

## CONVERSION PROCEDURE FOR REPLACING R22 WITH COOL50 (R424A)

1. Ensure the right equipment is available, e.g. recovery unit and cylinders, container for recovered lubricant, vacuum pump, weight scale, replacement drier, etc.
2. Record baseline data to establish the normal operating conditions for the equipment.
3. Recover R22 charge and weigh recovered amount of R22 to determine amount of **Cool50** to be charged.
4. **Cool50** is compatible with MO/AB and POE. If, however, the oil in the system is being changed to a different type, it is not necessary to remove all of the existing oil in the system.
5. Replace the filter/drier.
6. Evacuate the system and **liquid charge** with **Cool50**, an amount equal to the original charge of R22.
7. Start the system and check baseline data, adjust the expansion device if required. If a low pressure control functions as a temperature control, check space temperature and adjust if necessary.
8. If the system is fitted with a refrigerant sight glass and the sight glass is not indicating a full charge, additional **Cool50** may be added.
9. Carefully monitor the oil level in the compressor and add more oil if required to maintain the correct level. If the oil level does not stabilize and is erratic, some of the oil should be removed from the system and replaced with POE. Adopt procedure (10) below.
10. In systems where oil could be an area of potential concern, e.g. containing a liquid receiver, flooded evaporators, or long and complex pipelines, the replacement of up to 25% of the oil charge with a POE is recommended starting with an initial 10% followed by increments of 5% until the oil level stabilizes and returns to normal.
11. Avoid overcharging the system.
12. Check system thoroughly for leaks.
13. Clearly label system as charged with **Cool50** and type of oil used.
14. On larger systems with an oil sight glass check oil level after several hours of operation and add oil if necessary.

**NOTE:** SYSTEMS WITH INHERENT POOR OIL RETURN, OFTEN WITH UNUSUALLY LONG SUCTION LINES AND/OR LOW TEMPERATURE SYSTEMS, MAY HAVE IMPROVED **Cool50** OIL RETURN CAPABILITIES WITH ALKYL BENZENE OR POLYOL ESTER OILS.



# Coolgas

# Cool50

## PRESSURE/TEMPERATURE COMPARISON

Values shown: "HG and PSIG" \*Denotes "HG"

Temperature		Cool50 Liquid Bubble Point	Cool50 Vapor Dew Point	R22
°C	°F	PSIG	PSIG	PSIG
-50	-58.0	12.7*	18.7*	11.4*
-48	-54.4	10.9*	17.3*	9.4*
-46	-50.8	8.9*	15.9*	7.2*
-44	-47.2	6.7*	14.3*	4.8*
-42	-43.6	4.3*	12.5*	2.2*
-40	-40.0	1.8*	10.5*	0.3
-38	-36.4	0.5	8.4*	1.8
-36	-32.8	1.9	6.1*	3.4
-34	-29.2	3.5	3.6*	5.1
-32	-25.6	5.2	0.9*	6.9
-30	-22.0	6.9	0.9	8.9
-28	-18.4	8.8	2.5	11.0
-26	-14.8	10.9	4.2	13.2
-24	-11.2	13.1	5.9	15.6
-22	-7.6	15.4	7.8	18.1
-20	-4.0	17.8	9.8	20.8
-18	-0.4	20.4	12.0	24.3
-16	3.2	23.2	14.3	26.7
-14	6.8	26.2	16.8	29.9
-12	10.4	29.2	19.4	33.3
-10	14.0	32.5	22.2	36.8
-8	17.6	35.9	25.1	40.6
-6	21.2	39.6	28.3	44.6
-4	24.8	43.5	31.6	48.7
-2	28.4	47.5	35.1	53.1
0	32.0	51.8	38.8	57.7
2	35.6	56.3	42.7	62.5
4	39.2	60.9	46.9	67.6
6	42.8	65.8	51.2	72.9
8	46.4	71.0	55.8	78.4
10	50.0	76.4	60.6	82.4
12	53.6	82.1	65.8	90.3
14	57.2	88.0	71.1	96.6
16	60.8	94.2	76.7	103.3
18	64.4	100.6	82.5	110.2
20	68.0	107.4	88.7	117.4
22	71.6	114.4	95.2	124.9
24	75.2	121.7	101.9	132.7
26	78.8	129.4	109.0	140.8
28	82.4	137.3	116.3	149.3
30	86.0	145.6	124.0	158.1
32	89.6	154.2	132.1	167.2
34	93.2	163.1	140.4	176.7
36	96.8	172.3	149.2	186.6
38	100.4	182.0	158.3	196.8
40	104.0	192.0	167.8	207.4
42	107.6	202.3	177.7	218.4
44	111.2	213.1	187.9	229.8
46	114.8	224.2	198.6	241.7
48	118.4	235.7	209.7	253.9
50	122.0	247.7	221.3	266.6
52	125.6	260.0	233.3	279.7
54	129.2	272.8	245.7	293.3
56	132.8	286.0	258.7	307.4
58	136.4	299.7	272.2	321.9
60	140.0	313.8	286.1	337.0



**Cool50 (R424A)** is available exclusively at **S.G.DeFreitas & Co. Ltd.**

For information on Cool50 (R424A) and its use please contact us at 784-458-4243 or email us at [info@sgdefreitas.com](mailto:info@sgdefreitas.com)

Information is also available on our website at [www.sgdefreitas.com](http://www.sgdefreitas.com)

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