

R453A

- Air Conditioning Split Systems
- Heat Pump
- Geothermal Heat Pumps
- Cold Stores
- Supermarket Pak Systems
- Dairy Chillers
- Reach-In Storage
- Bakery Applications
- Refrigerated Transport
- Self-Contained Display Cabinets
- Walk-In Coolers

REFRIGERANT FOR TOMORROW.

ComStar® RS-44b

- RS-44b requires no oil or system component changes
- Similar energy efficiency to R22
- Operates at near cooling capacity of R22 in both A/C and Refrigeration applications down to -20°F evap. temp
- RS-44b is the lowest GWP HFC R22 replacement on the market at 1765 TAR and is Zero Ozone Depleting
- Operates at a similar discharge pressure as R22
- RS-44b has the same flow rate as R22
- Non-flammable & low toxicity



Dynatemp
Refrigerants Company

Call for a QUOTE: 717-249-0157
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RS-44b is an R22 replacement blend with zero ODP and is compatible with both synthetic and mineral oils.

In an operational leak scenario, the system may be topped off without capacity loss or performance issues.

RS-44b is successfully installed in systems ranging from residential air conditioning to commercial cooling systems

RS-44b's GWP is 1765 which is significantly lower than other R22 replacements today.

Charge the equipment with RS-44b as a liquid. Do not charge liquid refrigerant directly into the compressor

After recording initial measurements monitor the system during the retrofit for optimal efficiency.

The blend has similar cooling capacities and a slightly higher coefficient of performance (COP) when compared to R-22. Because of this, it has the benefits of lower energy consumption than R-22. The mass flow rate and compression ratio of RS-44b are also very similar to R-22, and RS-44b has a slightly lower discharge temperature than R-22. Because of the higher efficiencies of RS-44b, it has a somewhat low total equivalent warming impact (TEWI).

RS-44b is a safe refrigerant blend and can be both recovered and reclaimed. Leak detectors used for any HFC-based refrigerant can be used for RS-44b. Most Capillary, fixed orifice, or variable expansion refrigerant metering devices can be retrofitted with RS-44b without any lubricant or hardware changes.

All testing completed by NIST's REFPROP program

RS-44b Pressure/Temperature Comparison

VALUES SHOWN:		PSIG	DENOTES HG"	
TEMPERATURE		RS-44b LIQUID BUBBLE PT.	RS-44b VAPOR DEW PT.	R-22
°C	°F	PSIG	PSIG	PSIG
-50	-58.0	9.1*	15.8*	11.4*
-48	-54.4	6.9*	14.1*	9.4*
-46	-50.8	4.6*	12.4*	7.2*
-44	-47.2	2.1*	10.5*	4.8*
-42	-43.6	0.3	8.4*	2.2*
-40	-40.0	1.8	6.1	0.3
-38	-36.4	3.4	3.6*	1.8
-36	-32.8	5.1	1.0*	3.4
-34	-29.2	6.9	0.9	5.1
-32	-25.6	8.9	2.5	6.9
-30	-22.0	11.0	4.2	8.9
-28	-18.4	3.2	6.0	11.0
-26	-14.8	15.6	7.9	13.2
-24	-11.2	18.2	10.0	15.6
-22	-7.6	20.9	12.2	18.1
-20	-4.0	23.8	14.6	20.8
-18	0.4	26.8	17.1	24.3
-16	3.2	30.0	19.8	26.7
-14	6.8	33.5	22.7	29.9
-12	10.4	37.1	25.7	33.3
-10	14.0	40.9	29.0	36.8
-8	17.6	45.0	32.4	40.6
-6	21.2	49.2	36.0	44.6
-4	24.8	53.7	39.9	48.7
-2	28.4	58.4	44.0	53.1
0	32.0	63.4	48.2	57.7
2	35.6	68.6	52.8	62.5
4	39.2	74.1	57.6	67.6
6	42.8	79.8	62.6	72.9
8	46.4	85.8	67.9	78.4
10	50.0	92.2	73.5	84.2
12	53.6	98.7	79.4	90.3
14	57.2	105.6	85.5	96.6
16	60.8	112.8	92.0	103.3
18	64.4	120.3	98.7	110.2
20	68.0	128.2	105.8	117.4
22	71.6	136.3	113.2	124.9
24	75.2	144.8	121.0	132.7
26	78.8	153.7	129.1	140.8
28	82.4	162.9	137.6	149.3
30	86.0	172.5	146.4	158.1
32	89.6	182.4	155.6	167.2
34	93.2	192.8	165.2	176.7
36	96.8	203.5	175.3	186.6
38	100.4	214.7	185.7	196.8
40	104.0	226.3	196.6	207.4
42	107.6	238.2	207.9	218.4
44	111.2	250.7	219.7	229.8
46	114.8	263.6	232.0	241.7
48	118.4	276.9	244.7	253.9
50	122.0	290.7	258.0	266.6
52	125.6	304.9	271.7	279.7
54	129.2	319.7	286.0	293.3
56	132.8	335.0	301.0	307.4
58	136.4	350.7	316.2	321.9
60	140.0	381.7	332.2	337.0



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