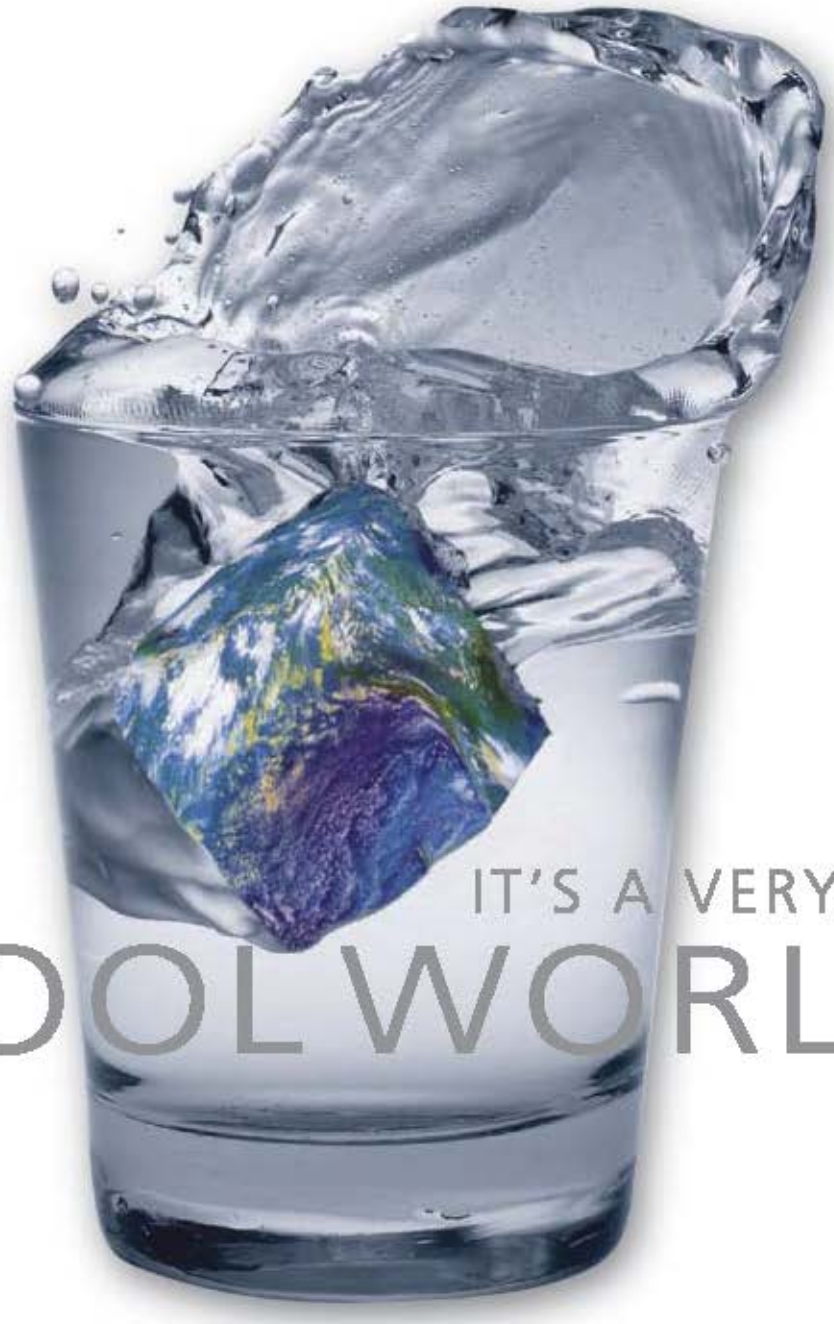
HENRY
TECHNOLOGIES

PRODUCT CATALOGUE



IT'S A VERY...

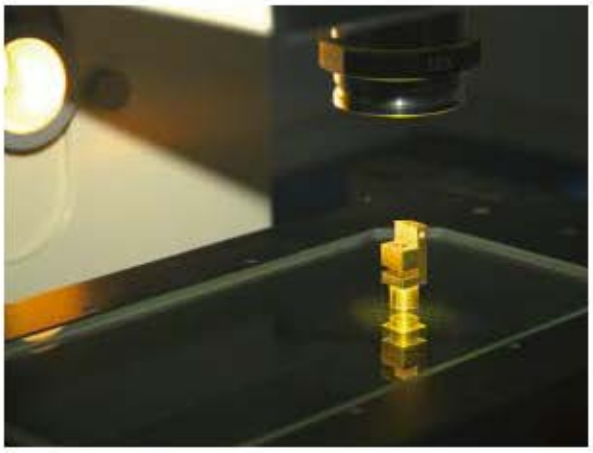
COOLWORLD

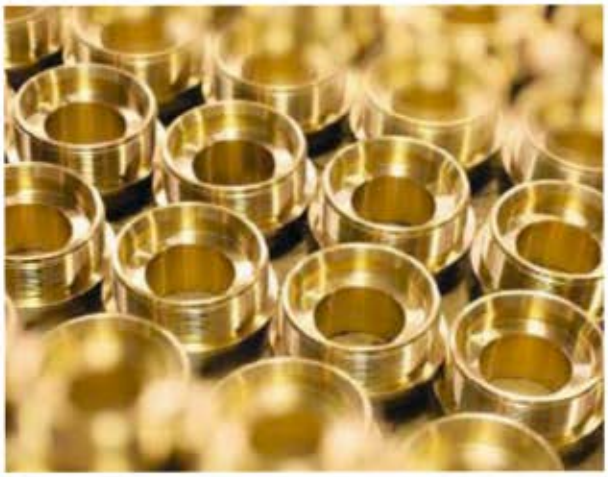
INTRODUCTION

Henry Technologies Taizhou was formed following the joint venture agreement with Henry Technologies Inc based in Beloit, Wisconsin, USA and Heldon Products Australia Pty Ltd based in Melbourne, Australia in July 2010.

Henry Technologies Inc.
A global leader in industrial and commercial components for the refrigeration industry. Our manufacturing and engineering expertise includes flow control products, compressor protective devices, heat transfer products and pressure vessels.

Heldon Products Australia Pty Ltd
A leading manufacturer of refrigeration and air-conditioning components. Established in Melbourne in 1933, Heldon are at the forefront of design, innovation and quality.
In Jan 2011, the 2 factories in Zhejiang were relocated and merged into a larger premise in Jiaojiang, Taizhou as a member of Henry Technologies group. With valves & pressure vessel manufacturing under one roof, we strive to continually improve our customer experience in every aspect of service from technical support to delivery of products.
The Henry Technologies group continues to grow by acquisition of products and firms that uphold our standards of quality, technical leadership, service and value for money. These values have long been associated with our brands Henry Valve, AC&R Components, A1 components, Heldon Products and Chil-Con, in the refrigeration and air conditioning markets.
With over 90 years of experience, The Henry Technologies Group is committed to developing products that solve problems or add value in the changing world of refrigeration and air conditioning. As the market landscape shifts, Henry Technologies is ready with answers to new questions.






PRODUCT CATALOGUE

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THE BRANDS

HENRY

The Henry Valve Company commenced production in Chicago in 1914. Today Henry Technologies is a leading global manufacturer of flow control products for the commercial and industrial refrigeration and air conditioning industries.

AC&R COMPONENTS INC.

AC&R Components Inc. was acquired by The Henry Valve Co in 1970. Today both product ranges are manufactured in production facilities in Chatham, Illinois, USA / Glasgow, Scotland / Taizhou, China.

The AC&R Components brand is a world leader for quality, design and innovation of oil management controls and other compressor protective devices.

CHIL-CON

Chil-Con design and manufacture a range of heat transfer products and pressure vessels for a wide variety of industrial applications.

Chil-Con is located in a modern facility in Brantford,Canada.Since commencing production over 50 years ago,Chil-Con has established a strong reputation for innovation and quality.

A1 COMPONENTS

Founded in Miami in 1946. Today A1 products are synonymous with Electronic controls & Motor protection.

Heldon

Founded in Melbourne, Australia in 1933. Today Heldon Products have an excellent reputation for quality line components.

MECHANICAL OIL LEVEL REGULATORS

The function of a Mechanical Oil Level Regulator is to control the oil level in the compressor crankcase. This protects the compressor from damage.

There are two main types of Mechanical oil level regulators - fixed level and adjustable level.

Applications

Mechanical oil level regulators are used in Low Pressure Oil Management Systems. They are designed for use with reciprocating compressors. They are not recommended for scroll compressors.

All regulators are suitable for HCFC and HFC refrigerants, along with their associated oils. The unique features of the SN model allow it to be used in ammonia, R410A and sub-critical CO_2 applications.

How it works

Oil is fed to the regulator via an inlet connection. An internal needle valve either allows or shuts off an oil supply to the regulator. An internal ball float controls the position of the needle valve. During compressor operation, the crankcase oil level reduces. A reduction in oil level activates the regulator, which ensures the correct crankcase oil level is achieved and maintained.

The adjustable regulator has an in-built mechanism that allows the ball float to be adjusted up or down. This means that the crankcase oil level can be adjusted, in line with the compressor manufacturer's guidelines. The fixed level regulator does not have an adjusting feature hence the crankcase will be maintained at a fixed oil level.

Some regulator models are fitted with an equalisation connection that enables the oil levels between several compressors to be balanced.

In the majority of cases, Henry Technologies oil level regulators can be fitted directly to the compressor sight glass port. Where direct mounting is not possible, a separate adaptor can be used. Refer to Adaptor Kit table.

Main Features

- Proven needle valve design
- Stainless steel ball float
- Special mounting flange - allows direct fitting to standard compressors
- Premium quality neoprene seals
- Seal adaptor kit supplied with each model
- Visual indication of oil level via large sight glass
- Double O-ring stem seal design - adjustable model
- Easy adjustment mechanism - adjustable model

Technical Specification

For all models, excluding SN model:-

Allowable operating pressure = 0 to 31 barg (450psi)

Allowable operating temperature = 0°C to +130°C

For SN model:-

Allowable operating pressure = 0 to 40 barg (580psi)

Allowable operating temperature = -10°C to +110°C

Refer to table for the allowable oil pressure differential for the Henry range of regulators.

Important information

1. As a result of a modification to the Bitzer oil ventura device in May 1997, it is no longer necessary to provide an oil guard on the oil level regulator.
2. Copeland confirm a $^1/_2$ sight glass oil level is acceptable, rather than $^1/_4$ sight glass, for all compressors fitted with an oil management system.

Materials of Construction

The main components; shell, end caps and connections are made from carbon steel. The ball float is made from stainless steel. The needle valve seat is made from either brass or steel, dependent on model.

Part No	Regulator type	Sight glass oil level	Equalisation	Allowable oil pressure differential, bar	Drawing reference	MWP (barg)	Weight (kg)	Compressor sight glass connection	CE Cat
S-9510Z	Fixed	1/2	No	0.35 to 2.1	fig.1	31	2.20	3-Bolt 1.7/8" B.C. & 4-Bolt 50mm B.C.	SEP
S-9530Z	Adjustable	1/4 to 5/8	No	0.35 to 6.2	fig.3	31	2.30		SEP
S-9130	Adjustable	1/4 to 5/8	Yes	0.35 to 6.2	fig.2	31	2.30		SEP

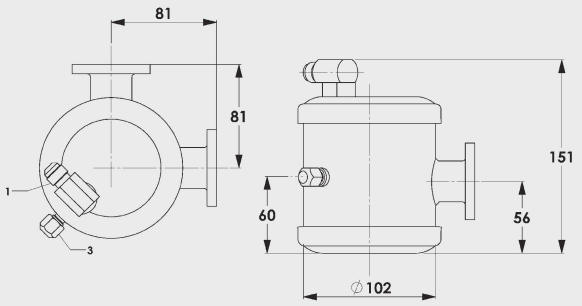


Fig. 1

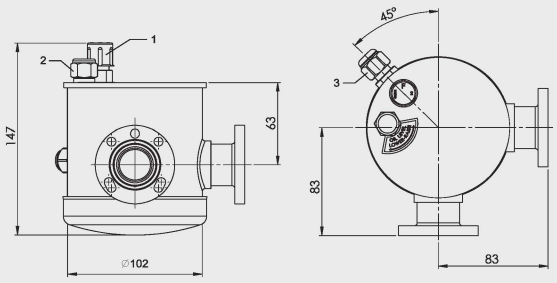


Fig. 2

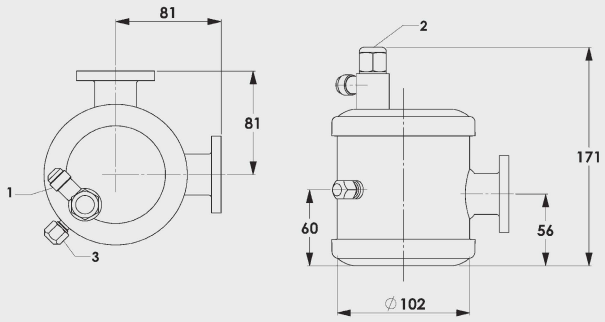


Fig. 3

1. 3/8 SAE Flare inlet
2. Adjustment
3. 1/4 SAE Flare equalisation (optional)

Dimensions in mm

Selection Guidelines

The correct selection depends on the refrigerant type, differential oil pressure acting on the regulator, and the user's preference for crankcase oil level control. Some users prefer the simplicity of fixed regulator type while others prefer adjustable regulator type with equalisation connection, owing to the larger pressure differential, oil level adjustment and equalisation features.

Note: Differential oil pressure is the difference between the supply pressure at inlet to the regulator and the pressure inside the compressor crankcase. Gravity pressure head should be included also, if applicable.

Installation – Main issues

1. To protect the regulator from system debris, an oil strainer, oil filter or oil filter-drier is recommended.
2. The regulator can be fitted directly to 2, 3 and 4 cylinder compressors and to most 6-cylinder compressors that use a standard 3 or 4 bolt sight glass. For other compressor configurations, an adaptor will be required.
3. The regulator should not be subjected to excessive vibration. The operating differential oil pressure should be within the range of the regulator's specification.
4. The oil level must be set and controlled in line with the compressor manufacturer's guidelines.
5. Full instructions are given in the Product Instruction Sheet included with each regulator.

Compressor Model	Sight Glass Configuration	Adaptor Kit Part Number	CE Cat
Bitzer	4-Bolt 50mm B.C.	3-033-253 (note 1)	SEP
Bitzer Octagon	1 1/8"- 18 Thread	3-033-262	SEP
Bock	4-Bolt 50mm B.C.	3-033-244	SEP
Bristol	15/16"- 20 Thread	3-033-242	SEP
Carrier (DA,DR,5F,5H,06D)	1 1/2"- 18 Thread	3-033-204	SEP
Carrier models (EA,ER,OBE & OBCC)	3 Bolt 1 7/8" B.C.	3-033-201	SEP
Copeland (8R & 8D)	3 Bolt 1 7/8" B.C.	3-033-212	SEP
Copeland Discus (4R,6R,9R,MD,MR,NR)	3 Bolt 1 7/8" B.C.	3-033-201	SEP
Copeland (HA,KA,EA,3A,LA,ER & 3R)	1 1/8"-12 Thread	3-033-202	SEP
Dunham (Bush Big 4)	3 Bolt 1 7/8" B.C.	3-033-201	SEP
Frascold	3 Bolt 1 7/8" B.C.	3-033-201	SEP
Maneurop	1 1/8"-18 Thread	3-033-246	SEP
Prestcold (C,E,R,L & LG)	M42 Thread	3-033-216	SEP
Prestcold (K)	1 1/8"-12 Thread	3-033-202	SEP
Royce	3/4"NPT.Thread	3-033-218	SEP
Schnacke-Grasso	2"-16 Thread	3-033-205	SEP
Tecumseh (P,R,S,PA,RA,SA,CK,CM,CH,CG)	1 1/8"-12 Thread	3-033-202	SEP
Trane (M,R)	3 Bolt 1 7/8" B.C.	3-033-201	SEP
Trane (K)	3/4" NPT Thread	3-033-218	SEP
York (GC,GS,JS)	3 Bolt 1 7/8" B.C.	3-033-201	SEP
Universal adaptor kit	ANY	3-033-217 (note 2)	SEP
Equalisation adaptor kit	3 Bolt 1 7/8" B.C.	3-033-226 (note 3)	SEP
Bitzer	4-Bolt 50mm B.C.	A4448 (note 4)	SEP
Standard seal kit	N/A	A4480 (note 5)	-

Notes:-

1. Oil guard feature included. The oil guard feature is only required on Bitzer compressors which were manufactured before May 1997.
2. This adaptor kit has a 3 hole flange to mount the regulator. The compressor end of the kit is a 1 1/4" OD steel tube. The existing compressor sight glass gland or flange must be bored out or bushed down to accept the 1 1/4" tube. The tube is then welded or brazed to the reworked gland or flange and installed on the compressor. A sight glass, seals and hardware are included in the kit.
3. This kit with its 1/4" male flare connection allows non equalised regulators to be interconnected (equalised).
4. This is a shortened version of 3-033-253. The oil guard feature is included. It is designed for the S-95 series regulators.
5. This is the standard seal kit supplied with each S-95 series regulator. It includes all the parts in 3-033-201 along with a special sandwich piece and O-ring for sealing a Bitzer 4 bolt sight glass.

Warning: Regulators should not be operated at 1/4 sight glass or below when using an adaptor with an inside diameter smaller than the regulator flange port.

OIL STRAINERS

The function of an Oil Strainer is to remove system debris from the refrigerant oil. Their purpose is to protect compressors and oil level regulators from damage.

Applications

The Henry Technologies S-91 series oil strainers can be used in both Low and High Pressure Oil Management Systems. The strainers are suitable for HCFC and HFC refrigerants, along with their associated oils.

Although the strainer is compatible with HFC/POE refrigerant/oil combinations, Henry Technologies recommends the use of an oil filter or oil filter-drier. This is due to the scavenging nature of POE oil.

Greater system protection will be achieved using a filter or filter-drier element than with a mesh strainer.

Typically, a strainer is fitted immediately upstream of a mechanical oil level regulator in order to protect the float needle valve from debris. This in turn protects the compressor from damage.

Main features

- Large screen area ensuring maximum capacity and long service
- Low pressure drop
- Stainless steel screen
- SAE connections available

Technical Specification

Allowable operating pressure = 0 to 45 barg (653psi)

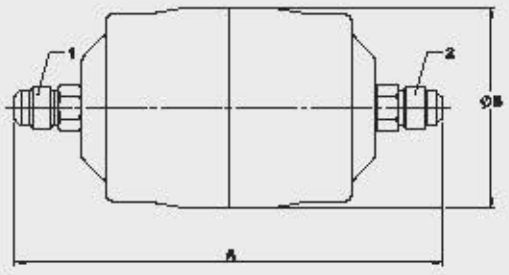
Allowable operating temperature = -10°C to +120°C

Screen = 100 mesh, 71 cm² filter area

Materials of Construction

The main body and connections are made from carbon steel. The mesh screen is made from stainless steel.

Part No	Conn Size (Inch)		Dimensions (mm)		Screen Data		Weight (kg)	CE Cert
	Inlet	Outlet	A	Ø B	Area (cm²)	Mesh		
SH-9185	3/8 SAE Flare	3/8 SAE Flare	143	65.5	7089	100	0.37	SEP



1 Inlet
2 Outlet

OIL STRAINER

Installation – Main Issues

1. The oil strainer must be installed in accordance with the flow direction arrow.
2. It is recommended to install valves on either side of the unit to ease replacement, in the event that the mesh screen becomes blocked.

CONVENTIONAL OIL SEPARATORS

The function of a Conventional Oil Separator is to remove oil from the discharge gas and return it to the compressor, either directly or indirectly. This helps maintain the compressor crankcase oil level and raises the efficiency of the system by preventing excessive oil circulation.

Applications

Conventional oil separators can be used in a wide variety of applications.

Common applications include multi-compressor racks and remote condensing units.

Conventional oil separators are intended for Low Pressure Oil Management Systems, using HCFC and HFC refrigerants along with their associated oils.

These separators are designed for use with scroll and reciprocating type compressors. They are not recommended for screw or rotary vane compressors

How it works

Oil-laden refrigerant gas from the compressor enters the separator and passes through an inlet screen. On entering the separator, the velocity of the gas is reduced. This reduction in velocity causes a change in momentum. The fine oil particles collide with one another to form heavier particles, which adhere to the inlet screen and inside wall of the separator.

The gas then passes through an outlet screen where final separation takes place. Refrigerant gas, with the majority of oil removed, then exits the separator.

The separated oil falls to the bottom of the separator where a float operated needle valve returns the oil to the crankcase or oil reservoir in the same way as the helical oil separator.

With proper selection, oil separation efficiency is typically 80%.

Main Features

- Designed for maximum flow and minimal pressure drop
- Optimized separation membrane per mass flow
- Precision needle and seat
- Internal baffle plate
- Hermetically sealed stainless steel float

Technical Specification

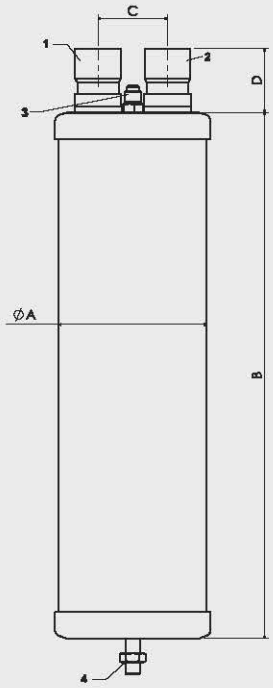
Allowable operating pressure = 0 to 32 barg (464psi)

Allowable operating temperature = -15°C to +120°C

Materials of Construction

The main components; shell, end caps are made from carbon steel. The connections are made from copper or carbon steel. The oil float and valve needle are made from stainless steel. The needle valve seat is made from brass.

Part No.	Conn size (inch)	Dimensions (mm)				Mounting details	Oil required (Liter)	Weight (kg)	CE Cat
		Ø A	B	C	D				
3210-6406S	3/8	102	148	48	32	M10x1.5	0.48	1.8	SEP
3210-6406	3/8	102	245	48	32	M10x1.5	0.48	2.2	SEP
3210-6408	1/2	102	245	48	33.5	M10x1.5	0.48	2.5	SEP
3210-6408NS	1/2	102	245	48	33.5	-	0.48	2.5	SEP
3210-6410	5/8	102	300	48	38.5	M10x1.5	0.48	2.9	SEP
3210-6414	7/8	102	344	48	40	M10x1.5	0.48	3.2	SEP
3210-6418	1 1/8	102	370	48	45	M10x1.5	0.48	3.6	SEP
3210-6422	1 3/8	102	475	48	49	M10x1.5	0.48	4.5	SEP
3210-9622	1 3/8	159	352	75	43	M10x1.5	1.23	3.2	SEP
3210-9626	1 5/8	159	429	75	50	M10x1.5	1.23	3.5	SEP
3210-9634	2 1/8	159	432	75	55	M10x1.5	1.23	3.6	SEP



1. Inlet
2. Outlet
3. Oil return: 3210-64xx, 1/4 SAE Flare; 3210-96xx, 3/8 SAE Flare
4. Mounting details

Part No.	Nominal Capacity(kw)at Evaporating Temperature ℃														
	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
3210-6408NS	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: te = 5℃, Condensing temperature: tc = 30℃, Pressure drop: P = 7kpa(1psi)

SUCTION LINE ACCUMULATORS

The primary function of Suction Line Accumulator is to prevent a sudden surge of liquid refrigerant, or oil, from returning down the suction line and into a compressor. The suction line accumulator is a temporary reservoir for liquid refrigerant and oil.

The accumulator is designed to meter both the liquid refrigerant and oil back to the back to the compressor at controlled rate. This is prevents compressor damage. By metering the liquid refrigerant and oil back to the compressor, the accumulator also helps maintain system efficiency and proper crankcase oil levels.

Applications

Suction line accumulators are installed in air conditioning and refrigeration systems where a sudden return of liquid down the suction line is possible. The product range is designed for use with HFFC and HFC refrigerants, along with their associated oils.

How it works

Refrigerant vapour from the evaporator enters the suction line accumulator, along with any liquid refrigerant or oil. The outlet side of each accumulator is designed to allow refrigerant vapour to return to the compressor. Vapour return is achieved by a special U tube arrangement. On certain models, a tube within a tube arrangement is used as an alternative. Liquid is held at the bottom of the accumulator ready for metering back to the compressor.
Liquid is metered to the compressor via a screened orifice at the bottom of the tube. The vapour carries the metered liquid back to the compressor. Metering of liquid only occurs when the compressor is running.

Main features

- Prevents liquid slugging
- Controlled liquid return
- Designed maximum flow and minimal pressure drop.
- Large strainer fitted to the orifice.
- U tube inlet positioned behind and above vessel inlet.
- Stamped inlet position
- Exceeds 500 hour salt spray tests

Technical Specification

Allowable operating pressure:

SA-Series: 0 to 31 barg (450psi)
Other-Series: 0 to 25 barg (363psi)

Allowable operating temperature = -30℃ to + 50 ℃

Materials of Construction

The shell, end caps and U tube are made from carbon steel. Branch connections are made from copper, the screened orifice is made from copper or brass.

P-Series & SA-Series Suction Accumulator cross reference tables

P-Series No.	Parker Model		SA Series	Alco no.
3100-104016P	PA4065-8-SC		SA-7004	A AS-654
3100-124070P	PA4065-8-SC		SA-7045	A AS-656
3100-122020P	PA6088-8-SC		SA-7048H	A AS-6108
3100-122022P	PA6088-11-SC		SA-7048	A AS-6108
3100-144084P	PA6088-13-TC		SA-7047S	A AS-698
3100-188058P	PA6125-18-SC		SA-7006	A AS-697
3100-188060P	PA6125-18-SC		SA-7067	A AS-6137
3100-220071P	PA6125-28-11C		SA-7051	A AS-5179
			SA-7059	A AS-51711
			SA-7063	A AS-61519

* Denotes close match but not exact drop-in

Part No.	Conn size (Inch)	Volume (Litres)	Nominal Capacity (kw) +5C set & 30C sct, pressure drop = 7kPa			Dimensions (mm)				Mounting details	Weight (kg)
			R404A	R134a	R410A	A	B	C	D		
SA-7044	1/2 ODS	1.0	10.2	5.8	9.8	102	168	143	63.5	fig.1	1.7
SA-7045	5/8 ODS	1.0	11.4	8.7	12.4	102	165	143	63.5	fig.1	1.7
SA-7045S	5/8 ODS	1.7	11.4	8.7	12.4	102	279	254	63.5	fig.1	2.5
SA-7046	3/4 ODS	1.7	24.0	20.5	32.0	102	284	254	63.5	fig.1	2.5
SA-7056	3/4 ODS	2.4	24.0	20.5	32.0	127	246	216	70.0	fig.1	2.9
SA-7057S	7/8 ODS	2.4	24.0	20.5	32.0	127	251	216	70.0	fig.1	2.9
SA-7057	7/8 ODS	3.7	35.2	22.5	38.3	127	374	340	70.0	fig.1	4.2
SA-7051	1 1/8 ODS	4.8	60.0	44.0	71.0	127	467	430	70.0	fig.1	7.4
SA-7053	1 3/8 ODS	4.8	110.0	86.3	120.0	127	470	430	75.0	fig.1	6.0
SA-7065	1 5/8 ODS	11.0	190.0	136.0	208.0	159	680	635	75.0	fig.1	11.0
3100-104016P	5/8 ODS	1.6	11.4	8.7	12.4	102	244	220	43.5	fig.2	1.9
3100-124016P	3/4 ODS	1.6	24.0	20.5	32.0	102	244	220	43.5	fig.2	2.2
3100-125024P	3/4 ODS	2.4	24.0	20.5	32.0	127	244	215	43.5	fig.2	2.9
3100-125029P	3/4 ODS	2.9	24.0	20.5	32.0	127	288	255	43.5	fig.2	3.2
3100-145034P	7/8 ODS	3.4	35.2	22.5	38.3	127	325	285	43.5	fig.2	3.5
3100-186055P	1 1/8 ODS	5.5	60.0	44.0	71.0	159	390	340	60.5	fig.2	5.9
3100-186063P	1 1/8 ODS	6.3	60.0	44.0	71.0	159	470	420	60.5	fig.2	6.8
3100-226071P	1 3/8 ODS	7.1	110.0	86.3	120.0	159	514	460	60.5	fig.2	7.4
3100-346013P	2 1/8 ODS	13.0	195.0	141.0	215.0	159	874	820	70.5	fig.2	14.0
3100-104019	5/8 ODS	1.9	11.4	8.7	12.4	102	305	270	52.0	fig.2	2.6
3100-145040	7/8 ODS	4.0	35.2	22.5	38.3	127	368	328	70.0	fig.2	3.8
3100-185040	1 1/8 ODS	4.0	60.0	44.0	71.0	127	368	328	70.0	fig.2	3.8
3100-185559	1 1/8 ODS	5.9	60.0	44.0	71.0	140	475	430	75.0	fig.2	6.2
3100-226563	1 3/8 ODS	6.3	110.0	86.3	120.0	159	395	350	85.0	fig.2	6.2
3100-266510	1 5/8 ODS	10.5	190.0	136.0	208.0	159	626	576	85.0	fig.2	9.3
3100-348615	2 1/8 ODS	15.0	195.0	141.0	215.0	219	541	499	123.0	fig.3	13.3
3100-421125	2 5/8 ODS	25.0	200.0	150.0	221.0	273	522	461	165.0	fig.3	16.0
3100-501135	3 1/8 ODS	35.0	204.0	156.0	225.0	273	683	623	165.0	fig.3	23.0

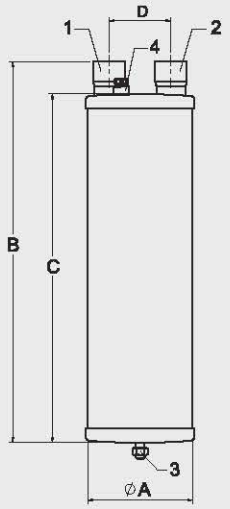


Fig.1

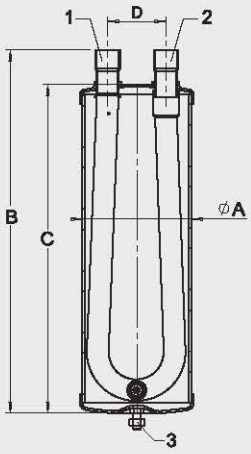


Fig.2

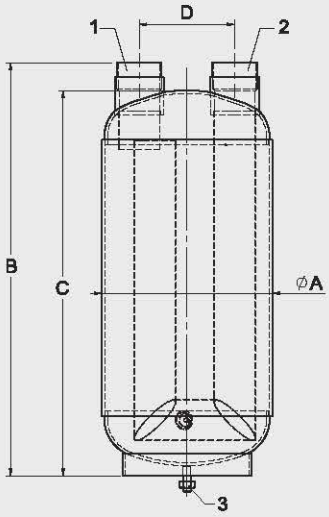


Fig.3

1. Inlet
2. Outlet
3. 1/4 FNPT Socket with Plug
4. Mounting details

LIQUID LINE FILTER DRIERS

Henry liquid line filter driers offer a high level of protection for refrigeration and air-conditioning systems. Designed to remove moisture, acids and solid particles that can lead to premature component failure and harmful chemical reactions.

Applications

Ultra-dry Series have a solid core consisting of 100% molecular sieve. they offer quick water absorption and are ideally suited to HFC refrigerants, POE and PAG oils.

Standard Series have a solid core consisting of 80% Molecular Sieve, 20% Activated Alumina and They offer quick moisture and acid absorption and are are ideally suited to HFC refrigerants and mineral or alkyl benzene oils.

Main Features:

- Solid core constructed with optimized binding agent
- High moisture and acid removal capacity
- Solid copper sweat and zinc plated flare connections.
- Powder coated UL approved shell.

Technical specification

Allowable operating pressure = 0 to 45 barg (653psi)
Allowable operating temperature = -10℃ to + 135 ℃

Materials of Construction

The main can and spring are made from carbon steel. The connections are made from copper or carbon steel. The mesh screen is made from stainless steel.

Part No.		Connection (Inch)	Dimensions (mm)				Drawing Ref.	Weight (kg)
Ultra-dry	Standard		L	A	B	C		
SDM-032	SDA-032	1/4 SAE	110	68	48	-	Fig.1	0.225
SDM-0833	SDA-0833	1/4 ODS	91	68	48	13	Fig.2	0.220
SDM-035	SDA-035	5/8 SAE	120	68	48	-	Fig.1	0.230
SDM-0835	SDA-0835	3/8 ODS	95	68	48	13	Fig.2	0.220
SDM-053	SDA-053	1/4 SAE	110	72	50	-	Fig.1	0.260
SDM-0838	SDA-0838	1/4 ODS	98	72	50	13	Fig.2	0.250
SDM-055	SDA-053	5/8 SAE	120	72	50	-	Fig.1	0.300
SDM-0538	SDA-0538	3/8 ODS	94	72	50	13	Fig.2	0.260
SDM-083	SDM-082	1/4 SAE	140	86	60	-	Fig.1	0.450
SDM-0825	SDA-0825	1/4 ODS	119	86	60	13	Fig.2	0.400
SDM-085	SDA-083	5/8 SAE	155	86	60	-	Fig.1	0.485
SDM-0858	SDA-0858	3/8 ODS	128	86	60	13	Fig.2	0.485
SDM-084	SDA-084	1/2 SAE	138	86	60	-	Fig.1	0.480
SDM-0845	SDA-0845	1/2 ODS	122	86	60	13	Fig.2	0.450
SDM-162	SDA-162	1/4 SAE	159	113	78	-	Fig.1	0.755
SDM-1633	SDA-1633	1/4 ODS	138	113	78	13	Fig.2	0.755
SDM-165	SDA-165	5/8 SAE	169	113	78	-	Fig.1	0.780
SDM-1635	SDA-1635	3/8 ODS	134	113	78	13	Fig.2	0.805
SDM-164	SDA-164	1/2 SAE	177	113	78	-	Fig.1	0.820
SDM-1643	SDA-1643	1/2 ODS	158	113	78	13	Fig.2	0.830
SDM-163	SDA-163	5/8 SAE	185	113	78	-	Fig.1	0.850
SDM-1655	SDA-1655	5/8 ODS	134	113	78	13	Fig.2	0.805
SDM-488	SDA-488	5/8 SAE	242	165	78	-	Fig.1	1.210
SDM-4888	SDA-4888	3/8 ODS	207	165	78	13	Fig.2	1.210
SDM-484	SDA-484	1/2 SAE	250	165	78	-	Fig.1	1.250
SDM-4843	SDA-4843	1/2 ODS	208	165	78	13	Fig.2	1.250
SDM-488	SDA-488	5/8 SAE	288	165	78	-	Fig.1	1.270
SDM-4858	SDA-4858	5/8 ODS	229	165	78	13	Fig.2	1.270
SDM-368	SDA-368	3/4 SAE	254	165	78	-	Fig.1	1.290
SDM-3883	SDA-3883	3/4 ODS	209	165	78	13	Fig.2	1.290
SDM-3878	SDA-3878	3/8 ODS	218	165	78	15	Fig.2	1.310
SDM-413	SDA-413	5/8 SAE	249	165	82	-	Fig.1	1.380
SDM-4138	SDA-4138	3/8 ODS	214	165	83	13	Fig.2	1.385
SDM-414	SDA-414	1/2 SAE	287	165	82	-	Fig.1	1.310
SDM-4145	SDA-4145	1/2 ODS	218	165	82	13	Fig.2	1.310
SDM-415	SDA-415	1/2 SAE	265	165	83	-	Fig.1	1.325
SDM-4153	SDA-4153	5/8 ODS	214	165	82	13	Fig.2	1.325
SDM-418	SDA-418	3/4 SAE	271	165	82	-	Fig.1	1.380
SDM-4185	SDA-4185	3/4 ODS	218	165	82	15	Fig.2	1.350

Drying and Liquid Capacity Table - 'Ultra-dry' Core

Model Details			Drying Capacity (kg of refrigerant)								Liquid Capacity (kW)					
Part No.	Conn. (Inch)	Shell Diameter (mm)	R22		R134a/R507		R404A		R407C/R410A		R-22	R-134a	R-404A	R-407C	R-410A	CO_2
			24°C	52°C	24°C	52°C	24°C	52°C	24°C	52°C						
SDM-032/S	1/4	46	4.9	4.6	5.3	5.0	7.8	4.8	5.3	4.6	6.1	5.8	3.2	6.1	6.5	8.9
SDM-033/S	3/8	46	4.9	4.6	5.3	5.0	7.8	4.8	5.3	4.6	20.8	17.7	10.3	20.8	22.1	27.1
SDM-052/S	1/4	65	9.8	9.1	10.6	10.1	15.6	9.6	10.6	9.1	7.7	6.4	3.5	7.7	8.2	9.8
SDM-053/S	3/8	65	9.8	9.1	10.6	10.1	15.6	9.6	10.6	9.1	19.0	17.2	10.2	19.0	20.2	26.3
SDM-082/S	1/4	65	15.8	14.6	16.9	16.1	24.9	15.4	17.0	14.6	7.9	6.6	3.6	7.9	8.5	10.1
SDM-083/S	3/8	65	15.8	14.6	16.9	16.1	24.9	15.4	17.0	14.6	21.7	18.7	10.5	21.7	23.1	28.7
SDM-084/S	1/2	65	15.8	14.6	16.9	16.1	24.9	15.4	17.0	14.6	31.1	26.7	15.6	31.1	33.2	40.8
SDM-162/S	1/4	78	24.6	22.8	26.4	25.2	38.9	24.1	26.6	22.8	8.6	7.2	3.9	8.6	9.2	11.0
SDM-163/S	3/8	78	24.6	22.8	26.4	25.2	38.9	24.1	26.6	22.8	23.0	20.1	11.1	23.0	24.5	30.8
SDM-164/S	1/2	78	24.6	22.8	26.4	25.2	38.9	24.1	26.6	22.8	34.9	30.3	16.9	34.9	37.3	46.4
SDM-165/S	5/8	78	24.6	22.8	26.4	25.2	38.9	24.1	26.6	22.8	34.4	30.1	16.0	34.4	36.7	46.1
SDM-303/S	3/8	78	51.2	47.4	55.0	52.3	81.0	50.0	55.3	47.4	23.2	20.2	11.0	23.2	24.7	31.0
SDM-304/S	1/2	78	51.2	47.4	55.0	52.3	81.0	50.0	55.3	47.4	35.7	31.1	16.8	35.7	38.1	47.6
SDM-305/S	5/8	78	51.2	47.4	55.0	52.3	81.0	50.0	55.3	47.4	43.5	38.2	21.3	43.5	46.4	58.4
SDM-306/S	3/4	78	51.2	47.4	55.0	52.3	81.0	50.0	55.3	47.4	64.3	56.0	30.9	64.3	68.5	85.6
SDM-413/S	3/8	92	76.8	71.2	82.4	78.5	121.4	75.0	82.9	71.1	26.3	23.2	12.7	26.3	28.0	35.5
SDM-414/S	1/2	92	76.8	71.2	82.4	78.5	121.4	75.0	82.9	71.1	41.6	36.4	19.9	41.6	44.4	55.6
SDM-415/S	5/8	92	76.8	71.2	82.4	78.5	121.4	75.0	82.9	71.1	58.3	50.9	27.1	58.3	62.2	77.9
SDM-416/S	3/4	92	76.8	71.2	82.4	78.5	121.4	75.0	82.9	71.1	67.7	59.1	31.4	67.7	72.2	90.4

Drying and Liquid Capacity Table - 'Standard' Core

Model Details			Drying Capacity (kg of refrigerant)								Liquid Capacity (kW)					
Part No.	Conn. (Inch)	Shell Diameter (mm)	R22		R134a/R507		R404A		R407C/R410A		R-22	R-134a	R-404A	R-407C	R-410A	CO_2
			24°C	52°C	24°C	52°C	24°C	52°C	24°C	52°C						
SDA-032/S	1/4	46	4.3	4.0	4.6	4.4	7.4	4.0	4.5	3.9	6.1	5.8	3.2	6.1	6.5	8.9
SDA-033/S	3/8	46	4.3	4.0	4.6	4.4	7.4	4.0	4.5	3.9	20.8	17.7	10.3	20.8	22.1	27.1
SDA-052/S	1/4	65	8.6	8.0	9.2	8.8	14.8	8.0	9.1	7.7	7.7	6.4	3.5	7.7	8.2	9.8
SDA-053/S	3/8	65	8.6	8.0	9.2	8.8	14.8	8.0	9.1	7.7	19.0	17.2	10.2	19.0	20.2	26.3
SDA-082/S	1/4	65	13.8	12.8	14.8	14.1	23.7	12.8	14.5	12.4	7.9	6.6	3.6	7.9	8.5	10.1
SDA-083/S	3/8	65	13.8	12.8	14.8	14.1	23.7	12.8	14.5	12.4	21.7	18.7	10.5	21.7	23.1	28.7
SDA-084/S	1/2	65	13.8	12.8	14.8	14.1	23.7	12.8	14.5	12.4	31.1	26.7	15.6	31.1	33.2	40.8
SDA-162/S	1/4	78	21.5	19.9	23.1	22.0	37.0	19.9	22.6	19.3	8.6	7.2	3.9	8.6	9.2	11.0
SDA-163/S	3/8	78	21.5	19.9	23.1	22.0	37.0	19.9	22.6	19.3	23.0	20.1	11.1	23.0	24.5	30.8
SDA-164/S	1/2	78	21.5	19.9	23.1	22.0	37.0	19.9	22.6	19.3	34.9	30.3	16.9	34.9	37.3	46.4
SDA-165/S	5/8	78	21.5	19.9	23.1	22.0	37.0	19.9	22.6	19.3	34.4	30.1	16.0	34.4	36.7	46.1
SDA-303/S	3/8	78	44.8	41.5	48.1	45.7	77.0	41.5	47.1	40.2	23.2	20.2	11.0	23.2	24.7	31.0
SDA-304/S	1/2	78	44.8	41.5	48.1	45.7	77.0	41.5	47.1	40.2	35.7	31.1	16.8	35.7	38.1	47.6
SDA-305/S	5/8	78	44.8	41.5	48.1	45.7	77.0	41.5	47.1	40.2	43.5	38.2	21.3	43.5	46.4	58.4
SDA-306/S	3/4	78	44.8	41.5	48.1	45.7	77.0	41.5	47.1	40.2	64.3	56.0	30.9	64.3	68.5	85.6
SDA-413/S	3/8	92	67.1	62.2	72.1	68.6	115.5	62.2	70.6	60.2	26.3	23.2	12.7	26.3	28.0	35.5
SDA-414/S	1/2	92	67.1	62.2	72.1	68.6	115.5	62.2	70.6	60.2	41.6	36.4	19.9	41.6	44.4	55.6
SDA-415/S	5/8	92	67.1	62.2	72.1	68.6	115.5	62.2	70.6	60.2	58.3	50.9	27.1	58.3	62.2	77.9
SDA-416/S	3/4	92	67.1	62.2	72.1	68.6	115.5	62.2	70.6	60.2	67.7	59.1	31.4	67.7	72.2	90.4

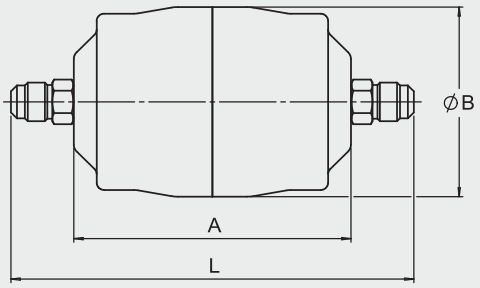


Fig.1

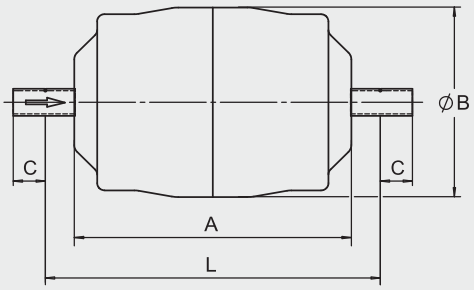


Fig.2

DEMOUNTABLE FILTER-DRIERS

The function of a demountable filter-drier shell is to remove system contaminants, acid and moisture.

Applications

Henry Technologies demountable filter-drier shells are intended to be used in both the liquid and suction lines. The product range is approved for use with HCFC refrigerants as listed in the table.

Main features

- Prove system protector
- High filtering capability
- High moisture absorption an acid removal
- Interchangeable cores
- Copper connections
- Flange cover plate includes 1/4 MNPT pressure tapping

Technical specification

Allowable operating pressure = 0 to 42 barg (609psi)
Allowable operating temperature = -10 ℃ to + 135 ℃

Materials of Construction

The main shell and fixed end cap are made from carbon steel. The cover plate is made from aluminum alloy. The ODS connections are made from copper.

Filter-drier core

Each DRI-COR filter-drier core is made from a moulded composite of desiccant material(s) bonded to provide very high mechanical strength, micronic filtration, high moisture absorption and acid removal. Two types are available – Standard or High Capacity. Both types are interchangeable and have the same flow capacity. The high Capacity core has extra drying capacity. Each core is fully activated and placed in a hermetically sealed container.

Filter core

Each FIL-COR filter core provides micronic filtration when drying is not required. The FIL-COR elements are interchangeable with the DRI-COR elements.

Strainer core

The strainer core is a 100-mesh stainless steel shell. The strainer cores are interchangeable with the filter-drier cores.

Note: Cores not included with drier shells – to be ordered separately

Part No.	Conn size ODS (inch)	Cores Qty.	Liquid Line Capacity (kW)					Suction Line Refrigeration Capacity (kW) Evaporating Temperature te °C				Dimensions (mm)		Weight (kg)
			R134a	R404A	R507	R22 R407C	R410A	R134a/R507 -20°C	R404A -20°C	R22 4.4°C	R407C/R410A 4.4°C	A	B	
SRC-487	7/8	1	124.2	89.7	86.9	128.6	132.7	9.6	12.5	36.7	36.7	142	274	4.6
SRC-967	7/8	2	116.0	83.1	80.5	119.5	122.8	9.6	12.5	37.0	37.0	282	414	6.0
SRC-1447	7/8	3	116.0	83.1	80.5	119.5	122.8	10.9	14.1	41.6	41.6	426	558	7.4
SRC-1927	7/8	4	116.0	83.1	80.5	119.5	122.8	13.0	16.9	49.9	49.9	569	701	8.7
SRC-489	1 1/8	1	178.8	128.6	124.5	184.7	190.0	12.9	16.7	49.2	49.2	142	274	4.6
SRC-969	1 1/8	2	178.1	128.2	124.0	183.9	189.1	14.1	18.5	54.8	54.8	282	414	6.0
SRC-1449	1 1/8	3	173,3	124,7	120,8	179,1	184,2	14,1	18,2	53,8	53,8	426	558	7,4
SRC-1929	1 1/8	4	173.3	124.7	120.8	179.1	184.2	16.9	21.9	64.8	64.8	569	701	8,7
SRC-4811	1 3/8	1	236.8	171.5	166.1	245.6	253.5	16.0	20.7	60.1	60.1	142	274	4.6
SRC-9611	1 3/8	2	241.5	174.1	168.7	249.8	257.3	19.0	24.9	73.7	73.7	282	414	6.0
SRC-14411	1 3/8	3	253.4	183.1	177.4	262.4	270.5	21.4	28.6	85.7	85.7	426	558	7.4
SRC-19211	1 3/8	4	263.9	192.6	186.6	275.1	284.9	23,2	30.6	90,5	90,5	569	701	8,7
SRC-4813	1 5/8	1	273.7	199.8	193.6	285.4	295.7	15.1	19.6	57.0	57.0	142	274	4.6
SRC-9613	1 5/8	2	298.7	216.7	210.0	310.2	320.5	21.9	28.8	85.7	85.7	282	414	6.0
SRC-14413	1 5/8	3	299.3	217.2	210.4	310.8	321.1	20.2	27.0	81.1	81.1	426	558	7.4
SRC-19213	1 5/8	4	309.4	225.1	218.1	321.8	332.8	26.7	35.3	105.0	105.0	569	701	8.7
SRC-4817	2 1/8	1	399.6	298.2	289.2	422.6	442.2	15.5	20.1	58.2	58.2	142	274	4,6
SRC-9617	2 1/8	2	419.9	307.2	297.7	438.4	454.6	21.4	28.2	83.8	83.8	282	414	6.0
SRC-14417	2 1/8	3	367.1	268.1	259.8	382.9	396.7	19.1	25.5	76.5	76.5	426	558	7.4
SRC-19217	2 1/8	4	429.8	311.1	301.4	445.7	459.9	26.4	34.9	103.8	103.8	569	701	8.7

Liquid Line Capacity (kW) is based upon:
Evaporating temperature of te = -15.0°C
Condensing temperature of tc = +30.0°C
Pressure Drop = 0.07 bar

Suction Line Capacity (kW) is based upon:
Evaporating temperature of te = +4.4°C
Condensing temperature of tc = +32.2°C

Selection Guidelines

The user should select a model based on refrigerant type, refrigeration capacity, and preferred degree of filtration /drying. The preferred connection size can then be used to decide which model is best. Alternatively, the user may select first on connection size then check that the application is within the refrigeration capacity and filtration/drying limits of the selected model.

Example

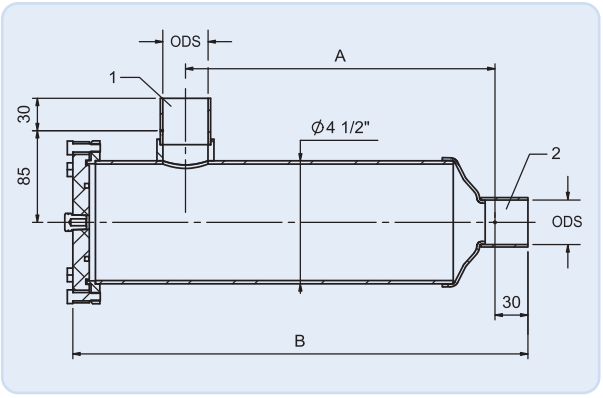
Refrigerant = R22
Refrigeration capacity = 80 kW
Degree of filtration /drying required = Standard

Selected models: SRC-967 or SRC-969, using S-848-C cores.
Final selection based on preferred connection size.

Note: A user may decide to oversize the filter-drier based on experience or if the system contamination level is likely to be higher than normal.

Installation – Main Issues

1. Install the filter-drier upstream of liquid line controls to give maximum protection. Locate upstream of moisture indicator so that drying effectiveness can be measured.
2. Ensure dimension "F" is complied with in order to remove cores.
3. It is recommended to install the unit horizontally for easier core replacement.



1 Inlet
2 Outlet

The water holding capacities and filter areas are presented in the table, for the range of cores.

Core Part No.	Function	Description	Volume (cm^3)	A.R.I.Cap.Ratings Drops of water R22 (60ppm) Liquid Line Temperature °C		Core Length (mm)	Weight (kg)
				24°C	52°C		
S-848-CM	Filter-drier	Ultra-Dry Core	787	576	365	140	0.64
S-848-C	Filter-drier	Standard DRI-COR	787	460	288	140	0.91
S-848-CC	Filter-drier	Burn-Out Core	787	400	580	140	0.91
S-848-SC	Filter-drier	Suction Line Core	787	No info available	No info available	140	0.58
S-810-CM	Filter-drier	High Capacity DRI-Core	1640	1200	760	165	2.4
S-848-F	Filter	FIL-COR	413 cm^2 Filter Area		use when not drying	140	0.12

BALL VALVES

Applications

Ball valves are used in a wide variety of air conditioning and refrigeration applications. They can be used for both liquid and gas applications. This type of valve is commonly used for isolating purposes. All ball valves are suitable for HCFC and HFC refrigerants, along with their associated oils.

Main Features

Construction features

- Bi-directional flow
- Indicator on stem shows valve position - open or closed
- Fully opened or closed with quarter turn of stem
- Positive stem stop ensures precise positioning in the open or closed position
- Blow-out proof stem
- Ball cavity vented to prevent over-pressure
- Vented seal cap
- Schrader valve option
- Mounting pad

Sealing integrity features

- Premium quality PTFE ball seals
- Double O-ring stem seal design
- Premium quality neoprene stem O-ring seals
- Neoprene seal cap – acts as a secondary seal

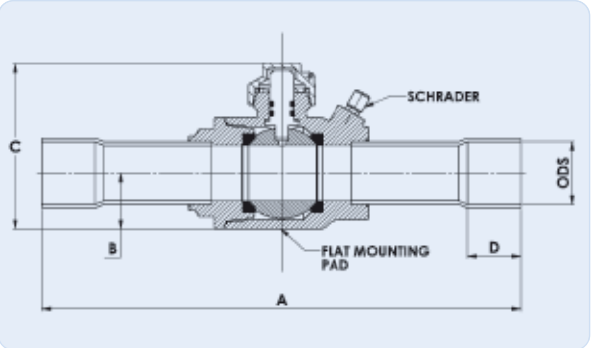
Technical Specification

Allowable operating temperature = -40°C to +120°C

Allowable operating pressure = 0 to 48 barg (696psi)

Materials of Construction

The components; valve body, valve body adaptor, ball and seal cap are made from brass. The stem is made from plated steel. The pipe extensions are made from copper. The ball seals are made from virgin PTFE, stem O-rings and cap seal from neoprene.



HENRY BALL VALVE

Installation – Main Issues

The valve body must be protected against excessive heat during installation, to prevent damage to the seals. Full instructions are given in the Product Instruction Sheet, included with each valve.

Part No		ODS (inch)	ODS (mm)	Dimensions (mm)					Port size (mm)	Weight (kg)	MWP (Barg)	CE Cat
Standard	Schrader Valve			A	B	C	D	Mounting pad hole thread details - 2 off				
907202	937202	1/4		165	16	55	8	8-36 UNF-2B X 20 mm pitch	12.70	0.34	48	SEP
907203	937203	3/8		165	16	55	8	8-36 UNF-2B X 20 mm pitch	12.70	0.34	48	SEP
907204	937204	1/2		165	16	55	10	8-36 UNF-2B X 20 mm pitch	12.70	0.35	48	SEP
907205	937205	5/8	16	165	16	55	13	8-36 UNF-2B X 20 mm pitch	12.70	0.35	48	SEP
907306	937306	3/4		184	21	67	19	8-36 UNF-2B X 32 mm pitch	19.05	0.65	48	SEP
907307	937307	7/8	22	184	21	67	20	8-36 UNF-2B X 32 mm pitch	19.05	0.66	48	SEP
907409	937409	1 1/8		216	25.5	76	24	10 -32 UNF-2B X 40 mm pitch	25.40	0.97	48	SEP
907511	937511	1 3/8	35	235	31	94	25	10 -32 UNF-2B X 48 mm pitch	31.75	1.58	48	Cat I
907613	937613	1 5/8		254	39	109	28	1/4" -28 UNF-2B X 60 mm pitch	38.10	2.52	48	Cat I
907617	937617	2 1/8	54	290	47.5	133.5	35	1/4" -28 UNF-2B X 75 mm pitch	50.80	4.60	48	Cat I
907721	937721	2 5/8		327	47.5	133.5	38	1/4" -28 UNF-2B X 75 mm pitch	50.80	5.15	48	Cat I
907725	937725	3 1/8		365	60	154	43	1/4" -28 UNF-2B X 75 mm pitch	63.50	8.79	40	Cat I

BALL VALVES WITH SIGHT GLASS & MOISTURE INDICATOR

Applications

Ball valves and sight glass moisture indicators are used in a wide variety of air conditioning and refrigeration applications. A typical location for this combination product is in the liquid refrigerant line. The ball valve is used for isolating purposes; the sight glass for a visual display inside the line and the moisure indicator advises of the moisture content in the system.

Main features

Construction features

- Bi-directional flow
- Indicator on stem shows valve position - open or closed
- Positive stem stop ensures precise positioning
- Blow out proof stem
- Ball cavity vented to prevent over-pressure
- Vented seal cap
- Schrader valve option
- Mounting pad
- Large clear sight glass
- Positive colour contrast indicator
- Plastic protection cap for sight glass supplied as standard

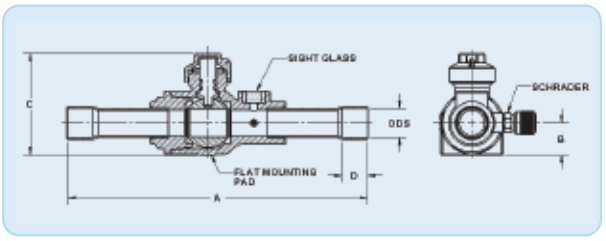
Sealing integrity features

- Premium quality PTFE ball seals
- Double O-ring stem seal design
- Premium quality neoprene stem O-ring seals
- Hermetically sealed sight glass

Technical Specification

Allowable operating temperature = -40°C to +120°C
Allowable operating pressure = 0 to 48 barg (696psi)

Suitable for HFC and HCFC refrigerants and R744 along with their associated oils



BALL VALVES WITH SIGHT GLASS & MOISTURE INDICATOR

Installation – Main issues

The brass body must be protected against excessive heat during installation to prevent damage to the seals. Full details are provided in the installation sheet, included with each valve

Part No		ODS (inch)	ODS (mm)	Dimensions (mm)					Port Size (mm)	Weight (Kg)	MWP (barg)	CE Cat
Standard	Schrader Valve			A	B	C	D	Mounting Pad hole thread Details - 2 off				
907202SG	937202SG	1/4		185	16	55	8	8-36 UNF-2B x 20 mm pitch	12.70	0.42	48	SEP
907203SG	937203SG	3/8		185	16	55	8	8-36 UNF-2B x 20 mm pitch	12.70	0.42	48	SEP
907204SG	937204SG	1/2		185	16	55	10	8-36 UNF-2B x 20 mm pitch	12.70	0.42	48	SEP
907205SG	937205SG	5/8	16	185	16	55	13	8-36 UNF-2B x 20 mm pitch	12.70	0.42	48	SEP
907306SG	937306SG	3/4		211	21	67	19	8-36 UNF-2B x 32 mm pitch	19.05	0.80	48	SEP
907307SG	937307SG	7/8	22	211	21	67	20	8-36 UNF-2B x 32 mm pitch	19.05	0.80	48	SEP
907409SG	937409SG	1 1/8		237	26	76	24	10-32 UNF-2B x 40 mm pitch	25.40	1.20	48	SEP

MOISTURE COLOUR TABLE

Refrigerant	Moisture content (parts per million)			
	Temp (°C)	Indicator colour		
		Green	Chartreuse	Yellow
R404A	24	below 20	20-100	above 100
	38	below 35	35-130	above 130
	52	below 45	45-200	above 200
R410A	24	below 20	20-100	above 100
	38	below 30	30-120	above 120
	52	below 50	50-150	above 150
R134a	24	below 30	30-90	above 90
	38	below 50	50-120	above 120
	52	below 70	70-150	above 150
R22	24	below 20	20-85	above 85
	38	below 30	30-90	above 90
	52	below 45	45-110	above 110

MAGNETIC CHECK VALVE

The function of a check valve is to allow fluid flow in one direction only.

Applications

Henry Technologies check valve are suitable for Liquid, Suction and Hot Gas lines with all fluorinated refrigerants these valves an ideal in a new installation or as a replacement for of a conventional check valve.

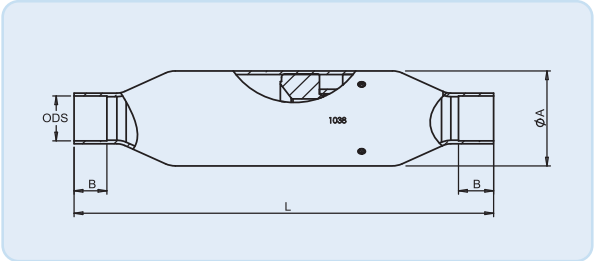
Main features

- Robust design
- Quiet and efficient operation
- Built in 30 mesh strainer
- Hermetically sealed copper body
- Designed for Maximum flow and Minimal pressure drop
- Optimisted seat material with a Neoprene Teflon coated valve plate
- Able to be installed in any position
- Efficient sealing with a negligible leak rate

Technical Specification

Allowable operation pressure: as per table

Allowable operation temperature: - 40 ℃ to 150 ℃



Materials of Construction

The valve body is made from copper. The seat seal material is brass.

The valve plate is magnetic attraction

Part no.	Conn Size ODS (Inch)	Dimensions (mm)			Kv m³/Hr	MWP	
		A	B	L		PSI	BAR
MS-4	1/4	22	8	101	0.47	800	55
MS-6	3/8	22	8	101	0.99	800	55
MS-8	1/2	28	10	127	2.67	700	48
MS-10	5/8	28	13	127	2.98	700	48
MS-12	3/4	41	16	178	5.56	700	48
MS-14	7/8	41	19	178	7.58	700	48
MS-18	1 1/8	54	24	212	13.19	700	48
MS-22	1 3/8	66	25	240	16.26	700	48
MS-26	1 5/8	79	28	266	27.78	700	48
MS-34	2 1/8	92	34	304	48.27	700	48
MS-42	2 5/8	105	38	330	64.76	700	48

Part no.	Capacity						Cross Reference		
	Suction Kw			Liquid Kw			Henry	Emerson	Superior
	R-22	R-134A	R-404A	R-22	R-134A	R-404A			
MS-4	1.1	0.8	0.9	9.5	8.8	6.8	MS-4	AKC-4	900M-4S
MS-6	2.2	1.6	2.0	19.9	18.3	14.2	MS-6	AKC-6	900M-6S
MS-8	6.0	4.4	5.3	53.8	49.4	38.2	MS-8	AKC-8	900M-8S
MS-10	6.7	4.9	5.9	60.0	55.1	42.6	MS-10	AKC-10	900M-10S
MS-12	12.5	9.2	11.0	112.2	103.1	79.7	MS-12	AKC-12	900M-12S
MS-14	17	12.5	15.0	152.8	140.4	108.5	MS-14	AKC-14	900M-14S
MS-18	29.6	21.7	26.1	265.9	244.3	188.8	MS-18	AKC-18	N/A
MS-22	36.5	26.8	32.2	327.9	301.3	232.5	MS-22	AKC-22	N/A
MS-26	62.3	45.8	54.9	560.1	514.6	397.7	MS-26	AKC-26	N/A
MS-34	108.2	79.5	95.5	973.3	894.3	691.1	MS-34	AKC-34	N/A
MS-42	145.2	106.7	128.1	1,305.9	1,200.0	927.3	MS-42	AKC-42	N/A

The rated liquid and suction capacities are based on an evaporating temperature.

te = -10°C, liquid temp. ahead of the valve e ti = +25°C and a pressure drop across the valve. p = 15 kPa(2.18 psi)

ROTALOCK VALVE

Applications

Rotalock valves are used in a wide variety of refrigeration and air-conditioning industry as a removable connection point and service valve in one. The connection consists of male and female components that when joined compress a sacrificial Teflon washer. By compressing a Teflon washer a seal is created that can maintain its integrity with both large changes in temperature and constant vibration. This type of valve is commonly used for isolating purposes. All Rotalock valves are suitable for HCFC and HFC refrigerants, along with their associated oils. All the valve sizes also allows them to be used for R410A and sub-critical CO2 applications.

Main features

- Designed for full flow and minimal pressure drop
- Strong steel body & forged copper connection
- Dual access ports with Schrader core seat
- Supplied with Rotalock gasket
- Available in a multitude of versions
- PREMIUM Zinc Cr3 plating

Technical Specification

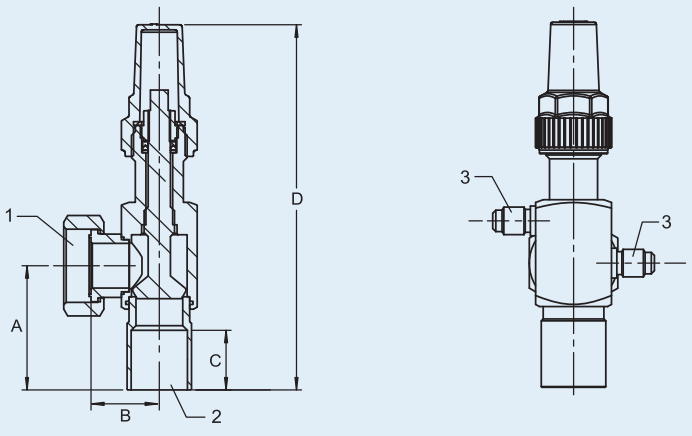
Allowable operating temperature = -40℃ to 120℃
Allowable operating pressure = 0 to 42 barg (609psi)
Manufactured in accordance with UL207

Materials of construction

Then components: valve body, rotalock connection, stem are made from steel. The schrader cap is made from aluminum. The ODS connection is made from forged copper. The stem seal is made from PTEE. The seal cap is made from moulded plastic.

Part No.	Conn. Size (inch) Female Solder x Rotalock Nut	Dimensions (mm)			
		A	B	C	D
* 2605-041220-HEx	1/4 ODS x 3/4 R/L Nut	25	21	7	103
* 2605-061220-HEx	3/8 ODS x 3/4 R/L Nut	25	21	10	103
2605-041220	1/4 ODS x 3/4 R/L Nut	25	20	10	103
2605-061220	3/8 ODS x 3/4 R/L Nut	25	20	10	103
2605-061620	3/8 ODS x 1 R/L Nut	25	20	10	103
2605-081220	1/2 ODS x 3/4 R/L Nut	25	20	13	103
2605-081620	1/2 ODS x 1 R/L Nut	25	20	13	103
2605-101620	5/8 ODS x 1 R/L Nut	33	20	14	110
2605-102030	5/8 ODS x 1 1/4 R/L Nut	39	28	14	137
2605-122030	3/4 ODS x 1 1/4 R/L Nut	50	28	20	147
2605-142030	7/8 ODS x 1 1/4 R/L Nut	50	28	24	147
2605-142830	7/8 ODS x 1 3/4 R/L Nut	50	28	24	147
2605-182030	1 1/8 ODS x 1 1/4 R/L Nut	57	28	28	154
2605-182835	1 1/8 ODS x 1 3/4 R/L Nut	50	30	23	173
2605-222835	1 3/8 ODS x 1 3/4 R/L Nut	57	30	25	180
2605-262835	1 5/8 ODS x 1 3/4 R/L Nut	65	30	28	188

Note: "*" Hex valve body.



- Rotalock Nut
- Female Solder
- Dual access ports with Schrader core seat

VIBRATION ELIMINATORS

V SERIES

The function of a Vibration Eliminator is to absorb compressor vibration. By installing a vibration eliminator, the risk of damage to system equipment and pipework is reduced.

Applications

A vibration eliminator can be installed in both the suction and discharge lines of air-conditioning and refrigeration systems.

Vibration eliminators are suitable for HCFC, HFC and CO_2 refrigerants, along with their associated oils.

Main Features

- Proven design
- Large hose ID
- Stainless steel hose and braid
- Stainless steel ferrules for superior strength
- Helium leak tested
- CE marked
- UL listed (V series only)

Technical Specification

Allowable operating pressure = As per table

Allowable operating temperature = -40°C to +120°C (V & VS models)

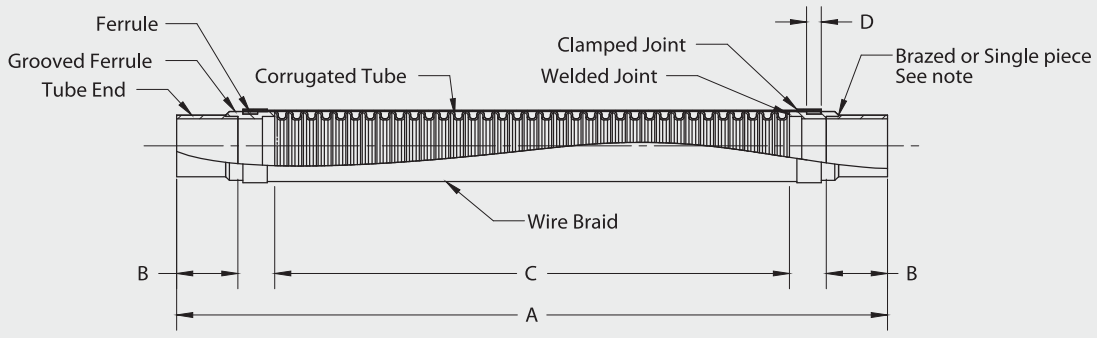
VS SERIES

The V Series

Each unit is constructed of a deep pitch corrugated hose covered with a stainless steel braid. The hose and braid are reinforced by ferrules at each end and connected to copper tube ends by a high temperature braze alloy.

The VS Series

The VS series is based on the proven design of the V series with a few modifications. The VS series is constructed entirely of stainless steel and all joints are tig welded. Consequently there is no need to wet-rag the product during the installation process. The maximum working pressures are higher, as detailed in the table.



Note
Copper tube ends are brazed into grooved ferrule
Stainless Steel tube ends & grooved ferrule are machined from one piece

V and VS Series (Imperial range)

Part No		ODS (inch)	Dimensions (mm)				MWP (barg)		weight (kg)	CE Cat
			A	B	C	D				
V Series	VS Series		(+/-6)	(+/-3)	(+/-3)	(+/-1.5)	V Series	VS Series		
V-1/4	VS-1/4	1/4	202	17	133	10	44.8	60.0	0.14	SEP
V-3/8	VS-3/8	3/8	215	18	141	10	44.8	60.0	0.14	SEP
V-1/2	VS-1/2	1/2	225	18	151	10	44.8	60.0	0.15	SEP
V-5/8	VS-5/8	5/8	247	20	169	10	44.8	60.0	0.21	SEP
V-3/4	VS-3/4	3/4	266	23	180	11	44.8	60.0	0.32	SEP
V-7/8	VS-7/8	7/8	301	25	211	11	44.8	60.0	0.31	SEP
V-1-1/8	VS-1-1/8	1-1/8	329	32	223	12	41.3	60.0	0.42	I
V-1-3/8	VS-1-3/8	1-3/8	392	35	274	14	37.9	60.0	0.66	I
V-1-5/8	VS-1-5/8	1-5/8	425	40	295	16	35.1	45.0	0.98	I
V-2-1/8	VS-2-1/8	2-1/8	520	50	370	16	27.5	40.0	1.46	I
V-2-5/8	VS-2-5/8	2-5/8	613	60	434	19	24.1	35.0	2.60	I
V-3-1/8	VS-3-1/8	3-1/8	680	70	481	19	22.0	30.0	3.60	I
V-3-5/8	VS-3-5/8	3-5/8	812	85	579	21	13.0	20.0	4.70	I
V-4-1/8	VS-4-1/8	4-1/8	832	90	589	21	13.0	20.0	5.50	I

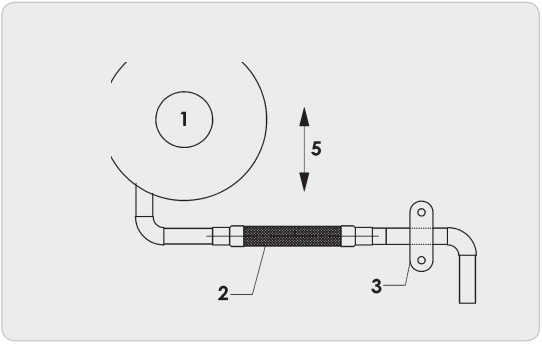


FIG. 1 SINGLE SYSTEM

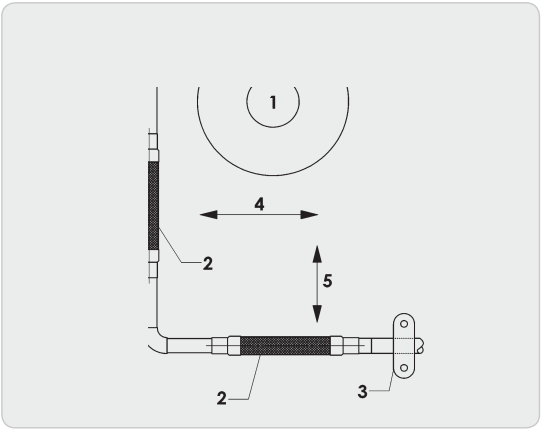
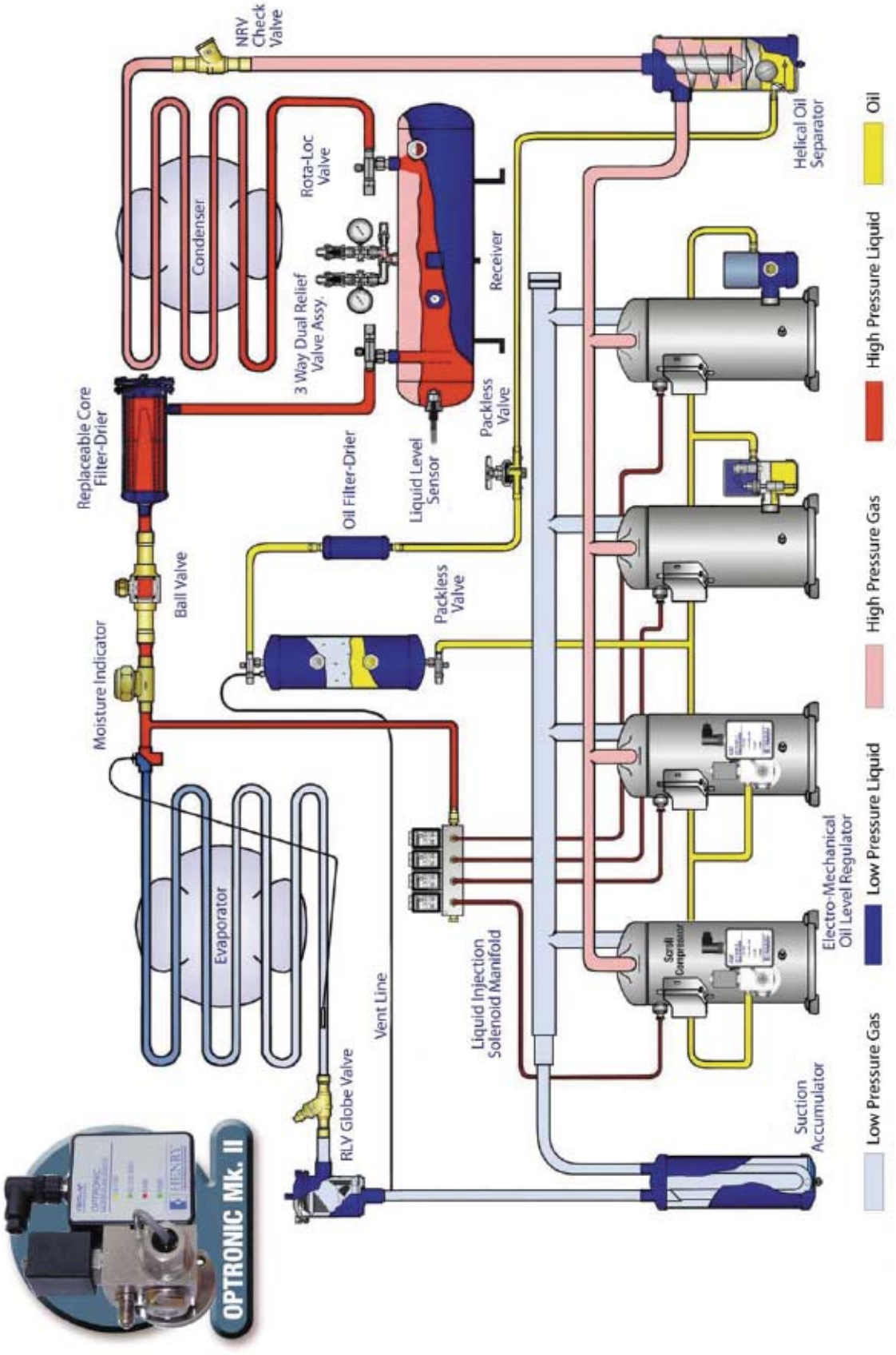


FIG. 2 DOUBLE SYSTEM

1. Compressor
2. Vibration eliminator
3. Secure to solid member
4. Horizontal motion
5. Vertical motion

Installation – main issues

1. The vibration eliminator should be fitted as close to the compressor as possible and must be installed in a straight line. Vibration eliminators are not designed to compensate for pipework misalignment.
2. Care should be taken to allow sufficient space for the vibration eliminator to avoid static compression or tension, after brazing in place. Vibration eliminators are not designed to absorb axial or torsional stress.
3. Vibration eliminators should be installed perpendicular to the direction of vibration. When vibration exists in two planes, two vibration eliminators should be used. Refer to Figs 1 and 2.
4. For optimum absorption of vibration, the refrigerant line should be anchored at the end of the vibration eliminator furthest from the vibration source.
5. Take special care to install vibration eliminators horizontally when used in suction lines or where operating temperatures are below freezing point. Condensation may form on the outside of the unit and if installed vertically this may accumulate in the lower braid collar. In subsequent freezing this may deform and destroy the unit. If vertical installation is the only option, or indeed if condensation is possible with horizontal mounting, the entire flexible section, ferrules and braided hose, must be covered with a watertight synthetic material e.g. a heat shrinkable PVC sleeve.
6. The ferrule and start of braid must be wet-ragged for brazing when installing the V series to prevent overheating and subsequent damage.


NRV Check Valve
Condenser
Rota-Loc Valve
3 Way Dual Relief Valve Assy.
Receiver
Helical Oil Separator
Replaceable Core Filter-Drier
Oil Filter-Drier
Liquid Level Sensor
Packless Valve
Ball Valve
Moisture Indicator
Packless Valve
Evaporator
Liquid Injection Solenoid Manifold
Electro-Mechanical Oil Level Regulator
Vent Line
RLV Globe Valve
Suction Accumulator
OPTRONIC Mk. II
Oil
High Pressure Liquid
High Pressure Gas
Low Pressure Liquid
Low Pressure Gas

HENRY
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Heldon