

Manufactured in accordance with AS 1210 or AS2971.  
Safe Working Pressure: 3,200 kPa or higher is available on request.

Dimensions and Capacities

Standard Vertical Liquid Receivers											
Part No.	Conn. Inlet (Inches)	Conn. Inlet Position	Conn. Outlet Inches	Conn. Outlet Position	Overall Height (mm) A	Dia. (mm) B	Inlet Height (mm) C	Outlet Height (mm) D	Volume (litres)	Weight (kg)	Design Pressure (kPa)
3310-044014	1/4 ID copper tail	Side	To suit 3/4" R/L nut	Top	200	100	170	N/A	1.4	1.10	3200
3310-064724	3/8 ID copper tail	Side	To suit 3/4" R/L nut	Side	249	120	195	195	2.4	2.30	3200
3310-084724	1/2 ID copper tail	Side	To suit 3/4" R/L nut	Top	249	120	195	N/A	2.4	2.30	3200
3310-105544	5/8 ID copper tail	Side	To suit 3/4" R/L nut	Side	337	140	272	207	4.4	3.30	3200
3310-167082	To suit 1 R/L nut	Side	To suit 1" R/L nut	Side	396	180	317	317	8.2	6.10	3200
3310-1670109	To suit 1 R/L nut	Side	To suit 1" R/L nut	Side	509	180	430	430	10.9	7.20	3200
3310-1686145	To suit 1 R/L nut	Side	To suit 1" R/L nut	Side	430	219	344	95	14.5	10.30	3200



## Dimensions and Capacities

### Large Vertical Liquid Receivers

Part No.	Volume (litres)	Pump Down* Capacity (kg)	Design Pressure (kPa)	Valve Style	Overall Height (mm)	Dia. (mm)	Standard
					A	B	
HVR-003	79	64	3000	Comp. Valve - 1 5/8	1143	324	AS1210.3
HVR-016	100	81	3000	Comp. Valve - 2 1/8	1186	356	AS1210.3
HVR-001	108	87	2800	RL - 1 3/8 ID 1 3/4 Con.	1692	324	AS1210.3
HVR-008	117	95	3000	Comp. Valve - 1 5/8	1377	356	AS1210.3
HVR-017	128	103	3000	Comp. Valve - 2 1/8	1481	356	AS1210.3
HVR-011	160	129	3000	Comp. Valve - 1 5/8	1481	406	AS1210.3
HVR-012	160	129	3000	Comp. Valve - 2 1/8	1481	406	AS1210.3
HVR-009	167	135	3200	Comp. Valve - 2 1/8	1481	406	AS1210.3
HVR-014	212	171	3000	Comp. Valve - 2 1/8	1567	457	AS1210.3

\*At 80% full @ 32°C R404A

### Large Horizontal Liquid Receivers

Part No.	Volume (litres)	Pump Down* Capacity (kg)	Design Pressure (kPa)	Valve Style	Overall Height (mm)	Dia. (mm)	Standard
					A	B	
HHR-018	42	34	3200	RL - 3/4 ID x 1 1/4 Con.	1264	219	AS1210.3
HHR-014	70	57	2800	RL - 1 3/8 ID x 1 3/4 Con.	1393	273	AS1210.3
HHR-012	105	85	3000	RL - 1 5/8 ID x 1 3/4 Con.	976	406	AS1210.3
HHR-002	108	87	2800	RL - 1 3/8 ID x 1 3/4 Con.	1516	324	AS1210.3
HHR-011	135	109	3000	Comp. Valve - 2 1/8	1565	356	AS1210.3
HHR-008	150	121	3000	RL - 1 3/8 ID x 1 3/4 Con.	1270	406	AS1210.3
HHR-007	163	132	3000	Comp. Valve - 2 1/8	1465	406	AS1210.3
HHR-006	221	179	3200	Comp. Valve - 2 1/8	1465	457	AS1210.3

\*At 80% full @ 32°C R404A

Note: RL = Full Flow Rotalock Service Valve  
Comp. Valve = Cast Iron Service Valve