

Refrigerated Dryers



Pneumatech Pride

Pneumatech has been manufacturing refrigerant dryers for nearly 50 years. Pneumatech’s reliable and robust COOL dryer is an efficient solution to remove most traces of condensation and the resultant corrosion from your compressed air system.

Refrigeration dryers use a refrigerant gas in order to cool the compressed air. As a result the water from the air condenses and can be removed. With this technique, the COOL range reaches a pressure dew point of 5°C. As a result, the refrigeration technology is by far the most used dryer technology, complying for more than 95% of industrial applications.



COOL 12-272

Design standards	COOL 12-127	COOL 145-272
Dew point	+5°C/37°F	+5°C/37°F
Pressure range	4-16 bar/60-232 psi	4-13 bar/60-188 psi
Voltages	230 V	230 V
Frequency	50 Hz	50 Hz
Controller	None	Basic
Technology	Refrigerant R134a	Refrigerant R404a
Usage	Continuous	Continuous
Flexibility	Easy to move	Easy to move
Options	None	None
Common applications	Car shop, tire inflation, sparay painting, packaging, injection molding, pneumatic tools & control systems	Car shop, tire inflation, spray painting, packaging, injection molding, pneumatic tools & control systems

Important features & benefits
Remove the water pollution from your network
Refrigeration drying principle is a simple, low maintenance technology
Extremely easy to install
Very compact equipment fits in a minimum space
Stable dew point
Low maintenance requirement
Compatible with any compressor technology
Check your air quality with the dew point indicator
Higher final product quality
Increase your overall productivity



50Hz

Type	Air treatment capacity ¹			Nominal electrical power ¹	Power supply voltage	Max. operating pressure		Refrigerant gases	Compressed Air connections	Dimensions (mm)			Dimensions (in)			Weight	
	l/min	m ³ /h	cfm			kW	V/Hz/Ph			bar	psi	type	Gas	L	W	H	L
COOL 12	350	21	12.4	0.13	230/50/1	16	232	R134a	3/4" M	233	559	561	8,8	22,0	22,1	19	42
COOL 21	600	36	21.2	0.13	230/50/1	16	232	R134a	3/4" M	233	559	561	8,8	22,0	22,1	19	42
COOL 30	850	51	30.0	0.16	230/50/1	16	232	R134a	3/4" M	233	559	561	8,8	22,0	22,1	19	42
COOL 42	1200	72	42.4	0.23	230/50/1	16	232	R134a	3/4" M	233	559	561	8,8	22,0	22,1	20	44
COOL 64	1825	110	64.4	0.29	230/50/1	16	232	R134a	3/4" M	233	559	561	8,8	22,0	22,1	25	55
COOL 76	2150	129	76.0	0.38	230/50/1	13	188	R134a	3/4" M	233	559	561	8,8	22,0	22,1	27	59
COOL 106	3000	180	106	0.42	230/50/1	13	188	R134a	1" F	233	559	561	8,8	22,0	22,1	30	66
COOL 127	3600	216	127	0.66	230/50/1	16	188	R404A	1" F	310	706	994	12,2	27,8	39,1	52	114
COOL 145	4100	246	145	0.77	230/50/1	13	188	R404A	1" 1/2 F	310	706	994	12,2	27,8	39,1	57	125
COOL 184	5200	312	184	1.87	230/50/1	13	188	R404A	1" 1/2 F	310	706	994	12,2	27,8	39,1	59	130
COOL 230	6500	390	230	1.03	230/50/1	13	188	R404A	1" 1/2 F	310	706	994	12,2	27,8	39,1	80	176
COOL 272	7700	462	272	1.24	230/50/1	13	188	R404A	1" 1/2 F	310	706	994	12,2	27,8	39,1	80	176

(1) Reference conditions:

- Operating pressure: 7 bar (100 psi)
- Operating temperature: 35°C/95°F
- Room temperature: 25°C/77°F
- Pressure dew point: +5°C (+/- 1)
- Also available at 60Hz

Limit conditions:

- Working pressure: 16 bar/232 psi - COOL 12 - 127
13 bar /188 psi - COOL 145 - 272
- Operating temperature: 50°C/122°F
- Minimum/maximum room temperature: +5°C/+40°C (41°F/104°F)

Correction factors

Room temperature	°C	25	30	35	40
	°F	77	86	95	104
	A	1.00	0.92	0.84	0.80

Operating temperature	°C	30	35	40	45	50
	°F	86	95	104	113	122
	B	1.24	1.00	0.82	0.69	0.54

Operation pressure	bar	5	6	7	8	9	10	11	12	13	14	15	16
	psi	73	87	101	116	131	145	159	174	188	203	218	232
	C	0.90	0.96	1.00	1.03	1.06	1.08	1.10	1.12	1.13	1.15	1.16	1.17



Correction factors to be used for site conditions outside of normal reference conditions (1) stated above = A x B x C

The new flow rate value can be obtained by dividing the current or real flow rate by the correction factor related to the real operation conditions.

Example: What is the capacity of a COOL 64, working at 8 bar(g)/116 psi(g), with an inlet temperature of 40°C/104°F and with a room temperature of 30°C/86°F?

Find each correction factor:

A = 0,92

B = 0,82

C = 1,03

Actual capacity = Nominal capacity x A x B x C = 110m³/h x 0,92 x 0,82 x 1,03 = 85,5 m³/h is the actual capacity of the COOL 64

Pneumatech reserves the right to change or revise specifications and product design in connection with any features of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

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