



**HENRY**  
TECHNOLOGIES

# REFRIGERATION SYSTEM COMPONENTS



[henrytech.com](http://henrytech.com)

DESIGNED FOR PERFORMANCE

## Conventional Oil Separators

The function of an Oil Separator is to remove oil from the discharge gas and return it to the Compressor either directly or through an Oil Management System.

- ODS refrigerant connection
- SAE flare oil connections
- Low pressure drop
- No moving parts within oil separation zone
- 1/8" NPT oil drain
- Serviceable models available, S-58\*\*, S-57\*\* and S-19\*\* series
- Magnet on oil float to collect debris
- Replacement parts available
- Maximum working pressure = 450 PSI (31 Bar)
- Allowable operating temperature = +15°F to +300°F (-10°C to +149°C)



Non-Serviceable Oil Separators							
Part No	ODS (Inch)	Dimensions (inch)		Min Discharge CFM	Max Discharge CFM	Pre-charge Amount	Weight (lbs)
		Ø	Height				
S-5580	1/4	4.0	8.25	0.25	0.75	12	4.2
S-5581	3/8	4.0	8.25	0.33	1.0	12	4.2
S-5582	1/2	4.0	10.25	0.50	1.5	12	5.1
S-5585	5/8	4.0	14.25	1.32	4.0	12	7.1
S-5587	7/8	4.0	17.75	2.15	6.5	12	7.9
S-5588	1 1/8	4.0	21.00	2.64	8.0	12	9.0
S-5590	1 3/8	4.0	21.25	3.30	10.0	12	9.9
S-5687	7/8	6.0	11.13	2.48	7.5	30	12.1
S-5688	1 1/8	6.0	15.38	2.97	9.0	30	15.0
S-5588	1 1/8	4.0	21.00	2.64	8.0	12	15.0
S-5590	1 3/8	4.0	21.25	3.30	10.0	12	18.1
S-5692	1 5/8	6.0	18.63	4.62	14.0	30	19.0

Serviceable Oil Separators							
Part No	ODS (Inch)	Dimensions (inch)		Min Discharge CFM	Max Discharge CFM	Pre-charge Amount	Weight (lbs)
		Ø	Height				
S-5882	1/2	4.0	10.25	0.50	1.5	12	9.0
S-5885	3/8	4.0	14.25	1.32	4.0	12	11.0
S-5887	1/2	4.0	17.75	1.98	6.0	12	12.1
S-5888	5/8	4.0	12.00	2.64	8.0	12	13.0
S-5890	7/8	4.0	21.25	3.30	10.0	12	13.0
S-5792	1 1/8	6.0	29.25	4.62	14.0	20	27.1
S-5794	1 3/8	6.0	29.56	7.43	22.5	20	27.1
S-1901	7/8	8.0	21.00	5.94	18.0	20	31.1
S-1902	1 1/8	8.0	21.00	8.91	27.0	20	32.0
S-1903	1 1/8	10.0	21.50	16.17	49.0	20	44.1
S-1904	1 3/8	12.0	25.75	22.44	68.0	20	75.0

## Helical Oil Separators



The AC&R, patented Helical Oil separators combine high oil separation efficiency with low pressure drop design and unlike coalescing type separators, do not have an internal filter that requires regular & costly replacement.

- Patented Henry Technologies' Design
- ODS refrigerant connections
- SAE flare or ODS oil connection
- High oil removal efficiency - up to 99%
- Low pressure drop
- No moving parts within oil separation zone
- Serviceable models available, S-52\*\* series
- 1/8 NPT oil drain
- Magnet on oil float to collect debris
- Replacement parts available
- Maximum working pressure = 450 PSI (31 Bar)
- Allowable operating temperature = +15°F to +300°F (-10°C to +149°C)



Non-Serviceable Oil Separators					
Part No	ODS (Inch)	Dimensions (inch)		Pre-charge Oil (oz)	Weight (lbs)
		Ø	Height		
S-5180	1/4	2.5	6.38	14	2.65
S-5181	3/8	2.5	7.50	14	7.50
S-5182	1/2	4.0	13.00	14	8.60
S-5185	5/8	4.0	15.00	14	19.62
S-5187	7/8	4.0	17.00	14	2.65
S-5188	1 1/8	4.0	19.00	40	19.62
S-5190	1 3/8	6.0	15.00	40	2.65
S-5192	1 5/8	6.0	17.00	40	19.62
S-5194	2 1/8	6.0	17.00	40	2.65

Serviceable Oil Separators					
Part No	ODS (Inch)	Dimensions (inch)		Pre-charge Oil (oz)	Weight (lbs)
		Ø	Height		
S-5290	1 3/8	6.0	20.19	25	25.00
S-5292	1 5/8	6.0	22.00	25	25.00
S-5294	2 1/8	6.0	22.25	25	25.00
S-5202	2 1/8	8.0	24.00	25	39.00
S-5203	2 5/8	10.0	27.29	25	58.00
S-5204	3 1/8	12.0	29.31	25	94.00

Notes: Standard 3/8" flare oil return connection. 3/8" O.D.S. oil return connection available by ordering an "X" suffix (i.e. S-5292X). See Selection Guidelines for sizing instructions

## Mechanical Oil Level Regulators



The AC&R range of mechanical float type oil level regulators enjoy a reputation for quality & reliability, with a broad range of solutions for all low pressure oil management systems, including the new S-95\*\* series.

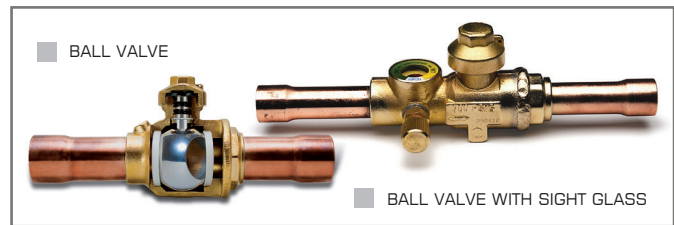
- 3 bolt on 1-7/8" or universal flange compressor connections
- SAE flare oil and equalization connections
- Adjustable oil level on select models
- Pressure equalization ports for multi compressor applications
- Adapters available for most popular compress models
- Maximum working pressure = 450 PSI (31 Bar)
- Allowable pressure differential S-9010 = 5 to 30 PSI (0.35 to 2.0 Bar)
- Allowable pressure differential S-9090 & S-9130 = 5 to 90 PSI (0.35 to 6.2 Bar)
- Allowable operating temperature = +32°F to +266°F (0°C to +130°C)

Part No	Dimensions (inch)					Flange Type	Weight (lbs)
	ØA	B	C	D	E		
S-9010	3.0	3.18	4.56	2.09	1.96	3 on 1-7/8"	3.2
S-9090	3.0	3.18	4.56	2.09	1.96	3 on 1-7/8"	3.3
S-9130	4.0	3.18	4.56	2.25	2.12	Universal Flange	3.9

## Ball Valves and Ball Valves with Sight Glass

The function of a Ball Valve is to provide isolation in liquid and gas applications with single or bi-directional flow, where little restriction is desired.

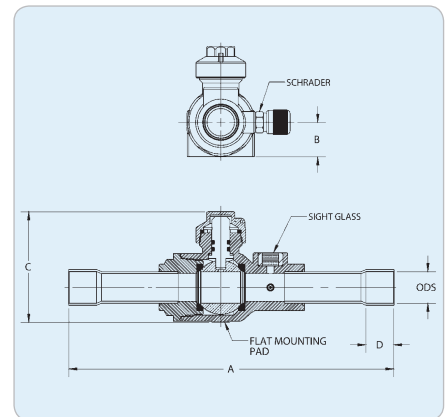
- Bi-directional flow
- Indicator on stem shows valve position - open or closed
- Positive stem stop ensures precise positioning in the open or closed position
- Blow-out proof stem
- Ball cavity vented to prevent over-pressure
- Vented seal cap
- Mounting pad
- Large clear sight glass (BVSG only)
-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



Ball Valves Imperial												
Part No		Dimensions (inch)						Port Size (inch)	Weight (lbs)	MWP (PSI)	Cv	CE Cat
Standard	Schrader Valve	ODS (inch)	A	B	C	D	Mounting pad hole thread details -2 off					
907202	937202	1/4	6.50	0.63	2.13	0.32	8-36 UNF-2B X 0.79 pitch	0.50	0.73	700	2.09	SEP
907203	937203	3/8	6.50	0.63	2.13	0.32	8-36 UNF-2B X 0.79 pitch	0.50	0.73	700	4.28	SEP
907204	937204	1/2	6.50	0.63	2.13	0.39	8-36 UNF-2B X 0.79 pitch	0.50	0.73	700	6.96	SEP
907205	937205	5/8	6.50	0.63	2.13	0.51	8-36 UNF-2B X 0.79 pitch	0.50	0.73	700	13.82	SEP
907306	937306	3/4	7.24	0.83	2.64	0.51	8-36 UNF-2B X 1.26 pitch	0.75	1.37	700	20.89	SEP
907307	937307	7/8	7.24	0.83	2.64	0.75	8-36 UNF-2B X 1.26 pitch	0.75	1.41	700	30.14	SEP
907409	937409	1 1/8	8.50	0.98	2.99	0.91	10-32 UNF-2B X 1.58 pitch	1	2.09	700	60.98	SEP
907511	937511	1 3/8	9.25	1.22	3.70	0.98	10-32 UNF-2B X 1.89 pitch	1.25	3.35	700	84.74	Cat I
907613	937613	1 5/8	10.00	1.54	4.29	1.10	1/4"-28 UNF-2B X 2.37 pitch	1.5	5.38	700	210.87	Cat I
907617	937617	2 1/8	11.38	1.85	5.20	1.34	1/4"-28 UNF-2B X 2.96 pitch	2	10.10	700	283.48	Cat I
907721	937721	2 5/8	12.87	1.85	5.20	1.46	1/4"-28 UNF-2B X 2.96 pitch	2	11.11	700	236.73	Cat I
907725	937725	3 1/8	14.37	2.36	6.06	1.65	1/4"-28 UNF-2B X 2.96 pitch	2.50	19.25	700	322.28	Cat I

Ball Valves with Sight Glass												
Part No		Dimensions (inch)						Port Size (inch)	Weight (lbs)	MWP (PSI)	Cv	CE Cat
Schrader Valve	ODS (inch)	A	B	C	D	Mounting pad hole thread details -2 off						
937202SG	1/4	7.28	0.63	2.17	'32	8-36 UNF-2B X 0.79 pitch	0.50	0.93	700	2.09	SEP	
937203SG	3/8	7.28	0.63	2.17	'32	8-36 UNF-2B X 0.79 pitch	0.50	0.93	700	4.28	SEP	
937204SG	1/2	7.28	0.63	2.17	0.39	8-36 UNF-2B X 0.79 pitch	0.50	0.93	700	6.96	SEP	
937205SG	5/8	7.28	0.63	2.17	0.51	8-36 UNF-2B X 0.79 pitch	0.50	0.93	700	13.82	SEP	
937306SG	3/4	8.31	0.83	2.64	0.75	8-36 UNF-2B X 1.26 pitch	0.75	1.76	700	20.89	SEP	
937307SG	7/8	8.31	0.83	2.64	0.79	8-36 UNF-2B X 1.26 pitch	0.75	1.76	700	30.14	SEP	
937409SG	1 1/8	9.33	1.02	2.99	0.95	10-32 UNF-2B X 1.58 pitch	1	2.65	700	60.98	SEP	



## Oil Filter Driers



The function of an Oil Filter is to remove system debris from the refrigerant oil to protect the compressor and other oil management components from damage. In addition to removing debris, the oil filter drier also removes moisture from the refrigerant oil.

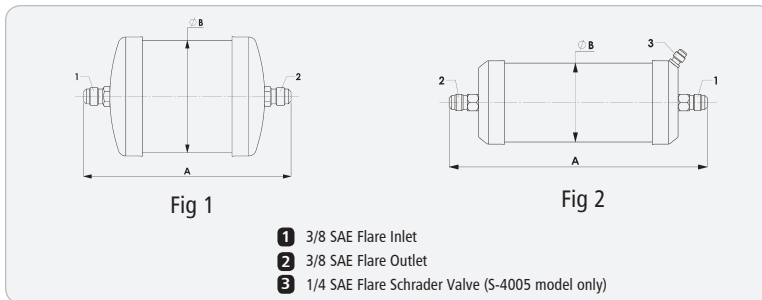
### S-4004 model

- High flow capacity with low pressure drop
- 475 in<sup>2</sup> filter area
- Particle retention down to 10 microns
- Suitable replacement for individual Oil Strainers on oil return linesow capacity with low pressure drop



### S-4005 model

- High flow capacity with low pressure drop
- 465 in<sup>2</sup> in filter area
- Particle retention down to 6 microns
- High level of drying with 8 in<sup>2</sup> XH-9 desiccant
- Suitable replacement for individual Oil Strainers on oil return line
- Maximum working pressure = 450 PSI (31 Bar)
- Allowable operating temperature = 14°F to +212°F (-10°C to +100°C)



Part No	Fig No	Dimensions (inch)		Weight (lbs)
		A	ØB	
S-4004	1	4.0	7.39	3.45
S-4005	2	3.0	9.80	3.45

## Suction Accumulators

The SA series are a competitive range of Suction Line Accumulator's, whose main purpose is to prevent a sudden surge of liquid refrigerant or oil from returning down the suction line and into the compressor. The suction line accumulator is a temporary reservoir for the liquid refrigerant and oil..

- ODS connections
- Prevents liquid slugging
- Controlled liquid return and oil return
- Large flow capacity
- Low pressure drop
- Screen protected orifice
- Solid copper connections
- Powder-coated finish
- Cost effective



Part No	ODS (inch)	SA Series Dimensions (inch)				Weight (lbs)
		ØA	B	C	D	
SA-7044	1/2	4.00	6.42	5.43	2.50	4.41
SA-7045S	5/8	4.00	6.58	5.43	2.50	4.41
SA-7045	5/8	4.00	10.95	9.80	2.50	6.39
SA-7046	3/4	4.00	11.06	9.80	2.50	6.39
SA-7056	3/4	5.00	9.92	8.74	2.76	7.94
SA-7057S	7/8	5.00	10.08	8.74	2.76	7.94
SA-7057	7/8	5.00	14.88	13.54	2.76	11.24
SA-7051	1 1/8	5.00	18.74	17.24	2.76	13.89
SA-7053	1 3/8	5.00	18.86	17.24	2.95	13.89
SA-7065	1 5/8	6.00	26.69	24.92	2.95	28.66

## Pressure Relief Valves



Fig 1

The main function of a Pressure Relief Valve is to protect against accidental overpressure in a system due to a malfunction or fire.

- NPT and SAE flare connections
- High pressure line available (500-675 PSI) suitable for R410A & CO
- Steel Models suitable for Amonia
- Valves fully open before 10% overpressure
- Reset pressure ranges typically 10-40% (blowdown) from set pressure
- Valves bear individual serial numbers
- UV-1 pressure test reports available upon request
- **Fully Certified to ASME VIII Div 1**

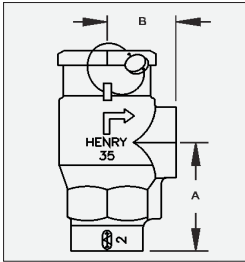


Fig 1



Fig 2



Fig 3.1

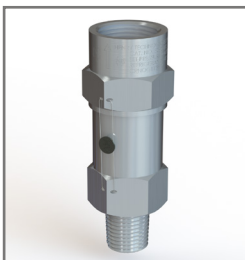


Fig 3.2

### High Pressure - X Series

Part No	Fig No	Conn Size (inch)		Dimensions (inch)		Orifice Diameter (inch)	Weight (lbs)
		Inlet	Outlet	Height			
5230AX-XXX	2	1/4" MPT	1/2" SAE Flare	3.70		0.276	0.83
5231AX-XXX	2	3/8" MPT	1/2" SAE Flare	3.70		0.276	0.88
5231BX-XXX	2	1/2" MPT	3/8" SAE Flare	4.17		0.276	0.94
5233AX-XXX	2	3/8 NPT	7/8 SAE Flare	4.18		0.276	1.02
5234AX-XXX	3.1	3/8 NPT	3/4 FPT	4.22		0.276	1.12
5235AX-XXX	3.1	1/2 NPT	3/4 FPT	4.50		0.276	1.21

### Angle Relief Valve - Steel

Part No	Fig No	Conn Size (inch)		Dimensions (inch)		Orifice Diameter (inch)	Weight (lbs)
		Inlet	Outlet	A	B		
5600-XX	1	1/2 FPT	3/4 FPT	2.69	1.63	0.703	3.60
5601-XX	1	1/2 FPT	1 FPT	2.69	1.63	0.703	3.44
5602-XX	1	3/4 FPT	1 FPT	2.69	1.63	0.921	3.40
5603-XX	1	1 FPT	1 1/4 FPT	2.88	2.00	1.000	4.75
5604-XX	1	1 1/4 FPT	1 1/2 FPT	4.13	2.31	1.125	6.50

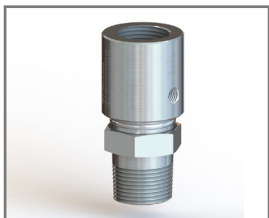
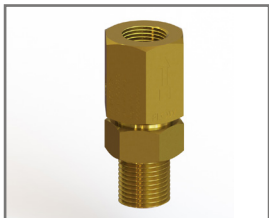
### Straight-through Relief Valves - Brass

Part No	Fig No	Conn Size (inch)		Dimensions (inch)		Orifice Diameter (inch)	Weight (lbs)
		Inlet	Outlet	Height			
5250A-1/2-XXX	3.1	1/2 MPT	1/2 FPT	4.26		0.375	0.85
5250-1/2-XXX	3.1	1/2 MPT	3/4 FPT	4.04		0.375	0.97
5252-3/4-XXX	3.1	3/4 MPT	3/4 FPT	4.05		0.375	0.95
5244-3/4-XXX	3.1	3/4 MPT	1 FPT	4.16		0.500	1.46
5244-1-XXX	3.1	1 MPT	1 FPT	4.16		0.500	1.46
5246A-1-XXX	3.1	1 MPT	1 1/4 FPT	5.82		0.719	2.50
5246A-1-1/4-XXX	3.1	1 1/4 MPT	1 1/4 FPT	5.82		0.719	2.60

### Straight-through Relief Valves - Stainless Steel

Part No	Fig No	Conn Size (inch)		Dimensions (inch)		Orifice Diameter (inch)	Weight (lbs)
		Inlet	Outlet	Height			
5350-1/2-XXX	3.2	1/2 MPT	3/4 FPT	4.00		0.375	0.95
5352-3/4-XXX	3.2	3/4 MPT	3/4 FPT	4.00		0.375	1.03
5344-3/4-XXX	3.2	3/4 MPT	1 FPT	4.18		0.500	1.46
5344-1-XXX	3.2	1 MPT	1 FPT	4.19		0.500	1.46
5345A-XXX	3.2	1 MPT	1 1/4 FPT	5.81		0.719	2.50
5346A-1-1/4-XXX	3.2	1 1/4 MPT	1 1/4 FPT	5.81		0.719	2.60

## Rupture Disc



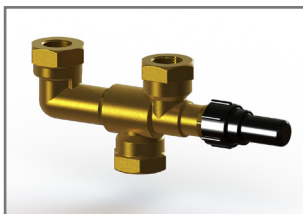
The function of a Rupture Disc is to protect against accidental overpressure in a system due to a malfunction or fire. A Rupture Disc is generally used in combination with Henry Technologies' Pressure Relief Valves.

- Proven safe design
- High flow capacity
- Compact
- Reverse acting, non-fragmenting disc
- 2x 1/8 NPT gauge ports
- Helium leak tested
- Non-standard pressure settings available on request

Part No	Type	NPT (inch)		Dimensions (inch)			STD Rupture Disc setting at 72°F (PSI)	Capacity lbs. Air/min	Weight (lbs)
		Inlet	Outlet	Height	Width	Ø			
5525-235-CE	Brass	3/8	3/8	2.94	1-1/4 HEX	0.375	235	25.5	0.69
5525-300-CE							300	32.2	
5526-235-CE	Brass	1/2	1/2	2.62	1-1/4 HEX	0.500	235	45.3	0.68
5526-300-CE							300	57.2	
5626-150-CE	Stainless Steel	1/2	1/2	2.96	Ø1.13	0.500	150	29.8	0.62
5626-250-CE							250	52.1	
5627-250-CE	Stainless Steel	3/4	3/4	3.29	Ø1.50	0.750	250	57.7	1.44
5628-300-CE	Stainless Steel	1	1	3.73	Ø1.72	1.000	300	128.7	1.36

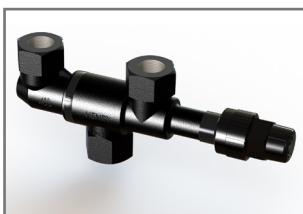
For other size, please contact Henry Technologies or consult our catalogue on our website: [www.henrytech.com](http://www.henrytech.com)

## Three-Way Dual Shut-Off Valves



The function of a Three-Way Valve is to permit replacement of one of the Pressure Relief Devices, while the other is protecting the pressure vessel. In this way, a vessel is protected from overpressure during servicing and removal of the Pressure Relief Device, and a system refrigerant charge is not required to replace a Pressure Relief Device.

- NPT Connections
- Proven robust design
- Compact



### 92 Series

- Maximum working pressure = 675 PSI (46.6 Bar)
- Allowable operating temperature = -20°F to +300°F (-29°C to +149°C)

### 802 Series

- Maximum working pressure = 450 PSI (31.0 Bar)
- Allowable operating temperature = -20°F to +300°F (-29°C to +149°C)

Part No	NPT (inch)	Dimensions (inch)		Weight (lbs)
		Outlet Connection Pitch	Height	
923	3/8	2.75	2.50	1.15
925	1/2	2.75	2.50	1.05
927	3/4	2.75	2.75	1.67

Part No	NPT (inch)	Dimensions (inch)		Weight (lbs)
		Outlet Connection Pitch	Height	
8021A	1/2	3.63	3.38	3.21
8022A	3/4	3.63	3.38	3.00
8024	1	5.82	3.38	7.87
8025	1 1/4	5.82	3.38	6.92

\* Suitable for ammonia

The information contained in this brochure is correct at the time of publication.

Henry Technologies has a policy of continuous product development; we therefore reserve the right to change technical specifications without prior notice.

Extensive changes within our industry have seen products of Henry Technologies being used in a variety of new applications. We have a policy, where possible, to offer research and development assistance to our clients. We readily submit our products for assessment at the development stage, to enable our clients to ascertain product suitability for a given design application.

It remains the responsibility of the system designer to ensure all products used in the system are suitable for the application.

For details of our warranty cover, please refer to our standard terms and conditions of sale. Copies are available on request.

Date of publication:- June 2016

### Henry Technologies INC

701 S. Main Street  
Chatham, IL 62629 | USA  
Tel. +1 217 483 2408  
Fax. +1 217 483 2406  
[www.henrytech.com](http://www.henrytech.com)

