

# SPE Direct Expansion Refrigeration Dryers

## Dryer Performance

Dryer Models	Dewpoint (Standard)		Dewpoint (Option 1)		Dewpoint (Option 2)	
	°C	°F	°C	°F	°C	°F
SPE	+3	+37	+7	+45	+10	+50

## Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Connections	Noise Level dB(A)
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				
SPE 004-062	2	29	16	232	5	41	65	149	50	122	230V 1ph 50Hz / 60Hz	N/A	BSPP	<75
SPE 080-100			14	203										

## Flow Rates

Model	Pipe Size	Inlet Flow Rate 50 Hz					50Hz kW	Inlet Flow Rate 60Hz				60Hz kW
		L/s	m³/min	m³/hr	cfm	L/s		m³/min	m³/hr	cfm		
SPE 004	½"	7	0.4	24	14	0.13	8	0.47	28	16	0.16	
SPE 007	½"	12	0.7	42	25	0.14	13	0.78	47	28	0.17	
SPE 009	½"	15	0.9	54	32	0.15	17	1.00	60	35	0.19	
SPE 014	¾"	23	1.4	84	49	0.15	27	1.60	96	57	0.18	
SPE 018	¾"	30	1.8	108	64	0.16	34	2.07	124	73	0.20	
SPE 026	1"	43	2.6	156	92	0.29	49	2.93	176	104	0.36	
SPE 032	1"	53	3.2	192	113	0.30	61	3.63	218	128	0.37	
SPE 040	1"	67	4.0	240	141	0.31	76	4.53	272	160	0.38	
SPE 052	1½"	87	5.2	312	184	0.46	100	6.02	361	212	0.56	
SPE 062	1½"	103	6.2	372	219	0.57	119	7.15	429	253	0.69	
SPE 080	1½"	133	8.0	480	282	0.73	154	9.25	555	327	0.90	
SPE 100	1½"	167	10.0	600	353	0.74	191	11.48	689	406	0.91	

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure, 25°C cooling air temperature, 35°C air inlet temperature and +3°C pressure dewpoint. All models supplied with refrigerant R134a

For flows at other conditions, apply the correction factors shown below.

## Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

### CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50	55	60	65
	°F	77	86	95	104	113	122	131	140	149
Correction Factor	50Hz	0.83	0.83	1.00	1.30	1.61	2.00	2.33	2.38	2.50
	60Hz	0.85	0.85	1.00	1.32	1.61	2.04	2.56	2.63	2.78

### CFMAT - Correction Factor Maximum Ambient Temperature

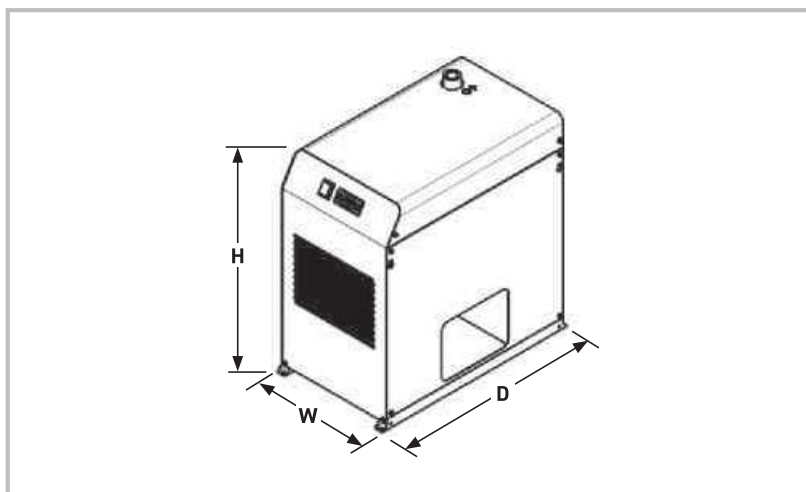
Maximum Ambient Temperature	°C	20	25	30	35	40	45	50
	°F	68	77	86	95	104	113	122
Correction Factor	50Hz	0.93	1.00	1.02	1.09	1.15	1.22	1.28
	60Hz	0.96	1.00	1.06	1.11	1.18	1.25	1.33

### CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor	50Hz	1.35	1.23	1.11	1.06	1.00	0.93	0.85	0.83	0.81	0.79	0.77	0.75	0.73	0.71
	60Hz	1.45	1.23	1.11	1.06	1.00	0.93	0.85	0.83	0.81	0.79	0.77	0.75	0.73	0.71

### CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	+3	+5	+7
	°F	+37	+41	+45
Correction Factor	50Hz	1.00	0.78	0.70
	60Hz	1.00	0.79	0.72



### Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
SPE 004	520	20.5	300	11.8	400	15.7	24	53
SPE 007	520	20.5	300	11.8	400	15.7	24	53
SPE 009	520	20.5	300	11.8	400	15.7	25	55
SPE 014	580	22.8	330	13.0	550	21.7	35	77
SPE 018	580	25.6	330	13.0	550	21.7	36	79
SPE 026	650	25.6	400	15.7	630	24.8	46	101
SPE 032	650	25.6	400	15.7	630	24.8	46	101
SPE 040	650	25.6	400	15.7	630	24.8	47	104
SPE 052	650	25.6	400	15.7	630	24.8	53	117
SPE 062	650	25.6	400	15.7	630	24.8	55	121
SPE 080	840	33.1	450	17.7	780	30.7	80	176
SPE 100	840	33.1	450	17.7	780	30.7	80	176

### Recommended Filtration

Pipe Size BSSP	Dryer Inlet	Dryer Outlet
	General Purpose Pre-Filter	High Efficiency Post Filter
1/2"	AOP010C	AAP010C
1/2"	AOP015C	AAP015C
1/2"	AOP015C	AAP015C
3/4"	AOP020D	AAP020D
3/4"	AOP020D	AAP020D
1"	AOP025E	AAP025E
1"	AOP025E	AAP025E
1"	AOP025E	AAP025E
1 1/2"	AOP030G	AAP030G
1 1/2"	AOP030G	AAP030G
1 1/2"	AOP035G	AAP035G
1 1/2"	AOP035G	AAP035G

### Parker Catalogue Numbers

Model	Catalogue Number With Timed Drain	Catalogue Number With Electronic Drain	Catalogue Number With Electronic Drain & Energy Saving	Catalogue Number With External Float Drain
SPE 004	SPE004-A2301DF16TIS	SPE004-A2301DF16EXS	-	SPE004-A2301DF16FHS
SPE 007	SPE007-A2301DF16TIS	SPE007-A2301DF16EXS	-	SPE007-A2301DF16FHS
SPE 009	SPE009-A2301DF16TIS	SPE009-A2301DF16EXS	-	SPE009-A2301DF16FHS
SPE 014	SPE014-A2301DF16TIS	SPE014-A2301DF16EXS	-	SPE014-A2301DF16FHS
SPE 018	SPE018-A2301DF16TIS	SPE018-A2301DF16EXS	-	SPE018-A2301DF16FHS
SPE 026	SPE026-A2301DF16TIS	SPE026-A2301DF16EXS	SPE026-A2301DF16EXSES	SPE026-A2301DF16FHS
SPE 032	SPE032-A2301DF16TIS	SPE032-A2301DF16EXS	SPE032-A2301DF16EXSES	SPE032-A2301DF16FHS
SPE 040	SPE040-A2301DF16TIS	SPE040-A2301DF16EXS	SPE040-A2301DF16EXSES	SPE040-A2301DF16FHS
SPE 052	SPE052-A2301DF16TIS	SPE052-A2301DF16EXS	SPE052-A2301DF16EXSES	SPE052-A2301DF16FHS
SPE 062	SPE062-A2301DF16TIS	SPE062-A2301DF16EXS	SPE062-A2301DF16EXSES	SPE062-A2301DF16FHS
SPE 080	SPE080-A2301DF14TIS	SPE080-A2301DF14EXS	SPE080-A2301DF14EXSES	SPE080-A2301DF14FHS
SPE 100	SPE100-A2301DF14TIS	SPE100-A2301DF14EXS	SPE100-A2301DF14EXSES	SPE100-A2301DF14FHS