

Temprite®



The most respected name in oil management systems



CO₂4U™

Temprite has oil management products for CO₂ subcritical and transcritical applications up to 130 bar. Our products meet the requirements of the European Pressure Equipment Directive (PED). See page 16!

Temprite®

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www.Temprite.com

Q Why Coalescent Oil Separators?

A At Temprite, we have one goal when we create our products; to design and manufacture the most efficient refrigeration components available anywhere.

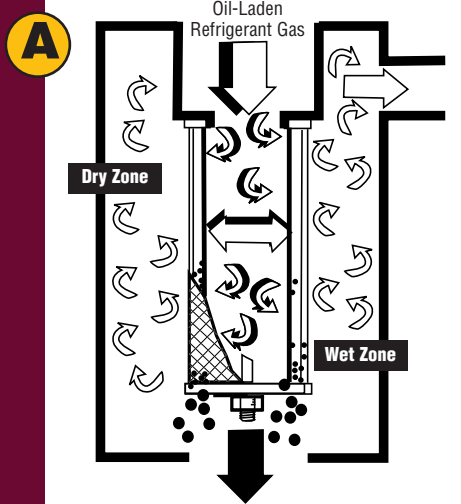
We know that, with refrigeration design, the sum of the components equals the overall efficiency of the system. When you specify Temprite products, you know you're getting a product designed and engineered to enhance the performance of the system.

Temprite's 920 and 920R Series Coalescent Oil Separators have proven in independent third-party tests to be more efficient than any other oil separator available. High efficiency means better heat transfer through the coils, translating into significant kW savings.

■ To find out how much you can save, visit www.Temprite.com and check out the Temprite Energy Savings Calculator.

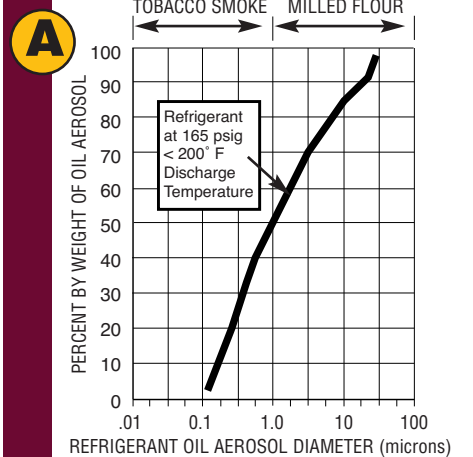
■ Read the results of third-party tests in the online Refrigerant Conversion Section, under "Emerson Study", conducted by Emerson Climate Technologies.

■ Or contact Temprite at temprite@temprite.com; phone 630-293-5910.



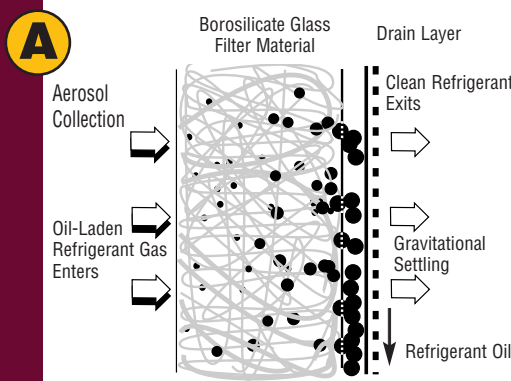
▲ Coalescent Oil Separator Cross Section

Aerosol oil present in the discharge gas enters the interior flowing from the inside to the outside. Oil droplets over 100 microns (100 μm) are generally separated here by expansion of gases.



▲ Typical Aerosol Distribution

This graph illustrates micron particle sizes from .01 to 100. Refrigerant oils in aerosol form typically range from less than 0.1 to 40 microns (μm) in size. The majority of aerosols in the discharge gas are in the 0.4 to 10 μm range with greater than 50% of the aerosols less than 1 μm in size.



◀ Filter Cross Section

As refrigerant oil in aerosol form enters the borosilicate glass matrix it vibrates from side-to-side, colliding with other molecules and creating oil droplets. Large oil droplets are moved to the outside of the filter and enter the gravitational drain layer.



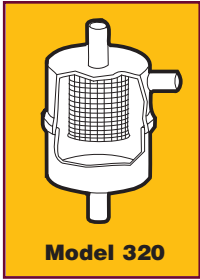
▼ Coalescent Oil Separator Filtration Level

Coalescent matrix filters capture solid contaminants above .3 μm and aerosols in liquid form to .001 μm . Conventional separators only work to 100 μm , missing approximately 50% of the aerosols in the mass flow.

Beach Sand 1000 μm .	Human Hair 100 μm .	Pollens 10 μm .	Tobacco Smoke 1 μm .	Oil Smoke .1 μm .	.01 μm
Settling Chambers/Separators					
Conventional Separators					
Electromechanical Separators					
Coalescent Oil Separators					

The Temprite Product Line

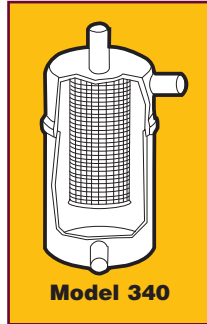
The Temprite 320 and 340 Series are the first oil separators designed for refrigerant recovery/reclaim systems.



Model 320

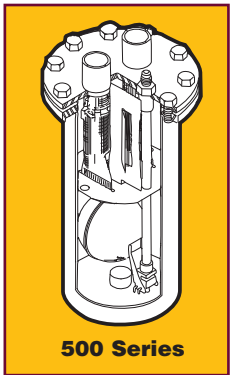
Based on our robust 900 Series, the 320 and 340 Series units are 99.995% efficient in removing particulates between 0.3 and 0.6 microns (μm) and separating oil from the mass flow. The elimination of the float ball and the internal oil reservoir maximizes efficiency by minimizing oil carryover. It also has the advantage of being one of the

smallest oil separators available for its capacity. Metering the oil return back to the compressor may be done by a variety of methods including capillary tube, a metered orifice or a timed solenoid. Use the actual tonnage CFM to correctly size the 320 or 340 Series for your application.



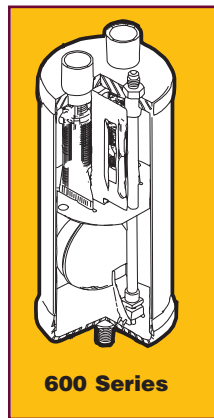
Model 340

The 500 and 600 Series are impingement screen-type oil separators. In these units, the compressed mass flow enters a larger separator chamber, which



500 Series

lowers the velocity. The aerosol oil droplets collect on the impingement screen surface. As the oil droplets become larger, they fall to the bottom of the separator oil reservoir. The 600 Series is designed for the OEM who needs oil separation but does not require the accessibility of the 500 Series.

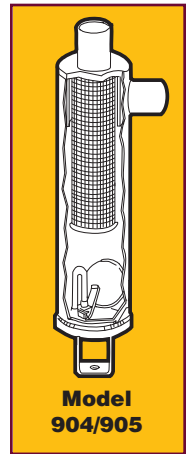


600 Series

The Temprite 900, 920 and 920R Series are unquestionably *the* standard in modern oil separation by virtue of their exceptional performance range. Unlike centrifugal or impingement screen separators, the 900, 920 and 920R Series coalescent oil separators are not dependent upon velocity for efficiency: when the load drops off, the separator keeps working at 99% efficiency.

The reason why 900, 920 and 920R Series coalescent oil separators work so well is that they employ a borosilicate coalescent filter to do the work formerly done by impingement screens. This exceptionally pure, borosilicate glass filter material forces the oil aerosol droplets to collide with one another, collecting into larger droplets until they fall to the bottom of the separator. Because this filter is finer than a filter/drier, it captures all solid contaminants and dirt circulating in the system to 0.3 μm . Short, self-contained applications normally have a small amount of solid contaminants. The Temprite 900 Series is designed for OEM applications where cleanliness specifications may be audited.

Temprite developed the 920 and 920R Series accessible coalescent oil separators for larger systems with field installations of multiple connections. These systems tend to be dirtier and may need to have the filter changed. In the first 24 to 48 hours of operation, the coalescent oil separator cleans the system of all solid contaminants larger than 0.3 μm . The filter is then changed and a new filter does the job of separating and balancing out the system.

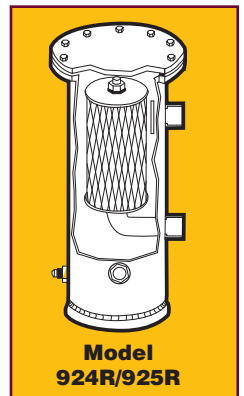


Model 904/905

If, however, the filter becomes overloaded with solid contaminants and dirt, it will not function at optimum performance level. This problem is solved with the **Temprite Pressure Differential Indicator (PDI)**. The PDI tells you when the filter is becoming dirt-logged. Check the pressure differential across the filter and you'll know whether or not the filter needs changing. The PDI may also be wired to an alarm to warn you electronically.

In the event of a compressor burnout, with the 920 and 920R Series the carbon and solid contaminants are localized at the separator. You may also install a Temprite 920 Series on a system that has had a burnout to facilitate clean up. Just put in a **Temprite Clean-Up® Filter** to purge the system of unwanted contaminants. If used in conjunction with a Standard Filter, you can return the oil to near-virgin state.

The 900, 920 and 920R Series also enhance the performance of other components by eliminating solid contaminants and oil from the system. Thermostatic expansion valves work better because they're dirt free and oil free. Desiccant in filter driers is more effective when it's not logged with oil, enhancing the performance of the entire system.



Model 924R/925R

CO₂4U™

Temprite's 130 Series for CO₂ Systems

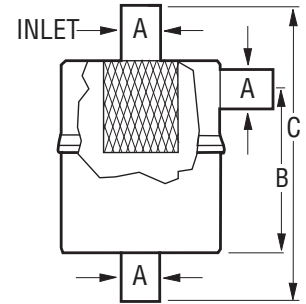
- Engineered for the unique requirements of CO₂ systems.
- First products for transcritical applications up to 130 bar.
- Rated "Best Performance" of any filtration/separation technology by internationally recognized testing organizations.
- Comply with the European Pressure Equipment Directive (PED).

See Page 16 for the New 130 Series!

300 Series

Model 320, 321, 322 Coalescent Oil Separator: Hermetic

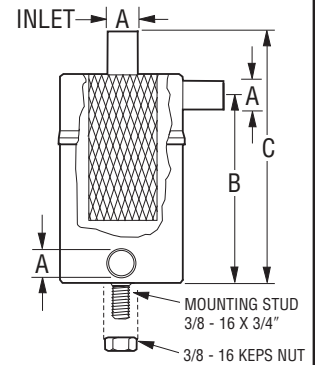
Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions		
				A	B	C
320	650 PSIG	3/8" ODS	2-1/2"	3/8" ODS	2-1/16"	4-1/4"
321	650 PSIG	1/8" FPT	2-1/2"	1/8" FPT	2-1/16"	3-1/2"
322	650 PSIG	1/4" SAE	2-1/2"	1/4" SAE	2-1/16"	4"



UL cUL CE CRN SP

Model 340, 341, 342, 343 Coalescent Oil Separator: Hermetic

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions		
				A	B	C
340	650 PSIG	3/8" ODS	2-1/2"	3/8" ODS	3-9/16"	4-7/8"
341	650 PSIG	1/8" FPT	2-1/2"	1/8" FPT	3-9/16"	4-1/2"
342	650 PSIG	1/4" SAE	2-1/2"	1/4" SAE	3-9/16"	4-3/4"
343	650 PSIG	3/8" SAE	2-1/2"	3/8" SAE	3-9/16"	4-15/16"

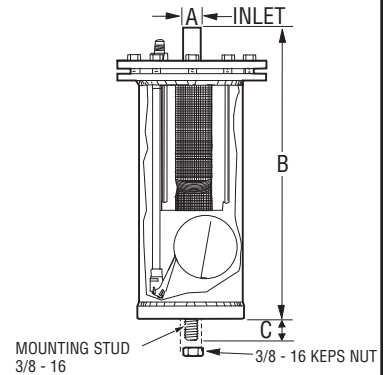


UL cUL CE CRN SP

500 Series

Model 501, 502, 503, 504, 505 Conventional Oil Separator: Accessible Impingement

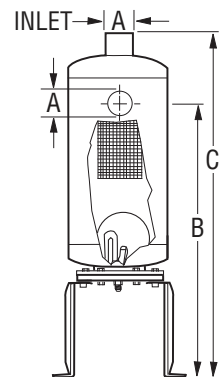
Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C		
501	650 PSIG	1/4" SAE	4"	1/2" ODS	10-1/4"	3/4"	16 oz	475 ml
502	650 PSIG	1/4" SAE	4"	5/8" ODS	12-7/8"	3/4"	16 oz	475 ml
503	650 PSIG	1/4" SAE	4"	7/8" ODS	14-5/8"	3/4"	16 oz	475 ml
504	650 PSIG	1/4" SAE	4"	1-1/8" ODS	15-1/2"	3/4"	16 oz	475 ml
505	650 PSIG	1/4" SAE	4"	1-3/8" ODS	18-7/8"	3/4"	16 oz	475 ml



UL cUL CE CRN SP

Model 506, 507 Conventional Oil Separator: Accessible Impingement

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C		
506	650 PSIG	3/8" SAE	6"	1-5/8" ODS	15-1/4"	20-1/4"	20 oz	590 ml
507	650 PSIG	3/8" SAE	6"	2-1/8" ODS	16-1/4"	21-1/2"	20 oz	590 ml



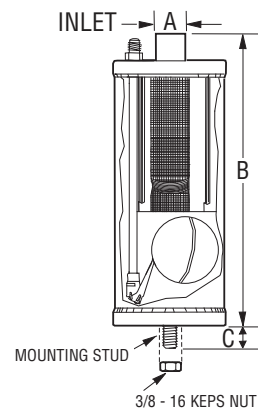
UL cUL CE CRN SP

600 Series

Model 600, 601, 602, 603, 604, 605 Conventional Oil Separator: Hermetic Impingement

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C		
600	650 PSIG	1/4" SAE	4"	3/8" ODS	8-1/8"	3/4"	12 oz	355 ml
601	650 PSIG	1/4" SAE	4"	1/2" ODS	10-1/4"	3/4"	12 oz	355 ml
602	650 PSIG	1/4" SAE	4"	5/8" ODS	12-7/8"	3/4"	12 oz	355 ml
603	650 PSIG	1/4" SAE	4"	7/8" ODS	14-5/8"	3/4"	12 oz	355 ml
604	650 PSIG	1/4" SAE	4"	1-1/8" ODS	15-1/2"	3/4"	12 oz	355 ml
605	650 PSIG	1/4" SAE	4"	1-3/8" ODS	18-7/8"	3/4"	12 oz	355 ml

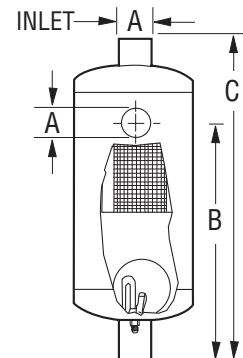
UL cUL CE CRN SF



Model 606, 607 Conventional Oil Separator: Hermetic Impingement

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C		
606	650 PSIG	1/4" SAE	6"	1-5/8" ODS	13-1/2"	18-3/8"	29 oz	850 ml
607	650 PSIG	1/4" SAE	6"	2-1/8" ODS	14-1/2"	19-3/8"	29 oz	850 ml

UL cUL CE CRN

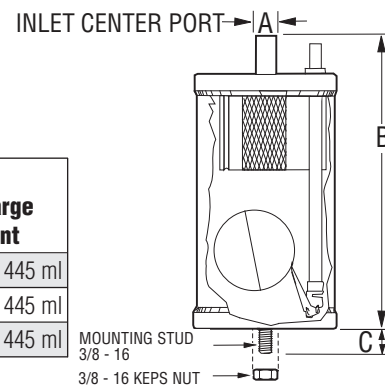


900 Series

Model 900, 900-1, 901 Coalescent Oil Separator: Hermetic

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C		
900	650 PSIG	1/4" ODS	4"	3/8" ODS	8-1/4"	3/4"	15 oz	445 ml
900-1	650 PSIG	1/4" 90° ODS	4"	3/8" ODS	8-1/4"	3/4"	15 oz	445 ml
901	650 PSIG	1/4" ODS	4"	1/2" ODS	8-3/8"	3/4"	15 oz	445 ml

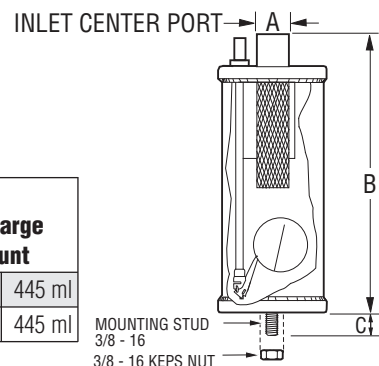
UL cUL CE CRN



Model 902, 903 Coalescent Oil Separator: Hermetic

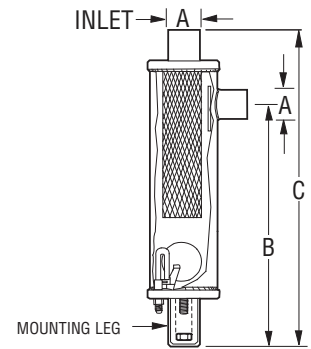
Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C		
902	650 PSIG	1/4" ODS	4"	5/8" ODS	10-9/16"	3/4"	15 oz	445 ml
903	650 PSIG	1/4" ODS	4"	7/8" ODS	10-7/8"	3/4"	15 oz	445 ml

UL cUL CE CRN



Model 904, 905 Coalescent Oil Separator: Hermetic

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C	16 oz	475 ml
904	650 PSIG	1/4" ODS	4"	1-1/8" ODS	15-1/8"	18-3/8"	16 oz	475 ml
905	650 PSIG	1/4" ODS	4"	1-3/8" ODS	15-1/8"	18-3/8"	16 oz	475 ml



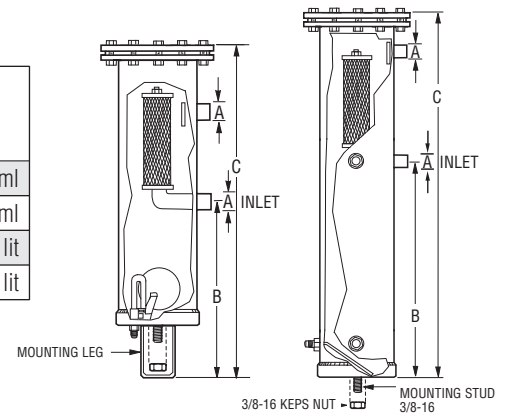
UL cUL CE CRN

920 and 920R Series

Model 922, 923 Coalescent Oil Separator: Accessible Model 922R, 923R Coalescent Oil Separator/Reservoir: Accessible

Model	Maximum Working Pressure	Oil Connector Size	Dia.	Dimensions			Oil Charge Amount	
				A	B	C	16 oz	475 ml
922	650 PSIG	1/4" SAE	4"	5/8" ODS	9-3/8"	17-1/4"	16 oz	475 ml
923	650 PSIG	1/4" SAE	4"	7/8" ODS	9-3/8"	17-1/4"	16 oz	475 ml
922R	650 PSIG	1/4" SAE	4"	5/8" ODS	11-5/8"	19-1/2"	77 oz	2.27 lit
923R	650 PSIG	1/4" SAE	4"	7/8" ODS	11-5/8"	19-1/2"	77 oz	2.27 lit

Replacement Filter Kit	Standard	Clean-Up®
Part No.	62034000	62024000



922-923

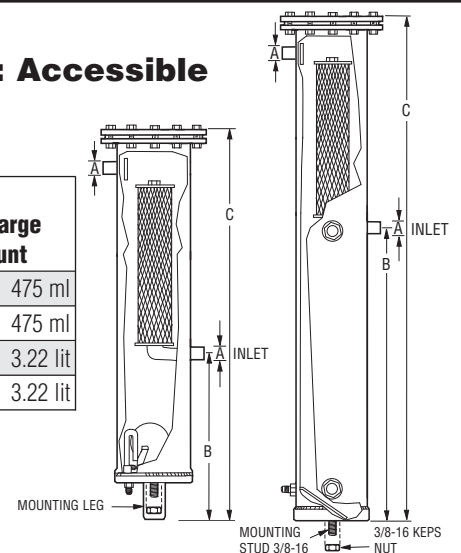
922R-923R

UL cUL CE CRN

Model 924, 925 Coalescent Oil Separator: Accessible Model 924R, 925R Coalescent Oil Separator/Reservoir: Accessible

Model	Maximum Working Pressure	Oil Connector Size	Diameter	Dimensions			Oil Charge Amount	
				A	B	C	16 oz	475 ml
924	650 PSIG	1/4" SAE	4"	1-1/8" ODS	9-3/8"	21-5/8"	16 oz	475 ml
925	650 PSIG	1/4" SAE	4"	1-3/8" ODS	9-3/8"	21-5/8"	16 oz	475 ml
924R	650 PSIG	1/4" SAE	4"	1-1/8" ODS	16-3/8"	28-5/8"	109 oz	3.22 lit
925R	650 PSIG	1/4" SAE	4"	1-3/8" ODS	16-3/8"	28-5/8"	109 oz	3.22 lit

Replacement Filter Kit	Standard	Clean-Up®
Part No.	62037000	62047000



924-925

924R-925R

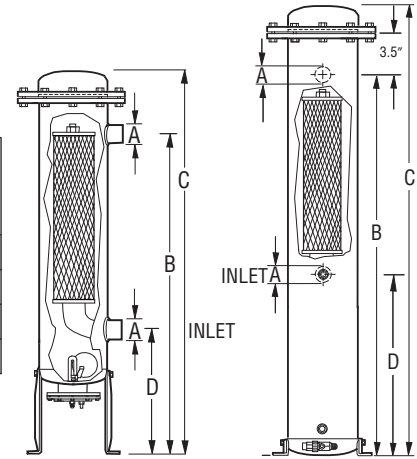
UL cUL CE CRN

Model 926, 927
Coalescent Oil Separator: Accessible

Model 926R, 927R
Coalescent Oil Separator/Reservoir: Accessible

Model	Maximum Working Pressure	Oil Connector Size	Dia.	Dimensions				Oil Charge Amount	
				A	B	C	D		
926	650 PSIG	3/8" SAE	6"	1-5/8" ODS	29"	35"	12"	34 oz.	1.00 lit
927	650 PSIG	3/8" SAE	6"	2-1/8" ODS	29"	35"	12"	34 oz.	1.00 lit
926R	650 PSIG	3/8" SAE	6"	1-5/8" ODS	33-7/8"	39-3/8"	16-5/8"	1.8 gal	6.7 lit
927R	650 PSIG	3/8" SAE	6"	2-1/8" ODS	33-7/8"	39-3/8"	16-5/8"	1.8 gal	6.7 lit

Replacement Filter Kit	Standard	Clean-Up®
Part No.	62028000	62030000



926-927

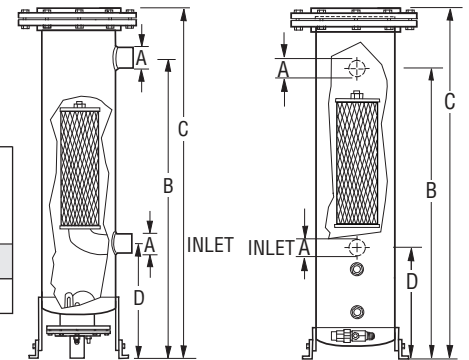
926R-927R

Model 928
Coalescent Oil Separator: Accessible

Model 928R
Coalescent Oil Separator/Reservoir: Accessible

Model	Maximum Working Pressure	Oil Connector Size	Dia.	Dimensions				Oil Charge Amount	
				A	B	C	D		
928	650 PSIG	3/8" SAE	8-5/8"	2-5/8" ODS	33-5/8"	40-1/4"	12"	34 oz.	1.00 lit
928R	650 PSIG	3/8" SAE	8-5/8"	2-5/8" ODS	32-3/8"	39"	11-1/2"	2.0 gal	7.55 lit

Replacement Filter Kit	Standard	Clean-Up®
Part No.	62051000	62092802



928

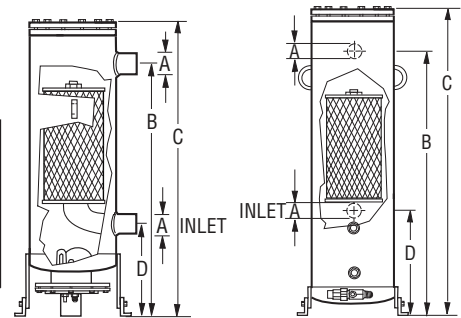
928R

Model 930
Coalescent Oil Separator: Accessible

Model 930R
Coalescent Oil Separator/Reservoir: Accessible

Model	Maximum Working Pressure	Oil Connector Size	Dia.	Dimensions				Oil Charge Amount	
				A	B	C	D		
930	650 PSIG	3/8" SAE	12-3/4"	3-1/8" ODS	35-3/4"	43-3/8"	13-3/4"	85 oz.	2.50 lit
930R	650 PSIG	3/8" SAE	12-3/4"	3-1/8" ODS	37-1/8"	44-3/4"	15-1/8"	5.7 gal	21.25 lit

Replacement Filter Kit	Standard	Clean-Up®
Part No.	62085000	62086000



930

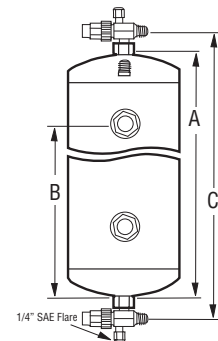
930R

Reservoirs, Oil Level Controls and Filters

Oil Reservoirs

Model	Maximum Working Pressure	Oil Connector Size	Dia.	Capacity: Gal/Oz		Dimensions		
				A	B	A	B	C
47058	650 PSIG	3/8" SAE	6"	1.6 gal/196 oz	1.2 gal/146 oz	13-1/2"	9-3/4"	16-1/2"
47080	650 PSIG	3/8" SAE	6"	2.1 gal/270 oz	1.7 gal/220 oz	19-1/4"	15-1/2"	22-1/4"
47115	650 PSIG	3/8" SAE	6"	3 gal/385 oz	2.6 gal/338 oz	27-1/4"	23-1/2"	30-1/4"

UL cUL CE CRN

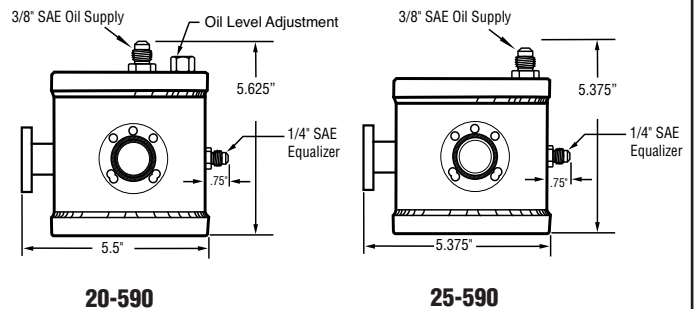


47058, 47080, 47115

Oil Level Controls

Model	Maximum Working Pressure	Description
20-590	650 PSIG	Adjustable 5-90 PSI Oil Level Control
25-590	650 PSIG	Non-adjustable 5-90 PSI Oil Level Control

UL cUL CE CRN



20-590

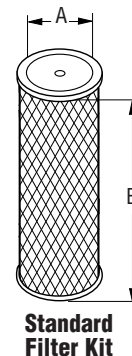
25-590

See **TRAXOIL** Electronic Oil Level Controls on page 20.

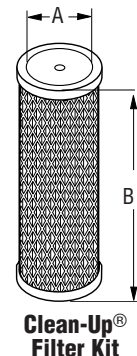
Coalescing Standard/Clean-Up® Filters

Standard Filter Kit Part No.	Clean-Up® Filter Kit Part No.	Model	A Nominal	B Nominal
62034000	62024000	922-923, 922R-923R	1"	5"
62037000	62047000	924-925, 924R-925R	2"	9"
62028000	62030000	926-927, 926R-927R	3-1/2"	14"
62051000	62092802	928, 928R	5-1/8"	16"
62085000	62086000	930, 930R	8-1/2"	16"

All Filter Kits include: filter, gasket or O-ring and sealing washer.



Standard Filter Kit



Clean-Up® Filter Kit

For more information on Clean-Up® Filter Kits see page 12.

Sizing Chart

Temprite®

920 and 920R Series Capacities in Tons. (See 900/920/920R Footnotes on page 11.)

	Model	922-922R	923-923R	924-924R	925-925R	926-926R	927-927R	928-928R	930-930R
	Connection Size	5/8"	7/8"	1-1/8"	1-3/8"	1-5/8"	2-1/8"	2-5/8"	3-1/8"
	Temp								
R-134A R-12 MP-39	+40°F	5.68	7.90	14.18	21.58	36.92	50.30	84.05	142.85
	+30°F	4.59	6.38	11.45	17.42	29.81	40.61	67.86	115.33
	+20°F	3.67	5.10	9.17	13.95	23.86	32.51	54.32	92.33
	+10°F	2.92	4.05	7.28	11.07	18.94	25.81	43.13	73.30
	0°F	2.29	3.18	5.71	8.69	14.87	20.26	33.85	57.54
	-10°F	1.78	2.47	4.43	6.74	11.54	15.72	26.27	44.64
R-22	+40°F	8.90	12.37	22.22	33.80	57.83	78.79	131.66	223.76
	+20°F	6.09	8.46	15.20	23.13	39.57	53.91	90.08	153.10
	+10°F	4.98	6.92	12.43	18.91	32.36	44.09	73.67	125.22
	0°F	4.09	5.68	10.21	15.53	26.56	36.19	60.47	102.78
	-10°F	3.24	4.50	8.09	12.31	21.06	28.68	47.94	81.48
	-20°F	2.64	3.67	6.60	10.03	17.17	23.39	39.08	66.43
	-30°F	2.08	2.89	5.18	7.89	13.49	18.38	30.71	52.20
-40°F	1.61	2.24	4.02	6.12	10.47	14.27	23.85	40.53	
R-410A AZ-20	+40°F	12.95	17.99	32.31	49.16	84.11	114.59	191.48	325.44
	+20°F	8.86	12.31	22.10	33.63	57.53	78.38	130.97	222.60
	+10°F	7.26	10.08	18.11	27.55	47.13	64.21	107.29	182.36
	0°F	5.90	8.20	14.73	22.41	38.34	52.23	87.28	148.33
	-10°F	4.76	6.62	11.89	18.08	30.94	42.15	70.43	119.71
	-20°F	3.81	5.30	9.51	14.47	24.77	33.74	56.38	95.82
	-30°F	3.02	4.20	7.55	11.48	19.64	26.76	44.72	76.00
-40°F	2.38	3.30	5.93	9.02	15.43	21.02	35.12	59.70	
R-507 AZ-50	+40°F	9.38	13.03	23.40	35.60	60.91	82.99	138.68	235.69
	+20°F	6.26	8.70	15.62	23.76	40.66	55.39	92.56	157.31
	+10°F	5.06	7.03	12.62	19.20	32.85	44.76	74.79	127.12
	0°F	4.05	5.62	10.10	15.36	26.28	35.80	59.82	101.67
	-10°F	3.21	4.45	8.00	12.17	20.82	28.37	47.41	80.57
	-20°F	2.51	3.49	6.27	9.54	16.32	22.23	37.15	63.13
	-30°F	1.94	2.70	4.85	7.38	12.62	17.20	28.74	48.85
-40°F	1.48	2.06	3.70	5.63	9.64	13.13	21.94	37.29	
R-404A R-502 HP-62 HP-80	+40°F	8.72	12.12	21.77	33.12	56.66	77.20	129.00	219.25
	+20°F	5.82	8.09	14.53	22.10	37.81	51.51	86.07	146.29
	+10°F	4.65	6.46	11.60	17.64	30.19	41.13	68.73	116.81
	0°F	3.73	5.19	9.32	14.17	24.25	33.04	55.21	93.83
	-10°F	2.95	4.10	7.36	11.20	19.16	26.11	43.63	74.15
	-20°F	2.31	3.20	5.75	8.75	14.97	20.40	34.09	57.94
	-30°F	1.78	2.47	4.44	6.76	11.56	15.75	26.32	44.73
-40°F	1.34	1.86	3.34	5.09	8.71	11.86	19.82	33.68	

For subcritical CO₂ applications, see Charts on page 18.

Sizing Chart

Temprite®

920 and 920R Series Capacities in kW. (See 900/920/920R Footnotes on page 11.)

	Model	922-922R	923-923R	924-924R	925-925R	926-926R	927-927R	928-928R	930-930R
	Connection Size	5/8"	7/8"	1-1/8"	1-3/8"	1-5/8"	2-1/8"	2-5/8"	3-1/8"
	Temp								
R-134A R-12 MP-39	+4.4°C	19.99	27.77	49.89	75.89	129.85	176.91	295.61	502.41
	-1.1°C	16.14	22.42	40.28	61.27	104.83	142.83	238.66	405.62
	-6.7°C	12.92	17.94	32.25	49.06	83.92	114.34	191.06	324.72
	-12.2°C	10.26	14.24	25.60	38.93	66.61	90.77	151.68	257.80
	-17.8°C	8.05	11.19	20.09	30.57	52.30	71.25	119.07	202.36
	-23.3°C	6.25	8.68	15.59	23.72	40.58	55.29	92.38	157.02
R-22	+4.4°C	31.31	43.51	78.14	118.88	203.39	277.10	463.04	786.98
	-6.7°C	21.42	29.77	53.47	81.34	139.17	189.60	316.82	538.47
	-12.2°C	17.52	24.35	43.73	66.52	113.82	155.06	259.11	440.38
	-17.8°C	14.38	19.98	35.89	54.60	93.42	127.28	212.69	361.48
	-23.3°C	11.40	15.84	28.45	43.29	74.06	100.90	168.61	286.56
	-28.9°C	9.30	12.92	23.20	35.29	60.38	82.26	137.46	233.63
R-410A AZ-20	+4.4°C	45.54	63.27	113.65	172.89	295.81	403.01	673.42	1144.56
	-6.7°C	31.15	43.28	77.74	118.26	202.34	275.66	460.63	782.88
	-12.2°C	25.52	35.45	63.68	96.88	165.76	225.83	377.36	641.35
	-17.8°C	20.76	28.84	51.80	78.80	134.83	183.69	306.95	521.69
	-23.3°C	16.75	23.27	41.80	63.60	108.81	148.25	247.71	421.01
	-28.9°C	13.41	18.63	33.46	50.91	87.10	118.66	198.29	337.00
	-34.4°C	10.63	14.78	26.54	40.38	69.08	94.11	157.27	267.29
	-40.0°C	8.35	11.61	20.85	31.71	54.26	73.93	123.53	209.95
R-507 AZ-50	+4.4°C	32.98	45.82	82.31	125.21	214.24	291.88	487.72	828.93
	-6.7°C	22.01	30.58	54.94	83.57	142.99	194.81	325.52	553.25
	-12.2°C	17.79	24.72	44.39	67.53	115.55	157.42	263.05	447.08
	-17.8°C	14.23	19.77	35.51	54.01	92.42	125.91	210.39	357.58
	-23.3°C	11.27	15.67	28.14	42.80	73.24	99.78	166.73	283.37
	-28.9°C	8.83	12.27	22.05	33.54	57.39	78.18	130.64	222.04
	-34.4°C	6.84	9.50	17.06	25.95	44.40	60.49	101.08	171.80
	-40.0°C	5.22	7.25	13.02	19.81	33.89	46.18	77.16	131.15
R-404A R-502 HP-62 HP-80	+4.4°C	30.68	42.63	76.57	116.48	199.29	271.51	453.70	771.10
	-6.7°C	20.47	28.44	51.09	77.72	132.97	181.16	302.72	514.50
	-12.2°C	16.35	22.71	40.79	62.06	106.18	144.65	241.72	410.82
	-17.8°C	13.13	18.24	32.77	49.85	85.29	116.20	194.17	330.01
	-23.3°C	10.38	14.42	25.90	39.39	67.40	91.83	153.45	260.79
	-28.9°C	8.11	11.26	20.23	30.78	52.66	71.75	119.89	203.76
	-34.4°C	6.26	8.70	15.62	23.76	40.66	55.39	92.56	157.32
	-40.0°C	4.71	6.55	11.76	17.89	30.62	41.71	69.70	118.46

For subcritical CO₂ applications, see Charts on page 18.

Quick Reference Chart - see pg 9 and 10 for specific temperatures

S I Z I N G C H A R T	MODEL	Connection Size A	MP-39 R-12		R-22		410A		R-134A		R-404A, R-502, HP-62 and HP-80		R-507		Ammonia (NH ₃) ⁵ R-717	
			+40 Tons	-10 Tons	+40 Tons	-40 Tons	+40 Tons	-40 Tons	+40 Tons	-10 Tons	+40 Tons	-40 Tons	+40 Tons	-40 Tons	+40 Tons	-20 Tons
			900	3/8"	2.06	0.72	3.32	0.60	4.82	0.88	2.12	0.66	3.25	0.50	3.49	.55
900-1	3/8"	2.06	0.72	3.32	0.60	4.82	0.88	2.12	0.66	3.25	0.50	3.49	.55			
901	1/2"	3.83	1.35	6.17	1.12	8.97	1.65	3.94	1.23	6.05	0.93	6.50	1.03			
902	5/8"	5.51	1.94	8.87	1.61	12.95	2.38	5.67	1.77	8.70	1.34	9.35	1.48			
903	7/8"	7.67	2.69	12.34	2.24	17.99	3.30	7.88	2.46	12.10	1.86	13.01	2.06			
904	1-1/8"	13.79	4.85	22.21	4.02	32.31	5.93	14.18	4.43	21.76	3.34	23.39	3.70			
905	1-3/8"	20.98	7.37	33.37	6.12	49.16	9.02	21.56	6.74	33.09	5.08	35.57	5.63			
922/R	5/8"	5.51	1.94	8.87	1.61	12.95	2.38	5.67	1.77	8.70	1.34	9.35	1.48	9.96	2.59	
923/R	7/8"	7.67	2.69	12.34	2.24	17.99	3.30	7.88	2.46	12.10	1.86	13.01	2.06	13.84	3.60	
924/R	1-1/8"	13.79	4.85	22.21	4.02	32.31	5.93	14.18	4.43	21.76	3.34	23.39	3.70	24.91	6.48	
925/R	1-3/8"	20.98	7.37	33.37	6.12	49.16	9.02	21.56	6.74	33.09	5.08	35.57	5.63	37.88	9.85	
926/R	1-5/8"	35.90	12.61	57.80	10.47	84.11	15.43	36.91	11.53	56.63	8.70	60.88	9.64	64.83	16.86	
927/R	2-1/8"	48.94	17.19	78.79	14.27	114.59	21.02	50.30	15.72	77.20	11.86	82.99	13.13	88.36	22.98	
928/R	2-5/8"	81.77	28.72	131.65	23.84	191.48	35.12	84.04	26.27	128.99	19.81	138.67	21.95	147.64	38.40	
930/R	3-1/8"	139.01	48.82	223.81	40.53	325.44	59.70	142.87	44.66	219.28	33.68	235.74	37.32	250.99	65.28	
320	3/8" ODS	1.53	0.54	2.47	0.45	3.59	0.66	1.58	0.49	2.42	0.37	2.60	0.41			
321	1/8" FPT	1.53	0.54	2.47	0.45	3.59	0.66	1.58	0.49	2.42	0.37	2.60	0.41			
322	1/4" SAE	1.53	0.54	2.47	0.45	3.59	0.66	1.58	0.49	2.42	0.37	2.60	0.41			
340	3/8" ODS	3.06	1.08	4.93	0.89	7.16	1.32	3.15	0.98	4.84	0.74	5.19	0.82			
341	1/8" FPT	3.06	1.08	4.93	0.89	7.16	1.32	3.15	0.98	4.84	0.74	5.19	0.82			
342	1/4" SAE	3.06	1.08	4.93	0.89	7.16	1.32	3.15	0.98	4.84	0.74	5.19	0.82			
343	3/8" SAE	3.06	1.08	4.93	0.89	7.16	1.32	3.15	0.98	4.84	0.74	5.19	0.82			

300/900/920/920R Series Footnotes

1. TONS = Capacity in evaporator (12,000 BTU/Hr/Ton), based on +100°F condenser temperature, -0°F subcooling, +10°F super heat.
2. kW=Capacity based on +37.8°C condenser temperature, 0°C subcooling, +5.6°C super heat.
3. Note: For applications other than reciprocating compressors, (scroll, screw type, 2-stage) please contact Temprite engineering.
4. Do not use a separator with smaller connections than the discharge line size.
5. Ammonia (NH₃): use R Series separators for ammonia.

For subcritical CO₂ applications, see Charts on page 18.

MODEL	Connection Size A	R- 12, R134a, MP-39		R-22, R-502, R-507, R-404a, HP-62, HP-80		R-410A	
		+40 Evaporator Temperature	-40 Evaporator Temperature	+40 Evaporator Temperature	-40 Evaporator Temperature	+40 Evaporator Temperature	-40 Evaporator Temperature
501	1/2"	1.83	1.51	2.8	2.38	4.0	3.4
502	5/8"	3.66	3.02	5.6	4.76	7.7	6.6
503	7/8"	5.49	4.49	8.4	7.14	11.6	9.9
504	1-1/8"	7.32	6.04	11.2	9.52	15.5	13.1
505	1-3/8"	9.16	7.55	14.0	11.9	19.3	16.4
506	1-5/8"	13.0	10.7	23.6	19.9	32.6	27.5
507	2-1/8"	23.0	19.0	40.0	34.0	55.2	46.9
600	3/8"	1.22	1.01	1.87	1.59	2.6	2.2
601	1/2"	1.83	1.51	2.8	2.38	4.0	3.4
602	5/8"	3.66	3.02	5.6	4.76	7.7	6.6
603	7/8"	5.49	4.49	8.4	7.14	11.6	9.9
604	1-1/8"	7.32	6.04	11.2	9.52	15.5	13.1
605	1-3/8"	9.16	7.55	14.0	11.9	19.3	16.4
606	1-5/8"	13.0	10.7	23.6	19.9	32.6	27.5
607	2-1/8"	23.0	19.0	40.0	34.0	55.2	46.9

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1-800-552-9300

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1. Capacity in tons and pounds per minute based on 140°F superheated discharge gas and the refrigerant entering the expansion valve at 110°F condensing temperature.
2. Gas inlet and outlet connections are female solder bosses to receive O.D. tube size.

Clean-Up® Filter

Clean-Up® Filter Instructions

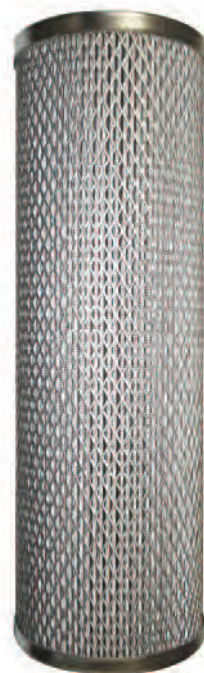
Cleaning up after a compressor burnout is easy with Temprite's Clean-Up® Filter.* The Clean-Up® Filter is designed for more "dirt loading" than Temprite's Standard Filter.** It removes dirt and contaminants down to 3 microns. Just install a Clean-Up® Filter in a Temprite 920 or 920R Series Coalescent Oil Separator along with the Model 224 Pressure Differential Indicator (PDI). When the PDI stays below 13.5 PSID/0.9 bar, your system is clean. Then switch-out the Clean-Up® Filter with Temprite's Standard Filter and you'll have oil separation to 98.5%, saving you energy and big money on energy costs.

Remember the following:

- When using a Pressure Differential Indicator (PDI), check and change filters at 13.5 PSID/0.9 bar. A pressure drop beyond this point may rupture the filter.
- The Clean-Up® Filter removes dirt and contaminants down to 3 microns. The Standard Filter picks up contaminants down to 0.3 microns: 10X smaller. Monitor both the Clean-Up® Filter and the Standard Filter to be sure the pressure doesn't exceed 13.5 PSID/0.9 bar.
- Oil separation with the Clean-Up® Filter varies based on media viscosity, flow velocity, particulate size, etc. When the PDI stays below 13.5 PSID/0.9 bar, change to a Standard Filter.

* The Clean-Up® Filter holds 10X more contaminants than the Standard Filter.

** The Clean-Up® Filter is only recommended for short-term service and is around 80% efficient at separating oil.



Clean-Up Filter®

For more Standard and Clean-Up® Filter Kits information see page 8.

**Clean Your Entire System
with Temprite's New
Clean-Up® Filter!**

**Converting or Retrofitting?
Compressor Burnout?**

- ▲ Extra Capacity for Removing Sord Contaminants
- ▲ Returns Refrigerant to Near-Virgin State
- ▲ Saves Time and Money!

Temprite®

1555 West Hawthorne Lane
Suite 1E
West Chicago, Illinois 60185 USA



Pressure Drop vs Particulate Loading

Pressure Drop	Approximate % of Filter Loaded	Action
<5 psid – 0.34 bar	50%	
<7 psid – 0.48 bar	60%	
<10 psid – 0.69 bar	70%	
<12 psid – 0.83 bar	75%	Change Filter
<15 psid – 1.03 bar	80%	Change Filter
<20 to 25 psid – 1.4 to 1.7 bar	85%	Change Filter
<30 to 40 psid – 2.1 to 2.8 bar	90%	Filter O-ring could dislodge
<60 to 80 psid – 4.1 to 5.5 bar	95%	Filter could rupture

The above figures are for design conditions given in the Temprite catalog with normal oil loading. System design conditions such as pipe sizing, other discharge line components, piping layout, undersized oil separators, higher density oils, high oil levels or liquid loading may cause a higher than normal pressure drop.

The above figures are for medium temp R-22 systems with 150-300 SSU or 32-48 cSt viscosity mineral oil. Higher density oils such as 450 SSU or 68 cSt will have a slightly higher pressure drop.

For other conditions see below:

For High Temp:

multiply by 1.36

For Low Temp:

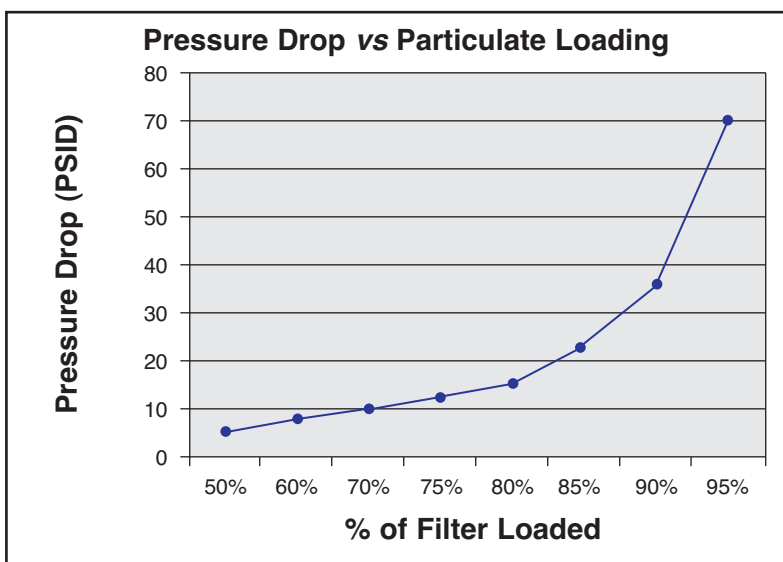
multiply by 0.49

For R-404A (HP-62) with 22-32 cSt viscosity POE oil:

multiply by 0.86

For R-507 (AZ-50) with 22-32 cSt viscosity POE oil:

multiply by 0.875



Pressure drop can compound at exponential rates. That's why it's important to keep the 920 and 920R Series internal Standard Filter clean and free from debris and solid contaminants.

Additional Temprite Products

Pressure Differential Indicator

The **Model 224 Pressure Differential Indicator (PDI)** lets you know when the filter inside a Temprite 920 or 920R Series coalescent oil separator needs to be changed.

■ A dirt-laden filter can severely affect the performance of the oil separator.

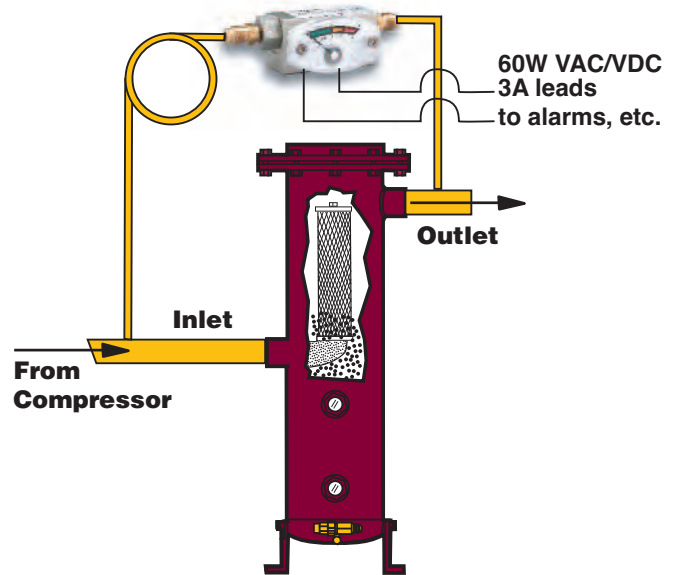
Mounted atop or next to a Temprite 920 or 920R coalescent oil separator, the PDI measures the difference in pressure between the inlet and the outlet of the separator.

■ If the PDI shows 11 to 13 PSID differential pressure, it's time to change the filter.

Model	Maximum Working Pressure
224	650 PSIG



Model 224



Temprite Mechanical Oil Level Controls

Temprite Oil Level Controls are for multiplexed rack/pack systems and are designed to keep a constant flow of oil to the compressor and keep the crankcase at the specified level. Temprite offers both adjustable and non-adjustable oil level controls.



20-590
Adjustable



25-590
Non-adjustable

See Oil Level Controls on page 8.

See **TRAXOIL** Electronic
Oil Level Controls on page 20.

Temprite Pressure-Reducing Valves

Oil moving from the oil separator to the oil reservoir or oil level controls is at a higher discharge pressure. This pressure must be reduced to a pressure slightly higher than the compressor crankcase.

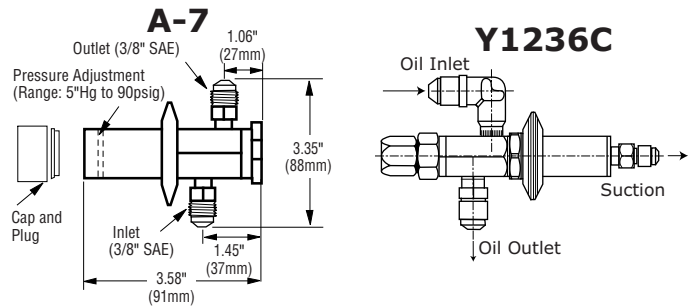
- To maintain proper oil return, each of the oil system components must be selected according to the requirements of the overall oil control system.

High Pressure System: A-7 or Y1236C Valve

If your system has an oil separator with a built-in oil reservoir, you will need one of two models depending on your system; either an **A-7**, a constant-outlet pressure valve, or an **Y1236C**, a variable-outlet pressure valve.

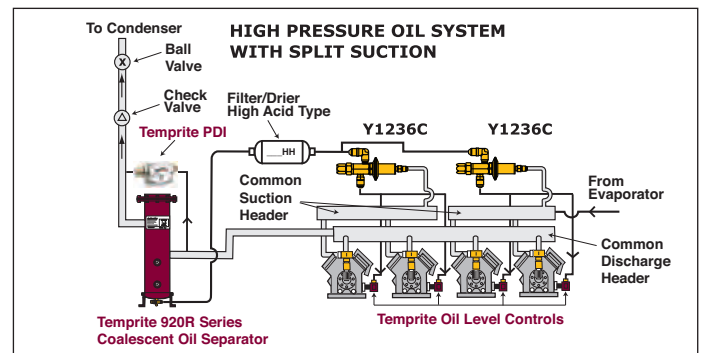
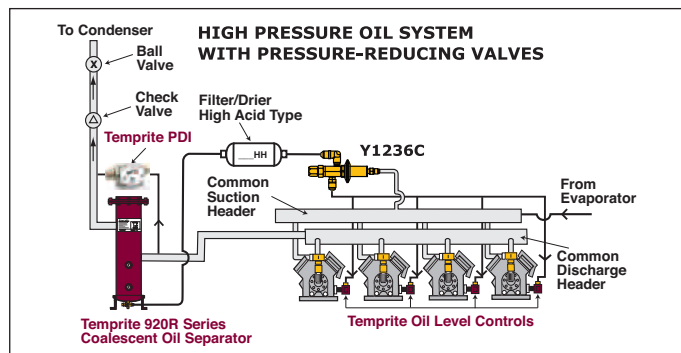
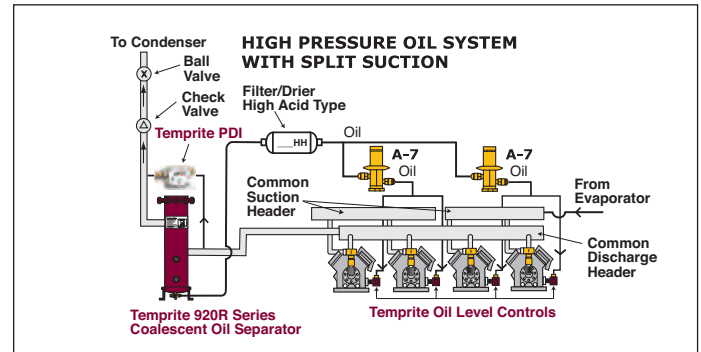
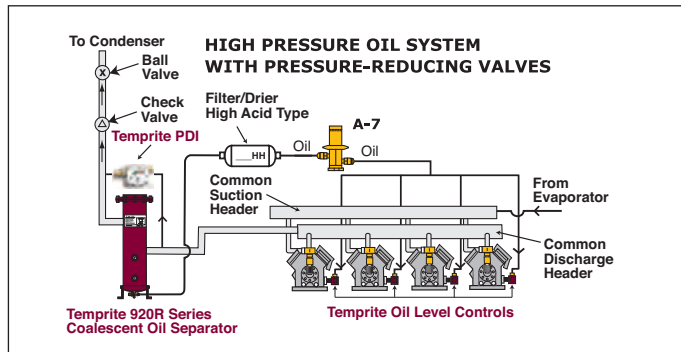
NOTE: If you are using a split suction header, i.e., +20°F, -20°F, you will need two (2) A-7 valves or two (2) Y1236C valves, one per suction group.

NOTE: A TraxOil electronic oil level control does not require a pressure-reducing valve.



The **A-7** is a constant-outlet pressure valve. The majority of Temprite 920R Series coalescent oil separators monitor the oil back to the oil level control via the A-7 pressure-reducing valve set to the desired pressure.

The **Y1236C** valve is a variable outlet pressure-reducing valve that tracks suction pressure. It is designed for high-pressure oil return systems, or other situations where a differential pressure regulator is required.

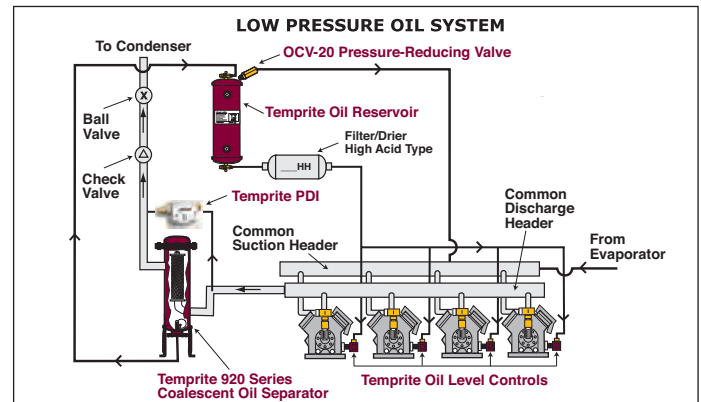


Low Pressure System: OCV-20 Valve

If your system has an oil separator with an external reservoir, you will need the OCV-20.

The **Oil Differential Check Valve-20 (OCV-20)** relieves pressure from the reservoir to the suction header to maintain a higher pressure in the reservoir at a pre-set level above the suction pressure.

OCV-20



Series 130 Coalescent Oil Separators for CO₂

CO₂4U™

Temprite, the first company to design and manufacture coalescent oil separators and reservoirs, has expanded its product lines to address the unique and challenging demands of CO₂ systems. Working with engineers and scientists in the refrigeration field, Temprite has developed the **130 Series**, a line of R744 coalescent oil separators for transcritical CO₂ applications, featuring the most efficient oil/refrigerant filtering and separation technology available.

The Temprite 130 Series are the first products designed for CO₂ to undergo performance testing at internationally recognized testing organizations and have proven to perform the best of any filtration and separation technology.



The best attributes of the 920 and 920R Series separation technology have been incorporated into the design of 130 Series models, establishing the benchmark for efficiency in CO₂. Temprite engineers will continue to work with customers and specialists in the CO₂ field to develop products that work with the leading refrigeration technology.

Let us know what you need for your CO₂ system. We can produce liquid receivers and other high-pressure components for CO₂ applications to meet customer requirements.



CO₂: The Clean & Green Natural Refrigerant

In addition to its environmentally friendly qualities, CO₂ presents several challenges.

Challenge: High-Pressure System

- Most traditional refrigerants have a maximum pressure rating of around 31.0 to 34.5 bar (450 to 500 PSI), but in CO₂ transcritical applications, pressures could exceed 131 bar (1900 PSI)!

Series 130 Beats High Pressure

- The 130 Series coalescent oil separators create an efficient, cost-effective reliable system that accommodates typical system operating pressures.
 - The 130 Series offers a range of products for transcritical applications up to 130 bar (1885 PSI).

Challenge: CO₂ is "Dirtier"

- High-pressure systems such as CO₂ tend to have system-connecting lines made from pipe instead of tubing. Pipe is inherently dirtier than tube and requires welding versus the cleaner brazing process associated with tubing. This means more dirt in the system.

Temprite's Answer:

CO₂ + Series 130 = Clean & Green

- Temprite's Series 130 coalescing filtration and separation technology removes dirt from the system better than any other product.
 - Series 130 coalescent oil separators separate and clean oil at a 98.5%+ efficiency level.
- R744 and Temprite's Series 130 separators can be used efficiently in larger systems.
 - High separation efficiency allows a smaller oil reservoir to be used.

Challenge: High-Density

CO₂ has a much higher density than traditional refrigerants, making it more difficult to separate the oil from the gas and requiring a better separation process.

Temprite Innovation Handles High Density

- The 130 Series coalescing technology has been proven in laboratory and application testing to be superior to other separation technologies.

Series 130 Coalescent Oil Separators for CO₂

The Series 130 coalescent oil separators are specifically designed for CO₂ transcritical applications.

Specifications

- Application range: suitable for R744 transcritical high, medium and low temperature applications.
- Dual function: filters dirt out of the refrigerant and oil; separates the oil from the refrigerant gas
- Maximum operating pressure: 130 bar (1885 PSI)
- Efficiency: nominal 98.5%+ separation efficiency rating
- Filtration: Sub-micron particulate retention rating
- Connection sizes: 1/2" NPT to 1-1/4" NPT
- Integral oil reservoir with sensor port*

* The 131 Model does not have an integral oil reservoir.

Advantages

High Efficiency: most efficient oil-refrigerant filtering/separation technology with a 98.5%+ separation efficiency rating across the widest range of mass flows.

Energy-Saving: minimizes the amount of oil in the evaporator, improving heat transfer efficiency.

Cost-Saving: ensures shorter compressor run times.

CE marked: complies with the European Pressure Equipment Directive, CRN, UL and ULC approved.



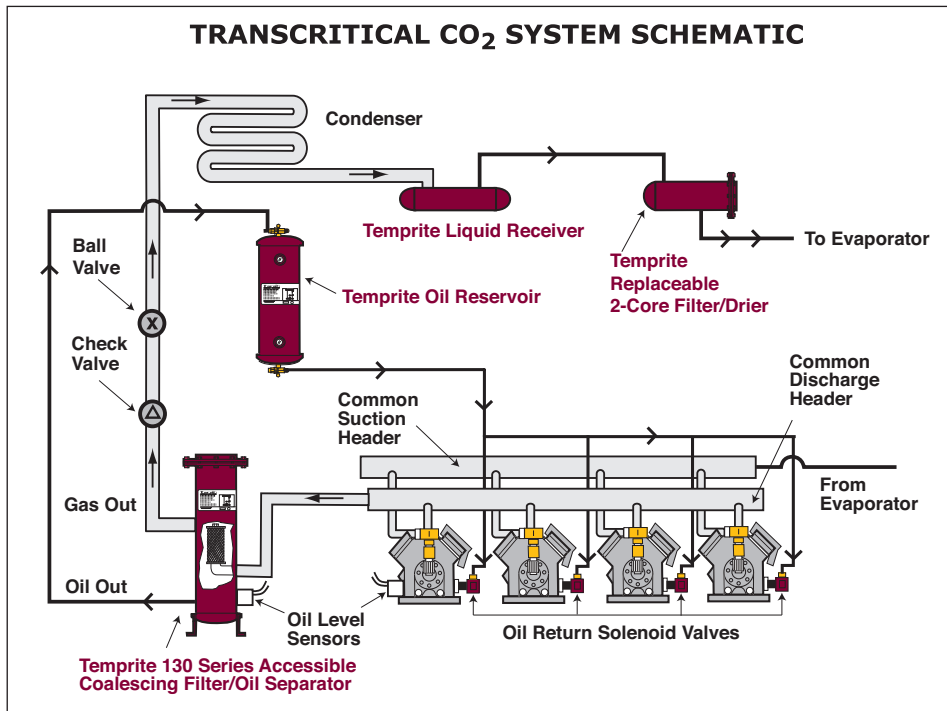
Easy filter changing: the removable top plate allows for easy change of the filter element after it captures excess dirt circulating in the system.*

Individually adjustable mounting feet: allows for variable field leveling and adjustment.

Internal oil level monitoring:

the integral oil reservoir and sensor port allows monitoring of the internal oil level and the controlled return of the cleaned oil to the compressor crankcase for continued lubrication of the moving parts.

* Model 131 is hermetic and the filter is not accessible for changing.



48-2 Filter/Drier Shell



Model 131



Model 133A



Model 135A



Model 137A



RES7

Coalescent Oil Separators for CO₂

Temprite 920R Series Capacities in kW For Subcritical Carbon Dioxide (R744) 44.8 bar Maximum Pressure				
Model	922R	923R	924R	925R
Connection Size	5/8"	7/8"	1-1/8"	1-3/8"
Temp °C				
+4.4	70.6 kW	98.1	176.1	267.9
-6.7	47.1	65.4	117.5	178.8
-12.2	37.6	52.2	93.8	142.7
-17.8	30.2	42.0	75.4	114.7
-23.3	23.9	33.2	59.6	90.6
-28.9	18.7	25.9	46.5	70.8
-34.4	14.4	20.0	35.9	54.6
-40.0	10.8	15.1	27.0	41.5

Temprite 130 Series Capacities in kW For Transcritical Carbon Dioxide (R744) 130 bar Maximum Pressure				
Model	131	133A	135A	137A
Connection Size	1/4" NPT	1/2" NPT*	3/4" NPT*	1-1/4" NPT*
Temp °C				
+14.7	19.8 kW	33.0	120.0	330.0
+9.7	18.1	30.2	110.0	302.0
-5.0	11.5	19.2	70.0	192.0
-6.7	11.2	18.7	68.5	188.0
-12.2	9.1	15.2	55.4	151.9
-17.8	6.6	11.1	40.4	110.7
-23.3	3.9	6.6	24.2	66.1
-28.9	2.3	3.9	14.2	39.4

* Customer specified: Butt Weld or Male Pipe Thread

CO₂ Series Footnotes:

1. Note: For applications other than reciprocating compressors, (scroll, screw type, 2-stage) please contact Temprite engineering.
2. Do not use a separator with smaller connections than the discharge line size.

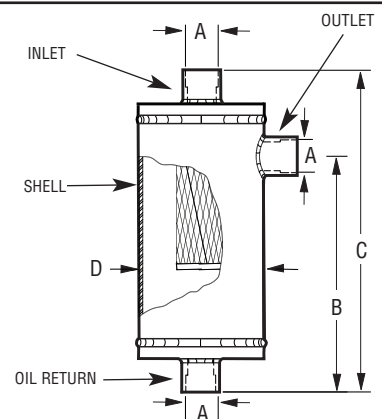
Temprite 920R Series Capacities in TONS For Subcritical Carbon Dioxide (R744) 650 PSI Maximum Pressure				
Model	922R	923R	924R	925R
Connection Size	5/8"	7/8"	1-1/8"	1-3/8"
Temp °F				
+40	20.1 Tons	27.9	50.1	76.2
+20	13.4	18.6	33.4	50.8
+10	10.7	14.8	26.7	40.6
0	8.6	11.9	21.4	32.6
-10	6.8	9.4	16.9	25.8
-20	5.3	7.4	13.2	20.1
-30	4.1	5.7	10.2	15.5
-40	3.1	4.3	7.7	11.6

Temprite 130 Series Capacities in TONS For Transcritical Carbon Dioxide (R744) 1885 PSI Maximum Pressure				
Model	131	133A	135A	137A
Connection Size	1/4" NPT*	1/2" NPT*	3/4" NPT*	1-1/4" NPT*
Temp °F				
+58	5.6 Tons	9.4	34.1	98.3
+50	5.1	8.6	31.3	85.9
+23	3.3	5.5	19.9	54.6
+20	3.2	5.3	19.5	53.4
+10	2.6	4.3	15.8	43.2
0	1.9	3.2	11.5	31.5
-10	1.1	1.9	6.9	18.8
-20	0.7	1.1	4.0	11.2

Model 131 Coalescent Oil Separator: Hermetic

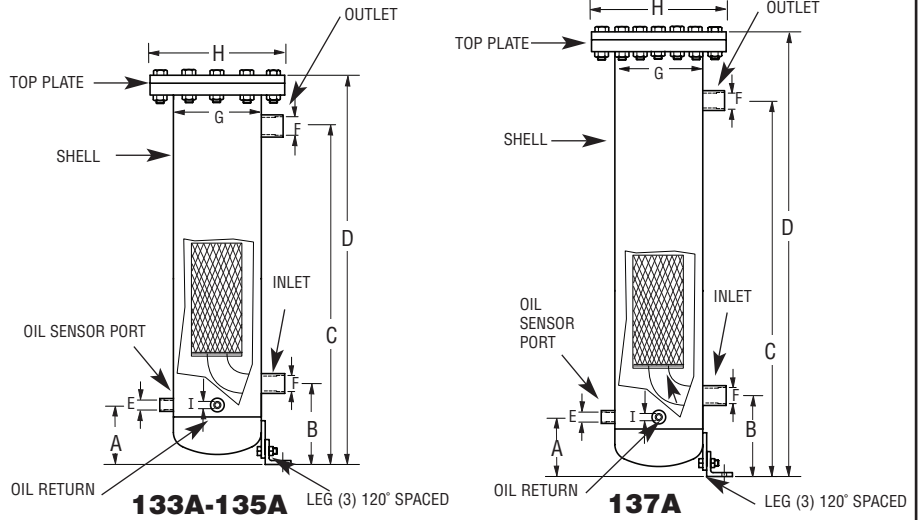
Model	Maximum Working Pressure	Inlet/Outlet Oil Connector Size A*	Outlet Location B Dimension	Height C Dimension	Diameter D Dimension
131	130 bar 1885 PSI	1/4" NPT	115 mm 4.5"	165 mm 6.5"	73 mm 2.9"

* Female Threads



Series 130 Coalescent Oil Separators for CO₂

Model 133A, 135A, 137A Coalescent Oil Separator: Accessible



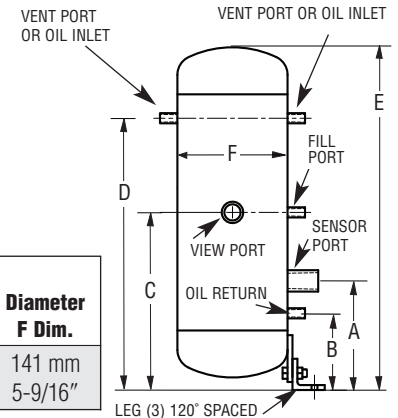
Model	Maximum Working Pressure	Sensor/Oil Location A Dimension	Inlet Location B Dimension	Outlet Location C Dimension	Height D Dimension	Sensor E Dimension	Inlet/Outlet F Dimension*	Diameter G Dimension	Diameter H Dimension	Oil I Dimension
133A	130 bar 1885 PSI	118 mm 4.6"	152 mm 6"	325 mm 12.8"	435 mm 17"	3/4" FPT	1/2" NPT	102 mm 4.0"	176 mm 6.9"	1/4" FPT
135A	130 bar 1885 PSI	118 mm 4.6"	152 mm 6"	433 mm 17"	545 mm 21.4"	3/4" FPT	3/4" NPT	102 mm 4.0"	176 mm 6.9"	1/4" FPT
137A	130 bar 1885 PSI	131 mm 5.1"	171 mm 6.7"	584 mm 23"	702 mm 27.6"	3/4" FPT	1-1/4" NPT	141 mm 5.6"	216 mm 8.5"	1/4" FPT

*Customer Specified – Male Pipe Thread or Butt Weld.



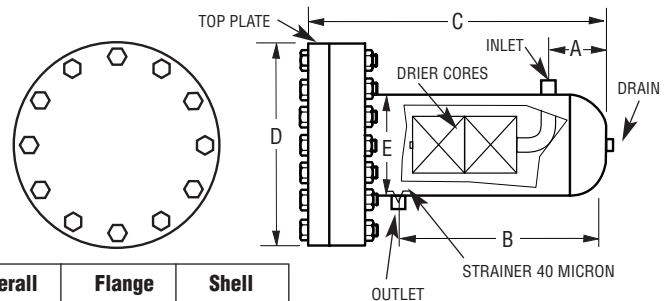
RES7 Oil Reservoir

Model	Maximum Working Pressure	Vent Port or Oil Inlet	Sensor Port Connection	Sensor Port A Dim.	Oil Return B Dim.	View Fill Port C Dim.	Vent Port or Oil Inlet D Dim.	Overall Height E Dim.	Diameter F Dim.
RES7	130 bar 1885 PSI	1/4" FPT	3/4" FPT	213 mm 8-3/8"	127 mm 5"	444 mm 17-1/2"	600 mm 23-5/8"	711 mm 28"	141 mm 5-9/16"



48-2 Filter/Drier Shell

Model	Maximum Working Pressure	Inlet/Outlet Connections	Drain Connection	Inlet A Dim.	Outlet B Dim.	Overall Length C Dim.	Flange Diameter D Dim.	Shell Diameter E Dim.
48-2	130 bar 1885 PSI	1-1/4" BW	1/4" FPT	117 mm 4-5/8"	524 mm 20-5/8"	639 mm 25-1/8"	216 mm 8-1/2"	141 mm 5-9/16"



TraxOil Electronic Oil Level Control System

Temprite is the Exclusive North American Distributor of TraxOil Products, Featuring the New TR3 Models

Contact *Temprite* or your local refrigeration wholesaler.



TraxOil Products are approved by the major compressor manufacturers.

The new TR3 Series TraxOil Electronic Oil Level Control System accurately detects and controls oil levels in commercial oil refrigeration compressors. The TR3's lightweight aluminum base and state-of-the-art design and engineering make it perfect for use with scroll and reciprocating refrigeration compressors.

How the TR3 Operates: The TR3 is mounted in place of the oil level sight glass at the compressor's crankcase. A mechanical level detector (float and hall sensor) monitors the oil level and transmits information to the control logic.

The integrated solenoid valve feeds oil directly into the compressor sump when the compressor oil level is low. If the correct oil level cannot be reached and goes into the red zone area*, the TR3 emits an alarm signal. The alarm contacts can be used to shut down the compressor.

NOTE: The TR3 Series replaces the TOUS Series. TOUS adaptor plates are not interchangeable.

NOTE: An A-7 or Y1236C oil pressure-reducing valve is not required with a TraxOil electronic oil level control.

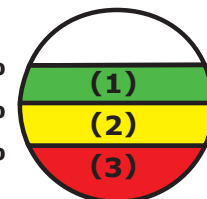
* See TR3 Operation

TR3 Operation

The sight glass is divided into three main zones. When the level reaches the yellow zone (2) the TR3 starts filling after a time delay of 10 seconds. When the level drops to the red zone (3) the control will switch the alarm relay contacts on after a time delay of 20 seconds. The current oil status is indicated with the three LED's according to the following table:

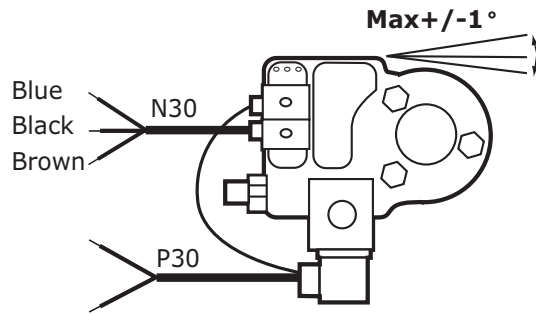
LED	Status / Function
● Green	Oil Level zone 1 (70 – 50%)
● Yellow	Oil Level zone 2 (50 – 30%) injection
● Red ● Yellow	Oil Level zone 3 (30 – 0%) alarm & injection

Oil Level Zones 70%
50%
30%

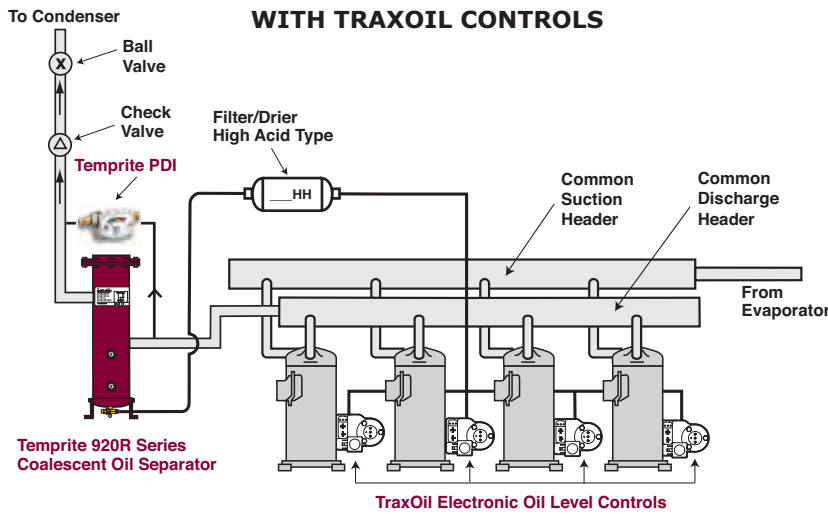




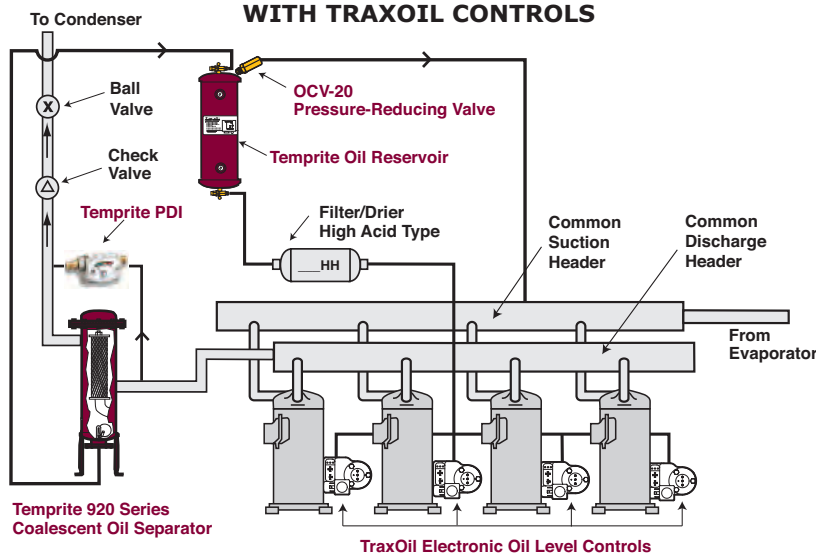
TR3 Wiring Diagram



HIGH PRESSURE OIL SYSTEM WITH TRAXOIL CONTROLS



LOW PRESSURE OIL SYSTEM WITH TRAXOIL CONTROLS



TraxOil Oil Level Control System Continued



TraxOil Key Features

- Digital processor with SMT components
- Alarm relay can switch 240 VAC (Old model only 24 VAC)
- CE approved, EMC emissions and immunity
- UL approved
- Meets European RoHS & WEEE directives
- All timing functions are in true time
- IP65 rated for dust and water
- Waterproof cables with no wiring at TraxOil unit
- No orifice restrictor
- Danfoss coil and enclosing tube complete with internal solenoid seat
- No way for field technicians to adjust calibration
- Set point levels use true levels with no timing overruns
- Easily removable inlet fitting with built-in filter screen

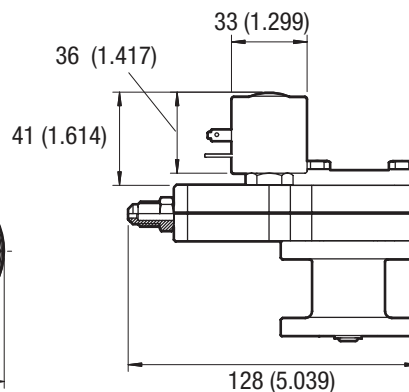
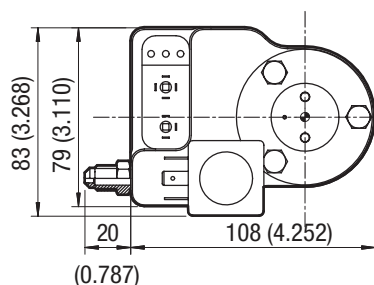
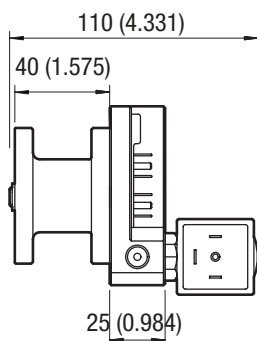
TECHNICAL DATA

Max working pressure	623.7psi/43 bar	Time delay filling (Yellow)	10 sec
Solenoid MOPD	304.6psi/21 bar	Time delay alarm (Red)	20 sec
Current	0.7 A	Medium temperature	-4 to 176°F/-20 to 80°C
Supply voltage (to be fused with 5 Amp fuse)	24 VAC only , 50/60 Hz (+10/-15%)	Medium compatibility (<i>not released for flammable refrigerants or ammonia</i>)	HFC HCFC CO ₂
Solenoid coil	24 VAC, 50/60 Hz	Storage and transport temp	-4 to 122°F/-20 to 50°C
Alarm contact rating	3A/240 VAC	Ambient temp (Housing)	-4 to 122°F/-20 to 50°C
Alarm switch	SPDT	Protection class (DIN43650)	IP65
Weight	1.76 - 2.1lb/800 - 950g	Oil supply fitting	1/4" flare



TR3201

Dimensions in millimeters(inches)



TraxOil Products are approved by the major compressor manufacturers.

TR3 Models and Compressor Compatibility Listing

TraxOil Model #	Compressor Make	Compressor Model #
TR3201	Oil Level System with flange adaptor 3-4 hole	
	Bock	HA, HG (except HG/HA -12/22/34 see TR3203 series), O series
	Carrier	06E
	Copeland	D2, D3, D4, D6, D9, 4CC, 6CC
	Dorin	KP, K sizes (except those @ TR3203), H2, H3 and H4 series, H550-2200
	Frascold	Series A, B, D, F, S, V, Z
	Bitzer	4VC, 4TC, 4PC, 4NC, 4J, 4H, 4G, 6J, 6H, 6G, 6F, 8GC, 8FC
TR3203	Oil Level System with screw adaptor 1 1/8" -18 UNEF	
	Bitzer	2KC, 2JC, 2HC, 2GC, 2FC, 2EC, 2DC, 2CC, 4FC, 4EC, 4DC, 4CC
	Bock	HG12/22/34, HA12/22/34
	Dorin	H1 series, K100CC/CS, K150CC/CS, K180CC/CS, K200CC, K230CS, K235CC, K240SB, K40CC, K50CS, K75CC/CS
	L'Unite Hermetique	TAH, TAG
	Maneurop	LT, MT, SM, SZ
TR3202	Oil Level system with screw adaptor 3/4" 14 NPTF	
	Bitzer	ZL, ZM
	Copeland	ZB, ZF, ZS
TR3204	Oil Level system with screw adaptor 1-1/8" 12 UNF	
	Copeland	DK, DL
TR3205	Bock	HA & HG with no provision for sight glass on side, F3, F4, F5, F14, F16 AM series, O4
TR3207	Oil Level system with flange adaptor 3-hole	
	Copeland	D8D, D8S (except D8SJ and D8SK), Terry VS
TR3210	Sanyo	
	Carrier	5F20, 5F40, 5F60, 06D
TR3212	Oil Level system with Rotalock adaptor 1-3/4" 12 UNF	
	Copeland	ZR90 to ZR19M, ZR250 to ZR380, ZRT180K to 760K, ZRU280K-560K, ZRY480K-1140K
TR3214	Oil Level system with Rotalock 1-1/4" 12UNF adaptor	
	Copeland	ZP90 /154/182 & ZR94/160/190 Jan07 onwards P103/120/137 & ZR 108/125/144 Serial # 07C702015W onwards
TR3221	Oil Level system with 3-4 hole flange adaptor and deflector	
	Bitzer	4V6.2-4N20.2 (Pre Sept 1998) and 4J3.2-6F50.2 (Pre Nov 1997)

Retrofits and Conversions the Temprite® Way:

- 1** Two months prior to the refrigerant changeout, clean the compressor's sump of all dirt, effluent and solid contaminants.
- 2** Install a Temprite 920/R Series Separator sized to your system. Change the Temprite Standard Filter to a Temprite Clean-Up® Filter.
- 3** Clean your oil until it's clear. Remove excess oil. Switch back to a Standard Filter. Remove all dirt to 0.3 microns. Change Standard Filter at > 13 PSID.
- 4** Change oil if necessary or if using a different type of oil.
- 5** Change refrigerant.

920/R Series



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