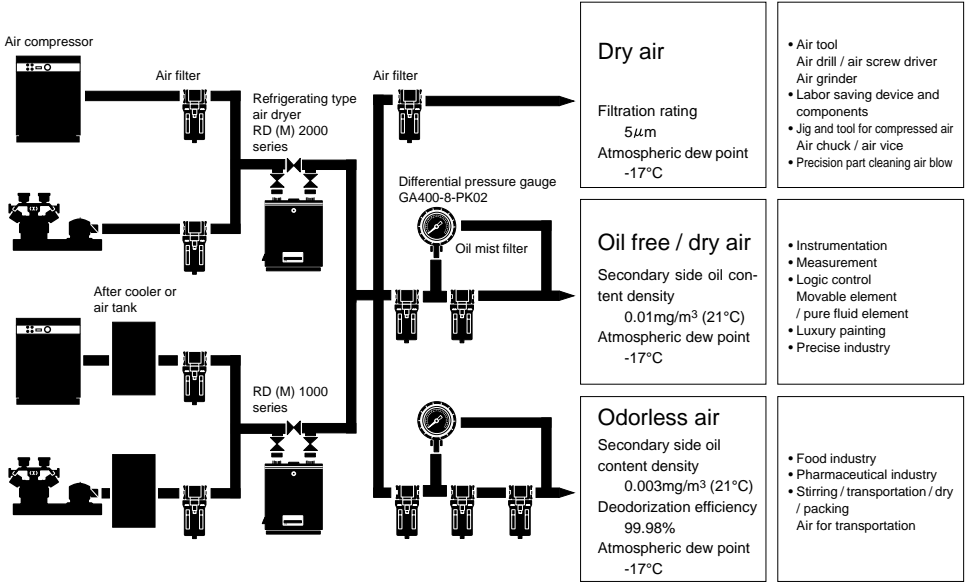


RD1000/RD2000 Series

Standard application circuits and peripheral devices of refrigerating type dryer



Rated (Ambient temperature: 32°C, inlet air temperature: 35°C and pressure dew point 10°C)

Air compressor		Air filter (3µm or 5µm)	Refrigerating type air dryer	Air filter (3µm or 5µm)	Oil mist filter (Oil removing)	Micro aescer / odor naught type (For odor remover)
Output kW	Standard treated flow rate m ³ /min(ANR)					
0.75	0.1/0.11	F3000-10-F	RD2001(A)	F3000-10-F	M3000-10-F1	1237-3C-X
1.5	0.2/0.22	F3000-10-F	RD2002(A)	F3000-10-F	M4000-10-F1	1237-3C-X
2.2	0.31/0.35	F3000-10-F	RD1003(A) /RD2003(A)	F3000-10-F	M4000-10-F1	1237-3C-X
3.7	0.5/0.55	F3000-10-F	RD1004(A) /RD2004(A)	F3000-10-F	M8000-20-F1	1238-6C-X
5.5	0.74/0.81	F4000-15-F	RD1006(A) /RD2006(A)	F4000-15-F	M8000-20-F1	1238-6C-X
7.5	1.1/1.2	F8000-20-F	RD1008(A) /RD2008(A)	F8000-20-F	M8000-20-F1	1238-6C-X
11	1.65/1.8	AF1003P-20	RD1011(A) /RD2011(A)	AF1003P-20	AF1003M-20	AF1003X-20
15	2.5/2.7	AF1004P-25	RD1015(A) /RD2015(A)	AF1004P-25	AF1004M-25	AF1004X-25

⚠ Precautions for system selection

- Note 1. Check catalog specifications for different conditions before selecting a model.
- Note 2. This example of system selection is based on air cooling refrigerating type air dryer.
- Note 3. Air filter is to be used where inlet air temperature is 60°C or less, while oil mist filter is where inlet air temperature is 54°C or less.
If air temperature from compressor and dryer secondary side is high, enough distance must be kept from compressor and dryer to install. The inlet air temperature into a filter is to be the specified value or less.
- Note 4. This system can not be used for high pressure specifications (1 to 1.5MPa). Please consult with CKD.
- Note 5. If large flow rate exceeding air dryer capacity may be used instantaneously, install an air tank to the secondary side of air dryer to stably supply moisture removed air.
- Note 6. The air filter of refrigerating type air dryer at the secondary side is used as a pre-filter before an oil mist filter.
- Note 7. Please consult with CKD for energy saving system.

Saturated viper rate table

Saturated viper rate table (relative humidity 100%)

(Unit: g/m³)

Per 10 °C	Per 1 °C									
	0	1	2	3	4	5	6	7	8	9
90	418	433	449	465	481	498	515	532	551	569
80	291	302	313	325	337	350	363	376	390	404
70	197	205	213	222	231	240	250	259	270	280
60	130	135	141	147	154	160	167	174	182	189
50	82.2	86.7	90.8	95.0	99.5	104	109	114	119	124
40	51.1	53.7	56.4	59.3	62.2	65.3	68.5	71.9	75.4	79.0
30	30.3	32.0	33.7	35.6	37.6	39.6	41.7	43.9	46.2	48.6
20	17.2	18.3	19.4	20.6	21.8	23.0	24.4	25.8	27.2	28.7
10	9.39	10.0	10.7	11.3	12.1	12.8	13.6	14.5	15.4	16.3
0	4.85	5.19	5.56	5.94	6.36	6.79	7.26	7.75	8.27	8.81
-0	4.84	4.48	4.13	3.82	3.52	3.24	2.99	2.75	2.53	2.33
-10	2.14	1.96	1.80	1.65	1.51	1.39	1.27	1.16	1.06	0.967
-20	0.882	0.804	0.732	0.667	0.607	0.551	0.501	0.454	0.412	0.373
-30	0.338	0.305	0.276	0.249	0.225	0.203	0.183	0.164	0.148	0.133
-40	0.119	0.107	0.0955	0.0854	0.0763	0.0681	0.0608	0.0541	0.0482	0.0428
-50	0.0381	0.0338	0.0299	0.0265	0.0234	0.0207	0.0183	0.0161	0.0142	0.0125
-60	0.0109	0.00959	0.00840	0.00734	0.00642	0.00560	0.00488	0.00425	0.00369	0.00320
-70	0.00277	0.00240	0.00207	0.00179	0.00154	0.00133	0.00114	0.000977	0.000836	0.000715
-80	0.000610	0.000520	0.000442	0.000378	0.000318	0.000269	0.000228	0.000192	0.000162	0.000136
-90	0.000114	0.0000952	0.0000795	0.0000663	0.0000551	0.0000458	0.0000379	0.0000313	0.0000259	0.0000213

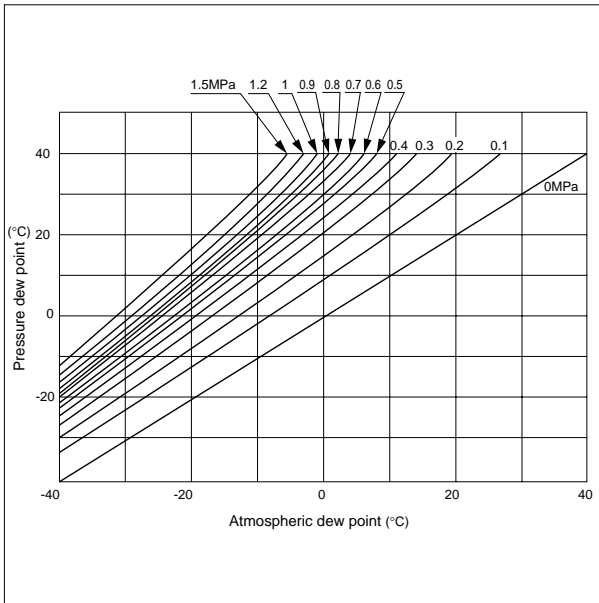
How to read saturated viper rate table
In the table, temperature per 1°C is indicated in the column, while temperature per 10°C is in the row.

(E.g.) Find saturated viper rate for 32°C.

E.g. 32 °C	Per 1 °C				
	0	1	2	3	
Per 10 °C					
40					
30			33.7		
20					

33.7g/m³ is obtained according to the table above.

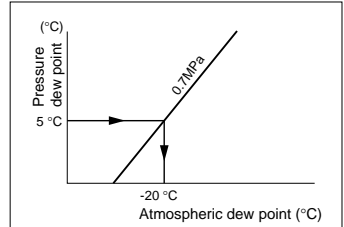
Pressure dew point - atmospheric dew point conversion table



How to read pressure dew point - atmospheric dew point conversion table

Use this table to convert pressure dew point per pressure to atmospheric dew point, or atmospheric dew point to pressure dew point.

(E.g.) Find the atmospheric dew point where pressure is 0.7MPa and pressure dew point is 5°C.



The table above gives -20°C, if pressure dew point 5°C is converted to atmospheric dew point at pressure 0.7MPa.

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane dryer
- Air filter
- Automatic drain other
- F.R.L (Module)
- F.R.L (Separate)
- Small F.R.
- Precise R.
- Electro pneumatic R.
- Auxiliary
- Flow control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum F.
- Vacuum R.
- Vacuum generator
- Vacuum auxiliary / pad
- Mechanical pressure SW
- Electronic pressure SW
- Electronic dif. pres. SW
- Sealing / close contact conf. SW
- Pressure SW for coolant
- Flow sensor for air
- Total air system
- Water cooling refrigerator
- Flow sensor for water
- Main line unit
- Refrigerating type dryer RD